ON SENSORY EXPERIENCE OF HISTORIC ARCHITECTURE

AN EMPIRICAL REVIEW OF SENSORY PERCEPTIONS IN HISTORIC BUILDINGS,
AIMING TO INFORM THEIR CONSERVATION PROCESS.

SYLVIAN BRAAT

Declaration of originality

The candidate hereby confirms to be solely responsible for the work, which has been submitted within this thesis. The candidate has not, while registered for this Ph.D. submission, been registered for another award at a university.

None of the original material in this thesis has been used in any other submission for an academic award. Acknowledgments for assistance received are given under the heading 'Acknowledgements' and any excerpts from other work have been acknowledged through reference by its source and author.

August 2017

ir Sylvian Braat

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Seven years ago, following expat experiences in two Sultanates and temporary landed in Aberdeen, I embarked on a journey into academia, keen to return to architecture after a long sabbatical. The consequential distance from current discourse led to this choice of topic, from personal interest.

Meanwhile having moved, I have finished this thesis from the land of bricks and bicycles. Though frustrating at times, a lot of the work has been fascinating, and the learning, both academic and personal, substantial. I am forever indebted to 'Delft', teaching me to be an architectural engineer, and to tutors, colleagues and friends educating and inspiring me throughout the years. Though studying sensory perception at times triggered sensory overload, I wish to thank my senses and everyone who contributed to their development, and apologise to those who suffered as a result.

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with happy memories of Scotland

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Abstract

This thesis studies people's sensory perceptions of historic architecture, exploring the physical triggers for such experience, and connecting these with what can and should be maintained through building conservation.

Sensory design is a developing field in architecture. The research argues that this approach can inform people's understanding of the architectural experience of historic buildings, which in current discourse are predominantly considered for their associated 'cultural significances'.

People's affinity to (historic) buildings is initiated by a response through the senses. This research advocates that establishing the triggers for such sensory response should be the main focus of the initial assessment of a building for conservation.

From the review of changing approaches to building conservation, and exploration of sensory perception and sensory design, the research concludes people's experiential perceptions have not been structurally considered in the appraisal of historic buildings

The methodology entailed the empirical development of a suitable assessment format, through performing initial on-site surveys that generated data to be added to those of a final sensory assessment, covering three buildings. Buildings were assessed according to Gibson's sensory systems of visual, auditory, haptic, olfactory/gustatory and orientational perception, as well as with a comprehensive multisensory focus.

Evidence from the data retrieved through this research indicates that the sensory assessment is a useful, informative and exciting addition to any architectural survey in building conservation practice. Such rich information will provide guidance and clarity to decision processes, to assist in retaining the affinity as the building's physical relevance for the future.

The research makes an original contribution to knowledge through the combination of two areas of study; through the application of sensory perception to understand historic buildings; and, in demonstrating that a sensory assessment has true potential as a suitable approach to the issue in practice.

Keywords: sensory perception, architectural experience, historic buildings, system of senses, multi-sensory assessment, on-site survey, associated significances.

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Glossary

Associated Significance: a range of significances which are regarded as inherent properties of historic buildings. These are however intangible, and not required to experience, assess and appreciate a physical building when deciding on its technical conservation process. They are 'associated', because even when these significances are inherent to a building, they only 'appear' once acknowledged by people or society (this thesis, §2.6).

Conservation: ***'****Conservation means all the processes of looking after a place so as to retain its cultural significance.'* (ICOMOS Burra 1999)

'Conservation is used when a rather more inclusive them is needed, embracing not only physical preservation but also those other activities, which the practitioner must engage in to be successful in 'preserving, retaining and keeping entire.' (Earl 2003)

'If we truly wish to preserve the memorials of the past, then the distinction between conservation and preservation becomes downright conflict. […] Conservation, on the other hand, creates a new context and, if only by attracting the attention of members of the public, a new use.' (Hewison 1987)

Cultural Significance: *'means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects'*. (ICOMOS Burra, 1999)

Heritage: ***2*** *anything that has been transmitted from the past or handed down by tradition.* ***3*** *the evidence of the past, such as historical sites, and the unspoilt natural environment, considered as the inheritance of present-day society. ' (Collins dictionary* 2006)

Phenomenology: *The study of appearances, as they come into consciousness.* (Meraz Avila 2008) Phenomenology interprets sensory experiences.

Preservation: ***'****Retention, maintenance, and rehabilitation of buildings, whole areas and landscapes for historic, architectural, or other reasons.'* (Stevens Curl 2006). In the US, preservation appears to be the general and preferred descriptor for conservation.

'If we truly wish to preserve the memorials of the past, then the distinction between conservation and preservation becomes downright conflict. Preservation means the maintenance of an object or building, or such of it as remains, in a condition defined by its historic context, and in such a form that it can be studied with a view to revealing its original meaning.' (Hewison 1987)

'Preservation means maintaining the fabric of a place in its existing state and retarding deterioration.' (ICOMOS Burra 1999).

Reconstruction: '*Rebuilding of structures and their contiguous areas, as distinct from preservation'* (Stevens Curl 2006).

'Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric' (ICOMOS Burra 1999).

Restoration: '*Process of carrying on alterations and repairs to a building with the intention of restoring it to its original form, often involving reinstatement of missing or badly damaged parts, so it usually includes replication. More drastic than conservation.'* (Stevens Curl 2006).

Though common terminology in many countries for what is called 'conservation' in English (UK), in English language restoration implies rebuilding what (might have been but) never was.

Sensory: preferred by this thesis over '*sense*' (more related to brains), '*sensitive*' (related to (over-) sensitivity) or '*sensual*' (not 'neutral' terminology).

Sentient: A sentient person has the power of sense perception, or sensation

PART I: INTRODUCTION TO THE THESIS

CHAPTER 1: A THESIS ABOUT EXPERIENCING HISTORIC ARCHITECTURE

1.1: What appeals to the senses is essential.

'I love architecture; I love surrounding buildings,
and I suppose I love it when other people love them too.'
Peter Zumthor, 2006a

'We experience satisfaction in architecture not by aggressively seeking it,
but by dwelling in it'
Kent Bloomer and Charles Moore, 1977

'Architectural writing should aid everyone's understanding of buildings
and assist architects to design better ones.'
Alan Berman, 2011

'The most evoking buildings speak through the 'silence' of perceptual phenomena.'
Steven Holl, 2013

Notably in our time, there is a common understanding that historic buildings are to be kept and cherished rather than demolished and replaced (ICOMOS, Historic Environment Scotland). Heritage as a concept and a phenomenon is ubiquitous and a current topic of discourse (e.g. Smith 2006, McCarthy 2012). Many kinds of significance can be associated and assigned to historic buildings, often for purposes concerning planning or to guide conservation practice. From a technical perspective, society is close to being able to conserve, restore or rebuild many of these buildings to perfection.

It can be argued, then, that decisions on the treatment of historic buildings will benefit from rich information. Still, the 'sensory' discourse regarding physical experience, an upcoming topic within architecture (Malnar and Vodvarka 2004, Holl, Pallasmaa and Pérez-Gómez 2006), is not part of heritage or conservation yet. Through their efforts to meticulously preserve historic fabric, few involved have seriously considered the physical experiential qualities of the built entity to be preserved. Thus knowledge might be acquired on what actual

Figure 1: *'Ouch!'* Repair creating attention-drawing contrast. (St. Machar's Cathedral, Aberdeen)

Figure 2: *'Ouch!'* Negative impact of drastic change in window types. (Milltimber, Abd.)

physical architecture constitutes the entity to be protected and sustained, when aiming to carry a building into the future.

Taking a holistic approach toward building conservation practice, and believing these experiential qualities to be another vital aspect of buildings, this research focuses on establishing the sensory or experiential qualities that historic buildings provide to people. Referring to Holl's (2013) quote on the previous page, it could be stated that: *'What appeals to the senses is essential.'* A building has a story to disseminate, that is not written, but which is nevertheless ready to be experienced by those tuning in to receive it.

It is argued that these sensory qualities should be recognised and cherished within conservation and building practice. During this research, field studies have been carried out aiming at discovering what constitutes this experience, suggesting a methodology to be followed within the process of historic building assessment.

The current heritage movement appears to focus on significance generated by academic knowledge about a building's (social) history (e.g. Vecco 2010, Araoz 2013). Some of what these assessments of significance do embrace will be clarified in Chapter 2. However metaphysical representations are not subject to physical conservation decisions. Building conservation touches the physical and tangible only, and only when changing the experience hereof, could physical conservation influence the intangible. Choices that have to be made

can be informed by the sensory. The research argues that where sensory and experiential qualities are sought in architectural design, their presence should be assessed and established in any valued (historic) existing building prior to embarking on re-development. The thesis for this research has developed from an initial awareness that the key to unravelling the problem might be found in sensory consideration.

For a while, it had adopted a 'body and soul' approach, splitting a building's significance in a physical and a metaphysical part. However, arguably architectural perception is generated by a physical building, but grounded in the experience of the sentient body within this building. This generated experience, or atmosphere, is in itself immaterial. It is inherent to, as well as dependent on, a physical building.

The research, which is exploratory[1] in nature, aims to understand what is essential of a (specific) building in producing the present experience (or another, required one), by studying the perception of a sentient human body within a physical building. This recognized experience of the building could then be maintained through the ages. The motivation for this research originates in a desire to share the sheer enjoyment of perceiving historic buildings. This is to reaffirm that cultural heritage and building conservation contain a substantial component belonging to the field of architecture, by considering sensory

Figure 4: *'Ouch!'* Original wooden shutters compared to retrofit style. (Lille, F.)

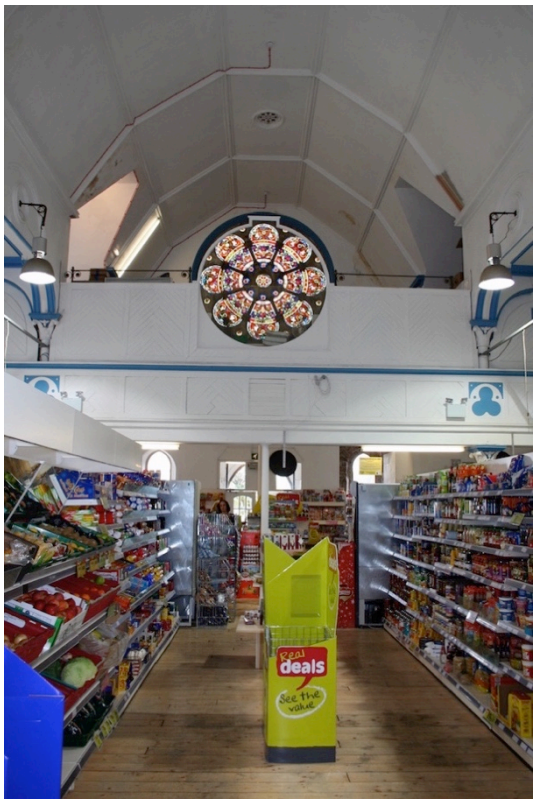

Figure 4: *'Ouch!'* Pinnacle of creative re-use? (Tobermory, Mull)

[1] See Chapter 4 Methodology, ref. Silverman 2013

and spatial perception, and extending the discussion on what-to-keep with different arguments. In practical terms, when people involved in conservation practice understand more about the sensory impact of historic buildings, they will potentially be more confident in the resilience of such buildings and eventually may be less concerned about their eventual survival.

This chapter covers:

1.2: Focus and rationale

1.3: The research problem

1.4: Aim and objectives: the research approach

1.5: Contribution to knowledge

1.6: Outline of the thesis

1.2: Focus and rationale

This thesis reflects research by an architect. Architects are trained to assess and influence many aspects of the built environment[2], however, they are not trained psychologists. An architect can use architecture only, as an instrument to have an impact on people's wellbeing.

This thesis concerns architecture of historic buildings. Since many historic buildings are already 'owned' to some degree by a community, underpinning of conservation decisions, and clear dissemination thereof, is vital. The research has been using people as a group, rather than as individuals, to study and understand what of the historic building affects people in general. Rather than trying to explain the musings of people on a psychological level, the aim was to find out what triggers these affinitive processes in the first place. A building is essentially a commodity. Normally, it is intended for use, rather than for thinking or philosophizing about. Thus the thesis argument is that a sensory assessment is an essential element of the pre-conservation assessment of historic buildings.

Facilitating people's lives often is the practical aim of architects' work, be it steering or following how people could live[3]. Metaphysical representations and significances can be facilitated, but not physically preserved. The practical exercise of facilitating people's lives by preparing historic buildings for new use appears to be carried out focusing on technical aspects rather than people. Typically the architect will focus on buildings, since other than artefacts[4], these are objects of substantial dimensions[5], and economic value, that decisions are unavoidable (e.g. Fielden 2003, Earl 2003). Buildings cannot be shelved and more often than not will not be left to crumble where they are (Pendelbury 2009). They are an inherent part of people's lives, regardless of whether or not these people actually use the building. They cannot be placed inside a museum and left alone. Treated purely as artefacts, they would turn their direct environment into an open-air museum (e.g. Hewison 1987).

[2] As stated by Angela Brady, then president of the Royal Institute of British Architects, in the Guardian Weekend, 15 June 2013: architect's solutions combine the *practical, technical, historical, cultural, material, sociological, ideological and environmental.*

[3] e.g. *'The purpose of Architecture is to improve human life. Create timeless, free, joyous spaces for all activities in life'* John Lautner (1911-1994) [online] at http://www.johnlautner.org/wp/?p=710, accessed 20 November 2016

[4] The research is not about historic remnants that have become memorial artefacts.

[5] A person within a building's proximity can no longer just observe this building without it having an experiential effect on that person.

Based upon, for example, the existence of social institutions, like Historic Environment Scotland and Historic England, assigning Listed Building and Scheduled Monument qualifications, the thesis assumes a general appreciation for the physical historic building.

The field of building conservation fell apart in two distinctly different strands: one is the heritage movement, inhabited by theorists, of which a majority trained in the field of archaeology or (architectural) history (e.g. Smith 2006, Waterton and Watson 2013, the Internatonal Journal of Heritage Studies; the other covers technical conservation which scientists and engineers are working to perfection (e.g. Scottish conservation architects Page Park, Simpson and Brown and Andrew Wright or MacDonald, Normandin and Kindred (2007) on conservation of 'modern' monuments).

The rationale for conservation of buildings has well advanced in the technical spectrum (Feilden 2003, Historic England, Historic Environment Scotland, the Journal of Architectural Conservation). Most materials can be properly conserved or at least given prolonged existence. Technical focus is on protection from wear (exhaust fumes, acid rain, graffiti) and increasing user comfort (insulation, indoor climate control etc.).

Discourse on the conservation of built heritage is progressing along the lines of nostalgia and significance [e.g. Arrhenius 2012, Vecco 2010]. The wider field these days is indicated as 'Cultural Heritage'. Its current focus is on immaterial cultural heritage, effectively the total opposite of built fabric. Naturally, one would take a holistic approach to building conservation by considering experience in both the psychological and the physical areas. Though arguably the whole building can be fully understood only when considered as the total of intellectual and physical affinity[6] (Holl et al. 2006), currently the sensory component appears to be missing in conservation assessments and heritage discourse, which are concentrating on value and significance.

Sensory qualities shed light on the decision about what actual fabric should be preserved and to what extent, to retain the experience of the building, which beholds such value and significance. Conservation regards all kinds of incentives: significances related to historical and social events (conservation of culture), to sustainability in matters of management as well as aiming for comfort (conservation of the building), to archaeology and physical proof of something historic (conservation of artefacts), to the architectural example (conservation of

[6] For example Insall, in his book 'Living Buildings' (2008) appears to perfectly balance intellectual and physical affinity, without clearly acknowledging this.

history). The research promotes conservation of the building as it physically manifests itself, being a consequence of and a moment in development through times (Domer 2009).[7]

The significance of historic buildings can be hypothesized as deriving from different areas:

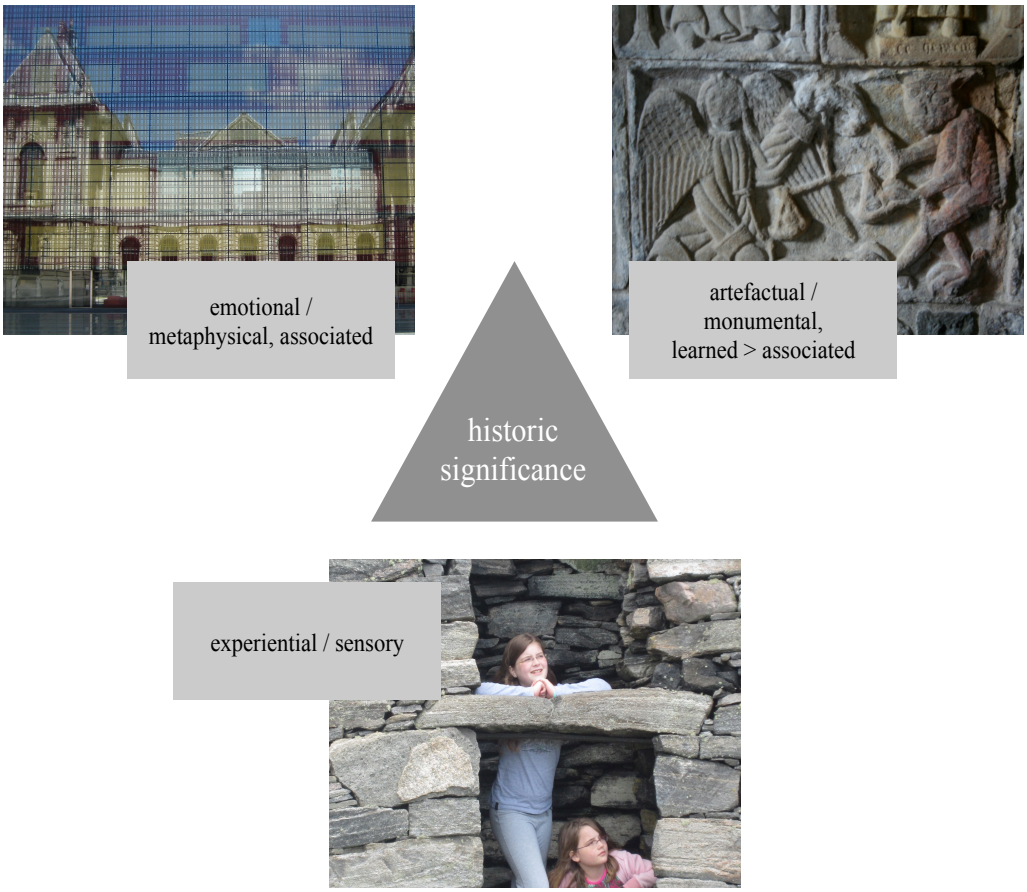

Figure 5: historic significance from different sources

Affinity to buildings has a sensory component (Pallasmaa 2005, Zumthor 2006b, Malnar and Vodvarka 2005); approaching this affinity cognitively and intellectually only, would bypass an inherent requirement of comfort. Conservation of a historic building by default deals with the physical and tangible. The choices to be made can be informed by the sensory.

[7] According to Pendlebury, (2009, p.102) this approach has aged: 'The old idea that historic buildings were exemplars in an ongoing progressive architectural continuum had largely died at this point [late 1960s]. The primary role of buildings both old and new was perhaps to now give an ambience to place, as part of a process of 'heritagisation'. Contrarily, this research would argue such degrading of historic buildings to mere decoration will not benefit their survival.

The 'International Council on Monuments and Sites '[ICOMOS] states an assignment of significance as a basic step in the process of dealing with heritage, and defines: *'Cultural Significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations*.' (ICOMOS Burra Charter 1999, 1.2)

And in this Burra Charter:

'2.2 Aesthetic value: Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use.' (ICOMOS 1999)[8]

In practice, when observing the built environment, various effects inducing the inspiration for this research can be found: many refurbishments appear to be carried out lacking awareness of aesthetics or the source of beauty of historic buildings; arguably these works were approved without considering, or possibly without understanding the impact of measures. (see for example Figures 1 to 4 above). The intention of this research is to enlarge the future relevance of protected historic fabric, as recognisable and adapting facilitator of a stable setting in a transient social and urban environment. The research emerged from an intent to increase understanding of what will allow for 'informed intervention' rather than the currently default 'minimum intervention' (Boito (1893) 2009, Feilden 2003), preventing those alterations that would violate a building's experiential perception, while enabling adjustment for the benefit of future relevance.

'Cultural Heritage', may appear to operate from an over-protective standpoint, perhaps due to (a) lack of confidence in the strength of the architecture, (b) concern that people who have made the building what it is now in the first place will not be succeeded by others who will do the same or (c) fear of losing 'something'. Providing a framework for sensory assessment may assist to define this 'something', and overcome these issues. Thus extending knowledge and information on what there physically is to potentially be lost should facilitate freer, more creative, and potentially better, solutions.

For people perceiving architecture, sensory registrations create the option to appraise the architecture they find themselves part of (Malnar and Vodvarka 2004). Therefore this is how buildings should be assessed before embarking on any conservation process. This is not so much about the beauty of specific pieces of fabric, styles or decorations, but rather about

[8] It must be noted that 'Australia ICOMOS' has updated its 'Burra Charter' in 2013; in this new version, which currently has not been adopted by the international ICOMOS, the above passage has been erased. The focus of the revised Burra Charter (2013) is distinctly aimed at including immaterial indigenous Australian (Aboriginal) heritage.

enjoying the beauty of the total experience (size and amount of detail, relation to human scale, plasticity, tactility of material). There are endless ways in which this experience can be exciting and stimulating.

Considering what an existing building beholds typically should occur in an early stage of any conservation assessment. The research suggests a thorough assessment may be more important than an interpretation. ('assessing' implying: establishing an understanding, from an architectural point of view). In a greater scheme, the knowledge gained through assessing generic, historic and traditional existing buildings could thereafter be applied when designing 'new-traditionalist' (new) buildings. Data collected through such assessments could make decisions regarding historic (or new-traditionalist) buildings less arbitrary.

Decisions taken in the above early stage of assessment will have a permanent and potentially irreversible effect on the outcome of a project. This is the moment when options for the design of refurbishment or new development are fenced off. So far though theory of sensory architectural design has not been purposely applied to building conservation.

Where society and manufacturing processes have changed, original material may be easily recognized but not necessarily easily reproduced. The value of the original will always be greatest to individual people. However, to society in general, economic options can appear to be more valuable. Therefore it needs identifying where or how available means are best used. Choices have to be made always; the right choices are easier made based upon ample knowledge.

For people involved, it will be important to realise that the present building, as it manifests itself today, is and isn't the building that was, or that will be. Arguably in practice there is a choice between sustaining a living building or preserving a museum piece (a functional facility vs. an artefact).

The research argues that and investigates how people get attached to buildings through physical affinity. The value of a building is more complex than that of an artefact only. A building is always present, thus it has a permanent (physical) impact on people. History may provide knowledge, and the historical may provide an impression of comfort and security. Yet, in practice must be acknowledged how people live their lives today, looking into the future.

In a different area, however potentially based on a similar affinity to historic buildings, new-traditionalist architecture is rapidly emerging. Traditionalist architecture is obviously aiming to recreate a certain affect. In the line of thought of the research, it is suggested that cases based on a lack of understanding of what the original exemplary buildings behold before they are recreated, reveal themselves in the built results. This 'not-quite-right' has established itself in those traditionalist (or sometimes refurbished) buildings turning out hybrid, incongruent,

eclectic, inconsistent or arbitrary, because not all properties[9] of the admired original were taken into account.

Developments like 'Poundbury'[10] (an initiative of The 'Prince's Trust') and the American 'New Urbanism' development[11] claim they acknowledge the experiential value of historic and traditional buildings, incorporating anthroposophic theories, where others appear to 'just' recreate the buildings rather than aiming to recreate the entire experience in a contemporary way.

Apparently clients are attached to the historic built environment and desire copies. Yet what defines their attachment in the first place? Since one can never assign historic values onto a new building, the people asking for traditionalist architecture must be looking to recreate their affinity with the building itself. New-traditionalist developments regularly show how replicating building style and decoration is not necessarily creating the experience of an old building. What was misunderstood when a new traditionalist building looks like cut-and-paste in a wrong way? Are these clients getting what they would have been looking for, namely something similarly triggering and exciting their sensory affinity?

The rationale for individual conservation cases is not part of this research. Any investment in historic buildings will benefit from a sound, well-informed starting point, and an assessment of the architecture that is in place already. Toward future generations, there will be arguments for offering an original experience as well as offering the original material. People will have society in their own time as a frame of reference and judgment, and will have to make an effort to place what they come across in its own historic time. Immersion and imagination both have educational qualities. Reason and purpose for conservation can be anything from economic to emotional value and everything in between or combined. Practically, a major part of the tourism industry is based upon affinity with history and therefore historic buildings. Realistically, a lot of high quality laborious detail is irreplaceable, initially because it is too costly, eventually because craftsmanship and experience are disappearing from society.

The research applies to any built structure where conservation of 'something' is intended. A building being subject to legal protection through 'listing' is not a prerequisite for the proposed

[9] 'Palaces' erected at unsuitable sites, weathering changing the experience of materials not anticipated, elements stuck on as random decoration rather than being a result of building solutions, etc.

[10] http://www.princeofwales.gov.uk/features/poundbury

[11] The New Urbanism website (www.newurbanism.org) speaks of '*traditional neighborhood structure*' and '*placemaking*'.

approach. In this sense, the research is concerned with understanding the experiential aspect of architecture, as the thing that actually should be recognized, preserved and valued.

In fact this thinking should facilitate both (re-)appreciation of non-listed buildings as well as reconsideration of the need to preserve listed building as if they were artefacts. Where listing and similar legislation tend to focus on meaning and significance of heritage, they drift further away from the actual building and architecture, thus providing little information for architects to use in conservation design. Due to this lack of concrete topics it will be harder for governing bodies to assess and measure if their demands have successfully been met. This research by no means would propagate to demolish anything; rather it proposes a shift in focus, which might make some archaeological or historic issues less pregnant. It suggests that things of high (metaphysical) archaeological value will not automatically carry much (physical) experiential value. Therefore it seeks to demonstrate that the obvious appreciation for a building may lie in its combined physical experience rather than its assembly of historic elements.

Awe for art and age does not inform how to practically keep buildings. When people aim to conserve the status quo of a building, they may overlook the fact that already this is a product of history and changing-through-times. Historically, the built environment adapted to meet the needs of new uses (Earl 2003, Pendlebury 2009). It does not seem logical to stop short this gradual process of 'natural' adaptation, in which buildings can be appreciated for being historic and contemporary at the same time.

A historic building and a recreation (i.e. a new building of the same) are not the same. Historic fabric is inherently needed for historic significance; it needs to be there, and probably apparent. However, this inherent need for evidence does not imply that every snippet of historic fabric must be kept at all cost, not to loose the historic building; the latter is not true. Historic buildings all at some point have been refurbished. What matters is for the entirety to still be considered historic.

The thesis concerns built fabric rather than any of the various significances that get associated to this fabric, but do not inform what to keep of it. It aims to clarify what of the actual fabric and physical experience should be kept in order to have something to attach whichever significance onto. Abstract (metaphysical) meanings cannot be physically preserved. Therefore, the research is not primarily about monuments. Especially when the current focus of cultural heritage leans toward nostalgia and the intangible, a building can be subject to a robust conservation process and still carry these same values.

Rather than with the historic product (i.e. a cloud of historic significance; Figure 6), people may well have affinity with the architectural product (which is perceived through the senses). Sometimes the historical value of a building is such that it outweighs use value. Some consider

the architect's ideas more important than the building that was materialised.[12] Still, even buildings carrying an enormous monumental value will benefit from a sound assessment of their sensory qualities. People relate to their (built) surroundings by default.

Even for scheduled monuments, architectural qualities and beauty can only be fully appreciated by including an understanding of experiential qualities.

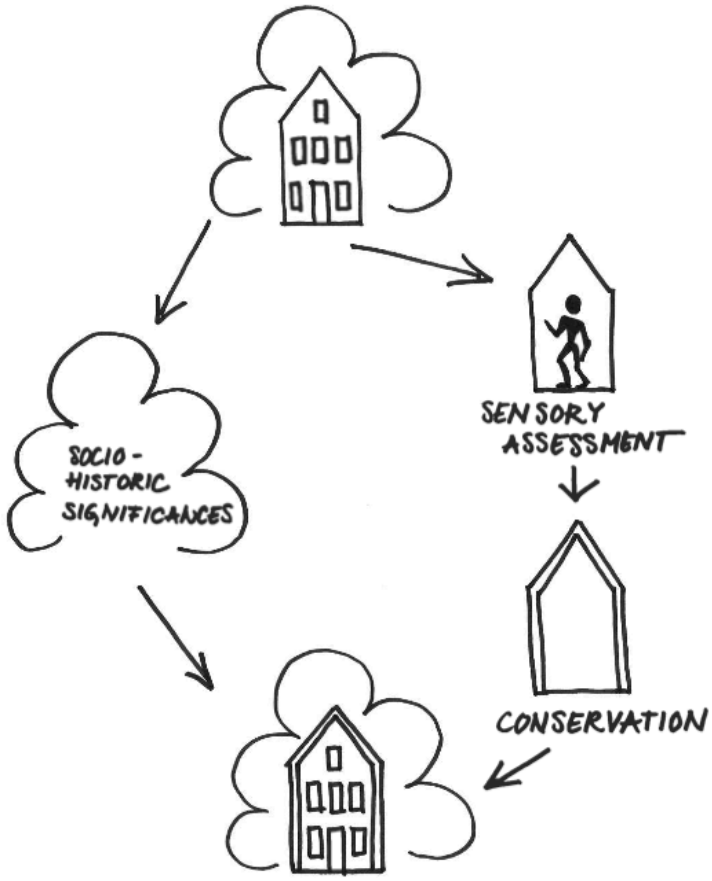

Figure 6: historic significance is an immaterial cloud around an actual building

The focus of the research is on the sensory; the experience of the tangible; non-cognitive and non-intellectual; the stage in processing where the information has been gathered, but not processed yet (i.e. before it has a meaning). In this stage, knowing what the building entails, is more important than understanding it. To assess the building, as it is architecturally, the

[12] Till (2009 p.61), quoting Dewey: *'architecture is the contingent discipline par excellence.'*

research assumes the holistic approach that a conservation assessment will improve when sensory perception and experience are considered also.

Many architects are aware of the existence of human sensory experience and the need to appeal to a sentient user. Regularly, architect-writers mention the sensory appeal of the built environment, generally on an urban scale. One of the current topics within architecture is sensory and experiential design or sensory architecture. Primary authors in this field are Finnish writer and architect Juhani Pallasmaa[13], Swiss architect Peter Zumthor, writing about the buildings he built, and from the United States Joy Monice Malnar and Frank Vodvarka, whose book '*Sensory Design*' aims to review buildings for their sensory appeal and Steven Holl who both writes and aims to build according to sensory ideas[14]. Their work justifies this effort to focus on sensory experience in historic buildings specifically.

Previous research has shown that respondents are able to reflect on the sensory experience of being in a building (Fransson et al., 2007, Wastiels et al., 2012). Though obviously people will have sensory responses to their environment always and anywhere, this thesis is primarily concerned with peoples' responses to historic architecture; and with acknowledging the sensory perceptions of the material architecture that conjures the affinity with the actual physical building. It is not aimed at judging buildings for their sensory appeal, but rather at a thorough assessment of what there is to start with, prior to embarking on conservation. Regarding every architect's assignment to provide comfort, the research aims to pin down triggers that can be approached architecturally, to protect and preserve what would otherwise be missed. The research claims that conserved buildings should not only appear the same as before, but provide similar perceptions of touch, sound, taste/smell and orientation also, in order to retain the same quality.

People's initial response to the buildings around them will be perceptible and physical, rather than the intellectual and metaphysical covered in the on-going discourse. The research is looking to establish a non-emotional perception, and a non-judgemental assessment.

The research aims to discover what creates people's response to a historic building, to a physical building that is more than an abstract place, more than a pinpoint on a map illustrating history. Something that has a right to exist and be enjoyed as its current self, and therefore of value to society. People's emotions are a response to their sensory perceptions. If people

[13] *'Architecture is communication from the body of the architect directly to the body of the person who encounters the work, perhaps centuries later.'* (Pallasmaa 2005 p.67)

[14] *'only(?) architecture can simultaneously awaken all the senses – all the complexities of perception.'* (Holl et al. 2006).

apparently have strong emotions towards historic buildings, study of what they experience through the senses (that leads to these perceptions) should clarify and provide awareness and understanding of this phenomenon. In order to allow adaptation and transformation of built heritage, robust assessment of the fabric generating the architecture is fundamental. The research written up in this thesis is a result of this intention.

1.3: The research problem

On the timeline of a building's life, conservation happens at irregular intervals. To be able to perform an adequate conservation, a thorough assessment of the existing building is then required. Today can be attempted to assess what was before, and be defined what should and can be in the future.

Rather than gathering '*the sum of what contributes to the building'* (De Botton 2007 p.73), to initiate conservation of a particular building, this research seeks to primarily understand such a physical building, assuming its prior designation as worthy of conservation.

A quick (internet) search on '*assessing buildings'* learns buildings currently are assessed for general performance, life cycle aspects, technical issues, constructive status, energy- and environmental performance, but little directly related to sensory experience[15]. Historic buildings were built using the same senses people now use to experience, rediscover and approach them. They were built more directly '*from the body'*. (Hale 1994). This research, claiming that sensory and experiential qualities have not secured their place in the conservation and heritage discourse yet, focuses on these qualities, aiming to understand them and to show both what they are and how they are relevant.

Theoretically there is the option that sensory experience is not a valid component in treatment of historic buildings. However, since authors in the sensory field discuss actual buildings from various ages, and claiming sensory experience to exist for contemporary buildings, this is most unlikely. Either it has been overlooked, or the discourse has not arrived on the topic until now.

Discourse concentrates on significance and value, where practice has to focus on the actual built fabric. The research claims there is in fact a lot to gain in studying sensory and experiential qualities of existing historic buildings, in order to better understand their value to perceptive (human) users. If assessment of these qualities would be part of a conservation appraisal, this would shed a new light on options for conservation and refurbishment. Therefore all that needs conserving and keeping is this body of physical architecture. It may be overhauled, adjusted, replaced and what not to some (potentially considerable) extent, while still facilitating assignment of the same values (carrying varying weight through times). Relating to Holl, who stated that '*the use of architecture is to deeply move us'* (Holl 2006), the architecture itself must be kept in order to have something of value, to assign significance to.

[15]Within Tourism there exists loads of research into visitor experience; this however focuses on people's feelings rather than the architecture of a building.

Historic buildings, getting all the technical assessment and care they need, deserve an architectural[16] assessment, being the only way for proper treatment of the building-as-an–architectural-entity. However, application of sensory perception of physical architecture to the assessment of buildings due for conservation or refurbishment is an undiscovered field. Aiming to introduce a sensory and experiential component in conservation, the research will study (a) what this sensory component may be, (b) why it has not been a focus in conservation yet, (c) how to assess it and (d) how it will help to improve the result of conservation efforts.

During the research, being introduced to sensory architecture and realizing (after performing an initial study[17]) the proposed approach should be general and objective, the thesis question has developed to be framed as:

'Physically and architecturally, what, of a historic building, evokes people's affinitive response?'

The research assumes such information will be valuable information to the approach to historic buildings, and can inspire (any) new design with a recognition, rather than a copy, of heritage.

[16] Architecture: considering the person versus the building. A person is a sensory/sentient being.

[17] 'Knock' had questions like 'what would you pick', 'how would you solve'; but architects know very well how to handle those. They research aims to point architects to issues for consideration.

1.4: Aim and objectives: the research approach

Thinking about and developing the issue, as described in previous paragraphs, the research has reached the following research question:

Physically and architecturally, what, of a historic building,
evokes people's affinitive response?

The research approach will be to study what a historic building provides to a sensory receiving person. The research is directed at increasing awareness to directly assist any professional in the process of any building conservation. The choice to touch a building, and when touching what to do, must be conscientiously informed, since one can build one choice or another choice but not an option. And once gone, original fabric can be replaced but not 'reincarnated'. Since every choice will be embedded in a complex decision making process, the impact and consequences of each step should be as clear as possible. It will be extremely helpful to be able to envisage whether or not a (small) change (substitution, repair, etc.) is likely to have an effect on people's perception of a particular building.

The research deals with sensory experience only, claiming that all 'associated significance' is purely a metaphysical component (stuck onto a building through dissemination of knowledge about history or culture) and can therefore be maintained through a building's conservation. The refreshed building can generate and carry the exact same associated significance. However, if the adjusted building ideally should generate the exact same sensory perceptions (atmosphere), one must know the triggers that conjure up this atmosphere. The above statement does not make such 'associated' significances invalid; it just labels them as an issue for separate consideration. Potentially a most valuable issue, since due to their appeal to people's affinity, associated values eventually may decide and generate financial and social conditions for a building project.

The research does not deal with whether or not a building should be protected. There is ample literature stating how the built environment as it is came to be through constant change (Denslagen 1994, Earl 2003, Pendlebury 2009, González-Longo 2012) and should be allowed to keep 'alive' and changing, especially to keep a positive result of the sum of all its values and significances to society. The omnipresence of the 'associated heritage' validates this research's special focus on historic buildings.

The research does not search for appreciation or liking, regarding this as a personal and fashion-influenced component, which is most subjective. An aspect of 'listing' decisions is for the building to be 'typical', aiming to preserve a variety of buildings, regardless (to some extent) of their contemporary appreciation.

The research regards the relation between human and environment from the side of the built material. Conservation decisions will be made to appeal to a larger public and due to legislation will have to be approved by general standards and opinions. Therefore individual person's opinions will not contribute to relevant data. Subjective perceptions will provide data on people's (technical/neurologic) capacity of perception. What need retrieving are those perceptions that contribute to an atmosphere, appreciation or appeal. This will provide the option to conserve the same, deal with it otherwise or ultimately recreate it.

How people sensory register is the field of neurologists. Why and how people respond to triggers the field of psychologists. An architect-researcher should best focus on those (architectural features and) experiential qualities that enable generation of these responses, i.e. what people respond to. Therefore the research established the following aim:

Aim:

> Demonstrate and critically explore the existence of sensory experience in historic buildings; and the relevance of using sensory perception to understand historic buildings.

Deeper understanding, leading a to clearer concept of the building as well as to informed decisions, will enlarge the future relevance of protected historic fabric. By stressing the importance of sensory experience, the research aims to create wider options for new development, where significance is derived from that experience, as much as from associated significances. The research explores how the essence of any building lies is its (cumulative) effect on sensory experience. The experiential value of the architecture should guide the preservation of the material. Arguably, scraps of original material present are just evidence of the age of the experience. They could be preserved to enhance the experience, rather than as artefacts in themselves.

The research claims that people's affinity to the historic built environment has a physical component, which can be assessed through sensory experience. Therefore the research aims to assess what sensory experience of historic buildings entails and what type of information may be expected to surface when assessing the sensory experience of historic buildings. In a situation where the debate has moved away from anything physical, the research aims to demonstrate how the physical building beholds its affect and how this architectural material should always retain its full experiential value.

Regarding architectural practice, the research aims to advertise the conscious sensory assessment as an element within the conservation planning process, ideally a physical

document that can later be referred to. The research proposes to employ a practical assessment scheme, similar to its field studies, rather than imposing a strict format[18].

Objective 1:

> Review changing approaches to (building) conservation and current interest in historic and traditionalist architecture.

Review the traditional/historical and current rationale for building conservation; (what have people been trying to keep) and how did the intellectual and emotional overpower the architectural and sensory/experiential when conservation shifted to cultural heritage and immaterial significance only, which is how people think and feel emotionally rather than feel experientially?

Demonstrate how 'cultural significance', though assuming to consider the 'whole' building in fact only covers (this cloud of) socio-historic significances, leaving out the additional component of affinity to the physical person (see Figure 6, page 24)

At any period in time, did people keep buildings for what they physically are rather than for what they represented or for memorial or monumental value?

Reviewing the very current phenomenon of (New-) Traditionalist architecture may present clues about what people (claim/assume to) appreciate of traditional and historic buildings, up to the extent where they decide to copy their features.

Objective 2:

> Explore sensory perception and sensory design, in relation to the experience of (historic) buildings.

People's emotions are a response to their sensory experience. Apparently people can develop strong emotions towards historic buildings. Where the first objective is to study this phenomenon from the side of the historic building, the second objective is to understand the phenomenon of sensory perception from the (practical) side of the physically perceiving human. What is known about sensory experience of architecture in general? The research aims to understand the process, without full neuroscientific underpinning, and to explore what kind of perceptions, which senses, are relevant to people's physical relation to buildings. Therefore

[18] The doubtful potential of the introduction of formal 'tools' is pointed out by Boyle (2011 p.7) in her review of the tool proposed by Malnar and Vodvarka (2004): *'then constructing their own "sensory slider", a tool by which they measure the "sensory nature" of a structure […]. The effectiveness of this tool however, is dependant on the designers knowledge of materials and methods to make sensual spaces, and so is rather left as a tool to critique the authors view of the sensory.'*

the research will study what the sensory perception of historic buildings entails, and what information may be expected when assessing sensory perception of historic buildings.

Objective 3:

> Develop a critical framework to support understanding of (the existence of) sensory experience in historic buildings (through studies).

Bringing together historic buildings and sentient people, the research plans to study people's affinity to historic buildings as a physical thing, potentially affected by conservation treatment. Looking for which senses are generating what responses, due to perceiving which triggers, the research aims to inform conservation assessment, using an equal focus on other-than-visual senses.

The research aims to combine its knowledge of historic buildings and its understanding of sensory experience, aiming in general to explore the combination of these two, and aiming in particular to discover and demonstrate what should be focal points for building conservation. Through studies, it aims to demonstrate a sensory approach to historic architecture. This will enable dissemination of an understanding and awareness of the benefit of incorporating sensory assessment in building conservation procedures. Eventually, raising awareness may have more impact to practice than enforcing a format.

Constraints :

There will not be an opportunity to test a proposed theory for assessment in an actual project situation as part of this thesis.

It will be impossible to know any difference the disseminated research will indeed have made 100 years into the future. The eventual effect will always depend on so many other (economic, social and technical) factors the effect will be hard to measure.

Architectural writing, though substantial in volume, for a large part is polemic rather than scientific. Many of these sources will therefore state one author's opinion. Which this author will have studied through their architectural work, so will have some experiential validity.

Architecture is generally practiced and reported, rather than scientifically approached. Architectural history, for example, is a separate study in a different school (e.g. Adrian Forty in Borden, Fraser and Penner 2014).

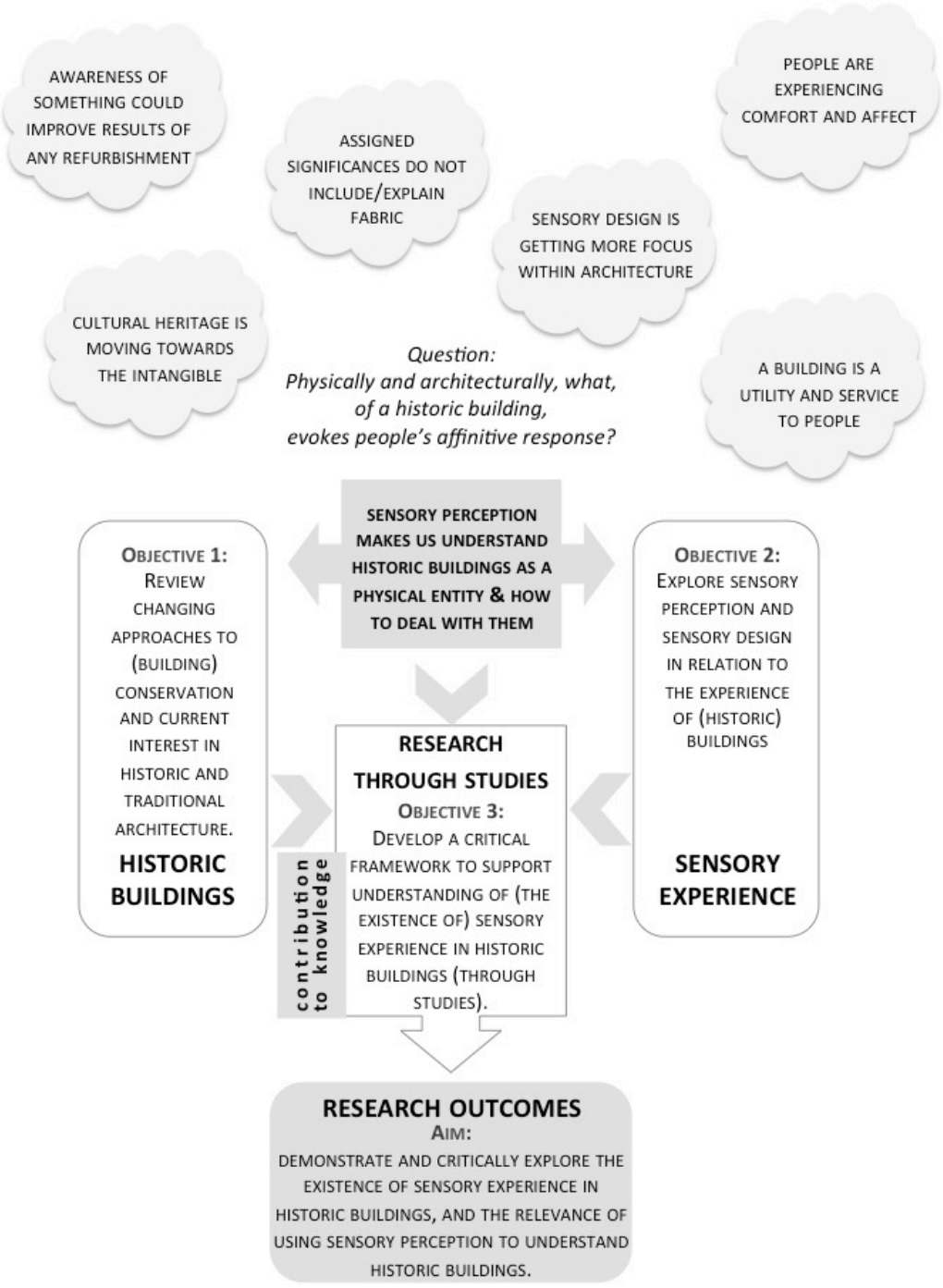

Figure 7: the research argument; aim and objectives

Though Objective 1 aims to understand why conservation drifted away from buildings, this thesis is about architecture, not psychological understanding.

1.5: Contribution to knowledge

The research delivers a contribution to knowledge that is found in studying the potential of application of sensory assessment to the conservation practice, as well as performing field studies to indeed establish a human sensory response to historic architecture. Its novelty lies in its combination of these two fields of knowledge. The perception of a person's environment, buildings in this particular case, is inherent to human life. By creating awareness of this

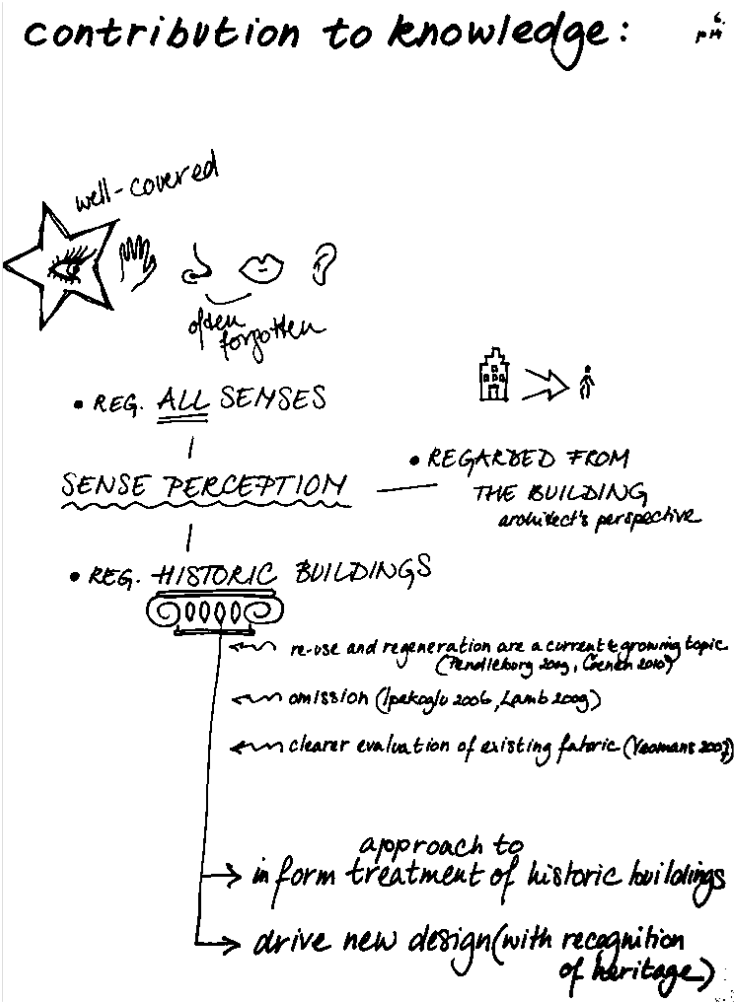

Figure 8: initial sketch of contribution to knowledge

already naturally occurring behaviour, the knowledge gained through a historic building assessment will increase, and thus be of influence to consecutive decision processes.

The research will achieve its Aim:

> Demonstrate and critically explore the existence of sensory experience in historic buildings; and the relevance of using sensory perception to understand historic buildings.

through delivery of its objectives:

Objective 1 should show how sensory assessment and sensory experience until now have not been covered in building conservation, and how therefore some aspects of historic buildings are not discussed or deliberated. It should also bring up lack of knowledge which frustrates good decisions on buildings as architectural entities rather than artefactual collections of bits of historic fabric.

Objective 2 should find a system of senses to use as a format for assessment.

Objective 3: when the studies bring up many 'hits', delivering information that sits beyond the scope of other ways of assessing, the sensory assessment will prove to be a relevant and valuable extension of conservation assessments. Data should show its relevance. The understanding of the experience of people visiting a historic building should surface from the studies.

The anticipated outcome for the thesis is a framework (see Objective 3) that can be incorporated to inform pre conservation assessment of historic buildings. The framework will be based on an overview of people's sensory registrations in buildings, demonstrating that and what they sensory experience indeed. The research expects to be able to demonstrate people register more triggers when making the effort to consciously focus on separate sensory modi. To architects and non-architects this should demonstrate the importance of assessment of the actual architecture (not the style etc., but what is built) and with them reinforce awareness of the availability of so much more than visual perception.

1.6: Outline of the thesis

Initial review of historic building literature and performing Study One helped in directing the research towards sensory experience of buildings. This is explained in the methodology. Once these two fields of study had been identified, the thesis could follow a 'literature review first' structure. Figure 9 (below) shows the research overview and chapter content:

Part I: (Chapter 1) The introductory chapter just finished gives an overview and introduction to

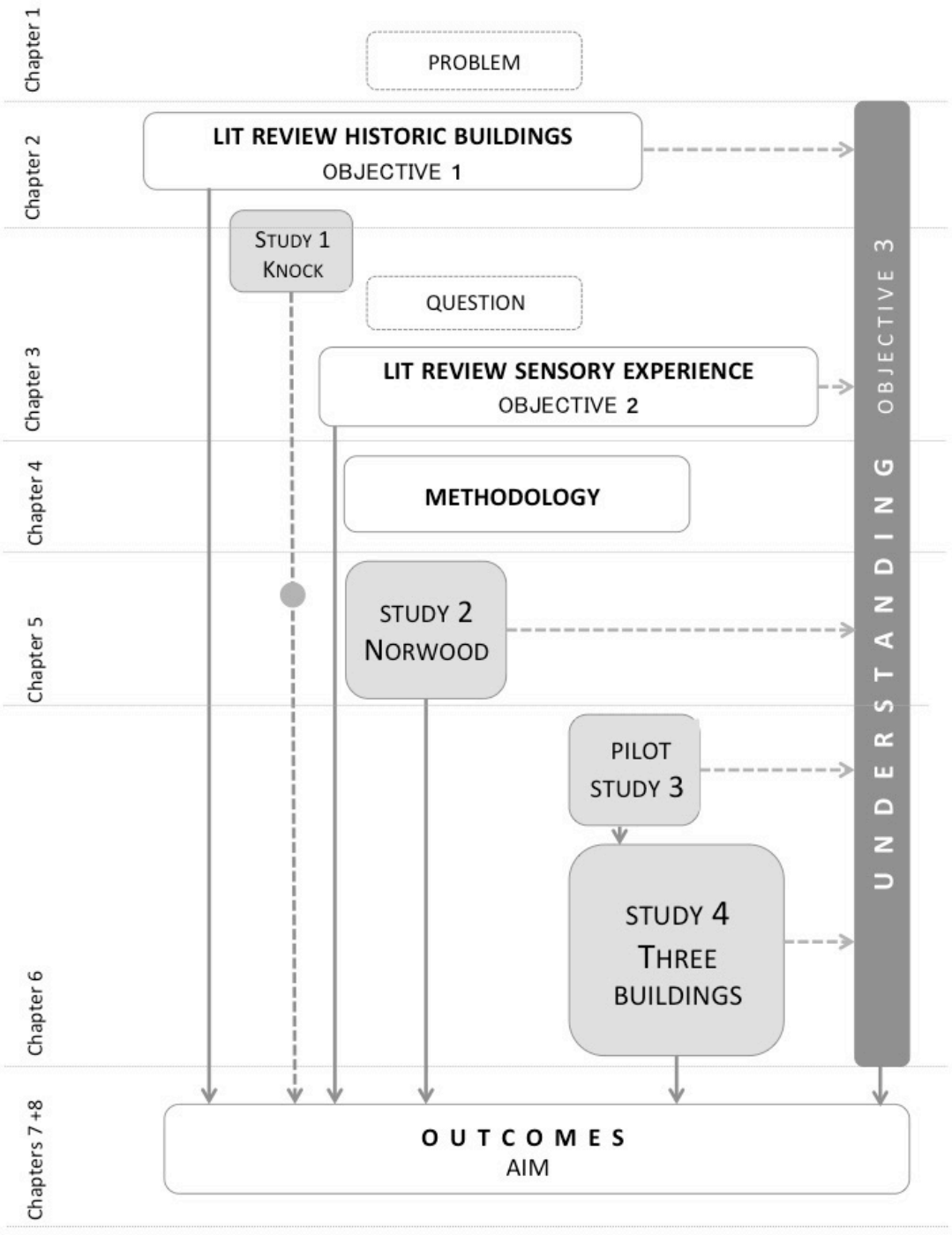

Figure 9: research overview and chapter content

the entire thesis/research. The Aim and Objectives set are stated in Chapter 1.4.

Part II: Aiming to explore the context of the research and to establish a base of current knowledge to build the research upon, hereafter Part II of the thesis will continue with a literature review focusing on the two strands of information that together contain necessary background knowledge to inform the topic.

The main research issue will be that no body of literature exists on sensory experience of historic buildings. Therefore two bodies of literature have to be separately covered, before eventually combining their knowledge (see Figure 5 and Figure 6).

The first strand of literature, conservation of historic buildings through times [mostly cognitive affinities] (e.g. Jokilehto 1999, Earl 2003, Arrhenius 2012, HES), deals with historic buildings (Chapter 2). When did people start to appreciate them and preserve them for the future? Why and how did this protection begin and develop? What were people trying to hold on to? How did they do this? What is the current focus of the heritage discourse, if not experiential and sensory qualities? What is known about the emergence and evolution of the present heritage discourse and what is its status quo? Some literature on new-traditionalist architecture will be reviewed for its rationale and output.

The second strand of literature, on sensory experience and design [physical affinities] (Malnar and Vodvarka 2004, Pallasmaa 2005, Zumthor 2006 a,b and Holl 2013), deals with human sensory perception and experience of buildings (Chapter 3). Sensory experience can be approached psychologically, (bio)scientifically and neuroscientifically. Architects however will benefit from knowledge geared to practical application. Where sensory qualities of buildings have been studied, this was intended to inform the design of new buildings, rather than assessing existing buildings regarding their conservation. The research will consider what system of senses or perceptions can work as a backbone to structuralize the studies.

Part III (Chapter 4) explains the Methodology, needed to perform the data collection reported in Part IV.

Part IV reports the results of data collection. Initial Study One and exploratory Study Two (Chapter 5) led to Study Three, piloting the format for the eventual main data collection in Study Four (Chapter 6), involving twenty participants (in two sessions) and three buildings. All studies were aimed at collecting data about people's experiences in historic buildings.

Part V: (Chapters 7 and 8) covers discussion on issues directly related to the research, and conclusions from the combined effort of literature review and studies.

PART II: REVIEW OF TWO BODIES OF RELEVANT LITERATURE

CHAPTER 2: HISTORIC BUILDINGS

2.1: What are people seeking to conserve?

'Conservation is inherently a social and interpretative act, centered around the material creations of culture that reflect memory, identity, lifestyles, and the relationships that people have to places. Conservation begins and ends with people.'
Jeff Cody and Kecia Fong, 2007

'Buildings tell the history of a place in a way that nature cannot.'
Oliver Wainwright, 2012[19]

'Somehow we have stopped seeing historic buildings as architecture and this is affecting their conservation.'
González-Longo, 2014

What are people's incentives when deciding to preserve historic buildings? Are they conserving what they claim to want to keep? Was there ever a sensory approach to keeping historic buildings? As described in chapter 1, this chapter covers half of the literature review, aiming to fulfil Objective 1: Review changing approaches to (building) conservation and current interest in historic and traditionalist architecture.

The chapter will set out how discourse on cultural heritage developed separately from general architectural discourse, resulting in a delay for 'new' themes within architecture, like design focusing on the sensory experience, to be embraced within conservation architecture. It will review the history and current status of (cognitive[20]) affinity to historic buildings, and show that 'cultural heritage' knows a lively discourse, which increasingly covers metaphysical topics, hereby disconnecting from physical historic buildings.

[19] WAINWRIGHT, O., 2012. Can buildings really be more beautiful than nature? *The Guardian* . at www.guardian.co.uk/politics/shortcuts/2012/nov/28/buildings-more-beautiful-than-nature

[20] Cognitive (mental): here implied as affinity that is a product of thoughts and ideas alone.

Though architects have been involved in the establishment of conservation legislation, the public organizations looking after heritage, established through the past century, were founded by historians, artists and lay people. Their focus was on intellectual, visual and artwork qualities, and their drive emotional rather than experiential.

Different areas of study focus on different values of the same building, leading to very different, sometimes opposed, views on conservation. This chapter will show different conservation choices through times. It describes opinions on historic buildings leading to the creation of 'heritage', discussion on treatment of historic buildings leading to legislation and affinity for historic buildings eventually leading to a recreation in retro building styles.

In existing literature, the sensory experience of historic buildings is not explored widely. Though ample literature exists on the experience of the historic environment, dealing with sense of place, time, authenticity etc., (archaeological and nostalgic/emotional) these writings apply to the total composition in the light of being part of general heritage (e.g. *The International Journal of Heritage Studies*), rather than informing the physical conservation of these buildings. Literature dealing with historic buildings physically tends to focus on technical and climatological aspects (e.g. *The Journal of Architectural Conservation*), rather than experience (of the architecture).

This chapter aims to review various approaches to and rationales for conservation, emerging through the course of history, and to give an idea of the development of these rationales into our current approach to historic buildings.

As Earl (2003) states, differentiating between ancient monuments and historic buildings is philosophically dubious, and though different expertise may be needed, the degree of care required is not necessarily different. However, the research does not intend to contest the existence and treatment of classified monuments, as long as they are consciously acknowledged as needing meticulous preservation of a status quo.

Different terminology exists for describing the procedure that is known as 'Conservation' within the U.K.[21] (In mainland Europe, 'Restoration' is the word commonly used.) Its meaning

[21] **Conservation**: *'If we truly wish to preserve the memorials of the past, then the distinction between conservation and preservation becomes downright conflict. Preservation means the maintenance of an object or building, or such of it as remains, in a condition defined by its historic context, and in such a form that it can be studied with a view to revealing its original meaning. Conservation, on the other hand, creates a new context and, if only by attracting the attention of members of the public, a new use.'* (Hewison 1987)

'Conservation is used when a rather more inclusive term is needed, embracing not only physical preservation but also those other activities, which the practitioner must engage in to be successful in 'preserving, retaining and keeping entire'. (Earl 2003)

and implication are as broad and inclusive as for 'Conservation' in the U.K. Generally within the U.S., the term 'Preservation' is used. Elsewhere this may be associated with a very static kind of keeping safe. Studying whether this is due to a relatively smaller amount of heritage buildings than in Europe (which would turn them more precious) sits outside the scope of this research. Some schools will use 'Conservation-Restoration'. If not confusing, use of this conjugated term is complicating rather than clarifying. Meraz Avila (2008) gives extensive history and rationale about this terminology, resulting in using the word 'conservation'. Since this research is carried out in Scotland, the logical choice of description is to use the word 'conservation'.

The literature review will see an emergent focus on 'heritage[22]', a concept that in fact was 'invented' just over a century ago, totally changing the paradigm on treatment of historic buildings.

People involved with such heritage came to focus on the values and significances associated with and assigned to historic items, thereby forgetting or ignoring the complications of the fact that historic buildings for simple reasons as size and quantity, cannot be shelved and for the greater part have to continue to be functional in today's and future's society. The issue of protection within these limitations asks for clear understanding of the actual fabric rather than its associated values.

This chapter covers:

2.2: Early history of conservation and protection

2.3: Ruskin was not an architect

2.4: Emergence of a heritage movement

2.5: Conservation philosophy and theory

2.6: Assigning significances, the focus of cultural heritage

2.7: International and national protection

2.8: Retro styles and more current developments

2.9: Summary: the historic buildings as object of perception

[22] '**Heritage**: **2** *anything that has been transmitted from the past or handed down by tradition.* ***3*** *the evidence of the past, such as historical sites, and the unspoilt natural environment, considered as the inheritance of present-day society.*' (Collins dictionary 2006)

2.2: Early history of conservation and protection

How did people originally approach the existence of historic buildings, before they started theorizing about the issue and the concept of heritage emerged, steering discourse away from building conservation? Through history, existing (historic) buildings have been approached and treated in a variety of ways. Society has always been a major factor in their treatment and survival chances. This section will give an overview of what was deemed worthy of protection and preservation through the ages, starting from Roman times, to establish if and when any major shifts in rationale and approach have occurred.

Originally old, unused or ruinous buildings served as quarries for building material. Incidents are known of buildings kept because of historic values; because they reminisced of previous events or people that had impact on society. However, the building then was regarded as an entity carrying certain significance, not something requiring careful conservation effort. Repairs were carried out as was practical (Jokilehto 1999).

Jokilehto's *'A history of Architectural Conservation'* (1999) is commonly cited and acknowledged as a key source in this field. Its narrative is comprehensive, weaving social developments into its text also. Equally informative, focusing on development in different Western European countries, is Denslagen's *'Architectural restoration in western Europe'*[23] [24](1994). This research will therefore focus on reviewing the changing paradigm towards dealing with historic buildings, as well as developments since these publications. The research seeks acknowledgement of sensory experience of built fabric and may be interested in strands that did not gain a leading influence on the modern approach of conservation.

In the context of building conservation in ancient times, regularly the Japanese Shinto Shrines are referred to, since allegedly Japanese temples are continuously regenerated. Recently, Scott (2008) pointed to Stovel[25], who explained that the continuous regeneration by rebuilding does happen indeed, but this concerns just one specific temple building only, the 'Ise Jingu'. This concept is interesting, even though befitting Japanese culture only, because it shows a

[23] **Restoration**: though common terminology in many countries for what is called '*conservation*' in English (UK), in English language restoration implies rebuilding what (might have been but) never was.

[24] Note how in 1994 in the Netherlands, '*restoration*' rather than '*conservation*' is the general terminology. The book deals with a lot of proper restoration though.

[25] Scott 2008 points to Stovel 2008: *'One of the sources of the Nara meeting was the feeling of Japanese conservation professionals that their approaches to conservation were misunderstood. The example most cited was the false contention in many Western publications that the Japanese ritually rebuilt replicas of their temples on adjacent sites every twenty years – a practice in fact limited in modern times to one Shinto shrine, the Ise Shrine.'*

significance totally disconnected from the original material, reaffirmed over and again to an authentic reincarnation of a temple-building.

In Western Europe, precious and sacred buildings were erected in stone or bricks. The many 'general' wooden buildings that used to be at some point, e.g. when lost through fire, were re-erected in brick or stone, for practical reasons, and since have been more likely to survive (Jokilehto 1999, Denslagen 2009a).

The concept of a 'memorial' was well known in the ancient world, notwithstanding the lack of a common conservation paradigm. Though Romans valued some of their Hellenistic[26] inheritance, Cicero for example (1st century BC) was highly surprised by the Greeks' attitude to their antiquities, which in fact included a concept of heritage 'avant-la-lettre' whereas the Romans considered antiquities to be mere artefacts, rather than containing historic significance. Ackerman (1990) claims *'the Romans were devotees of what the Germans call* Schadenfreude*, taking exquisite pleasure in the misfortune of someone else.'* (p.144)

An ancient (documented) event showing appreciation of architecture was performed by Attalus I, king of Pergamon, when ordering excavations in Aegina as early as 210 BC. (Denslagen 2009 p.2). The Erechtheion in Athens (dating from the 5th century BC), after a fire in the 1st century BC, was restored by the Romans[27]; this was an aesthetic 'restoration', where new bits (of lesser quality) replaced damaged original ones (Jokilehto 1999).

Though memorials (Greeks) or monuments (Romans) were acknowledged to contain significance and memorial values, regarding the continuous repair of ancient temples there is no evidence of a single approach, rather than a consistent choice for the most practical and efficient solution, whether this was with or without reuse of original material. Restoration generally took place after disaster, with an aesthetic focus (Denslagen 1994, Bell 1997, Jokilehto 1999). Arguably being attracted to relics, as physical reminders of times past, is inherent to the human being.

Vitruvius, the 1st century Roman author whose '*Ten Books on Architecture'* (1st century BC) are still reprinted, regarded classic buildings as the example for 'good' buildings. The rationale for keeping these buildings was aimed at having them serving as examples of rational, organised, scientific building. '*to show that this was the only proper way to build'* (Denslagen 1994 p.6).

[26] Hellenistic: related to ancient Greek culture

[27] Recently Lesk (2005) claims a re-dating of these repairs
(from http://www.erechtheion.org/images/pdf_publications/aia_2005_abstract.pdf accessed 14 October 2016)

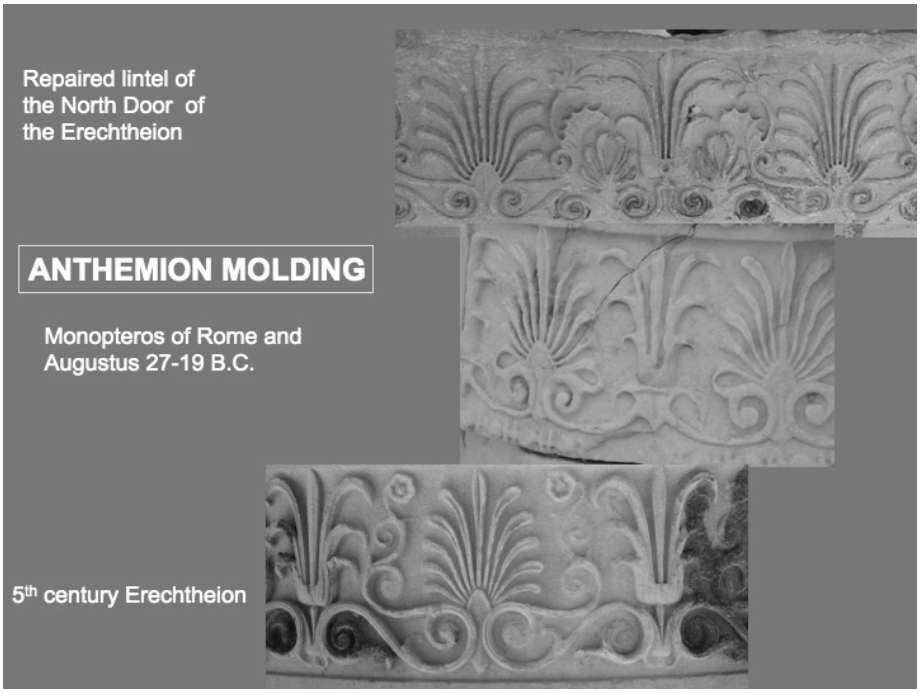

Figure 10: a moulding cut or copied in different times.
(by Alexandra Lesk 2004)[28]

In *'de Architectura'*, Vitruvius set out his guidelines for architects, to build with *'firmitas, utilitas, venustas*[29]', which are very similar to what architects still aim for. Translating 'venustas' not as aesthetics only, but as literally everything coming from the goddess Venus, this word might well imply sensory notions. Also, Vitruvius states architects should have a wide knowledge of history, to recognize e.g. the symbolism used in historic buildings (Jokilehto 1999 p.3).

'Vitruvianism' has been advocated and followed since Alberti ('*De Re Aedificatoria*' 1450) until well into the nineteenth century (Denslagen 1994 p.7). Somehow this 'science of building' has defined the approach to historic buildings for centuries, and they have been valued for their compliance with these rules.

In the 2nd century emperor Hadrian (76-138 AD) 'restored' the Pantheon, but this in fact was a rebuild. (Jokilehto 1999, Hearn 1990) According to González-Longo (2012) Hadrian used a variety of approaches to historic buildings, depending on his political incentives at a given moment; be it celebrating the past or impressing his public.

The practice of reusing spoils, causing destruction led to early 'official' protection. In the Early Middle Ages, from the 4th century onwards, spoils from older buildings, monuments

[28] from: http://erechtheion.weebly.com/major-contributions.html

[29] translation of *firmitas, utilitas, venustas*: solid/durable, functional/useful and beautiful/aesthetic.

included, were regularly used in new constructions. The Arch of Constantine (Rome, 315 AD) was in fact assembled using a collection of existing sculptures from other edifices. Halfway the 5th century, Roman emperors put a fine (in gold) on destruction of ancient monuments. The extend of the practice of reusing spoils (including updating them with the face of a present ruler), whereby old buildings were practically used as quarries, at the beginning of the 6th century led to the appointing of a 'curator statuarum[30]' and an 'architectus publicorum[31,32]. The architectus publicorum's assignment was to look after the important monuments as well as to restore all structures that could still be of use; these were restorations both for economic and monumental reasons (Jokilehto 1999).

During the Middle Ages, significance would be assigned to (ancient) monuments, but their treatment was still practical; reuse of material and practical repair. It is not likely people in the Middle Ages had no concept of history, but historic events would be related and compared to their own time, rather than as things or events happening or originating in a specific time in the past (Denslagen 2009).

Whereas traditional society closely related human existence to the universe (sacred sites, anima loci[33]), the modern world acknowledged how the new could be set off versus history, and related concepts (Jokilehto 1999). The mindset of Renaissance and Humanism discovered the educational value of heritage and also began to grasp the concept of art. During Renaissance preservation was applied to excavated Roman buildings and artefacts.

In his book '*Memories of Architecture'* (2009), Denslagen made a thorough study of sources from and about the approach to architectural history before 1800 AD. Denslagen deliberately aimed to shed light on approaches during the Middle Ages. An important issue appears to be the notion that only few people could write in those times, and most literate people belonged to the clergy, on whose behalf they would be writing.

The paradigm for architectural discourse in the 18th century was totally different from today, considering neither (sensory) experience nor (associated) significance:

[30] supervisor of statues

[31] architect for public affairs, compare 'Rijksbouwmeester' in NL, or the architecture minister.

[32] This concerns an architect named Aloisio, appointed by Theodoric the Great (493-536).

[33] The spirit of a/the place

> 'The Complete Body[34] *of 1768 can be called prototypical of a great deal of the literature on architecture. It is often about rules, orders and systems and rarely about one's emotional response to architecture. [ ] A concern with aesthetics is beyond the scope of someone who conceives of architecture as a science.'* (Denslagen 2009 p.5)

Also, the 18th century, the Age of Enlightenment, saw development of concepts and matching terminology. Alexander Baumgarten introduced aesthetics and Johann Winkelmann founded modern art history and modern archaeology, notably by making distinction between original and copy (Jokilehto 1999).

Arrhenius (2012) starts her story at this moment in time, stating the beginning of conscious and dedicated conservation occurred at the time of the French Revolution (1787-1799). However, this may be seen as the beginning of the regulation of conservation/preservation effort. Up to then, most buildings had survived through chance and pragmatism. Society changed slowly, and so too did its needs, both in functionality and fashion. Generally buildings were adjusted to new needs; as castles and fortresses would have been updated with new defence features, later windows were enlarged[35] when technically possible and desirable, windows were blocked to avoid taxes and many canal houses had their facades adjusted to fashion[36].

> *'Interventions before the eighteenth century were carried out with the scope to bring the old buildings to the present, including their functional aspects, following the fashion of each time. After that period, the importance of the material culture takes over and historic aspects prevail in the interventions.'* (González-Longo 2012, p.75)

Arrhenius (2012) describes an apparent realization of the value of history when museums were established to collect and keep torn down statues and other artefacts. Around this time (the very end of the 18th century) the conceptual understanding of keeping objects for their artistic value emerged. In the course of the French Revolution, religious buildings were confiscated[37] for military and utilitarian use. Their artwork was kept disjointed from the building, which apparently was regarded as a commodity only (Denslagen 1994, Arrhenius 2012, Plevoets and Van Cleempoel 2012).

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[34] Isaac Ware, *A Complete Body of Architecture*, 1768

[35] E.g. in the Royal Crescent in Bath the windows have been enlarged. More recently one house had its façade restored to the original window size.

[36] Amsterdam and Antwerp know many examples of medieval step gables turned into cornices.

[37] 1789: expropriation of possessions from the Crown and the Church to the Government; so the Government was forced to deal with the artwork. (Denslagen 1994 p.85)

The Age of Enlightenment[38] saw the foundation of many aspects of a modern Europe. People began searching for scientific 'proof', and acquired an understanding of original versus copy. In 1815, once the Rhineland was freed from French Occupation, the Rhineland government gained control of restoration of state owned buildings. In France national monuments were declared (Jokilehto 1999 p.18). Denslagen (1994), mainly covering conservation after 1850, gives many Western-European examples of 'restoration' back to 'historic' situations that never were.

What has been lost, of buildings, until these times? Are e.g. Notre Dame, or Salisbury, irreplaceably damaged, or were they improved to become great historic buildings to be experienced and enjoyed? What proof is there for an experience being destroyed? It could be argued many buildings are in fact saved because they were at some point restored. Decisions and judgement depend on which, or whose, values prevail.

The understanding and conceptualization of authenticity and uniqueness came with Romanticism, a movement that probably was stronger in the UK than elsewhere in Europe. In the UK it had a lasting influence on building conservation (Jokilehto 1999).

In the 18th century, in relation to religious preoccupations, the focus changed to medieval ruins and the study of Gothic in general. Towards the end of the 18th century James Wyatt restored the cathedrals of Hereford, Salisbury and Durham. Wyatt's were drastic interventions leading to recreations; eventually Wyatt became infamous for his 'overzealous remodelling'; he was heavily criticised already by his contemporaries for 'mutilating' buildings and turning them into Wyatt-designs[39] (Jokilehto 1999).

This approach to historic buildings, to repair where needed and 'improve' their designs according to contemporary fashion, had been customary since roman times (Denslagen 2009a[40]). Such restorations were focused on a good new result for a building that was historic in origin. The concept of historic value as it is know today did not exist in relation to buildings yet.

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[38] *'The period from the sixteenth to the nineteenth century marked a series of fundamental changes that founded the modern world and together with it the modern concepts of history and cultural heritage.[ ] The period was also qualified as the Age of Enlightenment due an intellectual movement of thought concerned with interrelated concepts of God, reason, nature and man.'* (Jokilehto 1999, pp.16-17)

[39] In such comments of contemporaries was an element of not appreciating the new design, and therefore renouncing it.

[40] Roman emperors were concerned with keeping historic or monumental buildings where they were, rather than as they were

Salisbury Cathedral (consecrated in 1258) had been restored in 1668 by Christopher Wren following the 1666 Great Fire of London). Wyatt's 'Gothic Revival' remodelling started in 1787 (Jokilehto 1999 p.101); note this was when the French Revolution started. Thereafter came a period of 'stylistic restoration' where saving ancient fabric was regarded minor to the style-pure end result. Denslagen (1994) states that '*the number of cases of buildings that have been 'corrected' in terms of historical style is inexhaustible.'*

Within a century, in 1860, Sir George Gilbert Scott started another restoration of Salisbury cathedral. Hardly surprising this led to discussion; notably William Morris being alarmed by Scott's work at Salisbury and sharing his concerns with John Ruskin (see next chapter).

This section has shown designation of monuments has been emotional, based on either age or emotional values. There was awareness of the value of historic material, but conservation efforts originally were totally practical. The aim of the 'conservation' or 'restoration' generally was to redesign an attractive building based on an original one. Roughly the same impression of the original would suffice. The restoration architect generally attempted to reinvent a new, in his eyes more perfect, version of a building. If an architect was involved at all; the majority of historic buildings will have survived by chance.

2.3: Ruskin was not an architect

'if the architect has no client, there is no architecture. Hence architecture attracts men readier for a compromise with the world as they find it.'[41]

Nikolaus Pevsner, 1969

'Rather simplistically, this came to be represented as 'conservative repair*', as advocated by Ruskin and Morris, vs.* 'stylistic restoration'*, which has become particularly associated with the French architect Eugène Emmanuel Viollet- le-Duc'*

Jukka Jokilehto, 1999

Until the 19th century, the assumed procedure for a damaged building would be to either repair it in a current manner, or replace it (Hearn 2003 p.281). Cause for the 'impulse of restoration' in England and France was an urgent need of treating neglected medieval buildings. In France, an Inspectorate of Historical Monuments (1830) was established, as result of appalling destruction caused by the French revolution.

'Cultural romanticism' fed a new understanding of existing buildings; they were not only from the past, but also representing history. This realisation led to the 'discovery' of restoration, preservation and conservation. Simultaneously, the appreciation for the Gothic era initiated Neo-Gothic as a new and fashionable building style (Jokilehto 1999, Hearn 2003[42]).

Evolving towards the end of the eighteenth century, and settled halfway the nineteenth century, was the opposition between two, parallel developing, schools of thought; archaeologists ('conservative repair') versus architects ('stylistic restoration') (Earl 2003 p.52).

Two men feature in every piece of writing on the history of building conservation, and some of their quotes appear in every other document about this time:

[41] This is Pevsner's explanation of why architects speaking up *'for iron and the need for a new style'* (Pugin, Scott, Burges, Kerr) are not delivering what they preach.

[42] (Hearn 2003 p.281*)'It was cultural romanticism, originator of the concept of the past not just as previous time but as history, that made the preservation of buildings as they were built a serious undertaking of advanced societies. To restore is, of course, a different impulse altogether from that of building in a revived style an important distinction in view of the nineteenth-century urge to do that as well.'*

'Restaurer un édifice, ce n'est pas l'entretenir, le reparer ou le refaire, c'est le rétablir dans un état complet qui ne peut avoir jamais existé à un moment donné'.

(Dictionnaire raisonné, s.v. 'Restauration')[43]

Eugène-Emmanuel Viollet-le-Duc, 1868

'Look the necessity full in the face, and understand it in its own terms. It is a necessity for destruction. Accept it as such, pull the building down, throw its stones into neglected corners, make ballast of them, or mortar, if you will: but do it honestly, and do not set up a lie in their place'[44]

John Ruskin, 1849

From the above quotes, their opposing approaches to dealing with historic buildings are very clear. In keeping with their academic background, Ruskin the writer would find the poetry of old buildings, whereas Viollet-le-Duc the architect would see (possibilities for future use and) inspiration for new architecture (Hearn 2003 p.60-61).[45]

At this time in France, Eugène Emmanuel Viollet-le-Duc (1814-1879), following on his succession (in 1860) of Prosper Merimée, as 'Inspecteur Général des Monuments Historiques', was responsible for the restoration of important historic sites across France. Many of these sites were in dire need of substantial repair, being robbed and left to crumble following the Revolution. Viollet-le-Duc, trained as an architect and placed in a position where he had to repair and rebuild, took a pragmatic approach. First and foremost the buildings had to be 'fixed', and Viollet-le-Duc acted similarly to those before him. Arrhenius (2012 p.62) claims Viollet-le-Duc was very aware of the result of his work: *'In Viollet-le-Duc's aim to define a rational foundation for restoration in the Dictionnaire one can note that he was aware of this ambiguity* (i.e. the complete state that never was) *and that he struggled to* incorporate it in to his theory.'[46] [47]

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[43] *'to restore an edifice', he observed in the 'Dictionnaire raisonné', 'is not to maintain it, repair or rebuild it, but to re-establish it in a complete state that may never have existed at a particular moment.'* (Hearn 2003)

[44] Arguably when you are honest about what you did, this is not a lie?

[45] Arguably Viollet-le-Duc would have considered restoration as the appropriate option to conserve a building. Here the author senses an intercultural issue on terminology. While the UK moved to 'conservation', e.g. France, Italy and the Netherlands kept practicing 'restoration', though this does not mean they were not open to Ruskin's and Morris's arguments. In the USA generally 'preservation' is used.

[46] Not too long ago, Bell, for Historic Scotland 1997/TAN8 p.3), still presented an archaeologist's comment very different from Arrhenius' and Earl's cited in the main text: *To them* (the 'restorers';

Figure 12: Notre Dame de Paris in 1851
by Henri le Secq

Figure 12: Notre Dame de Paris in 2011
showing recreated spire

Jokilehto (1999 p.141-145) calls Viollet-le-Duc a symbol of the restoration movement and classifies his work as 'stylistic restoration', meaning restoration and rebuilding in order to achieve 'stylistic unity'. Being well educated in medieval, notably gothic, architectural design theories, Viollet's incentive had been to raise buildings to architectural perfection and present them as they were intended to be upon their initial design.

Earl (2003) takes a very different stance on this issue, one that this research can very much relate to:

> *'A further note or mitigation needs to be entered in relation to Viollet-le-Duc and his British counterparts. Not only were they often averting total loss (it is easy to forget this) but, in as many cases, they were creating the very conditions – especially in relation tot the townscape settings of cathedrals and chateaux- which are now seen as an admirable norm, to be preserved in 'unspoilt' completeness. We must also avoid falling into the trap of dismissing or even destroying their architectural creations simply because they do not accord with our own view of what they should have been doing. This would merely be to repeat the restorers' error of attempting to rewrite history.'* (Earl 2003 p.57)

A similar statement was made by Hearn (1990 p.15).

Viollet-le-Duc included) *the value of the new appearance of their design was well worth the distortion of historical evidence, the loss of aesthetic integrity and the eradication of all the visual and emotional qualities that genuine (or authentic) age brings with it*.'

[47] Credits for Figure 2: Notre Dame by Gustave le Gray – shortly before restoration of the spire http://www.paris-unplugged.fr/1840-notre-dame-avant-restauration/

Though still known for his rigorous restoration approach, from his personal point of view Viollet-le-Duc cared very much for providing a finished building with an authentic experience (belonging to the time and style it was erected in). Being in charge of the 'Commission des Monuments Historiques', he was able to impose his theories on many buildings.

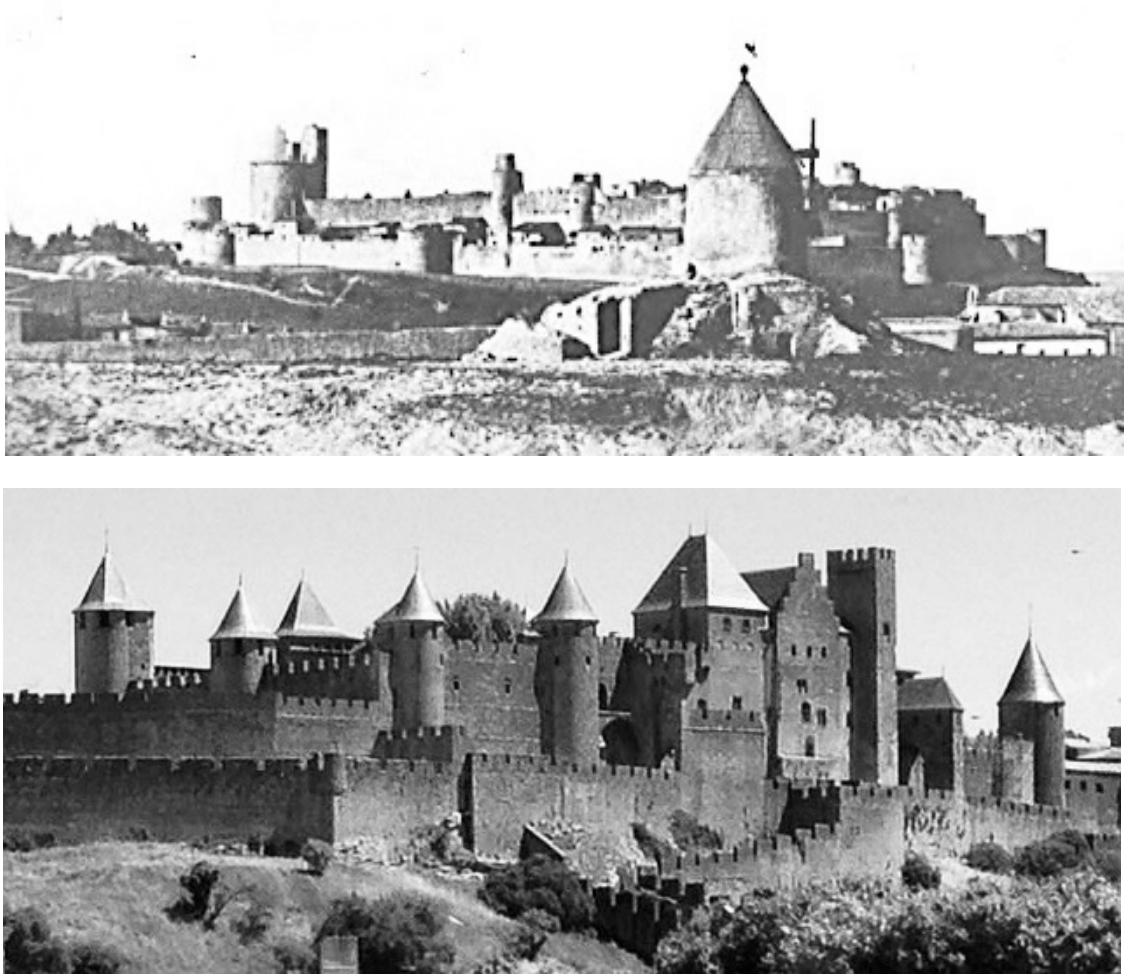

Figure 13: Carcassonne, before and after (stylistic) restoration

In the 1850's he performed restorations of many famous buildings, notably the cathedrals of Saint Denis, Vezelay and Notre Dame de Paris, the castle of Pierrefonds and the historic borough of Carcassonne (Denslagen 1994, Jokilehto 1999). The forte of this approach is proven for example in the fortifications and chateau of Pierrefonds being a major (tourist) attraction since being rebuilt by Viollet-le-Duc. From such popularity one might conclude people are attracted to this, which is not original but historically correct and authentic.

Due to the Commission's avid activity in repairing historic castles and sites, before long, there was opposition from Charles Lenormant, who advocated preservation in the existing state ('*mission conservatrice'*) specifically attacking Viollet-le-Duc's re-restoriation of Vézelay (Denslagen 1994).

Arguably (e.g. Hewison 1987, Hearn 1990) the entire Heritage movement would not have reached its current popularity and prominence without the influence of one man, John Ruskin (1819-1900), an English writer, art critic, thinker and water-colourist. So notably, John Ruskin was many things, but not an architect.

With his contemporary, the designer William Morris, Ruskin was a man of his time, the era of Romanticism. *'[Romanticism] was seen in the nostalgic wish to re-live the past as present*,' writes Jokilehto (1999, p.101). Against this background, Ruskin regarded a historic building, like a painting or a sculpture, as a work of art, a unique creation (Jokilehto 1999, p.174). Ruskin was preserving emotions and memories, focusing on the value of 'ruins', or what is there, rather than retaining a building, crafted with inherent intent of use, with options for the future.

Ruskin was the protagonist of heritage conservation, considering historic buildings as carrying just the same value as artefacts. Interestingly, when Ruskin is speaking 'against' modern or contemporary buildings, many of those same buildings will be listed today.

Ruskin knew many frustrations in his personal life, reflecting in his work in a way that Frampton (2007 p.42) called him: '*that mid-19th-century prophet of cultural doom and redemption*.' Arguably one could indeed understand Ruskin's Seven Lamps[48] as a call for a builder's or architect's very servile attitude towards the building to be created. Simultaneously Ruskin's approach to the building as an artefact, for admiration or even adoration, might have been aimed at showing the mastery of (God and) nature. Unfortunately, from an architect's point of view especially and affirmed by Cooke (2000 p.144), Ruskin got carried away in preserving fragments[49].

Ruskin was familiar with Viollet-le-Duc's work and denounced his practice. The latter however never mentioned Ruskin in his writing. Though Ruskin and Viollet-le-Duc were very different and had opposed views on the conservation of buildings, both were also, in many ways, products of their time: *'Their views about how buildings should be treated were underpinned by a view of why such buildings should be valued, particularly centered on ideas of intergenerational stewardship.'* (Pendlebury 2013)

[48] The Seven Lamps of Architecture (year): sacrifice, truth, power, beauty, life, memory, obedience

[49] *'It is worth noting that when Ruskin and William Morris founded their Society for the Protection of Ancient Buildings from such 'restoration', 40 years later, they placed great emphasis upon the value of fragments, on 'preserving bits'. Even bits which might in themselves be 'valueless', they insisted, can suffice to give 'the reverie of the wayfarer... something authentic to draw upon' (Morris, 1877)'* (Cooke 2000 p.144)

Pevsner (1969) wrote a polemic essay on the two men, concluding how they were so similar, especially in their appreciation of Gothic architecture. And González-Longo (2012) stresses it should be Ruskin and Viollet-le-Duc rather than Ruskin versus Viollet-le-Duc. Also Earl (2003) states how both men were looking for perfection, though each in his own right. Both Ruskin and Viollet-le-Duc deemed the Gothic Revival style the finest possible building style, to which every building should conform. ('Obedience' as the seventh 'Lamp'[50] of Ruskin)

France and England continued conservation, following different paths.[51] Their approach to the historic environment and historic buildings was inherently different. Though both were aiming to preserve something, two different backgrounds led to two different, equally valid, schools of thought: France considering the building as a conceptual and functional entity, opposed to England regarding the building as a nostalgic entity full of significance. In the Netherlands, in the 1980s, Viollet-le-Duc was still considered a great restorer of buildings. Ruskin had touched no buildings, therefore was not a factor or example.

Not surprising, Viollet-le-Duc's approach was definitely more architectural. Its focus was the realisation of a functioning building. Regarding an experiential approach to a building, Ruskin's stance would be that of a spectator (aware of the monumental and aesthetic qualities) and Viollet-le-Duc's that of a user (aware of the options for the person inside the building). It might be argued Ruskin has more or less invented the metaphysical 'associated' significance that will be discussed in section 2.6 of this thesis. His approach to conservation developed into immaterial Cultural Heritage, and nature conservation.

Ruskin, though modern in considering right of access to the original building for future generations (Vieira 2004), was not an architect, and regarded buildings as artefacts. From his many texts and drawings, one might conclude Ruskin in fact was a good sensory perceiver of buildings. Unfortunately when disseminating the attraction of a built structure, Ruskin would focus on emotional representations rather than the built thing itself. Cooke (2000) states the English still are like Ruskin; held back by being afraid to loose.

[50] 'Lamp' as in a category of enlightenment

[51] Ruskin had a good point, but a non-architectural approach. What to do with the buildings that still are wanted or needed for use was not an issue he considered. Understandable, since whatever is listed now was being built or yet to be built. Tourism was for the rich, and did not require (substantial) on site catering and shopping facilities.

The totally different social situation should be taken into account.

Viollet's idea of providing a real experience was as good. He however did not have virtual means. And, this thesis tries to underpin virtual and actual experience are not the same.

Reviewing 20th century conservation theories, Vieira (2004) concludes Viollet-le-Duc in fact was not a radical, but a rationalist, aiming to fully understand historic (especially Gothic) construction. Though stylistic unity of the end product was rated higher than authenticity, and focus was on the original intentions for the building, Viollet-le-Duc wrote about the importance of considering the circumstances of each case, rather than applying principles in an absolute way.

As stated in the introductory paragraph to this chapter, Ruskin and Viollet-le-Duc represent two schools of thought, 'conservative repair' and 'stylistic restoration' (Pendlebury 2013). Arguably, Viollet-le-Duc and Wyatt (and notably in the Netherlands Pierre Cuypers) saved our monuments, striving to restore their authentic experience, which they valued like their opponents valued original material, while Ruskin (and Morris, see below) presented to society the value of its heritage.

These two opposing[52] schools of thought each went their separate ways culminating in intangible heritage and technical solutions respectively. Arguably somehow the sensory experience of the physical material was left in the middle and disappeared from discourse.

[52] One approach physically excludes application of the other.

2.4: Emergence of a heritage movement

'We are custodians of the ancient buildings we have inherited.
We should not regard ourselves as free to do as we please with them.'
SPAB Manifesto, 1877

'Since the end of the eighteenth century, architecture has been exposed to historic judgements, and the present broke from the past with the subsequent loss of continuity. Conservation appeared a conscious critic operation and somehow the real nature of architecture was not understood. The archaeological value prevailed and historic buildings became artefacts that carried idealistic images of the past, documents or anecdotic scenography contributing to a larger urban context.'
Cristina González-Longo, 2012

Historic buildings are viewed, considered, protected and sometimes restricted by cognitive affinity translated into 'heritage'. The concept of heritage created attention and cognitive affinity to historic buildings in the first place and thus defines their public perception. Towards the end of the 19th century many professionals started discussing conservation and preservation of buildings. Their theories would eventually develop into our 'modern' conservational approach. Its establishment was initiated by writing up the 'Venice Charter' in 1964.

Clearly the origin of the heritage movement is related to the 'romantic' period in society. The people initially calling for protection of their 'heritage' were not architects, nor interested in historic buildings as a functional facility, rather as a representation of their nostalgic and romantic feelings.

'Stylistic restoration' was not a prerogative of the French. Ruskin and Morris were definitely also rallying against their British contemporaries, notably James Wyatt and George Gilbert Scott, restoring among others Salisbury Cathedral, Westminster Abbey and Durham Cathedral, in a manner currently referred to as 'Victorian restoration' (Denslagen 1994, Jokilehto 1999). Pendlebury (2013 p.713) notes: '*Though neither Ruskin nor Morris were solely concerned with churches – it might be more accurate to say they were concerned with architecture they saw as defining Englishness – it is for their battles over the ecclesiastical heritage that they are particularly recalled.'* However, the heritage movement was moving further away from sensory experience, to cognitively focus on emotional triggers.

Meanwhile Scott's restorations have been as powerful as Viollet-le-Duc's: the famous fan vaults in the nave of Bath Abbey were designed by Scott, replacing an ancient wooden ceiling (by Robert and William Vertue), and the Scott-restored Durham cathedral was eventually declared 'Britain's Best Building' in a 2011 'Guardian' newspaper poll.

This section reviews how a, initially British, 'Heritage Movement' surfaced, focusing on the values and significances associated with and assigned to historic items, notably historic buildings. Hereby were bypassed any complications due to the fact that historic buildings, for reasons as simple as size and quantity, cannot be shelved and for the greater part have to continue to be functional in today's and future's society. The issue of protection within these limitations asks for clear understanding of the actual fabric rather than its associated values.

Towards the end of the 19th century Ruskin's reasoning had got the upper hand in Western Europe, the part of the world where both the historical buildings and the time and interest of people to be concerned with them were present, and the need for conservation was widely acknowledged. Ruskin had a contemporary 'accomplice' in William Morris (1834-1896), designer and leading man of the England's emerging 'Arts-and-Crafts' community. Ruskin and Morris were key figures within the 'Pre-Raphaelites'[53], an artistic movement showing the typical fascination for Gothic design of the era. The Arts-and-Crafts movement promoted a 'sensitive conservation'[54]. This implied greater sensitivity in the retention of original fabric, and making overt what was new and what was old. Any changes should enhance (rather than distract from) its character.

Ruskin and Morris' publications and activities spread their influence in Britain. This inspired the establishment of the 'Society for the Protection of Ancient Buildings' (SPAB); their 1877 manifesto consisted largely of anti-restoration polemic (Earl 2003 p.157-159), stating: *'We are custodians of the ancient buildings we have inherited. We should not regard ourselves as free to do as we please with them.'* Notably this citation clearly states 'ancient' buildings; which will have been rare at the time already. Little could people understand how their own built produce today would for a large part be regarded as valuable, and mostly at least protected as part of 'conservation area'.

In 1877 Morris and fellow Pre Raphaelites established the 'Society for the Protection of Ancient Buildings' or SPAB[55]. These 'founding members are deeply concerned that well meaning architects are scraping away the historic fabric of too many buildings in their zealous 'restorations'. (SPAB) The 'founding members' all were artists. At least their contemporary architects were given the epitheton 'well meaning'. Morris' opinions, denouncing any practical function of the building, are illustrated in the following: '*in short, those only can think the*

[53] V&A museum website

[54] 'Sensitive' here does not appear concerned with the senses in a sensory way, rather with 'TLC'.

[55] spab.org.uk

`restoration' of St. Mark's[56] *possible who neither know nor care that it has now become a work of art, a monument of history, and a piece of nature.'* (William Morris, 1879[57])

Morris incorporated Ruskin's ideas when drafting his 'Manifesto' (1877) for the formation of SPAB. The Manifesto '*remains a touchstone document within the field of architectural conservation'* already professing the still current idea of *'minimum intervention'*. (Pendlebury 2013 p.713).[58] An 'Ancient Monuments Protection Act[59]' was published in 1882, its protection restricted to earthworks, burial mounds, stone circles and ruined abbeys.

Ruskin and Morris promoted the 'stewardship' of heritage (Pendlebury 2013); as Morris stated *'These old buildings do not belong to us only; […] they have belonged to our forefathers and they will belong to our descendants unless we play them false. They are not […] our property, to do as we like with. We are only trustees for those that come after us.'* (Morris 1889)

Arguably though, there are many ways to keep a building for the future, depending on the choice of its prime value. To Morris c.s. historic value was greater than any other.

Adopting the conservation theories of SPAB, the National Trust[60] was founded in 1895.[61] 'Over the last 120 years we've become one of the UK's largest charities, caring for historic properties and areas of beautiful countryside.' NT acquired its first building in 1896 and first nature reserve in1899. The first 'National Trust Act' was drafted in 1907.

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[56] Initiated by Ruskin, the proposed 'restoration' of St. Mark's basilica in Venice had become a big issue within SPAB, still promoting a 'skilful repair'. By branding a building 'work of art' 'monument of history' (i.e. a representation) and a 'piece of nature', the physical building itself is invalidated. Conservation is inherently un-natural, but nature will not maintain a building.

[57] *Letter to the Daily News,* 1 November 1879. The *Daily News* published a letter from Morris (dated 31 October) in which he deplored the proposed restoration of the west front of St Mark's, Venice. The same letter was published in the *Architect* on 8 November. (from marxist.org, accessed 24 February 2016)

[58] These days, SPAB introduce themselves on their website as follows:

'The Society for the Protection of Ancient Buildings is involved in all aspects of the survival of buildings which are old and interesting. Our principal concern is the nature of their "restoration" or "repair", because misguided work can be extremely destructive. To us the skill lies in mending them with the minimum loss of fabric and so of romance (sic!) and authenticity. Old buildings cannot be preserved by making them new.'

The autonomous SPAB Scotland was separated in 1995, to better deal with Scotland's own architectural traditions and Scots property law.

[59] http://www.legislation.gov.uk/ukpga/1882/73/pdfs/ukpga_18820073_en.pdf , accessed 7 July 2016

[60] nationaltrust.org.uk The NT website has a heading 'heritage', for a category covering historic buildings (apparently including museum collections); natural environment under separate headings.

[61] *For many years the SPAB defends the Trust from its detractors, promising that it will become successful.* (spab.org.uk) Founded 1896 according to SPAB, but 1895 to NT.

In 1931, the National Trust for Scotland for Places of Historic Interest or Natural Beauty[62] was established, having an independent constitution. A group of people named the 'Association for the Protection of Rural Scotland' (APRS[63]), led by Sir John Stirling Maxwell, inspired by the National Trust in England, but frustrated by the NT's lack of interest for Scotland, had pushed for a separate institution.

Due to widespread concern at the destruction of historic buildings and monuments, in 1908 the Royal Commission on the Ancient and Historical Monuments of Scotland[64] (RCAHMS)[65] was established to make an inventory of '*the surviving heritage from earliest times up to the year 1707*'. From 1948, this 1707 date restriction is withdrawn. Today, RCAHMS knowledge and material is publicly disseminated online.[66] In 2015, RCAHMS merged with Historic Scotland to become Historic Environment Scotland (see below).

Heritage became big, and, within the UK, a Georgian Group[67] (1937[68]) and, though Victorian architecture was ubiquitous, even a Victorian Society[69] were established. These institutions all are true 'heritage' of Ruskin's line of thought; in their founding no architects are notably figuring[70].

[62] nts.org.uk

[63] The Association for the Protection of Rural Scotland does not appear in building conservation literature, due to its focus on landscape and the environment. The APRS, formed in 1926, initiated the establishment of the National Trust for Scotland.

[64] rcahms.gov.uk

[65] After Scotland and Wales, in 1908 England established a Royal Commission on the Historical Monuments of England (RCHME) for the same documentation purposes. RCHME merged with English Heritage in 1999.

[66] Canmore (canmore.org.uk), a searchable website, and Scran (scran.ac.uk), a learning website.

[67] heritagehelp.org.uk A *'national charity dedicated to preserving Georgian buildings and gardens'.*

[68] 1936 according to SPAB, Georgian Group claims they are founded in 1937.

[69] In 1958, when Victorian buildings were ubiquitous but highly unpopular, the Victorian Society[69] '*campaigning for Victorian and Edwardian architecture*' was founded. (John Betjeman and Nikolaus Pevsner were involved at its founding stage.)

'*The Victorian Society is the charity championing Victorian and Edwardian buildings in England and Wales. Our Conservation Advisers help local planning authorities and churches to make better decisions about adapting Victorian and Edwardian buildings to the way we live now, while keeping what is special about them. We also seek to engage the public in our campaigns to help increase the likelihood of conserving buildings.'*

[70] According to information on the institution's respective websites.

Like the French Government employed Viollet-le-Duc c.s., UK, government was and is looking after its historic sites, eventually establishing English Heritage / Historic England (EH/HE)[71] and Historic Environment Scotland (HES)[72].

During the 1880's, the early years of SPAB, the governmental 'Office of Works' was responsible for (historic) architecture and building. An Act of Parliament in 1913 empowered the Office to '*make a collection of all the greatest sites and buildings that told the story of Britain.'* Notably*: 'At that stage these were regarded as being prehistoric and medieval remains - country houses and industrial sites were then not really seen as heritage.'* (english-heritage.org.uk) After the Second World War, the government decided to focus on 'older monuments', and delegate the care of country houses, generally furnished and full of works of art, to the National Trust.

In 1983, what had become the English national heritage collection, a major visitor attraction business with many sites exploiting museums and souvenir shops, was reorganised into a new body, eventually christened 'English Heritage'. *'English Heritage did two jobs: it cared for the National Heritage Collection and it ran the national system of heritage protection, including listing buildings, dealing with planning issues and giving grants.'* (english-heritage.org.uk). Due to the popularity of heritage tourism, the collection managed to make a profit, enabling to fund towards its own maintenance and conservation.

Formerly an agency within the Scottish Government, *Historic Scotland eventually was established under this name in 1991.* The 'Ancient Monuments and Archaeological Areas Act' of 1979, and the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act' of 1997 empowered Historic Scotland to appoint Scheduled Monuments and Listed Buildings.

Since 2015 Historic Scotland and the Royal Commission on the Ancient and Historic Monuments of Scotland are reorganised into one new non-departmental public body: 'Historic Environment Scotland'[73] (historic-scotland.org.uk). Both the merger into Historic Environment Scotland and the split up of English Heritage (see above) appear to be results of the growth of heritage tourism (the heritage industry as described by Hewison in 1987).

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[71] english-heritage.org.uk : '*Thanks to these successes the government agreed that it would provide £80m to English Heritage if it transferred the national heritage collection to a charitable trust. This happened on 1 April 2015 when the old* English Heritage *separated into two parts: a charity that looks after the collections, and* Historic England *that champions the nation's wider heritage, running the listing system, dealing with planning matters and giving grants.'*

[72] historic-scotland.org.uk

[73] HES is managing its 345 sites through directorates, 'Commercial and Tourism' appearing a substantial one next to 'Conservation' and 'Heritage Management'.

Naturally, Wales and Northern Ireland now have their own institutions: for Wales, the 'Royal Commission on the Ancient and Historical Monuments of Wales'[74] (1908), and 'CADW'[75] (1984) and for Northern Ireland the 'Ulster Architectural Heritage Society'[76] (1967).

Following the destruction during World Wars I and II, the need to preserve was clear, and a belated recognition surfaced that preservation of historic buildings was of international importance. Organisations (like SPAB) advocated repair and maintenance of historic buildings, but building owners still were free to treat their property as they pleased. (Wilkinson 2010 p.148)

During and through development of the above institutions, 'Heritage' as a concept became established in discourse. However heritage is not an architectural concept; it is a social concept appealing to archaeologists and the tourism industry. End 20th century, at least in the UK, the focus still was archaeological, leading to anti-restoration statements like:

> *'To them (the 'restorers') the value of the new appearance of their design was well worth the distortion of historical evidence, the loss of aesthetic integrity and the eradication of all the visual and emotional qualities that genuine (or authentic) age brings with it.*'
>
> (Bell 1997/TAN8 p.3)

The above is a clear example of (widespread) focus on the visual and the emotional, rather than the experiential. Arguably, aesthetic integrity, once sensory assessed, can be very well maintained through conservation and even restoration. This research ideally discerns original from authentic and would use original in the above quotation.

Because the use and functionality of a quantity of existing buildings was hardly a factor to be considered, and the buildings' representations evolved into 'Cultural Heritage', pretending to be material, the rationale for physical conservation became overly influenced by a wish to retain rather than revive.

Similarly, conservation of buildings was institutionalised in other countries. *'Patrimoine de France'* (in France, obviously) and the *'Rijksdienst Cultureel Erfgoed'* (in The Netherlands) monitor and protect architecture and archaeology as well as urban and rural landscape and (historic) art[77]. In the Netherlands buildings can have either national or local protected status.

[74] www.rcahmw.gov.uk

[75] www.cadw.gov.wales, Cadw is a Welsh word meaning 'to keep' or 'to protect'.

[76] www.uahs.org.uk

[77] Their respective websites are patrimoinedefrance.fr/ and cultureelerfgoed.nl/

Clearly, 'heritage' has become a big issue (in the United Kingdom), for justified intentions, like meaning, significance, historic proof etc. Still, the experience of a building that survived just because it is liked for what it is, does not appear to feature much. Heritage these days covers an enormous field of institutions and organisations, all operating with the best of intentions. However, there appears to be a schism between governing and retaining buildings.

> Waterton and Watson (2013) recently organised heritage theory into three frames, suggesting these should be complimentary rather than competing approaches:
>
> Theories *in* heritage; heritage as found and experienced; theories which are operationally relevant. These theories are applied, for direct use in operational practice. Managing, dealing with, on operational level, focusing on the recipients ('customers') experiencing the actual heritage.
>
> Theories *of* heritage: These are about the socio-cultural significances dealing with the 'heritage industry' and are totally focused on the marketing of significances.
>
> Theories *for* heritage: Dealing with the sensual, haptic, corporeal and experiential. Focusing on the '*emerging dynamics of subjective engagements with things, space and time'*. However, even this category of theories appears to primarily deal with the experience of the intangible, the representation of heritage.

Waterton and Watson (2013; above) firmly place 'affect' in the '*for* heritage' category. But in the line of thought of this research, focusing on the '*sensual, haptic, corporeal and kinaesthetic (Cromby 2007)*' the study of experience stops short once the perception takes place. People's response to a trigger is not the focus; the focus of this research is on generation of the trigger.

A conceptual argument may be distilled from this section, stating that while more and more people followed the Ruskin line-of-thought, all focus was directed towards the historic artefacts, drifting away from the notion that (historic) architecture can only really exist when it is used and experienced (rather than observed only) by people.

Concluding, the 'heritage movement' or rise in affinity to historic buildings created an enlarged emotional attachment and an urge to keep in society. Arguably this helped preserve many buildings. But arguably also this created a shift in focus away from the built material towards the evoked emotions.

2.5: Conservation philosophy and theory

'Conservation is the action taken to prevent decay and manage change dynamically. It embraces all acts that prolong the life or our cultural and natural heritage, the object being to present to those who use and look at historic buildings with wonder, the artistic and human messages that such buildings possess.'

Sir Bernard Fielden, 1982

'An extensive review of scholarly literature on adaptive reuse from 1970's onwards, shows that its body of theory is largely based on case study research and not, as one would expect, on architectural theory and/or conservation history. Several 19th and 20th century theorists on conservation and architecture have discussed adaptive reuse, but their ideas have hardly ever been discussed by contemporary theorists working on this topic.'

Bie Plevoets and Koenraad van Cleempoel, 2012

Incorporating sensory perception and experience in the assessment of historic buildings is the contribution of this thesis, being a contribution to the body of studies concerning the historic built environment. Building conservation is studied both from outside and from within practice around a variety of topics.

Plevoets and Van Cleempoel (2012), above, state contemporary conservation theory hardly refers back to theories from the past century. This is interesting, and to be expected. So practice sticks with technical challenges and cultural heritage with significance rather than dealing with the physical. Architectural theory deals with buildings that are, and more recently with sensory experience (see next chapter). Conservation history has been reviewed by Denslagen and Jokilehto, in a reflective way. Yet conservation practice is probably seeking for solutions rather than discourse.

The conservation theory literature is written by architects as well as non-architects; clearly architects write from practice and suit their theories to what is viable. Previously this thesis set out a division in approach between *stylistic restoration* and *conservative repair*. Ruskin c.s. had promoted restoration should be less comprehensive and less destructive.

Camillo Boito both admired the ingenious work of restoration architects like Viollet-le-Duc, and understood the concerns of conservationists like Ruskin and Morris. He however could not understand Ruskin's passive stance towards a monument's fate and was looking for a third way, inbetween. (Špikić 2010) While actively restoring buildings, during an Italian architects- and engineers conference, Boito prompted to drawing a charter on restoration, in six points. Špikić (2010) states this *'Prima Carta del Restauro'* (1883) or the Charter of Restoration, like

the Morris' SPAB Manifesto earlier (1877) brought about public recognition for Boito's theories.

A later publication of Boito, '*Questioni pratiche di belle arti, restauri, concorsi, legislazione, professione, insegnamento*' (1893), states practical guidelines on restoration/conservation of historic buildings. Again, Boito proposes to have treatment depend on the status of the building on hand. Antique monuments are to receive archaeological conservative treatment, medieval monuments to be considered for a 'picturesque' restoration and newer monuments to be subject to architectural conservation[78]. (Plevoets and Van Cleempoel 2012)

Notably Boito proposed *'the scientific conservation and the principles of the minimum interventions and the distinguishability of the additions'* a scientific conservation, including minimum intervention as well as differentiation and distinguishability of new additions (González-Longo 2012 p.70, Jokilehto 1999 p.208).

Boito did not actually mention reuse of buildings in his writings (Plevoets and Van Cleempoel 2012). This may not be surprising in the realisation that the majority of buildings now considered for reuse did not exist or were at best being built in Boito's time. Adaptive reuse was not a substantial issue. Boito's ideas would be at the basis of the Athens Charter of 1931.

Gustavo Giovannoni, author of a '*Carta del Restauro'* (1936) is *'credited with inventing the term* urban heritage *and the concept of* living conservation*.'* (Rodwell 2008, González-Longo 2012). Giovannoni's theories apply to the field of urban conservation. Rather than assimilation or amalgamation of new additions, Giovannoni suggested to work with qualities and opportunities of old and new both, to suit the situation given; neutral elements only should be added to complete existing fragments (González-Longo 2012, p.70).

Trained in practice, eventually leading to writing his comprehensive '*Conservation of Historic Buildings'* in 1982, Sir Bernard Fielden was the current building conservation authority in the English speaking world (Jokilehto 1999 p.241). In the quote above, Fielden aims to present '*artistic and human messages'*; these sound like pure 'museum' qualities. Arguably though, this quote might be interpreted to originate in a (subconscious) recognition of sensory experience. He discerns three groups of values: Emotional, Cultural and Use values. Aesthetic and architectural values are grouped under cultural value. Physical experiential value does not feature as an option. Fielden first and foremost was a practitioner, and a description of

[78]Plevoets and Van Cleempoel state 'architectural restoration'; the author suggests 'restoration' has a different meaning in other European languages, which may be closer to the English 'conservation'. Mainland Europe approach to conservation/restoration appears to slightly differ from the British approach.

conservation could hardly be more straightforward than: *'Conservation must preserve and if possible enhance the messages and values of cultural property.'* (Fielden 2003).

In relation to sensory experience, the following remark is striking: *'... the causes of its decay. In this way, it is rather like the practice of medicine.'* (Feilden 2003, p. viii) This suggests analogue reasoning in the field of joint replacement, skin grafts and 'total body makeover', as well as clarifying the impact of such surgical operations on a person.

Discourse and philosophy on conservation came from art historians; *'In our own country the task of the apologist is particularly difficult, for it is generally looked upon as sentimentality or weakness tot put the interests of preservation higher than some utilitarian consideration of the moment and it is held in some quarters as an article of faith that any practical demand may claim priority over the ideal plea of the lover of monuments or of nature'*, Gerard Baldwin Brown wrote in *'The Care of Ancient Monuments'* (1905). Naturally, use-value (not sensory) cannot prevail always. Baldwin Brown clearly states 'monuments', which assumedly at the time applied to a limited quantity of buildings. Reviewing century old texts, it should be taken into account that a bulk of currently listed buildings was being built while e.g. Baldwin Brown was writing, and his ideas do not necessarily apply to such buildings.

A 1903 text of Alois Riegl [79] acquired impact outside of Austria from 1982 only, when his work got translated into English (Plevoets and Van Cleempoel 2012). Riegl described how differences in opinions on conservation and reuse originate from people's differing values. He explained how Ruskin's and Morris' 'age-value' could apply only to buildings that no longer have 'use-value'. Neither Riegl promoted stylistic restorations, but acknowledged how reuse is an obvious approach to contemporary conservation. (More on Riegl's theories is following in the next section.)

Another art historian-theorist was Cesare Brandi, who wrote his '*Teoria del Restauro*' in 1963, first partially translated in English in 1996 only. Brandi's definition of restoration translates: *'Restoration is the methodological moment in which the work of art is appreciated in its material form and in its historical and aesthetic duality, with a view to transmitting it to the future.'* [80] It must be noted Brandi was discussing 'traditional' works of art.

Brandi reasoned there is a moment when someone recognises something 'to be art'. Also, '*he did recognize that it was necessary to have relative approaches to restoration depending on*

[79] Aloïs Riegl 1903 - *'Der Moderne Denkmalkultus: Sein Wesen und seine Entstehung.'*

[80] Translation from Italian, retrieved 17 July 2016 from:
http://isites.harvard.edu/fs/docs/icb.topic822683.files/Brandi_Theory of Restoration I_sm.pdf

whether the work was "industrial" or conceived of as "art."' (Matero 2007), implying this should be decided upon to be able to approach the work (i.e. building).

A similar statement is found in Scott (2008): *'There is no neutral ground. Work to existing buildings is of two types: either restorative or interventional.'*

Naturally, the focus in heritage discourse is changing over time. Recently Arrhenius' *'The Fragile Monument'* presents *'how discourses of saving and protecting have transformed the monument from an object that originally* communicated permanence to one that is perceived as fragile and in need of protection.' (backflap of Arrhenius 2012)

Also, passing of time adds more buildings to be considered for conservation, where the conservation of Modern architecture (i.e. built in modernist 'language' and the limited techniques of the time) typically presents many new issues (Kindred in Macdonald, Normandin and Kindred 2007).

Plevoets and Van Cleempoel (2012) bring up the modernist advice on planning for historic cities of the 'Congrès Internationaux d'Architecture Moderne' (CIAM), which states:

> *'An aesthetic adaptation of new parts of the city to the historic area has a catastrophic effect on the development of a city and is in no way to be desired.'*
>
> *'By demolition of slum dwellings surrounding the historic monuments, green areas can be created, which improve the hygienic conditions in those areas.'*
>
> (fourth CIAM congress, 1933)

Highly likely current 'Poundbury'-type developments to CIAM would appear backward. Interestingly, both schools of thought claim to want the best for the people/inhabitants; CIAM thought modernism was the way forward to a physically healthy life, New Urbanism, dealing with a health-wise totally different population, arguably is looking for a mentally more healthy life, to feed physical health.

The second statement advocates destroying the historic set-up and situation (sense of place) of monuments, which, though for fair reason, does experiential damage. The monument is truly presented as a singular and 'out-standing' work of art.

Clearly there is not one way to approach all building conservation, and decisions should be adapted to suit the material still present. When starting any building conservation consideration all and everyone's values should be categorised, next prioritized. This research considers this another indication of the potential use of a robust sensory assessment of the building to undergo conservation.

2.6: Association of significance, the focus of cultural heritage

'Architecture's significance is not based on itself, but assigned externally'
Rumiko Handa, 1999

'The establishment of value, however 'value' is defined, is central to the act of conservation; societies only attempt to conserve the things they value.
In addition, the very act of conservation gives a building, object or environment cultural economic, political and social value.'
John Pendlebury, 2009

'Whether intangible or tangible, heritage acquires symbolic significance that stems from its architectural, memorial, or contemporary importance and reflects its 'aesthetic, historic, scientific, social or spiritual value for past, present or future generations.'
Luna Khirfan, 2010

In the course of this research, specifically through reviewing the literature regarding historic buildings and cultural heritage, a range of significances[81] surfaced, which are regarded as inherent properties of historic buildings. These are however intangible, and not required to experience, assess and appreciate a physical building when deciding on its technical conservation process. Since this research focuses on people's sensory response to their physical environment, it collectively bracketed these out and baptized them '**associated significances**' in the process. Associated, because even when these significances are inherent to a building, they only 'appear' once acknowledged by people or society (Handa 1999, quoted above).

However, some of these significances are key to heritage, and contribute in providing the setting and background for sensory experiences. As such they may appear in the study data also, not least because some respondents will be familiar with them. As opposed to those sensory experiences[82], these associated significances depend on cognitive processing. Arguably, a building can undergo a conservation process without negatively affecting these values. Some may well benefit from conservation. The research focuses on experiences as they occur, regardless of their value or appreciation.

[81] *'Significance is a collective term for the sum of all the heritage values attached to a place'*; Historic England.

[82] Sensory perceptions, or triggers that are recorded by human senses, will be discussed in Chapter 3.

Also, the research will investigate where individual types of significance originate, rather than concerning itself with the values of such significance. Values eventually are subjective to a beneficiary, where significance should be a general quality.

Many buildings, especially larger, monumental ones, were built to represent values and significance of, or related to, the client. They are now subject to legislation and protection, which is based on similar values. The physical building serves as a carrier for these significances. It must be acknowledged that a building and its significance are separate things. Building conservation implies dealing with the physical building. This can be successful only when a building is acknowledged for being not 'just' an artefact, not something to label, shelve and store, but a combination of design, construction and facility. When preserving just the artefact, only a part of the architecture will be preserved.

Mason (2002) reviews values in conservation planning from an anthropological perspective, *'as opposed to the normative, art historical view common in the conservation field, which a priori privileges artistic and historical values over others.'*

> *'Values in heritage conservation have traditionally been treated in one of two ways: (1) one kind of value predominates and blots out consideration of others; or (2) values are treated as a black box, with all aspects of heritage value collapsed into "significance".'* (Mason 2002)

In many sources for this literature review 'significance' indeed features as a vague definition of something that cannot be grasped, physically nor figuratively. 'Cultural heritage' discourse, bearing substantial influence in the tourism industry, is teaching the public to value buildings by these same 'associated' significances.

This section aims to review some major significances[83] associated to historic buildings, or rather, to heritage, throughout the current discourse.[84] It will show how people do acknowledge their affinity with specific buildings, and how this affinity appears to be explained intellectually rather than physically. Because arguably not the physical building as experienced, but the way this is explained, leads to a particular approach.

[83] An impression surfaces that 'significances' (and the word 'significance') feature largely in the cultural heritage discourse. Particularly through the '*International Journal of Heritage Studies'*, which has many Australian contributors. Also, many IJHS papers consider intangible heritage, where arguably 'values' may be harder to apply to than 'significances'.

[84] The theoretical, archaeological approach to heritage is currently being framed, to facilitate discussion: *'the prevalence of an uncritical, common-sense understanding of what heritage entails.'* Smith refers to this as the Authorised Heritage Discourse (AHD) which, she argues, promotes a consensus approach to history, smoothing over conflict and social difference. (Waterton, Smith and Campbell 2006)

An interesting suggestion (Scott 2008) is that potentially labeling a building as significant and/or possessing certain values, in itself increases the perceptions of this particular significance.

The philosopher Aloïs Riegl[85] considered various values applying to historic buildings, in his text '*Der moderne Denkmalkultus: Sein Wesen und seine Entstehung' (1903).* The following will be explained in this section: Age value, Historical value and Use value. Two more 'associated significances' are major factors in the discourse, having had an ICOMOS conference discussing their properties: Spirit of Place, or more 'famously' *'Genius Loci'*, first described by Christian Norbert Schultz (1991) and Authenticity, an inherent factor of conservation decisions.

Fielden classifies values under three headings: Emotional, Cultural and Use values. Once analysed and prioritized, these together are to define the significance of a building. *'Cultural values include aesthetic, art historical, documentary, archaeological, architectural, technological, scientific, landscape and urbanological (values).'* (1982, ed.2003)

Next, Feilden, who was a conservation architect-practitioner, states: 'Academics are not trained to compromise, whereas professionals who work in the context of achieving acceptable solutions are more used to compromising on non-essentials.' (2003 p.viii).

In their *'Conservation Principles'*[86], Historic England (2015) present the values of historic places, divided into four groups:

> 'Evidential value*: the potential of a place to yield evidence about past human activity.*
>
> Historical value*: the ways in which past people, events and aspects of life can be connected through a place to the present - it tends to be illustrative or associative.*
>
> Aesthetic value*: the ways in which people draw sensory and intellectual stimulation from a place.*
>
> Communal value*: the meanings of a place for the people who relate to it, or for whom it features in their collective experience or memory.'*

[85] From Aloïs RIEGL, *Gesammelte Aufsätze* (Augsberg, Vienna: Dr. Benno Filser Verlag GmbH, 1928) 144-93; originally published as *Der moderne Denkmalkultus: Sein Wesen und seine Entstehung* (Vienna: W. Braumuller, 1903) translated by Karin Bruckner with Karen Williams
The modern cult of monuments: Its essence and its development– Alois Riegl at isites.harvard.edu>icb.topic822683.files acc 030316

[86] https://historicengland.org.uk/advice/constructive-conservation/conservation-principles/
This is a 2016 update from the previous English Heritage 'conservation *principles': 'Significance is the sum of all heritage values attached.'*

And state*: 'Significance is a collective term for the sum of all the heritage values attached to a place',* that this significance is to be assessed through research, and that understanding it is vital. In the above values, sensory experience in itself appears not to be a factor. These values are directly connected to (intellectual) interpretation rather than experience. Even *'drawing sensory stimulation'* implies action in the brain of a person, rather than on the surface of a building.

Allegedly the 'associated significances' are until now defining the intention (meaning) of historic buildings to the public. This thesis claims awareness of sensory experience is a scientific concept to understand the generators of significance, in extension (what elements), which can then be explained by theorists and used by practising conservation architects

Mason (2002) reminds that significance is not fixed. Just as the building 'changes over time', while society changes over time, so changes the building's significance to society or to people.

Somehow, both 'Sense of Place' or 'Spirit of Place' and, apparently in a parallel appearance, 'Sense of Time' or 'Spirit of Time' are used, while not obviously meaning one thing and not the other.

Time

Before 'time' became a factor in the discourse, Riegl discussed 'Age value'[87], stating ageing is caused by 'nature', and nature should be left undisturbed. To optimize this age value, any interference must be avoided. Such *'cult of age value'* totally opposes any kind of conservation. Though decay initially provokes stronger triggers from the material that is still there, at some point nothing will be left at all. Riegl states that age value addresses everyone's emotions directly, unlike historic value, which needs a perceiver capable of intellectual reflection.

> *'Modern man at the beginning of the twentieth century particularly enjoys the perception of the purely natural cycle of growth and decay. Thus every work of man is perceived as a natural organism in whose development man may not interfere; the organism should live its life out freely, and man may, at most, prevent its premature demise. Thus modern man recognizes part of his own life in a monument and any interference with it disturbs him just as much as an intervention upon his own organism[88].'* (Riegl 1903)

[87] From section *§2. The relationship of Commemorative values to the cult of monuments*

[88] This would explain some hefty discourse.

Similar thinking is found in Fielden (2003) when he relates building conservation to surgical and medical treatment on people. Continuing this line of thought towards this thesis, when one can undergo substantial treatment without becoming a (essentially) different person, a building could undergo substantial conservation treatment without becoming a different building.

Time is inherently part of historic fabric, and in this respect temporality may be regarded as a component of 'sense of place' (e.g. Kim 2011). However, alternatively the 'spirit of time' of the entity might be separately considered, not being the sum of historic fabric only. Clearly contemporary western society does not normally choose to leave buildings to time to eventually cease to exist.

Also, recently Sense of Time, as a realisation of passing time, is discussed in a frame of historic layering, or 'palimpsest' recognizable in a building or site (Portugali 2006, Khirfan 2010). Such literature acknowledging this palimpsest as fascinating and interesting (and valuable) implies 'updating' with yet another layer is a normal course of action. This research wishes to point out acknowledging of palimpsest does not suggest obvious 'patchiness' of conserved buildings is needed.

Domer (2009) discusses Time in building preservation, and the need to acknowledge historic layering in a building: 'Freezing (buildings and landscapes) into a single time period misrepresents the basis of their history, which is adaptation and change over time.'

The understanding of the factor of Time, a direct interpretation of physical signs, should not be mixed up with purely psychological nostalgia. This is easily understood from Meades' words: '*Nostalgia is a basic human sentiment. It literally means merely the yearning for a long-lost place we once knew*.' (Meades 2012 pp.20-21) Nostalgia can be triggered by buildings, but originates in a subjective recognition of something from one's past, and is neither specific to the actual building on hand, nor to an objective factor.

Historical Value

Riegl states that '*the cult of historical value must aim for the best possible preservation of a monument in its present state*.' Preservation and even restoration of the work of art in a complete state, as a document of history prevail over 'signs of time'. Decay affects the historical value. Intellectual reflection and art-historical knowledge are needed for classification and interpretation (Riegl 1903).

Riegl discerns a 'Deliberate Commemorative Value', aimed at keeping a monument alive, and away from becoming history (present-day value). This is opposed to age-value, but Riegl

acknowledges that in practice the relative amount of deliberate commemorative monuments is too small to create issues.

Arguably in a case of a built structures being designed and built as a representation of something, the Age-, Historic-, and Commemorative values have to be balanced according to needs. Riegl's statement to return to an original state becomes a complicated assignment once a building has acquired a layered history of development. Even when the ideas and intentions of the original architect or architects are known, it is not sure these were actually achieved in the finished building.

Interest in purely historic value has since changed into a demand for 'heritage' value. Heritage values are strongly and economically related to the tourism 'industry', defined by economic values as well. Tourism value is not part of this thesis.

Heritage value

Historic buildings can be argued to embody 'heritage values'; intertwined with people's conception of 'history' (Jokilehto 1999 p.295). However, relating to Mason's introductory quote at the start of this section, heritage value is not the same as historic value. It is not related to physical affinity to fabric. Nostalgia, not a factor in historic value, can be an important value of heritage. Still, on a heritage site, people's connection with history will be triggered through physical presence of fabric. Khirfan (2010) above clearly states *'heritage acquires symbolic significance'*. Heritage values can be a driver for economic activity. Most literature on associated significances deals with 'built heritage' in its widest sense of understanding but will similarly apply to singular buildings.

Heritage is inherently current, implied Pendlebury (2009) when stating *'when we refer to the heritage we are talking about the contemporary use of the past.'* And, he states: '*heritage is essentially a cultural practice and social process*', referring to Smith (2006) arguing '*there is no such thing as material heritage.'*

Use Value

In paragraph '§3 *The relationship between present-day values and the cult of monuments',* a text coming down to whether an old building today performs as well as a new building, Riegl describes Use Value.

'Who would want to view the dome of St. Peter's in Rome, for instance, without the lively entourage of modern[89] *visitors or religious ritual practices?*' Possibly the most interesting thought about this quote, is the fact that Riegl can write about St. Peter's dome and the reference is still relevant today (113 year later). The people have changed and the actual experience therefore gradually also, but the experiential qualities of the building have not. Only when use value is gone, can age value be fully enjoyed. '*This view of youth being undoubtedly preferable to age has become so deeply rooted over the past millennium that it will be impossible to eradicate in a couple of decades.'* Interestingly, Riegl describes a 'Newness value', which the people in his time (late 19th century) valued over age value, since they were not educated to appreciate the latter. Clearly Riegl could not predict the result of heritage tourism and he might well be surprised when entering e.g. one of today's shops, selling artificially decayed furniture or similar clothes. In his paragraph on this Newness value[90], Riegl effectively declares that 'stylistic restoration' has been what people at the time appreciated and expected to be carried out.

Graham (1997) states that functionality is intrinsic to buildings and utility or usefulness is exactly what discerns architecture from other arts. Cooke (2000) extends to *'economic reuse',* implying 'updates' to the latest technical options and changing social needs; she states that historically this was the pragmatic approach, but currently there is a 'moral' side of 'sustainability' involved.

Spirit of place (Genius Loci)

Probably the most well know quality attributed to (historic) buildings is how they give a person a 'sense of place', or even express a 'spirit of place'. Within cultural heritage, this 'place' appears to imply somewhere that gives a sense of belonging, of familiarity, and recognition of being part of a heritage, not necessarily a sense of physical comfort (or discomfort) (e.g. Fladmark, Mulvagh and Evans 1991, Portugali 2006). Though 'sense of place' is presented as a cognitive quality, physical triggers will evoke it.

[89] note: modern is no longer the applicable word, Riegl used it all the time.

[90] Riegl: *'all of preservation of the nineteenth century was based essentially on this traditional point of view, or, to be more precise, on an intimate fusion of newness value and historical value: any striking trace of natural decay was to be removed, any loss of fragment was to be repaired, the work was to be restored to a complete, unified whole.'*
And further on: '*It is therefore correct to say that monument preservation of the nineteenth century was based essentially on the postulates of stylistic originality (historical value) and stylistic unity (newness value).'*

Christian Norberg-Schulz wrote his book *'Genius Loci, towards a Phenomenology of Architecture'* (1991, first ed. 1979) apparently directly connecting Spirit of Place to phenomenology; phenomenology in fact interprets sensory experiences. However, when 'Spirit of Place' is discussed in literature, it remains very unsubstantial and intangible. But arguably the sensory experience of a place (or a building) has to be there to conjure a 'spirit'.

Sense of place has become a well-studied topic, within cultural heritage especially. Both 'spirit' and 'sense' of place are used while not obviously referring to different notions; the 'spirit' approach may be slightly more abstract and metaphysical. Compared to 'spirit', the 'Sense of Place' literature may be providing a more practical approach (e.g. Greffe 2004, Waterton 2005, Chen and Kaly 2008, Khirfan 2010, Laing and Scott 2011).

Though its value is predominantly social, studies of sense of place reveal a lot about people's experience of a place, and their feelings of comfort. The ICOMOS conference in Quebec (2008) dealt specifically with the Spirit of Place.

Reviewing Historic England's set of values (see p.69) one might feel all of these apply to 'sense of place', though this is not mentioned.

Norberg-Schulz states to consciously be pursuing a new approach to architecture:

> *'This book constitutes a contribution to our understanding of modernism, and is written in the spirit of a new tradition, which is something that I feel bears pointing out, since the qualitative approach is often rejected as something smacking of romanticism and nationalism. Instead, the qualitative is what we all share, regardless of where we live, and the art of the place is what brings us closer to the qualitative.'* (Norberg-Schulz 2000, p.17)

Spirit of place is the subject of the 'Québec declaration on the preservation of the spirit of place' (ICOMOS 2008) [91], stating:

> *'Spirit of place is defined as the tangible (buildings, sites, landscapes, routes, objects) and the intangible elements (memories, narratives, written documents, rituals, festivals, traditional knowledge, values, textures, colors, odors, etc.), that is to say the physical and the spiritual elements that give meaning, value, emotion and mystery to place.'*

Spirit of place is generated by a combination of tangible and intangible elements; these may be equally important. The spirit can be a different one to different (groups of) people (point 3 in

[91] see appendix 4

the Québec declaration); if this is the case, spirit of place must apply to the intangible parts; there can only be one physical reality, which may be differently perceived. The assessment of a building's 'spirit of place' may well be assisted by sensory experience.

In the Quebec declaration, no examples of spirit of place are given, nor examples of what should be preserved in this regard. A combination of the spirits of place and time, might be preserved once is known what people respond to. If indeed *'the spirit of place is a continuously reconstructed process'* depending on the emotional perception of the people it belongs to (point 3 in the Québec declaration), many conservation actions will not have a great impact on the spirit of place of a building.

Primitive societies were aiming to preserve the so-called 'anima-loci'; they believed a place to be inhabited by a living spirit (Jokileho 1999). This animist belief is very different, probably the opposite from experiential sensory perception. However, animists will have been responding to similar sensory triggers as today's people.

An existing building site can be assessed just like any building site for the sense of place that is present. Khirfan (2010), giving 'soul' and 'spatial spirit' as synonyms for sense of place, found that symbolic significances of urban settings can be reinterpreted to suit new times and new uses, while the spirit of place remains constant.

In her text '*Genius loci: hidden truth or hidden agenda?*' Moore (2003, in Smith 2012) advocates not to try and find too much hidden meaning behind the object in front of us. She strongly suggests moving beyond genius loci[92] and focus on what landscape (or building) there actually is; '*meaning is not embodied in the landscape*.' More so, *'(relying on the genius loci) contributes to the continuing disassociation of practice from theory.*' (Moore 2003 in Smith 2012 p.387). Here Moore's statement is analogue to this thesis: 'meaning' is a separate 'cloud' (around a building or) above a landscape and not what (building) conservation practice can physically deal with (see also chapter 1, Figure 6: historic significance is an immaterial cloud around an actual building)

Naturally, through literature, many more values are being associated to historic buildings. Some are very obvious, others are not as much in interplay with sensory responses as the ones described above.

[92] *'Dispensing with the concept of the genius loci gives us the opportunity to clarify many aspects of the design process in a sensible, intelligent way. The significance of why things look like they do can be made explicit. The manner in which ideas have been followed through form the inspiration, concept and principles to design detail can be explained in pictures and in words, spatially and conceptually. The process can be systematic, methodical and have a clear educational rationale without losing the poetry or artistry of good design.'* Moore 2003 (in Smith 2012, p.394)

Authenticity

> *'Authenticity was neither an exclusive criterion nor even a keyword in the rise of the historic preservation movement before the heated controversies over 'Heritage' beginning in the late 1960s.'* (Starn 2002).

Pendlebury et al. (2009) state that a World Heritage Site will only be assigned as such when, among other requirements, they meet the test of Authenticity, but Scott (2015) explains how authenticity is a property (of material) rather than a value in itself, and the result of a 'test of authenticity' would depend on what authenticity the performer is looking for. The World Heritage List evaluates authenticity based on design, material, workmanship and setting (Scott 2015). Scott proposes to regard three different approaches to authenticity within conservation, namely conceptual authenticity, historical/aesthetical authenticity and material authenticity. These each have their own rationale in different contexts. When choosing one of these to be most important to a specific conservation, concessions towards the other two may have to be made, to end with a consistent, and authentic, physical result. (Arguably rightly, Scott states this will be a simpler solution than using UNESCO 'Guidelines'[93] (2005) proposing 17 different areas.)

Ample literature exists on authenticity (e.g. Muñoz-Vinaz 2005, Pendlebury, Short and While 2009, Wells 2010, Kidd 2011, Araoz 2013). Nocera (2004) presents an evaluation grid based on the Nara Document, and d'Anjou (2009/2011) discusses authenticity and design ethics relating to a sense of atmosphere or ambience.

Authenticity is not the same as originality; an authentic restoration is possible according to an original design, without any surviving original material. Unfortunately, people appear to confuse worn and tattered with authentic. This however implies no more than disregard for necessary upkeep of a building.

Reviewing the '*Nara document on authenticity'* [94](ICOMOS 1994, Nara, Japan), under '11'[95] is stated there are no fixed criteria for values and authenticity; since these are culturally defined, these should be judged within the context that they belong to. According to Araoz

[93] UNESCO 2005. Operational Guidelines for the Implementation of the World Heritage Convention. Brussels: UNESCO World Heritage Centre, paragraph 82.

[94] THE NARA DOCUMENT ON AUTHENTICITY (1994) Nara, Japan; see appendix.

[95] ***11.*** *All judgments about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgments of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.* (ICOMOS 1994 *'Nara'*)

(2013), the Nara Document here directly challenges the common European approach to heritage authenticity, by stating authenticity is depending on cultural context, and encouraging a change towards intangible cultural context.

At '13'[96] is stated a list of sources of information to judge authenticity: *'form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling'*; arguably 'spirit and feeling' may be related to experience. The text does not provide a comprehensive list of sensory experiences; yet, it might be argued all sensory and multisensory perceptions should be stated here. Acknowledgement of sensory experience of historic buildings as such will assist in defining values and authenticity according to the Nara document.

In the wake of war crime threats, authenticity (related to Sense of Place and Historic Significance) has become an extremely current topic[97], when discussing the impact of (deliberate) destruction. Sensory qualities, since physical, not cognitive, might be reinstated during repair, though currently it is not likely they have been assessed before the destruction.

Regarding practice, Spenneman states that *'heritage managers assess the values projected by the public onto cultural heritage places (and artefacts) against predetermined criteria to determine their significance.*' (2007 p.862), and suggests to gradually transform historic preservation managers into forward looking future neutral thinkers, rather than conservative future avoiders.

This section was restricted to those (associated) significances that are relevant to the architectural experience. Cultural significance appears to refer to socio-historic situations (cognitive-emotional), rather than dealing with the affinity from a physical person to the building (experiential). Though not necessarily related to sensory experience, cultural significances can only be assigned after first being recorded through sensory experience. Sense or spirit of place especially, arguably owes more to sensory perception and experience than to the exact state wherein a historic building is conserved.

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[96] ***13.*** *Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgments may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.*' (ICOMOS 1994 *'Nara'*)

[97] For example the work of art historian dr lieutnant Joris Kila on location e.g. in Palmyra, Syria.

Sensory experience can define what entail the triggers creating the historic significance. Rather than weighing and accommodating an extensive list of values, retaining the experience (rather than the original material per se) is exactly what can retain the (associated) significance.

2.7: International and national protection

Founded in 1945, after two World Wars, as an 'intellectual' agency to the United Nations, the United Nations Educational, Scientific, Cultural and Organization (UNESCO) is advised on World Heritage by three international bodies: the International Union for Conservation of Nature (IUCN)[98], the International Council on Monuments and Sites (ICOMOS)[99] and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)[100].

IUCN, advising on the technical state of heritage, was set up first, to be followed by ICCROM, advising how to repair, and lastly ICOMOS (1965) to propose, govern and manage World Heritage. Consensus about conservation approach has been stated in various charters. These are advisory texts, on which legislation on listed buildings in various countries will be based.

In 1931, the '*Athens Charter for the Restoration of Historic Monuments*', adopted at the First International Congress of Architects and Technicians of Historic Monuments, was an initial declaration of the need for restoration and protection. Its review, the Venice Charter (1964), formed the founding document of ICOMOS. The Australia ICOMOS Burra Charter (1979, revised 1999) provides a process for dealing with built heritage. Initial step in this process is the 'assessment of significance' of a historic building. The illustrated version of the charter comes with samples of 'good practice': '*These guidelines (...) recommend a methodical procedure for assessing the cultural significance of a place, for preparing a statement of cultural significance and for making such information publicly available*.'[101]

Recently ICOMOS produced its 11th Charter in Quebec, the *'Ename Charter for the Interpretation and Presentation of Cultural Heritage Sites'* (2008). Among others it also recognizes that *'the interpretation of cultural heritage sites can be contentious and should acknowledge conflicting perspectives.'*[102]

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[98] IUCN is an international, non-governmental organization that provides the World Heritage Committee with technical evaluations of natural heritage properties and, through its worldwide network of specialists, reports on the state of conservation of listed properties. With more than 1000 members, IUCN was established in 1948 and is located in Gland, Switzerland.

[99] ICOMOS provides the World Heritage Committee with evaluations of cultural and mixed properties proposed for inscription on the World Heritage List. It is an international, non-governmental organization founded in 1965, with an international secretariat in Paris.

[100] ICCROM is an intergovernmental body which provides expert advice on how to conserve listed properties, as well as training in restoration techniques. ICCROM was set up in 1956 and is located in Rome. [All information from whc.unesco.org/]

[101] Guidelines to the Burra Charter: Cultural Significance

[102] www.enamecharter.org

Obviously, world heritage makes only the smallest portion of a country's stock of historic buildings. Countries tend to have their own institutions, referring to ICOMOS documents in their procedures and legislation.[103]

All charters are dealing with conservation and protection, and architects have been involved in defining the texts. They speak of the actual fabric, of the immaterial experience, yet hardly discuss the experience constituted by this material heritage. Roughly, the incentive of the ICOMOS charters is international protection of sites, advertising their proper assessment, mentioning authenticity, but never on a detailed level nor giving examples of good assessment.

There is a distinct element of quality control, noticeable for example in the fact that World Heritage can only be designated as such when possessing 'Outstanding Universal Value'. (Jokilehto 1999, Cameron 2009), or the demand from English Heritage, Historic Scotland and the Heritage Lottery Fund that accredited conservation architects were assigned to the projects they supplied grant monies for (Cody and Fong 2007, p.273).

'*The Nara document on authenticity'* (ICOMOS 1994) and the '*Québec declaration on the preservation of the spirit of place'* (ICOMOS 2008) already feature in the text above Individual countries have ICOMOS chapters; famously Australia ICOMOS produced the Burra Charter (1979, revised 1999), intended to provide practical instructions for heritage management in Australia, and eventually cited worldwide. The Burra Charter attempts to define 'cultural significance', yet Waterton, Smith and Campbell (2006) state how *'its vagueness ensures that the reader is never sure who determines cultural significance and by what criteria*.'

The approach to historic buildings started of as pragmatic, to change into activist, thereby drawn into the political, (due to nostalgia, which generally is a response to developments in society). Next it leaned toward over-protection (in amount of protected buildings as well as what to (not) do with them), to then change focus onto the immaterial, thereby becoming a part of general culture.

In the UK, the 1880's establishment of Ancient Monuments Act defined a protection restricted to earthworks, burial mounds, stone circles, ruined abbeys and similar. Organisations (like SPAB) advocated repair and maintenance of historic buildings, but building owners still were free to treat their property as pleased them. (Wilkinson 2010)

[103] The newly established Historic Environment Scotland (2016) is currrenty rewriting and amending its legislation and advice documents. The literature for this research is based on the 'old' English Heritage and Historic Scotland.

Wilkinson (2010) states the want for protection grew because after WWI many owners could no longer afford to run their historic houses and pre-WWII many had already been demolished before people realised what they lost. Meanwhile, the National Trust had started acquiring such buildings in order to keep them.

Charters, forming '*guides to good practice'* (Bell 1979 (TAN8) p.1), generally apply to scheduled monuments and listed buildings. Naturally there are many un-listed, still valuable historic buildings. (see 'Principles of Selection for Listing Buildings': '*Listing [ ] needs to be selective where a substantial number of buildings of a similar type and quality survive*'.)

Charters (as discussed in TAN8) on 'what should be conserved' will assist in deciding which entire buildings (or urban ensembles) to keep, but not inform on the smaller scale of direct human experience. E.g. the ICOMOS Washington Charter (1987) mentions *'the formal appearance, interior and exterior, of buildings as defined by scale, size, style, construction, materials, colour and decoration,'* (Bell 1997 (TAN8) p.18); but appearance is very different from experience; the former does not require interaction.

ICOMOS charters reflect society's approach to the historic built environment. Their incentive is to protect heritage for the benefit of society.

The *'Charter on the built vernacular heritage'* (1999, Mexico), states the physical material and people's interpretation hereof, without attention to physically generated and physically perceived experience. The charter states principles of conservation:

> *'5. The vernacular embraces not only the physical form and fabric of buildings, structures and spaces, but the ways in which they are used and understood, and the traditions and the intangible associations which attach to them.*' (ICOMOS 1999b)

Under *'Guidelines in practice'*, with *'expression'* mentioned under '4'[104], and *'changes over time'* in 6, the ICOMOS approach to the built vernacular appears to indeed recognize qualities which are omitted from built heritage charters.

In the ICOMOS charter- '*Principles for the analysis, conservation and structural restoration of architectural heritage'*, 2003, Victoria Falls, Zimbabwe, cultural heritage is still considered as built heritage, though it may have intangible qualities. The charter states reasons for recording:

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[104] '*4. Replacement of materials and parts*
Alterations which legitimately respond to the demands of contemporary use should be effected by the introduction of materials which maintain a consistency of expression, appearance, texture and form throughout the structure and a consistency of building materials.' (ICOMOS 1999*, 'Charter on the built vernacular heritage'*)

'2. Recording should be undertaken to an appropriate level of detail in order to: a) Provide information for the process of identification, understanding, interpretation and presentation of the heritage, and to promote the involvement of the public;' (ICOMOS 2003)

and a planning for recording: To start: '*Search out all existing records available*.'*;* contrarily to this advice, this thesis advocates to start with the building itself, and review records only thereafter. Between all suggested information for recording (a through k), in '4 c': the 'nature' of the heritage', is probably what comes closest to a sensory or atmospheric experience.

Although these charters do not appear to be against sensory assessment, they are not acknowledging sensory experience as a separate aspect. Even if advocating (meticulously) recording the physical (mostly the visible), this stays a thing in itself rather than inherently related to people's sensory experience.

The suggested analogy to medicine[105] can be clarifying. However, the treatment here is set out, but the patient ignored, similar to what happened to sensory experience.

Experiential qualities are not generally stated under 'values' ratifying listing and protection. However, assessment of experiential qualities will aid in better acknowledging them as part of or ground for other values.

In the Netherlands, the governing 'Rijksdienst voor het Cultureel Erfgoed' states: 'The evaluation criteria consist of five main criteria that are divided in sub criteria. These are based on art and history.'[106] These main criteria are: cultural-historic, architectural- and art-historical, situational and group values, wholeness and recognition and rarity. At least half of these can only be assessed through including experience and sensory assessment.

Legislation appears to be based on acknowledged significances (not sensory approached). Its aim is to protect and to preserve for the future. Potentially practice based on such legislation is even stricter than the intentions of those who wrote the legislation. 'Sensory' is stated, but never explained; therefore the legislation does not present a format for application of sensory assessments. The 'Heritage Protection Review' states to discern listed buildings from scheduled monuments, and accordingly advises different treatment:

[105] '1.6 The peculiarity of heritage structures, with their complex history, requires the organisation of studies and proposals in precise steps that are similar to those used in medicine. Anamnesis, diagnosis, therapy and controls, corresponding respectively to the searches for significant data and information, individuation of the causes of damage and decay, choice of the remedial measures and control of the efficiency of the interventions.' (ICOMOS 2003)

[106] 'De waarderingscriteria bestaan uit vijf hoofdcriteria die onderverdeeld zijn in subcriteria. Kunst en geschiedenis vormden de basis.' Rijksdienst voor het Cultureel Erfgoed, dossier: *Waarderen van cultureel erfgoed* at cultureelerfgoed.nl acc. 16/11/2015 and 02/03/2016

'Listed Building Consent (LBC) and Scheduled Monument Consent (SMC) are different regulatory regimes with different aims. LBC is designed to allow buildings to change and adapt providing that such changes do not compromise their special interest. SMC is designed to maintain a site or monument essentially in its present state, and assumes that major change is undesirable.' (Heritage Protection Review 2008[107])

Historic Environment Scotland publishes ample guidance on heritage management as well as technical building conservation. Many of their documents are easily accessible through their website. However, Bell's '*Technical Advice Note (TAN) 08 - The Historic Scotland Guide to International Conservation Charters'*, dates from 1997, when the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' [108]was published also. Reading Bell (1997) for this literature review, it was clear Bell's stance is dated and conservation discourse has reviewed its opinions since, typically acknowledging there are many different factors to be acknowledged and each situation has different priorities. Following a 2011 update, currently, changes are outstanding and due to be implemented.

On a local level, for example Aberdeen City Council drew its own Planning and Building Standards for the Historic Environment. Herewith come the council's own Technical Advice Notes, in very detailed documents. They are written by the department, not naming any 'authority', and can be considered as examples of 'good practice'.

At the end of '*Conservation in the Age of Consensus*' (2009), Pendlebury makes a call for conservation professionals (in government specifically) to embrace a wider view on what should be conserved, to what incentive and for whom.

In the same year 2009, in the Netherlands, a '*Modernisering Monumentenzorg'*[109] document was issued, declaring: less administration for (private) owners, more options to protect a monument/listed building and its direct urban context simultaneously, the public should express their view and should be heard, and focus on adaptive re-use of religious and industrial monuments (i.e. a change of function)

[107] The Heritage Protection Review was a draft for a Heritage Protection Bill; the draft was filed awaiting political and social developments. From http://www.buildingconservation.com/articles/heritagepbill/heritagepbill.htm (accessed 17 October 2016): '*Editor's note (18/12/2009): the following article was published in Summer 2008. Despite strong cross-party support, the* Heritage Protection Bill *has since been shelved, ostensibly to make room in the parliamentary legislative programme for measures to deal with the credit crunch*.'

[108] http://www.legislation.gov.uk/ukpga/1997/9/contents

[109] The Dutch 'Monumentenzorg' applies to Scheduled Monuments and Listed Buildings alike.

2.8: Retro styles and more current developments

'Similarly, research in architectural history has over the years moved from an almost exclusively art historical model into a more conceptually expansive terrain that includes design 'theory' and criticism. Interest in historic preservation seemed to be overtaken in the late 1980s by a concern for the architectural implications of destruction and critical theory.'

Linda Groat, 2002

'The preservation of isolated, exceptional buildings, deprived of context and meaning, is now likely to be criticized rather than applauded. There is, today, an expectation that the character and nature of a place will be respected as a whole and that there will continue to be a variety of buildings speaking of the social, economic and leisure life of the community.'

John Earl, 2003

'Consequently, conservation is a falsehood, an attempt at neutrality to avoid the minefields of restoration. There is no neutral ground. Work to existing buildings is of two types: either restorative or interventional.'

Fred Scott, 2008

'It might be argued that there are fundamental tensions between the desire to preserve a sense of the past and recognizing that heritage cities are the product of layers of development and habitation.'

John Pendlebury, 2009

'The fact that a building is listed as being of special architectural or historic interest does not mean that changes cannot be made to it.'

Historic Scotland, 2009

The above quotes illustrate a broad range of considerations of historic buildings, which are clearly shifting, along with related issues in the wider field of heritage. Groat's quote above (an almost casual line in the introduction of a book on architectural research (Groat and Wang 2002)) states that towards the end of the 1980's the interest in actual physical building conservation was fading from discourse. Earl (2003 p.29) points out a shift in focus from individual buildings to 'ensembles' and 'conservation areas', and Pendlebury (2009), argues how it is hard to conserve a city as 'from the past' when simultaneously its development is on-going. Historic Scotland's statement points to a general awareness of practice stuck in governing bodies' incentive to not loose anything. Clearly this section will touch upon an

exciting, expanding field, due to the nature of the historic building, being background and facility for a changing society.

The practice of building conservation moves towards transformation and re-use. A large stock of historic buildings, many relatively young at 100 years approximately, is being refurbished to suit new, different, functions. Effectively buildings are just adapted to the situation, like always before.

Neo-, or revival styles originate from affinity for and appreciation of historic originals. Reviewing such 'new-traditionalist' architecture may show wherein this affinity lies. Setting off these designs against the 'originals' that inspired them may indicate wherein lies the strength of and affinity to these originals.

Changing discourse:

Lamb (2009) explains how heritage conservation discourse lacks a consideration of inherent building values and literally states: '*Aesthetic and technical heritage values do not get any serious attention.'* Ipekoglu (2006) touches upon the same issue, and others are aware of an omission. Generally 'heritage' is increasingly dealing with 'other-than-buildings', and specifically the intangible (Pocock 2002, Waterton 2005, Jokilehto 2006, Voase 2007, Vecco 2010).

Discourse within the heritage movement, and output through various public media arguably provides the social setting that asks for reproduction and recreation. Australian specialists/scholars are clearly present within the cultural heritage discourse, focusing on the intangible, inherent to Maori heritage and natural heritage.

For their exhibition '*Cronocaos*' at the 2010 Venice Biennale, OMA[110] presented five themes to consider contemporary preservation[111]: the increasing territorial claims of preservation, the arbitrary morality of what is preserved and what is not, nostalgia versus memory, the preservation of the future and the 'black hole' of the future. Though clearly aimed at polemics, these themes indicate a call for approaching conservation/preservation with a view to the future.

[110] Office for Metropolitan Architecture (OMA), a famous architect's office actively seeking the architectural and urban discourse. Founded by Rem Koolhaas.

[111] In the US, 'preservation' is used where 'conservation' is used in Europe. However Meraz (year p.27) describes preservation as inherently retrospective. Clearly Koolhaas wants to move beyond this retrospective preservation.

Consecutively in the 2014 Venice Biennale, Rem Koolhaas exhibited architectural *'Fundamentals'*, showing *'a story of mutation from things that were once heavy and hefty, thick with the meaning of their making, to a world of skins and screens, etc.'* (Wainwright 2014), herewith stressing the sensory difference between historic and contemporary architectural construction. This presents an obvious challenge to new-traditionalist design, since traditional types of construction are not always available nor affordable.

Returning to Pendlebury's quote above, palimpsest (here referring to the layered build up of historic cities) is currently acknowledged as an attractive quality; generally buildings are no longer restored to a single moment in time. This 'layering' will obviously be perceived. Vergunst (2008) discusses a 'co-creation' of landscape by both humans and nature; analogue hereto a historic building could be considered as co-created by its original design and its use-history.

Changing urban approach:

Conservation discourse and policies have become applicable to larger ensembles and urban areas. Denslagen (1994) set out how various European cities were reconstructed to an extent where town centers are looking more historic than they ever were[112].

After the Second World War, town planners became more and more engaged with conservation issues, and incorporated them in 'reconstruction plans', which still had to fight their ground with new developments due to booming economy. Eventually, towards the end of the 20th century, the question of whether to conserve had been replaced by the question how to do this (Pendlebury 2009). Cody and Fong (2007) state *'a crucial point, that conservation can play a significant role in the effort to enhance the quality of urban life and that this is not antithetical to development.'* Other emerging texts (Pendlebury et al. 2009, Khirfan 2010) reveal that the perspective upon urban conservation seems to shift. Parallels can be drawn to building conservation.

Meanwhile within contemporary urban design a *'New Urbanism'* movement has been developing. Though the New Urbanists[113] do not state a need for historic architecture, their

[112] *'There has been increasing criticism of this type of reconstruction in recent years. People have started getting exasperated at all those imitation old buildings. Had it been restricted to a few cases, no one would have objected; for whoever restores must, now and then, reconstruct or add something as well. But it happened too often: the historic image of villages and city centres began to alter. Amsterdam is the best example of this.'* (Denslagen 1994)

[113] see www.newurbanism.org/newurbanism/principles, accessed 1 Dec 2010

urban principles promote qualities that are inherently present in historic towns, for example: attractive pedestrian routes, hierarchic grids of broad main routes and connecting alleys, mixed functions, mixed architecture and traditional city structures around public squares. Their ideas have therefore been adopted by nostalgics, most notably the 'Prince's Trust' when developing the town of Poundbury in Dorset (from 1993).

In this respect an obvious struggle to fit modern technical and spatial demands in a classical historicist language is recorded by Kucharek (2010), describing issues concerning a new large scale shopping development in Bath. Kucharek refers to UNESCO's Venice Charter encouraging to *'avoid pseudo-historical design as it constitutes a denial of the historical and contemporary alike*'. This research therefore seeks to understand historic buildings in a way that will inform creation of a similar attraction in buildings which are not unbefitting copies.

Changing practice:

Probably the most acclaimed conservation for decades has been the 'Castelvecchio' in Verona, by Carlo Scarpa between 1959-1973, on a previously regularly restored and updated building. Denslagen (1994) shows in pictures (and text) a vast amount of 20th century recreations of 'old' buildings in Western Europe alone. Jokilehto mentions 'de-restoriation' cases in the 1980s (Jokilehto 1999, p.153).

In 1988, the 'international committee for documentation and conservation of buildings, sites and neighbourhoods of the modern movement' (DOCOMOMO[114]) was initiated by Dutch architects Hubert-Jan Henket and Wessel de Jonge, setting focus on a new 'branch' of younger historic buildings.

Currently architectural reviews will discuss 'transformations' rather than conservations, implying a focus on the new and future functions of a building. Grand public buildings loosing their original function are frequently and successfully turned into hotel and catering venues[115]. Re-use and regeneration will form a major part of future architectural assignments (e.g. Pendlebury 2009, González-Longo 2012, Plevoets and Van Cleempoel 2012).

[114] www.docomomo.com/

[115] E.g. *'Een hip hotel zit niet in een hotel'* (A fashionable hotel is not housed in a hotel) - Ivo Weyel NRCWeekend 3-4 October 2015

González-Longo (2012) is arguing[116] and indicating a '*fictitious division*', both in discourse and practice, between conservation of buildings and new architecture. Recently, large conservations-cum extensions are performed by two different architects or architect's offices; each their own discipline. Notably, González-Longo mentions the celebrated redone Neues Museum in Berlin, conserved by Julian Harrap while at the same time newly extended by David Chipperfield. Similarly the Rijksmuseum in Amsterdam was transformed by van Hoogevest[117] and Cruz y Ortiz respectively.

'However, the fact that this[118] project was divided into two (new build and conservation) raises many questions concerning current architectural practice of new design on existing buildings.'

(González-Longo 2012 p.69)

In the current setting, where Pendlebury (2013 p.719) speaks of '*recycling*' historic buildings, assessing the sensory experience of the existing original building, before its transformation, becomes more important when changes are more substantial.

In the context of history, a pragmatic note on the loss of traditional building craftsmanship must be made, acknowledging that *'Skills have diminished to the extent that it is rarely possible to rely on traditional working practices.'* (Historic Scotland 2009). Regarding this shortage of craftsmanship the need for clear definition of what appearance and atmosphere to aim for becomes urgent and here a sensory assessment can be of assistance. Consolidation of such buildings using contemporary techniques and materials will have to become a viable option.

Design Developments:

New Traditionalist architecture is emerging, both in the UK and the Netherlands. Main characteristics of this style are drawing on historic building styles. Studying New Traditionalist architecture may reveal what apparently attracts and comforts the public as they seek to reproduce the same; this *'historicist revival expresses popular taste'* (Harris and Dostrovsky 2008). According to the quantity of developments (both in the UK and the

[116] '*We expect music and literature critics to understand musical composition and structure but to find a critic* of architecture that cannot understand architectural structures is not unusual.' (González-Longo 2012 p.68)

[117] At the same time this practice allows to have both a national and a foreign architect on the design team, or: to have at least some national influence, but also local (practical) knowledge. Foreign architects are introduced to large building projects as a result of European tender legislation.

[118] The Neues Museum, Berlin

Netherlands) its customers are satisfied. When people appreciate new-traditionalist buildings, lacking actual historic or heritage components, what need are these buildings fulfilling?

In itself, the new-traditionalist building style is probably just the next movement in a recurring sinus-wave of revival styles, following neo-classicist and the neo-gothic favoured by Ruskin and Viollet-le-Duc; styles which tend to follow from a renewed interest in historic society in general, intertwined with nostalgic[119] feelings, possibly more than actual architecture. In society, the appeal of retro-styles appears to be induced by fear for the (new) unknown.

New traditionalism so far has produced buildings whose historic language does not necessarily always match with their contemporary situation, regarding urban design, economy, different (cheaper) materials, expensive labour, different need for space, need for more utilities, etc. There is relevance and importance in an effort to define rather than assume people's demands

Figure 14: 'out-of-place'; freestyle recreation, Vroondaal, The Hague, NL

for their built environment. The qualities people are looking for may be inherent to historic buildings. Nevertheless this inherence is not obviously present in contemporary heritage revival pastiche. The perceived inadequacy or pastiche of new-traditionalism was one of the triggers for this thesis. Too often these buildings seem ill-fitted to their function or their urban setting.

[119] Nostalgia is a personal feeling, therefore hard to generalize and apply.

Arguably pastiche is as it is because it is copied and cut-and-pasted rather than grown from functionality and craft. The experience of new-traditionalist buildings is related to the experience of vernacular architecture. The vernacular experience is evoked due to traditional manufacturing processes; strangely this is not necessarily reappearing in new traditionalist architecture. Sensory experience theory could assist understanding of such phenomena. People recreating historic buildings clearly are looking for something they have not quite triggered. Possibly this is due to their focus on significance rather than the actual architecture.

Ibelings and van Rossem (2009) and Besems and Hulsman (2010) have researched the new-traditionalist movement in The Netherlands. According to Ibelings, traditionalism has always

Figure 15: spot-the-difference: window-style and -size, cornice, colours, gables; what makes or breaks a design? Vroondaal, The Hague, NL

been present in the Netherlands, samples of which are given in the last, '*History*' chapter of his book. However, from a quiet presence in the background, suddenly traditionalist architecture has moved into the limelight. Substantial quantities of traditional, 'historical' architecture get erected these days.

Hulsman (Besems and Hulsman 2010) states there appears to be a 'formula' for 'new-traditional' style, and because of this formula no obvious differences can be found between buildings in many new developments spread around the country, leading to a uniformity of new housing developments, regardless of geography. This new-traditional style is based on late 18th century style. It reflects the cosy atmosphere of pre-industrial times.

In the United Kingdom, the International Network for Traditional Building, Architecture and Urbanism (INTBAU), the Traditional Architecture Group and the so-called 'Palladians' are populating (and building) the field. INTBAU, a contemporary representative of professional's opinions, appears intent to make any new building subordinate to any historic building. In spite of or maybe because of all good intentions, the balance between protection and contemporary life seems lost if all cities with historical centers (this comes down to most cities) are doomed to be frozen as historic monuments.

Figure 16: contemporary Canal Houses by Sjoerd Soeters. Java-eiland, Amsterdam

In the Netherlands, revival of styles has been interpreted extremely freely in the 'Fusion' architecture of Wilfried van Winden (2010), presenting an eclectic mix of styles and 'Stacking'; seen in piled up traditional houses shaping the facades of the Inntel Hotel in Zaandam.

A counter movement to traditionalism could be proposed, focusing on experiential qualities contemporary buildings should have, to be carried off as heritage in future. Other interesting parallels may be derived from vernacular architecture (Brunskill 2000). Many older historic buildings were vernacular to begin with, simply because they were built according to local custom in locally available materials (Fladmark, Mulvagh and Evans 1991).

Sjoerd Soeters has shown a modern take on Amsterdam canal houses (Figure 16), arguably recreating an authentic experience without using traditional stylistic elements, showing it is achievable to recreate a similar-to-historic (sensory) experience. It is telling that vernacular or traditional building, being essentially sensory, passed itself on through behavioural routines (Hale 1994). So the tradition of vernacular building is passed on and re-established during and through building.

Technical Developments:

Digital scanning provides easier and better information on existing buildings; regarding exact measurements as well as the state of deterioration of material. However, digital scanned information is inherently different from any sensory registration.

Digital fabrication and contemporary methods and materials provide new options. Smart use of machine options might counter rising costs of labour. Theoretically a similar degree of decoration could be achieved, which is never the same as handwork, but could possibly have a similar sensory intensity[120], and therefore an equally 'rich' appeal. Spuybroek is researching these options, for example in his book *'Textile Tectonics'* (2011), meanwhile literally referring to Ruskin, aiming for a similar richness of shapes and decorations.

Regarding chemical deterioration, research is ongoing and more knowledge will lead to different tactics and better solutions.

Policy and Management Development:

Generally, institutions in the field are shifting attention towards intangible cultural heritage and away from buildings. UNESCO, looking after world heritage, these days publicly comments on urban development around e.g. the protected central areas of London and Amsterdam. Even when these places are branded as 'world heritage', their aim to restrict urban development implies frustrating the development of cities.

Not all historic buildings get listed; especially in the case of younger 'monumental' buildings a 'no' to protection may lead to public protests. An example of changing public opinion can be noted with Harrison (2013), making a case for de-accessioning of listed buildings, arguing how being too inclusive steers away from keeping focus on individual buildings.

The focus of protection changed from individual buildings to buildings in their setting, which may become a conservation area (Earl 2003 p.29; full quote above).

The constant movement in the field of building conservation is illustrated in a 2015 recalibration of responsibilities 'English Heritage' splitting off 'Historic England' as a separate body, while 'Historic Scotland' extended their field of work by becoming 'Historic Environment Scotland' (see section 2.4).

[120] E.g. Page and Park granito flooring with decorative motives.

Development in society:

Jokilehto found his conclusion on the conservation of buildings already:

> *'Against this new background, one can well ask if the conservation movement, as it evolved from the eighteenth century, cannot be considered as concluded, and whether modern conservation should not be redefined in reference to the environmental sustainability of social and economic development within the overall cultural and ecological situation on earth.'*
>
> (Jokilehto 1999 p.19)

Tourism currently is an industry, whereof a substantial branch heavily depends on the availability of cultural heritage. Part of cultural heritage discourse clearly relates to conservation to provide for tourism. (see for example '*the International Journal of Heritage Studies'*). However, when *'heritage tourism is a phenomenon based on tourists' motivations and perceptions* rather than *on specific site attributes.'* (Poria, Butler and Airey 2001), this is probably funding, but not informing building conservation.

A climate change workshop (by the Scottish Traditional Skills Centre) reveals issues with monuments in coastal areas, notably Scara Brae[121] which might no longer be saved from the sea. Reports on the city of Venice regularly flooding as well as being threatened by the effects of approaching cruise ships regularly appear in the media.

Since historic rebuilding of cities like York, Dresden and Middelburg after World War II, destruction continues in other parts of the world. Iconoclasm is currently practiced by the likes of Daesh in the Middle East. Bowcott (the Guardian, 2016) describes how destroyed mud buildings in Mali have already been re-erected by UNESCO, even before the terrorist Tuareg culprits were judged in the international court (NL) for erasing a people through destroying their monuments[122]. Discussing the effects of war, it should be noted that whatever is known of monuments and historic buildings today has survived in spite of attacks through history.

Notwithstanding arguments regarding a rebuilding never being the same as the original, apparently rebuilding is considered a valuable option, for example after fire damage, like Uppark, Windsor Castle and The Mackintosh School of Art. To all such reconstructions of buildings, awareness of and focus on sensory experience of the original as well as the reconstructed building could assist in communication and decision processes.

[121] A hut in Scara Brae which used to be open to visitors is now covered for protection and a replica hut is available to visit. Though obviously never used, it appears to accurately present the hut as it was in use in its time.

[122] Currently Joris Kila studies and disseminates his on site expertise on cultural heritage in war zones.

In another corner of the field operates 'Vernadoc'[123]: cherishing an approach to historic buildings similar to Ruskin's, volunteers participate in workshops to fully document one specific building at a time, in drawings. The participants find each other through social media, and eventually disseminate their work through the same social media.

The current demand for (neo-)traditional architecture can be interpreted by people's sensory experience. For all aspects of architecture of historic buildings, awareness, survey and recreation of sensory qualities can assist decision making as well as improve the conservation result. Concluding, the research argues that all the above fields of development will benefit from the information that can be retrieved through assessment of sensory experience of the building(s) at hand.

[123] See www.vernadoc.com
Vernadoc appears to currently have tied with ICOMOS

2.9: Summary; about the historic building as object of perception

'The whole premise behind the standards is to encourage the rehabilitation and adaptive re-use of buildings, not the creation of museums.'

Donovan D. Rypkema, 2006

' my concern is (...) the historic environment that is experienced as part of everyday life.'

John Pendlebury, 2009

'heritage professionals must acknowledge and attempt to manage change, rather than deny its inevitability.'

Gustavo Araoz , 2013

This chapter has established that a practice of preserving significant buildings in some manner has featured since ancient times. Conceptual understanding of the value of preserving items or buildings from previous times only really surfaced late 18th century, during the French Revolution

End 19th century the concept of *heritage* was introduced to society, and a realization that the long-time custom of restoration could damage the buildings that were sought to keep. Ruskin and others promoted *conservative repair* of historic buildings in their original state; this was a response to architects of this era primarily aiming to deliver a functional and aesthetically pleasing result, thereby frequently overseeing how these *stylistic restorations* turned buildings into a historicist state wherein they had never existed before.

The surfaced awareness of 'heritage' inspired an emergence of 'heritage protection' institutions; Scotland and England each having their (quite similar) own. In practice, leaving buildings to ruin was not an option. Notably Boito proposed minimum intervention and distinguishability of new from old work, aiming to combine heritage preservation and conservation practice.

Through the 20th century, ICOMOS (a UNESCO international advisory body) produced charters regarding heritage conservation that later were included in national and local legislation. *'Spirit of Place'* was the topic of a 2008 declaration; this is closely related to the sensory experience this research is looking for.

Currently academic discourse is focused on intangible 'cultural significance'; no longer informing or adding to the physical conservation of buildings. Advanced technical development focuses on practice. New architecture and conservation of historic buildings operate along different tracks. 'New-traditionalist' architectural language is a popular application to many new developments. Though building conservation is on-going, it is not

raising philosophized issues; historic buildings are mostly threatened by climate change, which is covered in the technical field, or war, which is a political issue hardly influenced by architects.

In reviewing the above changing approaches to building conservation (objective 1) the research concludes it has not encountered people's experiential perception having at any point been structurally considered in the appraisal of historic built fabric.

CHAPTER 3: SENSORY EXPERIENCE

3.1: What triggers people?

'We might define genuinely beautiful objects as those endowed with sufficient innate assets as to withstand our positive or negative projections. They embody good qualities rather than simply remind us of them. They can thus outlive their temporal or geographic origins and communicate their intentions long after their initial audiences have disappeared. They can assert their attributes over and above the ebb and flow of our unfairly generous or damning associations.'

Alain DeBotton, 2006

'Architecture [...] engages the immediacy of our sensory perceptions.'

Steven Holl, 2013

It is commonly accepted that human beings use their physiological capacities to register and respond to their direct and immediate environment. Normally these capacities are referred to as 'senses'. Sensory experience of buildings is not a novel field in itself, but so far such research within architecture has been aimed at sensory architectural design (Malnar and Vodvarka 2004) or the sensory qualities of (contemporary) buildings (e.g. Herssens and Heylighen 2007) focusing on their effect on people's mobility.

This research is exploring the experiential component of affinity for historic buildings. This chapter aims to understand what triggers people, that may lead to this affinity. Its focus is on people's natural response to their direct surroundings, not influenced by prior knowledge about the place they are visiting. This understanding of the matter is needed to design and interpret the studies.

Having elaborated on conservation of the historic building, informed by social and historical appreciation (intellectual), in chapter 2, the research continues in this chapter concerning the ways in which people experience a building, through the senses ('natural'). This will explore the second context for the research, fulfilling its second objective**:**

> Explore sensory experience and sensory design, in relation to the experience of (historic) buildings.

Relating back to chapter 1 (Figure 6: historic significance is an immaterial cloud around an actual building), this objective leads to understanding of what entails the human confrontation with a building. The research studies this process, not seeking full neuroscientific underpinning, but rather to better understand which kind of perceptions are relevant to sensory recording of a physical built environment.

Figure 17: five senses

Sensory experience of the built environment is an established field of research; according to Hurcombe (2007) sensory perception has been considered in the related subjects of anthropology and geography, and in museum studies. In view of the emergence of conference titles like *'Power in Space'* (2011), *'Sensing Architecture'* (2014) and *'Architecture and Neuroscience'* (2014), it relates to current interest. However in spite of a raised awareness about sensory qualities of buildings, assessment of these qualities has not been established as a valuable exercise in the early stages of building conservation. For this purpose, focus should be on the bodily and physical aspects of perception, rather than the fluid and narrative ones.

Experience is inherent to enjoying a physical building. This experience of a building (as in 'the actual built fabric') is communicated through the senses. The research is specifically looking for only the significance that applies to the physical reality of the current building; a sensory or experiential experience, versus associated significances as described in section 2.6.

Practically, to apply the awareness of sensory experience to the field of building conservation, a full coverage of physical aspects of a building should be aimed for. Rather than the exact way in which human responses take place, the perceived building is the subject of this research in the field of architecture.

Considering that '*the architectural profession was traditionally regarded as a craft, or close to the notion of craft*.' (Pallasmaa 2009 p.64) it could be argued that philosophical theories barely apply to it. Notions of craft are closely related to the vernacular, where arguably a sensory affinity is more obvious. The thesis intends to review the width of the field of sensory experiece to disseminate why it is exciting to consider sensory experience when assessing historic buildings. Because architecture, erected as a facility, can only be fully appreciated through and during use.

The process of perceiving is studied within phenomenology (section 3.2), which learns that an object cannot be known, other than through the perception it provides. Section 3.3 covers perception theories within architecture. This part of the literature continues reviewing (architectural) research focusing on people's physical experience and perception (section 3.4). What can be perceived through the human physiology and which sensory categories apply to human experience is described in section 3.5. Chapter 3 will thus introduce some players in the field of sensory experience of the built environment and present an outline of their theories. What actually people sensory respond to should thereafter emerge through the studies.

This chapter covers:

3.2: Philosophy: phenomenology

3.3: Theories within architecture

3.4: Applications in architectural research

3.5: Relating to building conservation

3.6: A system of senses

3.7: Summary; about human experience of buildings

3.2: Philosophy: phenomenology

'Our own body is in the world as the heart is in the organism: it keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it forms a system.'
Maurice Merleau-Ponty, 1945

'The unity of the thing remains mysterious as long as one considers its different qualities as so much, data belonging to worlds entirely distinct from sight, from smell, from touch, etc. But precisely modern psychology – agreeing with the findings of Goethe – observed that each of these qualities, far from being completely isolated, has an emotional meaning which puts it in correspondence with those of other senses.'
Maurice Merleau-Ponty, 1948[124]

'Due to the innate and concrete spatiality of architecture, and its irrefutable embodied and existential essence, a visual understanding of this art form is also grossly misleading.'
Juhani Pallasmaa, 2009

This chapter presents some insight into applicable philosophy, to obtain a frame of thought for approaching sensory assessment of existing architecture, focusing on the encounter between a (historic) building and a (perceiving) human.

In the ancient world, the concept of perception was explained as a purely mental exercise (a.o. Malnar and Vodvarka 2004). The component of bodily experience was acknowledged when 'phenomenology' (i.e. the study of human experience) established itself as a discipline within philosophy in the early 20th century, notably through the works of Husserl, Heidegger, Sartre and Merleau-Ponty. Norberg-Schulz in 1979 was the first philosopher to publish on phenomenology in architecture specifically.

According to Lewis and Staehler (2010), phenomenology deals only with the way things manifest themselves. Since people can only perceive what is manifest, in this case of historic buildings, phenomenology clearly deals with the physical manifestation of the building, regardless of its immaterial representations, and this is exactly what the research is looking for. Apart from people's image of a building, what the building presents to people can be studied also.

[124] from: *'Exploration of the Perceived World: Sensible Objects'*, the third of Merleau-Ponty's 1948 radio lecture series -Youtube - acc. 24 October 2012

According to phenomenology, one can only be sure of receiving a perception of an object; the object cannot be known other than through the perception it provides. Along the lines of this theory, studying sensory experience and perception of historic buildings is quite an obvious route to go.

Phenomenological[125] theory, extending from the work of Edmund Husserl (1859-1938) (Malnar and Vodvarka 2004 pp.24-25) holds that the only way people can perceive things is by picking up the 'signals'[126] they provide. To a human perceiver, the architecture of a building presents itself as a phenomenon. When the research aims to understand '*Physically and architecturally, what, of a historic building, evokes people's affinitive response?*', this interface of building and perceiver is the logical phenomenon to be studied. Therefore phenomenology appears to be the appropriate philosophical theory to research and describe sensory experience. However, the thesis will focus on what can be perceived rather than why or how.

> *'Husserl has a higher opinion of experience than his predecessors: things can show themselves to us as they really are, to our perspectival perception. The reason why they often do not is because we think too much: we try to interpret what we see using concepts that we have uncritically inherited and which implicate us in traditional prejudices about what we see.'*
>
> (Lewis and Staehler 2010, p.6)

Martin Heidegger (1889-1976) was an assistant to Husserl, and developed his thinking towards ontology (the description of intrinsic properties, or the study of what there is). Apart from establishing the concept of the '*Dasein*'[127], Heidegger considered the action of 'dwelling' not only as inhabiting and using (actually build, or '*Bauen*'), but equally as providing to enable dwelling or inhabitation.

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[125] from http://plato.stanford.edu/ 'Phenomenology' : '*The basic intentional structure of consciousness, we find in reflection or analysis, involves further forms of experience. Thus, phenomenology develops a complex account of temporal awareness (within the stream of consciousness), spatial awareness (notably in perception), attention (distinguishing focal and marginal or "horizonal" awareness), awareness of one's own experience (self-consciousness, in one sense), self-awareness (awareness-of-oneself), the self in different roles (as thinking, acting, etc.), embodied action (including kinesthetic awareness of one's movement), purpose or intention in action (more or less explicit), awareness of other persons (in empathy, intersubjectivity, collectivity), linguistic activity (involving meaning, communication, understanding others), social interaction (including collective action), and everyday activity in our surrounding life-world (in a particular culture).'*

[126] Rather than 'signals' this research speaks of 'triggers' also; a signal can be missed or ignored; whereas a response is inherent in the word 'trigger'.

[127] *Dasein*: the human being that is present, or 'existing'; a concept figuring in lots of philosophical text.

Figure 18: dwelling (Urquhart Castle)

Heidegger assumed a mystical worldview; the Fourfold (*das Geviert*) providing the basis of living consisting of heaven, earth, God and mortal people. Living within the Fourfold had to be facilitated through dwelling (again including both building and inhabiting).

Inhabiting or dwelling in a building requires engagement. This engagement cannot be refused due to the fact that the physical building will force itself upon the dweller, simply by being there and physically restricting or enabling movement. Heidegger sees the building as a collection of places, rather than a single object. (Sharr 2007 p.62)

This notion of dwelling implies that buildings are to be perceived as something to enjoy and experience, rather than as artefact to observe; their assessment should be done in the same way.

The phenomenologist Maurice Merleau-Ponty (1908-1961) proclaimed sensory perception, advocating that people perceive with their body rather than with their mind (as according to classical philosophy): *'In the same way we shall need to reawaken our experience of the world as it appears to us in so far as we are in the world throughout body, and in so far as we perceive the world with our body*.' (1945)

> *'Instead, Merleau-Ponty focused on the "body image", our experience of our own body and its significance in our activities. Extending Husserl's account of the lived body (as opposed to the physical body), Merleau-Ponty resisted the traditional Cartesian separation of mind and body. For the body image is neither in the mental realm nor in the mechanical-physical realm. Rather, my body is, as it were, me in my engaged action with things I perceive including other people.*' (Smith 2013).

'Merleau-Ponty's phenomenology is existential, oriented to lived experience, the embodied human being in the concrete world.' (Van Manen 2011)

Where Husserl perceives from the 'outside', Merleau-Ponty is dealing with things from within:

'(iv) My lived body is determined by 'kinaesthesis': movement (Greek: kinesis) and perception (Greek: aesthesis) go together. Movement is not something secondary or external to my body; I move directly in and with my body.'
(Merleau-Ponty in '*Phenomenology of Perception'*, p.108 in Lewis and Staehler 2010 p.168)

The 'lived body' is what is used to experience the world, therefore perception depends on it. Arguably though kinaesthetics should not be understood as a separate sense; rather as an inherent part of our being (this issue will return in later sections).

'To seek the essence of perception is to declare that perception is, not presumed true, but defined as access to the truth.' (Merleau-Ponty 1958 p.xviii).

Perception is active rather than static. The building is static but what one perceives depends on ones position within the building; when using a building people would thus experience a series of perceptions. Climate (internal and external, including light) has an influence on the perceived building, so do furnishings. The body is needed for perception; it enables access to the perceived truth. The body and its perception cannot be disconnected.

Where Husserl described perception with the mind, and Merleau-Ponty proceeded to perception with the body, German philosopher Hermann Schmitz[128] considers his 'New-Phenomenology' to deal with perception through the *'felt body'* (rather than a lived body) (Schmitz, Müllan and Slaby 2011). Rather than the dualist theory of mind-body separation, Schmitz defends the holistic experience (id. p. 244).

Emotions exist in public space (not within a person's mind or within a felt body) but depend on a person present to be conjured and experienced. Phenomena are subject to conceptual perspectives (i.e. they can be related to a known world only) (Schmitz, Müllan and Slaby 2011, p.243). Schmitz describes instant corporeal communication (e.g. jumping away from a falling stone) (Schmitz, Müllan and Slaby 2011, p.251); clearly there are many situations where a direct response to a perception is needed. According to Schmitz's New Phenomenology, it would be impossible to properly understand a building or work of architecture without physically experiencing it.

[128] Schmitz work is still mostly available in German only.

When considering the perceiving body as a subject, phenomenology speaks of '*lived experience*' (Malnar and Vodvarka 2004 p.30) or '*embodied perception*', similar to Schmitz's *'lived body'*. The idea is that mind and body experience together; whatever one reckons to perceive has been picked up through placing one's body in a situation.

Lived experience is discussed mostly within the fields of nursing and education. Lived experience in architecture is discussed by Peri Bader (2015), claiming this is apparently a new approach. (Peri Bader invented a (*Lived Experience of the Built Environment*) 'LEBEN' model which has not been picked up in the field as yet).

Peri Bader quotes Benjamin's [129] claim that architecture is mostly perceived in a state of 'habitual distraction', meaning the perceiver is normally focused on other things than the architecture surrounding him. She states the direct human, sensory or lived experience of architecture is frequently overlooked in both life and discourse.

> *'Embodied cognitive science appeals to the idea that cognition deeply depends on aspects of the agent's body other than the brain. Without the involvement of the body in both sensing and acting, thoughts would be empty, and mental affairs would not exhibit the characteristics and properties they do.'* (Wilson and Foglia 2016)

While Merleau-Ponty, Norberg-Schulz and Schmitz each wrote in their own language and were not immediately translated into English, clearly each of them alone came to an understanding of physical experience directly through the body and/or the senses.

This thesis is primarily concerned with sentient people as a group, or as a concept. It focuses on triggers that are responded to, rather than the qualities of the response, and does not aim to explain people's responses.

Apart from a subject to philosophers, perception appears to appeal as topic for consideration with psychologists:

John Dewey (1859-1952) in 1908 described how perception is created through and during action. It is much more than the passive stance of a spectator (see also Heft 2007).

Dewey wrote that '*architecture is the contingent discipline par excellence*' (Till 2009 p.61). To a pre-conservation assessment this would suggest a focus on the built product, rather than the architect's plans and ideas. To consider not the intention, but the work that was delivered, unless the aim would be to conserve 'the architect' rather than the building.

[129] Walter Benjamin (1892-1940), a German philosopher

A bulk of literature on perception refers back to the work of psychologist James J. Gibson[130] (1904-1979)[131]. Gibson's '*ecological perception*' implied the brain responds directly to perception, without cognitive processing or interpretation in between.

Gibson's 1966 '*The senses considered as perceptual systems'* has been reviewed a.o. by Mohan Matthen (2015). Gibson studied animal perception in general as well as perception in aviation specifically. His observations therefore consider a much wider field of potential perceptions; biologically, humans are capable of a specific set of perceptions only, related to the set of sensory organs they are equipped with.

Gibson found that (visual) perception is direct and can and will occur without processing.

Gibson explained the concept of '*affordances*' describing them as a relationship or mutual response between percept and perceiver (Heft 1989). Organism and environment here complement each other. Affordances have a 'graspability' factor; there is no distinction between sensation and perception. While sensory perceptions are not influenced by affordances, these affordances can influence some perceptions.

Gibson's system of senses (Malnar and Vodvarka 2004, p.43) introduces a *'basic-orienting system'* and extends the sense of touch into a *'haptic system'*. Combining the senses of smell and taste into a taste-smell system, his system still encorporates five sensory categories. Elaborating Gibson's system, Malnar and Vodvarka, especially catering for architecture, propose a system that splits the haptic sense into touch, kinesthesia and temperature/humidity (Malnar and Vodvarka 2004, p.57).

Jack Nasar deals with environmental aesthetics (*Urban design aesthetics*, 1994) and states that moving through an environment is essential for proper perception. His research found five topics that stand out in received perceptions of environments (*salient physical attributes of environments*), being: naturalness, upkeep, openness, complexity and order, and historic significance. Arguably some of these 'attributes' are covered in contemporary 'conservation statements' and 'statements of significance' already (Nasar 2008). Naturalness and historic significance can be very subjective, Nasar agrees. 'Openness' and 'complexity and order' are architectural qualities that ideally surface through the sensory assessment of a building.

[130] James J. Gibson, 1904-1979, psychologist. His focus was directed to how the percipient uses his sense organs to pick up information, rather than neuroscientific explanation.

[131] Gibson was a psychologist rather than a philosopher. Wikipedia: '*Gibson challenged the idea that the nervous system actively constructs conscious visual perception, and instead promoted ecological psychology, in which the mind directly perceives environmental stimuli without additional cognitive construction or processing.*'

Discussing various ways of assessing environments, Nasar (2008) concludes on-site experience is the only option for realistic presentation. Virtual representations are much easier to adjust and manipulate. The movement through an environment is an essential factor that can be virtually appropriated.

From Harry Heft's work within environmental psychology (e.g. 1989, 2003) can be reasoned that a 'wish to keep' is influenced by affordances, being what the (individual) perceiver understands or relates to from an 'offered' physical building.

Perceptions deliver a more exciting awarenesses than sensations:

> *'Whereas sensation is an immediate awareness of particular object qualities (e.g., color), perception has a more elaborated character, where immediate awareness can encompass a comparatively wide range of relations, such as experiencing an object of a definite shape and size (e.g., a face).'* (Heft 2003 p.153)

Heft, studying Dewey, describes how perceptions are created during, and through, action. Either way, a building will provide a framework for perception and action to take place.

> *'The distinction between immediate, first-order, nonanalytical awareness and reflective, second-order, analytical awareness is important, because it identifies two alternative avenues for knowing.'* (Heft 2003 p.152)

According to Heft, perception is a cognitive action; this is different from Gibson's directness of perception, without processing, which would definitely qualify as 'first-order' response. Arguably Heft's 'second-order' awareness will lead to affordances that carry elements of affinity.

This section has shown that phenomenological theories apply to the experience of the built environment. It has shown also that sensory interaction with one's environment is inherent to being a human and cannot be avoided.

3.3: Theories within architecture

'I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the façade of the cathedral, where it roams over the mouldings and contours, sensing the size of recesses and projections; my body weight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind. I experience myself in the city, and the city exists through my embodied experience. The city and my body supplement and define each other.
I dwell in the city and the city dwells in me.'
Juhani Pallasmaa, 2005

'At this point I wonder: what is the typical that lasts over time and space? And I am obliged to answer that it is simply that which is emanated when something is recognized as such.'
Christian Norberg-Schulz, 2000

'The most evoking buildings speak through the 'silence' of perceptual phenomena.'
Steven Holl, 2013

'Everyday architectural experience [...] is dynamic, occurring through bodily movement.'
Aya Peri Bader, 2015

This section continues with theories and philosophies from architects, therefore directly related to the built environment. Many practicing architects acknowledge and use sensory experience in their built work, and a number of well-known practicing architects, concerned with the experiential effect of their work, have published writing which attempts to convey their message of addressing sensory experience in their architectural practice. Quite successfully, but often still general or superficial and mostly subjective rather than scientific. Established architects like Zumthor and Holl, and architects whose publications are more famous than their buildings, like Pallasmaa, Alexander and Rasmussen. This literature, though by practicing architects, is mostly descriptive, not in a direct-use format.

During the previous century, in *'Experiencing Architecture'*, Steen Eiler Rasmussen (1898-1990) (1959) described how people respond to contrasts: solids and cavities, colour planes, scale and proportion, rhythm, texture, daylight, colour, and also 'hearing architecture'. Rasmussen vividly presents endless experiences during observation of the built environment, without aiming to explain them.

The following are an example of Rasmussen's descriptions of observations of the built environment:

'It may not be surprising that we can see such differences with the naked eye but it is certainly remarkable that, without touching the materials, we are aware of the essential differences between such things as fired clay, crystalline stone, and concrete.'

'We generally are not aware of what it is that we perceive but only of the conception created in our minds when we perceive it.'

'It is not enough to see architecture; you must experience it. You must observe how it was designed for a special purpose and how it was attuned to the entire concept and rhythm of a specific era.'

Rasmussen's book is good promotion for sensory experience of architecture; it was written to present an understanding of the experience of architecture to people outside the profession.

Christian Norberg-Schulz (1926-2000), was the first to study phenomenology of architecture specifically (aiming for an understanding of modernism). Norberg-Schulz studied the *'Genius Loci'* or *'Spirit of Place'*, an associated significance discussed in section 2.6 above, and the topic merging physical architecture and people's experiential perception thereof. However, within Cultural Heritage, the discourse deals with the cognitive and intangible, where this research intends to define its tangible base and components.

Herewith describing exactly what this research aims to find out, Norberg-Schulz wrote:

'At this point I wonder: what is the typical that lasts over time and space? And I am obliged to answer that it is simply that which is emanated when something is recognized as such.'
Norberg-Schulz in 'Genius Loci' (org. 1979)

Because Norberg-Schulz deemed scientific concepts unfit to describe the experience of architecture, he states to have found '*a way out of the impasse*' in phenomenology as a method to describe and discuss the *'everyday life-world'* that should be an architect's concern. (Norberg-Schulz (1979) in Smith 2012, p.365)

'Place' is not abstract, but means 'a totality made up of concrete things having material substance, shape, texture and colour' and ''place' means something more than location.'
(Norberg-Schulz (1979) in Smith 2012, p.364 and p.365)

Based on Husserl and Heidegger, Norberg-Schulz discussed phenomenology of architecture:
'Phenomenology appeared to me as a method well suited to penetrate the world of everyday existence, since architecture is in fact at the service of totality, which the term 'world of life' implies, a totality that eludes scientific procedures.' (Norberg-Schulz 2000)

Sensory perception has not before been studied with an incentive to inform the approach of historic buildings. In this context, the main characteristics of the historic building can be found in its architecture, and the benefit of this approach is the fact that one can research up to which extent an existing building actually works. The research takes a reverse approach from 'sensory design' as currently practiced for example by architects discussed below.

The Finnish architect Juhani Pallasmaa claims to write about '*the physical, sensual and embodied essence of architecture*' (Pallasmaa 2005). In '*Questions of Perception*[132]*'* (Holl, Pallasmaa and Pérez-Gómez 2006) Pallasmaa presents seven senses. First issued in 1995, Pallasmaa's famous book '*The Eyes of the Skin – Architecture and the Senses*' (2005) again describes seven senses, taking balance and kinesthesia as additional senses. [133] Boyle (2011) found that in consecutive books, Pallasmaa keeps reviewing and updating his view on the senses.

> *'Buildings are not abstract, meaningless constructions, or aesthetic compositions, they are extensions and shelters of our bodies, memories, identities and minds. Consequently, architecture arises from existentially true confrontations, experiences, recollections, and aspirations.'* (Pallasmaa 2009, p.117)

Notably in the above citation bodies come first, before the 'heritage' topics 'memories' and 'identities'! No knowledge component even features as a source of architecture.

Therefore, if a sensory assessment of the building is carried out 'before knowledge' and as a basis for conservation, the risk of focusing on what will be a restoration of the original architect's intentions will be smaller. Such choices would depend on whether the value of the building or that of the architect is deemed greater.

In the chapter *'Reality of Art'*, Pallasmaa (2009 p.134-136) explains how buildings are not symbols in itself, but bring the person experiencing them in a metaphysical or existential state. Clearly this can only be truly and fully established through lived experience, not through visual representations.

[132] '*Questions of Perception'* originally (1994) was an issue of the Japanese magazine A+U, and reprinted as a book in 2006.

[133] Since '*The Eyes of the Skin'* has become required reading in architectural education, 'kinaesthesia' as an important sense keeps popping up regularly within architecture now, but has not gained general consensus or clear definition for being a sense yet. For architects it is necessary indeed to be aware of what is happening when a person moves through a building or built environment. Arguably this might be a series of 'normal' sensory registrations?

> *'Also Sartre is critical of the notion of symbolisation in artistic representation. In his view, art creates things rather than symbols: 'Tintoretto did not choose that yellow rift in the sky above Golgotha to signify anguish or to provoke it,' he writes. 'Not sky of anguish or anguished sky; it is an anguish become thing, an anguish which has turned into yellow rift of sky […]. It is no longer readable.' Similarly Michelangelo's stair hall of the Laurentian Library (1524-59) and the Medici Chapel (1505-34) with its allegorical sculptures are not symbols of melancholy, they are buildings that have fallen into a state of melancholy – or, more precisely, we lend these buildings our own sensation of metaphysical sorrow.'* Pallasmaa (2009, p.135)

Effectively the above citation says that what the artist (architect) puts in, is not the same as the perceiver gets out or understands of it. This is a good argument for the sensory assessment of historic buildings, separate from, or irrespective of other statements of significance.

Weston (2013), in a critique of Pallasmaa, states this '*genre of phenomenologically-inspired writing*' presents many assertions that are not to be understood rationally, and consequently turn out to be quite empty. From a similar rationale, this research aims to focus on perceived objects rather than people's interpretations.

Christopher Alexander [134] is an American architect who dedicated his life to writing a vast volume of literature. Originally known for his 1977 books '*A pattern language'* (1977) and *'The timeless way of building'* (1979), he more recently wrote *'The Nature of Order'* (2004), a series of four volumes on 'everything'.

Alexander uses his architectural practice to test his theories. These very anthroposophical theories are 'celebrated' by the 'International Network for Traditional Building, Architecture and Urbanism' (INTBAU) (an organization under patronage of HRH the Prince of Wales), who '*believe that traditional building and local character help us to create better places to live.*' (www.intbau.org)

Alexander studied what people respond to while functioning and living in their built environment. (Alexander 1979, Bhatt 2010) He has written on the importance of apparently small objects in the environment, and how these can influence thoughts and behaviour of people. Alexander (1979, 2007) developed theory on how patterns of use and users should inform architecture. The same patterns can be used to explain why certain architecture 'works'. Symmetries, for example, abundantly occurring in nature, can be easily grasped by

[134] Alexander's work being anthroposophical makes it less popular with 'fancy' architects, and neither does its volume add to its popularity.

the perceiving animal and human. A follower of Alexander, Portugali (2006) applied his theories to architectural practice.

Swiss architect Peter Zumthor is known for his sensory designed buildings. He explained his motivation in his lectures, collected in *'Thinking Architecture'* (2006b), and another lecture in *'Atmospheres'* (2006a). *'The only thing Zumthor has labelled himself as is a phenomenologist, "concerned with the way things look, feel, touch, smell, sound"'.* (Rose 2007)

His writing shows how Zumthor is deliberately aiming for sensory design; *'Sense emerges when I succeed in bringing out the specific meanings of certain materials in my buildings, meanings that can only be perceived in just this way in this one building.'* (Zumthor 2006b, p.10), design that physically evokes emotions: *'The magic of the real: that to me is the 'alchemy' of transforming real substances into human sensations.'* (id. p.85)

Critics describing Zumthor's work acknowledge its multisensory experience. However, some critics, arguably eager to complete the sensory experience, describe addition of a sound installation[135], or the additional smell of incense[136], whereby arguably they are moving beyond the scope of the building's own sensory aspects, and beyond the scope of this research.

An interesting 're-erection' project is Peter Zumthor's Kolumba diocesean art museum in Köln, Germany (2007). Encompassing and integrating the ruin of a rich medieval church, an enclosed garden and a 1950's Gottfried Böhm chapel on the site, in a totally new building, looking and functioning as a contemporary museum (Rose 2007, Davey 2011).

Contemporary American architect Steven Holl (Holl, Pallasmaa and Pérez-Gómez 2006) describes how people need a fully conscious awareness of their existence in space in order to understand the architecture around them, and contemplates how people can derive joy from the experience.[137] He takes a bold stance stating *'only architecture can simultaneously awaken all the senses – all the complexities of perception.'* and *'The building speaks through the silence of perceptual phenomena.'* (Holl et al. 2006 p.41) Arguably Holl implies perception in a subtle and appreciative way.

Holl suggests to divide perception in 'outer' perception and 'inner' perception; respectively the mental idea and the physical experience; in a physical construction, these two kinds of perception are intertwined. (Holl et al. 2006 preface)

[135] Rose 2007

[136] Davey 2011

[137] Deriving joy is a good aim for designing, however not an issue for assessment of existing buildings.

'The movement of the body as it crosses through overlapping perspectives formed within spaces is the key elemental connection between ourselves and architecture.' (Holl 2013, p.21).

Furthermore, Holl mentions underlying questions of intention: *'Intentionality sets architecture apart from a pure phenomenology.'* (Holl 2013, p.22). However, he claims that regarding cities the experience develops only partially by intent. Arguably for historic buildings these intentions can only be guessed at and in the light of preservation of sensory experience their relevance is doubtful.

Holl is claiming the need for intellectual and spiritual understanding, not just physical only. Reversely this would imply the physical is as important as the other. It could however be questioned how much meaning the public is looking for, and whether architecture should be approached as a science, or as an instrument to facilitate commodities.

Mostafavi and Leatherbarrow wrote *'On weathering'* in 1993. A weathered surface is a physical quality of a building (With regard to the studies in Aberdeen, it may be noted weathering is not very applicable to granite). Interpreting weathered as old is a very different perceptional issue.

Though its title is *'The old way of seeing'* (1994), this (early) work of Jonathan Hale concerns understanding, rather than visually perceiving. Hale claims using intuition in fact is a good way to create interesting design patterns. He relates how in the 'old days', buildings were designed and built along intuitive and harmonious patterns. After 1830 (the text applies to North-America) more deliberate design did not incorporate such intuitive order.

Hale (2013) reports *'two distinct phases of impact on the phenomenological thinking in architecture'*. The first phase, Norberg-Schulz's time, knew *'a clear preoccupation with the study large-scale patterns of spatial organisation'*, to change, in the early 1990's, into interest in the micro-scale; *'the sensory connections between the building and the individual experiencing subject (person)'*

The US 'Academy of Neuroscience for Architecture' (ANFA) was founded to study and explain the experience of a building through neuroscience (Eberhard 2009). This approach definitively gives an insight in mechanisms of affinity. However this thesis aims to assess (and promote assessment of) the experience of a building, and therefore focuses on establishing triggers rather than understanding people's response in a neuroscientific way.

Eberhard (2009), taking the highly experiential 'Thorncrown Chapel'[138] as an example, states people's experience of a place depends on this place's contrast to people's regular environment (relative to what people are used to). In this case the quiet of the chapel is more overwhelming and soothing to urban dwellers than to rural dwellers.

ANFA (the 'Academy of Neuroscience for Architecture') has defined five areas of interest for study (Eberhard 2009):

'The five areas studied in brain systems are:

- *Sensation and Perception (how do we see, hear, smell, taste, etc.?)*
- *Learning and Memory (how do we store and recall our sensory experiences?)*
- *Decision making (how do we evaluate the potential consequences of our actions?)*
- *Emotion and affect (how do we become fearful or excited? or what makes us feel happy or sad?)*
- *Movement (how do we interact with our environment and navigate through it?)'*

This research is not focused on the brain, but on the building; it seeks for the 'what' rather than the 'why' of sensory experience. The areas of study suggested above would apply to the design stage, rather than the assessment of a building.

The above architects all acknowledge the importance of sensory experience, by aiming to cater for it in their designs. If they aim to define their architecture by its sensory experience, an existing building can be understood by assessing what sensory experience is present there, or which sensory perceptions the building beholds.

Whatever theories apply to sensory design of new buildings could be applied to (pre-conservation) assessment of existing (historic) buildings. A similar checklist could be followed for either activity.

[138] Fay Jones 1980, Ozark mountains, Arkansas USA

3.4: Applications in architectural research

'Considering the importance of the experiential qualities of architecture, it is surprising that there is so little explicit knowledge about this fundamental characteristic of architecture.'

Lisa Wastiels and Ine Wouters, 2012

A building is made by man to accommodate man's various activities. One can move through, and find oneself either outside or inside. It will be observed from eye-level. Generally the building is much larger than the people in it. During normal activity, a person will experience a building from close by, when directly confronted with it. Entry and exit are limited to places where a door is provided. Access to various levels can be by staircase or elevator; the latter temporarily disconnecting you from the building; it is not possible to really feel the height one has travelled (similar to covering distances in an aeroplane); there is a lot to be experienced from a physiological viewpoint also.

A substantial body of work, dealing with experience of the (built) environment stems from town planning, landscaping and environmental fields of study. Much has been researched and defined regarding street views and urban settings. However, such literature does not stretch to cover interior architecture of single buildings; the direct human sensory (or 'lived') experience of architecture is frequently overlooked in both life and discourse (Peri Bader 2015).

In '*Townscape*' Gordon Cullen (1961) described and drew what impressions he picked up while walking through a series of towns, using a method called 'Serial Vision', that presents a series of images, each representing a stage along a route. Guy Debord and fellow Situationists[139] developed the 'dérive' or 'drift' to describe the experience of wandering through the city. (Farelly 2011).

In *'The visual perception of the built environment'* (1977) Niels Prak discussed this perception through showing comparative pictures of street views. Prak (1977, p.83) discussed buildings providing both denotative (description, recognition) and connotative (emotional, subjective) meanings, which are interdependent; this statement was clarified with an example: *'One's appreciation for a certain church building depends in part on how one thinks about and what one expects from the church as an institution.'*

Within the sensory field, current research in architecture and design deals with capacities of handicapped, especially blind, people. When designing for the blind, visual information,

[139] A group of 'social revolutionaries' who believe that people are more influenced by external, situational factors than by internal ones.

normally a dominant experience, cannot be transferred. People (architects) studying issues with (architectural) design for blind people, are forced to defer to perceptions with other-than-visual senses. Triggers that appeal to the blind, apply to all. Though the blind may need them more, this does not mean they are not a factor to the seeing.

Jasmine Herssens and Ann Heylighen are among those who study multi-sensory experience through blind people. (They claim to be able to learn from blind people in this respect). Arguably blind people may have a different focus and incentive, namely keeping themselves safe. Also they do not need to negotiate between visual and other perceptions, where this is a reality for non-handicapped people. Arguably therefore their perception cannot be the same. Not from the point of view of Gibson, since a different individual (blind vs. seeing) changes one of the actors in his equation.

Herssens and Heylighen (2007) state (architectural) design uses visual language; they mention Bernard Tschumi stating there is a gap between the mental world in which architects design and the physical world in which they build; *'as a result, we are architecturally disabled'*. (This brings up the dilemma whether conservation then should start bridging this gap 'backwards', by reinforcing a 'previous' architect's ideas about the building, or discard the idea of getting back to the architect's intentions altogether.)

Herssens (2012), aiming for *'Universal Design'* (or Design for All or Inclusive Design), found a preference for orthogonal spaces with blind people. Apparently people are most comfortable when they literally can find themselves at ease. People like independence, and so the blind. This might indicate proof of people preferring the familiar, rather than orthogonal per se; arguably people can act independently in any familiar environment. Herssens recalls how sighted people will use their initial overview of a new situation, to thereafter zoom in on its components.

Jenkins[140] (2012) wrote a thesis discussing perception of blind people. His sensory system covers (visual), auditory, olfactory (not gustatory) and tactile perception, plus an awareness of proximity to sensory cues.

Some of Jenkins (2012) conclusions are:

- Sound is harder to precisely localize than visual clues, but people can hear further than they can see. *'hearing requires effort and particularly focused attention'*. (p.106)
- To the brain, all senses are the same; the brain is indifferent to which sense it uses.

[140] Jenkins is an occupational therapist and engineer, not an architect/designer.

- For moving through space: constant predictions are made, and behaviour adjusted (p.114).
- The action moves from anticipation, to selection (through prediction or expectation), leading to adaptation (p.115).

Similarly, there is research into the experience of the otherwise handicapped; e.g. people suffering from dementia (Jakob and Collier 2014). Related, Gordon Murray & Alan Dunlop Architects built Hazelwood in Glasgow for the multiple handicapped, a school for the 'dual sensory impaired' (deafblind in this case).

Lisa Wastiels, working among others with Heylighen (above), focuses on the assessment of building materials, tellingly researching, for example, a dominance of either visual or tactile properties (Wastiels et al 2012a), in *'Red or rough, what makes materials warmer?'* (Wastiels et al 2012b). Wastiels and Wouters (2012) studied '*Architects' considerations while selecting materials*', claiming these considerations include *'aspects relating to the sensory effect and experience'* also.

Though most architects will somehow use sensory notions while designing, generally projects will be presented visually and orally, and criticised in language. Since language is inherently conscious this may present a barrier for communication of sensory experience.

3.5: Relating to building conservation

'In most oriental cultures the idea of going through agonies of conscience over the preservation of particular morsels of old fabric simply because they are old would not be seen as entirely reasonable. From this alternative viewpoint, a building has an indestructible soul; a permanent reality, which can survive any amount of renewal including, in the case of the most ancient and revered monuments, a succession of total rebuilds from the ground up.'

John Earl, 2003

'To at least some extent every place can be remembered, partly because it is unique, but partly because it has affected our bodies and generated enough associations to hold it in our personal worlds.'

Kent Bloomer and Charles Moore, 1977

Hurcombe (2007) discusses how archaeologists deploy their senses in the study of objects. She argues that '*although there has been a primary focus on the visual[, t]his is changing and there is now more discussion of haptic and olfactory senses.'* Apparently sensory aspects are valuable to all heritage. However, rather than regarding these separately, they should be included as inherent aspects of the whole.

Referring to for example Zumthor (2006a) and Kim (2011), both discussing the combination of temporality and spatiality in buildings, it could be argued historic buildings are attractive for being an empathic reference to living in a different time in a different gear.

Every building was built by people as a commodity to people. Without people the building would not be there. In this sense a building might be approached like any (bespoke) product. When deciding against using a building, this decision is not fully appreciating the building, which must be used from the inside, because, as Heidegger explained: dwelling is inherent to allowing a building to be a building. This then clearly discerns the relation human-artefact from the relation human-building. Though there are follies and structures which are erected as artefacts, at the same time these are put up to create or supply multisensory experience indeed, as if they were buildings.

Arguably because they are entirely made by hand, or in a sensory manner, historic and vernacular architecture are considered a product of sensory architectural design, be it in a natural and accidental manner. Garcia Esparza (2015) discusses epistemological paradigms on perception of the vernacular. Frampton (2007) links to new architecture incorporating similar values: *'In this way, Critical Regionalism seeks to complement our normative visual experience by readdressing the tactile range of human perceptions.'*

Where much has been researched and defined regarding street views and similar research into the experience of interior architecture of single buildings was not found. Regardless of whether or not historic buildings were fully designed or just constructed, today they are a historic built reality to be experienced, appreciated and valued.

O'Neill (2001) states: '*Frampton, for example, emphasized the importance of considering the experiential qualities of places in addition to the visual.*' Frampton claimed 'tactile experience' to be an important factor when considering buildings within the frame of his 'critical regionalism' theories.

Aiming to matching the aesthetics of historic building (for new design), Yuceer and Ipekoglu (2012, 3.1) have identified *'basic tangible aspects'* to behold the environment and setting, the site, the mass, the façade order including the architectural detailing and ornamentation of the exterior surface. Researchers like Ipekoglu appear to have found a very practical, tangible framework for assessment. However, it should be argued that people do respond to what they pick up by multisensory perception. Any compilation of tangible factors will generate intangible meaning. Therefore multisensory experience is to be considered, apart from experience per separate sense alone.

Figure 19: contrast (Marischal College, St. Machar's, both Aberdeen

Contemporary practice (as e.g. advised by ICOMOS, and inspired by Boito; see chapter 2) like '*minimum intervention*' and '*show your work*', from a sensory and experiential point of view are creating contrasts; contrasts are in fact drawing extra attention. Deliberately visible repairs, or accentuated building phases thus catch the eye, disturbing the experience of the whole.

Sound in historic buildings is considered, but generally restricted to technically maintaining the acoustics of performance spaces (e.g. Prodi and Pompoli 2016)

Perceptions are personal (e.g. two people cannot know if they actually see the same colour, even though they call it one name). However, if one registers one's response to building B, because of scientific markers like scale, size, light and similar contrasts, the properties of building B can be conserved regardless of one's personal observation (or interpretation).

Associated significances (see chapter 2.6) appear strongly tied to the sensory ensemble, but there is no public awareness of these being assigned rather than inherent to the fabric. If this would imply the current heritage discourse is about people and their conceptions of heritage items, rather than a recognition of the sensory experience of physical property, this would explain the current focus upon intangible heritage.

Table 1: comparing associated significance to experience

Associated significance	**Experiential building**
Physical building = Object	Physical building = Subject
Action = Cognitive (can be very sensitive, but not sensory)	Action = Physical, sensory
Conjured up in the brain; External to the building. Attached to	Conjured within the building; Inherent part of the building Emitted from

It must be realized historic buildings are perceived today, with a 21st century mind-set and frame-of-thought, and this is how decisions on their future will be made. As it happened in the past, arguably to no large-scale disastrous result.

Zumthor describes the conversion of a traditional barn: *'The new parts of the house did not seem to be saying 'I am new', but rather 'I am part of the new whole.'* (Zumthor 2006b[141]) This research argues that striving for similar *'new whole'* results fully appreciates peoples sensory experience of buildings.

[141] The full quote reads: *'4. a small red house in a rural setting, a barn converted into a dwelling which bad been enlarged by the architect and the inhabitants. The extension was a success, I thought. Although you could see what had been done to the house beneath the saddle roof, the change was well modeled and integrated. The window openings were sensitively placed. The old and the new were balanced and harmonious. The new parts of the house did not seem to be saying "I am new", but rather "I am part of the new whole."'* (Zumthor 2006b p.54)

3.6: A system of senses

sense *n* **1** any of the faculties by which the mind receives information about the external world or the state of the body. The five traditional senses are sight, hearing touch, taste, and smell. **2** the ability to perceive. **3** a feeling perceived through one of the senses: *a sense of warmth*. **4** a mental perception or awareness: *a sense of happiness.* **12 make sense** to be understandable.

sense organ *n* a structure in animals that is specialized for receiving external or internal stimuli and transmitting them in form of nervous impulses to the brain.

sensory *adj* of or relating to the senses or the power of sensation.

Collins Dictionary, 2006

To this research, it is more important to be aware of potential triggers than to understand the operation of human senses in (neuroscientific) detail. The purpose of the sensory categories, which will be defined in this chapter, is to offer an easy and understandable way to process a sensory assessment of a building. Hereto something close to Aristotle's five senses will be best suited, since these may be considered common knowledge in our western society. For a holistic approach, all sensory systems should be included; though visual perception dominates in literature, it should not be assumed more important than other sensory experiences.

In chapter 1 is stated that 'this research aims to study the encounter between a (historic) building and a (perceiving) human'. This section considers the human sensory modalities only, as the default perceiver of buildings[142].

Apart from the above philosophy and theory, sensory experience has a practical side; a biological or neuroscientific report of the contact between a sensory person and a building. This chapter aims to clarify the ways wherein a human being can pick up triggers from its direct environment. 'Sensory experience' means registration of impulses received by the 'senses'. These senses are bodily systems of registration, translating physical input to mental awareness (Mather 2006). The methodology, leading to the studies, will need a sensory system, which must be sufficient and useful for experiential analysis in practice, as a base for the study framework.

Holl (Holl, Pallasmaa and Pérez-Gómez 2006) discusses 'phenomenal zones'[143]; not all of these can be easily 'matched' with a sensory category. All these 'zones' are valid and clearly

[142] In the unlikely occurrence of an historic building designed for e.g. handicapped people or animals, the methodologies for assessment could easily be adjusted.

apply to architecture; the list may well be incomplete. They apply to the experience of a building, arguably to any three-dimensional experience, and appear very fluid and personal. This type of categories may assist fantastic narrative on architecture, but not necessarily assist the transfer of knowledge about a building within a building process.

'Beings' (humans/animals/organisms) have sensory organs aimed at picking up signals from their environment. Over time these have evolved towards a system of internal and external senses that is most suitable to enabling this being to keep itself safe. Technically a building is considered a facility to keep people safe, dry, at comfortable temperature and in control of their environment, and this is what the human organism is geared to respond to.

Though the literature provides different systems of perceptions, which generally are closely related to social or religious approaches of life, there is consensus on the existence of sensory perception. Generally the body will be triggered as a result of simultaneously occurring perceptions through various senses.

The traditional five senses are clearly related to five organs. A theory of seven senses (e.g. Pallasmaa in Holl, Pallasmaa and Pérez-Gómez 2006) does not offer this clear distinction; also, other interesting combinations of two sensory organs could well be made. To this research specifically, a 'sense' describing the relation between the human body, as a physical mass, and the building (situating the body in the building) will be useful.

In recent history, (western) man has learned to focus on visual input, because the quality and frequency of visual input has notably increased compared to input from other sensory fields. (*visual dominance*, Pallasmaa 2005 p.102) However, subconsciously all other systems for sensory perception are still in place, even when no longer trained to explain and process these, and are still recording signals,. The research deliberately aims to be comprehensive and therefore to pay attention to all possible/potential perceptions.

Though the senses provide a good framework for research, the sensory system is geared to respond to contrasts and changes, rather than items. This implies a response to the amount of contrasts, the depth or intensity of contrasts, the amount of impressions, light, perception of materials, and recognition. And, to the experience of architecture through contrasts, *'both sides are necessary'* (Smith 2012, p.10).

[143] Holl named his chapters according to these 'phenomenal zones': *Enmeshed experience, Perspectival space, Color, Light and shadow, Spatiality of night, Time (duration and perception), Water, Sound, Detail, Proportion, Scale and Perception and Site.*

In our western culture, the traditional system is that of 'the five senses': vision, hearing, touch, taste and smell. In, for instance, seventeenth century (Dutch/Flemish) art many allegories of these senses are found, all dealing with the familiar five, namely senses of vision, hearing, touch, taste and smell. These are directly related to the sensory organs eyes, ears, skin, tongue and nose. This system of five senses is contributed to Aristotle (e.g. Malnar and Vodvarka 2004[144]) and relates to the so-called 'sensory organs'.

Figure 20: allegory of the Five Senses by Gérard de Lairesse, 1668 A.D.

Below, in random order, examples of recent research are presented, identifying various approaches or proposed systems to understand physical perception. Unfortunately currently there is not one system that has found consensus within the literature. Therefore, aiming to study the sensory perception of historic buildings, the research required to review a couple of those currently featuring systems, and to adopt an approach best suited to the research themes and challenges.

Diane Ackerman, in 'A natural history of the senses.' (1990) describes the Aristotelian five senses in attractive prose, with many examples 'from life'. She found: *'xv We may neutralize one or more of our senses temporarily – but that only heightens the others.'*

[144] *'In classical opinion, the senses were inferior to cognition, and of the senses, taste and smell were the least valued.'* (Malnar and Vodvarka 2004, p.41)

Fiona Macpherson, in '*Taxonomising the senses'* (2011a) presents a matrix, describing the Aristotelian five senses and how they are different in every aspect.

Table 2: Macpherson's (2011) table, which 'displays how one might think the Aristotelian senses differ on all four criteria suggested by the theories.'

	Vision	**Touch**	**Hearing**	**Taste**	**Smell**
Representation	Colour, shape and movement at a distance from our body in front of our eyes	Temperature, pressure, shape and movement at the surface of our body	Sounds, volume, pitch, objects being struck or vibrated at locations in and at distance from and all around our body	Flavours (sweet, salty, bitter, sour, umami) in the mouth or on the tongue or in the food touching the tongue	Odours located either in the nose or in the air around the nose, perhaps coming from a certain direction
Phenomenal Character	Visual experiences	Tactile experiences	Auditory experiences	Taste experiences	Olfactory experiences
Proximal Stimulus	Electromagnetic waves	Mechanical pressure and temperature	Pressure wave in a medium such as air or water	Chemicals that affect receptors on the tongue	Volatile molecules that affect the epithelium
Sense Organ	Eyes, particularly the retina	Skin or receptors in the skin	Ears, particularly the cochlea	Tongue, particularly the taste-buds on the tongue	Nose, particularly the nasal epithelium

In addition, Macpherson gives reasons why this system cannot be comprehensive: there are other (non-Aristotelian) senses, senses may be fooled, some or all senses may malfunction, or the environment may prevent proper functioning of senses. She states that many perceptions can result from a combination of senses, and therefore a perception need never be assigned to one sense only. Notably Macpherson (2011 p.19) states '*in particular, it turns out that distinguishing taste and smell is particularly difficult.'*

Aiming to reinstate a comprehensive system of senses, current research by Macpherson (2011a, 2011b) concerns sensory modalities[145]. She intends to study how many senses there are, or could be, what makes them different from one another and how they interact.

Though most interesting background knowledge, eventually this research is interested not so much in the senses individually, but mostly in what (of a building), as a complete package or system of human sensory perception, they are sensitive to. When normally people's senses will all be 'switched on', it may be assumed people generally experience multisensory perceptions.

George Mather, in his comprehensive book '*Foundations of perception'* (2006), starts from a traditional approach, based on the Aristotelian five senses. He claims to follow the relative importance of the senses to humans by expanding most on vision, secondly on hearing, deeming these two more important. Mather describes the neurological process taking place during perception, to then propose an adjusted system of five senses: vision, hearing, touch, taste/smell, and balance.

> *'All the senses share one fundamental property – stimulation of the sense organ causes a conscious mental state. These mental states have particular qualitative, experiential, or felt properties such as loudness, pain, or colour (sometimes called sensations or qualia). By their very nature, sensations are private, and accessible only to the person who has them.'* (p.17) and *'Perception begins with physical stimulation and ends with perceptual experience.'* (p.34) (Mather 2006)

Anthroposophic theory, developed by Rudolph Steiner from the late 18th century onwards, uses a system discerning twelve senses. Steiner's system aims at a holistic understanding of the human being, including senses that appear predominantly metaphysical or psychological; sense of life, sense of speech, sense of thought and sense of ego. (Van Gelder 2004) These appear to deal with the person within himself, rather than with a response to his physical environment.

Many in the field take James J. Gibson, a US environmental psychologist, as a lead (e.g. Malnar and Vodvarka 2004, Pallasmaa 2005; see section 3.2). Aiming to understand perception by a moving person (aimed at aviation[146]), Gibson regarded the senses as *'active detecting systems constantly seeking out information from the environment.'* (Bloomer and Moore 1977 p.33). Gibson merged the senses for taste and smell into one, and included a 'basic orienting system'.

[145] Modality: the phenomenon that can be sensed; i.e. temperature, pressure, sound etc.

[146] for aviation; while on the move. One can be either static or moving while perceiving a building.

Gibson understood 'perceptual systems' as providing direct information to the perceiver, without cognitive translation or interpretation[147] (Bloomer and Moore 1977).

Joy Monice Malnar and Frank Vodvarka[148] (2004), studying *'Sensory Design'*, and focusing on building design specifically, have redefined Gibson's system by subdividing the haptic sense into four[149] components: touch, kinesthesia, plasticity and temperature/humidity awareness. Their statement *'kinesthesia is really represented by muscular tension exerted against bodily mass'* (p.246) does however not quite clarify why kinesthesia should be a component of touch. A comment about kinesthesia increasing the information from active touch (p.146) at least links the two. Malnar and Vodvarka use Gibson's distinction between 'passive' and 'active' touch; for example the skin registering temperature or humidity qualifies as passive touch, and holding something as active touch.

Though Boyle (2011) in her review of literature on sensory architecture, understandably calls *'Sensory Design'* unfocused and inconsistent, the book attempts to include and assess perceptions of all senses in the assessment tool it introduces; this 'Sensory Slider' (p.247-248)[150], intends to establish references, rather than prescriptions, for design. However, the Sensory Slider gives generic atmospheric information, and appears to focus on people's comfort and appreciation rather than what people appreciate in a general way, or information on triggers produced by specific building parts. It is a tool to be completed and interpreted by the 'initiated' only.[151]

In Questions of Perception (Holl, Pallasmaa and Pérez-Gómez 2006) and 'The Eyes of the Skin – Architecture and the Senses' (2005), aiming to cover 'the physical, sensual and embodied essence of architecture', Juhani Pallasmaa describes seven senses, linking to eye, ear, nose, skin, tongue, skeleton and muscle and thus taking balance and kinesthesia[152] as

[147] '*Like Aristotle, Gibson lists five basic senses, but unlike Aristotle he defines them as perceptual 'systems' capable of obtaining information about objects in the world without the intervention of an intellectual process.'* (Bloomer and Moore 1977 p.33).

[148] Joy Monice Malnar, a US (Illinois) architect and associate professor, and her co-author Frank Vodvarka, a US (Chicago Loyola) professor, art, design and history of architecture

[149] Confusingly, Malnar and Vodvarka start with three components (p.56, fig.3.5), then proceed to four (p.246, fig.11.13).

[150] Malnar and Vodvarka (2004, p.247) claim to have based their Sensory Slider on Gordon Cullen's *Scanner* (1966)

[151] Elsewhere in this thesis will be stated that this research is not aiming to produce a similar tool, seriously doubting the chances of widespread application.

[152] Since The Eyes of the Skin has become required reading, kinaesthesia as an important sense keeps popping up regularly within architecture now. For architects it is necessary indeed to be aware of what is happening when a person moves through a building/built environment. However, is that a 'kinaesthetic sense' or an accumulation of 'normal' sensory registrations?

additional senses. Since a building is normally static, and only rarely designed to than manipulate people, restricting the research to five senses can be justified.

Even a most practical source, Ernst Neufert's *'Architects' data'* (1980)[153], starts of with *'Basic data; human scale in architecture.'*, covering: proportions, dimensions and space requirements, the visual and light, the haptic (thermal comfort, pattern and texture), acoustics and air quality; all qualities that are sensory perceived.

Whatever theories apply to sensory design of new buildings could be applied to (pre-conservation) assessment of existing (historic) buildings. The same checklist could be applied to either activity.

According to some, these days the amount of human senses has five-folded up to twenty-five (e.g. Durie (2005) in the New Scientist goes up to *'at least 21'*). However, many of these 'new' senses give information about feelings of the person perceiving (e.g. nociception or sense–of–pain) rather than about properties of the perceived object, the latter being subject of this research. Using one of these extended systems may complicate the planned studies. While the amount of human senses is still being contested, for this research the issue will be to cover the range of potential perceptions, rather than exactly specifying each separate sense.

Where this research initially will be carried out within western society, dealing with buildings designed by western architects and perceived by western people, who will normally communicate their perceptions within a western world view and vocabulary, the Aristotelian approach of 'five senses', adjusted in line with Gibson, will be appropriate and most befitting as a basis. A system to suit conservation practice should be sufficiently comprehensive as well as practical. Eventually sensory perception will be a result of the total multisensory experience. Focus on separate components will assist in understanding the width of potential triggers that are supplied by the building under assessment.

Sometimes one can gain information on something by studying exceptions. In relation to the research the following come up:

Synaesthesia, in physiology, implies a sensation experienced in a part of the body other than the part stimulated (e.g. feeling a thing as a colour). Synaesthesia is a congenital condition applicable to very few people, therefore not something needing to be taken into account when assessing buildings (Mather 2006).

[153] once the ultimate architects' 'bible', generally referred to as '*Neufert*'

Vertigo is related to balance, and may occur when people are experiencing high buildings (Mather 2006). In occasional relevant cases it is bound to surface during a sensory assessment.

Ghosts, typically residing in historic buildings like Scottish Castles may be a sensory reality, but, like hallucinations and mirages are not a physical presence for consideration in conservation design. Arguably they may be a case of intangible cultural significance (e.g. the Green Lady of Crathes Castle, Aberdeenshire).

Proprioception is the awareness of the own body in itself and/or the position and movement of body parts, occurring when people physically adapt to a situation (Mather 2006). Stooping for a low door, or walking stairs or a slope, engage proprioception. The act of proprioception will trigger the perception of the apparent physical challenge that is presented, that may next be recorded through a sensory assessment.

While consciously looking (watching), subconsciously people are feeling, hearing, tasting, smelling and orienting. Sensory perceptions are stimulated through use; using the building will evoke experiences (and enjoyment).

Perception can confirm expectation or induce recognition; nostalgia is related to both experiences. A perceived recognition of a previous experience is likely to 'colour' the appreciation of a perception (appreciation is not the research topic). Malnar and Vodvarka (2004 p.84) describe a response in three stages:

> First: immediate physical response
>
> Second: conditioned by prior knowledge response
>
> Third: response to stimulus as identified in memory/due to sensory imprint.

Arguably, the second and third (recognitions) are only possible once the first has occurred before. Clearly the first stage provides information about the building, which gets mixed with information about the person perceiving through the next stages. (See above: Gibson's 'perceptual systems' do only apply to the first stage.)

Currently there appears to be no consensus on the amount of human senses. This is an issue, but not for this thesis to solve. The research needs a system and chooses conservatively until proven wrong. Based on the reviewed literature and aiming to assess people's perception of historic buildings, the research will consider the following sensory faculties: visual perception, auditory perception, haptic perception, olfactory and gustatory perception and orientational perception. These are more closely considered below.

Figure 21: 'Homunculus' enjoying a historic building.

[Homunculus (little man) in psychology is a depiction
of the sensory parts of the body, enlarged or exaggerated,
related to their importance to perception of the world]

3.6.1 Visual perception

Visual perception, or the experience through sight, needing light to trigger the eyes as perceiving organs, registers a lot more than 'pictures of things', providing a substantial part of the experiential information of buildings. Visual dominance is defined experientially, as *'ocularcentrism'*, e.g. by Pallasmaa (2005) and technically e.g. by Mather (2006): *'In humans, a much greater area of cortex is devoted to vision than to the other senses*.'

The architecture of a building shows in size, shape and proportions, and recognition of patterns, rhythms, repetition and variations, the building's materiality in opacity or transparency, reflectivity, colour and saturation. The time of day is shown through colour and saturation of daylight. Visual clues will assist orientation (e.g. distance, height, access options).

Visual information transfer, travelling with actual speed-of-light, is direct. The amount of light, allowing visual perception, is influenced by the available daylight or artificial light, potentially intensified by reflections in water, mirrors and other shiny surfaces, or toned down by dark or non-reflective materials. Light varies in colour throughout the day. Light/dark contrasts, light and shadows[154] reinforce three-dimensionality and spatiality of a building. This is illustrated for example by Rasmussen's description of St Peter's Basilica in Rome by candlelight, becoming totally different when there is no option for visual measuring: *'the colossal cave temple of the hatchings'* (Rasmussen 1959 p.52).

Colour is a visual experience that comes in a wide range of tones, hues and greyscales. Colour can only be experienced when light sheds upon it. Colour tint alone is able to create perspective. Itten's colour theory *(Kunst der Farbe)* explains a lot of this (Itten 1970). In practice, it should be noted that not all colours have been physically attainable for use at all times in history (Hurcombe 2007). Within building conservation, paint research [155] is a topic; such physical exploration of a building's original colour schemes is beyond the initial sensory assessment.

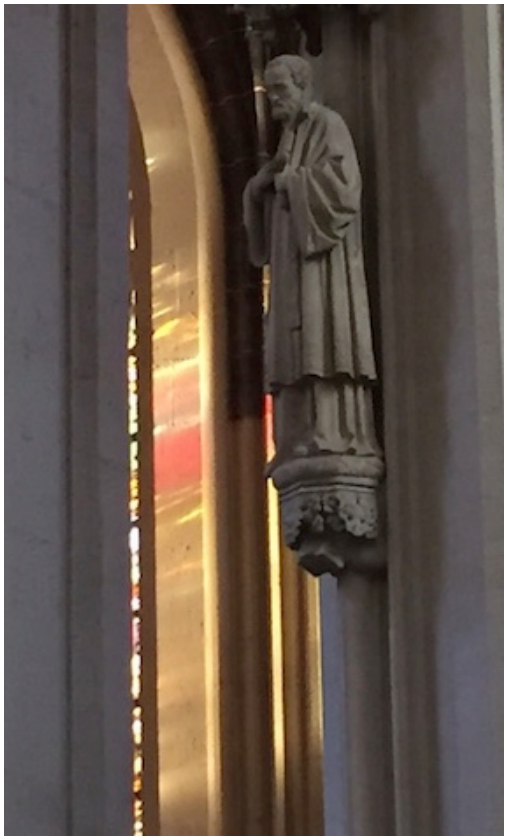

Figure 22: colour; visual only. St. Jan cathedral, Den Bosch NL

Vision is a dominant perception in today's society (Pallasmaa 2005; Ocularcentrism p.19, Privileging of sight p.39). Pallasmaa even ranks the senses from vision down to touch.[156] Vision is fast in providing information, up to a large

[154] A sensory story on shadows was written by Tanizaki (1977): *'In praise of shadows'*.

[155] See e.g. http://www.buildingconservation.com/articles/paint-research/paint-research.htm and www.historicpaint.com

[156] The ranking of vision at the top and touch at the bottom is a traditional one.

distance. A larger portion of the brain is devoted to sight. Looking at a material one will readily assume its hardness, stiffness, temperature, smoothness. These assumptions will contribute to the immediate feel of comfort. Vision is claimed to be the '*Spatial sense par excellence'*, because it benefits navigation, also when moving.

This dominance of the visual appears befitting to a fast society, but the acquired information, though probably sufficient for purpose, is arguably shallow. The visual and virtual will be insufficient when aiming to know and understand a physical building. This research stresses the importance of all other senses in retrieving a complete experiential image of a building or the environment.

Acknowledgement of the existence of much more than visual perception only is found in research towards architecture for the visually handicapped. 'Design for the blind' is a current topic in architectural research; in a progressively ocularcentric society, loss of sight is a serious handicap. However, existing research shows other human senses can increasingly develop to assist a blind person (e.g. Jenkins 2012). Arguably sighted people lack awareness of their option to use other senses equally well.

3.6.2 Auditory perception

Auditory perception, or the experience through sound, registers what people pick up through hearing. Because sound has a distinct influence on people's feeling of comfort, the acoustics[157] of a space are an important issue in building design. Acoustics are apparent in reflections on hard material or muffling on soft or shaped material, echoes or resonance due to the shape of a room. Typically historic interiors can be fitted with heavy curtains and thick carpets; these absorbing, textured materials make a room acoustically 'soft'. (Obviously their other effect is thermal insulation). Apart from the physical study of building acoustics, that can influence sound, the experienced sound itself can be studied in relation to buildings and urban situations:

Figure 23: carpet can muffle footsteps, while sagging floor-planks still creak.

[157] Acoustics: 1 (*functioning as singular*) the scientific study of sound and sound waves. 2 (*functioning as plural*) the characteristics of a room, auditorium, etc., that determine the fidelity with which sound can be heard within it. (Collins dictionary)

Focusing on sound, Kim (Kim, Stollery and Whyte 2013) describes a first-hand experience of 'sense of place' on a trip to Bergen. In actual memories of the place, refraining from notions of historic or cultural 'significance', the story relates to an intense physical experience. Similarly Whyte (id.) describes his experience of visiting Bergen and St Petersburg without heritage notions.

In the same paper, Stollery explains how a recording of the changing sound of a passing ferry, to him indicates this ferry is probably passing large buildings; the sound recording alone already provides information on '*a sense of space and the movement of the sounds within that space.'* (Kim, Stollery and Whyte 2013).

Sound is harder to precisely localize than visual clues, but people can hear further than they can see; *'hearing requires effort and particularly focused attention'* (Jenkins 2012 p.106). Hearing can provide a lot of information about space and material. Echoes help to determine the size of a space, as well as its loudness. Contemporary buildings will know the impact of continuous sounds, e.g. the sound of computers, air-conditioning[158] or street noise.

Related to historic buildings, Elicio and Martellotta (2015) state acoustics is a consequence of architecture, and claim it might be considered as a separate 'intangible cultural heritage' in itself. In the same journal, Suárez, Alonso and Sendra (2015) also propose to introduce *'a new intangible dimension: sound'*. Not directly related to built material or built volumes, and therefore distinctly 'intangible cultural heritage', for example Pinar Yelmi (2016) recently proposed to protect contemporary cultural soundscapes (*'sounds of Istanbul'*). Rather than a separate category, this research argues acoustics, or the tangible conditions for sound, should be naturally incorporated in the sensory assessment, being an inherent property of a built structure, and as such acoustics should be part of the building's assessment and protection. Undoubtedly these papers present clear indicators of the importance of a building's acoustics.

Sounds always are induced by something. The sound of a material, e.g. induced by knocking on it, gives information on its density, its thickness and robustness and if indeed the material is what it appears to be. Knocking on material is a good way to establish whether materials are real, rather than e.g. wooded or marbled (the temperature of a material may have an impact on its sound). It may also give a rough indication of the material's thickness. In practice, one may also be able to assess a hollow sound being due to material coming loose from its backing.

[158] When a room is larger and higher (regular in older buildings), the need for climate installation may be less; many advantages!

The effect of sound (the 'sound' of a space) can range from threatening and pressing to comfortable and soothing. Arguably unknown or untraceable sounds 'feel' uncomfortable. Sound can be very powerful and thus disturb the ability to use other senses.[159] Perceived sounds will always be the combination of all available sounds at one time. (The same applies to taste and smell.)

Audition or hearing is a temporal phenomenon[160]. Naturally the effect of the noise of a buzzing heater is totally different from that of the sound of footsteps approaching. But 'the sound of the floor generated by people walking on it', should count as a definite characteristic of a building.

Jencks (2013) attempts to relate architecture to music, initiating his text with a well known Goethe quote: *'Architecture is 'frozen music'... Really there is something in this; the tone of mind produced by architecture approaches the effect of music.'* (von Goethe, ca. 1800 AD). The paper provides good comparisons of rhythms and constructions and analogies of the build-up of both music and architecture. However, Jencks' story does not deal with sound in a building, nor the perception of sound. Arguably the rhythm perceived in architecture would be recorded visually or haptic rather than auditory.

3.6.3 Haptic perception

The order, of discussing haptic perception after vision and audition is underpinned by Herssens (2012): *'Whereas vision and hearing are 'far' senses, and responsible for intercepting distal stimuli, the haptic sense is a 'near' (proximal) sense, like the gustatory or olfactory senses.'*

In the renaissance, 'touch' was considered the lowest in the hierarchy of the Aristotelian five senses (Bloomer and Moore 1977, Pallasmaa in Holl et al. 2006). Pallasmaa (2005 p.10) formulates strongly: *'the dominant sense of vision and the suppressed sense modality of touch.'* Haptic perception *'is a term used in psychology to describe a holistic way of understanding three-dimensional space.'* (O'Neill 2001).

'Aristotle's sense of touch, the fifth sense, did not seem to be unitary on careful examination. For one thing it had no organ like the eye, ear, nose, or mouth, and the skin did not fit the idea of a sense organ.'

J.J. Gibson (1966, as cited in Bloomer and Moore 1977 p.33)

[159] Is this related to the response to pain in general? Arguably pain is too much of any sensory trigger?

[160] Looking forward to chapters 5 and 6: the studies have not considered a difference between perceiving continuous and occasional sounds; at the time this distinction was not acknowledged. The initial need was to establish which sounds were featuring at all.

The 'haptic system', as introduced by Gibson, can be regarded as an encompassing category for sensations of pressure, warmth, cold, pain and kinesthesis (Bloomer and Moore 1977). Its closest link to a sensory organ would be experience 'through the skin'. 'Sensations of pressure' link to the Aristotelian sense of touch; what can be touched or grabbed with the hands (feet, body, skin in general; requiring physical effort) differs from what has an impact on the skin (e.g. temperature, humidity, air movement) or the entire body (kinethestics[161]).

'*People gain environmental understanding from tangible physical experience, from coming in contact with natural and built elements, and from moving through spaces, as well as from seeing objects in space.'*

(O'Neill 2001)

Figure 24 : Haptic perception (Azay-le-Rideau, F.)

Malnar and Vodvarka (2004) present a haptic system consisting of three categories (p.57): 'touch', 'kinesthesia' and 'temperature and humidity'. These can be explained as; a. what one can feel, i.e. actively touch, b. how one registers and feels one's body's behaviour in relation to a space or because of the way a space is and c. what has a physical haptic impact on someone. Together, these three report back the body's response to contact with the surrounding environment. The three components respond to the same assemblage of things, but not necessarily to the same triggers.

Malnar and Vodvarka (2004) also state *'we have subdivided the haptic aspect into touch, kinesthesia, plasticity and temperature/humidity awareness'* (p.246), apparently adding a fourth component of 'plasticity'. Arguably the perception of 'plasticity' is a combination of haptic and visual triggers; clearly these categorisations add to confusion, without being complete. Others deliberately refrain from bringing up different lists of factors, e.g. Ratcliffe

[161] Kinesthesis = sensibility to motion (Bloomer and Moore 1977 p.33) It must be noted that what some consider a 'kinesthetic sense', related to orientation, in 'technical' literature in fact relates to the vestibular (balance) organ.

(2012), who states: '*I argue that touch encompasses a wide range of perceptual achievements, that treating it as a number of separate senses will not work, etc.'*

Since this research aims to focus on which properties of a building trigger people, rather than minutely defining how people perceive, it chooses to stay with Gibson, whose haptic system

> *'incorporates all those sensations (pressure, warmth, cold, pain, and kinesthetics) which previously divided up the sense of touch.'* (Bloomer and Moore 1977 p.34)

Normally when going round a building one will directly only touch the floor (perception buffered by shoes), hold handrails, door handles and other grips, and possibly support oneself

Figure 25: hard, cold, wet, intricate (tombstone at St. Machar's)

leaning against a wall or sitting on a ledge. Other materials, e.g. polished wood, will communicate to the body they would be nice and comfortable to touch. Passive haptic triggers include temperature and humidity, as compared to the activity of touch, which requires physical contact. Malnar and Vodvarka's (2004) discerning between active and passive touch may be very helpful in understanding the multi-faceted potential of haptic perception.

When walking an uneven pathway, the head tilts to watch the floor, and also all other senses get into a state of alertness; this follows the 'statolith' theory of head tilt as described by Schone (Malnar and Vodvarka 2004, p.105). Haptic perception incorporates *'feeling and doing simultaneously.'* (Bloomer and Moore 1977 p.35). Potentially this raised sensory awareness may explain one reason for people being more sensitive, or even affective, towards old buildings, where the floor to walk may be worn, uneven and unknown.

According to O'Neill (2001), stating it is the holistic way to understand perception of the three-dimensional space, haptic perception involves the integration of many senses, including sound and even memory; evidently a clear separation of perceptions into different categories is complicated. O'Neill (2001) states how already Gibson acknowledged the issue of overlooking 'not nameable sensations'.

Noteworthy is the practical research of Wastiels, Schifferstein, Heylighen and Wouters (2012 and 2013), mentioned above, into people's perception of warmth, focusing on a distinction between visual and tactile warmth.

3.6.4 Olfactory and gustatory perception

Olfactory and gustatory perception, or the perception through scent and taste respectively, enters the body through the nose and mouth (tongue); both distinctive sensory organs. Physically, the triggers for these perceptions are air dispersed when entering the body for assessment. Since consequently human taste and smell are both perceived through chemoreceptors, there is logic in joining these sensory modalities. 'Flavour' is a combination of smell and taste. Evidence exists (a.o. Ackerman 2000) of taste not being possible without a functioning olfactory organ (i.e. nose).

Bloomer and Moore (1977) and Malnar and Vodvarka (2004) are following Gibson's '*taste-smell system',* based on the fact that the olfactory and gustatory systems are looking for the same information. Pallasmaa's (2005) section *'The Taste of Stone'* is rather confusing; he claims to taste something, however not informing how to deal with taste in practice.

Ackerman touches upon the interesting and known situation that *'Violets contain ionone, which short-circuits our sense of smell. The flower continues to exude its fragrance, but we lose the ability to smell it. Wait a minute or two, and its smell will blare again.'* (Ackerman 1990, p.9)

Where tastes are commonly known to include sweet, sour, bitter, salt and umami, *'all smells fall into a few basic categories, almost like primary colors: minty (peppermint), floral (roses), ethereal (pears), musky (musk), resinous (camphor), foul (rotten eggs), and acrid (vinegar).'* (Ackerman 2000 p.11).

Figure 26: smoke to smell and taste;
inside a blackhouse at Lewis, Hebrides

[162] '*Our sense of smell can be extraordinarily precise, yet it's almost impossible to describe how something smells to someone who hasn't smelled it.*' wrote Ackerman (1990, p.6). This indicates an issue for the sensory assessment; (English) language has no actual vocabulary to assess smell; it can only refer to other smells. (Consider for example a description of the bouquet of a wine.)

In spite of people's unfamiliarity with the fine details of smell and taste, people are able to use them to sense and assess both harmful and beneficial things. Humans have developed to walk upright; therefore they can see further, but their noses are further removed from smells on the ground. (Ackerman 1990, p.30)

Emmons (2014) describes how in the pre-modern world, olfactory perception was important in architecture and urbanism, because the quality of air was defined by its scent and directly related to a healthy living environment. Emmons then argues in the modern world, where buildings and environment are about space, and (separated, indoor) air quality is delegated to technicians, odour remains as a component connecting to memory (and nostalgia, according to e.g. Ackerman 2000). Today air is something present (*'palpably present through odours'*), while space is a void and something absent. Air carries *'the richly sentient world that urban life offered through aroma'* through space.

[162] A noteworthy tale of smell in buildings: *'In the ancient world, royal architecture itself was often aromatic. Potentates built whole palaces of cedarwood, in part because of its sweet, resiny scent, and in part because it was a natural insect repellent. In the Nanmu Hall at the imperial summer palace of the Manchu emperors at Ch'eng-te, the beams and paneling, all of cedarwood, were lacquerless and paintless, so that the fragrance of the wood could influence the air. Builders of mosques used to mix rose water and musk into mortar; the noon sun would heat it and bring out the perfumes. The doors of Sargon II's eight-century B.C. palace in what is now Khorasabad were so scented that they would waft perfume when visitors entered or left. Pharaonic barges and coffins were made of cedarwood. The temple of Diana at Ephesus, on of the Seven Wonders of the ancient world, which had columns almost sixty feet high, survived for two hundred years, then burned down in 356 B.C., aromatically aflame. Legend says that, in shame or as an offering, it burned when Alexander the Great was born.'* (Ackerman 1990 pp.59-60)

Ackerman (2000, p.5) argues: '*Nothing is more memorable than a smell.*[163] *One scent can […] conjure up a [...]. Hit a tripwire of smell, and memories explode all at once.'*

Olfactory research currently develops into the field of cultural heritage; professor Strlič at the Bartlett ('*material degradomics'*, Strlič et al. 2009) and Lorraine Gibson from Strathclyde ('heritage smells' project; e.g. Gibson 2010) for example study what a musty smell in an old library tells about the books and their condition.

Taste is another sense requiring physical contact with the perceived object to be exercised. Buildings do not present many gustatory triggers; taste is the least apparent sensory quality. Only if the air is literally thick with something (e.g. smoke), or when deliberately using taste to find something out (e.g. taste the salt-blooms on humid walls), taste will be a factor.

Figuratively, taste is a definite factor in appreciation of buildings, which theoretically or sociologically can be associated with a sense of aesthetics. This however would not be categorized as sensory perception. Figuratively and subjectively, taste and flavour are inherently present in design decisions, as well as appreciation (palatableness) of buildings and conservation projects. Taste can be acquired and changes through history (fashion). 'Fashionable' things may be more likely to be picked up, as they are easily recognized. In this respect, people will be attracted to something that resembles things they already have learned to appreciate.

People may use a reference to recall commonly known tastes and smells to describe an atmosphere. This is an example of how somehow all senses very much work together in a system.

[163] Swann's Way, Proust (in Ackerman 2000): '*I would turn to and fro between the prayer-desk and the stamped velvet armchairs, each one always draped in its crocheted antimacassar, while the fire, baking like a pie the appetizing smells with which the air of the room was thickly clotted, which the dewy and sunny freshness of the morning had already 'raised' and started to 'set', puffed them and glazed them and fluted them and swelled them into an invisible though not impalpable country cake, an immense puff-pastry, in which, barely waiting to savor the crustier more delicate more respectable, but also drier smells of the cupboard, the chest-of-drawers, and the patterned wall-paper I always returned with and unconfessed gluttony to bury myself in the nondescript, resinous, dull, indigestible , and fruity smell of the flowered quilt.'* - In this example, a waft of smell can say 129 words.

3.6.5 Orientational perception

'Of greater significance to us are Gibson's basic-orienting and haptic systems, for these two senses seem to contribute more than the others to our understanding of three-dimensionality, the sine qua non of architectural experience.'

Bloomer and Moore, 1977

'To experience architectural space truthfully, it is necessary to perambulate and stride the building.'

Le Corbusier 1962[164]

Figure 27: stooping in a low doorframe (Study Four, Provost Ross's House)

This fifth category of orientational perception should cover Gibson's 'basic orienting' and Molnar and Vodvarka's 'bodily orientation', established to suit a person's being, orientation and navigation within an existing (historic) building. It focuses on spatial and physical triggers defining a person's physical and 'emotional' situation (at a point) in 'space'. As such, it will assess another component of the architectural design of a building.

Within the literature are many examples where authors deem the Aristotelian senses insufficient; the fifth sensory category of *'basic-orienting'* is found with Gibson, as described in Malnar and Vodvarka (2004) and advocated by Bloomer and Moore (1977 p.33, see above). As stated before, this is most befitting to the sensory assessment of (historic) buildings. Also Pallasmaa (Holl, Pallasmaa and Pérez-Gómez 2006) and MacPherson (2011) clearly acknowledge the Aristotelian system of senses needed extending.

Rather than to a single organ, orientation relates to the entire human organism. It is inherent to the human experience of a building, and a necessity when aiming to capture an entire building. The orientational system is related to multiple sensory organs (balance, vision, audition etc.) and a logical and inherent factor to the experience of buildings. Orientation defines the situation of the body in a space, leading to navigation through this space, possibly to the next

[164] As cited in Hölscher et al. (2006)

space. Assessment of the options for navigation and locomotion is a factor contributing to experience and comfort.

Merleau-Ponty (in Lewis and Stahler 2010 p.168) discussed kinaesthetic as movement (kinesis) and perception (aesthesis) being active at the same time; e.g. *'Normally, as I think about looking in a book, I am already stretching out my arm to pick it up.*' (Lewis and Stahler 2010 p.168)

This research applies the orientational system to define a person's situation in and relation to a space; this has aspects of orientation, navigation, (relative) scale and size. Arguably these are more relevant than kinesthetics (awareness of the position of the body; related to the vestibular, or balance system (situated within the inner ear)) or somatosensory feelings (how a person 'feels' him/herself), since such awareness of the self does not inform others about a building.

A historic building normally is a static entity. The only movement to be registered would be people moving through the building. So what may have an influence may be not so much the awareness of where ones limbs are at any point in time and space, but mostly how perceptions and feelings of comfort change (vertigo, unsettled, safety) when moving from one space into the next. The experience of a series of spaces is definitely a perception that occurs within buildings or in relation to buildings.

The size of a space is perceived visually (actual and relative (to the own body) measuring) and auditory (with reflecting or echoeing sound) and possibly haptic (local variation in temperature, awareness of walls and ceilings being close or removed). A difference in perception of males (better spatial vision) and females (generally more sensitive) is known; however, the deviation of the mean is small. (Mather 2006 p.349)

Seamon (2007) found a number of ways wherein phenomenology assists to understand space syntax, and concluded there are three themes describing different experiences of the environment: the perceiver is either in *movement*, *rest* or *encounter.* Clearly the two are closely related when again space syntax enlarges understanding of *'the full richness and diversity of human experience of the environment'* (Hillier 2005, as quoted in Seamon 2007).

Hölscher et al. (2006) describe that architectural layouts cannot be experienced as a static structure, but are revealed *'literally step-by-step'* while moving through a building, whereby people's strategies differ in familiar or unfamiliar buildings. A related statement from a different source, stating that whether people are blind or sighted, walking in an unknown environment for the first time is usually slow and hesitant (Lahav and Mioduser 2008 p.34), indicates a strong influence of architectural space on people being within it. This notion is enforced by the awareness of the pathological extremes of agoraphobia and claustrophobia, demonstrating that direct emotional responses to the dimension of space can be very intensive (Franz and Wiener 2008).

Figure 28: drawn up the stairs, towards the light (Study 4, Advocates' Society)

If a sufficient amount of people apparently respond to something, this something must be emitting signals. Applied to conservation, one can pin down what object or configuration provides these triggers; which are the triggers is to be found out; what they are or may represent is a different issue. To write a sound conservation plan, information on which physical items are valued is essential. However, the essentialist or ontologist qualities of these items individually may not be known. What matters is that they do evoke a response.

Since not all perceptions can be associated to a single sensory modality, a sensory assessment should consider a 'general' category also, covering multisensory perceptions through a combination of sensory triggers. Within the frame of this research, it is important to realise that some aspects of buildings will primarily trigger one sensory faculty while other aspects of a building will be apparent without clearly relating to one specific sense, and focus will be on having a comprehensive overview of triggers. Also, when a sense of atmosphere, or ambience (Voase 2007) is experienced, it will be relevant for this to be recorded within an assessment, regardless of its precise sensory origin.

In general; the impact of separate sensory perceptions is influenced by contrasts, sensory magnitude and the presence (competition) of other triggers.

3.7: Summary; about human perception of buildings

This chapter studied human sensory experience, notably of buildings. Information on this topic can be found within phenomenology, studying the way things manifest themselves. People need to be triggered in order to respond. Philosophers and psychologists alike study this phenomenon.

Notably Norberg-Schulz studied phenomenology of architecture specifically, introducing the *'Genius Loci'* or Spirit of Place (as adopted by ICOMOS, see chapter 2). Recently, sensory perception has become a topic in architecture. Due to the current visual focus in architecture, practical application of sensory theories notably is studied in the field of building for the visually handicapped.

Within historic building research, even on the level of building components, the focus tends to be on affinity and aesthetics rather than the encompassing sensory experience. Other fields of study may benefit from information to be gained from the studies to follow.

A system of senses was defined in section 3.6, to be a framework for the sensory assessment of historic buildings. To best suit the experience of buildings, the research will adopt Gibson's system of visual, auditory, haptic, olfactory/gustatory and orientational senses. Also, it will approach perception as a multisensory phenomenon, acknowledging not all perceptions can be traced back to one single sensory modality only.

The perception of the built environment will always be a result of multisensory perception. Though people may be consciously aware of a few sensory registrations only, the entire system will subconsciously be working as well, unless manipulated. This implies people constantly enhance their perception with subconsciously gained information. All senses will generate triggers, having an influence on how people respond to their direct environment, and their appreciation hereof.

Having explored sensory perception and sensory design (objective 2) the research concludes these are at present not structurally applied to historic buildings. The study of how this can be better understood presents the basis of the following empirical studies.

PART III: METHODOLOGY

CHAPTER 4: THE RESEARCH METHODOLOGY

4.1: Introduction

> *'We may wonder what it was that we liked about this house, this town, what it was that impressed and touched us - and why. What was the room like, the square, what did it really look like, what smell was in the air, what did my footsteps sound like in it, and my voice, how did the floor feel under my feet, the door handle in my hand, how did the light strike the facades, what was the shine on the walls like? Was there a feeling of narrowness or width, of intimacy or vastness?'*
>
> Peter Zumthor, 2006b

To find an answer to the research question (see section 1.4) *'Physically and architecturally, what, of a historic building, evokes people's affinitive response?'*, a methodology had to be defined to explore what a historic building provides to be experienced by a sentient person. The literature review (Chapters 2 and 3) found no previous studies dealing specifically with this combination of the 'historic buildings' and 'sensory experience' themes, although the review did identify previous research concerning the discrete areas; for example Earl (2003) and Pendlebury (2009) on people's dealing with historic buildings and Waterton (2005) on 'sense of place' (but not covering the sensory experience of the physical material) or Malnar and Vodvarka (2004) and Pallasmaa (2005) on sensory perception of buildings (but not considering historic buildings specifically).

With reference to the research Aim, as stated in Chapter 1:

> Demonstrate and critically explore the existence of sensory experience in historic buildings; and the relevance of using sensory perception to understand historic buildings,

the research aims to develop an experiential consideration of historic architecture, and aims to establish how approaching historic buildings from a sensory angle is not only subconsciously occurring but can also be consciously performed, by anyone. Since the research is seeking data from the field as well as developing an approach that can be applied to practice, the research method will consist of a structured assessment of people's perceptions and experiences within

historic buildings that is straightforward, understandable and accessible, so it can be performed with ease, by 'lay' study participants.

This chapter, on methodology, explains how the data-gathering process, being the next part of the research, was shaped, and will set out the rationale for the studies.

The data collection is a foundation to fulfil Objective 3:

> Develop a critical framework to support understanding of (the existence of) sensory experience in historic buildings (through studies).

Sensory perception is the method people naturally use to experience their (built) environment; therefore sensory perception is an obvious method to assess the built environment for experiences that matter to these people. The topic was studied through an immersive survey, carried out on various locations.

Performing the studies provides the connection between the topics of historic buildings (built heritage) and sensory perception and experience. The resulting data and their assessment will deliver a clear original contribution to knowledge.

In Study Four (see chapter 6) buildings were assessed by members of the general public, to demonstrate that the sensory experience is not a prerogative of architects only, but actually perceived by and accessible to everyone.

Rather than quantitatively surveying the buildings to find out people's weighted scores against certain markers, the studies were aimed at discovering what such markers might be or behold.

This chapter defines the place the research has in the field and describes development of the primary data-gathering studies. Application, data collection and analysis of those studies will be covered in the following chapters. During development of the overall research question it was decided to investigate those factors, which, with regard to historic buildings, trigger sensory responses in people.

Sensory qualities of historic buildings have not been a topic of focused research to date, thus presenting a clear and important gap in knowledge. Attention for sensory architectural design is a relatively recent development, so far focused on creating new buildings and admiring them when finished. Sensory perception features in discussion on sensory necessities to support the (visually) handicapped (e.g. Herssens 2011, Jenkins 2012). Recognizing and assessing a building, before embarking on a conservation design, for sensory qualities that are to be sustained, has not structurally happened before.

The aim for the research is to establish whether and how sensory perceptions are an essential component in people's appraisal of (historic) buildings. The primary data studies were

designed to validate these questions and give a comprehensive insight into whatever these perceptions entail. This aimed to elaborate the understanding of historic buildings from an architectural position. Notions of various senses were approached from various angles.

The anticipated outcome of the research is the identification and understanding of those aspects to be considered during the conservation assessment of any building. A combination of robust data retrieved from singular buildings can demonstrate and express the sensory richness of the historic built environment as a whole. Architects, naturally inclined to be their own guide, possibly tied to programmatic demands and probably assigned while being expected to instil their signature within a design, may be more inclined to implement a good general idea than to adopt using a rigid format or tool. When based upon thorough assessment of an existing situation, newly acquired sensory knowledge could be liberally applied to architectural conservation and transformation design.

This chapter covers:

4.2: Research directions

This research is situated between two fields of enquiry. One is building conservation, currently mostly part of a vast 'Cultural Heritage' discourse (Chapter 2), the other is sensory perception, part of a field stretching from architects' writings to neurological research (Chapter 3). Connected and considered together, they could inform another field; that of architectural conservation practice.

People's ability to consciously register with different senses is not equally distributed across the senses (e.g. Mather 2006). And not every perception can be assigned to one sensory modus only. In its focus on people's experience, and exploring sensory perception, the research is inherently qualitative (Silverman 2013). It aims to explore and register people's sensory perceptions of buildings, rather than interpret people's thoughts or cognitive affinity (reflexive analysis; see below).

The research started with observations on people's awarenesses or perceptions of historic buildings apparently being such that they miss out on essential judgement at stages of decision during a conservation process (or when designing new traditionalist styles). Thus the research thesis has developed from an initial awareness that the key to unravelling the problem might be found in people's perceptive capacity[165][166]. Eventually the research was directed towards finding features of the building, through people's perceptions, which are inherent properties of the specific building while irrespective of a specific user. For some time, a 'body and soul' approach was adopted, trying to understand the issue by splitting a building's significance in a physical and a metaphysical part.

Reviewing literature on perception and (then) sensory observation, the research found an architectural and suitable track in Pallasmaa (2005), Holl, Pallasmaa and Pérez-Gómez (2006) and Malnar and Vodvarka (2004). Sensory research appeared a good approach to obtain an understanding of the physical environment of a historic building. Meanwhile literature review on heritage and historic architecture (Chapter 2) revealed a vast discourse in cultural significance, far removed from the treatment of physical buildings. The same literature showed many aspects of a building's 'soul' would be covered within cultural significance. And clearly

[165] The literature review (Chapter 2) found that architects dealing with historic buildings appear to be dealing not with mere physical entities, but rather with containers of 'associated significances'. This property of the building (the ability to evoke emotions and attract significance) must stay in place to keep the building through conservation.

[166] Study One, at Knock Castle, for example (chapter 5), was run at this early stage in the process, asking about participants' opinions and ideas.

Figure 29: the bubble bracketing the research topic

technical conservation takes care of the building's 'body'. However, the generated architectural experience would not be purposely assessed.

The research claims architectural perception is generated by a physical building, but grounded in the experience of the sentient body being in the building. This generated experience is in itself immaterial. It is inherent to as well as dependent on the physical building.

Experience has many factors, sensory as well as cognitive. Because sensory perception depends on the presence of physical triggers, this defines what of a building can be subject to physical conservation efforts. By studying perceptions of a sentient human being within a physical building, the research aims to understand what is requested of this building to produce the present, or the required experience.

Responses, often carrying judgement, to a same perception may be different for each person. However, each response is showing reaction to a trigger. A building can be known through the sum of its positive and negative aspects. Assumedly these both are needed to make the building what it is.[167]

[167] Like only Yin and Yang together making a whole.

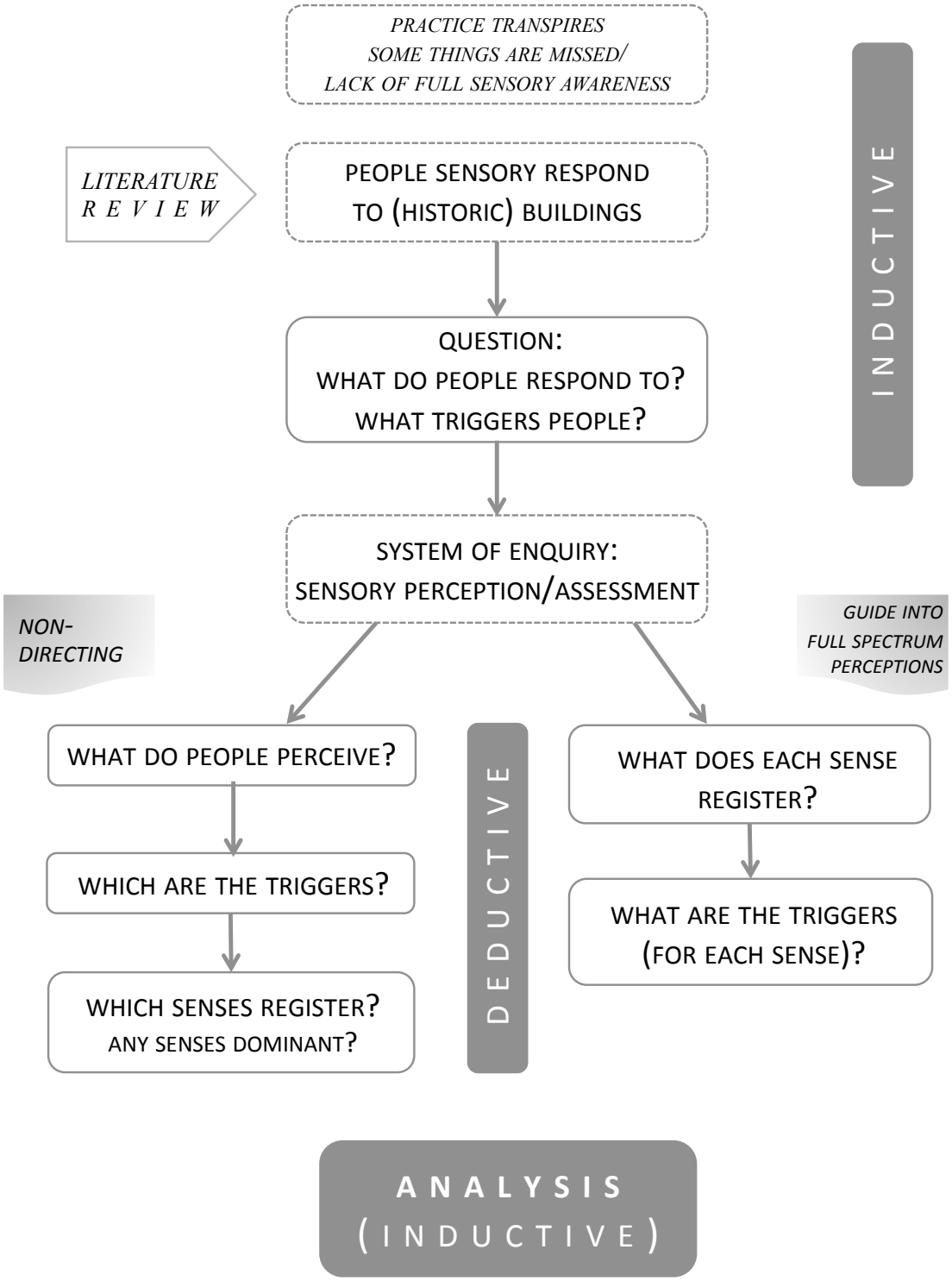

Figure 30: overview of the research method

It can be argued that conscious sensory perception will enable people to assess historic (existing) buildings and help to clarify and frame what, of a building, is physically relevant to people. The one complete answer (positivist stance) is a theoretical result, but it is not likely this will be found within the research. However the research will give ample insight to at least

solve part of the puzzle. As such, the research intends to entice people to perceive and experience buildings in a different way.

The research is exploratory in nature (Silverman 2013, p.357), aiming to establish a consideration of sensory perception in the assessment of historic buildings. According to a common architectural paradigm, any building design should primarily aim to facilitate and accommodate people. Generally buildings are a part of society, and by default affect people.

The existence of sensory experience of the built environment is assumed valid (see also Chapter 3), and people's impression of architectural spaces is defined by their sensory perceptions (Malnar and Vodvarka 2004, Pallasmaa 2005). Cultural heritage's (intangible, social, historic) significances are considered to depend on the existence of a physical building. The work of conservation architects directly affects this sensory experience; therefore conservation architects need to familiarize with the building prior to planning and designing. This paradigm is used as a core for framing the research.

Though the assessment-data, as a whole, will have a generic value, which in practice can serve as fundamental knowledge to consecutive assessments, the sensory assessment as developed and proposed serves as a method to scrutinize and understand a specific building. Consequently predictions of the consequences of conservation manipulations should be easier established and more precise.

The methodology needs an understanding of phenomenology[168] (see Chapter 3), but this is not the paradigm for inquiry. The system of inquiry for this research is empirical. Though starting off on a general scientific approach, the research outcomes will be exemplary, but not fixed and potentially incomplete. However, dominant perceptions are unlikely to stay unnoticed.

The research studies the phenomenon of sensory perception occurring within and towards historic buildings. It studies the being, or ontology[169], of the building, the things that evoke

[168] Mather 2006 p.36 on Phenomenology: *'In phenomenological experiments subjects are often fully informed about the purpose of the experiment, and their task is kept relatively open with loosely constrained responses. Response classification may occur only after the data have been examined.'*

[169] Ontology: the nature of reality (Groat and Wang 2002, p32). Ontology (in philosophy) is a systematic account of existence. (Plato Stanford)

triggers, rather than the people[170] processing these triggers. Finlay (2014, p.136) states three different types of phenomenological analysis. Reflexive analysis dealing just with what has been recorded, metaphorical analysis that may be more literary than directly scientific and interpretive analysis that deals with people's feelings. Since this thesis aims to focus on buildings rather than people, a reflexive analysis will be most appropriate. The research is looking for actual, physical clues, and is specifically not looking for an interpretation of why things appeal to people, as it will be very hard to produce a robust study hereof without appropriate psychological background. And, probably more importantly, the outcome of most conservation projects will typically have to appeal to all people in general, rather than to individuals.

Since the research is studying triggers of perceptions, rather than trying to explain these perceptions, the outcomes of the research will not be related to any participants' frames of thought. It can be stated the outcomes will keep validity through times, since they are independent of people's interpretations.

Thus, the next step in the research has been to physically combine perceptive, sentient people and historic buildings, and find out to which triggers (evoked by historic buildings) people respond. This is a deductive process. When analysing the data, the aim is to find the width of potential perceptions, to be able to present a more complete overview of triggers. The research hopes to clarify what such triggers entail; will they mostly be items, atmospheres, or combinations of things? Which triggers are stronger than others may be secondary, since this depends on people's personal sensory preferences, which in our time appear to heavily focus on visual information. However, while realising this, it will be interesting to review which senses give stronger responses than others, and review if such more quantitative information could be related to the relevance of various triggers.

Other than artefacts, historic buildings generally are assessed when conservation is pending and choices must be made.

[170] Phenomenologic theory describes how people sensory respond to their environment. (Groat and Wang 2002, pp.32-33)

4.3: Previous research methodologies

Though the sensory experience of historic buildings, in combination, is a new topic, ample research exists into either the ontology of buildings, or people's sensory response to their (built) environment; the latter regularly geared to blind people's perceptions. The table below compares some research cases.

There is a strong literature base dealing with perception of urban environments and landscapes. Methods have to be checked on applicability to the generally smaller scale of buildings, and the difference of being 'free' in an environment versus enclosed in a building.

Table 3: initial overview of the variety of previous research

author	**subject of study**	**method-ology**	**method**	**topics covered**	+	--	**remarks**
Arabacioglu 2010	system for spatial analysis	spatial analysis	'Mamdami' fuzzy interference system	defining the borders of architectural space	what people perceive	not what people respond to defining borders	
Brimble-combe and Grossi 2006	aesthetics of blackening stone	establish thresholds	face to face question-naires				
Coeterier 2002			in-depth interview with help of photos		rich variety of situations		participants mark with familiar 1-10 grades
Domer 2009 (p.81)	identify significant building phases					steer architects, rather than inform	*'this will show how buildings can be changed/ added on to'*
Fisher 2009	the building as a context for interactions	space syntax access analysis visibility analysis	1 case study	integrate access analysis with examination of built envi-ronments, encode meanings, communica-te to people			
Fransson etal 2007 (p.35)	Indoor environment	regression analysis	150 respondents, question-naire	perception of air quality vs. measured air quality			perception, but not affect quantitative
Franz et al 2005	relations between features and affective appraisals			experiential qualities			
Franz & Wiener 2008 (p.150)	spatial properties of environ-ments	desktop/ virtual reality experiment	response to plans viewed on computer				

author	**subject of study**	**method-ology**	**method**	**topics covered**	+	--	**remarks**
Herssens and Heylighen 2007 (p.107, 125)		non-visual sensory inquiry	open questions				
Houtkamp 2012 (studies 1-5) (p.164)	affective appraisal of virtual environ-ments	empirical research	average 30 participants response to virtual images	urban decay, lighting, real vs. virtual, sound, experience of danger, engagement and arousal cyber-sickness, influence of stress		all virtual experiments Nasar 2008	'previous experience can dominate the affective appraisal'
Jenkins 2012 (p.125, 140-142)	blind people orientation		walking a course			very dull environment	
Kaklauskas, Zavadskas and Raslanas 2005	analysis of building refurbish-ment	multiple criteria analysis	calculus				
Li and Will 2005		fuzzy logic systems	participants respond to photo's				data used to make a fuzzy model for predictions
Nasar and Stamps 2009	infill houses (what constitutes 'too big'?)		present a photo book of computer generated images				respondents found in public places
Smith 2006		quantitative	multiple choice	experience of heritage		not about the building; significance only	
Tassinari et al 2011	morphological aspects tool for analysis	analysis of building's physio-gnomy	space syntax, quantitative	find criteria for consistency	analysis and reproduction of morphology	not how morph appeals to people	parameter to leave appro-priate level of freedom for design
Voase 2007 (p.82, 150)	visitor experience						
Wang et al 2008	extracting features of sidewalk space	rough sets theory	participants respond to pictures		handling imperfect data with uncertainty and vagueness good for small sample sizes	this research based on photographs; visual response only	
Wastiels et al 2012a (p.126)	visual vs tactile perception of warmth						
Yildirim 2012 (p.152)	appropriate re-use of historical patterns	prioritise between various re-use criteria					'how to deal with' rather than 'what is' the building
Yüceer and Ipekōglu 2012 (p.116)	compatibility in architectural expression (extentions)		analysis of architectural characteris-tics				'emergent field of heritage impact(s?) assessments'

The table (above) reflects an initial overview of a wide range of research, assessing the built environment in various ways. Aspects hereof might be applied to assessing sensory aspects of historic buildings. Only some of this research features in the thesis (page number indicated). On site full sensory assessments have not been identified, other than those for blind people (Herssens and Heylighen 2007, Jenkins 2012), obviously missing one sensory category.

Clearly, asking participants for their physical, sensory perceptions (rather than their affinity) is not customary. Though notably Smith (2006) asked participants on-site for their experience of heritage, she presented participants with multiple choice questions, entirely directed at immaterial cultural significance[171].

Referring to Zimmerman et al. (2003), Houtkamp (2012)[172] states: 'questionnaires can only assess the conscious experience of and affective/emotional response, but much of the affective experience is non-conscious'. Therefore the second 'Part 2' of this research's sensory assessment, directing people to focus on one specific sensory category at a time, aimed to get entry to otherwise subconscious perceptions.

Referring to Hazlett and Benedek (2007), Houtkamp (2012) states: 'emotional experiences are not primarily language based. Cognitive effort is required to put emotional experience into words and this effort can contaminate the measures.' With this knowledge, initially asking for keywords only, rather than explanation, is a good choice for the questionnaire.

Peri Bader (2015) asked study participants to report their experiences of negotiating (familiar) environments. She found that '*the perceived affordances signify to the subjects mainly what they* cannot *do*,' and people reported obstacles rather than options.

Fuentes (2010) studied vernacular farm architecture in Spain, resulting in an analysis of construction techniques and typological characteristics, aimed at the assessment of reuse potential. Such assessment would be a good base for economical decisions, but does not explain what is so attractive, nor help to decide what to sustain through conservation.[173]

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[171] Refer to Figure 6: historic significance is an immaterial cloud around an actual building

[172] Houtkamp (2012, p50), referring to, among others, Hazlett & Benedek (2007) and Zimmerman, Guttormsen, Danuser & Gomez (2003), presents an overview of issues related to survey by questionnaire. Since Houtkamp, intending to appraise affinity, has a subjective factor included in participant's data, not all issues she touches upon will be relevant here.

[173] For example: 'The main factors in favour of its reuse are good accessibility for visitors because of its closeness to the national road N-110, from which it is easily identified, the availability of electric supply and the architectural singularity of the building.' (Fuentes 2010 p.127). But such factors are not fixed; the importance of roads may change, or, when a building is suitably relevant, this might justify a road being made.

Similarly Yildirim (2012) describes a methodology for the appropriate re-use of historical patterns, prioritising between various re-use criteria, emphasizing a characterisation of deterioration. Again, this is a case study of 'how to deal with', rather than 'what is' the building.

Wastiels et al. (2012a,b) researched visual versus tactile perception of warmth, to assess which sensory category is dominant. Though fascinating information towards design, both awarenesses are equally relevant to this thesis.

Nasar (2008) stated on-site exposure is more realistic, but offers less control and requires bringing a panel to the site; this research needs the realism. When a virtual environment would be as good as a real environment, this would weaken the case for the latter's conservation. As long as the amount of human senses is being contested, any 'control' would be relative anyway (since since control can be applied to known factors only).

In itself, the question 'What is the historic building?' could be answered by purely quantitative research, accounting the building as a collective of built items, matching to a building typology. Ipekoglu (2006), for example, does quantitative analysis; a tally of how many doors, windows etc. of which type. This may be good to catalogue buildings, or systemize, or research their evolution, and to make an exact replica. Such quantitative studies are not related to people and the information is less relevant to designing new-traditionalist buildings or transformations.

Many surveys are based on images or visuals. These are easily performed (online) between a large sample of participants. But the actual experience on the spot, applying to all senses, cannot be virtually recreated, if only because assumedly people are aware of the physical presence of a building. Alternative survey methods depend on a medium, just as much as a survey on paper. Using technology will be more intensive for participants, without necessarily getting more data on the 'first contact' with the building.

Theoretically security camera footage, which will be taken within many historic buildings anyway, might provide data. However, these will show how people move through a building, but not at all why. And when people are forbidden or discouraged or even not inclined to touch anything, the camera actually will provide no rationale at all for people's movements. The footage would not explain why people move in a certain way, for example whether their movements are triggered by attraction to an item, the space in general or because they try to move away from somewhere less pleasant. The only way to find out what people respond to is to ask them; the easiest way to record this for a group of people is to have them write it down.

Whatever strong triggers are around should be picked up as part of an initial visit to the building. People can only spend so much time within a building, and if they reflect elsewhere

(eg at home), the direct response from the building will be gone, and the data would be about memories rather than real buildings.

The question: *'What does the building represent to people?'* would cover historic significances, with psychological focus on the people perceiving, which clearly is no part of the research question. Therefore historic research should not be part of the studies. The fact that a building is historic does probably not influence the occurrence of perceptions. The research does not intend to renounce the validity of historic research, rather it chooses to disconnect from it and bracket it out from the research, in order to be able to concentrate on experiential factors. In the scope of this research, the above question could be reframed as: *'What of the historic building provides physical triggers to people?'* claiming the effect of the actual experience triggers and creates the affect to the building.

Neuroscientific testing, though inherently objective, would be a very complicated way to find out something a person can tell you, and not necessarily supply better or more useful information.

Since the above review of previous research methods did not provide an example leading to the required type of data, and, as customary in qualitative studies (e.g. Creswell 2007) taking an empirical approach to the research, the consecutive studies would have to assist to develop and refine the method of assessing.

4.4: Designing the studies

Claiming, based on the literature in chapter 3, that people's sensory perceptions define the physical experience within a building, and a sensory assessment therefore should be an essential part of any conservation assessment, the research now needed to demonstrate that and how this works, and what kind of information this approach will deliver.

The research studied the interface where human and (historic) building meet, aiming to confirm its assumptions as well as to explore what a building gives people to be perceived. People would have to physically experience the building in order for the perceptions to be researched to occur. Sentient[174] people and historic buildings had to be physically brought together in field studies, set up to facilitate the experience to which participants were asked to share their responses. Identifying a group of people being a sample from an average western population, and a selection of common local historic buildings, would avoid overcomplicating the research and the data. Participants would be encouraged to realise they are sentient beings and equipped with a full set of senses, to be used when immersed in the sensory environment.

The data the research was aiming for, are those indicating triggers that provoke sensory perceptions and therefore define the physical experience of a space. Rather than precisely establishing which sense picks up what, the research aimed to assess which part of the building is related to an occurring sensation. On site survey is a necessity, being the only way to assure all triggers within a historic building are indeed supplied.

The required data should be straightforward; a direct statement of whatever catches a person's senses. Stronger triggers can be assumed to leave a deeper impression, and to do so faster. It would be far-fetched to wire both some entire buildings, as well as wiring a group of people, which might establish a connection from one to the other when a perception takes place. People may appear to look at something, when in reality they are busy perceiving with different senses; alternative methods, for instance observing people's movements through a building will '*not explain the cause of behaviour'* (Curedale 2013, p.211). Collection of data is fully dependent on participants' response.

Compared to the studies reviewed in the previous section, some of which are static, reflective and analytical (and so inherently disconnected), a sensory assessment will be a dynamic, active and participatory process. The data cannot be acquired through observation of participants; this could only pick up people's actions, but not clarify what triggers them in the first place, or if they chose to follow up on one of more triggers before acting. The spaces for study should be

[174] Sentient: having the power of sense perception or sensation; conscious. (Collins Dictionary 2006)

pre-assessed to confirm the space does not contain a 'foreign body' attracting a disproportionate amount of attention.

The data from all studies were to be collected by targeted questionnaires, handwritten on paper. Simply requesting people to write down their perceptions would be an appropriate method. Questionnaires may be obtrusive, potentially boring, and distracting, but in a straightforward and uncomplicated way. Other ways of recording text might be more direct, but present different issues (e.g. the distraction of handling a recording device). Also, since the research is not focusing on the people but on the experienced building, the data would not be essentially different. Arguably the variations would show most in people's individual experience. Writing down is a default option, tried and tested through the last century, and therefore would be familiar to participants. Today's adults are still accustomed to straightforward writing on paper; this activity in itself could hardly be considered a serious distraction from the perceptive process.

Whatever data from whichever participant are bound to be subjective, but when stronger triggers are present, different people will respond to the same trigger. Therefore participants would be requested to note these triggers, rather than their response to them. The triggers would not be weighed, neither on a scale of appreciation nor set off against other triggers, since they would all be relevant components of their combined experience.

Participants should not be informed about the history of the building on beforehand, to keep their focus on the building, away from 'associated significances'. However, previous knowledge of the building was not a problem in itself. Though significances would surface while perceiving clues when assessing the building, the research is focused on such clues, rather than their explanation.

The research would concentrate on people's perceptions, and those people themselves would be the only ones to know what they were perceiving indeed. Each person might have their own favourite combination of perceptive senses; for a larger group of participants, their combined perceptive capacity would cover an array of senses.

These particular data are new, and an understanding of their meaning and implications will contribute to knowledge. In the development stage of the process, prior to receiving any data, this straightforward primary research[175] was perfect to in fact establish if and how consideration of sensory perceptions adds information to a building assessment.

[175] primary research: the researcher gets first hand data direct from his sources. (e.g. Curedale 2013)

For a robust result, systematic enquiry would be needed (Groat and Wang 2002, p.7). The entire spectrum of human senses should ideally be covered; chapter 3 of this thesis discusses how this system of senses is still contested. Not everyone is consciously using a full spectrum of senses, therefore participants would have to be guided into their ability to perceive, and to perceive in different ways.

Though the researcher personally needed to be present, and sentient, during the study, to be aware of any sensory distractions or other unexpected factors at the time of the survey[176], running the survey in an interview format would introduce the interviewer (researcher) as a an (sensory) interference. Open-ended questions would provide information similar to interview-data. Where many surveys were presented to participants in a classroom setting, in these studies participants would be left to explore the building as pleased them. There would be some time to formulate answers, but, more importantly, participants would have a chance to 'let the building get to them' before answering. In an interview situation such silent moments might be awkward.

That a field study like this could never be fully objective need not be an issue. The research aims to inform how to best deal with building conservation, which intends to benefit society, formed by people. Data defined by some subjectivity, from participants being representatives of this society, would still be valuable.

The research intends to assess a building in its current condition, to enable better-informed interventions. Theoretically all healthy humans possess the very same perceptive systems, and since the research is interested in the object of perception rather than perceiving individuals, the study results of a small group can be representative for a general population (Silverman 2013). Arguably every person's individual differences only define that person's character, and individual people may assign any significance to a building without changing its trigger-providing fabric.

The strength of various individual perceptions is not an issue[177], when the general impression is created by the combination of evoked perceptions. These all need to be sustained. The perceived strength of a trigger (absolute or relative) will be different to different people. This thesis does not focus on these gradations.

Non-architect, or 'untrained' participants were more likely to see the survey as just that, as well as a good opportunity to visit some nice buildings at best. (Trained participants like the

[176] E.g. sounding of an alarm, open fire going cold and very smoky.

[177] The strength of individual perceptions can be differently experienced by different people.

architecture students in Study Two might approach a building as a potential refurbishment project). Though potentially recording more than untrained participants, they might be more inclined to figure out what could be improved rather than just establish what there is.

The research aims for an objective approach to the matter. Enquiries were obviously started from a personal interest. But only what is of objective, general, common relevance can be disseminated as a 'truth' to be taken into account. There is no need to touch an architect's personal way of designing; this thesis' only claim is that a conservation architect ought to be totally familiar with 'his' building in every relevant way.

Perception is using a combination of modes of exploration. (As was re-established during data analysis). A clear benefit of the method used for the studies was that it relates to what people are familiar with or consider normal.

Figure 31 therefore presents a rational research design of refining the method through studies. Every next study leads closer to the core topic. Eventually the right assessment survey would produce robust data on sensory experience of historic buildings.

This is how the studies worked, specifically:

- Study One, a first attempt at participants' on-site assessment of a listed historic building, was looking for the relation between people and historic buildings in general, and aimed at defining what the research aimed to expose and explore.
- Study Two aimed more directly at what a person responds to, of a building. Inspired by literature on sensory perception, Study Two established people can share and reflect on their sensory experiences, and examined the result of separately focusing on individual senses. Included was an attempt at researching options for recreation of a specific historic atmosphere. A larger body of 36 participants assessed one building only.
- Study Three was a pilot for the assessment questionnaire and survey procedure. It focused on the width of sensory experiences, to obtain robust data of a more general validity.
- Study Four was a full sensory assessment of various buildings, aimed at retrieving a body of data to be analysed for their information on people's sensory perception of historic buildings. In this study, 20 participants each assessed three buildings.

Throughout these studies the research kept reconsidering (rationale for) a suitable 'system of senses' to be applied to future sensory assessments.

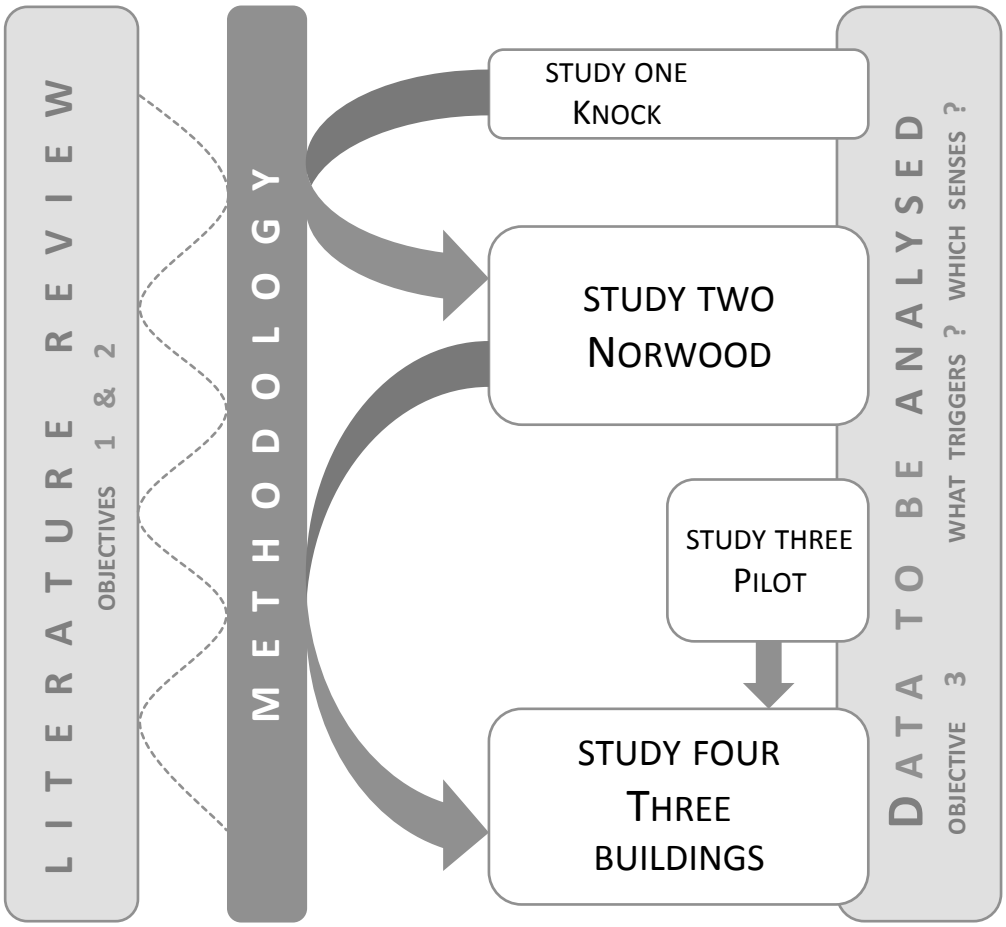

Figure 31: Refining the method through studies

Because, at the time of its design, the understanding of the sensory system, and what it can process in relation to a historic building, was still developing, Study Two at Norwood House was based on a preliminary set of ideas, and used student-participants. It was intended to facilitate data collection in combination with development of the best way to retrieve data covering a full sensory spectrum.[178]

Study Four concerned buildings in Aberdeen, and had a more refined system of senses to be studied (see Chapter 3), while it was realised that capturing a wide range of perceptions as 'multisensory' would be more important than being able to individually categorise them. The

[178] Traditional common knowledge regards the human sensory system to consist of five senses. The surveys aim to retrieve information acquired through all of these. The amount of five senses is contested. However by assessing perception though these five, separately or in combination, any need to add more or change to a different system of senses should transpire. Results from Study 2, based on the traditional senses, and supporting literature (Malnar and Vodvarka 2004) resulted in an effort to capture orientational awareness as an element in Study 4.

method is thus refined through the studies (see Figure 31), by iterative data collection and data analysis, in a constant comparison method.

The conservation architect will need an objective reality to start with. Plus an idea of what a general person responds to. However, when running the studies, only subjective people can be surveyed, whose average response may be assumed to be an average, therefore objective response. Reality will be the world as perceived by the people in it. Whatever reality may exist beyond what humans can experience is simply not relevant, as this could never consciously be influenced through architectural design

A historic building might provide (slightly) different triggers from a contemporary building, if only for its architecture, exposition of building skills and materialization. Aiming to inform building conservation, and aiming to assess the width of potential perceptions, buildings to be surveyed should have the appearance and constitution of a 'generic' building-to-be-conserved. Likewise, the rooms to be surveyed ideally should not have one overpowering perceptive feature.

Where pre-conservation assessments regularly will be carried out in empty, unused buildings, the research prefers to survey buildings in use. The general modus operandi for a building being to facilitate people's activities, there would need to be other people in the building to get data on the awareness of these people being present; they were expected to, at least, produce acoustic and haptic perceptions. The participants will not need to imagine a functioning building and all data are a response to the same actual building A balance of participants per space would avoid other people's presence becoming a dominant perception. The proposed assessment aims to regard a building as something of a certain age, originating from the past and still very much functioning in the present.

Since the participants will represent an average user of a building, a decent amount of people would be needed. Taking them as a group, they would feel they were participating as one of this group. Participants should be relaxed as this would free up their attention to use it for perceiving the building. There would be a restriction to the amount of people to take to the same building at the same time, to avoid their presence as a group to interfere with the presence of the building.

A balance should be struck between the amount of data needed to find a general outcome, and the effort requested from participants. Data should indicate 'common denominators', which may well be identified in twenty samples, and would only occur five times more when delivering 100 samples. Employing too many participants, on multiple occasions, might be pushing building managers' generosity.

Performing a study across three buildings, in one session, was deemed a minimum for variety and a maximum for practicality, as well as a maximum for participants (time wise and repetition wise[179]). Since the data had to be about the building rather than the people, it was important to perform Study Four across various buildings. Also, variety of these buildings in size, access and decor was considered .

Provost Ross's House[180] is the second oldest building in Aberdeen (very old), encompassing two medieval dwellings (built as private) and consequently being an ensemble of small spaces (small). The Advocates' Society (1869 A.D., old) still keeps its original functions (original, semi-private, medium sized). Though the Art Galllery[181] originates from the same time as the Advocates' Society, its interior has since been partially adjusted to accommodate changing needs (old and 'new', public, large).

A study run with architect-participants might get (slightly) different results, since architects are trained to observe and recognise the built environment from particular perspectives, and with certain value principles[182] (Purcell and Nasar 1992). They may pick up more, but at the same time be preoccupied with the things they have learned to notice, rather than freely perceive their environment, which happens to be a building. Since buildings are facilities for everyone, the research would need to find out 'everyone's' perception. To conservation architects and other professionals, it will be valuable to match or extend their own perceptions with information on perceptions from the public.

The author's role, as researcher, was limited to facilitating, the survey sheets were to guide the participants. By default, any questions would guide participants in some way. However since the eventual interest was to propose incorporating a sensory assessment in practice, the goal indeed was to entice participants to engage all sensory categories during this assessment.

The same study was run on two days (with different participants). This way it would give participants a choice of day, the weather and ambient situation (e.g. noise) might be different each day, and it could be avoided to crowd rooms with participants without pushing the limits of various locations' hospitality.

[179] Some participants indeed commented on this repetition, in writing.

[180] Provost Ross's House consists of two houses; a 1593 building and an early 18th century one.

[181] First built around 1900 A.D.

[182] Purcell and Nasar (1992) – there is a difference in judgement between architecture students and other students.

Drawing of the cartoons was not much liked by Study One participants; participants for Study Four would not be trained 'artists', and the buildings to be assessed would not present objects for drawing as clear as Knock castle.

Whether or not a participating 'assessor' appreciates a building-to-be-assessed may be irrelevant in practice, when the decision to keep (or not to keep) a building will be taken based on economic values or associated significances.

After four studies, a clear indication of the goals set in the aim and objective 3 should be acquired:

- Evidence that people actually perceive with a full range of senses, and that their affinity is based on more than visual perceptions only.
- A deeper understanding of sensory experience in historic buildings.
- Sufficient information to promote extending pre-conservation building assessments with an understanding of sensory perception.

Since no two historic buildings are the same, be it only through their individual histories, the search for the experience of these buildings was performed in a qualitative enquiry. Development of the sensory assessment, as a guiding framework for a different approach to historic buildings, would be a result of the consecutive studies. Study Four presents the sensory assessment as it may be used in practice, as a format for enquiry, to 'get acquainted' to each individual historic building.

4.5: Data collection: developing the questionnaire

In the course of the research the method, questioning participants about their sensory recordings, naturally developed towards the qualitative. (A similar practice is presented by Silverman (2013, p.122). Open ended questions were to produce rich, qualitative, data. This 'survey by questionnaire' format depended on participants' ability to translate their perceptions into words, and their ability to observe and record without judgment. Some questions would ask participants to reveal which qualities, in their perception, were more important or striking than others..

The sensory perception literature review (Chapter 3) has shown that a fully comprehensive system of human senses is currently not available. Also, people tend to perceive in a multisensory manner. Traditional knowledge regards the human sensory system to consist of five senses. The survey aimed to get information acquired through all of these. Though the amount of five senses is contested, by assessing perceptions through these five, separately or in combination, the need to add more or change to a different system of sensory categories, would transpire. Indeed, between studies Two and Four, the olfactory and gustatory have merged into one category, and a new fifth category of a sense of orientation has been incorporated.

Perceptions that could not be matched to a specific sense would still be registered and categorized as a 'multisensory' perception. Having participants focus on specific singular senses aimed at raising people's awareness of what all they perceive already indeed, so they are more likely to report all these perceptions.[183] Employing both the generic, multisensory approach and the sense-specific approach should provide an overview of all occurring perceptions. Whatever was obviously apparent, though not fitting into the scope of 'five senses', should come up through reflection on multisensory awareness.

A good outcome of any study of the type undertaken here depends on the quality of study design. Apart from direct data on the actual building surveyed, on a different level of enquiry general information on people's response to historic buildings could be obtained.

The studies combined two elements: a specific building, to be approached as a static entity whereof maximum information was to be extracted (the historic building, as sensory environment), and a body of general participants, needing to be dynamic and active while generating data on their physical interaction with that building (the sensory perceivers).

[183] Participants should just reflect their perceptions only; architects specifically should well be able to translate these perceptions into architectural properties.

The contemporary approach to human perception, biased toward visual perception, often comes down to (a series of) snapshots, taken from an analytical, but inherently disconnected stance. The presence of the sentient body in the building would be vital to the research, to assure a potentially infinite amount of triggers could be recorded. Opportunity to experience contrasts and changes[184] had to be provided in the process.

Mather (2006) in general suggests to provide ample opportunity for participants to share their observations, aiming to retrieve a range of data which may later be categorized: '*In phenomenological experiments subjects are often fully informed about the purpose of the experiment, and their task is kept relatively open with loosely constrained responses. Response classification may occur only after the data have been examined.'*

Aiming to collect responses to all triggers, including any beyond the anticipated as well as those related to multisensory perceptions, and to avoid guiding participants towards desired outcomes, the questions, looking for sensory experience, were formulated open ended. According to Curedale (2013) open endings encourage *broad meaningful responses* and are more objective. Exact formulation of questions was important, as this would decide which (sensory) data would indeed be provided. Often keywords were requested, both to focus on first impressions and to have the participants stick to recording, rather than interpreting, what of the building caught their attention. The challenge for the questionnaire was to generate simple and straightforward questions that were never leading. The questions were run in a logical order, and were tested in a pilot prior to running the main study.

The layout of the questionnaire form was designed to direct participants to the data required, clearly indicating each sensory category. The majority of questions asked for perceptions, without asking for accompanying rationale. Between the actual perception and the action of putting this perception on paper should be no thinking time. (Though important triggers are unlikely to disappear during a mental dry-run of whatever will be written up.) Participants should focus on intuition, and plainly reflect.[185]

Ideally, the survey format would not direct participant's movements through the building, so they could be guided by the architecture of the building; this however was not easy to apply to a hardcopy assessment (participants were advised they might visit rooms 'in no particular order').

[184] Changes might be no more than perception from a different angle, to get a different impression; no physical change of the surveyed environment was planned within the scope of this research.

[185] In practice, this appears hard. Mainly, participants' explanations are not core data for this research; therefore the work done is unnecessary.

A challenge for compilation of the questionnaire would be to avoid guidance in the wording of questions and instructions. The research should never suggest potential answers, but aim to find out what people perceive for themselves. The questions aimed at directing people towards using the full width of their sensory potential, should direct the 'setting' of the sentient perceiver, i.e. their internal focus on a sensory mode to be used, but never their external focus on specific experiences within the building. Hence the final questionnaire was developed and tested through performing a series of previous studies.

Though recurring data will indicate either strong triggers, or high sensitivity to these particular triggers, potentially all data will be equally valid. Perceptions reported by one or two participants might still have been registered, but not reported, by others, since different perceptions may be dominant in different people. This could theoretically be confirmed in studies where a particular trigger has been removed, to then be reported missing. Practically, this research aims to assess the width of occurring perceptions.

The sensory category of orientation, being an addition to people's awareness of the traditional (five) senses, could not be straightforwardly implemented in the questionnaire. Though some of it may surface when staying in one place to focus on individual senses, orientational awareness will be engaged through moving through the building. Therefore this sensory category is an essential aspect of the architectural experience, being a direct consequence of active 'occupation' of a static building. Questions were included[186] in the survey to retrieve data on orientational awareness, aiming to tackle what is important of this sensory category through the data analysis.

Study One focused on perceived 'qualities' and 'elements that must be kept'. Rather than objective information about the building, the survey retrieved subjective opinions of participants. The Study One data assisted in clarifying the focus of the research, away from peoples opinions towards the experience of the physical building.

Hereafter a new set of questions was devised for Study Two, pitched at retrieving data on experience and separate sensory perceptions; not appreciation, not judgement, just triggers for perception. Two approaches to sensory perception were translated into two sections in the survey: Part 1 to focus on the experience of the physical building in its totality, and Part 2 to be an exploration into the separate senses, one at a time.

[186] This included Q19 on the size of the room: participants would indeed (not literally, but clearly) relate the size of a room to their body-size.

Since Study Two would be performed by mature architecture students, a Part 3 was devised, aimed at finding out how to this knowledge about the building's experience could be used to re-create a similar experience (from scratch). Due to the fact that the survey forms would be collected when complete, the participants only had their memories of strong and lasting impressions available.

The survey would cover two different approaches. Initially (Part 1), participants would have to respond to the building as multisensory, instinctively perceived. The same three questions would need a response in each individual room. This aimed to show the width of potential sensory experiences. Consecutively (Part 2), participants would be guided to focus on individual senses, to retrieve the depth and variety of perceptions through each separate sense. For time efficiency, and to ensure participants would stay focused on their task, this set of 'sensory' questions was to be answered for one room only. By dividing the survey into Part 1 and Part 2, Part 1 data could function as a 'control group' for Part 2; sensory triggers coming up in Part 1 must have been strong, since there was not specifically asked to include them.

The question which senses are recording would be answered both through Part 1, where data could be coded to match with specific senses, and through Part 2, when a sense would appear to not record anything. The question of what the triggers for a perception are would be answered through Part 2, where these (What can you pick up with sense X?) would be actually stated as data.

Between Studies Two and Three, some essential adjustments to the survey questionnaire were implemented. Sustained were the requests to capture a first impression in three keywords. To modify to a more straightforward, less metaphysical questioning, the concept of 'soul' was changed to 'general atmosphere'. Though based on the impossibility to observe the (Study Two) original building separately, the absence of any questions addressing the exterior was considered an omission, and hence adjusted.

For Study Three, the questionnaire was adjusted and the Part 2 expanded. Within each sensory category, different approaches were explored. An added question for each room, in Part 1 ('Which historic built elements or features do you feel contribute to this atmosphere?') intended to capture the essentials of the rationale for the previous Part 3, now dismissed.

Starting Part 2, participants had to note which room they were surveying, as well as whether or not the room was considered appealing. [187] Between pilot Study Three and main Study Four, some wording was changed, aimed at clarification of the assignment and avoiding confusion.

'What do you appreciate most in this room?' Would present relevant information, potentially of importance in practice. The question was improved for Study 4, to read: 'What do you think generates this appeal; what makes the space attractive?' (Part 2, Q15). The 'general' questions (Q17-18-19) were much expanded, to include a question about size in an attempt to further define orientational perception.

For clarity, in the survey sensory categories were named by their 'common' rather than their scientific name (e.g. 'hearing' rather than 'auditory perception'). The questions on visual perception were moved backward in the sequence, in an attempt to diminish people's visual focus in favour of other sensory categories.

Participants were encouraged to consider each sensory category in different ways: Hearing could apply to sound 'belonging' to the building, or to 'other' noise and sounds. Touch could be considered both active touching, and a passive (a 'feeling', though your skin) perception. Due to the apparent dominance of vision, the question was formulated as 'What has the greatest impact', due to anticipating that otherwise participants might just sum up what could be easily recorded by photographic recording. Smell and taste eventually (Study Three/Four) should record actual perceptions, rather than associated ones (Study Two).

The question 'What have you used in orientating and navigating through the building? was erased from Study Four, since it had not produced relevant data in the Study Three pilot.

Study (Three and) Four had the following question included: (Q28) 'Do you feel you have noticed or experienced more than you 'normally' would have? Has your awareness of these buildings changed?' Participants' own opinion on this topic is valid. How much of the sensory building would have been recorded through Part 1 already, would be different for each individual participant. When a majority of participants would judge they perceive more through performing a Part 2 assessment, this assessment will generally be useful.

Initially Groat and Wang (2002, p.221) were used as a guideline when considering the questionnaire design and formulating questions, making sure questions were clear, concise, not leading and logical. The participants were made to understand they could not produce 'wrong' answers; all answers would be valid and of use.

[187] *'Does the room appeal to you? yes/no/I do not know'*. This was a multiple choice question, since a subjective rationale to the answer would be less relevant to the research.

4.6: Methods for data analysis

The research is looking to establish what of a building triggers people, since it is the building that will be subject to a conservation process. The data would be comprehensive, rather than complete. All strong triggers would be represented in the data. Cumulative data from e.g. 24 subjective participants (Study Four), together would present a relatively objective perception.

A relatively large amount of visual data was to be expected. Not only is current society very focused on the visual, but our language system lacks vocabulary to describe arrays of tastes and smells, other than interpreting or relating these to something familiar. In the interpretation of data, the quantitative analysis (e.g. the amount of hits for one particular trigger) will be secondary to searching for the width of the data-generating spectrum and the variety of triggers.

The data from Studies One to Four were retrieved in survey-questionnaires filled out in handwriting. The participant's names were anonymized. All questions were numbered. Next, the study data were transferred and collected into 'master' tables; compared to the pile of survey-forms this enabled a better overview of the data when comparing different answers to the same question. Recurring data, for the same room, across rooms and across the different buildings, could so be established. While reviewing these rich data, especially (non-visual) sensory notions (in Parts 1), and statements of 'historical' and 'original' were colour-coded.

Next the data from all studies were reworked into another table, consisting of columns for perception with each separate sense. When more people answered the same word to the same question, this word was noted once only. Generally, synonyms with similar, but slightly different meaning were both noted, to show the richness of the perceptions.

The collected visual data were split in things or objects (those that would be recorded on a photograph, though when experienced 'life', different things might stand out or focus attention) and other visual perceptions (on qualities that might be overlooked when not separately acknowledged). The later category is showing the probably less obvious and definitely more interesting results of visual perception.

Data from Parts 1 and 2 were kept separated, since for Parts 1 the author/researcher placed data across various columns, whereas for Parts 2 the data had been recorded by the participants per single sense in the first place. The strength of either approach could so be reviewed. Because the two data sets contained complimentary data, they could be collectively considered in the analysis.

Data across questions that were deemed to apply to a fifth sensory category, named 'orientation', were collected in a separate column. Studies Three and Four had some questions

specifically intended to retrieve information belonging to this category (question Q11, and also Q13, Q18, Q19).

Already during the process of compilation of these various tables, remarkable data and observations would be noted down.

The cartoons of Study One would be analysed for their general impression, and the built elements that were recurring in the drawings, to serve as an indication of what participants had perceived.

Part 3, featuring in Study Two only, was to be analysed for the return of 'sensory' elements in the design, and rationale therefore (when provided) rather than for the re-creation designs in themselves.

In the analysis the researcher might interpret participants' observations to match these with, or assess these as induced by, physical building characteristics. This interpretative approach aims to translate data and observations to match with specific built elements. Data that were not indicated to fit in a sensory category, nor could easily be assigned to one, would be collected in a 'multisensory' category; along with those data that obviously belong to more than one sensory category.

Whether or not architect-participants are better equipped to process sensory perceptions than 'lay' participants is a secondary issue. This may be found through comparing Studies Two and Four. However, if there is no obvious difference in perception, this might indicate insufficient development in skills that, according to some (e.g. Pallasmaa, Holl, Alexander), are of the utmost importance. Alternatively it could be regarded that these architects adopted fussing about issues other people do not care for. This is a related, but side issue.

It is likely the furnishings and fittings at the time of assessment would have a substantial effect on the data. Since the data should simultaneously indicate whether this is related to their richness, texture, colour or similar, such information will still be useful when deciding on a new 'lease of life' for a building.

The answers to question Q28 ['Do you feel you have noticed or experienced more than you 'normally' would have? Has your awareness of these buildings changed?'] (Part 3 of Studies Three and Four) are to be collected and separately reflected on; these might validate the idea for the entire research in the first place.

Though a visual presentation of the data would appear inconsequential with regard to the multisensory approach as promoted by this research, a compilation of sensory perceptions, reflected in words, on a photograph of the room, might be assembled for some rooms, for

dissemination rather than analysis. To accommodate the reader, this would visualise the fact that a room holds ample perceptions beyond the visual ones also.

The data will show generic results, which will indicate what types of results are to be expected from carrying out a sensory assessment of a historic building. First and foremost it was hoped the data would be more interesting than, and a valuable extension of data retrieved from current pre-conservation assessments of historic buildings.

Eventually the data should show building-specific as well as general information. Acquisition and delivery of robust data should demonstrate the benefits of performing a sensory assessment in building conservation practice.

4.7: Study conditions and limitations

Participants had to be picked within rough limits of requirement. Related to the topic of enquiry, there was no reason to assume children's sensory systems would respond to essentially different triggers in the built environment. Since the research focus lies with the building rather than the perceiving people there was no need to include children. For practical reasons (e.g. availability, responsibility, mobility, disclosure) children would not be part of the survey.

Participants were asked to state their gender. According to e.g. Irigaray (Rawes 2007) men and women respond differently to a same situation. Participants of both genders would be involved in the study. Substantial differences were not expected to show within the scope of this study.

Older people gradually loose sensory potential. On average, they are less responsive to physical triggers than younger people (Mather 2006). Hence older people would be less effective participants.

Participants would be asked how long they had been living in the Aberdeen area. The local population counts many expatriates, and it might be useful to have an indication of people's familiarity with the typical local building style.

Study Three had shown reading and interpreting the questionnaire might be challenging for those lacking profound knowledge of the English language. All studies had shown richer use of vocabulary in answers of native speakers, making the data not at all more valid or useful, but definitely more interesting.

This research was limited to participants accustomed to western cultures, geographically to Aberdeen and typically to granite buildings[188]. All participants turned out to have higher education. There was no reason to assume the participants would deliberately provide fraud data.

It is to be expected the process of sensory assessment can be applied anywhere in the world, and in any building. Translating typical perceptions to apply to a different architecture should be straightforward.

Arguably the study results would be limited to those senses participants were directed to use only. However, in 'Part 1' of each questionnaire, a full range of perceptions could be presented, and would be coded multisensory when not clearly recognised as belonging to a

[188] The limitation to granite buildings was a given rather than a choice, being inherent to Aberdeen as a location, and not expected to influence the essence of the research.

specific sense. It might not be possible to produce a framework connecting all perceptions each with their specific individual sensory system. But for each sensory system could be identified which perceptions typically result from it.

If the topic of study had been people, or their experience, an opportunity to adjust the studied environment and rerun the study might have been of interest. However, since the topic and focus of the study was the building as it is, this was not a limitation. Ideally, in a future situation, running a sensory assessment before and after a performed conservation might be exciting.

Apart from Study One (courtesy of a study visit already under responsibility of Scott Sutherland School), all visited locations were visited prior to running the studies, and permission to perform the specific study with a specified number of people on a specific date and time was sought and granted from appropriate representatives of each site, personal and through follow-up phone call or email where needed.

Study One had permission from the course leader. Study Two had permission from the hotel manager personally; a time least obstructive to hotel guests was discussed. Study Three had the rooms used booked, and permission from the janitors for access. Regarding Study Four, the Provost Ross's House and Aberdeen Art Gallery both were property of Aberdeen City Council and permission was obtained from janitors in each building in person, as well as the same City Council representative, through email. The studies were planned during normal opening hours.

Specific days and hours suitable for a visit to the Advocates' Society were communicated with their secretary, initially contacted by phone call. Availability of the Advocates' Society building eventually defined the dates for Study Four. An attempt to enter Provost Ross's through an old door (rather than a new main museum entrance) resulted in some hiccups on the day, which were settled and sorted for the second study day.

Participants were aware of the fact they were requested to carry out a survey by questionnaire, and roughly about the duration of the exercise. Running a study in the town centre resulted in transport and parking costs for participants; upon request one participant's parking fee was refunded. Thankfully all participants appreciated the visits, notably visiting the Advocates' Society, being a private venue previously unknown to all of them.

Visiting publicly accessible buildings, during normal opening hours with adult participants without physical handicaps was an easy way to avoid any risks or safety issues. Sanitary and similar conveniences would be readily available.

Participants for Studies One and Two were responsibility of the school. Participants in Studies Three and Four were volunteers. Applicable RGU paperwork was completed and submitted.

Participants have been anonymised in the thesis data. Participants in Study Four were aware they were being photographed and were aware their image might feature as anonymous participant in the thesis only. The survey questions are not personal, other than *'Does the room/space appeal to you?'* to begin Part 2[189]. Data will be confidential always.

Studies One and Two were aimed at finding out what the research was looking for. The internal validity of Study Four was piloted and tested in Study Three and established to be valid and useful.

The external validity of the survey as carried out in Study Four was determined to be valid in western countries and western culture. However, it is to be expected the same survey could be carried out anywhere, with any group of participants provided they are literate, and the Aristotelian set of senses is customary within their culture. This could be easily established running a small pilot. Arguably a 'part two' survey could be adapted to match another 'set of senses'.

The straightforward study format was one easy to perform. There were no images, to avoid further stress on the visual. Arguably the retrieved data are very similar to those that might be delivered by a fancier set-up. Though the success of the studies depended on participants' willingness to sensory engage with the building and their ability to reflect this on paper, this was not an issue in practice.

An attempt to reduce the risk of obtaining rambling and vague answers was made by asking for keywords only and providing boxes for each written answer; these could be ignored, but to limited extent, and clearly many participants understood they did not need to produce extensive textual responses.

[189] This question was inserted to address a perceived drive, with participants of previous studies, to express such opinions.

4.8: Preparing to perform the studies

The next chapters of the thesis will describe the four studies, as they were actually performed. Eventually the method and format for Study Four was developed through and during performing the earlier studies.

Aiming to establish whether and how sensory perceptions are an essential component in people's appraisal of (historic) buildings, all four studies would address and explore study participants' sensory responses through on-site survey. All data collection had to be performed on site, to guarantee the full and complete range of sensory triggers was available.

The survey questionnaire addresses all sensory categories in multisensory combination (Part 1), as well as separately (Part 2). The data should show if, regarding their experience of historic buildings, people appear to respond with some senses more than others, as well as which aspects of a building trigger people's senses. Rather than providing a 'complete answer', cumulative data for various buildings would increase understanding of people's sensory experience of historic buildings. The research is looking for the width of responses, since all their triggers (ideally) should be sustained through conservation.

Survey by questionnaire would be an appropriate method to get information about the historic building in general and on a level that will be easily applicable to practice. Questions should not be directing to preferred or expected answers, and encourage participants to explore their less conscious perceptions also.

The four studies should provide ample data to demonstrate how a sensory assessment is relevant to pre-conservation assessments of historic buildings.

PART IV: DATA COLLECTION: STUDIES AND RESULTS

CHAPTER 5: PERCEIVING BUILDINGS IN PRACTICE –INITIAL STUDIES

5.1: Introduction to the studies

This chapter describes the first two, from a total of four, studies, run at different stages in the research. As stated before (Chapter 1: Introduction and Chapter 4: Methodology) the research performed studies to inform a gap in knowledge regarding people's sensory perception of historic buildings.

Reviewing the data from the studies, performed according to the Method described in the previous Chapter 4, will be a foundation to fulfil Objective 3:

> Develop a critical framework to support understanding of (the existence of) sensory experience in historic buildings (through studies).

The approach to the issue was straightforward: people and historic buildings were brought together, and data on people's sensory perceptions were to be retrieved. The data will inform what people pick up, and what triggers them, when (consciously) experiencing a historic building. This information can thereafter inform practice. Secondly, when demonstrating this method retrieves valuable information, it will present a format easily applied to and easily performed within building conservation practice.

The studies were not interested in establishing people's appreciation for specific buildings, however the research claims people's affinity for historic buildings is defined by a sensory response to a physical building, at least as much as any knowledge or mental interpretation about the building.

Apart from the combination of sensory perception with historic buildings, contributing to the (relative) originality of the research are the assessment on site, rather than in a virtual environment or through images, and the focus on what is being physically registered only, rather than inquiring about quality or appreciation, as well as, in Study Four, the assessment by 'lay' people without architectural training. Appreciation would be the subsequent step in mental processing, but the research was intent on establishing what there is, rather than how this is valued by individuals. The sensory format for assessment would assist to address the (famous) 'whole', which is more than the sum of its parts. Also, the attention of the assessment

should be holistic, i.e. focus on the whole of the building, because this is what needs to be conserved, rather than individual bits of fabric.

The studies all aimed to point out and understand the existence of retrievable sensory triggers in historic buildings. The studies have focused on the width of the spectrum of possible registrations rather than in-depth knowledge of the working of each sense or which perceptions 'belong' to which sensory category. Limited response does not imply a perception is less important. However, a good response does indicate a strong trigger.

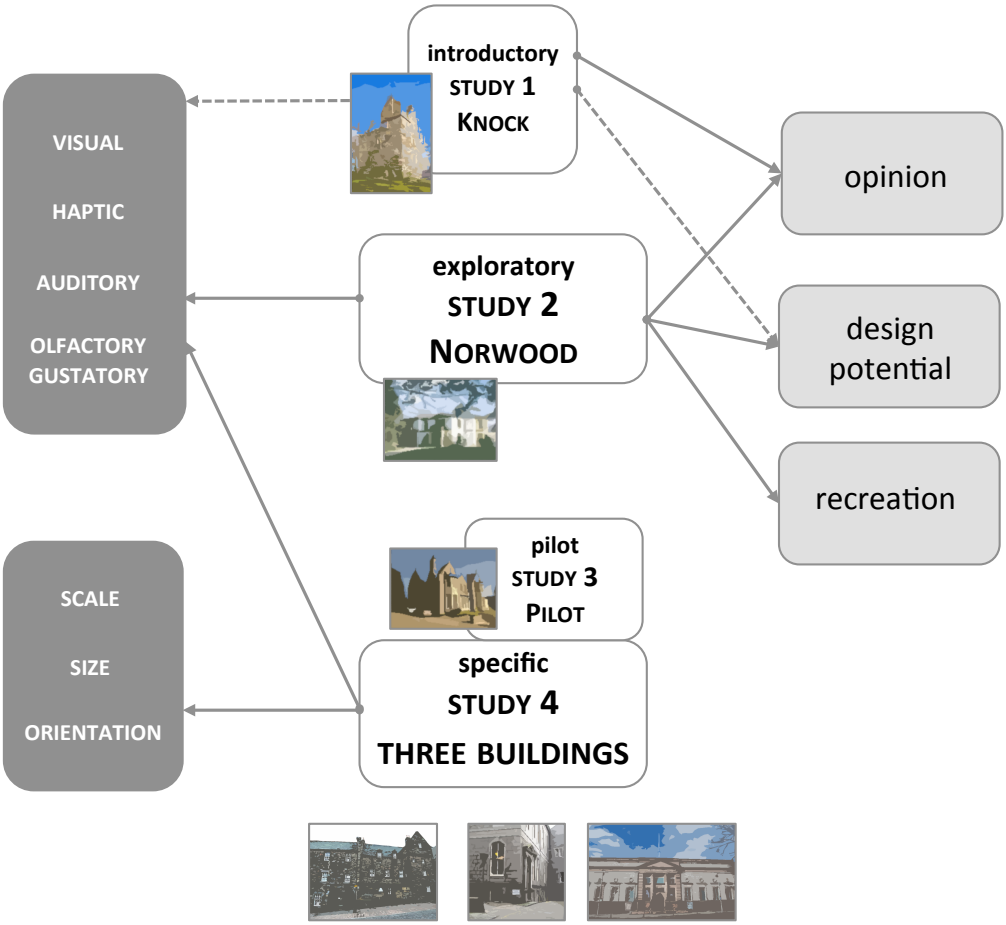

Figure 32: development of method and understanding through studies

Consecutive studies were leading closer to the core of the issue. Where Study One was dealing with perception of historic buildings in general, eventually Study Four was entirely focused on what can be sensory perceived of (historic) buildings.

Study One (March 2011) was an introductory study; respondents were confronted with a building in situ, where a survey was tested to find out what questions deliver which responses as well as an effort to see if participants could grasp the idea of what the survey was looking for, and whether this indeed was what the research was looking for. Study One was performed

during a pre-'sensory perception' stage. The questions therefore were not geared toward receiving sensory data.

The purpose of Study Two (October 2011) was an exploration into sensory perception of historic buildings. The sensory system might become a solution for the research. Study Two would test this idea and the 'survey by questionnaire' method, and provide data to be reviewed for their suitability to the research as well. Awareness of 'the senses' being a less straightforward phenomenon than the traditional 'five senses' was not acknowledged nor applied in Study Two. Still, the survey was consciously focused on collecting sensory data. Assisted by the focus and lingo of a large group of mature architecture students, a large set of data has been acquired.

These particular respondents have performed an exploratory exercise, enquiring whether the sensory knowledge retrieved from historic building assessments can be applied in (conservation) design practice.

This chapter covers:

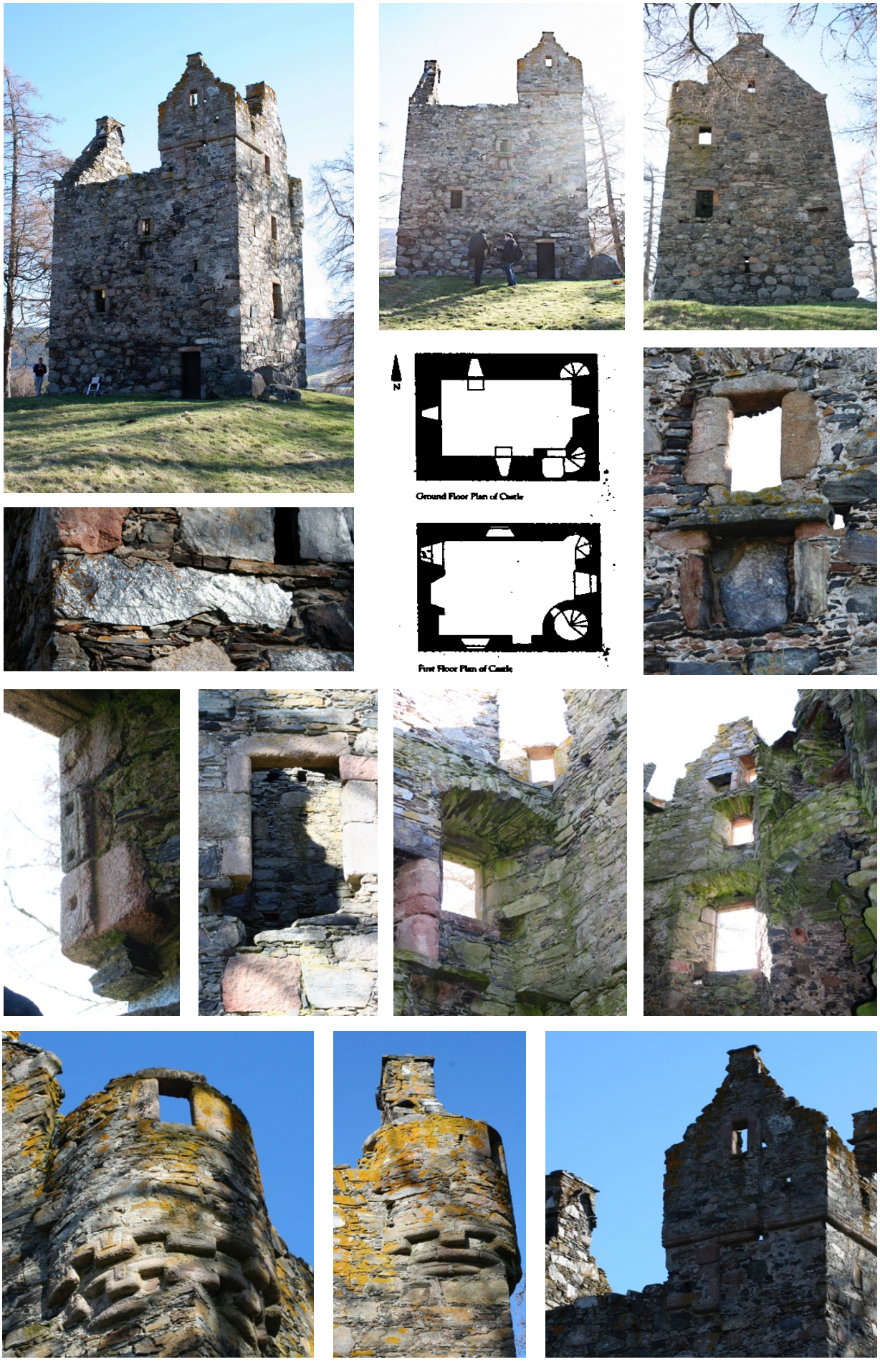

Figure 33: Knock Castle

5.2: Study One: Knock castle

5.2.1- S1 -Introduction

Date 1st March, 2011

Location: Knock Castle, Ballater, Aberdeenshire

Early in the research, it was useful to run an introductory exploratory study to (1) test and therefore facilitate refinement of the 'on-site survey' format, and (2) to find out if appropriate data would be provided through this procedure. At this stage, the focus of the developing research was very much on historic buildings and how to deal with them (relating to the historic building literature (Chapter 2)).

An opportunity to run an introductory study occurred when a group of eight (8) third year undergraduate Building Surveying students were going on a site visit to a historic structure. The plan was to icollect initial responses to the site upon arrival, suspecting that spending time on site would reveal all sorts of details that would spoil the greater picture. Since the students would have their curriculum surveying work, requiring them to spend time studying, they could be questioned again, once they had become more familiar with the site and the building.

Students in the respondent group were accustomed to surveying in a quantitative, technical manner. Given the technical and vocational nature of their course, it would be new to them to consider and answer questions on qualities and emotional impact.

There was no opportunity to visit the structure prior to taking the participants. Various websites (Historic Scotland, RAHCMS, Wikipedia) however provided an impression of the towerhouse-ruin that could be expected through photos and historic data. Though part of a 'built heritage conservation'- module, the main focus of the event would be technical surveying. The research survey would form an additional task. Knock Castle[190] presently is the ruin of a peel[191] tower. Property of Historic Scotland[192], it is situated in the Scottish highlands,

[190] *'Knock Castle is a good example of a minor laird's towerhouse, situated in a prominent position in the landscape. It would have been surrounded by ancillary buildings such as stables, a bakehouse and a brewhouse. There would have been a hall on the first floor with a vaulted basement, which would have been used as a kitchen. The exact date of construction is uncertain, but is likely to be around the late 16th or early 17th century. [ ] MacGibbon and Ross draw a parallel between Knock Castle and Birse Castle, Aberdeenshire. They note too that the style is late for its period, similar to the keeps of the Borders.'* (Historic Scotland, http://hsewsf.sedsh.gov.uk, acc. 11/01/2011. HB number 9326)

'A rectangular keep, 27 ½ ft by 22 ft, with walls about 4 ft thick and a vaulted ground floor, strongly resembling a pele tower of the Borders. Internally it is entirely ruined.' (RCAHMS http://canmore.rcahms.gov.uk, acc. 11/01/2011)

[191] **Peel** or **pele** tower: *Fortified tower-house with vaulted ground-floor for cattle or storage, found especially in the Border-country between Scotland and England.* (Stevens Curl (Oxford) 2006)

in the immediate vicinity of the village of Ballater. A farmhouse lies within view; furthermore the 'castle' lies solitary amid rolling hills.

5.2.2 - S1 - Survey questions and survey design

A questionnaire was compiled (see appendix 7), aiming to explore students' response to the historic fabric. The main aim for this survey was to try out the probability of retrieving suitable data through questionnaires on site.

The first questionnaire, taken more or less at first encounter with the building, should provide strong 'first impression' data. These words or concepts are valuable to carrying the essence of a building through a conservation process.

Questionnaire 1 (questions K1-5) was to be completed at the earliest occasion during the stage of first acquaintance with the structure. Questionnaire 2 (questions K10-15) was designed for completion at the end of the site visit. The before and after parts comprise similar questions, aiming to retrieve a first as well as a later 'educated' impression, to be compared to each other. As noted, reflection on their emotional response might be new to these students.

Questionnaire 1: upon arrival on site.

K1: Give a few keywords describing your first impression of Knock Castle ruins.
Asking for just keywords, aiming for an immediate reflection of first impressions.

K2: Name 3 typical qualities of the building you are looking at.
Aiming to connect the structure with people's appreciation on a general level.

K3: The essential quality of any building is a compilation of essential architectural elements (built elements as well as created spaces). Name 3-5 built elements that therefore must be kept.
The question asks for essential architectural elements, aiming for data that would provide knowledge to be directly applied to a conservation design.

K4: During your survey, look for any oddities and incongruences; they may contain clues about building history. Did you already notice anything peculiar?
This is a regular conservation survey item.

[192] Property in the care of the Scottish Ministers on behalf of Her Majesty (HS)

[With hindsight, K4 was not a 'sensory' question, apart from the 'did you already notice anything peculiar' part. It is an example of a question for building assessment in the way this is currently performed already. People are inclined to pick up 'oddities and incongruences' (see 'contrasts' featuring throughout §3.6), yet by asking for these directly the data will not support such theses. During the developing research, it has been decided the research is not looking for specific building history; rather for potential appreciation of building traces that mark history in general.]

K5: Draw a quick cartoon of the building as it is. Acknowledge and emphasise outstanding characteristics and typical elements of interest.

Because *'drawing can elicit (*sic*) information difficult for respondents to describe in words'* (Curedale 2013 p.119)[193] 'drawing experiences' was incorporated as a method hoping to extract different information than that from words only.

'Cartoon' rather than 'drawing' was chosen to encourage participants to clearly show distinctive features in their drawings. Also, a 'drawing' to these students would refer to an architectural, technical drawing. The expectation was of these cartoons delivering lots of information, since drawing and writing are very different ways of communicating; drawing might directly copy a visual impression. However, the students would have to be able to 'see' the bigger picture of the structure as an object/artefact, plus have to be uninhibited about their drawing abilities.

Questionnaire 2: End of/ after site visit

The second questionnaire seeks for those impressions that 'stuck' through the entire visit and afterwards; these may be caused by strong triggers.

K10: Name 3 typical qualities of this building, which cannot be changed without essentially changing the building's (not the ruin's) character.

After studying the ruin, the students may have an understanding of and opinion on the original building.

K11: How would you describe the SOUL of this building? [194]

[193] The author was aware of 'drawing experiences' being used in orthopedagogy and decided the method was worth trying, even though this aimed at retrieving information on respondents' perception of the built structure only, rather than about the respondents themselves.

[194] Shortly after this study was run, the idea of looking for a 'soul' was abandoned, though this question appeared to steer participants to appropriate data.

The question for the building's 'soul' (K11) provides experiential data. However these are related to the tower as a whole, therefore providing little information on 'what to keep'. Though putting a question this way might be a step too far (soft) for technically inclined participants, this is worth trying.

K12: What have you found that you might someday use in your own architecture? (surveyors: just assume you'll have a chance to create a building one day)
This is another way to ask for whatever made an impression. Ideally similar data follow from these various questions.

K13a: Name up to 4 built elements you personally feel should be conserved:
K13b: For each of the above: is this element:
Essential / non-essential, to architecture & / history, local / general
K13c: For each of the above: is this element:
Solitary / depending on:
These questions aim to find out how essential elements relate to other parts of the building. Eventually the research would promote to conserve the structure as a whole rather than a sum of built items[195].
K13c: the idea is to figure out if each element can function solitary, like an artefact, or depends on coexisting with other built elements. E.g. the windows and gun holes depend on one another because they are parts of the same defence system.
K13c Enquiring if essential parts/notions of the building depend on certain/specific (other) built parts/aspects will be extremely important to actual conservation decisions.

K14: Draw a quick cartoon of the building that was. Which parts are essential to your notion of this building as a towerhouse.
This second cartoon should pick up not only how much the students understood the original building from the leftovers and traces they have studied, but also what hereof.
Originally this is another attempt to get clear what is important to people. This will give an insight in people's ability to correctly interpret what they see of a ruin as previously being a building.

[195] According to Andrew Wright this towerhouse was developed as a defence system; eg. size and position of windows and shotholes/gunholes are all depending on one another.

K15: Given the fact this towerhouse, 'Knock Castle', will not be demolished, please briefly comment on the following questions:

K15a: Should Knock Castle be fully historically and traditionally restored? Why?

K15b: When adapting to new use, what would you recommend to keep a towerhouse atmosphere within a contemporary interior?
K15d:[196] *Imagine the tower is taken apart, then rebuilt using the same stones on this same site. What, of physical value, would I have lost (if anything)?*
K15e1: Imagine the tower is taken apart, then rebuilt using the same stones on this same site. You do a site visit 250 years from now. What might your initial uninformed reaction be?
K15e2: Once informed, would you respond differently?

These K15 questions aim to get a feel for people's attitude towards conservation challenges. Somehow question 15-c does not feature.

5.2.3 - S1 - Study Day

Transport back and forth was provided per RGU[197] mini-bus, restricting the amount of participants (eight in total; 'A' to 'H') to ample for the small site. Our group of twelve (eight students, three tutors from SSS/RGU and the author), was met on site by conservation architect Andrew Wright, chartered architect and heritage consultant.
Prior to embarking on their surveying work (which was unconnected to the PhD study, but the report of which would be a graded exercise) the students received an introduction to the building by Andrew Wright, teaching them to 'read' the ruins and explaining the origin of various building traces. [198] Hereby, students' focus was drawn to building traces and constructive details, potentially 'overruling' their feel for the general atmosphere. The weather was enjoyable and glorious light helped people taking fantastic photos.
Part one of the survey questionnaire (K1-K5) was processed after the introductory walk around the site. Later in the day, part two (K10-K15) was handed out during the return journey. Overall, the students were very supportive in filling out their questionnaires.

[196] Question c. never existed; this is a typo.

[197] RGU = Robert Gordon University Aberdeen

[198] Due hereto, the students lost their initial, uninhibited view. In their responses they tend to express their appreciation for historic details since these are presumably interesting and intriguing, because of what they relate to or remind of.

5.2.4 - S1 - Results

K1: Give a few keywords describing your first impression of Knock Castle ruins.

According to the data, first impressions can be as far apart as 'well-preserved' (D) / 'well-maintained' (G) to 'derelict' (E).

Geographical situation: Remote (A), but defensive with great views (C) and strategically with good defense position (F).

Small (B) as well as imposing (E)

K2: Name 3 typical qualities of the building you are looking at.

Though half of the participants misunderstood the concept 'quality', other participants clearly state defensive qualities ('on a hill, defensive windows, 360 view' (E), 'solid, well reinforced, founded on large rocks' (F)) and size ('could only hold a certain number of people' (F))

K3: The essential quality of any building is a compilation of essential architectural elements (built elements as well as created spaces). Name 3-5 built elements that therefore must be kept.

Straightforward data: window openings with gun holes, lintels, turrets/chimneys[199], spiral staircase, entrance with large stones adjacent to the main door, vaults, walls, four parapets forming the four top corners of the building.

K4: During your survey, look for any oddities and incongruences; they may contain clues about building history. Did you already notice anything peculiar?

All students produce the 'desired' answer; everyone comments on ridges/mounds in the terrain, and big rocks previously pointed out by Andrew Wright. Further twice mentioning the vaults of the ground floor (C, F) and the empty space left by the family crest (F)

[199] The word 'dormers' is used often, for what in fact are pointy gables of the former caphouse.

<u>K5</u>: Draw a quick cartoon of the building as it is. Acknowledge and emphasise outstanding characteristics and typical elements of interest.

The drawings, in very different grades of detail, in fact show a lot: the general rectangular shape of the building, its roofline with remnants of caphouses and turrets, windows strewn over the facades, with their gunholes underneath. B's drawing has no top; it deals with a big window-hole with closers, and the solid connection to the ground featuring big boulders. E indicates the building being on top of a hill and higher than the trees. E's drawing even features a bright sun shining, which in fact beautifully represents the general atmosphere of the site as visited this day. G depicts a square clump with rough edges.

Figure 34: K5: cartoons of Knock Castle 'as it is'.

Questionnaire 2: End of/ after site visit

Table 4: Study One; answers to K10-K14

	essential qualities	**soul**	**to use**	**elements to conserve**	**essential**		**cartoon**
	K10	**K11**	**K12**	**K13a**	**K13b**	**K13c**	**K14**
A	turrets, openings	cold, dead	traditional style	turrets, doorway, stairway, vault	turrets		x
B	stonework, staircase, gun holes	historic, meaningful	nothing	staircase, turrets, windows	staircase, turrets, windows	windows depend on gunholes	x
C	entrance, stairs, gunholes	very peaceful	granite window openings	window holes, gunholes, stonework, stairs	[stonework n mortar non-essential??]	stairs depending on stability of stones	entrance (location/size), steel bars, gunholes, turrets, stonework
D	shape, dormers, staircase	secure	dormers	gunholes, dormers, entrance, windows	gunholes, dormers, windows	gunholes dep on windows and v.v.	x
E	spiral staircase, wall thickness, location	secure (idiosyncratic)	efficient use of small space	vaults, openings, spiral staircase	vaults n openings, but not staircase?		barred windows, caphouse missing, chimney smoking, tower above trees
F	masonry, ground vault, spiral stairs	chimney n vault (???)	use local stone, design for reuse over time, wh changing character	masonry build up, windows, gunholes, 4 parapets	all essential to history (not arch??)		turrets essential (no caphouse!), rubble wall (rather than harled), short n wide (?)
G	height, situation n outlook, physical construction	empty shell	situation n site, stone construction	landscape n surr ground, openings, fireplaces, org floor levels	fireplaces non-essential (??)	all depending on rest of the bldg	turret and caphouse
H	staircase, outer shell, fireplace	charming, beautiful surroundings	shape, use of space	surroundings, staircase, external store, fireplace			defence structure; turret/parapet only

K10: Name 3 typical qualities of this building, which cannot be changed without essentially changing the building's (not the ruin's) character.

Turrets, openings, stonework, staircase, gunholes, entrance, shape, wall thickness, location/situation, vault, height, construction, fireplace

K11: How would you describe the SOUL of this building?

'Cold, dead' (A) 'very historic, meaningful' (B) 'peaceful' (C) 'secure' (D) 'idiosyncratic' (E) 'empty shell' (G) 'charming' (H)

*'A secure home that is **idiosyncratic**.*[200] *'* (E) Idiosyncratic is very appropriate terminology: the data assign totally opposite notions of 'soul' to the Knock structure: cold/dead – historic/meaningful – peaceful – secure – empty shell – charming.

K12: What have you found that you might someday use in your own architecture? (surveyors: just assume you'll have a chance to create a building one day)

This question did apparently not inspire everyone. Some great data though: 'Efficient use of small space' (E), 'use of local natural stone' (F), 'design a building that can be reused without changing the building's character' (F).

K13a: Name up to 4 built elements you personally feel should be conserved:

Data very similar to those of K10: Turrets, doorway, stairway, vault, gun holes, stonework, windows, parapets, landscape and surrounding ground, 'original floor levels' (G), fireplace.

K13b: For each of the above: is this element:

Essential / non-essential, to architecture & / history, local / general

K13c: For each of the above: is this element:

Solitary / depending on:

K13b are in fact three small choices only; this was apparently not clear. Both K13b and K13c are apparently confusing and misunderstood by most participants. Answers mention (conservation of) items to depend on the availability of material. Responses do mention gun holes belonging to and depending on the presence of 'their' windows. G roughly states every element depends on its situation within the whole.

[200] Idiosyncratic = meaning one thing for a particular person, but something other to another person.

<u>K14</u>: Draw a quick cartoon of the building that was. Which parts are essential to your notion of this building as a towerhouse?

Some respondents do not draw again (A, B, D). C indicates the defensive details in text. E's drawing features barred windows and a 'garden' parting wall. F shows four turrets, edged windows, a big fat door and rubble stonework. H's proper cartoon clearly refers to the towerhouse first and foremost being a defence structure[201]. H's conceptual approach in fact is most clarifying. The building was built for this purpose and this awareness can guide all decisions.

Figure 35: K14: cartoons of Knock castle 'as it was'.

[201] A definite quality of Knock castle is its obvious design as a defensive structure; however, no data are marking this as such.

Table 5: Study One; answers to K15

	fully restore	**interior**	**lost**	**same rebuilt**	**informed**
	K15a	**K15b**	**K15d**	**K15e1**	**K15e2**
A	yes	traditional	everything	only 250 yrs old	yes
B	no, convert	restore staircase	totally different	always been as is	yes
C	yes; allow for modern techniques if hidden	keep window-sizes and gunholes, but glazed	if re-harled afterwards, no loss	still livable without extensions	correct to undertake maintenance to preserve
D	no	keep existing layout			
E	yes if viable for eg tourism	open floor plans w narrow connections between floors	different construction, some features lost	admiration about condition	distinctly less impressed
F	no, it should remain a monument (?)	tranquil, enjoy sunrise/-set	nothing. Incentive moved fr defence to heritage	builder had style	no
G	no, much of the history would be lost	room proportions	traces of repairs and changes occurred over time	may appear like always been there.	surprise, confusion
H	yes, to former glory	fireplaces	building technique of that time	not notice if carefully restored	no

K15: Given the fact this towerhouse, 'Knock Castle', will not be demolished, please briefly comment on the following questions:

K15a: Should Knock Castle be fully historically and traditionally restored? Why?

A couple of people state conditions whereby their yes/no answer is valid. Each participant stating his/her own rationale.

K15b: When adapting to new use, what would you recommend to keep a towerhouse atmosphere within a contemporary interior?

Various answers: Recreate staircase, double glazing in existing openings, keep same layout (D), 'open floor plans with narrow connections between floors'[202] (E), traditional furniture and fireplaces.

K15d:[203] *Imagine the tower is taken apart, then rebuilt using the same stones on this same site. What, of physical value, would I have lost (if anything)?*

Everything. (A) Totally different look[204]. (B) Possibly nothing. (C) Nothing.[205] (F) Repairs which have occurred over time. (G) Building technique of that (previous) time. (H)

[202] A clear orientational notion.

[203] Question 15c. never existed; this is a typo.

K15e1: Imagine the tower is taken apart, then rebuilt using the same stones on this same site. You do a site visit 250 years from now. What might your initial uninformed reaction be?

That it always looked like that. (B) May appear to have always been there. (G) I wouldn't notice. (H)

K15e2: Once informed, would you respond differently?

Yes, it would be a 2011 building. (A) Correct maintenance to prevent deterioration (C) Yes, distinctly underwhelmed. (E) No. (F, H) Surprise/confusion. (G)

5.2.5 - S1 - Analysis of results

After performing and initially analysing Studies Two to Four, an attempt to present the Study One data in a sensory table-format as applied to the later studies was appropriate:

Table 6: Study One; data organised per sensory category

Knock	**multisensory**	**hear.**	**touch/haptic**	**vision**	**vis-things**	**orienting**	**soul**
Quest.1 upon arrival 8 resp.	uninterrupted defensive well preserved derelict majestic, imposing stability	quiet	roughness of terrain stonework thick wall solid	small great views	windows turrets chimneys gun-holes spiral staircase entrance barrel vault dormers large base stones lintels parapets	smaller than expected remote mounds perpendicular to building on a hill 360° view strategic setting limited space landscape belongs with building	
Quest.2 after-wards 8 resp.			wall thickness physical-construction	stonework shape height	turrets doorway spiral staircase vault gun-holes windows dressed windows dormers entrance chimney	situation surroundings floor levels use of space open floor plans w narrow connections btw floors	cold, dead historic peaceful secure idiosyncratic empty shell charming

[204] Arguably this is not a physical value?

[205] Full answer: '*Nothing! 'coz you're restoring the building to its original glory, using todays methods, without having defence as a driving factor, but heritage and attraction as motive.'* See analysis.

Data on smell or taste were not retrieved; apparently these do not 'spontaneously' surface. Consequently these do not feature in the table.

Cartoons work well in Study One, because the building is quite small and not too complicated. An architect should then explain the drafted buildings, not being trained to explain the people drafting them. Individual people's opinions are not relevant to this research.

Still, just participants C and E only drew both the K5 and K14 cartoons; in both cases, the K14 hardly supplies new information when compared to the K5 one.

K1: According to the data, first impressions can be as far apart as 'well-preserved' (D) or 'well-maintained' (G) and 'derelict' (E).

K2: The concept 'quality' of a building was apparently misunderstood by three respondents, but clear to the others. Similar for (K10): apparently some participants did not understand a 'quality' does not need to be a physical element. Though Knock is recognized and named as a defensive structure, this never features as a 'quality' in the data.

K3: Stating 'architectural elements' leads to answers about details, rather than the entire building. 'Walls' are mentioned, but described without information on their sensory qualities, such as colour, material, thickness, surface, size; apparently the surveyors are not too familiar with such architectural concepts.

K4: Later it was decided that building history would not be the focus of the research. Eventually it would be more interesting to know how much people need original rather than authentically conserved buildings.

The word 'dormers' is used often, for what in fact are pointed gables of the former caphouse. The caphouse, a typical historic feature, cannot be assumed to be part of general knowledge. Its gables are very distinct and thus feature in various 'cartoons' (K5, K14).

Figure 36: the caphouse

With hindsight K10 is most confusing. 'Quality' is to be understood as a concept rather than an aspect or element, but this is not clear. Secondly, the structure should have been appraised for the built mass it presently is, rather than as a ruin of something that was. Arguably[206] the

[206] See Chapter 2 for information on a deep divide in approach between restoration and conservation.

choice of it becoming a basis for a new building or restoring it to assumed former glory is not part of a sensory assessment. The research aims to make a case for retaining its experiential appeal.
Clearly participant F is more skilled in answering this type of survey. F's answers are more extensive, much clearer and showing better understanding of the site and its meanings. – F did not produce a K5 cartoon/drawing.

K11: The question on 'SOUL' produced a lot of interesting data. Apparently respondents can relate to the concept of 'soul'. These reflect multisensory experience of the atmosphere, rather than sensory data to be retracted to a specific sense. (E)'s answer: '*A secure home that is idiosyncratic'*, is much to the point. Idiosyncratic is very true for historic buildings, and arguably an explanation of so many people having affinity with them.

K11: Interestingly the 'soul' of the building can be described as 'cold, dead' (A) and 'very peaceful' (C) at the same time. This shows clear proof of how these notions have to do with people, rather than the actual building, since this is a result from responding to the same physical entity at the same time.

K13a: Data are very similar to those of K10.

K13b and K13c: were misinterpreted by most, therefore ignored. The data provided cannot be interpreted since it is not clear what participants have reflected on. Since at the time of the study this question appeared to be confusing, it disappeared from the questionnaire. Still, similar data can be retrieved through multisensory assessment and are valuable and informative to architectural conservation decisions.

K14: It appears asking for a second drawing is asking too much. The assignment is hard even for informed semi-professionals.

K15: These questions, aiming to get a feel for people's attitude towards conservation challenges, are valid and their data potentially most interesting, but should ideally be asked to a body of people representing society as a whole. The students on their surveying trip are being asked to imagine scenarios for the future, something they are less geared to than architecture students.

Clearly the questions were designed before having a clear idea of what the direction for the research would be. These data are subjective and not about the senses or sensory perception.
For a research focused on sensory perception, judgment on future treatment is not a core issue. The topic is relevant to building conservation in general, from which the hypothesis for this thesis emerged.

Potentially rephrasing to 'What could define a towerhouse atmosphere?' might have supplied more interesting data, not focused on interior 'decoration' only.

The issue is not of direct relevance to the thesis, which is looking at what people respond to, experientially, more directly. To answer this question in the spirit of the thesis, a study might be performed in one such building.[207] Various answers to K15d show little confidence in today's technical skills in rebuilding the same; provisions are made about circumstances wherein an answer is valid.

K15d: Interestingly, F touches on a changed drive, which does not lead to a physically different building. *'Nothing! 'coz you're restoring the building to its original glory, using todays methods, without having defense as a driving factor, but heritage and attraction as motive.'*

5.2.6 - S1 - Qualitative reflection

The first incentive for Study One was to explore how surveying a building could work. The on site experience turned out to be easily organized, and pleasant as well as interesting to participants. However, to obtain good data, the survey questions should be focused on the research topic rather than general.

At the time of performing a study, ideally no information on building history etc. should be provided. In this case getting a walk-through by Andrew Wright drew attention to what this expert was pointing out; though this was excellent information, it was spoiling the 'fresh' approach of unbiased first impressions needed for this study.

Though the small ruined towerhouse worked fine as a site in the given situation and stage of the research, performing a study in a larger building might be preferable. In a way, in the current situation the ruin is equivalent to a work of art. Though it has potential as a building, in the present situation it is barely providing shelter and hardly suitable for dwelling (see Heidegger in chapter 2).

The second incentive of this study was to review whether people would be able to produce useable data through this type of study. Clearly in the next study there should not be requests for interpretation or history or ideas for future development. The focus of a future study should be on the assessment of what is currently in place.

[207] It can be done, at substantial effort and cost, but to great result. There is, for example, a 1693 farmhouse in the Netherlands, which was taken apart and reassembled on the spot in 1973, which is listed as a monument, though without a date of origin. Quite probably modern (scanning) techniques will greatly support efforts like this.

Possibly, the surveying students were not very ‘neutral’ participants. Understandably, they were mainly interested in fulfilling their curriculum assignment. Their focus was on measuring and recognizing building traces, rather than tuned to the atmospheric experience.

Not asking for some data on participants themselves or their familiarity with the concept of a towerhouse was an omission. Participants must be understood, in terms of their ability to understand the questions, and the purpose of the study. For example when a request for a drawing or cartoon poses a challenge to many participants, and they abstain from producing them, the assignment generates no data.

Though lacking focus on the eventual topic of the thesis, Study One has been valuable and instructive to developing further studies.

Questions on potential future scenarios, dealing with conservation rationale, are in fact no longer part of the core research. These participants anyway, had no knowledge in the field. There appears to be no use for similar questions in future surveys.
Each question should be singular and straightforward. Multiple-option scenarios (like K13) clearly confuse the respondent. Also, the on-site survey should initially address the site directly, rather than imagining its potential.
The question on ‘soul’ appears to be something people can relate to, and supplied atmospheric data. However, the data thus generated are emotional rather than sensory.

Being focused on what Andrew Wright told them about the building, and their technical surveying assignment, the respondents had little chance to enjoy any individual personal experience; their cognitive brain was busy. Some of the questions asked for too much interpretation, rather than appreciation of what was being experienced, regardless of what it was or could become. Future studies should ask for perceptions, rather than reflections, ideas or judgment.

Not all questions generated the envisioned type of answers. Either the questions were not clear, or they were prone to different interpretations, from different paradigms.
The (K15) questions were not directed at the right audience. These students were hardly able to provide educated statements since they had never occupied themselves with rationale for conservations. (Nor will any ‘general’ audience.)
Questions must be very clear and preferably ask one thing at a time.

For a main study it would be good advice to run questions through a pilot, to see if they provide the type of data the research is looking for.

5.3: Study Two: Norwood Hall

'The room felt full, with so much detail
there was something to catch the eye, no matter where you looked.'
'DP' (Study Two respondent), 2011

5.3.1 - S2 - Introduction

Date: 17th October 2011
Location: Norwood Hall Hotel, Garthdee Road, Pitfodels, Aberdeen AB15 9FX

Performed in an early stage of the research, Study One (Knock) was trying to obtain data on people's ideas and opinions on building conservation. The incentive for that survey was the assessment of a conservation project, rather than the assessment of a building as it currently is, without directly planning for a future conservation. Because the building was derelict, it could only be imagined what the original building looked like. In situ participants could either assess a ruin that was more like an artefact (this impression was stressed by the compact structure and there being only one inside space), or fantasize about what this building might have been. Preferably the building for Study Two would have more than just building traces to be experienced; things that were sensory in themselves instead of reminiscent of potential sensory qualities from the past.

Situated within walking distance, directly next to the university campus, the Norwood Hall[208] Hotelwas identified as a suitable location. Furnished and decorated in period style and fully functioning, it is entirely different from Knock Castle. Its main building is housed in an extended 19th century mansion, featuring a couple of well-maintained publicly accessible period rooms. The hotel regularly hosts corporate functions and weddings. Its historic atmosphere is actual and need not be imagined.

[208] *B-listed (ref:15780).*

J. Russel Mackenzie 1881 incorporating earlier house of 1861. 2-storey harled with granite dressings, asymmetrical treatment, renaissance with some free detail; outstanding unaltered interior, very grand staircase with corinthian columns to hall, corinthian pilasters at 1st, offered cove and lantern light; woodwork of superb quality throughout, especially in drawing room, inlays, marquetry panels & c. (Historic Scotland website). Extended, current description, amended 22/09/2016 to be found at: http://portal.historicenvironment.scot/designation/LB15780

Figure 37: Norwood Hall

Figure 38: Norwood Hall

The adjustments to the building, to accommodate the hotel function, are minor and hardly influence the historic experience; there are no obvious contemporary factors raising questions or distraction. [209]

Study Two was purposefully established to explore an emerging awareness of sensory perceptions of and sensory responses to historic buildings specifically, at a stage when the amount of different senses as well as people's command over their less obvious senses had not quite been established. At this point, notions of 'the sensory' being an important factor had newly surfaced.

The availability of a large group of participating students would supply robust information on whether or not the 'sensory track' was viable and whether a suitable format for enquiry could be based on the traditional system of five senses.

The participants for this study were Architecture students in Year 5 taking a compulsory module in Research Methods. In Scotland, Year 5 is the penultimate year of architectural study, when students return to university after a year in practice. They were a homogenous group, of restricted variety regarding age and general interests, trained and educated to experience architecture. Participating in this study would be an opportunity to experience a survey as a respondent and having to fill out a questionnaire, as well as a site visit to extend their experience with historic buildings in general. The study aimed to have them perceive more when guided by the questionnaire. They were expected to better handle the sensory questions than the Study One (Knock) group.

The students, each responding individually, had previously been split into three groups of twelve, for staggered entry. This was both to limit the impact of a larger body of people to the atmosphere of a space, as well as to reduce the inconvenience for the hotel. A larger quantity of data on the same building would be good. The time limit in itself had the benefit of generating some processing speed and therefore responses from stronger triggers only.

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[209] *Norwood Hall hotel is said to have 3 ghosts whose apparitions have been seen on several occasions. One is said to be that of James Ogston (a previous owner), his wife, and his mistress. It is believed that James originally purchased Norwood in 1872 and rebuilt it in 1881 for his mistress so they could meet whilst he lived in Ardoe House across the river with his young family.*

After years of torment his wife and mistress wanted James to leave the other but James refused. It is said that Norwood is now haunted by the two lovers and his vengeful wife who longs for revenge for the torrid years she had to endure.

The apparition of James has been seen standing in front of the log fire in the dining room. The ghost of his mistress has been reported to haunt the main stairs (perhaps looking for her lover). His wife is the most active of the three with reports of her being seen in the hall, the kitchen, and also the dining room. (from: hauntedrooms.co.uk)

The study dealt with the inside of the building only. The outside was not considered; due to the way the original building has been substantially extended, it might have been difficult to engage with the original building only. Walking around the original building was not physically possible.

Permission to run a study in the Norwood Hotel was granted by the hotel manager during a prior visit, and confirmed by e-mail.

5.3.2 - S2 - Survey questions and survey design

The survey questionnaire, though initially based on the previously piloted study at Knock Castle (section 5.2), had been fully revised and restructured. Also unlike Study One, Study Two, the Norwood visit, was solely dedicated to running the sensory assessment, therefore there would not be a before and after situation. However there would be a phase of initial, more emotional, impressions of a (preferably) unknown space, surveyed in 'Part 1', and a phase of prolonged 'exposure', 'Part 2', aiming for deeper and focused response, asked to reflect on perceptions of individual senses in one room.

Since performing Study One, the focus of the research had narrowed towards sensory perception. Part 1 has three questions for each area (numbered N1-N15); a processing time of 5 minutes per area was recommended, to keep participants with their strongest, initial responses to a space.

In Part 1, for each space, there were three generic questions:
N1: Give your first impression of the room in ± 3 keywords:
N2: Describe the general atmosphere within this room:
N3: Please mention anything you find to be especially remarkable.
The questions were not leading and tuned to a general, multisensory approach of the spaces.
There were 3 questions only, repeated for each of 5 rooms/areas. However, N7-8-9 were never answered because the Library turned out not to be accessible for the duration of the study.

For Part 2, specific sensory pointing questions, N16-N21, were steering participants towards using all their separate different senses, to help them being responsive to triggers. The format was concise (one A4), but whatever data provided would clarify whether this set-up would be a good approach to retrieving sensory data. The suggested time to complete Part 2 was approximately 10 minutes.

Question *N16: What can you feel/sense, when you close your eyes?* was included in an attempt to bypass the prominent visual perception.

The 'after' questionnaire from Study One had evolved into a 'Part 3', consisting of a 're-creation', giving participants an opportunity to include some personal judgment and subjective ideas. If they would manage to incorporate their impressions from the Norwood building into their redesign suggestions, the study hoped to discover what triggered or instilled these impressions and whether this could be translated into a design. Compared to Knock Castle, being a compact artefact, the study was now dealing with a complete and intact building, consisting of fully furnished rooms with various functions. Part 3 asked for a contemporary recreation of '*the exact same atmosphere'* as the room assessed by each participant in Part 2.

The background idea for this recreation was that renewal or replacement in itself should be a 'safe' move once the experiential values of the building can be maintained. Practically the request was a reflection on one sheet of A4 size, to be returned after 7 days.

Comparing the questionnaires, the Study Two one does not ask for any interpretations, just for records of what was noticed or experienced.

General (human) experiences were to be recorded through Part 1 and Part 2; purely personal interpretations should only feature once emerging through Part 3. The drawing (cartoon) of Study One was abandoned, due to both disappointing results and because the research was now consciously looking for full sensory perceptions, not just the visual ones, which might be a challenge to translate into images.

5.3.3 – S2 - Study Day

The students entered in three staggered groups of 12 each; the first group where not clear where to go and had to be retrieved from another building on the premises. As it happened, the survey was carried out on a very cold, wet day. Hotel staff were struggling to keep the fire in the lobby going. Due to this, depending on the time of entering from bad weather outside, the participants would either experience a welcoming warmth with flickering fire or a colder room with a distinct smoky and peaty smell.

Unfortunately, the Library turned out to be occupied for the duration of our visits, and this room had to be removed from the survey (questions N7-8-9). At some point, during the second group's visit, the hotel alarm system was tested and buzzers and bells went off. Naturally participants responded hereto in auditory data.

A couple of students appeared to have genuine affinity for the building, a few gave the impression of disinterest. Arguably the group were a good sample from their peers.

5.3.4 - S2 - Results

The Norwood study produced a large amount of valuable data. Apparently this type of survey questions enabled participants to provide in-dept answers. 15 of 36 participants (40 %) also returned their 'Part 3' home-assignment.
The data were collected into tables. The possibility of a category for orientational data was considered during research after Study Two. Due to the vast amount of data available, these feature in a separate column in the results table after all.
The tables present the variety of data, rather than how many times each datum occurs across the results.

Starting the Part 2 questionnaire, a box to state which room had been picked for this exercise was not provided. This was a serious omission, leading to 9/36 or 25% response sheets that could not be traced back to a specific room. These data show in a separate row in the spreadsheet, under 'room unknown'.

Table 7: Study Two; general records

Norwood Hall study participants	**no. participants**	**total**
group 1 10.00-10.40 am RF TA AB FF OD ND ED RB EG TD AAX AAL	12	36
group 2 10.40-11.20 am GK LJ CM MO CH MM SL BK TI SP JD AH	12	
group 3 11.20 – 12.00 am BO FP DP JL AR KS HS MT AS TY JS AT	12	
age group 20 - 24	31	36
age group 25 - 30	5	
male	15	36
female	21	
Visits to Norwood Hall		
never visited	29	36
visited once before	4	
2-5 previous visits	3	
Interest in Historic Buildings:		
very high	7	36
high	12	
high/regular	1	
regular	7	
moderate	9	
little/ none/ aversion	0	
Part 3 returned	15[210]	15 (42 %)

[210] Part 3, a take home exercise, was returned by 15 out of 36 students; 4 or 5 returns per each group of 12; evenly spread.

Table 8: Study Two. Norwood Hall: data ordered by sensory category

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Lobby Part 1 Batch 1 12 respondents	luxurious inviting well-proportioned grandeur atmospheric grand warm atmosphere welcoming do-not-disturb expensive cosy homely sombre rich intricate grand sombre introverted	quiet echoes calm need-to-be-quiet	warm carved wood embroidery embossed/ textured - wallpaper hard flooring (- like entrance)	ornate ornate ceiling mosaic floor exquisite-detailing woodwork dark colours lighting dark floor intricate walls detailed patterns on floor and ceiling wall décor floor tiling few lights-dark ceiling decorative walls	fireplace (plain) decorative-features decorative-detailing ceiling with cellular grid	wood musty old		seating small
Lobby Part 1 Batch 2 12 respondents	inviting welcoming intimate, warm atmospheric cosy, relaxing uninviting not welcoming prestigious formal grandeur, grand class, elegant ornate, opulent peaceful, generous quaint cave-like high quality *historic* delicate	quiet	warm warm-temperature fine detail and craftsmanship details at top n middle of wall textured warmth	wood carvings dark ornate details (much) wood decorative dim lighting ceiling height high windows details on ceiling and doorways detailed light despite dark-décor ceiling details intricate detail dark shades: less-intimidating	mosaic floor deer heads carved wooden dresser full of furniture walls doors-sharing-the-decor	wooden smell (sauna like) seasoned smell-from wood wood-smoke-aroma		feels bigger nobody here to -greet you proportioned enclosed high ceilings

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Lobby Part 1 Batch 1 12 respondents	luxurious inviting well-proportioned grandeur atmospheric grand warm atmosphere welcoming do-not-disturb expensive cosy homely sombre rich intricate grand sombre introverted	quiet echoes calm need-to-be-quiet	warm carved wood embroidery embossed/ textured - wallpaper hard flooring (-like entrance)	ornate ornate ceiling mosaic floor exquisite-detailing woodwork dark colours lighting dark floor intricate walls detailed patterns on floor and ceiling wall décor floor tiling few lights-dark ceiling decorative walls	fireplace (plain) decorative-features decorative-detailing ceiling with cellular grid	wood musty old		seating small
Lobby Part 1 Batch 2 12 respondents	inviting welcoming intimate, warm atmospheric cosy, relaxing uninviting not welcoming prestigious formal grandeur, grand class, elegant ornate, opulent peaceful, generous quaint cave-like high quality *historic* delicate	quiet	warm warm-temperature fine detail and craftsmanship details at top n middle of wall textured warmth	wood carvings dark ornate details (much) wood decorative dim lighting ceiling height high windows details on ceiling and doorways detailed light despite dark-décor ceiling details intricate detail dark shades: less-intimidating	mosaic floor deer heads carved wooden dresser full of furniture walls doors-sharing-the-decor	wooden smell (sauna like) seasoned smell-from wood wood-smoke-aroma		feels bigger nobody here to -greet you proportioned enclosed high ceilings

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Great Hall & Staircase Part 1 Batch 1 12 respondents	grand ceremonial noble older era archaic warm impressive heavy welcoming,inviting elegant expensive festive rich full of history elaborate formal	people kitchen noise quiet need-t-whisper makes-you-quiet	warm	ornate dark window sizes decorative walls detailed beautiful views bright	fireplace stairs stained glass wood columns pilasters carved ceiling painted.windows wood carvings large columns columns capitals ceiling carpet wall decoration luxurious-but-too-dark/brown	smell of wood pleasant smell (open fire) (incense)		fairly small high ceilings space height small scale of staircase open space maze-like staircase high
Great Hall & Staircase Part 1 Batch 2 12 respondents	quality classical inviting, welcoming considered-design grand looked-after relaxed rich, opulent gothic elegant cosy, warm *historic* overwhelming musty intimate generous, friendly maintained intimate wintery gloomy old-fashioned pretentious	talking	warm carpets textures tread carefully	dark amount of timber decorative intricate detail darkness appreciation of classical orders	fireplace staircase light well stained glass ornate columns chimney hanging-lighting dark wood patterned – carpets open fire stained glass-window (out of place?) amount of (individually impressive) wooden-carvings	musty		symmetry scale has changed height of space timeless space stairs inviting to explore eyes drawn upwards good connection -to other spaces continuity with lobby staircase, well-presented, takes you upstairs not huge in size maze-like

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Great Hall & Staircase Part 1 <u>Batch 3</u> 12 respondents	grand old imposing ornate comfortable intimidating serene private intimate *historical* welcoming *authentic* rich austere peaceful stunning inviting impressive calming at home	silence very quiet odd buzzing-noise need to be - silent	warm 'not lived in' texture warmth material adds to comfort warmth	soft lighting natural (sky)light light dimmed columns-luxurious craftsmanship many areas of-interest dark dark with highlighted areas warm colours	ceiling columns staircase carved ceiling stained glass fireplace staircase draws-immediate-attention ceiling lights wood panels			staircase inviting people up staircase not-generous in scale open, spacious columns add-height to space voluminous attention to detail carried on from- lobby scale scale of columns staircase-encourages to explore change in temperature and flooring

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Great Hall & Staircase Part 2 11 respondents batch 1-6 batch 2-2 batch 3-3	peacefulness grandness comfortable warm inviting grand comfortable safe relaxing calm, quiet	sound of fire 'hotel activity' people sounds chatting ladies talking fire burning floor creaking chairs creaking phone ringing staff members plates clinking people sounds kitchen sounds extractor fans people-speaking fire crackling air-conditioning footsteps doors – swinging buzzing noise doors creaking staircase-creaking	warmth wallpaper gold embossing bannisters decoration is enclosing, warm, cosy smooth polished wood vases n objects textures details detailed wood handrail wood carvings columns pilasters wood-used for everything air movement heat from fire grooved.columns banister standing clock	symmetry of staircase views outside shiny wood floor-ceiling height columns with ornate capitals rich colours intricate design large amount of – wood busy carpet ceiling	staircase hanging lamp staircase focal point wooden everything close dark columns	smell of fire woodsmoke burning wood (cosiness and warmth) incense strong sense of smell festive (old books) wood (ancient n historical) all wood-old bars fire wooden furniture smokey (autumnal winter smell) (spices) fire burning woody, musky (incense)	(Turkish delight) (rich smoky cheese melting in the mouth) (Christmas dinner) (rich dark chocolate) (stuffed birds-meat) (wood) (church) (something chargrilled and spiced) (honey) (rich, sweet, something you want a little of) (church)	staircase drawing attention upwards staircase magnificent large space staircase symmetry

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Bar Part 1 Batch 1 12 respondents	luxurious comfortable self-important less grand hidden space delicate classy, elegant posh warm, homely flexible ornate antique golden Georgian quaint brown friendly, comfy reflective gloomy open relaxing	silence quiet calm need-to-whisper keep-voices-hushed quiet and reflective	wallpaper-almost 3D textures warm	light less detail dark bright lighter patterns gilded/gold	bay window w columned entrance furnishings decoration wallpaper fire(place) mirrors beautiful windows door-details/-architraves ornate wallpaper	musty		open spacious enjoy-the-seating-arrangement
Bar Part 1 Batch 2 12 respondents	cosy relaxing comfortable grand, rich musty calm comfortable inviting expensive old intimate elegant warm elegant wouldn't be very-lively royal less grand	quiet creaky	warmth warm gold leaf-features on wall	warm colours and tones cluttered and wild (walls and carpets) mixture of materials detailed bright bronze ornate the light (artificial-and- natural) detail-and-decoration decorative well lit light not a blank surface	light switches fabric around chandelier cord bay window level beside the fireplace window detail CCTV camera despite large windows still dark room windows	musty odorous		fitting with other rooms sit and enjoy connection to-exterior through- bay window small

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Bar Part 1 <u>Batch 3</u> 12 respondents	amazing lovely heavy large grandiose imposing warm, friendly not calming romantic private inviting comfortable not elegant old worldly gentlemanly relaxing, peaceful less formal luxury stylish informal	do-not-need-to-whisper	warm warmth	bronze wall – motives: complement light decorations- too much warm bronze wall dark wood too ornate luminous cluttered bright lighter attention to detail wallpaper glistens wallpaper and plaster on walls detail around bay light to end of - room	big mirror-behind bar awkward bay window: picture frame to outside mirror deforms ceiling lights fine fixtures and fittings wooden panels windows facing west	musty		proportionate size spacious high ceiling too small for – privacy more spacious enjoyable for use bay window is connection to outside
Bar Part 2 8 respondents batch 2-8	dark-atmosphere peaceful comfort relaxing homely peace safe	quiet talking radiator faint humming fridge heating buzz chatter bustling staff people sounds wood creaking quiet staff talking in other room *fire alarm testing*	warmth upholstery warm carved woodwork wallpaper textured wallpaper (looks fragile) wooden pillars curtains leather chairs wood panelling	light light from garden views lighting window opening highly detailed well maintained pity about view	grand bar awesome wood-work bar window	musky food (light smell) alcohol slightly musty (tea) (cigarette or cigar smoke) (wooden n old) (seasoned wood) old-firewood (old & smoky) (aged paper)	(expensive alcohol) (whisky) (tea n cookies) (old oak soaked in old malt) (seasoned whisky) strong expensive (rum and raisin bread)	high ceiling spacious room views how the window-connects exterior huge scale of the glazing

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell** (associated)	**taste** (associated)	**orientation**
Restaurant Part 1 Batch 2 11 respondents	un-inviting grand formal historic less inviting too formal impressive different full of character less grand elegant grandeur less 'kept' empty classic simplified less impressive	(might add music for atmosphere) quiet	colder brighter fabric walls breezy cold airy dark	2nd room sparse in comparison; change of style	stained glass ceiling wallpaper ceiling detailing random-furniture window wall fabric stained glass-out of place fireplace			second room feels disconnected from first balanced *well proportioned* transitional air of waiting
Restaurant Part 1 Batch 3 11 respondents	small inviting, cosy dated soothing plain, boring unremarkable privacy imposing radiant back-in-time high class sterile authentic wealthy awkward uncomfortable feminine elegant politeness formal old fashioned	quiet creaky floor creaky	something does not feel right cold warmth	not enough light brighter lighter views to garden morning sun panelled decorative dark too dark appears lighter due to wallpaper ceiling-craftsmanship bit dark	stained glass – not well presented wall fabric wooden ceiling stained glass granite fireplace vaulted ceiling stained glass-less serious focal point	sense of smell-heightened smell of kitchen		very narrow and closed open spatial hierarchy is poor feels like a 'through-space' formality returns - (after bar)

Norwood Hall Study Two	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision – things**	**smell** (associated)	**taste** (associated)	**orientation**
Restaurant Part 2 7 respondents batch 1-1 batch 3-6	calm relaxed serenity *history* busy space	footsteps on old carpet exhaust fan busy kitchen generator? People talking creaking air rush from-fireplace chopping creaking floors kitchen staff	wallpaper walls warmth sense of people-moving around table, furniture carved wood cold breeze curtains fireplace door	decoration motives too dark nothing is focused vibrating pattern complementing-colours	window (doves and sunshine) framed pictures stained glass wood detailing mirror dead flowers	(sausages) (old wood) (food) (mulled wine) (pot pourri or open fire) a homely musty (soup from kitchen coffee, warm bread)	(cornflakes) (red wine) (morning rolls, or Sunday roast) (Cullen skink soup) (mulled wine and cinnamon) (winter food) (homemade soup, tea and scones)	

Some data are remarkable, each in their own way:

Lobby questions N1-N2-N3

NH1FF-N2[211]: *'There is something about the architecture that makes you want to speak quietly and not disturb.'*

NH2GK-N2: *'there is a general sense of grandeur and class'*. This is a 'sense of', similar to sense of place or sense of time.

NH2MM-N2: *'The ceiling height and full length windows make (the) space feel a lot bigger.'* This kind of data clearly assess the architecture.

NH2JD-N2: *'Not very welcoming. It is ornate and makes me very aware that I am an outsider.'* A very sensory response. (see analysis)

NH3AT-N2: *'When you enter the room there is a very clear distinction of the threshold much like in a church. Just through entering behaviour naturally changes.'*

NH1RB-N3: '*The first thing I noticed was the smell. It smells old and musty but adds to the character of the lobby.'*

NH3TY-N3: *'Other than the open door there is no obvious route to the reception.'*

Great Hall and Staircase questions N4-N5-N6

NH1TA-N4: '*neo-classicist'*; is this correct? This is a style issue, not a sensory one at all.

NH2AH-N4:*'eyes are drawn upwards – continuing with lobby- maze-like'*: all orientational or body-in-space-awareness data.

NH2AH-N5:*'You feel less comfortable pausing in this space as there are so many exits from it, you feel like you should continue through another room.'* – orientational!

NH3DP-N5: *'Again dark decor/wood but it feels warm and comfortable. Perhaps it is because of the cold winter light coming in through the windows in contrast with the interior.'* - contrast

NH2TY-N6: '*Staircase, well presented - takes you upstairs.'*

[211] Code NH1FF-N2 indicates:
NH Study Two at Norwood Hall
1 first batch of 3 batches of students
FF participant supplying data
N2 answer to question N2

NH2SP-N6: *'The dark wood makes a very striking feature because in general we tend to make spaces as light as possible with light wood, paint and furnishings in modern design.'*

NH2JD-N6: *'The place is over saturated with wooden carvings. Individually each is impressive but the sheer amount of them means they are on top of each other and overcrowding one another.'*

NH3BO-N6: '*The top natural lighting accentuates the motives surrounding the staircase itself.'*

NH3MT-N6: '*The darkness, with areas highlighted by lights. Also stair location lacks prominence and therefore allows the space to feel less 'special' than otherwise. Unusual spatial hierarchy.'*

Bar questions N10-N11-N12

NH3HS-N11: '*Old worldly, not situated in Aberdeen. Seems further away – England countryside.'* Then what is Aberdeen? Why would HS know?

Restaurant questions N13-N14-N15

NH1TA-N14: *'interesting that everybody whispers in all rooms, even though nobody asked.'*

NH2GK- N14: GK providing rationale and solutions (rather than perceptions), and advice for sensory 'manipulation': '*They may use background music at night time to make it more welcoming.'*

NH2MM-N14: *'The second room feels quite disconnect(ed) from (the) first dining space.'*

NH1ED(f)-N15: *'Stained glass window (like something on the Titanic).'*

NH2CM-N13-15: No data; *'The restaurant was being cleaned at the time.'* Acknowledged. Though not clear how this happens to one person only.

<u>Sensory Perception</u>

General question N16

NH1RF Part 2: N16: '*sound and smell of fire*.' Then in N17 this sound of fire does not return.

NH1FF(f)-N16: *'Feel like I'm on the Titanic!!'* Second time for this reference (see N15)

NH1ED-N16: *'Sense that I am very small in a very big space (even when eyes are closed).'* This person grasps an idea of size without using vision.

NH1AA(m)-N16: *'I feel warm at my front but cold by my side like a draught.'* People do notice these things!

NH2JD-N16: '*Although my eyes are closed I am still aware that I am in a dark space'*

Hearing question N17

NH1AB-N17: *'Almost nothing and this adds a sense of mystification on that place.'*

N17: an open fire can be heard also.

NH2GK-N17: *'The wood and carpets give very soft and calming acoustics.'*

Touch question N18

NH3KS-N18: *'I have touched the wallpaper and some panelling as I was questioning its authenticity'*.

Sight question N1

NH2LJ-N19: *'Large windows at furthest side of the room, bringing in lots of light, but still keeping a dark atmosphere.'*

Taste question N20

Part 1 has not generated any spontaneous notions of taste.

Smell question N21

Open fires were clearly producing a distinct actual smell.

<u>Part 1: asked for general impressions of all rooms:</u>

This was a Research Methods module, not typically focused at conservation. Still the students state a considerable interest in historic buildings.

The data contain a vast amount of multisensory responses in atmospheric adjectives. Collected keywords give clues to what the atmosphere beholds, but not how this atmosphere is created or what triggered this atmospheric perception.

As found in the literature (e.g. Mather 2006), various data concern comparisons, e.g. less detailing, colder, one room different from another in various aspects.

The Part 1 auditory data mostly are a response to the quiet environment. Related to sound are recurring remarks on a space 'asking' for silence and keeping quiet.

The Lobby, as well as the Great Hall, were marked as dark by many participants. The Bar was judged to be dark, or to have a dark atmosphere, in spite of ample natural light entering. Simultaneously this 'dark' was described as warm, cosy and inviting.

'Symmetry' came up in sensory literature, and indeed surfaces from the data, as a positive quality.

Ample response was collected on architectural elements, atmosphere, spaces relating to each other, or to outside, light, dark and temperature. Obviously the focus is visual or multisensory.

Other than temperature, haptic factors hardly feature.

Gustatory triggers do not appear to feature in this historic building at all.

The restaurant, perceived as cold and uninviting, gets 30% feedback on temperature, and less data on other aspects. It is unknown whether respondents spent less time in this space or whether this perception 'overruled' other potential perceptions.

Since at this point in its development the research, and so this study, was zooming in on sensory responses, it started looking for these specifically. both in part 1 and part 2 of the survey. The research aimed to find out if a focused attention toward specific sensory experiences would indeed gain additional data.

In Part 1, in response to general questions, out of 36 respondents:

12 (33%) perceive the Lobby as dark

13 (36%) perceive the Great Hall as dark

11 (30%) report the Restaurant as cold

6 (17%) report the Lobby to be warm

8 (22%) report the Great Hall to be warm

The total amount of spontaneous response on light intensity is substantial; reported by 30-50 % of participants for each room.

Temperature surfaces as another clear trigger. Response to the cold restaurant is substantially higher than response to warm rooms. Furthermore the data show participants can spontaneously respond to quietness, and to smells as distinct and obvious as burning firewood.

The open fires in the fireplaces in Lobby and Great Hall are most appealing and give lots of 'hits' on warmth and smell. The data are visual, about temperature, olfactory and auditory (crackling); also at some point a sense of *'there having been smoke, a hazy covering'*. The fires apparently provide '*magical light, crackling sound, evocative aroma of wood smoke*.'

Part 2: asking for conscious perception through individual senses (for one room only):

Data from Part 2 show a good response on visual triggers (detail, ornament) haptic triggers (textures, wood, temperature and 'shiny things'), atmospheric triggers like warmth (haptic) and comfort (multisensory), as well as on scale and routing. Notions of light and dark appear to occur much less.

Some general conclusions can be established:

> Taste may be a useless category since it generates no actual data, mostly associations.
>
> Smell and Sound give data mostly when specifically asked for.
>
> The response to 'people' sounds is higher than the response to 'building' sounds.
>
> Visual data come in categories: building parts, ornaments and details, scale and routing. (Further into the research scale and routing will be deferred to a 'orientation' category.)

The most sensory aspects of this building, according to the data, are: light and darkness, in themselves or as contrast (visual recording), temperature (haptic recording) and the open fires (multisensory recording).

Part 3: re-creation assignment:

Study Two includes a 'Part 3'. This asks for a recreation of the impression of one space, in a contemporary manner.

This Part 3 take-home exercise, was returned by 15 out of 36 students (see appendices); 4 or 5 returns per each group of 12 (evenly spread). Students had been requested to focus on their ideas rather than presentation[212]. They did not have their parts 1 and 2 for reflection or reference[213]; though some students might have taken a photo hereof. 'Part 3' was to be returned after a week, during the student's next Research Methods class.

The submitted work, a mix of text and drawings, presents a mix of atmospheric and architectural clues. Various entries are creating 'a' room for Norwood Hall, rather than aiming to re-create a specific one.

[212] '*please spend your time on thinking rather than presentation'*

[213] Lending the data to the students for referral might have resulted in loosing some because they would not be returned. Also, there would have been a risk of students tampering with the data before handing them in.

The students have incorporated architectural clues: elaborate and intricate detail, craftsmanship (overfull of detail/ abundance) (13), an open fire or fireplace (11), wood (dark wood) (9), ceiling height (7), texture (6), light opposed to dark areas (5), large windows (5), and a connection to the exterior (5).

And they have incorporated atmospheric clues (as requested): safe/ cosy/ comfy/ comfortable/ relaxed/ homely/ welcoming (13), warm (9), grand (7), historical/ obviously aged/ antiquity/ classic (5), rich/ wealth (5) and haptic elements (being requested to recreate 'feel').

There is very little response on building sounds or acoustics: one person (RB) mentions soft furnishings to reduce sounds, one person mentions incorporating a hard floor for its sound 'effect'.

Not featuring in the designs are smell or taste of the building (though 'associated' tastes are mentioned). An open fire is recreated for '*multisensory perception'*.

5.3.5. – S2 – Analysis

Data are retrieved across all categories. Other-than-visual clues get more response when questions steer participants towards using other senses.

The study day, even for October, was a very cold, wet day. This might explain participants strongly and fondly responding to the open fires within the building.

For all sets of results, the 'multisensory' data, in fact the ones which are not typically to be categorised belonging to a specific sense, are mainly atmospheric. At the same time, they are the most subjective ones. The atmospheric keywords are not directly transferable into actual architectural characteristics. When properly assessed, provision of the separate sensory triggers, as they are found corresponding to various senses, should assist the (re)creation of a similar atmosphere.

Analysis of 'Part 1' results:

NH2JD-N6: *'The place is over saturated with wooden carvings. Individually each is impressive but the sheer amount of them means they are on top of each other and overcrowding one another.'* This is a good and clear assessment, but the judgment of this status quo shows a modern (modernist) approach. Arguably relating to built elements that historically were expected to involve a lot of handwork, and naturally being beautified in this process. Whereas today craft itself is appreciated to the extent that it needs singling out.

JD, though stating a high interest in historic buildings, appears very unhappy in this one. Apparently JD feels there is too much of everything; details, decorations, patterns. JD appears to not be able to see the wood for the trees.

Individual responses to the same space, at the same time, can still be very different; e.g. responses on entering the Lobby:

NH2AH-N2: *'Enclosed, yet high ceilings make it a grand space. The warmth relaxes you as soon as you enter and the dark shades of the décor make it less intimidating than a bright white space would be.'*

NH2JD-N2: '*Not very welcoming. It is ornate and makes me very aware that I am an outsider.*' A very sensory response. Potentially one that can be fixed, now it has been assessed.[214]

Though quite a few students have visited Norwood Hall before (19 %), quite a few others (understandably) appear not used to visiting this kind of hotels. Their responses show a sense of unease. Clearly the building expresses something that creates a social distance.

Throughout the data appear remarks on the building being '*well kept'*, *'well maintained'*, '*in good condition',* etcetera. This in fact is a technical assessment of the state of the building. Arguably these are default remarks for architects. However, the research hopes to persuade people to delay concern for such aspects, while they are sensory focusing on the experience.

NH1AB states a very high interest in historic buildings. However, AB left a lot of blanks and did not complete Part 3.

NH3AS calls every room 'unique'; these are useless data. Quite probably it is not even true. Because AS is only one of 36 participants, this is not an issue. However, data like *'unique, special, atmospheric'*, by way of an assessment, communicate no applicable information (though in Part 3 this 'uniqueness' is linked to *'delicate craftsmanship'*).

Strangely, the word 'quiet' is regularly spelled wrong (quite) throughout the data. Must be something with the triple vowel. These data do not apply to this research.

Already in Study Two, N20 enquires after associated taste. Most delivered data on associated taste come down to consumables that could well be visually advertised in a 'Norwood Hall' setting.

[214] Indeed, since performing Study Two, the Norwood Hall Hotel acquired new ownership and management. These days, a large desk is placed in the lobby, where guests are immediately welcomed by a receptionist. (The porch outside was fully glazed to keep out the cold).

NH2CM-N3: (remarkable) *'The mosaic floors- rooms like this usually have wooden floors.'* and NH2CM-N6: *'The fact that (the columns) are made of dark wood is also strange as classical columns are usually white.*' People apparently like to judge and assume. One needs substantial experience and knowledge to validate such remarks. More importantly, the research aims to promote experiencing a building as it presents itself and assessing if it works this way.

There is a large amount of data from visual perception; clearly this had been the focus of these architecture students. However, this is not the solely important aspect of architecture. The data contain ample records of architectural elements; though many of these were acquired through multisensory perception, the focus within their recognition is through visual perception.

Since the Library had a somewhat different atmosphere from the rest of the building, being a small space with a generally lighter atmosphere, it was unfortunate this could not be assessed as part of this survey.

Buzzers and bells went off. Naturally participants responded hereto at the time. The sound however hardly features in the data. Apparently this was deemed irrelevant to the study.

Response to the light intensity (mostly perceived as dark) is substantial; reported by 30-50 % of participants for each room. It might not surprise this again concerns a topic of visual perception.

Repeated data mention the *'need to be quiet'*, or similar. This is evoked by the atmosphere as it is. Consequently, people are quiet and a quiet environment can be enjoyed, where creaking floorboards can actually be perceived.

Two (female) students report feeling *'like* (they were) *on the Titanic'*. At the time the movie 'Titanic' had recently been re-released. It is an appropriate reference, arguably responding to a kind of luxury beyond reach, and clearly appreciative. At the same time, it proves contemporary visual dominance, when relating an actual and physical building to a movie.

Analysis of 'Part 2' results:

25% of the response sheets could not be traced back to a specific space. Apparently the various rooms have a consistent atmosphere throughout. And the things people respond to are not too room-specific.

N16: The instruction to perceive a space 'when you close your eyes' has worked well. All participants provide data, mostly auditory, olfactory because of the open fires in many rooms, and haptic also. Some participants indeed report a perception of the physical space, without seeing it.

NH3KS-N18: '*I have touched the wallpaper*[215] *and some panelling as I was questioning its authenticity*'. A perfectly reasonable action when KS was curious about the materials; this could be extended haptic affinity. However, by introducing the authenticity issue, this answer touches a different realm. Mostly one needs specific knowledge to decide on authenticity. Arguably the participant implies originality, since authenticity cannot be discerned from an authentic remake by touch only. One could feel if it is not wood and fabric, but that is not authentic, but real or fake. However, this is a discourse issue. It is relevant to realise this kind of discourse is not necessary helpful in conservation practice.

The room perceived as cold and uninviting (restaurant) gets 30% feedback on temperature; this might indicate temperature is a strong experiential trigger.

NH1RF-N19: *'the decoration feels like it is enclosing you';* RF categorizes this under 'visual impact'. However, there is not a more obvious place for this comment, as it does not go with 'What would you be inclined to touch?'

Answers to question N18 (*What would you be inclined to touch in this room?*) show lots of things that were mentioned in Part 1, were they were visually perceived only. Especially structured material (embossed wallpaper, canelures of columns) and very smooth and shiny materials (polished wood) 'ask' to be touched.

[215] '*Anaglypta, a form of thick-pulped embossed wallpaper, was very popular in Victorian homes. Its richness gave the appearance of stamped Spanish leather. Anaglypta was a trade-name which originates in the term, anaglyph, meaning an ornament in low relief.'* from:
http://canmore.org.uk/collection/680354

'Part 1' versus 'Part 2' results:

Lobby: One respondent only for Part 2, but a list of auditory responses, compared to none for this participant and just a few in total for Part 1.

Great Hall and Staircase: Part 2 has data on sounds of the building: creaking floors, and swinging doors. There is much more response on auditory triggers; apart from the noise of the open fire, especially now the creaking floor and swinging door are being reported; sounds which are inherent to the building. Apparently a question like 'what would you be inclined to touch in this room' awakens people's awareness of haptic triggers; Part 2 has a long list, compared to barely any 'spontaneous' haptic data from Part 1. Even the smell of the fire gets next to none 'hits' in Part 1, whereas in Part 2 this is easily picked up by many. People apparently associate rich and festive foods with the atmosphere present. Possibly because of the format, the amount of visual data[216] is similar to the amount of data from other sensory categories. The 'high ceilings' do not feature in Part 2, apparently not assessed as providing a visual impact. Associated smells and tastes are readily reported; including many festive associations. *'Something you want only a little of'* does not refer to an actual taste, but does provide a good assessment of the total impression of the space.

Bar and Restaurant: For the Bar and Restaurant spaces also, Part 2 has good data on haptic and auditory triggers, compared to hardly any in Part 1.

The 'room unknown' results are hard to set off against other data. Generally the data are very similar to the other data, confirming them. No new triggers are described.

Multisensory notions, including a lot of atmospheric description, come up a lot more through the general questions in Part 1. This shows the relevance of including both approaches, to obtain a complete and robust assessment.

[216][216] Note that the table has two columns for visual triggers, due to the amount of triggers, and since this way it will be clearer what, other than physical 'things', can be registered.

Analysis of 'Part 3' results:

The larger part of the first batch of students in Part 2 reflected on the Hall (50%), the second batch on the Bar (67%) and the third batch on the Restaurant (50%). The third group arrived nearer lunchtime, during their visit the restaurant was being prepared for lunch rather than cleared from breakfast.

Some responses presented a very free contemporary reinterpretation of the atmosphere. If then no direct links to existing elements are made, these cannot be picked up and therefore supply no relevant data to this research. Another respondent (RB) stated '*I do not feel that a contemporary space would have the same effect*.'

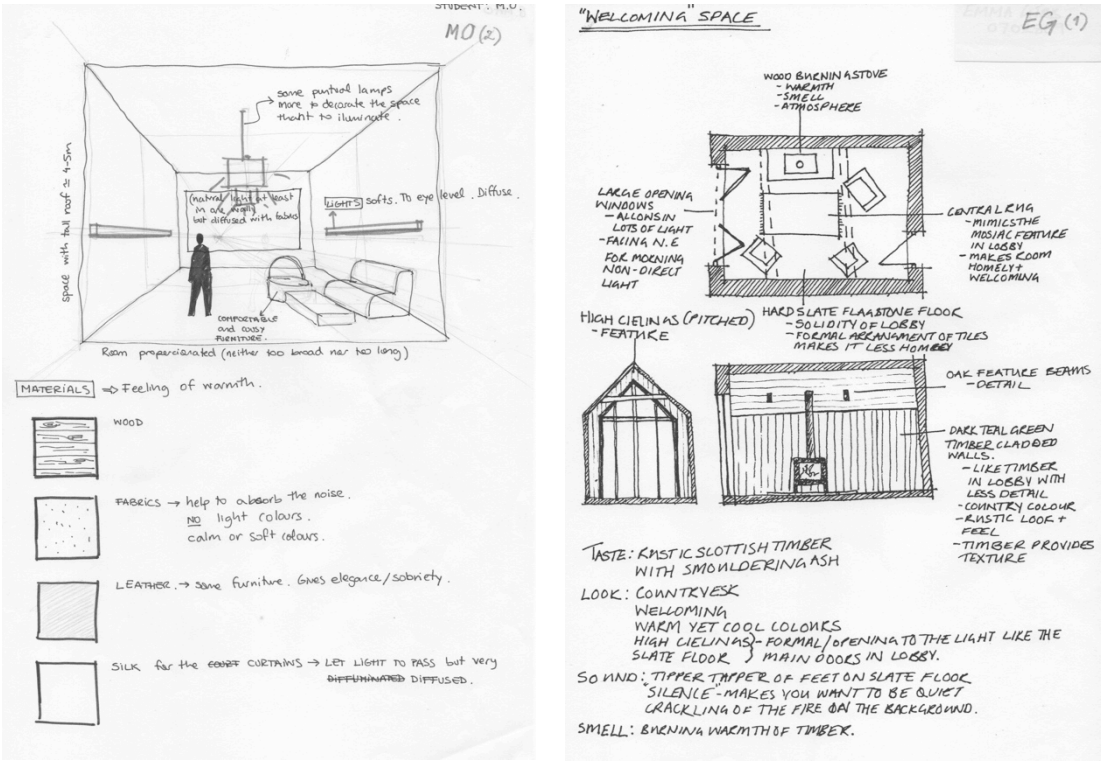

Figure 39: Part 3: students' re-creations of historic atmosphere

The table below shows the data concerning assessment of the current building, as extracted from the 'Part 3' recreation designs. The intention was to reflect what the respondents have reported only. For example: though a large space, high ceilings and soft materials will have an effect on acoustics, the auditory impact is marked only when stated in the data.

Table 9: Study Two, Part 3 (re-creation): coded data

		feature		auditory	haptic	visual	smell/taste	orientation
TA	1	high ceilings	dramatic entrance	-	-	x	-	x
		layering of materials	warm, rich	-	x	x	-	-
		texture changes	juxtapose for richness	-	x	-	-	-
		open fireplace	for all senses	x	x	x	x	-
		large single openings	cave like quality	-	-	x	-	x
		intricate detail	texture and depth	-	x	x	-	-
		smell of coffee/wood tones		-	-	-	x	-
FF	1	open fire	warmth and light	-	x	x	-	-
		fireplace	focal point	-	-	x	-	x
		columns	framing, majesty	-	-	x	-	-
		grand staircase	focal point	-	-	x	-	x
		ceiling height	grand atmosphere	-	-	x	-	-
		people, music, fire	creating sound	x	-	-	-	-
		smooth concrete walls	classic feel	-	x	x	-	-
		underfloor heating	radiating warmth	-	x	-	-	-
		tea and biscuits, perfume		-	-	-	x	-
OD	1	(over)full of detail		-	-	x	-	-
		great attention to elements	probably less elements	-	-	x	-	-
		light	main priority	-	x	x	-	x
		bay window	framing the view	-	-	x	-	x
		dark wooden floor		-	x	x	-	-
		smooth concrete walls		-	-	x	-	-
		furnish with stand alone items	artefacts	-	-	x	-	-
RB	1	open fire/fireplace	meeting point	x	x	x	x	x
		ornamentation in dark wood	wealth and quality	-	-	x	-	-
		textures and patterns	added depth	-	x	x	-	-
		staircase	focal point, upward	-	-	x	-	x
		soft furnishings	minimise echoes, soften	x	x	-	-	-
EG	1	large windows	lots of light	-	-	x	-	-
		wood burning stove	fire crackling, warm,smell	-	x	-	x	-
		hard floor	footsteps, solidity recreated in a	x	x	-	-	-
		floor pattern	rug	-	x	x	-	-
		lots of timber	texture	-	x	-	-	-
		high ceilings	feature	-	-	x	-	x
AAX	1	smell	old books! and wood	x	-	-	x	-
		large space		-	-	-	-	x
		ceiling height		-	-	x	-	x
		dark	create drama on surfaces	-	-	x	-	-
		wood panels on wall	rich, dark, quality	-	x	x	-	-
		leather furniture		-	x	x	-	-
		concrete floor	cold and sombre effect	-	x	x	-	-

		feature		auditory	haptic	visual	smell/taste	orientation
LJ	2	lots of different material	rich, grand, expensive-look	-	-	x	-	-
		detailed	extravagant furnishings	-	-	x	-	-
		large windows	daylight	-	-	x	-	x
		deep rooms	daylight and dark areas	-	-	x	-	x
		low lighting	dark atmospheric room-	-	-	x	-	-
		lots of furniture (many tables)	warm cosy comfy soft	-	x	x	-	x
		alcohol, food cooking	scents	-	-	-	x	-
		fabrics	soft to touch	-	x	-	-	-
		people talking		x	-	-	-	-
MO	2	wood	warm	-	x	-	-	-
		fabric, darker colours	absorbs noise	x	-	x	-	-
		leather furniture	comfortable, cosy	-	x	-	-	-
		light diffusing curtains	(silk)	-	-	x	-	-
		natural light	at least one wall	-	-	x	-	x
		soft lights	decorative fittings	-	-	x	-	-
		tall roof (i.e. high ceiling)		-	-	x	-	x
		proportioned room		-	-	x	-	x
BK	2	natural light	connection to exterior	-	-	x	-	x
		large window (partitioned)	projecting feature (rf bay)	-	-	x	-	x
		deep colours and textures	for decor and furniture	-	x	x	-	-
		quietness	similar location	x	-	-	-	-
		central feature fireplace	sense of warmth	-	x	x	-	x
		paintings etc.	homely feel	-	x	x	-	-
		large circulation space		-	-	-	-	x
		high level of detail (quality)	h.t. quality=simple details	-	x	x	-	-
TI	2	decoration		-	x	x	-	-
		intricate detail		-	-	x	-	-
		fireplace	warm, homely, smoke	-	x	x	x	x
		heavy curtains		-	x	-	-	-
		relation to exterior		-	-	x	-	x
		large feature window		-	-	x	-	-
SP	2	fireplace – focal point	warmth, smell, taste	-	x	x	x	x
		high ceilings		-	-	x	-	x
		dark wood, carved	warmth, fragrant smell	-	-	x	-	-
		plain walls, not patterned		-	-	x	-	-
		proportionate windows		-	-	x	-	x
		lighting dim but warm		-	x	x	-	-
DP	2	full w things to catch the eye	imposing-not-overwhelming	-	-	x	-	x
		full of detail		-	-	x	-	-
		rich warm colours		-	x	x	-	-
		people sounds, fire crackling	smell-taste of wood-ash	x	-	-	-	-
		large open fire	feature	-	x	x	x	x
		staircase to mezzanine	feature, warm colours	-	-	x	-	x
		stained glass window	contrast indoor-outdoor	-	-	x	-	x
		large window to outside	warm-cold contrast	-	-	x	-	x
		fur rug on tiled floor	colourful-textured-ornate	-	x	-	-	-
		wallpaper (modern)		-	x	x	-	-
		comfortable seating		-	x	-	-	x

		feature		**auditory**	**haptic**	**visual**	**smell/taste**	**orientation**
AR	3	in treetops	close to nature	-	-	x	-	x
		feature window	diffusing light	-	-	x	-	-
		kitchen noise away fr window	(to not spoil nature)	x	-	-	-	x
		modest fireplace		-	-	-	-	-
		staggered ceiling	feature lighting	-	-	x	-	-
		patterned textured wallpaper		-	x	x	-	-
AS	3	historical grand unique special	(not sensory notions)	-	-	-	-	-
		safe		-	x	-	-	x
		simple geometric space	uncomplicated form	-	-	x	-	x
		grand elaboration	within simple form	-	-	x	-	-
		attention to detail		-	x	x	-	-
		dark expensive wood		-	x	x	-	-
		minimum natural lighting	dark and dimly lit	-	-	x	-	-
		enclosed within space	not about rel. to outside	-	-	-	-	x
		luxurious furnishings	hand carved wood	-	x	x	-	-
TI	3	perfect proportions		-	-	x	-	x
		high ceilings		-	-	x	-	x
		crafted engravings		-	x	x	-	-
		polished brass		-	x	x	-	-
		comfortable climate		-	x	-	-	-
		large ornate fireplace		-	-	x	-	-
		aroma of wood smoke		-	-	-	x	-
		large stained glass window	feature	-	-	x	-	-
		total number of 'hits' (x)		*11*	*45*	*78*	*11*	*39*
		relative (1/11)		*1*	*4*	*7*	*1*	*3.5*

The table shows the following, regarding 15 re-designs based on different rooms at Norwood Hall:

> Both the auditory and the smell/taste notions are incorporated 10 times in 15 designs (67%). These sensory fields may benefit from increased awareness.
>
> Visual clues are acknowledged 7 times more than auditory or smell/taste ones.
>
> Haptic and orientational clues are plentiful and a factor to be recognized.

Notions from the data, which are not reflected in the table above:

AS: *'Have absolute attention to detail such as hand-carvings and delicate craftsmanship (this adds uniqueness).'* Here, in Part 3, is the explanation for the 'unique'-s in Parts 1 and 2.

AS: *'The space is all about how you feel when enclosed within it, rather than any relationship to the outside world.'*

TY: *'One enters the room though a door, which is in perfect proportion to the room'*: lots of (bodily) orientational sensory notions.

TY: *'Given all of the above I would want to incorporate into my design spaciousness, aesthetically pleasing elements, sensually features, such as visual enhancements and an atmosphere in which the client could feel at home and relax.'* TY starts off evoking a very sensory experience of entering a room, but unfortunately eventually does not acknowledge a full spectrum of sensory experiences, rather narrowing this down to the visual only.

FF has her redesign providing for sound, which clearly she deems adding to the atmosphere: *'The sound in the room you would (hear) the crackling fire. Furthermore you would (hear) the chatter of the ladies huddled around the fireplace, gathered drinking tea. There would also be soft sound of classical music playing in the background.*' If there was background music playing in the hotel during the study, 36 respondents have not picked this up. Mostly the spaces were 'quiet' or 'asking to keep quiet'. Notably the sounds she designs are all added on; they fit the building, but are not produced by the building. Other respondents get no further than *'crackling fire'* (TA), *'phones ringing, people talking, fire cracking, cutlery rattling'* (RB), *'feet tapping on floor, fire crackling'* (EG), *'staff/customers talking'* (LJ) or *'pleasant conversation'* (DP). Creaking floors, in spite of a good response from Parts 1 and 2, are not mentioned for recreation. Just (EG) plans to recreate the sound of *'feet tapping on the floor'*. The other nine respondents (60 %) did not mention anything related to sound at all.

Fireplaces get recreated as features, totally forgoing the fact they were a necessity. (Somewhere Norwood Part1 a remark on how the fireplace is so simple in design.)

AAX: *'It would be dark to create drama on textured surfaces.'*

'*Simplicity can often show the finest detailing*' (TA); this is a popular contemporary architect's approach, and true in itself. However, arguably one of the characteristics of historic buildings is the abundance of detailing and craftsmanship, where focussing attention on just one aspect only is in fact difficult. It is likely historic buildings where built and finished to a high standard, because material was costly rather than labour. 'The finest detailing' was a default thing, rather than something needing attention. In that case, it should be there, but not get special attention, and simplicity is not an obvious choice for recreation of the atmosphere. Actually, the atmosphere is aptly assessed by (DP): '*The room felt full, with so much detail there was something to catch the eye, no matter where you looked.'*

'I would use plain dark red wallpaper. This way the focus is on the detailing of the woodwork and furniture.' (SP) does recognize what is there, and explains why she chooses to recreate something different.

'Although Norwood has a high level of detailing, I feel this can be converted to a simplistic method to highlight other features such as the fireplace. In contemporary architecture, the simple details are more difficult to create and construct which illustrates a modern approach

to high quality finishing. I would also adopt a less is more methodology while detailing.' (BK) is explaining his decisions; *'which illustrates a modern approach to high quality finishing'* is a clear approach and a justifiable choice. This is not a recreation of what was experienced, but rather a creation inspired by the atmosphere, likely to be very different from the original atmosphere. When a recreation of posh 17th century manifests itself like posh 21st century, the two physically will be worlds apart.

5.3.6 - S2 - Qualitative Reflection

Study Two provided a substantial amount of useful and pertinent data. At the time the idea to combine taste and smell and add another sensory category, to do with (bodily) orientation, had not presented itself. Only after performing Study Four and processing this, a better format for processing the Study Two data was available for application. Herein, these ideas have been incorporated.

Though the Part 3 data [see Table 9: Study Two, Part 3 (re-creation): coded data, and appendix 11] are very subjective, the students' descriptions of what they assessed and aimed to recreate provide good insight. Descriptions of how or why they chose particular options in their 'recreations' present more valuable data than the actual results. This shows how one cannot 'read' peoples rationale from their work, but only really aim to understand the information provided. There is no other way to understand a designer's intentions. This is another reason to promote assessment of actual historic buildings as they are, rather than or at least alongside, efforts to understand the designer.

Dividing the large group into three smaller ones turned out to be effective, as students reported on the silence and perceived need to be quiet in the rooms.

For future studies, when repeating a 'Part 2' sensory review of one room, there must be a space to fill out which room is chosen for the assessment.

The Library being un-accessible at the time of assessment was unfortunate indeed, as this Library has a different atmosphere from the rest of the building, being a small space with a generally lighter atmosphere.

Some response to relations between inside and outside 'worlds' comes up spontaneously. Potentially this is a topic for enquiry.

Responses that are retrieved from 2 out of 36 people only, may point to a perception that is unknown or unrecognised, rather than irrelevant.

Running a Part 3 assessment did not quite work out as anticipated. Though only 42% return of the home-exercise, it did not appear to be too complicated to pull together. However, the results seem to be influenced by young ambitious designers keen to include their personal preferences in a design, arguably allocating properties they need to materials they like. Some of the 'budding architects' claimed concrete can be of same attractiveness as wallpaper; arguably it will be a hard bargain to recreate a Norwood atmosphere using concrete walls. Persuading a client who asked for 'Norwood' (this was the design brief) to settle for concrete would be equally challenging.

Those recreations in Part 3 explaining the rationale for their choices, are definitely interesting. Some other designs show illogical aspects or idealistic approaches. Even though five senses are actually named in the design brief, they are not consistently used in the designs. To get suitable data for this research, it would matter that participants first write down their perceptions, and next explain why and how these are recreated, or why not. To the thesis it is more interesting to know what they have experienced, than which are their personal preferences for a recreation design. The interesting data coming up from it are typical architect's observations. The Part 3 exercise is expected to encounter dissemination issues when processed by non-architects.

Anyhow, the data show that there is work to be done regarding awareness on the sensory front. Some respondents within a week apparently forgot there are five senses at work, and even though literally being reminded of them in the design brief, did not cover them in their designs. E.g. where a majority of respondents state to hear a creaking floor somewhere in Parts 1 and 2, nobody has incorporated anything similar in their recreations.

Some enquiry about the exterior should be included in the next questionnaire. Data are pointing out the view through various windows, which now can be only related to 'outside'. Though a convenient one on this particular study day (bad weather), this is definitely an omission.

Knowledge of the sensory was underdeveloped at this stage in the research process. Still, already the study clearly shows a lot of data can be collected through focusing on individual senses. And the 'traditional five senses', though possibly not complete, are definitely suitable for use.

Though not all decisions taken in designing the recreations for Part 3 were clearly underpinned, the ones that were explained provide relevant information on what was assessed in the first place. The general impression is that students considered well beyond visual characteristics and managed to incorporate these new notions into their design.

Negative perceptions (cold, dark) show strong response. In Part 1, where the Restaurant is perceived as cold, the haptic system does appear not to pick up much other triggers, potentially because it is preoccupied with the perceived cold?

Registrations like '*smells old, like my grandpa's house'*, and *'old and musty but this adds to the character'* give negative connotations. However, once assessed these could actually be taken care off and improved during the conservation process.

Part 1 has provided data on what people generally perceive, of historic buildings. Part 2 has shown awareness and recognition of auditory and haptic triggers could be much improved (typically the awareness of 'building-inherent' sounds). Though people's olfactory properties are not much developed, they do register and should be included in the assessment of a building. Recognizing associated tastes is a way to get insight in a general feeling about a space.

Considering a re-creation, similar to the Part 3 exercise, brings up focus points and features and other strong architectural clues. However, the re-designs could only incorporate what had first been assessed in Parts 1 and 2, therefore did not provide extra actual data; rather they are showing student's attitude toward and their dealing with these data.

Recommendations for following studies:

Part 3 data are interesting where they explain respondents' rationale, and attitude towards (kind of new-traditionalist) architecture in general and the assessed buildings in particular. The data that were generated about the building were very similar to those retrieved already from Parts 1 & 2. The Part 3 data may represent 'lasting impressions', rather than the complete representation a sensory assessment is looking for.

Part 1, between all three parts, is the only way to find out what people pick up when not specifically asked. When participants are not trained architects, they might appreciate more guidance on what potentially they may respond to.

Part 2 assists to find out what people can respond to if they consciously choose to; it should be considered they likely already unconsciously respond to these same factors also.

The sensory system of 'the five senses' may be reconsidered. Responses to taste and smell are not very strong (unless a strong smell, like smoke, is presented). A 'sense' describing the relation between the human body, as a physical mass, and the building (situating the body in the building) might be useful.

5.4: Summary

Study One has been valuable in clarifying the focus for the thesis: this is the historic fabric in its appearance and people's perception hereof.

Study Two has generated plenty sensory data, including many non-visual ones that could not have been retrieved from photographs or other visual images. This study has shown that people do sensory respond to buildings and their affinity toward historic building is not a cognitive issue only, but one that has a physical experiential component.

Future studies for this research should focus on retrieving 'sensory' information about historic buildings only.

People respond to sensory triggers, and can communicate what triggers them (in their opinion).

People are able to respond to a range of sensory perceptions, when encouraged to do so. Participants state this did enlarge their understanding of and appreciation for the building.

The Aristotelian 'five senses' may need reviewing to find a 'set of senses' specifically suited to the research, notably regarding the fields of 'taste' and 'orientation'.

The data show more sensory triggers are acknowledged when specifically asking for them than when asking for experience in general.

CHAPTER 6: PERCEIVING BUILDINGS IN PRACTICE – MAIN STUDY

6.1: Introduction to Study Four

Following Studies One and Two, as reported in chapter 5, a final study was designed, involving a survey of different buildings and greater focus on sensory perceptions. This chapter describes the execution of this Study Four and the preceding pilot Study Three, and presents the retrieved data.

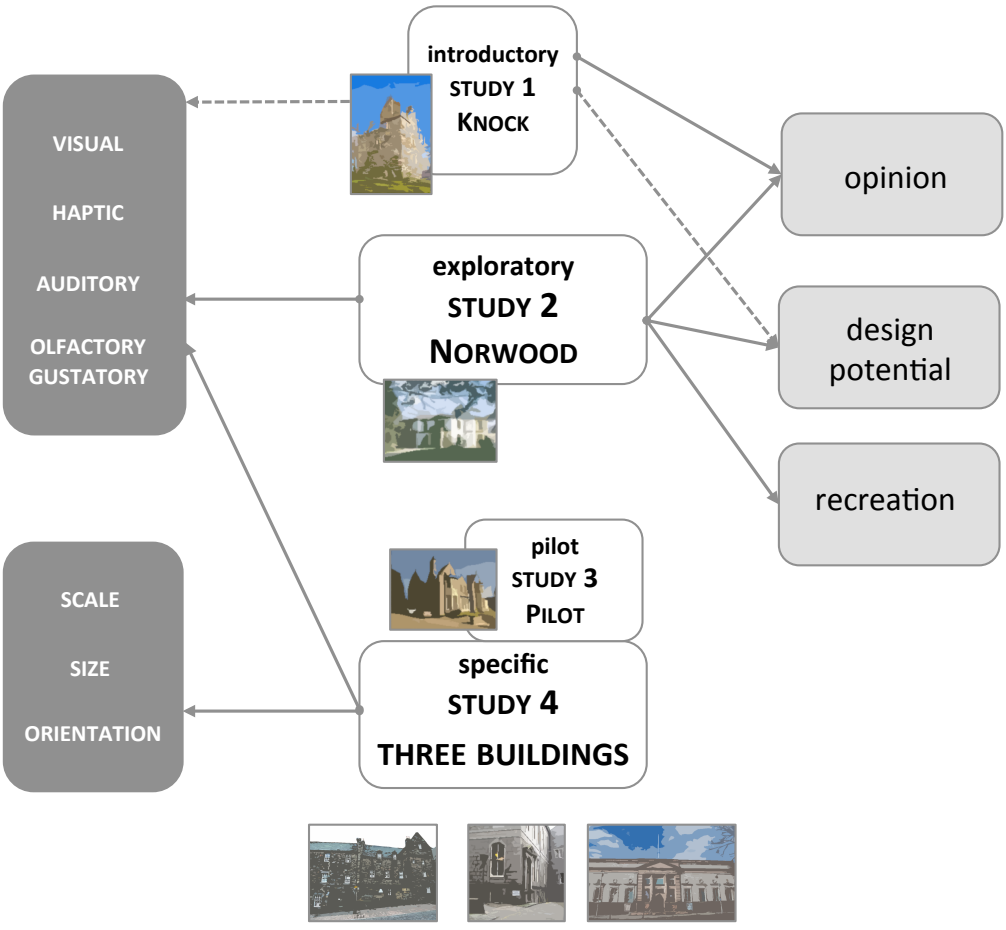

Figure 40: development of method and understanding through studies

These studies are a continuation of fulfilling Objective 3:

> Develop a critical framework to support understanding of (the existence of) sensory experience in historic buildings (through studies).

As shown in Figure 40, the focus of Study Four (September 2013) was entirely on retrieving a bulk of data specifically on sensory perceptions of historic buildings; no issues relating to

'heritage management' were considered. This would be the thesis' final contribution leading to the understanding needed to promote performing the sensory assessment of buildings in practice.

Study Three had one purpose: to pilot the format and questionnaire for Study Four and see whether the questions were appropriate and delivering the right answers. The questionnaire turned out to need only minor adjustments and the retrieved data from Study Three, though a small set, present a relevant contribution.

This chapter covers:

6.2: Survey design (main study)

6.3: Study Three: Pilot at Scott Sutherland Building

6.4: Study Four: Three historic buildings in Aberdeen

6.5: Overall description of results

6.6: Summary

6.2: Survey design (main study)

Study Three, the first exercise reported in this section, was aimed at piloting the actual survey questions for the main Study Four (see section 6.4) only. At this stage, the research had expanded in the field of sensory perception and began looking for sensory triggers that define people's experience of a building. The aim for the entire research is to establish and acknowledge that sensory perceptions are an essential component in people's appraisal of historic buildings. Study Four was set up to underpin this thesis and give insight into whatever these perceptions entail. Rather than pretending to be complete, the study aimed to elaborate the understanding of historic buildings from an architectural position.

The new survey questions had evolved from those for Study Two (Norwood Hall Hotel). The present study aimed at retrieving more and clearer data on the sensory part of the experience of historic buildings. Survey questions would be straightforward and for anyone to understand; reporting one's perceptions does not require elaborate understanding. Participants' personal and subjective judgements would not contribute to the intended angle to the research and should not be asked for. The Study Three survey questions were to be used in Study Four after minor changes only.

The survey was extended with questions relating to the building's exterior at the beginning, as well as a 'what do you pick up from outside' question further on. The relation between inside and outside is an important factor in architecture, and enquiry hereafter should therefore be part of an architectural assessment.

The sensory categories used in Part II were Hearing, Touch, Vision and Smell/Taste. These relate to sensory organs and are clear to understand. The sensory category of orientation, not within people's general understanding of 'the senses', nor clearly related to one sensory organ, did not have its own category. It was hoped data under 'general' would give insight in what a sense of (bodily) orientation might behold. Related to orientation, routing is to be understood as a change from one sensory space to another. Orientation is not about wayfinding only, but also or rather about residing ('dwelling') in a space.

The 'recreation' assignment, as included as 'Part 3' in Study Two, was abandoned; a design-type assignment might be useful when carried out by trained architectural designers only, and even then, in the Study Two results, the sensory qualities of modern building materials appeared too easily matched with those of the historic building previously assessed; some budding architects appeared to sell their preferred design off to match the demand of the assignment. Though justifiable from a design point of view, such liberal interpretation cannot properly inform the research.

The survey questionnaire forms as handed out to participants can be found in appendices 10 (Study Three) and 12 (Study Four).

Statistics and Introductory Questions:

The chosen age brackets [25-34 / 35-44 / 45-54 / 55-64 / 65+] are based on general census brackets. However, approximation suffices and each two brackets are combined.
Keeping in mind the potential participants for the main study, and aiming to roughly group people within the same stage of their lives, the above 'around 40' and 'around 50' categories were chosen. There is no need be very specific regarding age categories. Since perception deteriorates with age (e.g. Mather 2006) age 60+ respondents will not be included.

Being aware of difference in perception between genders (e.g. Irigaray 2000), this is easily established, then available if significant, or for future use.
Aberdeen has a substantial population of expatriates, and it is to be expected the participants will originate from various parts of the world. Since this might have an impact on their perception, participants' 'cultural background' is enquired after.[217]

S4[218]: How would you rate your personal interest in Historic Buildings?
Familiarity with the surveyed building and affinity with historic buildings in general may be factors of influence on perception.

S5: What is the weather outside like today?
Weather in general may affect people's mood. Daylight as well as temperature will have their impact on the atmosphere within a building.

Start- and end times are recorded in the pilot; this will assist in estimating the duration of the entire three buildings study to follow.

Q1: Had you noticed this building before? yes / no
Q2: Have you visited this building before? yes / no
Q3: If yes, how often have you been here before?
once / 2-5 times / 6-10 times / more
In Study Four, Q1-Q3 have been asked for each building again.

[217] Cultural background (rather than country of origin) as a potential influence on perception came up during an informal internal SSS seminar presentation.

[218] Due to Study Four comprising three buildings, the order of introductory questions has been rearranged.

Participants are urged to only spend a few minutes in each room for two reasons: the research is aiming for initial, intuitive responses, rather than cognitive, reasoned ones. And there will be limited time for each space when the survey will cover three buildings in the main study.

Part 1: General Questions

These questions are aimed at finding out what people pick up generally, when not asked to focus on anything specific. All participants will respond to these questions, for every room. Any sensory data resulting from these questions will be spontaneous.

Questions Q4-6 , regarding the Exterior (may be filled out inside); the research is anticipating situations where keeping a group of people standing outside might not be convenient. Stronger triggers will provide an impression that can still be reflected upon once inside.

Questions Q7-Q10 are to be repeated for each room:

Q7: Give your first impression of this room in 2-3 keywords

This question has worked well in previous surveys; keywords can really be provided in the stage of 'first impression', and are easy to process

Q8: Describe the general atmosphere within this room.

Perception of the general atmosphere will be multisensory; it will show what people are sensitive to. Any overpowering sensory triggers will come up immediately.

Q9: Which historic built elements or features do you feel contribute to this atmosphere?

This is a new question, asked for each room again. It can provide data on what actual elements should be taken into account during conservation. Making the question subjective by asking 'What do you feel?' should encourage participants to directly reflect their personal observations, rather than making an effort to guess what might be a common response.

Q10: Please mention anything other you find especially remarkable or catching:

It is likely people will notice things that they have not matched as answer to one of the previous questions. It is important to retrieve data on such perceptions also.

Compared to Study Two, a new set of questions, Q11-Q13, has been added at the end of Part 1, asking generic questions about the entire building, and questions aiming at retrieving data on the awareness of the body in and moving through space[219].

[219] Even when at this time in the research it is not clear what exactly these 'senses' entail or should be called, there is ample indication of the existence of an awareness of the self/body relating to and moving through space.

Q11X: What have you used in orientating and navigating through the building?
Q11: While moving through the building, were you drawn in any specific direction?
Question Q11X has been erased after Study Three; Q11, directing attention to spatial situations, includes what was asked in Q11X.

Q12: Did you identify any elements that are not contributing to, or even disturbing, the buildings' character?
Things that stand out tend to be picked up. Rather than asking what should be changed or improved in case of a refurbishment, the thesis looks for the primary notions of things not befitting. The sensory assessment should be about noticing things (which potentially are totally subjective), to then be able to decide whether or not to respond hereto through a conservation action.

Q13: While inside, have you been aware of anything outside of the building?
Stating 'anything outside' this question should be very open, so other than visual perceptions can be included in the answer. These might include clues to orienteering, or light or sound affecting the atmosphere inside.

Part 2: Sensory Perception

Part 2, asking for focused Sensory Perception[220], has been extended with an introduction. Filling in a previous omission, there now is a request to state which room has been chosen for the second exercise, simultaneously asking for some explanation of this choice.
At the time of performing Study Two, deeper study into sensory perception had not yet been part of the research. Now aiming to get much more data on actual sensory perceptions, and find out what people pick up when consciously focusing on specific senses, the entire section has been extended. This may clarify or extend the understanding of what they pick up when 'soaking up' the atmosphere. What is called one sense can include perception in different ways. Though sensing might take some time, the time set for the exercise has not been extended, as the research was still aiming for direct, 'instinctive' registrations and did not wish to include much time for deliberation.
Since visual perception has become dominant (e.g. Pallasmaa 2005) other perceptive senses may need some extra attention or a wake-up call, to produce data. Deliberately, visual

[220] The Study Two questionnaire speaks of '*sensitive*' rather than '*sensory*' perception; in earlier stages of the PhD there was some struggle to find the right terminology for sensory perception; 'sensitive' in its meaning of 'unstable' appeared less suitable.

registration is not the first perception being asked for. If the research is aiming to guide people beyond their usual experience, the visual should not be the first thing to focus on.[221]

Q14: State in a few words why you have chosen this particular room:
The Norwood questionnaire had no request to state which room was chosen; this had to be guessed afterwards, but was not always successful. Q14 may produce additional relevant data.

Similar to the Study Two survey, there is a short introduction to Part 2. Through previous surveys transpired an urge of many participants to express their affinity with and appreciation for the architecture around them. Aiming for undivided and undistracted attention to the actual sensory perception questions, before embarking on Part 2 of the questionnaire, participants get the opportunity to share their appreciation for the particular room they chose to perceive more closely. To reinforce participant's understanding that the research is not looking for 'nice', appealing perceptions only, there is an obvious option to declare a potential dislike of the place.

General:

Q17: What do you feel/sense, (what experience does the room provide)?
Q18: How do you feel about the size of this room?
Sensing the size of a room compared to the size of oneself is an important notion, asking for it directly aims to get more data on this topic than emerged from Study Two.

PQ19X: Do you feel comfortable and would you choose to linger in this room for a while? Why?
Arguably physical comfort is directly related to sensory experiences. People can feel relaxed and safe, or experience heightened awareness, notably when they are uncomfortable. These 'general' questions may provide clues on what is being perceived 'multisensory', i.e. using a combination of senses.

Hearing:

Q20: Which sounds do you pick up that belong to the building?
Q21: Which other sounds do you pick up?

[221] For background information on which sensory, or perceptive systems to cover, see Chapter 3.

Even if these two questions turned out to be slightly confusing (Which sound counts as what?), the combination of them urges participants to think about sounds again, and reconsider if there are more auditory triggers present than instantly established.

On the topic of hearing, there is both background noise produced by e.g. other people or traffic, and sounds like creaking floorboards that are inherently part of the building. The Study Two data show that, when not asked for them, participants will not necessarily include both kinds of sound in their data [222]

Touch:

Q22: What can you feel with/through your skin?

Q23: What, in this room, would you like to touch?

The sense of touch knows active and passive components.[223] Participants may well be inhibited towards touching their environment (for a wide variety of reasons) and more so in museum-like historic settings, so the question asks them what they would like to touch, rather than what they have actually touched.[224]

The sense of touch is not a straightforward one; it may include various kinds of 'touch'. Active and passive touch clearly feature in Malnar and Vodvarka (2004), as reported in §3.6 above.; these questions aim to retrieve data on both kinds.

If such haptic data concern warm or cold, they will relate to the actual temperature, rather than the atmosphere.

Vision:

Q24: What, of this room, has the greatest visual impact on you?

Visual registrations will add up to a very long list, with lots of recurring data. What strikes, or stands out, may be different to each person.

Q25: What more do you register through sight?

[222] Eventually the data will show different respondents will allocate the same sound to different categories. This is not a problem. As long as they acknowledge different categories of sound they are more likely to also report whatever inherent (to the building) sounds they perceive.

[223] Some discern the perception of temperature as a separate sense. At the time of the questionnaire the research chose not to do so. Notions of cold or warm are frequently reported without specifically asking for them anyway. (identifying temperature as a strong trigger).

[224] Ideally, participants will actually touch the building and enhance their personal experiential awareness.

How does one sensory register, for example, size, proportion, ornament, route, or textures? Theoretically, a visual impression will be made by everything one sees. Questions are therefore asking for the greatest visual impact, and next, for what the participant not only sees but actually registers and connects to ratio. Furthermore, there is so much that can be registered through sight, e.g. size, proportion, rhythms and repetitions, light contrasts and intensity etc. etc. (Study Two has shown strong responses to light; these might surface again.)

Smell/Taste:

Q26: What can you smell in this room?

Q27: Do you get any sensation of taste in this room?

The Study Two questionnaire has been based on the 'traditional' five senses. Since then, the literature review has evolved and found strong indication to use an adapted system (Molnar and Vodvarka 2004), combining the senses of smell and taste. Separately, in Study Two, these two senses produced not many data. Therefore they now go under one heading.

Various sources [e.g. Mather 2006, Ackerman 2000] supported that the olfactory and gustatory perceptions, both depending on chemoreceptors, can be traced back to one combined sense. Data from Study Two applied to associated smells and tastes.[225] These may present an idea of the atmosphere (comparative to a 'commercial' image of historic interiors) but not inform this study of actual perceptions.[226]

Orientation:

Clearly the sensory category of 'orientation' (see Gibson, in Malnar and Vodvarka 2004) is present. However, this is not clearly related to one sensory organ, nor one commonly considered a 'sense', and questions in this regard may confuse participants. Question Q18 asks for size, which relates to the spatial awareness in a room. Question Q13 asks for general awareness of the outside, which may be related to orientation. Questions Q11X respectively Q11 cover navigation and orientation during the survey exercise.

Start and end times are noted in the pilot to get insight in the amount of time participants need to process the questionnaire.

[225] Eg. Something tastes/smells '*like coffee*', but it is not known whether or not this is a positive or negative association, and is coffee strong and bitter or just weak and milky/sugary?? Comforting or reviving?

[226] Are these associated (commercial) tastes the part that can be adjusted, while the core of the building (= the actual perception) stays unaltered?

Part 3: Review :

Q28: Do you feel you have noticed or experienced more than you 'normally' would have? Has your awareness of the building changed?

Study Two had a Part 3 asking for 'recreation', which has been cancelled. This Part 3 aimed to provide more clarification; respondents would use what they had picked up already to recreate a space. Practically, the participants for Study Four will not have any training in architectural design and therefore may struggle to produce a result. The results of the Study Two interpretations (Part 3), however interesting in themselves, hardly produced relevant data to this research. Theoretically, the focus of the research lies with what people register rather than their interpretations; therefore a recreation is not part of the main study. Especially the second half of question Q28 may provide interesting data from participants who are familiar with the building.
A similar insight may be gained from organising a focus group afterwards; for the second main study, Part 3 will include a request to join a focus group.[227]

Part 4:

This scrutiny of the questionnaire features in Study Three, the pilot, only. Since the study participants are fellow researchers, some feedback on their experience, the process, practicalities, sensibility and credibility of the survey will be valuable.

Part 4 is specific to this pilot; the questions are aimed at scrutiny of the questionnaire, to have it adjusted and ready for use in the main study.

[227] Eventually, a focus group was not organised.

6.3: Study Three: pilot at Scott Sutherland School

6.3.1 - S3 - Preparation

Scott Sutherland School (SSS), the architecture school building at Robert Gordon University in Aberdeen[228], happened to be an extremely suitable building right at hand. For efficiency, the participants would be research colleagues, most of them familiar with the building. Although this pilot study was solely aimed at trying out the questionnaire for Study Four, the collected data may contain interesting material.

Preparation for this pilot was limited to making sure the rooms to be surveyed and a handful of participants would be available at the same time. The most interesting rooms were downstairs: Vestibule & Corridor, Main Hall, Staff room (SB02) and Grand Lecture Room (SB01). This pilot study had 5 participants.

6.3.2 - S3 - Pilot Day

Date: 4th June 2013

Location: The Scott Sutherland School of Architecture and Built Environment, Garthdee Road, Aberdeen[229]

The study location had been limited to ground floor of the original Sutherland House only. Entering through the school entrance and the side of the house, enabled opening the main entrance door to the participants a little later. The original entrance was most suited to welcome people into this mansion.[230]

When everyone finished and returned their questionnaire, there was a little after-party of coffee and cakes outside in the sunshine, making this a thoroughly enjoyable morning for all involved.

[228] Summer 2015, the School of Architecture and Built Environment moved out of the Scott Sutherland Building. The building is currently referred to as 'Garthdee House'.

[229] The SSS has moved since; use of the surveyed area has altered.

[230] At the time, this entrance was not in use, due to security reasons/needs.

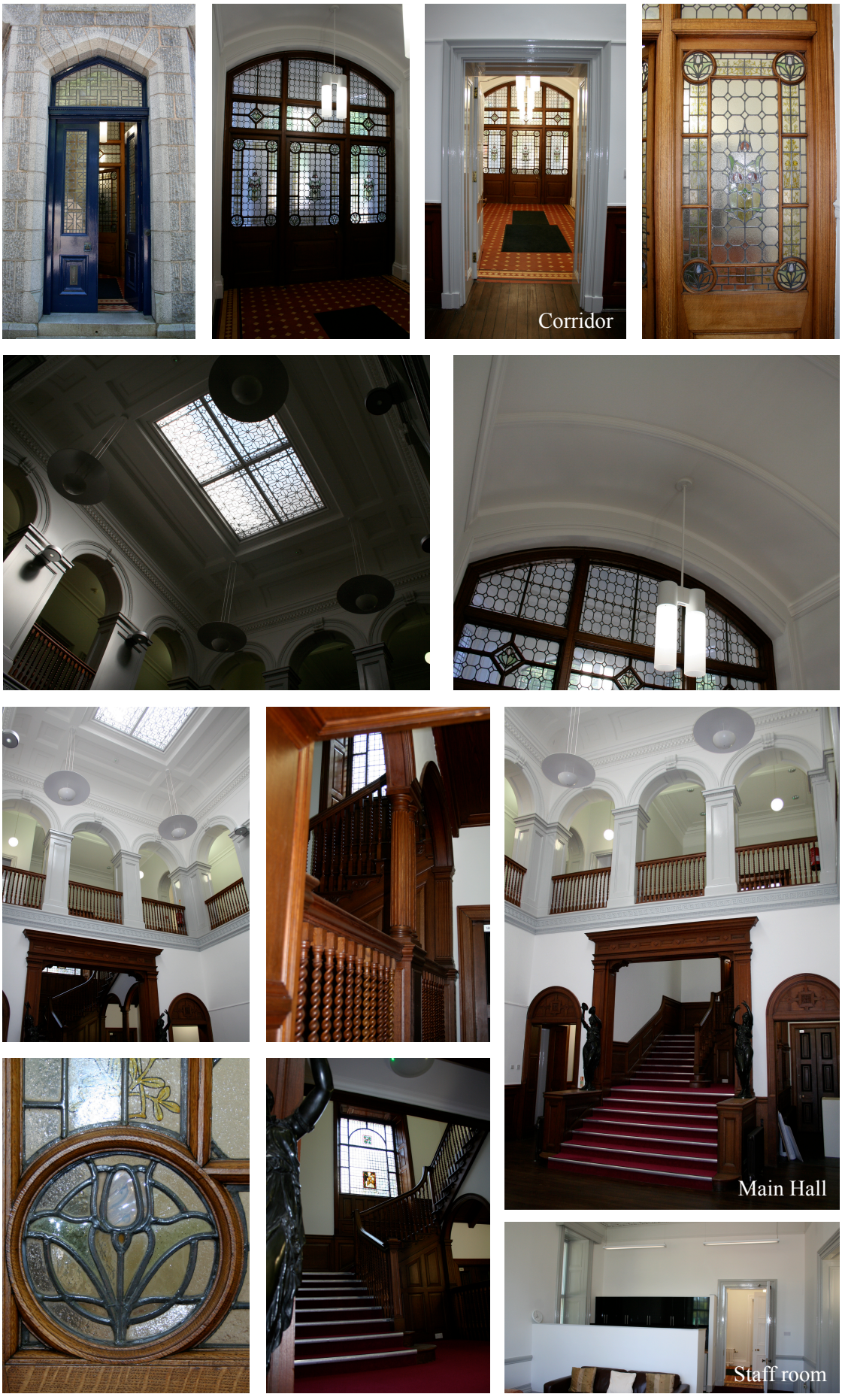

Figure 41: Garthdee House, formerly Scott Sutherland School

Figure 42: Garthdee House

6.3.3 - S3 - Results

When processing the data into tables, all answers have been reviewed and reorganized according to their applicable sensory categories. The questions as formulated in Parts 1 were aimed at getting participants to focus on aspects they would sensory experience.

Statistics:

Table 10: Study Three, statistics

PS1	Age:	4 [25-34] 1 [35-44]
PS2	Gender:	3 M – 2 F
PS3	Cultural background:	2 UK 2 Europe 2 other non-western
PQ1	Had you noticed this building before?	5 yes
PQ2	Have you visited this building before?	5 yes
PQ3	If yes, how often have you been here before?	5 more than 10 times
PS4	How would you rate your personal interest in Historic Buildings?	3 high 2 regular

Table 11: Study Three: Garthdee House / Scott Sutherland School: data sorted by sensory category

Scott Sutherland Study Three	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Exterior Part 1 5 respondents	old well kept fairly clean impressive full of history well preserved current function- not original gothic looks-like-a- home very Scottish			colours tall windows grey granite high pitched roof contrast to surroundings stonework façade imposing- in shade	bay windows doorway shape chimney stacks doorway- corniche grating over- basement cavities leaded glass		entrance bit hidden entrance situated like- back entrance
Vestibule & Corridor Part 1 5 respondents	sober original institutional grey	quiet	cool	dark comp to outside dark curved ceiling poor lighting neutral colours	stained glass floor tiles floor finishing double doors main door secondary door floor tiled floor door handles	smell of paint	ceiling height grand entrance opening impression
Vestibule & Corridor Part 2 1 respondent	perfect for use	echoes inside birdsong, wind- outside strimmers	cool glass	three sides glazed bare walls contemporary- details	tiled floor wooden door small window- decorations	fresh paint	window sill to sit on like a hidden space peculiar shape

Scott Sutherland Study Three	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Main Hall Part 1 5 respondents	welcoming impressive grand classy refurbished			bright warm colours wood staircase nice light details in wood and plaster gallery	roof light statues dark floor and white detail woodwork large bay window staircase modern lamps arched wooden floor wooden-balustrades		big high ceilings double height wide staircase spacious high staircase and lower-landing
Main Hall Part 2 2 respondents	clash of Scottish heritage and contemporary timeless calm	too much passer-by noise people sounds grass-cutting sounds through doors	statues wood panelling	light plaster woodwork diffused light	statues people	fresh paint distinctly neutral	wide dimensions double ceiling feeling looking up space to experience scale and height: big-but-not-massive staircase-drawing-upward
Grand Lecture Room Part 1 5 respondents	important in past not well kept modern-old mix old-fashioned clean 'kitsch' calm	noisy sounds from next room-because this room empty	plaster details airy	bright light predominantly – white ceiling suggests refined-atmosphere round and square- columns too much	columns floor very old and damaged large windows decorative-features wooden floor ceiling		big nice view high ceiling L-shape room spacious airy, open

Scott Sutherland Study Three	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Staff Room Part 1 5 respondents	newly-refurbished comfy good for purpose cosy strange relaxing contemporary	birdsong	warm	colour contrast btw walls and floor dark carpet lots of sunlight view to outside	large window bay window corniching		view to outside table by window nice place to be kitchen in strange-place high ceiling open
Staff Room Part 2 2 respondents	comfortable not 'abandoned' cosy recently-decorated synthetic	clock people heating system-constant noise birds grass-cutting coffee-machine footsteps birds cars	soft textures temperature carpet kitchen cabinets fresh air from-window	great view bright colour contrast lots of white reflections view on trash-bins outside less decorated plenty light	big window decorations and trimmings modern kitchen	paint coffee	high ceiling right size best size of room size proportions
All Rooms/ Entire Building Part 1 5 respondents	spending more time in attractive rooms furniture does not match fixed org decoration	noise of grass-cutting the noise thru single glazing birds sounds outside		dark and grey	view outside view through-bays due and through large windows the outside atmosphere has a big influence	smell of paint	towards stairs upstairs previous knowledge other participants follow sequence of-survey format

Note: the entrance hall ceiling is barrel vaulted and coffered.

PQ11X: What have you used in orientating and navigating through the building?

SA: '*following others'* This is useless data, since it does not give information on the building. Therefore Q11 is adjusted for Study Four.

PQ12: Did you identify any elements that are not contributing to, or even disturbing, the buildings' character?

SA: *'The pictures on the wall in [the Staff room] are completely out of context.'* Such comment is fair enough, but is not addressing architectural issues.

SA noted *'well kept', 'broken', 'refurbished'*.

SB: *'flooring pattern'* is noted as especially remarkable; however not noted among first impressions.

SB: *'[The staff room] seemed much better in the old pictures – with the old use of the building.'*; referring to photographs of the original interior when the building was in use as Scott Sutherland's family home.

SC: *'The secondary door*[231] *is a nice and well preserved feature that makes the room look old and original.'*

SE: '*I think the height is unexpected from the exterior impression'*

SE: (All rooms): *'The large windows make the trees and grass outside a big feature of the atmosphere, I think on a dull day the atmosphere would be totally different.'*

People sounds include a lot:

Voices of people talking

Contact sounds of eg floors

Producing sound eg opening doors

End Time:

This questionnaire took between 20 (SD) and 43 (SC) minutes to complete. The mean[232] time was 40 minutes.

[231] part of stained glass in wood partition wall

[232] 40 – 36 – 43 – 20 – 42 minutes

Part 3: Review

PQ28: Do you feel you have noticed or experienced more than you normally would have? Has your awareness of the building changed?

SA: '*Yes, normally I don't pay much attention to my surroundings. I'm usually preoccupied with my thoughts.'*

SB: *'No, because I have already spent time in that building in the past. Only noticed the renovation part.'*

SC: *'Yes, probably I would never pay so much attention to smell and touch. I think I still have the same 'opinion ' about the building but now I can describe it better.'*

SD: *'Yes. Deliberately focusing on the spaces and materials has been very satisfying.'*

SE: *'I think focusing on the elements which create the atmosphere I experience does change the way I feel about the space. I.e. the pillars in SB01 I had previously noticed, but not considered that it was them which made me feel that the decoration in that space is over the top.'*

Part 4: Scrutiny of this Questionnaire

This part 4 occurs in this pilot only. The data will be discussed below (section 6.3.5 - S3 - Reflection, since this is where they directly apply to).

6.3.4 - S3 - Analysis

It appears participants have a preference for keeping historic buildings in use:

SA: *'[I have chosen this room] because it is more comfortable to sit and people use it so it doesn't feel abandoned.'*

SB: *'The current use of SB02 [is not contributing to the building's character]; it's such an amazing room and it's not being used fully; it's a passing space for the people working in the building.'*

SE: (Main Hall): *'The statues contribute a lot to the classical feeling, but they seem a fairly contrived and crude device to achieve this.*'. The author would assume the statues are a leftover from bygone days, when they may have blended into a fuller interior. However, original elements that no longer appear to belong, are to be considered in a conservation design following the sensory assessment.

> SE: (Staff Room): '*It feels much more inviting and relaxed than the more traditional room, I think because it feels a bit more irreverent mixing the traditional with more contemporary features like purple carpet and kitchen units.'*

SE is an artist, who has good comments, explaining the experience and its probable cause without judgment (or even suggestions for improvement).

6.3.5 - S3 - Qualitative reflection

The data from the Pilot Scrutiny Questions are presented here, since they were intended to retrieve reflective information and comment on the questionnaire, not to deliver data on the building. Apart form SB, participants appear to have observed new things, even in a familiar building.

In general, the pilot study found some language issues with non-native speakers ('appeal', 'linger'), in understanding all terminology as well as formulating replies. Fluency in English is a factor, not only in understanding questions, but in (timely) processing and producing answers as well.

All five participants stated the questions made sense (PSQ3) and the amount of questions was appropriate according to four out of 5 people (80%). One respondent thought there were too many questions.

The time needed to 'do and fill out the survey' (PSQ5) was appropriate according to four out of 5 people (80%) The participant stating 'too long' was the one finishing last, plus one whose research topic is deals with historic buildings also. Somehow the time taken to finish the survey varied substantially between participants. For a study of three consecutive building assessments this is a point of attention.

All participants stated having enough writing space to fill out their answers (PSQ6).

'Taking the questionnaire [was] sufficiently entertaining to have a positive experience' (PSQ7), produced three times 'yes', once 'very', once 'fairly'; so a positive result on average.

General comments were as follows:

'*A very relaxing exercise; I enjoyed it.*' (SD); this sounds promising for the main study to follow.

'About the question 'Which historic built elements..', I was feeling a bit confused because in some cases the new elements after refurbishment were dominant and I was not sure if I should

mention them or not.' (SA); participants should only respond to what they encounter; if new additions stand out this is a valid response.

'*Had to repeat a few keywords'* (SB); This is not necessarily a bad thing, as long as these are valid observations. However the questionnaire should only repeatedly ask for the same thing for a reason.

'I guess my opinion of the building and the room might be different if I didn't know it before the survey.' (SC); since this situation cannot be reversed, there is no way to confirm this.

From PSQ1 and PSQ2 transpired some language issues occurred with non-native speakers. Both reviewing the questionnaire and considering this issue when finding participants for the following main study would address this issue.

From the Recommendations written down by participants:

'Perhaps a method that doesn't steer the participants through rooms. If the order was random. I just followed the order of the pilot.' (SD) This is a valid comment. However, in case of a questionnaire on paper, there will be an obvious 'next page' order. The same questionnaire on an electronic tablet might be easier to randomize in this respect, but presents other issues. The act of writing on paper should not distract participants, so they can fully submerge in the presented environment. The topic might be subject to a separate study. The order of visiting rooms or wayfinding is not typical to historic buildings.

'I think 30 minutes would be too short a time to complete, maybe a more generous time slot should be suggested to participants prior to participation. Also clipboards could be useful for writing more easily.' (SE) The PSQ4 and PSQ5 data show no concerns about the amount of questions in the period of time. Also, first impressions should reveal most powerful triggers of any space. The supply of clipboards had been overlooked and would be taken into account for Study Four.

SB commented on how in Part 1 for each room questions 1 and 3 appeared to be similar: *'Squeezing a few questions between them, less need for repetition.'* This participant interpreted 'first impression' as 'first objects noticed' rather than general atmosphere.

'*You could give some examples of the keywords you are looking for.'* (SC) This is not as easy as it sounds; the research is keen not to influence data in any way.

6.4: Study Four: three historic buildings in Aberdeen

6.4.1 - S4 - Preparation

Study Four, having been piloted as described above was now ready to be carried out, among a more varied group of people[233], and at different locations.

Aiming to fulfil Objective 3: *'Develop a profound understanding of sensory perception in historic buildings'*, Study Four would again collect data in the form of written reflections of people's experiential perceptions during their stay in a historic building. The survey would ask for people's registrations rather than their opinions.

Through these studies, the research aimed to find out what more gets picked up by targeted sensory assessment, that does not surface through current architectural or surveying assessment. Another interesting angle was what historic elements participants themselves deem to be contributing to their experience.

As before, the field study was aiming to collect data in the form of written reflections of people's experiential perceptions during their stay in a building. To retrieve the range of people's sensory responses to their direct environment, people had to be brought into these environments. The research was looking for what triggers any response, rather than for appeal.

The format of survey by questionnaire is discussed in the methodology (Chapter 4). Aiming to inform building conservation in general, this particular study primarily aimed at getting more data by surveying more buildings, hoping to find similar and repetitive data within the various entries.

Eventually Study Four would span three buildings with different properties, in the centre of Aberdeen. Participants, representing the general public, or the non-specific user, had to be guided through questions into enabling their senses.

Buildings for study had to be identified, and a body of people to participate had to be found. It was to be expected it would be relatively easy to locate suitable buildings and more difficult to find a sufficient body of people willing, but also suitable and available to participate. Both would be available within Aberdeen; there was no reason to complicate the fieldwork. Since this is architectural research, it will be more interesting to include a variety of buildings than a variety of people. Not wishing to waste participant's generously donated time, ideally buildings should be within walking distance of each other. The amount of three is a

[233] Study Two was carried out with 36 architecture students (year 5).

compromise between aiming for variety in buildings and preventing boredom due to repetition[234] with participants.

The buildings should be different in various ways, however still within a range of types that regularly are subject to conservation processes. They could be generic historic buildings, which as a category tend to be appreciated by people. The extraordinary would pull away too much attention from the basic triggers.

For practical[235] and responsibility reasons no young (under 18) participants were involved. According to Mather (2006), beyond middle age human perception gradually deteriorates. Initially the idea was to ask the elderly to participate, since they generally seem interested in historic buildings and would easily be available through the day. However, the research aims to get a thorough understanding of potential perceptions, including ones that generally are subconscious. Triggers that are small or soft and potentially out of the customary range of human triggers are prone to be missed by elderly people.

The participants to Study Four were doing the author a personal favour; they were not picked for having special affinity to historic buildings. Participants were collected from the authors personal network, resulting in an assembly of mostly expatriates and repatriates. All participants had received higher education. Three participants had participated in Study Three already; since Study Four was performed at different locations, these three would only be familiar with the procedure, which at best could result in more robust data.

Mather [2006] and Irigaray [2000] state how perceptions of men and woman are different. Even though it sits beside the research question, regarding this issue the research will have to make sure both genders are involved, as they may respond differently to triggers apparent. For a complete overview no triggers that are most apparent to people of one gender only should be missed. In this general study it would not be relevant to focus on experiences of physically challenged people.

Participants would not be requested nor be facilitated to experience the space through any other than normal use. By not keeping participants in one place for too long, they would have to stay within their initial responses, which arguably are a result of stronger triggers.

The buildings qualifying for assessment would be a representative sample of Aberdonian historic buildings. The buildings had to be easily as well as safely accessible in order to bring

[234] Some Study Four participants commented on ‘mental exhaustion’, verbally or in writing, indeed, due to repetitive questions; this did not obviously affect the data.

[235] Studies will be carried out during school hours The research chose to avoid having to act as people’s responsible adult, organize transport etc.

'random' participants. People living in Aberdeen would generally be accustomed to century-old granite buildings and would have accessed more than a few before. Though the granite buildings are special, locally they are considered ordinary.

For a combination of reasons, such as accessibility and time restriction, only some rooms in each building would be part of the study. Due to the nature of the building's functions, opportunities to sit down, while experiencing the space and filling out questionnaires, would be available. There would be various contrasts in atmosphere between the surveyed rooms within each one of the buildings.

The three locations were chosen for various reasons. One location would provide data about one specific building only, rather than pointing at more general themes. Three on the other hand was arguably an amount that would be do-able for the participants[236]. Eventually, it was decided to contain the study within the historic city centre of Aberdeen, and choose buildings within walking distance of one another.

Spreading data collection across three buildings and two days, the study aimed to overcome the influence of extreme triggers experienced previously[237].

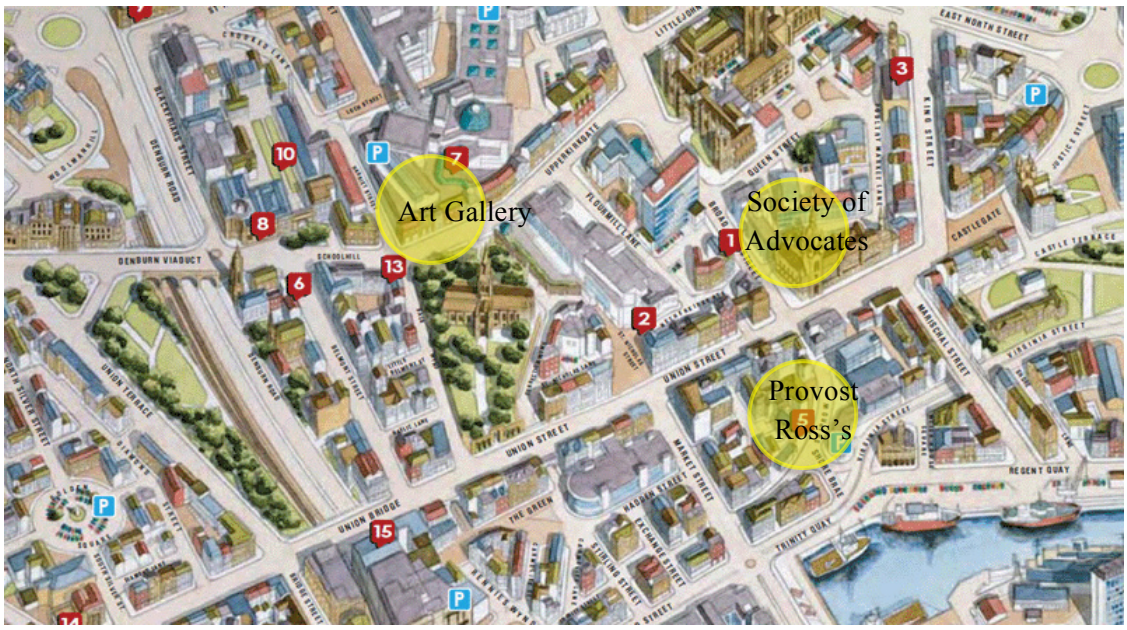

Figure 43: location of the buildings assessed in Study Four

The first building is Provost Ross' House (1593, extended to the South 1710). Originally built

[236] Indeed three turned out to be enough as already participants marked upon feeling they kept repeating themselves. However, this is valuable in itself.

[237] Extreme, overpowering triggers: at Norwood: very cold outside, smokey inside due to open fires; at SSS: garden strimming noise outside, fresh paint smell.

as a private home, it has been integrated into the Aberdeen Maritime Museum (1984, extended into Trinity Congregational Church (1877) in 1997). It is one of two houses of this age left in Aberdeen; the other one, Provost Skene's House (1545), was temporarily closed and boarded up at the time of the study.[238] Provost Ross's House is small, very old, originally private but changed to public use. Its small rooms are detailed but not richly decorated.

The next building is home to the Society of Advocates in Aberdeen (1869), still retaining its original function as a library, meeting place and function hall for Aberdeen's advocates, many of whom are working in the adjoining Town Hall courtrooms. It is a members-only facility, therefore not likely to be known to any of the participants. The Society of Architects building is grand, semi-private in use, very comfortably and richly decorated.

Aberdeen Art Gallery (1885/ 1905) is a large public building, retaining its original function. Part of the gallery space still has its original interior, other rooms are stripped back to be quite bare and minimal, adjusted to suit the changing demands of its function as a museum. At the time of the study, the current refurbishment was due.

All three buildings were easily accessible and safe to visit. Neither of the buildings had characteristics or features so outstanding they would draw attention away from the building in general. Their floor plans can be found in appendix 11.

6.4.2 - S4 - Adjusting the survey design

The questionnaire for Study Four had been piloted in Study Three (see above). [Question PQ1 = Q1, PQ2 = Q2 etcetera.] The questionnaire was produced in three lots; to be handed out and collected at each of three buildings.

The cover sheet gave and indication of the total duration of the exercise and stated clearly that the group would move to the next building together. Even though all participants were adults, there was an incentive to feel responsible towards the proprietors of the buildings to be surveyed, to assure their cooperation for both the Friday and the Tuesday studies.

The instructions requested to visit the following rooms, 'in no particular order'. Since neither of the buildings to be assessed had a signposted or preferred routing, Q11, asking whether participants were drawn in any direction could be incorporated as a question, aiming to get an answer stating architectural features.

[238] Since (1968), Provost Skene House was surrounded by St Nicholas House high rise building. At the time of the study, St. Nicholas' House was being entirely demolished, and Provost Skene House will be closed during redevelopment of Marischal Square.

The entire exercise is as follows, wherein questions Q1-Q27 will feature thrice; one set for each of the three buildings:

S1-S5: Statistics questions.

Part 1: Q1-Q3 : have you been here before, etc.
Q4-Q6 : exterior
Q7-Q10 : basic questions, repeated for each room
Q11-Q13 : general questions

Part 2: Q14 – Q27

Part 3: Q28
Request regarding follow-up
General comments.

The following adjustments have been made:

S3: The Study Three questionnaire contained a question on 'cultural background' (PS3), which was erased as deemed unnecessarily complicated. The revised question now read: 'How many years have you lived in the Aberdeen area?'. The brackets of 0-3 years / 4-10 years / 10+ years were based on personal expat experience of the time needed to familiarize with a location. People in Aberdeen originate from a melting pot of cultures. This would give some indication of their familiarity with Scottish life and culture, which would be sufficient information to process any data.

'Visit (the following rooms) in no particular order:' This instruction was adjusted after the Study Three pilot; the previous wording directed participants, and people followed the suggested order, thus asking what they used to navigate became irrelevant.

PQ11X: *What have you used in orientation and navigating through the building?* did not provide sufficient new data to keep it in.[239] Data concerning orientational awareness, should sufficiently follow from the other question: 'PQ11: While moving through the building, were you drawn in any specific direction?'

PQ16X: *What do you appreciate most in this room?* was changed into Q16: *What do you think generates this appeal; what makes the space attractive?*
Rather than asking for just anything, the new question asked the participant to wider perceptive input on the attractivity of a space, and was therefore likely to produce more useful data.

[239] Dealing with three buildings and a substantial questionnaire, the survey had to consider participants' time and energy.

PQ19X evolved into *Q19*: *Do you feel comfortable and would you choose to stay around in this room for a while? Why/* The word 'linger' was substituted by 'stay around'. Though the word 'linger'[240] is very appropriate, having a sense of 'not wanting to leave because one feels comfortable' in it, the word appeared to be unfamiliar to non-native speakers.

Adjusted for Provost Ross' House:

Provost Ross' House has two rooms that were best suited to be surveyed; the North Boats Room and the Picture Gallery. Furthermore there are a couple of spaces which are less interesting; two basically are traffic space and upstairs the original space is hardly recognizable due to a rather dark museum display. However, less appealing rooms might produce their own valid data, and participants were requested to survey one space from a choice of four.

Questions Q8/Q9 asked about the other rooms, about atmosphere and historic elements, have been merged into one question: *PR-Q9A: Do you feel historic elements still have an influence on the atmosphere of this space?* This question would be more appropriate where contemporary additions are a factor.

Adjusted for the Society of Advocates building:

The next building was the Society of Advocates. Aiming not to over-complicate or unnecessarily extend the questionnaire, the Entrance and Staircase were jointly covered in the same box. It is a substantial space, extending over two floor levels and around a corner, but in the same style and with the same function of ongoing transient traffic space. The space flows up into the top floor landing, which is not separately surveyed. However, for Part 2 this traffic corridor was split up in three spaces, according to three floor levels.

Adjusted for Aberdeen Art Gallery:

The Art Gallery Questionnaire features a floor plan. Preferably participants would explore on their own, rather than guided. For this building some guidance was needed to enable participants to find the rooms picked for assessment and let them survey these in their own order and time. It would be clearer to keep the survey restricted to the original building, than to wander off into later extensions.

The Gallery consists of many rooms that are quite similar, apart from their orientation and location in the building. However, two rooms had kept their interior from the time of building and would be surveyed, along with another 'typical' one for the present Gallery.

[240] to linger: 'to delay or prolong departure' and even etymologically linked to a (13th century, northern dialect) word '*lengeren*', meaning 'to dwell' (Collins dictionary 2006)

For Room 9, Q9 had been adjusted to: *AGR9-Q9B: Do you feel the historic elements still have an influence on the atmosphere of the room?* This question is very similar to Q9 and Q9A, but specific to this situation; Room 9 had been stripped and its skylight was blinded. These contemporary additions are a factor; there was a remark to this extent in Study Three data (SA). The comparison between Room 9 and the MacDonald rooms was to be made during the data reviewing; the participants should just provide data.

For Art Gallery – Mac Donald Collection rooms only:

Q10a: PS. Had you properly visited these rooms before? yes/no

Many participants would have visited the Art Gallery before, and it might be of interest to find out if these period rooms have been attractive enough to visit, compared to a museum that on the whole appears more modern.

The Aberdeen Art Gallery has a tearoom facility. Aiming to prevent the surveys from becoming a tedious exercise, a break was planned between the second and third buildings.

The art gallery survey recalled attention to the survey: *'At this stage remember to focus on the building, rather than the artwork ☺'*

For Part 2, Room 9 was not given as an option, because it has been stripped and changed too much to consider it historic or to expect relevant data.
Part 3 contains the important general review question, asking if participants felt their perception of the buildings was influenced by being directed towards their sensory perceptions. Furthermore the survey registered willingness to join a focus group or answer follow up questions.
Naturally the 'Part 4; scrutiny' from the Study Three pilot was not included.

6.4.3 - S4 - Study Days

Dates: Friday 20th and Tuesday 24th September 2013
Location: Aberdeen City Centre
Provost Ross' House, Shiprow
Society of Advocates in Aberdeen, Concert Court
Aberdeen Art Gallery, Schoolhill
20 participants in total (11 resp. 9)

The two mornings chosen were depending mostly on availability of access into the Advocates' Society. Starting time was 10 am, when the Maritime Museum opened, so participants had direct had access to Provost Ross's house. It was deemed reasonable to ask participants to donate no more than a few hours and be finished by lunchtime.

Time planning and start- and end locations for the day had been communicated through prospective participants' emailed invitations. Upon entering the building participants received verbal information on procedures, introduction to the layout of the building and instruction to the questionnaire. They were informed of how the research needed data, and therefore keywords would often suffice for an answer.

Anxious to not steer people, it was not easy to instruct people properly on beforehand and get them to understand the research was looking for. With hindsight the verbal introduction might have been shorter, focusing on the research needing a registration of perceptions, expressly the obvious also, and not judgment nor interpretation. The process and incentive appeared to be better understood once the first questionnaire was delivered.
Following the suggestion from the SSS pilot, clipboards and pens were supplied.

Friday 20th September 2013. The participants arrived in small lots; one participant even brought an extra one along[241]. The janitor appeared to be extremely keen to open the door early, before opening time of the Maritime Museum, while the participants were still arriving. Thus there was no chance to address the group together and properly introduce the questionnaire; the hallway inside was too narrow.

However, at least there was access straight from the street, rather than through the Maritime Museum. The entrance area of the museum is a totally different building; accessing through

[241] [This person was a highly motivated and interested artist, which however did not contribute to produce concise, un-opinionated answers.] Initially six people were huddled in, then two more, then another three (due to one participant volunteering to wait for other people to show up).

here might have been very distracting.

Provost Ross's is a very small building; it was not very clear where to go. Lacking a good introduction and instructions, participants appeared somewhat confused. Many had clearly missed instructions about taking up to 5 minutes per item in Part 1 and up to 10 minutes in Part 2. A recap of the instruction was given while collecting to depart, to be informed for the next building.

In general many participants appeared to struggle producing short and straightforward answers. Arguably they were too consciously searching for too much?

While starting off greyish, by the time the group left Provost Ross's House the day had turned glorious and sunny, making the availability of windows a real asset to any building. This certainly had influence on the Advocates' Society, which was bright and sunny on the Friday and dark on the Tuesday; providing a very different atmosphere.

Coffee break was organised after surveying two buildings, and turned out to be very sociable. It took a considerable amount of time for the café to produce an amount of coffees, so this ended up being quite a long break. Consequently participants commented on it being hard to focus on the survey for a third time anew. One participant[242] was leaving early due to other responsibilities. The Friday atmosphere has been very relaxed.

Generally, the data collection turned out to be an enjoyable and successful event. Participants appeared quite content. Quite a few comments from participants feeling they were repeating themselves, especially doing a third building. However, repetitive data may justify themselves.

Tuesday 24th September 2013 turned out to be a 'ladies only' day. The weather was very grey; no sunshine could have any impact inside buildings. Participants this second day on average were slightly older. (Three got their reading glasses out.) The ladies, clearly making time between housework, were working steadfast and efficient. [note: the day before was a bank holiday, so this was effectively the first day of the week.]

Lawyers[243] happening to bide time in the Advocates' Society on the Tuesday emphasized the notion of a building still in use, rather than waiting for its next function.

[242] FJ had to eave early; not entirely finished AG questionnaire; asked her to finish part two rather than part one.

[243] A lawyer present communicated he had understood they might not proceed cleaning the ceiling of the Grand Library; too costly. The currently clear area was cleaned by a cleaning company that made an offer. (Should think in that case they might have picked a more inconspicuous corner?)

On the participating ladies' request, the group had coffee break when the survey was finished. Afterwards, the participants were commenting on entering the same comments over and again. This is no problem as far as the data are concerned, but to some participants it possibly turned into a tedious exercise, potentially more so without a break in between.

Both days, coffee was provided by the IDEAS research institute. Scott Sutherland School kindly provided some goodies and bags to be handed out afterwards, as a token of appreciation (keyfob, sticky notes, fluorescent marker). Along with the goodies came some printed historic information on the buildings the group had been surveying.

6.4.4 - S4 - Results

Naturally Study Four, covering three buildings, resulted in a considerable amount of data. The data from each building were kept separately, but the 'Friday' and 'Tuesday' groups' results are presented as one body for analysis purposes. In individual comments and citations, participants for each day can be discerned by either an 'F' or a 'T' featuring in their aliases.

As before, the data are presented in tables, collected in separate columns for each sense. Due to the amount of visual data, there is a column for visually perceived 'things' or 'objects', and another one for other things visually perceived.

Statistics:

Table 12: Study Four: statistics

S1: Age: 18-24 / 25-34 / 35-44 / 45-54 / 55-64 / 65+	18-24 : 0 25-34 : 3 35-44 : 9 45-54 : 7 55-65 : 1 65+ : 0
S2: Gender: M / F	5 Male, 15 Female
S3: How many years have you lived in the Aberdeen area?	0-3 years : 12 4-10 years : 7 10+ years : 1
S4: How would you rate your personal interest in Historic Buildings?	1 -very high 12 -high 6 -regular 0 -moderate 1 -little 0 -none

The majority of participants belonged to the group of middle age females. However, response from other peer groups may well be similar.[244]

People living in Aberdeen originate from a variety of cultures. The participants for this

[244] Potentially afterwards offset against men, as well as younger participants; to see if other groups respond to different triggers. If not, there is no issue.

specific study originate from a mix of western cultures. Two thirds of them have English as their mother tongue[245], equally divided between British and American English. Consequently variety in spelling and word choice is showing in the data; this is not related to what is being perceived.

The data for study four are presented separately for each building. The tables show data for Part 1 and Part 2 both.

6.4.4 a Provost Ross's House

Provost Ross's House - Part 1: General Questions

Table 13: S4 Provost Ross's: general questions

PRQ1: Had you noticed this building before? yes / no	8 - yes 11 - no 1 - blank
PRQ2: Have you visited this part of the Maritime Museum before?	5 yes of 20 participants = 25 %
PRQ3: If yes, how often have you been here before?	3 people: once 2 people: 2-5 times

[245] Insufficient knowledge of English came up as a minor issue in the second pilot at SSS.

Figure 44: Provost Ross's House

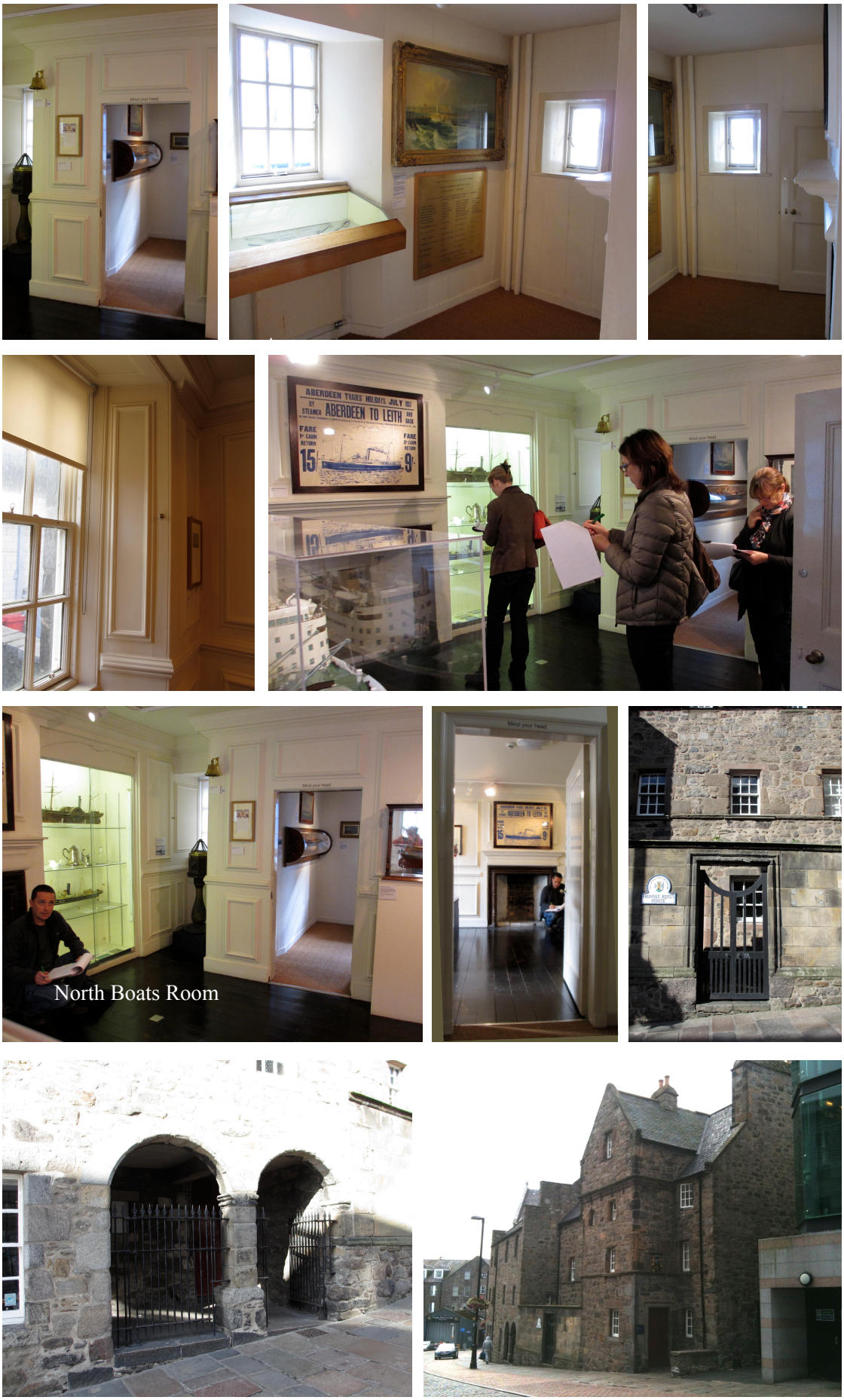

Figure 45: Provost Ross's House

Table 14: Study Four: Provost Ross's House; data ordered by sensory category

Provost Ross's Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Exterior Part 1 20 respondents	strict façade history- surrounded-by- modern old building restored good condition new-old separate dwarfed by- surroundings	noisy with trucks	solid feel cobblestones thick walls cold	stonework, granite rel. small blocks old stones small windows solid windows and - situation in façade shaped as old arches	metal fence black, iron gate	x	situation vs harbour hidden small entrance low door constructed on slope size building vs- surroundings curved street recessed door
North Boats Room Part 1 20 respondents	old on a boat ships cabin interesting inviting traditional original historic	noise hard floor noisy echo of footsteps creaky floor	wooden floor warm room, cool by windows light dry, dusty wood panelling cold stone cast iron radiators	light colours light/dark contrast white walls- dark floor bright, white very light recessed window foldaway window- shutters cornicing wall-panelling black floor good lighting	fireplace exhibits sash windows lights	smells old	view from windows low ceiling small windows low doors small doors chimney size; larger than other rooms horrible view out – window recessed nook anteroom connected
North Boats Room Part 2 8 respondents	bright light, airy - compared to - other rooms comfortable less - claustrophobic	floorboards, stairs creaking lights humming quietness muffled voices people sounds background- music echoes traffic	chimney/fireplace sash windows ship's bell (brass) round doorframe paintwork; - not smooth airy not too hot	panelling white walls vs - dark floors light and pleasant cracks connecting room door height sunshine outside daylight	floorboards windows boat model	wood wood-cleaner old slightly musty bit stuffy	spacious light from two sides nooks, anteroom

Provost Ross's Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Picture Gallery Part 1 20 respondents	historic renovated peaceful yet- not inviting cosy cramped older room character cosy dreary cozy-but- claustrophobic transformed	heating system quiet dare-not-speak	warm colour warm	wall colour green colour dark, no daylight no windows ceiling mouldings wall panelling	fireplace, chimney carpet text above door boat model some old grandeur- elements left	smells old	have to move round- central showcase doorframes app. wide low ceiling low door small corridor-like larger than NBoatsRoom central location fairly symmetric cramped boxy space
Picture Gallery Part 2 3 respondents	wanting to - unblock – windows lack of purpose	creaking floors creaking- staircase people sounds low voices airconditioning humming	humidity coolness different textures	panelling wall colour corniches no light, no view	text above door ceiling ornament fire place sash windows	musty old wood old carpet stale	through-space connected to two sides of building is spacious but feels closed and small
Hall with Staircase Part 1 5 respondents	H&S elements- contemporary-in old history time	ambient music	materials used, old solidity heavy wd staircase strong	higher ceiling, bigger window lighter bright dark painted wood view – no longer to harbour	ceiling beams stone doorpost staircase clock paintings		spacious low doors recessed windows looking through window coming down stairs
Hall with Staircase Part 2 1 respondent	old important contrasts part of past creaking because other people here	creaky floors soft music people sounds	textured carpet smooth and worn- handrails warm atmosphere	natural light dark wood vs- light walls dark wooden beams	carpet walls stonework	old, musty	higher ceiling gives sense of space

Provost Ross's Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
The Clippers Part 1 8 respondents	historic old interesting intriguing mysterious boarded up connected to-topic	background music (waves)	humid colder stuffy	dark no daylight low ceiling small doors colour	staircases mast cap & keel lower staircase original-upper replica?	x	attic proportions drop in level huge, dark and low connection cramped
The Clippers Part 2 4 respondents	relaxed peaceful comfortable calm undisturbed transition btw- old and new	creaky floors and stairs people sounds background-music airco humming traffic (distant) really quiet	hard, cold materials woodwork warmth staircase-posts boat-parts (rusty metal, rotting wood) sense of materials	dim light carved wood colours shadows darker sun thro window	display cases slide show exhibits staircases	old and musty	small window (halfway landing) on return rather small low ceiling comfortable spacious staircase leading up
Fishing Whaling Part 1 5 respondents	modern medical (green walls) does not feel like room inside old house no panelling; now missed	squeaky floorboards	x	quite dark	2 old windows artefacts	x	size, openness com-pared to other rooms open space big small low ceiling drawn to natural light-from museum irregular angled corners
Fishing Whaling Part 2 2 respondents	very dated displays underused not part of hist bld familiar homey	creaky floor ventilation fans voices	warm air blowing carpets floor boards overheated	lack of light bad use of lights	exhibits video projected boat models lots to look at	musty heater carpets wood, wood polish basket slightly bitter taste	transitional large not crowded

Provost Ross's Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Anteroom Part 1 2 respondents	cozy secret original	x	x	granite doorframe window size detailing	fireplace	x	small narrow doorways
Anteroom Part 2 1 respondent (1 aborted)	comfortable due to two windows	quiet people sounds music traffic	window surround panels: smooth, cold, many coats (of paint)	light two windows different materials sun thro window		x	small size, proportion connection to building
Entire Building Part 1 20 respondents	maze interesting to explore	traffic	modern heating wall thickness	dark diff wall colours change of weather light thro windows depressing view from NBoats room grey buildings outside	fire door H&S fixtures green walls radiators boxed pipework doorframes spotlights air-conditioners glass cabinets	x	inside upstairs to North Boats Room to a quiet place to small rooms/narrow corridors into maze to explore towards light low ceilings partitions

As in previous studies, some data are remarkable:

Provost Ross's House - Part 1:

PR: Exterior questions Q4-Q5-Q6

PRQ4-FE[246]: *hidden, realised what it was when seeing photo inside*

PRQ4-FC: *history surrounded by modern*

PRQ5-FJ: '*round shape of wooden door'* – this is a factually incorrect memory about outside, from inside; gate in façade masonry is rounded, door thereafter square.

PRQ5, FK: '*in the wrong place'*; an interesting comment on this building that was here first.

PRQ6- FE: *street dominated by new buildings*

PRQ6, FH: *'how solid it looks, feels'*

Figure 46: visual projection of sensory perceptions within the North Boats Room

[246] Code PRQ4-FE indicates:
PR Study Four, at Provost Ross's House
Q4 answer to question Q4
FE participant 'FE'; F indicates Friday; there is T for Tuesday's group of participants.

PR: North Boats Room questions Q7-Q8-Q9-Q10

Across the data for the North Boats room, so generated by different questions, the response to light and brightness is apparent.

PRNBQ7-TA: '*asymmetric*'

PRNBQ7-TE: *'looks older than other rooms'*

PRNBQ8: The atmosphere is stated *'marine'* and *'sea'* by many, as well as *'historic'* and *'traditional'*.

PRNBQ10-FC: *'chimney size; larger than other rooms.'*

PR: Picture Gallery (green walls) questions Q7-Q8-Q9-Q10

Each question for the picture gallery brings up data (from a different participant) stating the room being warm, as well as being dark, having no windows or no daylight.

PRPGQ7-TA: '*symmetric*'
PRPGQ7-TE: *'looks older than other rooms'*
PRPGQ8-FH: '*good size for age of building'*; though technically subjective, this is a very valid statement, refer to PRNB-Q8 above.
PRPGQ8-FB: *'dark, no daylight; less interesting'*
PRPGQ8-FJ: *'cramped, due to lack of daylight'*
PRPGQ8-TH:'*room transformed for other purpose, due to green walls'* this is a very circumstantial statement; there is no evidence hereto.
PRPGQ9-TD: '*good lighting'*; why is this mentioned under 'historic elements contributing'?
PRPGQ10-FC: '*chimney size, larger than other rooms'*
PRPGQ10-TE: '*tiny window larger in reality'* – presumably larger than estimated or established outside
PRPGQ10-FA: '*central showcase; have to move around*' clear orientational data
PRPGQ10-FH: *'corridor-like, no natural light'*

Picture gallery general remarks:

FE: *fake, not original*
TA: *connected to both sides (parts) of the building, plus privacy*
TF: *is spacious, but feels closed and small*

Other:

PRNBQ7-TA: *asymmetric*
PRPGQ7-TA: *symmetric*
Apparently something TA is sensitive to, and herein comparing two rooms.

PR: Anteroom: questions Q7-Q8-Q9-Q10

Covered by a few participants only: in Part 1: TE and TI, in Part 2: FC and FD (though FD aborted this assessment for lack of time).

PR: Hall with Staircase questions Q7-Q8-Q9-Q10

PRHSQ7-FA: '*higher ceiling, bigger window, lighter*'; comparisons, presumably to North Boats Room and Picture Gallery

PRHSQ10-FI: *'looking through small window while coming down stairs'*

PR: The Clippers questions Q7-Q8-Q9-Q10

PRCLQ7: though all over the data give anything but the impression of a nice space ('*dark, low ceiling, cramped, humid, colder, stuffy'*) at the same time the attic room is positively labelled '*interesting', 'intriguing', 'want-to-explore'* and '*mysterious'*.

Four participants chose to assess The Clippers in Part 2; data give '*peaceful', 'calm', 'relaxed'* and *'quiet'*.

PR: Fishing and Whaling questions Q7-Q8-Q9-Q10

PRFWQ7: apparently the room is big and open (relative to the other rooms) and small (absolute size)

PRFW-Q10: Obviously Fishing and Whaling, The Clippers, the Hall and the Anteroom have a more practical, secondary and supportive character than the North Boats Room and the Picture Gallery. Many participants report on various health and safety fixtures harshly pulling away from a historic immersion into the present.

Both 'The Clippers' and 'Fishing and Whaling' are not deemed historic, though containing historic artefacts and still part of the old built volume. When the rooms are liked, this is not due to their historic details.

People sounds: this terminology is used to indicate all data indicating sounds produced by people 'dwelling' in the building: footsteps (though also separately indicated, since the sound of footsteps is created through contact of people and building (shoe and floor)), talking, whispering, humming, turning pages etc.

PR: All rooms/entire building questions Q11-Q12-Q13

PRQ11: The survey started in the dark, cramped downstairs hallway of the building. Naturally participants were moving to the light.

FE mentions a maze-like structure.

odd data:

PREBQ11-TE: *'doorways everywhere; I went in circles'*
PREBQ11-TI: *'away from first room that lacked historical details'*

The green[247] walls of the Picture Gallery are 'disturbing' a number of participants:

PREBQ12-FC: *'different wall colours'*
PREBQ12-FK: *'(wood/plasterboard panelling and) paint used on walls and ceilings very ugly'*
PREBQ12-TA: *'green walls do not seem to match its character'*
PREBQ12-TB: *'green walls in Picture Gallery'*
PREBQ12-TH: *'green paint'*

PREBQ12-TE: TE questions whether the low ceilings are false. For a 17th century building the floor height may be considered normal though.
Provost Ross's house does not allow for much contact to the outside world:
PREBQ13-FD: *'no, due to windows being high or blinded'*
PREBQ13-FF: '*change of weather; change of light even through small window'*
PREBQ13-FJ: *'no, due to few tiny windows'*
PREBQ13-TH: *'no, feel very detached'*
PREBQ13-TI: *'light through windows'*

[247] In this building, the green colour of the walls probably is a 'house standard' colour for the Maritime Museum. In itself, arguably green shades are not unnatural to a building this age, and the many responses to it come as a surprise. Actual on site research into historic colour schemes could bring resolve. The author suggests the particular 'hospital' green tone may be an issue here, rather than the room being green in itself.

Provost Ross's House - Part 2:

PR: Appreciation questions Q14-Q15-Q16

PRQ14-FB: 'light, airy compared to other rooms.'
PRQ15-FH: *'not part of historic building*' FH incorrectly states 'Fishing and Whaling' to not be part of the historic building; apparently the current space, though part of the original built volume, is not recognized as such.

PR: General questions Q17-Q18-Q19

PRQ18: Regarding the size of the room, TB states the [North Boat's Room]'s ceilings are higher than those of other rooms. This perception is likely to be related to the room being much lighter than all other rooms in this part of the building.

PR:Hearing questions Q20-Q21

PRNBQ20-TC: '*quietness*'; note that, again, 'quiet' is clearly different from absence of sound[248].

All participants produce data to the 'hearing' questions. However, apparently 'people sounds', 'feet on the floor' and 'ambient music' are contributed to either category (Q20 or Q21) by different participants. This in itself is not too relevant to data analysis. For the retrieval of data, splitting sound into two kinds made participants search for two different categories.

'Creaky floors' in the North Boats room are picked up by 5 of 20 respondents (25%) in Part 1, and 7 out of 8 (88%) in Part 2.

PR: Touch questions Q22-Q23

PRNBQ22-FK[249]: *'wood paneling, cold stone, cast iron radiator'* these are anticipated data; are they spontaneous? Did the verbal introduction unconsciously hint at these?

PR: Vision questions Q24-Q25

PRNBQ24; greatest visual impact: FJ: *connecting room (anteroom)*

[248] Research exists on people's experience in a sound-free (test) space.

[249] The North Boats Room did not specially appeal to FK (rather considered most attractive option)

PR: Smell/Taste questions Q26-Q27

Overwhelming response of musty, dusty and old, for all rooms and respondents.

PRNBQ26-TC: '*old smell – lime plaster?*' Though fresh plaster may smell, it is highly unlikely TC actually smelled lime plaster. TC is the only participant to comment *'smells old'* in Part I already.

PRHallQ27- TI: *'through smell – a woody taste'*

It may be concluded that Taste (Q27) is very absent in buildings. If there are data, they appear to be there because participants have been seeking to provide an answer.

6.4.4 b Society of Advocates

Society of Advocates Part 1: General Questions

Table 15: S4 Society of Advocates – general questions

SAQ1: Had you noticed this building before?	2 - yes 18 - no
SAQ2: Have you visited this building before?	0 yes of 20 participants = 0 %
SAQ3: If yes, how often have you been here before?	n.a.

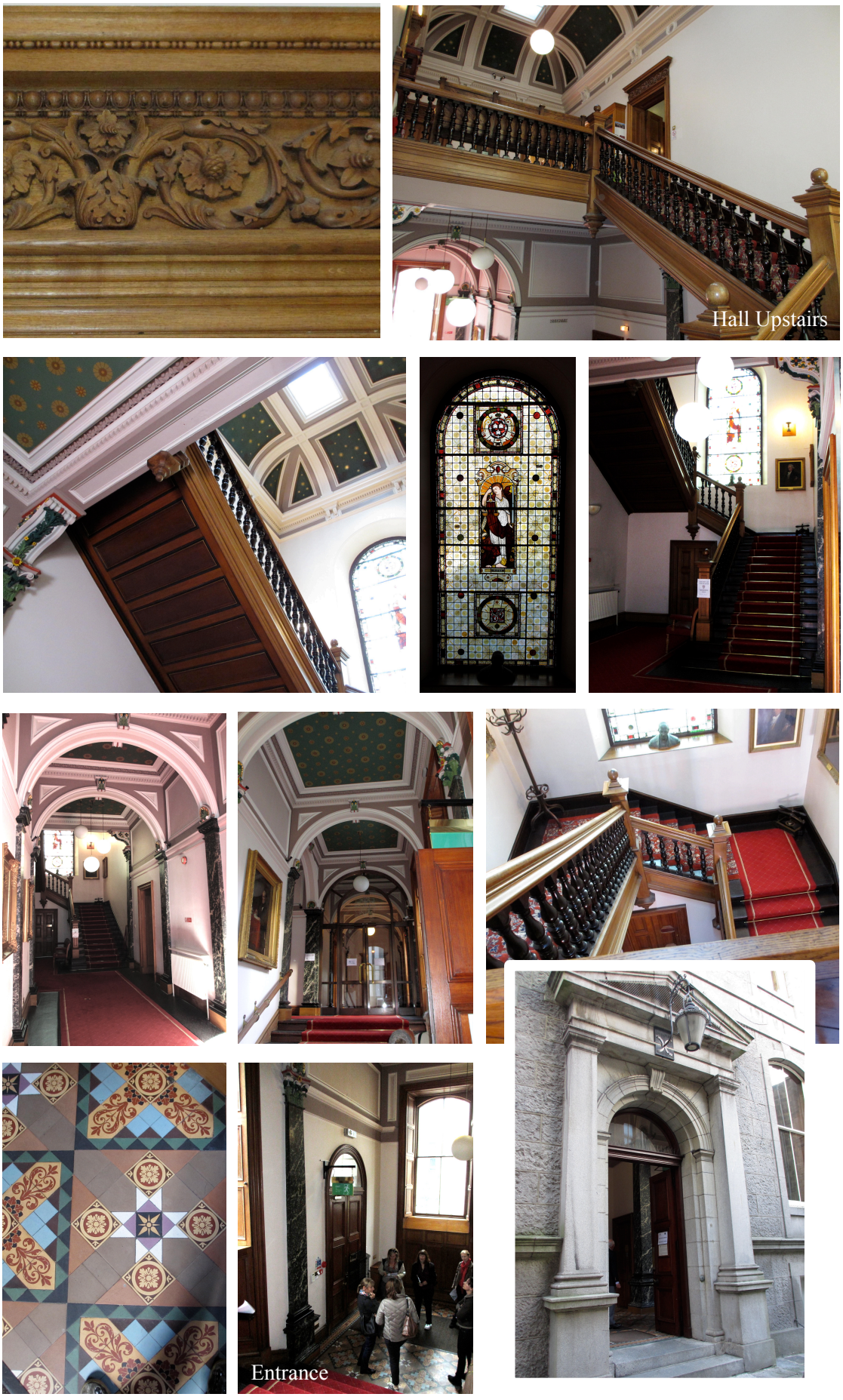

Figure 47: Society of Advocates

Figure 48: Society of Advocates

Table 16: Study Four: Society of Advocates: data ordered by sensory category

Soc Advocates Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Exterior Part 1 20 respondents	surprise dark granite ext. - vs interior old secluded unremarkable impressive cobblestones precise-blockwork	x	x	symmetrical lamp above-entrance granite tall windows pigeon nails polished door lots of windows tall building stonework	large entrance-door with columns	x	hidden off the main street in a small street climbing steps to enter in between other bldgs. small door-grand entry
Entrance Staircase Part 1 20 respondents	imposing, impressive elegant, grand formal ornate, wealthy historic tiny fire; too small to heat-space somewhat tired bright and cheery almost sombre not cohesive unchanged well kept luxurious, opulent	asking for silence quiet clock ticking and- chiming	cold cool mix of materials airy spacious	green high ceiling lots of patterns tiles pattern colourful red carpet gilding marbles decorated painted ceiling larger inside-than outside stained glass ornate doors stained glass - cuts light	floor tiles fireplace ornate mirror columns with-colourful heads wooden panelling handrail large windows window shutters H&S fixt. discreet	reminiscent smell-(old building)	staircase leading up stairs leading to doors wide steps, low rise wide hallway proportions (where?) not very efficient-nowadays transitory space
Entrance Part 2 2 respondents	space so much interest	very quiet echoes of voices buzz (aircon?) creaky floors some traffic	coolness marble wood	painted ('colour enhanced'!) ceiling and woodwork high light	carpet plasterwork details	slight woody, stale?	big space broken up by pillars and archways; makes you want to move along space to move through high light draws upward

Soc Advocates Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Hall upstairs Part 2 6 respondents	freedom importance	clock voices ftsteps on carpet ftsteps on wood creaking wood squeeking door echoes no outside noise quiet	soft carpet hard wooden bench smooth wooden frame cool warm good temperature	long window accentuates high ceiling stars on ceiling-like starry sky lots to see	stained glass carpet	old bit musty books 'history'	wide open space w light from different-angles passing space want to keep going up open space
Committee Room Part 1 20 respondents	obv. used a lot old grandeur old furnishings personal, -communication heavy entrance-door cosy tranquil good proportions businesslike masculine	quiet	warm textures	white wall units patterned carpet curved ceiling intricate-decoration, ornaments decorated walls large windows light bookcases-against dark wall good proportions	wallpaper panelling marble fire place chimney furniture	x	room height high bookshelves door with low handle
Committee Room Part 2 3 respondents	small, smaller comfortable useable	quiet contin. sound/ machine hum people sounds wooden floor and furniture sounds doors, staircase-outside this room	warm enveloping carpeted heavy doors wallpaper books in cabinets marble fireplace	sun through-windows sunlight big windows ceiling height vaulted ceiling smaller size room	books bookcases fireplace	age dust (coffee)	more a sitting room

Soc Advocates Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Grand Library Part 1 20 respondents	captivating calm relaxing door size vs room size whole room-coordinates grand not loved important	quiet imposing to-whisper calm isolated from-outside noise	warm soft carpet very tactile room	balustrades curved ceiling ornamented ceil. carved wood dark colours lots of light large windows fully carpeted patterned carpet panelling double doors thick walls	(modern) lighting pipeline above-bookshelves books cover walls sash windows window shutters doors covering-book shelves restored ceiling-panel is lighter	very musty old smell-(expected)	spacious view from windows light from two sides recognition isolated from outside-disturbance symmetry fantastic space
Grand Library Part 2 9 respondents	impressive magnificent books are-stimulating size shape organisation relaxed a sanctum	silence quietness voices creaking wood shuffling n carpet traffic noise street noise hum of the space people speaking bells/chimes from clocks in and outside room	warmth cosiness imperfection of-wood fresh air solid oak table soft leather chairs cushioning carpet smooth table top books leather bound bks wood staircase armchair	bookcases - meeting curved-ceiling with-balcony, stairs colour balance-btw wood-carpet space ceiling ceiling height warm colours sepia glow gallery dark ceiling w gold details room coordinated light	woodwork on armchairs fireplace trellis panels in front of books restoration test patch on ceiling books	old books humidity wood polish cleaner leather cigar smoke comforting smell of wood lovely smell whisky & cigars	space adequately filled would like to walk on the balcony feel safe and comfortable place to think or read windows to world-outside
Entire Building Part 1 20 respondents	x	traffic noise church bells	x	view city from a-new angle sunlight sunny weather	new lamps library radiator in-fireplace var. H&S fittings carpets	x	up the stairs up, towards the light up to stained glass to library

As before, some data are worth mentioning:

Society of Advocates Part 1

SA: Exterior questions Q4-Q5-Q6

SAQ5: On Tuesday: TD: '*unremarkable'*, TE: '*dull, grey building'*. This might be due to Tuesday's grey weather?

Participants mention a contrast between a grey, grim, dark outside and an unexpected interior.

The exterior granite did not appear to be very old.

SAQ6-TE: *symmetrical*
SAQ6-TI: *orderly building*

Entrance and Staircase (downstairs) questions Q7-Q8-Q9-Q10

SAES-Q7: '*Give your first impression of these spaces in ±3 keywords'* produced lots of '*wow!*' and '*beautiful'.*

Committee Room questions Q7-Q8-Q9-Q10

SACRQ7-TD: *more inviting to conversation than library*
SACRQ7-TE: *more casual than library*
SACRQ7-TI: *quieter, more intimate than library*
SACRQ7-FH: *cosier*

SACRQ7 and SACRQ8 producing various data on the room being business-like, masculine, for business, important, full of knowledge, where work gets done.
SACRQ8: This room gets three hits on '*warm*', combined with many on '*cosy*' and '*comfortable*'. A different '*warm*' than '*warm*' of the Picture Gallery in Provost Ross's House.

SACRQ10-F*A: obviously used a lot*
SACRQ10-FE: *colour of bookcases unfitting*
SACRQ10-FI: *white wall units not nice*
SACRQ10-FB: *lightened by light book cases*
SACRQ10-TI: *striking light bookcases against dark wall*
SACRQ10-FK: '*looks untouched for 110 years; apart from white painted shelves*.'; apparently people have expectations of and assumptions about the historic built environment, and obviously people's opinions are very subjective (surely when being totally opposite).

Grand Library questions Q7-Q8-Q9-Q10

SAGLQ7-FB: lightness despite dark colours.

SAGL: One respondent (TH) mentioning '*very musty old smell (expected)*'
But, in Part 2, under smell, (other) respondents mention just old or dusty books.

SAGLQ8-FJ: *resembles advocate's libraries in Milan, Utrecht, The Hague*; apparently the room is archetypical for its function..

FJ also states *'recognition'*; this is not a sensory response; though arguably it might be related to orientation.

SAGLQ8 brings up a long list of different interpretations of the (same) atmosphere:

FA: *captivating*
FB: *studious*
FC: *relaxing*
FD: *welcoming, asking for silence- as a library does*
FE: *urging to work*
FF: *eagerness to read*
FG: *very relaxing, imposing to whisper*
FH: *learned and quiet, decorative and restrained, oasis in city*
FI: *important*
FJ: *resembling other advocates' libraries*.
FK: *disused, impressive grandeur*
TA: isolated from outside disturbance
TB: *studious, useful, resourceful, peaceful*
TC: *serious yet trustworthy and cosy*
TD: *intimidating, bit frightening*
TE: *quiet, hushed*
TF: *steeped in traditions*
TG: *studious*
TH: *concentrated, peaceful*
TI: *scholarly*

SAGLQ9-TA: '*bookshelves; perfect order, shape, door size compared to room size.'* These are valid perceptions, though it is not clear how these are typical historic built elements.

SAGLQ10-FE: '*run down atmosphere adding to historical importance; reasonably maintained.*'

SAGLQ10-FH: *'Victorian addition of fireplace inside a large traditional granite surround.'*

SAGLQ10-FK: *not much effort into maintaining originality*.

SAENTQ8: TF*: looks unchanged*. TH: *well kept.*

SA: All rooms/ entire building questions Q11-Q12-Q13

SAQ11: [While moving through the building, were you drawn in any specific direction?] *Up, to the stained glass; Up the staircase; Towards the library (once identified); towards open space, light.*
SAQ11-TF: *'towards library; open space, light, warmth, smell'*
SAQ11-TI: *'to library; huge, inviting, important'*
Here people are drawn to the same place for different reasons.

SAQ12: Four respondents (20%) report finding the light fittings in the library (big balls) disturbing; in contrast to SAGLQ10-FB: '*good choice of lighting'*.
SAQ12-FB: '*very patterned carpets take away from design details.'*
SAQ12-TB: *'Entrance: rugs conflict with space; could tie tiles and marble together.'*
SAQ12-FC: *'modern lighting well integrated (not disturbing)'*
SAQ12-FH: '*Victorian fireplaces within original surrounds, lighting, exposed pipework.*'

SAQ13-FE: *'view from all windows while in a different world inside.*'
SAQ13-TB: *'so grey and boring outside <u>compared to</u> colorful inside.'*
SAQ13-FF: *'*(the building is) *very open to view the city from a new angle.'*

<u>Society of Advocates Society, Part 2: Sensory Perception</u>

SA: Appreciation questions Q14-Q15-Q16

SAHallUpstairsQ16-TB: (not appealing) *'All mumble jumble; stained glass vs. ceiling vs. carpet vs. plain white walls.'*

SAGreatLibraryQ16-FG: *'like stepping back in time'*.

Answers to SAGLQ16 show the book-lined walls really are a factor (though nobody states to visually register them; probably they are considered complimentary to bookshelves?):
SAGLQ16-FF: *'full of knowledge and history; feeling increased by books.'*
SAGLQ14-FJ: '*books are stimulating'* (note: Q14)
SAGLQ16-TA: '*all books'*

SAGLQ16-TG: *'orderliness of books'*
SAGLQ16-TI: '*books displayed in such grandeur'*

SA: General questions Q17-Q18-Q19

SAGLQ18: FE: *'cosy and big enough for individual space'*, FJ: *'dissolving in space; huge room vs. tiny person'*, TA: *'regardless of other people you have own space.'* TI: *'huge, but equals vast knowledge contained in it.*'

SAHUQ17-19: the upstairs hall is considered quiet (2/6) apart from the ticking clock. [Next in Q20-21, a lot of sounds appear to be registered anyhow.]

SACommitteeRoomQ19-FH: '*enveloping*' – this is a perfect word for a haptic sensation.

SA: Hearing questions Q20-Q21

SAHallStaircaseQ20-FE: *'silence'*
SAHSQ20-FB: *'very quiet'*
SACR20-21: in Part 2, where focused attentions, a range of sounds come up, between three participants only, whereas initially only *'quiet'* was reported.

SA: Touch questions Q22-Q23

SAHUQ22-FK: 'warm, without the sense of old/musty from other buildings.'

SA: Vision questions Q24-Q25

SAGLQ25: respondents mention bookshelves, but the actual books, which are referred to in Q16 (appreciation) data, are not mentioned here.

SAGL-TC: *'room is coordinated'*

SA: Smell/Taste questions Q26-Q27

SACRQ27: There actually was coffee on the coffee stand in this room; so smell perceived.

SAGLQ27: taste of whisky and cigars? (3 of 9 resp.) Must be a figure of speech; likely some cognitive process was at work here.

6.4.4. c Aberdeen Art Gallery

Table 17: S4 Art Gallery: general questions

AGQ1: Had you noticed this building before?	19 - yes 1 - no
AGQ2: Have you visited the Art Gallery before?	14 yes of 20 participants = 70 %
AGQ3: If yes, how often have you been here before?	3 people: once 7 people: 2-5 times 2 people: 6-10 times 2 people: more

Out of 20, 4 people were 'regular' visitors, the majority of participants had visited the Art Gallery once or twice before. Notably TI, who had not been here before, produces data of the type the research is looking for.

Figure 49: Aberdeen Art Gallery

Figure 50: Aberdeen Art Gallery

Table 18: Study Four: Art Gallery; data ordered by sensory category

Art Gallery Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
MacDonald Rooms Part 1 19 respondents	old sense of time sense of purpose warm colours classic, traditional overwhelming authentic ? red=ballroom green=intimate	quiet hushed	warm peaceful inviting, pleasant comforting airy wood-wainscoting wooden floor textured wall fabric textures on every-surface wall fabric rather than paper copper (brass) rail 4/6 would like to - touch wall fabric	colourful bright, light reflecting light gold/gilded/golden simple decoration- - to not distract shiny floors easy on the eyes warm colour-scheme	wooden floor-herringbone wooden panelling roof light large central arch painting frames-big-gold wood, marble, wall fabric large doors glass on paintings skylight - plain/ugly organ in green rm	x	typical lay-out spacious high ceiling bars to keep distance length of gallery two rooms light from above
MacDonald Red Room Part 2 6 respondents	lighting (not mentioned as visual?!) everything goes together.	echoes water fr fountain wooden floor creaking floor air-conditioning people sounds; (voices, laughter, coughs) phones, camera's	dry comfortable-temperature cool brass railing warmth, relaxed soft velvet couch floor pattern want to touch: wall coverings	size sofa vs. room size red walls band of red- for paintings	large central arch shiny rails wooden panels ornate wood patterned w-fabric architectural detail	stale air grandma's place cafeteria nothing taste: dry mouth (1)	large arched opening-to next room comfort spacious enormous due to connecting rooms could sit and enjoy lay out w sculptures

MacDonald Green Room Part 2 8 respondents	comfortable contrast with red room old, past, bygone cluttered walls vs floorspace	heating system air-conditioning people in cafeteria people sounds echoes footsteps wooden floor vehicles outside	air temperature wd floor underfoot cold marble want to touch: wall coverings marble table/bust shiny surfaces	green walls-white ceiling contrast green-red contrast light vs dark room 9 floor pattern	green walls brass bars wooden floor colours organ	humid slightly musty old/ old clothes wood taste: dust (1)	symmetry at end of exhibition space isolated furthest away from noise in hall octagonal shape light from skylight
Art Gallery Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Room 9 Part 1 19 respondents	not inviting no distractions not stimulating empty sterile clean plain attention to-anything but- the room itself	noisy heating quiet tranquil	cold	daylight missing white artificial light bland lack of colour bright	focus on artwork-due to lack of-other stimuli	x	empty, noisy, cold-compared to other rooms space, height doors to diff galleries doors leading into rm height of ceiling spacious shape of room size of entrance
Main Hall Part 1 20 respondents	airy light and water-inside lots of diff - things.happening tranquil-water stone reflections social atmosph modern-classic-mix sterile confusing	people sounds fountain echoes noisy poor acoustics	cold feel water as natural-element cool	lots of light whiter skylight colours patterned floor grey-white-contrast double staircase-symmetrical nice lighting	ornaments tall pillars arches marble floors frieze around-atrium	x	spacious tall pillars fountain in middle stairs leading up space height large openings to-galleries hard to know where to- go next

Main Hall Part 2 6 respondents	impressive relaxing room size/space	fountain water visitors footsteps/walking-on marble wooden floor cafeteria traffic dehumidifier	cold marble (cold or cool) space wooden panels like to touch: columns water	colour contrasts different colours lacking colour high ceiling bright space natural light movement of-people	columns fountain arches balustrades space	canteen food stale fountain water (actual taste of coffee just drunk-Friday)	play of open-closed and inside-outside transit space
Art Gallery Study Four	**multisensory**	**hearing**	**touch/haptic**	**vision**	**vision - things**	**smell/taste**	**orientation**
Entire Building Part 1 20 respondents	fountain too much going-on inside to-notice outside	drawn away from noise in hall fans running in galleries chatting in hall/cafeteria traffic noise	x	light, dark, skylights, covered windows/skylights daylight marble-different-colours	cafeteria tables stained glass in-stairway	x	*(AGQ11: drawn in specific direction?:)* into main hall; to light and space to fountain upstairs, to balconies away from noise no connection to outside
Exterior Part 1 20 respondents	imposing impressive	x	x	catching sunlight other façade different colour golden lettering grand, impressive	pillars at entrance cherubs in frieze	x	drawn to entry prominent position wide sidewalk-overview of façade big, grand

Art Gallery Part 1

AG: Exterior questions Q4-Q5-Q6

Q4-5-6: The façade having a different (pink granite) colour is apparently remarkable in grey granite Aberdeen. 10 of 20 respondents (50%) mention this in their answers.
In the data for the exterior are no typical 'haptic' responses; potentially they are a part of multisensory registrations.

AG: Mac Donald Collection rooms questions Q7-Q8-Q9-Q10

AGMDQ9-TA: *red like a ballroom; green more intimate*

AGMDQ10-TD: *skylight distractingly ugly; strong emotion*!

AG: Room 9 questions Q7-Q8-Q9-Q10

AGR9Q7-FE: *'cold, dark, empty'* vs. FG: *'light, empty, yellow'*.

AGR9Q8-FC: '*the room seems empty; noisy and cold compared to other rooms.'*
AGR9Q8-FE: *'misplaced, a sort of modern atmosphere which gets lost due to historical undertone.'* This remark suggests the room does not 'work'.

AGR9Q10-TD: *'Blocked skylight helps 'fill' the room.'*

Across the answers to the 'Room 9' questions, there are recurrent remarks on a focus on the artwork or paintings due to a lack of other stimuli.

AG: Main Hall/Court and Balcony questions Q7-Q8-Q9-Q10

AGMHQ7-FJ mentions columns in pattern; dark/brown alternating; again, in reality all columns are different. (FJ had a similar issue at the Provst Ross's entrance. Apparently not all people are observing very well.)

Many hits on echo/ echoing sound

AGMHQ8-FA: 'lots of different input'

AGMHQ10-TI: *'very busy -hard to know where to look'*
AGMHQ10-TD: *'identity crisis'*[250]
AGMHQ10-TB: *'Hard to know where to go next'*
AGMHQ10-TE: *'Rooms seem to naturally lead from one to the other.'*

AG: All rooms/entire building questions Q11-Q12-Q13

AGQ12-TE states the fountain is disturbing. Unfortunately without further rationale.

AGQ13-FF: the hall is big enough not to need outside

Art Gallery, Part 2

AG: Appreciation questions Q14-Q15-Q16

AGQ14-TH: (has chosen this room because) '*there was a seat'*

AGQ15: 3 out of 8 respondents do not like the Green room. FC: *'no special appeal'*, TA: *'does not give any feeling'* and TC: *'dull'*. This is a contrast with the excitement about the Red room. Arguably the dominant wall colours are a factor here. However, FH finds the Green room *'through height less oppressive than red room'*.

AGMainHallQ16-FA: *colors, materials (marble) abundance of light*
AGMHQ16-FE: *its sense of purpose*
AGMHQ16-FF: *size, balcony, rooflight; plenty space to go round undisrupted and not disrupting*
AGMHQ16-FG: *columns, balcony (4 sides!), flooring, water-feature*
AGMHQ16-FI: *social noisy element in spacious area. Fountain inside building*
AGMHQ16-TF: *natural light, large space, ceiling height*

AGMacDonaldRedQ16-FJ: *lighting (though less than hall) and wooden floor*
AGMDRQ16-FK: *unusual, airy but old, nice paintings*
AGMDRQ16-TB: *color, lighting, comfy sofa, picture rails, statues*
AGMDRQ16-TD: *comfortable for walk-through room, broken up nicely by sculptures, seating focus*
AGMDRQ16-TE: *colour, smaller, more sitting room than public gallery*
AGMDRQ16-TI: *everything goes together. Furniture style matches walls n floors*.

[250] TD will be happy to know substantial refurbishment of Aberdeen Art Gallery is currently in progress. (Potentially picked up same issues as building owner.)

AGMacDonaldRedQ16: FJ and TB mention 'lighting' as a factor of appeal. But they do not mention this again when asked for visual factors.

AGMacDonaldGreenQ16-FB: symmetry, not sharp corners, high ceiling withj light flooding, simple archways, wooden floor and matching panelling
AGMDGQ16-FC: (does not like room) *no special appeal, just convenient and quiet*
AGMDGQ16-FD: *high curved ceiling*
AGMDGQ16-FH: *light from skylight, height of ceiling, wooden floors-warmth, peacefulness*
AGMDGQ16-TA: (does not like room) *does not give any feeling; attracted to size only*
AGMDGQ16-TC: (does not like room) *heavy feel, old, past, days gone by, dull*
AGMDGQ16-TG: *lots wood- panelling, floor; high ceilings, good light*
AGMDGQ16-TH: *good as art gallery; appealing to sit and observe, could appeal to many other functions*

AG: General questions Q17-Q18-Q19

AGQ17: Red Room: dominant response of comfortable to be and spend time, even though the room is as big as it is. Green room: peaceful and relaxed

AGQ18-TI: *'White ceilings make lighter, dark walls focus attention'*

AGQ19-TC: after initial '*no*' (not attracted to the room - Q17 above): '*when you start looking in detail it is attractive*.'

AC: Hearing questions Q20-Q21

AGMHQ20; FE: *'movement, voices echoing; fitting to transit nature of the room'*.

AGMHQ21: same noise in either category, depending on respondent.

AG: Touch questions Q22-Q23

AGMDRQ23: 4 out of 6 respondents mention they would like to touch the red wall-fabric.

AGMHQ23: would like to touch: 3 of 6 respondents: (marble) columns, 2 of 6 respondents: water

AG: Vision questions Q24-Q25
Red room: Probably people do not realize what all they visually perceive, since they report far less in Part 2 than in Part 1. Are participants are now thinking too much? Only one mentioning

panelling, no data on wooden floor. Unless respondents have considered this to have been stated already?
The greatest impact in the red room have the band of red fabric displaying paintings, and the arch connecting to the green room.
Part 2 answers for the green room are much more similar to part 1; concerning colour, woodwork and the great arch.
AGMDGQ24-TH: '*green walls pleasant on eyes'*

For the MacDonald red room:
AGMDRQ24-FJ: *Painting of Scottish Flooding*
AGMDRQ24-TE: *Art display*
AGMDRQ25-TD: *Art in colourful band of red is just right. Not too regular but not too drastic*.
AGMDRQ25-TI: *Scale of paintings matches scale of room but all at same level so easy to follow artwork around the room*.
Apparently the very classical organisation of the painting gallery works well and is appreciated.

For the Main Hall:
AGMHQ25: FA: *'movement of people'*
AGMHQ24/25: FA: *colour contrast*, FF: *all different colours*, FG: *different granites*, TF: *lacking in colour*. Apparently, regardless of peoples judgment, variety of colours is a strong trigger. (these are 4 out of 6 respondents = 66%)

AG: Smell/Taste questions Q26-Q27
No exciting data. There is an obvious response to smell of coffee near the cafeteria.

6.4.5 - S4 - Analysis

As presented above, Study Four generated ample data to be analysed.

People are very aware of size, generally in comparison to the size of their own body. Occasionally there are size-related data recorded under 'vision', whereas most of these data are found in a 'general' category. The size of the building is visually registered, but also physically perceived.

According to people's sensitivity to contrasts, as identified in the literature, many data indeed suggested or identified contrasts; inside a room as well as between one space and another.

Though the research has not set boundaries to prove that the visual indeed is a dominant perception, it is very clear that 'vision' questions produced much larger lists of data. Notably at Q25 some participants were not withheld by limited writing space nor time to produce endless lists of everything they see.

In general, there are quite a few comments on originality. Participants appear to suspect things being not original. This will be triggered by gut feeling based on things unfamiliar, but comes down to judgment without knowledge. The questionnaire however never asked about originality, as this aspect should not influence sensory perception. Arguably considering such issues is inspired by education through media and public 'heritage' bodies.

Provost Ross's House - analysis

The exterior of Provost Ross's House was considered 'hidden' by some, arguably in their perception of being off their pedestrian main route. Interestingly, FK judges the building to be '*nice, but in the wrong place*'. Provost Ross's House definitely was first on the spot; however, its immediate urban surroundings have substantially changed its setting. Though Provost Ross's house is physically not hidden at all, it is situated just off the main tracks in downtown Aberdeen.[251] Apart from the building being hidden and out of place with its surroundings, data prominently discuss it being old, having a 'solid' feel and a prime location overlooking the harbour. Shiprow once was a principal thoroughfare, so Provost Ross's was a prominent location; some participants realise this harbour-overlooking spot must have been good just from observation.

Data like '*hidden gem'*, '*little gem'* suggest participants actually appreciate a building they had never looked at or considered before; but they may be gratuitous comments only. The data tell that ancient Provost Ross's House is clearly contrasting to its surrounding buildings and has become a minor presence on Shiprow today.

FB and FI arrived slightly late (due to the janitor being over-punctual) and had little time to consider the outside of the building.

[251] PRQ4-6 found lots of comments on situation of the building, in urban perspective. It was not established whether this was due to the situation being typical, or due to people having had some time to look round while assembling to start the surveys.

PRQ5: FJ inaccurately reported *'round shape of wooden door'* on the exterior. This false memory is a minor issue, caused by asking participants to assess the façade from memory, once inside. The issue does show it is important to physically be present on the actual spot that is being sensory assessed. Though fascinating, false memories like this are not part of this study.

For the North Boats Room (the very first room to be assessed, when no participants could be preconditioned) already 5 out of 20 respondents initially mention creaky floors in Part 1. When asked for 'hearing' in Part 2, 7 out of 8 respondents mention creaky floors in Part 2.

The general atmosphere is repeatedly branded 'historic' and 'traditional'[252]. Understandably respondents find these appropriate qualifications, however, these deliver no sensory information. The decorations and exhibits in this room may be helped by the name 'North Boats Room' and its moderate size and low ceiling to create an atmosphere called 'marine' and 'sea' by many. Such size aspects are small by contemporary standards and for contemporary taller people.

PRNBQ20-TC: states '*quietness*'; the research would argue that this 'quietness' is a multisensory, rather than a solely auditory experience.

Participants have commented on being entirely shut off from outside, due to windows being too small and too few to let in much daylight and walls being too thick to let sound through. Most notably in Provost Ross's House in the Picture Gallery all windows were boarded up. This shows ones amount of space, or roaming-options, to be a strong trigger.

Though TF states '*no light, no view',* somehow under 'vision', in Part 2, nobody comments on this absence of windows. In Part 1, several participants comment on the absence of daylight; TF already in part 1 PRPGQ8: '*lacks air; no windows, no natural light*'. Such lack of air might be a figure of speech or an actual flaw of the room; in this case there technically was enough air to breathe, so, to improve the room, this justified perception might be addressed otherwise.

Out of a total of three respondents for this room in Part 2, two mention the lack of daylight again; these two people indicate to not like the room. Somehow 'warm' is not reoccurring in the data; all people commenting on 'warm' in Part 1 chose to perform Part 2 in another room.

The Picture Gallery gets a comment (PRPGQ9-TH) on 'repainted' walls; there is however no obvious indication the current green is or is not the original colour. This must be a projection

[252] The research considers FJ stating *'typical ancient*' a translation issue from a participant not writing in their first language.

of ‘gut feeling’. (Arguably a green colour may be suitable for at least a substantial period of time in the existence of the building.)

The Picture Gallery is ‘*a good size for the age of the building’* (FH); does this imply: ’it is rather small but because I am aware of its age it can get away with it’? This suggests people can put up with a situation if there is an apparent reason for things being as they are.

TA appears to appreciate having some privacy in the Picture Gallery, other participants appear not to like the room at all.

Fishing and Whaling in Part 2 had 2 respondents, one liking and one disliking the room. They do not necessarily have different perceptions, in fact got presented the exact same triggers, but respond with opposite interpretation.

A majority of the participants commented on the clear presence of health and safety fittings and fixtures. Supposedly they are meant to be very visible, however this apparently ‘*pulls away from historic immersion into present*.’ (FA) This clearly identifies an issue for consideration by conservation architects.

Participants stated their chosen route through the building, starting from a dark hallway below, was apparently towards the light. Alternatively exploration of whatever is up the stairs appeared to be the other natural direction to follow.

In part two, under hearing, people have opposite ideas about which sounds do and do not belong to the building. Footsteps on the floor are classified as either, and ambient music is said to belong to the building (FA), whereas one could easily argue it belongs to the exhibition and therefore is an ‘other’ sound. As stated before, the record of the perception itself is more important than its classification.

Society of Advocates - analysis

The Advocates Society was unknown to all participants, who appeared equally impressed upon entering the building. Even though the main ground floor room of the original society building was now closed off with a glazed wall and doors, there was plenty to be experienced. Behind the glass was a connection into the courthouse, and this one room was presently in use as a courtroom.

In the Grand Library, SAGLQ23 *‘what would you like to touch’* brings data on people’s urge to climb the stairs to go up to the balcony. This perception is likely to be multisensory. Throughout the data, people like to venture up stairs when they register them. Apparently people have an urge to explore.

SAGLQ10-FE: '*run down atmosphere adding to historical importance*'; comments like this show nostalgia, and remind of Ruskin's romantic attitude. However, such data provide no information at all with regard to building conservation.

SAGLQ10-FH: '*Victorian addition of fireplace inside a large traditional granite surround*.' The building is Victorian (1870) and there is no direct indication to assume the fireplace has not always been there; why participants state these things is a mystery. FH mentions a similar thing later, as if (in FH's perception) 'adding' a fireplace is forbidden. Then, again FH: *'exterior pipeworks within such a historical setting'*; FH is transposing contemporary aesthetics on historic practice, which is fine in itself, but then dismissing the historic original; presumably because it is not recognized as such? Or the building is deemed older than it actually is; granite buildings are harder to determinate for their building period. FH (an artist) is very opinionated in Part 1, then very brief in Part 2. Arguably in practice, opinion and judgement overruling sensory perception may regularly occur; this way the opportunity to experience the building as it is will be missed.

SAGLQ10-FB: '*very patterned carpets take away from design details*.' And SAGLQ10-TB: '*Entrance: rugs conflict with space; could tie tiles and marble together*.' could be assigned to a similar category of people's judgement without knowledge (on historic interiors). Alternatively, these comments provide interesting information to be considered in efforts to 'update' a building to suit future use.

SAGLQ10-FK: '*not much effort into maintaining originality'*. (fireplace tiles which are likely original, ceiling spotlights, necessary health and safety provisions, etc.) The research is amazed about people's judgements without evidence, and wonders whether the same people will 'trust' everything once a building is Historic Environment Scotland or National Trust 'accredited'.

SAGLQ12: Four respondents (20%) report finding the light fittings in the library (big balls) disturbing. This strong response is remarkable; they are plain, of 'appropriate' size, and arguably typically a design suitable for conservation. They light up and thus attract attention. Contrarily, FB answers to SAGLQ10: '*good choice of lighting'*.

SAGLQ16-FG: *'like stepping back in time'* Conservation cannot be easy; comments like this, and e.g. remarks on modern light fittings, and data indicating respondents being suspicious of things not being original, give the impression people want historic buildings to be historic, rather than in any way adjusted to contemporary use.

After fussing about the originality of green wall paint at Provost Ross's House, participants now commented on the 'wallpaper' in the Committee Room, without recognizing these were actually stencilled walls. These walls came barely down to eyelevel, as the wooden skirting

boards and bookcases came up high.

Notably for the Committee Room there is a clear difference between initial and directed perceptions about sounds or noise levels. Other-than-sound perceptions are mostly recorded during Part 1 already, or can on hindsight be recognized in Part 1 with awareness of Part 2 data. To consciously acknowledge perceptions (aiming to have them studied) the part 2 questions provide a lot of clarification and awareness about what is it that is being appreciated.

SACRQ17-19; Comments from Part 1, on the room being 'businesslike' (as reported by different participants) do not return in Part 2 data. Obviously 3 respondents can pick up only so much, compared to 20 in Part 1. Arguably respondents deeming the room 'businesslike' therefore chose different rooms for Part 2.

SACRQ22/23: *big windows, ceiling height, smaller size of room*: these all are measurement or size perceptions; participants register these perceptions as visual.

Participants mention furnishings, marble and heavy doors under haptic rather than visual!

SACRQ27: There actually was coffee on the coffee stand in this room; so this smell was perceived.

SAHSQ20-FB: Apparently a space branded *'very quiet'* can still include perceptions of muffled and distant sound. 'Very quiet' then is not necessarily the total absence of sound. Potentially the '*muffled and distant sound*' was down to a level that does not trigger response?

SAHUQ22-FK: '*warm, without the sense of old/musty from other buildings*.' Still, many report a musty or old smell in Q26.

Repeatedly, the data feel like respondents have been trying really very hard to smell/taste something. [e.g. SAHSQ27: '*slightly stale air??*' (sic., with question marks.)] Which is understandable, since this is what they are asked to do. The general conclusion here may be that smell does not supply strong triggers in most buildings, unless something is really wrong, in which case it will be responded to regardless of the sensory assessment.

Art Gallery – analysis

On both days the Art Gallery, situated down town, was visited at a time with plenty traffic. However, there is no spontaneous mentioning of any sounds when describing the building's exterior. Apparently the registration of sensory triggers can be ignored or pushed to the back and no participants were focused on sound.

AG Main Hall: in Part 1 a cool or cold atmosphere was picked up; in Part 2 this gets clearly linked to the abundance of marble in the interior.

Water must provoke strong triggers, as the fountain water is notably picked up in Part 1 and reiterated in Part 2.

Perceived smells of cafeteria food and stale water are not strong enough to show in Part 1 already.

Clearly there is a lot happening architecturally; there are many options to move beyond through visual contact with entrances to other galleries, the balcony and the sky outside.

The main hall is noisy; various respondents appreciate it being a social space, others choose to move away from it for their Part 2.

The marble block pattern on the floor is not mentioned in Part 2.

'Room 9' was part of the assessment expressly in comparison with other rooms. AGR9Q8-FC: '*the room seems empty; noisy and cold compared to other rooms*.' is a clear example of a comparison producing strong triggers.

The adjusted AGR9-Q9A *[Do you feel the historic elements still have an influence on the atmosphere of the room?]* was not acknowledged as being a slightly different question; apparently participants did not pick this up, since they answered to the 'standard' Q9 question.

AGMHQ10-TB: *'Hard to know where to go next'*, but also AGMHQ10-TE: *'Rooms seem to naturally lead from one to the other.'* Though inconclusive (they do not necessarily contradict or exclude one another) these observations indicate a point of attention regarding 'traffic' flow through the building.

AGQ12-TE states the fountain is disturbing. Unfortunately without further rationale; many participants appreciate it. Arguably this could be a case of 'sensory overload', since a fountain with flowing water generates lots of sensory triggers.

AGQ14-TH: (has chosen this room because) '*there was a seat'* A totally valid observation; architects like Hertzberger and Zumthor promote facilitating people, preferably with architecture.

The 'extra' question (AGMDGQ16) intended to 'soothe' participants' need to express their appreciation (as surfaced through Study Two) indeed received purely subjective data; however, together they point towards the same 'appreciation generators':

Appreciation generators:

Abundance of light

Skylights

Functionality

Fit for purpose/ architecturally organized

Space / spaciousness/ space to move

Artwork to be enjoyed

Seating facility

Symmetries

Matching elements

Wood (panelling, floor)

Fountain/water feature

AGMHQ25: FA: *'movement of people'*. Is it typical for architects to consider people as part of visual perception? The opportunity to be aware of other people can indeed be considered a property of the building. Footsteps are always mentioned as part of auditory perceptions, as are other 'people sounds'. And data show awareness of other people present. Never until this point data perceived those people moving, though it has an influence. Though the cause of people moving is possibly related to its function rather than the building itself.

Whereas initially in the MacDonald rooms (AGMDQ7-9) in Part 1 no sounds were recorded, just '*hushed*', '*quiet*' and '*sedate*', showing from the Q20 and Q21 data there actually was a lot to be auditory perceived (echoes, water from the fountain, creaking floors, people, air-conditioning, even traffic outside). It is pleasant for people when they are able to shut perceived sounds out, but essential for conservation design to be aware of their presence.

Remarkably, especially in the green room, apparently voices from the main hall and cafeteria are very noticeable. The green room is physically well removed from the hall; probably sounds are somehow reinforced by or reverberating through these particular spaces. This typically is an issue to be aware of when starting on conservation plans.

General - analysis

From the studies it transpired ('lay', but well educated) people are having opinions on originality and authenticity based on knowledge they do not possess, therefore these opinions can be incorrect.

Overall, different people respond to the same (stronger) triggers, naturally each perceiving

different details. This does not imply everyone has the same appreciation for the same things.

Some data (FJ in PR-1, PC in SSS), that were not recorded on the spot (e.g. questions on the exterior filled out once inside), present recollections that are different from the reality presented earlier. Without being questioned in this direction, participants made some statements on originality and authenticity. However, they had no way of knowing whether their assumptions were correct. Application of sensory assessment data to conservation practice should stay with direct observation data rather than interpretation.

People are able to reflect on their personal feelings and opinions. Their sensory perception will therefore be correct always, and the triggers for their personal experiences will be real. Respondents' opinions however may be based on wrong assumptions.

In Aberdeen, the question on 'today's weather' could have had a different answer for each building anew. After all, just a researcher's record of the weather would have been sufficient. On two different days, different days of the week with different weather and different people the assessed buildings were still the same. A similar amount of 'other' people was present inside all buildings (only on Tuesday a few advocates were indeed retreating at Advocates Society.) The data show no obvious differences in perceptions between days.

Overall, there appears to be plenty overlap in registrations; it can be concluded that technically any one of these participants, or in fact any informed professional can bring up an adequate set of perceptions through a similar sensory assessment.

6.4.6 - S4 - Qualitative reflection

Since the research did not include an option to find out people's perceptions without direction of survey questions, the useful reflection data are provided by the participants, in response to question Q28: *Do you feel you have noticed or experienced more than you normally would have? Has your awareness of these buildings changed?*

'Appreciating more the different elements consisting (sb: creating) *a building.'* (FA) (nb FA is an architect)

'Absolutely! It has made me examine features whereas before I only noticed general impression' (FB)

'Yes, definitely. I guess my opinion or feeling of the buildings didn't change but I'm more aware of the reasons.' (FC) (nb FC is an architect) Exactly this can be used well in conservation architecture.

'I have looked at things, details more closely. I wouldn't have noticed all with the focus….' (?) (FD)

'Yes, though you realise it is very hard to split building from content. You normally are aware of some of these things but will not register them as much.' (FE)

'Yes, I paid more attention to same details and how my feelings were affected.' (FF)

'Definitely.' (FG)

'Definitely. Looking at structure alone has focused what I am seeing and also seeing buildings like not seen them before.' (FH)

'Yes, at least I know where they are and what they look like inside. Interesting to look at rooms in a different view.' (FI)

- - (FJ)

'Slightly; by tapping walls, looking for architectural detail, materials etc.' (FK)

'Yes, have walked by a couple of the buildings before without focusing on any of its details. My awareness might be heightened a bit more now.' (TA)

'Yes, yes. Very interesting how a building makes you feel. Reminds me of my Organizational Behavior classes; my favorite.' (TB)

'Yes, it is very interesting to actually look in depth at why the room feels a certain way, why you like it. I am more aware of the different periods of these buildings.' (TC)

'Absolutely. Although I am not sure 'historic elements' was accurately interpreted.' (TD)

'No, I usually am very aware of buildings, I love visiting them and looking at all the features.' (TE)

'Surprised by Advocates' Court- would not have expected what lies behind the exterior.' (TF)

'I do feel that I have been more aware of my surroundings today than I normally would. I have tried to be more observant and I have tried to think about how what I see impacts my own mood. It has been very interesting looking at things from different angles than I normally notice them.' (TG)

'Absolutely. By following your questions and instructions I have spent longer observing the buildings-rather than what is in them.' (TH)

'Going to the Advocates Society down an alleyway where I'd never think to go was interesting. Small façade of building is deceiving for what is inside. They all felt bigger inside than from outside.' (TI)

Mostly everyone claims to have enjoyed the experience. Obviously, participants had already voluntarily made themselves available to perform the survey.

The data do not tell whether people would have been subconsciously aware of all these things before, or not. Though arguably if people would NOT subconsciously experience these things, the need to conserve them would not be apparent.

The data provide ample 'atmospheric' comments; though these cannot directly be translated into material solutions, they do provide information for conservation design, being influenced by subjective interpretation by default.

By posing question Q18 (*How do you feel about the size of this room/space?*), potentially the issue of size is covered before it might appear related to an individual sense. Though blind people get a sense of the size of a space without visual input, people may not consciously use of this option until it is needed.

When things get labeled 'Victorian', it remains unsure whether 'Victorian' only means 'of Victorian times' or is synonym for strict/stern/severe? (Though the city of Aberdeen is much older, much of its 'granite city' is indeed Victorian.) The fact that the sensory assessment data still carry subjectivity is not a problem; what counts is that all these triggers and issues are pointed out, to generate awareness that will assist conservation design.

The time restriction to perform the survey, due to the day's total planning, turns out positive; already some participants appear to have time to start interpreting their own data (and so keep other participants waiting).

Though many questions ask for e.g. three strong triggers or keywords, participants revert to giving 'a and b' as one keyword when feeling they wish to communicate more than is provided and asked for.

A few participants (only) mentioned repetition of questions getting tedious. *Some questions quite repetitive; felt I was repeating myself a lot*. (FH) Participants apparently like to show their knowledge and start using terminology like 'Georgian', 'Corinthian' and even 'not original'. '*I found it hard to look at the buildings themselves rather than the room as a whole as it is used today*.' (TH); naturally people will respond to a complete image. The research is just not interested in reflections on the quality e.g. of a specific artwork, though its presence may have an influence.

Not all issues that are important to conservation are picked up by the sensory assessment; Provost Ross's is not acknowledged as originally having been two buildings, built over 100 years apart (in this regard the disappearance of the original staircase, in an outshot at the rear,

erased a clue.) Neither is the sloping street outside related to the clear jump between floor heights inside.

The Advocates' Society is currently situated in an 'alleyway', but originally in one of numerous Courts; its current hidden location was never a deliberate choice.

The Art Gallery's façade has pink 'Correnie' granite dressings on 'common' grey granite ashlar; an unusual combination. The pink colour was picked up by many. The Macdonald Rooms being still as they were originally finished by A. Marshall Mackenzie was not known, but their originality was not questioned (unlike the Picture Room in Provost Ross's).

Building documentation states the Sculpture court (or 'Main Hall') having been added 20 years after building the first part of the building. This is apparently not obvious, since there were no comments in this direction at all. To a conservation design, this realisation might bring a need to decide whether or not these building parts should now be considered as one.

6.5: Overall description of results

Comparing the general assessment of Part 1 to the focused sensory assessment in Part 2, the Part 2 appraisal does pick up more triggers (not just more of the same).

Data on the exterior are mostly visual, occasionally haptic. Arguably participants consider themselves standing 'outside the building' rather than 'in an outside space around the building', since all noted sensory perceptions relate directly to the building. No auditory or olfactory data are shared[253].

In every building people are drawn to staircases and the upstairs, as well as to light and space.

Participants are happy to share their affinity for the building, as well as their opinions, assumptions and judgement.

In general, there are quite a few comments on originality. Participants appear to suspect things being not original. This will be triggered by gut feeling based on things unfamiliar, but comes down to judgment without knowledge. The questionnaire however never asked about

[253] Obviously these were not asked for. However, street noise should have been apparent. Presumably this is incorporated in multisensory atmospheric comments.

originality, as this aspect should not influence sensory perception. Could this have become an issue through education? (e.g. Historic Scotland, information at tourist properties, television)

'Q7: Give your first impression of this room in 2-3 keywords'; apparently it is extremely hard to stick to three words only for an answer. Many times, the first impression ends up being the first (or even all) items noticed, rather than architectural or atmospheric notions.

Unfortunately a majority of the participants comments on the apparentness of health and safety fittings and fixtures. Supposedly some are meant to be very visible, however it apparently '*pulls away from historic immersion into present*.' (FA)

Overall:

- Participants enjoyed themselves while visiting the building and focusing on their sensory perceptions.
- Participants enjoyed experiencing the building ('letting it get to them')
- Participants had lots of opinions, though the survey did not ask for any, and were keen to express their opinions, while in fact asked for registrations and perceptions.
- Participants felt the need to be quiet (they behaved in such manner and wrote this down).
- Participants felt they were repeating themselves (which actually was valuable since repetitive data are robust evidence). They were covering three buildings for a reason. (Though the research considers the fact that they forgot they were part of an experiment rather than there for their own enjoyment very positive.)
- People appear inclined to move towards the light, and up any staircases. (Like a wasp in a jar, a fly in the room, trying to 'escape'?)

6.6: Summary

The survey questions to sensory assess (three) historic buildings were tested in Study Three, and used in Study Four with minor changes. Each building was surveyed in general (Part 1) as well as focusing on each sense separately (Part 2).

Data collected from twenty participants were presented in tables, grouped by sensory category. Participants do respond to 'sensory' questions. Apart from an occasional 'no', there are answers to all questions of the survey. Apparently reflections on perceptions and observations are prone to subjective judgement.

Indeed the study participants state to have perceived a lot more than usual, through their guided experience. They state raised awareness, and heightened appreciation also.

The study provides clear evidence that focused sensory perception raises awareness and thus knowledge of a surveyed building, and people's perception indeed stretches well beyond the visual.

It takes conscious effort to focus on the actual building rather than its contents, but this should not be a challenge for architects or surveyors. In itself, a sensory experiential survey is uncomplicated.

PART V: DISCUSSION AND CONCLUSIONS

CHAPTER 7: DISCUSSION OF RESEARCH FINDINGS

7.1: Introduction

This discussion chapter aims to present what is exciting and important of the retrieved data and the research in general.

The research suggests that one cannot know a building without assessing (and accessing) its experience, and this experience can be retrieved using a sensory structure. Chapter 2 reviewed how valuation and appreciation of historic buildings has drifted away from sensory experience. Chapter 3 found sensory experience to be a currently developing topic within architecture; it is considered in the design of new buildings, yet the research shows it is equally valid to conservation design and historic buildings.

Peoples' understanding of and affinity for historic buildings, being that which the research initially assumed to be difficult to disseminate, appears to be easy to grasp once structured in a 'sensory' system. Hereto, the research prefers the Gibsonian set of sensory systems to the traditional Artistotelian set of senses; the former appears better suited to establishing an understanding of the self in relation to architecture. The structure following a system of sensory categories enables an assessor to grasp the experiential quality of a building, as well as providing a means to communicate this.

This chapter covers: 7.2 A new approach

7.3 Discussing the method as performed

7.4 What should be sustained

7.5 What people respond to

7.6 Initiating further discussion

7.7 The sensory assessment as an approach in practice

7.8 Summary

7.2: A new approach

'It is precisely the combination of different elements from different timescales -the totality in all its messiness- that is the object of conservation.'

John Pendlebury, 2009

Rather than the archaeology-inspired 'keeping all the historic fabric as artefact', this research advocates an architectural and experiential 'keeping the building as handed over by history' approach.

There is a new field of significance: the sensory affinity to the physical building, which is equally applicable to historic buildings. A limited body of literature on 'sensory design' covers this field. Notwithstanding the 'cultural heritage discourse' focusing on (real) artefactual values of buildings, the research claims that conservation of a physical building implies conservation of what it physically means to people.

A sensory assessment can be carried out without a 'theoretic brain' (employing knowledge on golden mean proportions etc.; Eberhard 2009, ANFA), but it needs a sentient body (see ANFA efforts; the practice of building conservation is much simpler). The sensory impression of existing historic buildings has been overlooked and forgotten. It does however exist and forms an essential part of a building's significance.

Authors including Pallasmaa and Rasmussen discuss the experience of architecture incorporating lots of nostalgia still. This thesis is about sensory perception as an asset to assessment, not claiming historic buildings are preferred over contemporary buildings because of their impact on people's emotions. Contemporary buildings could be equally enjoyable. Peter Zumthor's built as well as written work (2006a, 2006b) deals with architecture in a highly sensory manner, which should be equally applicable to conservation design.

Regardless of its exact definition, 'heritage value' is associated to a building by people. The '(built) heritage movement' which started with Ruskin, and an apparently related overconcern with heritage is still stronger and less flexible in the UK, compared to some other countries; France, for example, knows exciting and regularly more future- oriented conservation projects. Arguably this approach might just focus on producing 'good architecture' within the frame of their knowledge and understanding of their 'Patrimoine'.

Nostalgia, with regard to historic buildings, can be an overpowering emotion, but should not feature in conservation decisions. Ruskin's advocating to *'do it honestly and do not set up a*

lie' does not assist practical and necessary decisions on building conservation.[254] Arguably heritage and nostalgia could be lies themselves, not acknowledging history as a series of stages in an on-going movement into the future.

Sometimes building conservation appears to have been taken over by cultural heritage; though intended for the better, assigning mostly intangible significances to a building is not assisting its actual physical conservation. Arguably the preservation of archaeological items is a side-issue within the conservation of a building in its totality. Building conservation should be about the experience, and the tangible is needed to conjure this up.

Historic buildings are attractive for being an empathic reference to living in a different time, in a different gear. Potential consequence hereof appears to be that what counts is no longer what a building is, but what it represents. The building needs to be known to allow for a physical conservation, and this knowledge needs to stretch beyond an affinity based upon empathy and emotions. Complications may be inflicted by keeping a building based on purely emotional reasons, since these may not 'allow' necessary physical adjustments that eventually do not affect the building's experience .

To what extent a building's architectural experience depends on physically historic (i.e. original) elements may be the interesting question within conservation practice. The research suggests this possibly actually depends on the presence of authentic elements.

254 In Ruskin's defence it should be noted that many of the buildings listed today were about to be built in Ruskin's time; consequently Ruskin himself never intended his theories to apply to these buildings.

7.3: Discussing the method as performed

The data acquired through the studies reflected people's perceptions of the built environment they were situated in at the time of the assessment, pointing out those features of a historic building that evoked and generated people's experiences. Some participants volunteered data on their personal opinions rather than their perceptions; those however would not contribute to the required data about the building.

These qualitative data consist partly of keywords, partly of short sentences, presenting an understanding of people's experiences. These were first comprehensively transferred to master tables (see appendix 14). Meanwhile, outstanding data were separately noted. From these master tables, data applying to separate senses were filtered and structured in a new set of tables (see Chapters 5 and 6). Filtered out were people's opinions, suggestions and explanations, as well as references to 'historic, old, aged, etc.' The data were categorised by the author/researcher, according to common sense and from an architectural background. Taking a qualitative approach, the research proceeded by emerging in the data to find out their meaning and implications.

A minor issue in the coding of data was when to regard similar answers as implying the same and when as two (slightly) different things. Since no 'fixed' terminology for these perceptions exists, two participants may perceive the exact same yet explain it differently. Regarding physical objects and building parts this would be clear; however, regarding atmospheric notions, synonyms might be either used for slightly different notions or because this was the first word to come to mind, mostly defined by a participant's personal vocabulary. However, though leaving out duplicates where obvious would benefit overseeing the variety, leaving in some would not affect any research conclusions.

The re-creation assignment (Part 3 in Study Two at Norwood, see section 5.3.6) has shown that people's thinking shows from their writing; not necessarily from their designs. In fact, when the designs are re-interpreted by the research, the original thinking of the designer may not be picked up, since without initial text there it cannot be checked if the design is consistent with the original thinking (highly likely there has been more development during the design stage; this is an issue for separate research). Clearly, to understand people's perceptions of an existing building, such design exercises are not contributing.

From the 'data ordered by sense' tables, data for Part 1 and Part 2 for each same room could be compared. Indeed Part 2, triggering conscious attention to sensory categories picks up a lot more sensory data than Part 1, where these are largely overlooked as a factor of importance.

The Part 2 data introduce factors of building physics (acoustics, indoor climate, draught, lighting) which are a factor of comfort, rather than taste, and can actually be manipulated (and where desired, improved) by architecture.

Though the research has eventually concluded that Gibson's system of sensory categories is most suitable to assess sensory perception in buildings, this awareness has surfaced through and during the research. Consequently the implementation of 'orientational perception' in the final studies has not been as straightforward as the 'Aristotelian' sensory categories. The final one of Gibson's sensory categories, orientational perception is not commonly acknowledged, nor can it be 'attached' or traced back to one sensory organ; therefore it did not directly nor unequivocally fit within the Part 2 assessment.

Consequently questions addressing orientational perception were spread throughout the questionnaire, rather than clearly presented as a separate category:

Q4: What was your first impression, on approaching the building?

Apart from information on the broad general impression, this question will retrieve characteristics that may assist in orientation on an urban scale.

Q11: While moving through the building, were you drawn in any specific direction?

Though this question was reworded after the Study Three pilot, it delivers data on a small component of orientation only.

In Part 2, under 'General', two questions attempt to catch experience related to orientational perception in one specific room:

Q18: How do you feel about the size of this room?

Q19: Do you feel comfortable and would you choose to stay around in this room for a while? Why?

Though definitely introducing orientational notions, these questions are focusing on the assessor's 'feelings' rather than on properties of the building.

Eventually [255] the research concludes this sensory category consists of a two-sided characteristic also, and might have been addressed in Part 2 through the following questions:

[255] Note: these paragraphs on orientational perception were added with hindsight, after the Viva Voce examination of the thesis. Arguably the precise wording of the assessment questions does not affect the relevance of the research as a whole.

- What assists your orientation and situation in this space?

- What defines your comfort within this space?

The first question is clearly related to routing and wayfinding, and the situation of (being in) the surveyed room in relation to the rest of the building or outside. It is derived from Q11 above, but restricted to one room, delivering specific knowledge to directly benefit conservation design.

The second question focuses on the awareness of being a sentient human in this specific space; feeling small or large compared to the room, instinctively moving towards the light (or dark) and away from draughts or toward fresh air.

Once the above questions have been defined, the need for the 'General' questions to start Part 2 of the questionnaire may be reviewed. If these new questions on orientation turn out to deliver good data, they cover the same perceptions in a way that may lead to data that are more directly relevant to retrieving sensory triggers.

7.4: What should be sustained

The sensory assessment of historic buildings is not about a 'list of things to preserve', but about the experience of the total entity; attention for individual bits would be covered by archaeology. Elements of high archaeological and little experiential value might be considered for keeping (separated from the original building) in the conditioned environment of a museum when prone to deterioration. Because what is the point of conserving the parts, if not the architecture?

Because a building is around a person, one does not observe but experience it. A good building is two things: it is the design and the construction[256]; the design of the construction and the construction of the design. Therefore it is inherently different from just one of these alone. Rather than separate elements, what should be sustained is this entire architectural experience; the spatial creation in all its sensory-experiential qualities and details. Because this provides the atmosphere relating to the human body, as it is sensory perceived and appreciated.

Data from the research show people are able to record sensory triggers. From the data can be found what a building supplies of triggers to be picked up and responded to, as well as what people are able to pick up and to what degree (this varies per sense). The studies have shown people are willing to experience buildings in this sensory-perceptive way[257], and the data show them stating normally they are not consciously aware of this.

Approaching the building through a sensory assessment assists to describe and understand the experience. The data present features rather than things; even within the category of visual perception more features of the buildings than objects in the space are presented.

The data in their totality represent the triggers people have perceived and consequently respond to within the building they have assessed through the sensory approach. From these data, which are building-specific, generic conclusions can be drawn, indicating what type of experiential and architectural features people tend to respond to. Thus similar features within other buildings can be considered (highly) likely triggers.

In practice, each building anew will need to be assessed for its own special and individual experience, whereby the survey format, as developed through the research, presents a good

[256] Construction: how the building was made, here including its materiality.

[257] For qualifying rooms, 'comfortable' and 'cosy' come up regularly. These notions are a response to atmospheric triggers.

Table 19: perceptions in buildings

general remarks	Contrasts, within any kind of perception, attract attention Some things will only be perceived when moving through the building.
visual	There is a lot to see and observe; be aware of many contrasts. Facades, light, detail, decoration Light and dark and in contrast Juxtapositions Routes/ options/directions for movement Colours Amount of detail Skylights Boarded windows Large windows Different columns; variety Shiny things (polished)
haptic	Temperature/climate Materialization Texture Plasticity Awareness of other people
auditory	Others using the building (sounding/playing the building) Contact sounds Sound from outside coming/filtering through (traffic, gardening) Echoes Climate installations; heating/air-conditioning Machines, generators (acoustics as such not mentioned in data) Asking-to-be-quiet
olfactory/ gustatory	Musty smells picked up. Assessed buildings not olfactory exciting Figuratively/associatively; suitable to disseminate a perceived atmosphere
orientation body in space	'Body in space' Size: proportions, relative size (contrast, comparison) Orientation, movement toward Having a place to sit Low doors, big doors Inviting staircase
typical for historic buildings	Fireplaces Creaking floors High ceilings Ample space Grand hallways, grandness, scale Amount of detail Imposing-to-be-quiet

framework. Rather than following the precise framework, the effort of employing this sensory approach at all will be most beneficial to understanding.

From Table 19 can be understood that many of the things people report are experiences indeed, having their impact on the person existing or 'dwelling' (according to Heidegger's definition) in that building. The research therefore claims these aspects, defining the specific experience of each building, should be sustained. The majority of these can be categorised as architectural design features, whereby their age counts as a minor factor.

7.5: What people respond to

Even when trained architects (claim to) naturally respond to the sensory experience, a structured sensory assessment will assist them to check themselves on obtaining complete coverage of triggers, and provide a framework for discussion with other parties. Exactly why the sensory assessment is relevant even to capable conservation architects is explained in the answer to Study 4-Q28[258] by architect FC: '*Yes, definitely. I guess my opinion or feeling of the buildings didn't change but I'm more aware of the reason.'* Clearly the understanding of a historic building gained through sensory assessment will be valuable to current transformation assignments.

Various study data reflected participants' contemporary perceptive approach to historic settings; importantly this may guide an update to the building, to be appreciated even more in its new state. Exactly by abstaining from provision of historical information, people do not have to make an effort to understand the origin of things, but are able to enjoy whatever they encounter.

Experts in the field of building conservation, like Jukka Jokilehto and Andrew Wright appear to (subconsciously) perform a sensory assessment, but arguably (probably due to subconscious

[258] Q28: Do you feel you have noticed or experienced more than you normally would have? Has your awareness of these buildings changed?'

processing) forget to disseminate their observations and provide an incomplete awareness, partly since sound and smell do not appear to feature in their assessments.

People focus on the visual, not realising their full set of senses is at work. But technical specifications only are insufficient to make robust conservation or retrofitting decisions. The general public appears to lack awareness of details; arguably because this awareness must be sensed, rather than seen only, and they are not trained to do so. A sensory '4D' assessment stumbles upon cases like 'the wrong type of glass, in a flat frame that sits flush with the wall, is too plastic and too white, never weathering but going green like only plastic will.'

Arguably the dominant focus is not only visual, but intellectual also. The field studies have shown these days people are preconditioned to think about historicity and originality and apparently focus intellectually rather than emotionally.

A building produces sounds when in use. This effect is different from acoustics, dealing with echoing and resonating rather than producing sound. Both are important to the experience of a space. Generally there is more to hear in a historic building, as the construction moves and creaks with use; a quality that, once established, could not only be dealt with, but alternatively be sustained or even recreated through conservation.

People have a good response to sounds (i.e. they generally pick up sounds), but in a conservation process sounds are not yet recognized or acknowledged as being there due to, and belonging to, the building as it is; examples are echoes, footsteps as well as floors or doors creaking due to use.

A clearly underdeveloped sense (in humans) appears to be smell; overall respondents regularly reported on smell, but this was generally described as 'old' or 'musty', unless very clear, like the open fires in Norwood Hall (Study Two). Strangely, the 'old' smell somehow is appreciated; arguably this is related to nostalgia (people claiming to want this 'old' smell in their own house are not known to the research).

Since a bulk of data deals with the awareness of the own body 'dwelling' within a space, being an actual response to the architecture, people's affinity to historic buildings can definitely not be explained through historic awareness or architectural history only. Because the research aims to include this physical awareness in its assessment system, the Aristotelian set of senses would be insufficient for assessing and 'recording' a building's sensory experience; Gibson's

set of sensory systems, including a 'bodily orientation' is proposed and used as more suitable[259].

People strongly respond to contrasts. Light-dark contrasts appear to be fascinating and therefore appreciated. Both noise and silence, when contrasting with people's expectations or comfort level, feature throughout the data. Rooms that are suddenly very cold or very dark get overwhelming negative responses, where abundant daylight is enthusiastically welcomed[260]. It must be noted that though light is attractive, so can be darker areas; notably due to their contrast; either side of light-dark and noisy-quiet holds its own attraction.

This issue of contrasts attracting attention could be linked to those refurbishments where 'inserted' repair fabric stands out against the original. When causing stark contrast between old and new, these repairs will distract and draw attention away from the entity to be experienced overall.

The data show ample comments on boarded up windows and skylights; in current conservation practice many of these are already being opened up; the research data retrospectively support such decisions.

People respond to the outside, where they notice things in contrast with inside (e.g. light, cold, noise, general atmosphere).

Visual perception triggers other senses; it is not just due to the perceived 'do-not-touch'-atmosphere in the surveyed museum environments that materials get visually connected to feeling soft/hard or warm/cold.

(Room) temperature is a strong trigger, especially when beyond people's comfort zone.

Participants have good associative 'powers'. Unfortunately there is no actual 'universal' language for the 'tastes' that associatively were mentioned in various 'Part II-s'. Thus there is no clarification whether (for example) a 'taste of coffee' has sweet or bitter connotations. To obtain a more uniform outcome, a multiple-choice format might have helped. However, it is very hard to apply these data. In individual cases in practice a client will be able to transfer his/her impressions to the architect.

[259] 'Orientation(al) triggers for example are doors, staircases, boarded up windows, ...

[260] Examples of extreme, overpowering triggers: very cold (outside, Norwood) smokey (Norwood) garden trimming noise, paint smell

Not all people appreciate an enormous degree of decoration, and too much detail can be overwhelming to the 21st century 'eye'. For some refurbishments, it might be suitable and justifiable to tone down the decoration of a building. However, the research would strongly advise against plain stripping and whitewashing. Though this appears a customary way to 'modernize', the data give ample justification to sustain contrast in colour and texture at least to some extent.

Figure 51: even different shades of white, some glossy, some matte, will add interest.

The study results could be applied to an understanding of the current re-appreciation for the vernacular; the sensory is well served by historic and traditional ways of building. It is hoped the sensory assessment can assist future conservation design to add focus on specific aspects of the historic building.

7.6: Initiating further discussion

To many people, just yielding to the experience of a building is not an easy task. However, the experience of a building cannot be avoided, and it would be unnatural to interpret the building academically only. Its historic significance is no more than an immaterial bubble around the actual building (see also p. 24) Too much academic focus on history and originality hinders people in enjoying their experiential perceptions. Arguably the public benefits more (as: by default) from an interesting experience, than from an environment carrying values that are available to the initiated only.

Respondents found it difficult to report what was being picked up or responded to, without including judgement or assumptions. The data show some unfounded claims of non-originality, especially about the green wall-colour in Provost Ross's and the bookcases in the Advocates' Study. It is suggested people acquire part of their presumed knowledge on historic buildings from TV and magazines, and their judgment is often influenced by fashion. This way they let themselves be bothered by things they might (not necessary like, but all the same) appreciate for being original, if proof were available. The field studies' results suggest that people are preconditioned to think about history and originality and focus intellectually rather than emotionally.

Though pleased to find out the Advocates' Society was appreciated by participants, the research developed the impression people did not expect nice places to exist in grey Aberdeen at all, and would urge them to better observe and find them. Notably in this respect there was a strong response to the Art Gallery having an other-than-grey-granite façade.

Since participants appreciated the experience, and eventually only a few questioned originality (based on 'feelings' rather than knowledge or proof), it is important to weigh the creation of an authentic experience against the conservation of all original material. The (authentic) experience cannot exist without the building. Conservation design should start from the experience of the actual building present, rather than from the related historic awareness.

A historic building and a recreation (new building of the same) are not the same. Historic fabric is inherently needed for historic significance; it needs to be there, and preferably apparent. However '*there must be historic fabric'* (as evidence) does not equal *'every snippet of historic fabric must be kept, to not loose this historic building'*; the latter is not true. Historic buildings all at some point have been refurbished. What matters is for the whole to still be considered historic.

A clear mix-up of values shows from data stating for example: '*Run down atmosphere adding to historical importance.*' [FE in QF20AS-Part1] The one is not related to the other. Plus,

preserving a run down state would leave no options for conservation, which in the end would lead to loosing a building entirely. Arguably there is a thin line between not touching and not caring.

FH (SAQ12) responded to external exposed pipework as being disturbing; but external plumbing was customary when the building was built, and in fact adds to the authentic atmosphere, even when according to some it 'degrades' the image of the historic building. The research would prefer authentic to aesthetic solutions[261], since authenticity is an objective value.

People see or interpret things that are not there (memorized wrongly), or find normal or original elements odd and standing out (e.g. because they are singly leftover). This indicates the function of an architectural-historical assessment to be performed along the sensory assessment, and for their data to be combined.

Many participants experienced the surveyed buildings as 'do-not-touch' and 'keep-quiet', arguably stemming from unfamiliarity with these buildings, creating a perceived distance. Such (permanent) awareness of the historic building might keep people from really enjoying themselves in these environments. It would be interesting to review this issue with regular users of such buildings.

In the margin of studying the sensory perception of actual historic buildings, the research developed various thoughts regarding the design of new-traditionalist architecture:

New-traditionalist architecture attempts to create a perceived significance, representing people's nostalgic and historic values, without aiming to be a historic building; people do want a home with modern conveniences. This may result in the building copying an image rather than an experience[262].

The effort once put in design and construction of historic buildings is apparent in the resulting building; similar effort and attention can be used to create modern architecture and ample proof hereof exists. These contemporary buildings can have equal sensory appeal.

Arguably computer aided design and manufacturing can assist to create intricate detail and variation, without expensive skilled labour; the skills of craftsmen may be needed in the design

[261] Technically, in this particular case, external pipework is easily accessible but prone to frost damage; arguably technical arguments could prevail over authenticity, when the two cannot be combined.

[262] Though both are valid design choices, it is likely that currently architect nor client is aware of consciously trying to achieve either one or the other.

stage rather than the production, to create a product of is equal sensory appeal. (e.g. Wilfried van Winden's 'Fusion' architecture and Lars Spuybroek's computerised designs.)

Sensory assessment of existing buildings can inform the design of new buildings.

The data from the Part 3's of Study Two, (architecture students describing their thoughts on recreating the experience of Norwood Hall spaces in a contemporary way) show many different ways of recreating the experience and atmosphere of a historic room, without being restricted to historicism or new-traditionalism. (Even when the warm experience of bare concrete may be contested and the addition of background music cannot fill the absence of a building's own sounds.)

The documentation of buildings that are due to be lost can be valuably extended with a recording of the sensory assessment of the original building. The research envisages an extension of the current amount of listed buildings, provided they all are robustly (sensory and building-historically) assessed and documented, combined with a more flexible protection, which ultimately would enlarge the future relevance of all those buildings.

In contrast to a historical, archival survey, revealing the intentions of the architect and/or the design, the sensory assessment can only assess another quality, being what the architect/builder managed to build, given the technical and material restrictions of the time. The research strongly feels the focus of conservation should be on the building that was actually built and the authenticity of conservation solutions.

7.7: The sensory assessment as an approach in practice

The research data show that the method used [a sensory assessment and survey of sensory experience by questionnaire] indeed increases awareness and understanding of the architectural historic building. The sensory assessment aims to get to know and understand one particular building, rather than compare it to others.

Clearly this is an extension to current assessments of historic buildings, mainly aimed at informing design solutions in general and the need to keep original fabric in situ specifically. Where the thesis discusses the 'physical building', this refers to the physical and tangible architecture. To keep the assessment from 'contamination' by other than experiential values, it does not deliver any technical or structural information, and refrains from historic information as currently described e.g. in listing texts. It includes experiential assessment of the fabric, but not the interpretation of its historic meaning, significance or similar values. Likely to occur in the process, perceptions needing further technical or historical investigation can be separately recorded.

Based on the studies, the method devised through and used in the studies can be used in a similar[263] way in practice. A sensory assessment by others should entail:

- Performing a sensory assessment independently of previously written knowledge or associated significance, e.g. before any historical/archival research; being the equivalent of a site assessment prior to any building design.
- The assessment to first assess the building for its general experience
- Next to assess the building per and for each sensory category, including 'design' issues like orientation and physical indoor climate. ('first' and 'next' forming the two-part assessment)
- A survey of the historic development of the building to be performed separately; values may overlap with the sensory.
- A technical (and structural) assessment to be performed separately; results from the sensory assessment will assist to decide on the experiential impact of any repairs, and the need for more or less historically authentic restorative solutions.
- Experiential and historic values both to be weighed against technical, societal and economical options.

[263] In practice, a sensory assessment may be carried out by one person, or a few people only.

The two-part assessment as performed is recommended; Part I has the benefit of being ‘generalist’ and therefore ‘all inclusive’; anything could be part of the retrieved data. Part II intensifies the effort regarding the ‘known’, or ‘acknowledged’, senses individually, so will generate more sensory category-specific data.

The method can easily be applied to another situation.

The format can easily be adjusted to incorporate a deeper understanding of orientational perception in buildings.

The sensory assessment is an ‘easy’ instrument, because participants enjoyed themselves, and other people’s observations can be interesting and fascinating to learn.

The research (strongly) believes employing this new approach (to the assessment of historic buildings) will be more important than the exact format of any building’s assessment.

7.8: Summary

This chapter has discussed a range of thoughts related to the sensory assessment of historic buildings, that came forward during the research process. The physical things and qualities people perceive are the things that should be conserved; therefore these must first be acknowledged.

What is missing appears to be the awareness that apart from building history, sensory experience should be acknowledged as a factor to focus on in building conservation planning and design. The research has established that sensory experience of a building can be assessed to gain a good, and arguably crucial, understanding of people's affinity to their (historic) built environment. This understanding can inform all aspects of the building conservation process. Other fields of architecture may equally benefit from knowledge acquired through sensory assessments of existing and historic buildings.

What matters of a historic building can only be established by actually physically being in that building. A recorded sensory assessment may assist to transfer this knowledge to others in the conservation process, along with the awareness that a lot of (associated) significance will not be (physically) affected by conservation actions.

CHAPTER 8: CONCLUSIONS AND FURTHER RESEARCH

8.1: Introduction

Designing and performing the four studies described in this thesis, attempting to understand people's sensory affinity to historic buildings, did not single out a list of 'things' that should be conserved. Rather it identified physical experiences people have when being in a building, which clearly stretch beyond the visual and also beyond what is normally covered by a current historic (or existing) building's assessment.

Where the current focus of assessments lies with intangible significances or technical challenges, sensory perception picks up those physical characteristics that are part of the architects' 'realm'. Therefore the research promotes a different approach to historic buildings, rather than the application of a strict format.

It is suggested a building should be assessed while people are using it, so the assessor can experience the sounds, smells, and occupation created by other people being present. (i.e. creaking floors, echoes and sound of footsteps must be induced by people.)

The sensory assessment assists to really understand the architecture of the building at hand, not as a 'grand design', but as a building for people.

This conclusions chapter will recapitulate the thesis aim, objectives and results. All understanding and underpinning of this information can be found elsewhere in the thesis. It is hoped this exciting extension of the historic building assessment can be disseminated and put into practice, and contribute to enjoying historic buildings in the future.

This chapter covers:

8.2: Answers to the research question

The research question: *'Physically and architecturally, what, of a historic building, evokes people's affinitive response?'* was set out in Chapter 1. The research incentive was to find what physical parts, or properties, of a building 'trigger' people's affinity, and consequently people's 'wish to keep'. Arguably a building is properly conserved when, after the conservation, the physical affinity is still present.

Referring back to the research intentions set out in section 1.3; *'Aiming to introduce a sensory and experiential component in conservation, the research will study'*, the research found:

(a) what this sensory component may be:

It has become clear that one cannot just point out building parts to be retained when aiming to conserve a historic building. Rather, a historic building has an atmosphere, which might be retained or consciously reconsidered. What can and should be retained is the experience and enjoyment of a building that was built in another time. Clearly many of the triggers that people respond to can be identified through the sensory assessment, notably:

> Contrasts (known from the literature and as established in the studies); the light spot by the window in the dark room; daylight versus artificial light; the warmth of an open fire, coming from the cold outside (it is visible, smells and feels); footsteps suddenly muted by carpets; a corridor opening unto a grand room.
>
> Orientational topics; a wide view so one feels (the) space; the stairs one cannot climb, the door that doesn't open; balustrades overlooking a hall; a maze of rooms; moving up or towards the light.
>
> General impact; the accumulation of detail and decoration, preventing focused attention on one aspect (which may be a matter of 'taste'); people's perceived affordances or comfort (e.g. a place 'asking for silence', or 'musty' smells).

(b) why it has not been a focus in conservation yet:

The literature review found that discourse has evolved to be considering the vast field of intangible heritage, and practice is predominantly occupied with technical challenges. Cultural significance, the topic of heritage, may explain a demand for traditional and historic architecture, but does not explain how to physically create or re-create a building carrying such significance. Building conservation design is yet to follow the current developments in the field of 'sensory design' within architecture.

(c) how to assess it:

The research has revealed substantial new information on people's experience of historic buildings, that has been acquired through performing a two-part sensory assessment (Study Four of this research). This assessment relates to the actual, physical building, regardless of personal or societal values and significances. As performed, it covers a wide range of perceptions, including ones that are not easily categorized. Study participants stated they perceive more when pointed to concentrate on individual sensory perceptions. Due to the guidance of a format, lots of data are gathered in a broad field. For each building anew, the two-part format should uncover potential sensory perceptions across the entire range of options.

(d) how it will help to improve the result of conservation efforts:

Rather than visual information only, rich sensory information will enlarge the understanding of any building at hand. The design and performance of the studies have shown that performing a building assessment with a sensory-focused mind-set is likely to have a substantial impact, whereby it may be noted that the impact of engaging a sensory approach in the first place, will be higher than the impact of using any specific format.

Decision-making will be (emotionally) easier when there is ample knowledge about the object to decide upon. Notably the sensory approach can assist in decisions concerning the use of original or authentic material. Also, the sensory format provides a method of communication between professionals from different fields.

The research can answer the questions above now it has achieved its Aim; namely to

> Demonstrate and critically explore the existence of sensory experience in historic buildings; and the relevance of using sensory perception to understand historic buildings.

8.3: Contribution to knowledge

The research reviewed development in the fields of historic building conservation as well as (architectural) sensory perception, and combined these two into sensory experience of historic buildings. Building conservation design is a section of architecture; if sensory design is a theme in architecture, it will be relevant to conservation architecture and building transformation. The connection between historic buildings and sensory perception until now has been missed in practice. The studies have demonstrated the actual existence of this connection, and both method and findings have implications to practice. This will be further explored in section 8.4.

Through field studies the research acquired an understanding of what this sensory component beholds. It has to be understood that the value of a historic building is more than formally assessed historic significance, and architectural conservation of the building will sustain and potentially increase this significance, whereas a conservation performed without adequate attention to the sensory experience may devaluate such significance along with the building.

Since a historic building is already present, it can be assessed, as is customary for any building site, prior to designing. And since it is a building, it can be approached as such. A sensory assessment turned out to be an excellent instrument to get to know and understand an existing building. Indeed, the studies showed the public can understand the sensory qualities of a building; therefore it is assumed any professional in a conservation process can get an understanding of the architectural qualities of the building through this process, prior to embarking on (sensory) design.

The literature on historic buildings (heritage and building conservation), which was studied to fulfil Objective 1:

> Review changing approaches to (building) conservation and current interest in historic and traditionalist architecture,

for a large part considered ‘cultural heritage’. ‘Built heritage’ appeared to have become not far from a ‘contradictio in terminis’, since the object of heritage discussion these days gradually gets detached from the physical[264]. Though ‘sense of place’-literature touches upon the personal side of the experience, it does not enquire after what physically is being responded to. Generally buildings are perceived as beholding a range of values, and listing texts incorporate all this significance, without addressing the feel of the building as a built entity that has its own

[264]The focus has changed to the intangible. Heritage this way becomes something constructed and immaterial; a metaphysical image conjured up to be connected to the site.

physical experiential value, regardless of its history. By performing a sensory assessment, the experiential value of historic architecture can claim its place as valuable factor in conservation for the future.

Until the 'invention' of 'heritage', when historic buildings effectively became considered as artefacts, occasional buildings would get symbolic or monumental value associated and be treated according to the old customary practice of make-do-and-mend. Though society still benefits from the restoration works of for example (most notable in this category) Viollet-le-Duc, 'restoration' of buildings appears to have become 'not-done'. More than ever before, society is declaring monuments and assigning listings, but this should not imply all buildings have to be treated in the same way. Understanding a specific building, and its various values, is a necessary foundation for understanding the options for its conservation.

Along with the societal movement, currently, in recession times, there is general nostalgia, creating a market for new-traditionalist architecture. Even when built in traditional style, a new building will not carry historic value. But once aware of the experience of a (type of) historic building, the design can aim to recreate the sensory experience.

The literature on sensory perception, studied to fulfill Objective 2:

> Explore sensory perception and sensory design, in relation to the experience of (historic) buildings.

aimed to find a system of senses to use as a format for assessment. This was developed through the studies. Starting from the Aristotelian 'five senses', this resulted in merging the olfactory and gustatory sensory modi, and adding a sense of orientation. This is in line with a 'basic orienting system' (found with Gibson, in Malnar and Vodvarka 2004) but does not acknowledge 'kinaesthetic' (Malnar and Vodvarka 2004) or 'skeleton and muscle' (Pallasmaa 2006) modi, since these are deemed to focus on the perceiving person, therefore irrelevant to the general experience of a building outside this person. The practice of performing assessments in the Studies has shown how strong perceptions will appear in the data regardless of having a 'category' to fit in just as well, provided the assessment method includes some general topics of inquiry.

People retrieve information about their surroundings through sensory perception. Having no intention to explain this on a neuroscientific level, the research focused on what generates response, not how this happens. Literature on adjusting the built environment to physically and sensory impaired people, though a different topic, is initially looking for a similar recording and assessing of sensory experience.

The application of sensory perception to the assessment of historic buildings is a novel combination, which is easily performed and acquiring a wealth of information. It shows the sensory does not only apply to new architectural design, but to the assessment of what was previously built (by people) just as well.

Regarding Objective 3:

> Develop a critical framework to support understanding of (the existence of) sensory experience in historic buildings (through studies).

the research established that, when aiming for a complete understanding of a building's architectural contribution, it is crucial for such assessment to be performed

> on-site, being the only place where the complete and entire experience can be provided, by physically establishing the interface between human and space[265].
>
> consciously focused on the assessor's sensory experience, to retrieve a complete assessment, and
>
> structured in two parts, alternating and covering both the general, though complete, multisensory experience and the individual single-sensory perceptions.

Consecutive studies assisted in developing the best approach to the assessment: Study One helped define that the focus should be on the experience, rather than the options for 'treatment', of historic fabric. Study Two established the success of retrieving sensory perception- data, and tried three different approaches, whereof the general assessment (Part 1; natural, subconscious sensory perception) and the focused on each separate sensory category-assessment (Part 2; conscious, specific sensory perception) together appeared a good way to cover a width of potential perceptions. Thereafter Study Three was about fine-tuning and piloting the survey, including awareness of spatial orientation, and Study Four the opportunity to assess three different buildings, thereby acquiring a robust body of data. The sensory assessment assists to thoroughly understand the architecture of the building at hand, not as a 'grand design' carrying 'cultural significance', but as a building for people.

[265] This interface is where and when people can sense the size of a space (relative to themselves), sense where to go, sense where the light comes from, sense draughts or rays of sun, smell, find a window to open etc..

This research makes a specific contribution to knowledge in a number of different ways; these concern both the method applied and the results of the study:

The gap in knowledge established through the literature review, has been addressed by studying the combination of historic buildings and sentient perceivers in live situations. As a result of this literature review, combined with initial study results, the method of enquiry has an entirely different focus, is two part to enhance total coverage, and includes Gibson's orientational perception in its system of senses. The research advocates an assessment with a primary focus on experienced architecture rather than (architectural) history.

The studies performed have shown that indeed a building's sensory experience is recognized and confirmed by people once directed to such architectural and experiential values, affecting their comfort and appreciation. The research has demonstrated that substantial information about the experiential qualities of a historic building can be acquired through a sensory assessment.

8.4: Implications in practice

Through the studies, respondents have shown affinity to the built fabric. They have enjoyed themselves within the surveyed buildings, without being informed of any of its historic values. They have responded with perceptions generated by using the range of their senses. The assumption that people's appreciation of a building sits in the sensory experience of the fabric thus appears to be justified.

The symbolic (associated) metaphysical significance should never be the primary focus of a conservation assessment, because this is not what will be physically dealt with. It is important that decision makers within heritage and conservation practice are aware of this difference.

The methodology as described in the studies for this research, can easily be used by others in different buildings or situations. By incorporating the Gibsonian system of senses, extended with a 'multisensory' category, this method of assessment will be both structured and comprehensive. Based on the studies performed, the research would recommend the following regarding the sensory assessment of a historic building:

> Perform a multisensory assessment,
>
> Next, perform an assessment 'per individual sense'.
>
> Take enough time to experience a space, but not time to dwell on every detail.
>
> For a complete assignment, make sure to cover all senses; even an associated taste can (be a useful attempt to) record an actual impression.
>
> Give special focus on the non-visual perceptions; since these can only be 'taken away for use' when somehow recorded on site.
>
> Focus on the building at hand: keep other ideas (e.g. for new design and development) separate; record them separately if need be, and return to the sensory assessment.
>
> Non-architects are well able to perform an assessment, suggesting that involving a client will provide depth to and may improve communication with the client.
>
> The sensory assessment is easily disseminated and easily followed, and could easily be adapted to another sensory scheme.

A building's 'aesthetics' and 'the sensory' as mentioned e.g. in the ICOMOS Burra Charter (see chapter 2) can now be related to actual architectural qualities and elements, clarifying options for their conservation, without imposing unnecessary protective restrictions. In practice potential adaptations and transformations can be better defined and better understood

by all parties involved in decision processes, once a sensory assessment has clearly established what actually should be conserved.

It must be reiterated that adopting a sensory approach, in the first place, will deliver the greater impact to a conservation, when compared to using a specific method, e.g. the one developed in this research. It is however important for any assessment to be comprehensive, with regard to the sensory categories included, and for each new building to be individually addressed.

Mostly, getting familiar with this redirected view on historic building's value will set clearer boundaries, which in their turn will create greater freedom in future approaches of the building. Thus enlarging options for future use and the opportunity for buildings to exist as a relevant and therefore valuable entity in society.

8.5: Limitations and inhibitions of the research

This research was initiated and performed by the author, who was trained as an architect. More precise, educated as an architectural engineer in the 'restoration' tradition of Viollet-le-Duc. Though aware that conscious sensory awareness does not come naturally to all, the thesis is written from a closely associated point of view, originally fed by architectural publications whereof a small part only would qualify as scientific literature.

The heritage discourse is not part of (practical) architecture, and reviewing it as an architect has shown this heritage discourse has been developing disconnected from actual buildings or notions of their physical future. Both 'listing' of historic buildings and technical conservation, focusing on rarity and specialty, are hardly recognising the physical experience of a building as a vital quality in itself. Hence a factor in the decision process may be overlooked.

The research has been focused on the western world, and sensory perception has been approached from a western perspective. Though it may be assumed human sensory perceptions are not culturally defined, familiarity with the Aristotelian sensory categories may be missing and the same questionnaire may not be applicable elsewhere.

Some limitations applied to the studies performed. For all studies, the vocal instructions on site, prior to the study, were expressed to a group of people just huddled together. Because the 'fresh' look upon a building was important, there could not be too much organisation. Some participants, specifically starting Study Four appeared somewhat confused as to what was expected from them. Since Study Four covered three buildings, there was a tendency among participants to regard building 1 as a trial, building 2 as a main and building 3 for a here-we-go-again.

The realisation that associated 'taste' can be a good way to communicate atmosphere (in practice; between client and architect) only surfaced after finishing the studies; to study this aspect, the Study Two question[266] might be better suited than the one in Study Four[267].

Ideally people would have found their own order of visiting various rooms. Due to the limitations of a survey on paper, the questions in the survey were printed in order and participants tended to follow this. Occasionally participants changed the order, to be able to visit a room were not 'everyone else' had already collected. But insight in their spontaneous navigations could not be collected. On the other hand, all but a few participants chose a room

[266] N20: What might this room taste like, if it could?

[267] Q27: Do you get any sensation of taste in this room?

they liked to process their Part 2 exercise. Mostly people would opt for a room having a facility to sit down, to be relaxed, so to better accommodate their perceptive powers.

Since the sensory category of 'orientational perception' has been developing throughout the research, the assessment questions addressing orientation might be redesigned as per recommendations set out in section §7.3[268].

The groups of participants where quite homogenous within themselves. Due to the variety of data recovered, it may be assumed that even though from a group of peers, these participants were individual in their perceptions. For Study Four, these were potential visitors to the museums, so members of the public that both the Provost Ross's and Art Gallery buildings function for. Typically in Study Two, clearly some participants were not accustomed to the type of luxury hotel and through the data appeared to feel somewhat uncomfortable.

Unfortunately, the 'Provost Skene's House' (1545), Aberdeen's best and completely preserved medieval building, was closed and inaccessible at the time of the studies. Compared to Provost Ross's House, it would have been a more complete experience, providing an original entrance and narrow traffic spaces.

The sensory assessment has not been tried and tested in an actual conservation project (practice) situation yet. This would bring valuable additional information once the actual conservation plan was drawn and even more if the building could be re-assessed once refurbished.

Any 'regular' occupants of the buildings have not been interviewed. Though not tested and confirmed, it is suggested their involved and accustomed attitude towards the building would colour their personal interpretations, but not necessarily change what they physically perceive. The intention of the research has always been to explain buildings, not people.

A clear strength of the used method is that a sensory survey is easy to perform, and will work regardless of the specific 'scheme of senses' being applied. Hence the research results are independent of the on-going discourse defining an actual set of human senses. Any sensory generated data will enlarge the understanding of any (historic) building. In future, the simple survey framework can easily be adjusted to new insights.

[268] Questions on orientation to include:
What assists your orientation and situation in this space?
What defines your comfort within this space?

8.6: Emerging themes

Awareness of the sensory assessment can assist listing of and legislation on historic buildings. Focus on the sensory perception of historic buildings will influence the following: historic architecture, when allowing for better informed (arguably more appropriate) conservation actions; new-traditionalist architecture, where the 'genuinely traditional' experience of built products may be improved; architecture in general, since the sensory assessment increases opportunities to learn from examples built before, by better understanding how these 'work'.

The thesis assumes an appreciation of the physical building, not knowing whether this is appreciation for the actual physical building or for a projection of the metaphysical (significant) building onto whatever carrier. Clarification of this question would imply cognitive research into the people perceiving these buildings.

The research has identified a correlation between 'orientational perception' and 'sense of place', that might be researched further, starting from the assumption that sense of place has a cognitive as well as a physical component.

Since the research theory applies to a stage 'before physical action' it is not concerned with current threats to the historic environment from climate or war. Obviously a previous assessment including sensory experience will eventually add to the information needed for rebuilding following disaster. Arguably if (in an ideal world) general appreciation for physical heritage would focus on sensory experience rather than cultural significance, the need to target and demolish buildings for their associated representations may diminish.

8.7: The end

In conclusion this research has established that people's affinity to their built environment is initiated by a response through the senses. Consequently it claims a place for the sensory assessment, as described in this thesis and performed in this research, as a useful, informative and exciting addition to any architectural survey in building conservation practice. The sensory approach will enhance understanding of the physical characteristics of the building that deliver people's experience of it.

In the sensory assessment the research has found a way to discuss, structure, show, communicate and disseminate the issue it considered 'important and overlooked' at its onset. The sensory approach, applied through performance of a sensory assessment, has true potential to assist the building conservation process to be delivered as participation in (rather than preservation for) the future.

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List of Appendices:

Appendix 1: Listing categories (English Heritage).

Buildings are assigned to one of three categories according to their relative importance. All listed buildings receive equal legal protection, and protection applies equally to the interior and exterior of all listed buildings regardless of category.

Category A

Buildings of national or international importance, either architectural or historic, or fine little-altered examples of some particular period, style or building type. (Approximately 8% of the total).

Category B

Buildings of regional or more than local importance, or major examples of some particular period, style or building type which may have been altered. (Approximately 51% of the total).

Category C(S)

Buildings of local importance, lesser examples of any period, style, or building type, as originally constructed or moderately altered; and simple traditional buildings which group well with others in categories A and B. (Approximately 41% of the total)

Two additional categories existed until recently, Category C (non – statutory) and B for Group (statutory). These have now been phased out entirely.

[at] http://www.historic-scotland.gov.uk/index/heritage/historicandlistedbuildings/listing.htm

[Accessed 11 February 2011]

Appendix 2: from the ICOMOS 1994 Nara document on Authenticity.

[online] www.icomos.org/en/

THE NARA DOCUMENT ON AUTHENTICITY (1994) Nara, Japan

'VALUES AND AUTHENTICITY

9. *Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity.*

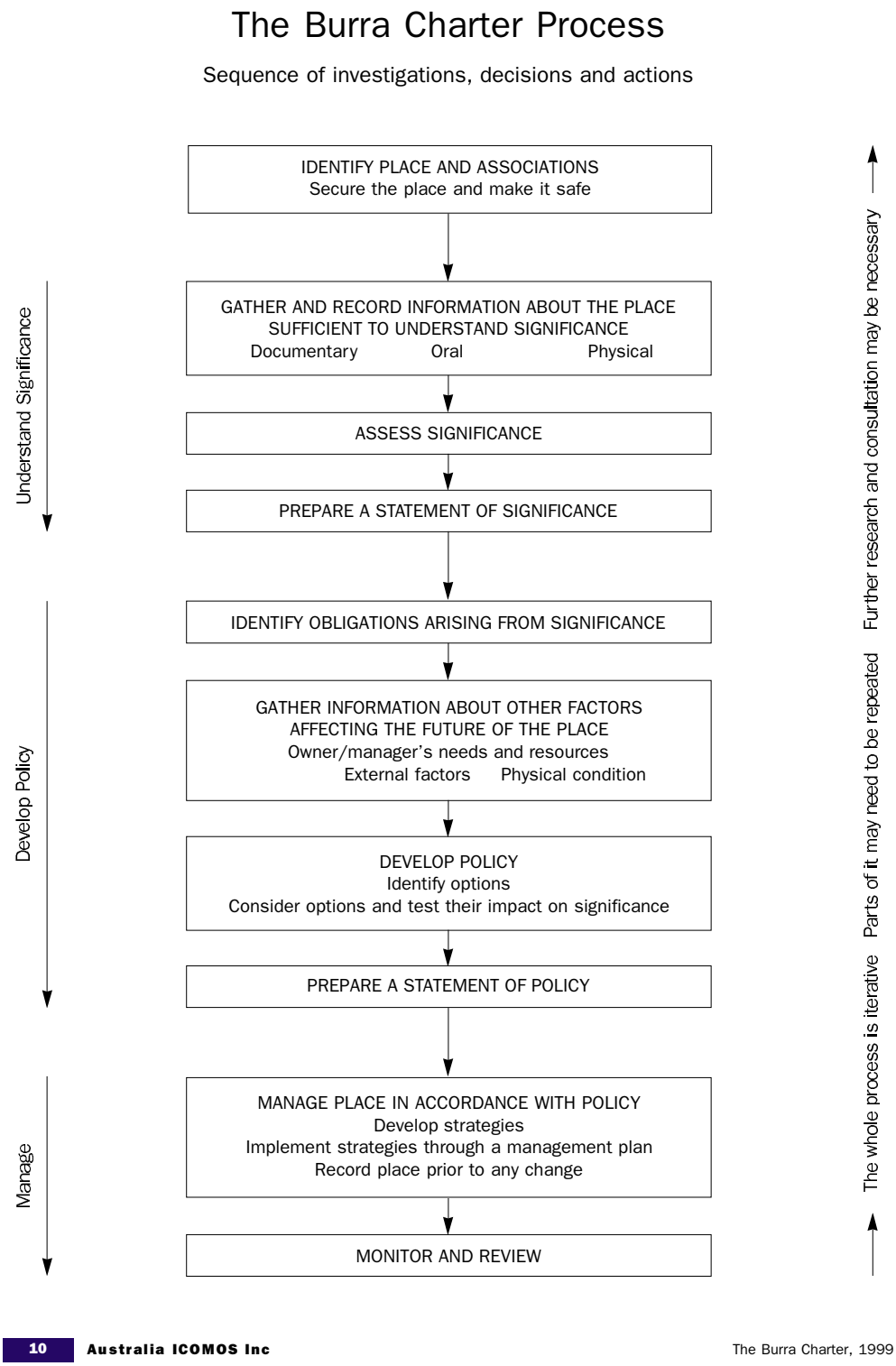
10. *Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.*

11. *All judgments about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgments of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.*

12.*Therefore, it is of the highest importance and urgency that, within each culture, recognition be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources.*

13.*Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgments may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.'*

Appendix 3: from the ICOMOS 1999 Burra Charter on Cultural Significance.



[online] www.australia.icomos.org

Appendix 4: from the ICOMOS 1999b Charter on the built vernacular heritage, Mexico

[online] www.icomos.org/en/

CHARTER ON THE BUILT VERNACULAR HERITAGE (1999)

Introduction: *'It [the built vernacular heritage] is utilitarian and at the same time possesses interest and beauty. It is a focus of contemporary life and at the same time a record of the history of society.'*

In this 'built vernacular heritage' text, both 'utilitarian' and 'contemporary life' are mentioned. Why are these only found in, or considered applicable to 'vernacular' heritage?

Principles of conservation: *'5. The vernacular embraces not only the physical form and fabric of buildings, structures and spaces, but the ways in which they are used and understood, and the traditions and the intangible associations which attach to them.'*

Clearly the above does not mention anything experiential.

GUIDELINES IN PRACTICE

'4. Replacement of materials and parts

Alterations which legitimately respond to the demands of contemporary use should be effected by the introduction of materials which maintain a consistency of expression, appearance, texture and form throughout the structure and a consistency of building materials.'

'6. Changes and period restoration

Changes over time should be appreciated and understood as important aspects of vernacular architecture. Conformity of all parts of a building to a single period, will not normally be the goal of work on vernacular structures.'

With 'expression' mentioned under 4 above, and 'changes over time' in 6, the ICOMOS approach to the built vernacular appears to indeed recognize qualities which are omitted from built heritage charters.

Appendix 5: from the Principles for the analysis, conservation and structural restoration of architectural heritage' (ICOMOS 2003) Victoria Falls, Zimbabwe.

[online] www.icomos.org/en/

ICOMOS CHARTER- PRINCIPLES FOR THE ANALYSIS, CONSERVATION AND STRUCTURAL RESTORATION OF ARCHITECTURAL HERITAGE (2003) Victoria Falls, Zimbabwe

Cultural heritage still considered as built heritage, though may have intangible qualities.

Reasons for recording:

'2. Recording should be undertaken to an appropriate level of detail in order to: a) Provide information for the process of identification, understanding, interpretation and presentation of the heritage, and to promote the involvement of the public;'

Planning for recording: To start: '*Search out all existing records available*.'

Appendix 6: from the Québec declaration on the preservation of the Spirit of Place.

[online] www.icomos.org/en/

QUÉBEC DECLARATION ON THE PRESERVATION OF THE SPIRIT OF PLACE (2008) Québec

Following the 2003 Kimberly Declaration on intangible values and 2005 Xi'an Declaration on context.

Preamble:

'Spirit of place is defined as the tangible (buildings, sites, landscapes, routes, objects) and the intangible elements (memories, narratives, written documents, rituals, festivals, traditional knowledge, values, textures, colors, odors, etc.), that is to ***say the physical and the spiritual elements that give meaning, value, emotion and mystery to place.'***

'This more dynamic approach is also better adapted to today's globalized world, which is characterized by transnational population movements, relocated populations, increased intercultural contacts, pluralistic societies, and multiple attachments to place.'

[1] *Rethinking the spirit of place:' 3. Since the spirit of place is a continuously reconstructed process, which responds to the needs for change and continuity of communities, we uphold that it can vary in time and from one culture to another according to their practices of memory, and that a place can have several spirits and be shared by different groups.' (ICOMOS Québec 2008)*

Appendix 7: Study One assessment

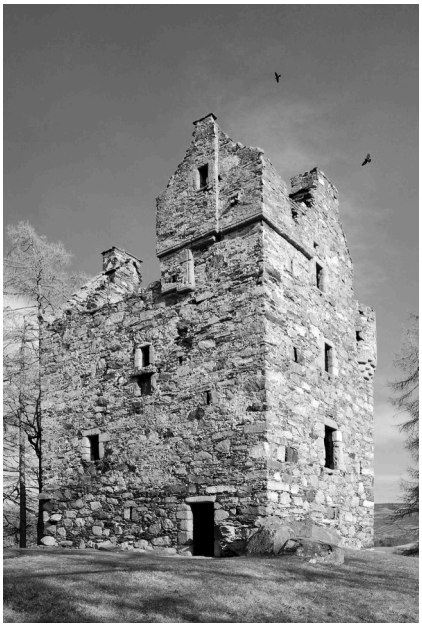
1st March 2011

Dear participant,

Please find attached two questionnaires. These intend to provide me with data for my PhD research at RGU-SSS (provisionally) titled:

HISTORIC BODY AND SOUL; A FOUNDATION FOR CONTINUOUS BUILDING CONSERVATION.

In these questionnaires, as in my research, I seek to define what actual, intrinsic built fabric and architectural elements make up the significant entity. This significant entity should be clarified since it is what all 'heritage' values are being assigned to. Therefore it is a basis for any prospective development.



You should do this task on site, since here is where you can experience and assess the building, allowing you to decide on it.

Please regard the ruin as a deteriorated building; obvious notions of nostalgia are irrelevant to this research.

Keep in mind peel towers like these are not terribly unique. This peel tower is one of many, and a good few of these are well conserved.

Please respond stating your personal feelings and opinions, unrestricted by building or heritage regulations or commonly accepted views; there is no right or wrong, just honest answers.

Questionnaire 1 is about first impression and initial reaction.

Questionnaire 2 looks for judgement based on more informed knowledge.

Please mark all your sheets with the same initials or icon, just so I can keep them together.

Thank you; your effort is much appreciated.

Sylvian Braat
s.a.i.braat@rgu.ac.uk

Questionnaire 1: Upon arrival on site

Give a few keywords describing your first impression of Knock Castle ruins.

*

*

*

Name 3 typical qualities of the building you are looking at.

*

*

The essential quality of any building is a compilation of essential architectural elements (built elements as well as created spaces).

Name 3-5 built elements that therefore must be kept.

*

*

*

*

During your survey, look for any oddities and incongruencies; they may contain clues about building history.

Did you already notice anything peculiar?

Questionnaire 1: Upon arrival on site

Draw a quick cartoon of the building as it is. Acknowledge and emphasise outstanding characteristics and typical elements of interest.

Questionnaire 2: End of/after site visit

Name 3 typical qualities of this building, which cannot be changed without essentially changing the building's (not the ruin's) character.

*

*

*

How would you describe the SOUL of this building?

What have you found that you might someday use in your own architecture? (surveyors: just assume you'll have a chance to create a building one day :-)

Questionnaire 2: End of/after site visit

Name up to 4 built elements you personally feel should be conserved:

1.

2.

3.

4.

For each of the above: is this element:

1. essential / non-essential, to architecture &/ history, local / general

2. essential / non-essential, to architecture &/ history, local / general

3. essential / non-essential, to architecture &/ history, local / general

4. essential / non-essential, to architecture &/ history, local / general

For each of the above: is this a solitary aspect, or one depending on another presence?

1. solitary / depending on:

2. solitary / depending on:

3. solitary / depending on:

4. solitary / depending on:

Questionnaire 2: End of/after site visit

Draw a quick cartoon of the building that was. Which parts are essential to your notion of this building as a towerhouse?

Questionnaire 2: End of/after site visit

Given the fact this towerhouse, 'Knock Castle', will not be demolished, please briefly comment on the following questions:

a. Should Knock Castle be fully historically and traditionally restored? Why?

b. When adapting to new use, what would you recommend to keep a towerhouse atmosphere within a contemporary interior?

d. Imagine the tower is taken apart, then rebuilt using the same stones on this same site. What, of physical value, would I have lost (if anything)?

e.1 Imagine the tower is taken apart, then rebuilt using the same stones on this same site. You do a site visit 250 years from now. What might your initial uninformed reaction be?

e.2 Once informed, would you respond differently?

Please return your finished questionnaire to Sylvian today.
Thanks again for your time and effort!

Appendix 8: Study Two assessment

17th October 2011

NORWOOD HALL

Norwood Hall Hotel, Garthdee Road, Cults, Aberdeen

Dear participant,

Please find a questionnaire attached, which intends to provide me with valuable data for my PhD research at RGU-SSS, work-titled as:

HISTORIC BODY AND SOUL; A FOUNDATION FOR CONTINUOUS BUILDING CONSERVATION.

This questionnaire is enquiring after your sensitive perceptions of this building; this can only be recorded during your on-site experience.

Please respond stating your <u>personal</u> feelings and opinions, unrestricted by heritage regulations or commonly accepted views; there is no right or wrong, just honest answers.

<u>Please mark</u> all your sheets with the same name/initials, just so I can keep them together. Your name will <u>not</u> appear in any research outcome or report.

Thank you,

Sylvian Braat

s.a.i.braat@rgu.ac.uk

NORWOOD HALL – PERCEPTION QUESTIONNAIRE

Please fill out your answers as best you can. Try to use descriptive terminology [grand/festive/musty] rather than nice/awful.

This Questionnaire has 3 parts:
Part 1 and 2 to be filled out on site, part 3 to be finished during next week, after some consideration.

You should hand in your completed Part 3 next Monday 24th October, during your Research Methods class.

PLEASE FILL OUT FOR STATISTICS:

Age: 20-24 / 25-30 / 30-35 / 35+ **Gender:** M / F

Is this your first visit to Norwood Hall? yes / no

If yes, how often have you been here before?

once / 2-5 times / 6-10 times / more

How would you rate your personal interest in Historic Buildings?

very high / high / regular / moderate / little / none / aversion

Part 1: **GENERAL QUESTIONS**

Welcome to Norwood Hall Hotel! The Hotel Staff have been very kind to allow us access to their building. This is a quiet time, but please do not disturb any hotel guests.

You are requested to visit the following rooms, and these only.

The Lobby
The Great Hall & Staircase
The Library (front right)
The Bar (rear right)
The Restaurant (rear left) (only if there are no guests here)

Please spend no more than 5 minutes in each area.

LOBBY
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room:

Please mention anything you find to be especially remarkable:

GREAT HALL & STAIRCASE
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room:

Please mention anything you find to be especially remarkable:

LIBRARY
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room:

Please mention anything you find to be especially remarkable:

BAR
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room:

Please mention anything you find to be especially remarkable:

RESTAURANT
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room:

Please mention anything you find to be especially remarkable:

Part 2: **SENSITIVE PERCEPTION**
Pause in one of the rooms/spaces you have just visited. Focus all your senses; close your eyes if you feel your sight disturbs other signals.
[Take approximately 10 minutes for this part.]

GENERAL: What can you feel/sense, when you close your eyes?

HEARING: What can you hear?

TOUCH: What would you be inclined to touch in this room?

SIGHT: What makes a visual impression/ has visual impact on you?

TASTE: What might this room taste like if it could?

SMELL: What smell can you associate with the room's atmosphere?

Appendix 9: Study Two – Part 3: Re-creation assignment results

Part 3: **RE-CREATION**

Homework Short Assignment for Year 5 'Research Methods'

Due date: Monday 24th October 2011

Hand in to Sylvian Braat or Richard Laing

What: 1 A4, text and/or sketches.

BRIEF:

Your client has asked you to create a room with the exact same atmosphere as identified in the room you assessed at Norwood Hall, during Part 2 of your Questionnaire.

Recall how you have assessed the general feel of the room, the sounds, the touch, the taste, the smell and its visual impression and appeal.

ASSIGNMENT:

Explain on paper how you could design this room. It should not be a replica, it may be anything, up to totally contemporary. What elements would you use, what material characteristics, what amount of detail, etc. Obviously you may add sketches. What elements would vitally and essentially need to be incorporated?

Though handing in some work is required, you will not be marked on this.

Please spend your time on thinking rather than presentation. However I am looking forward to receive a quick report on your thoughts and ideas on creating an environment having this specific feel. It will be most helpful to my research.

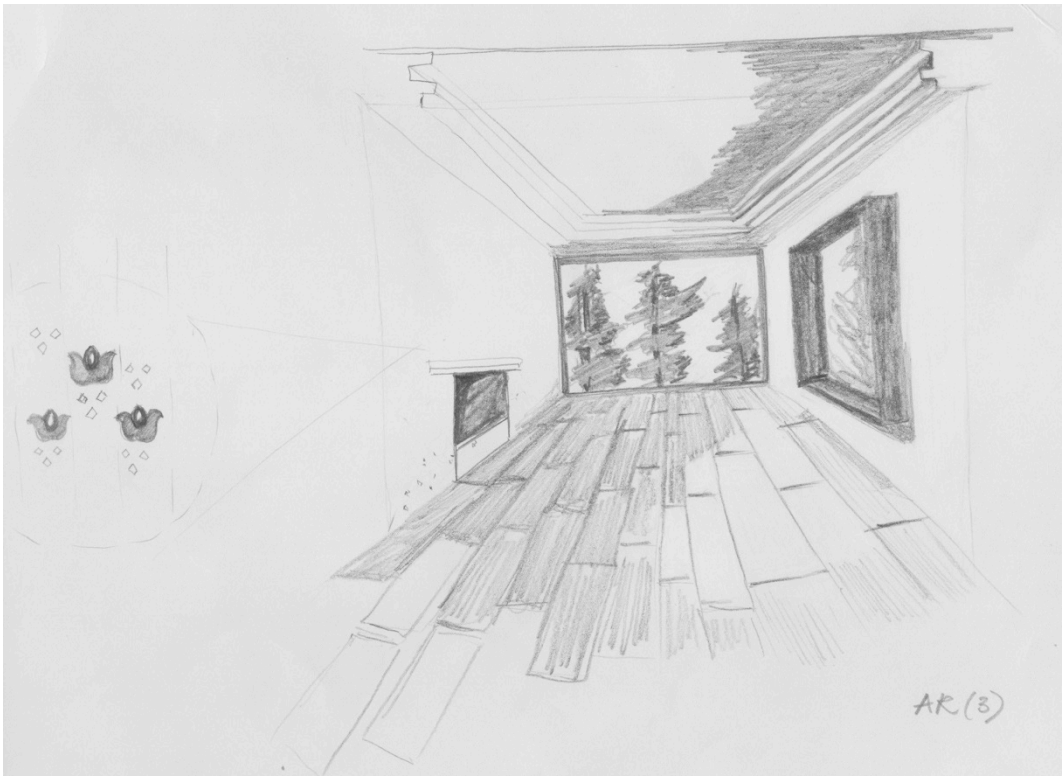
Your time and effort is greatly appreciated!

Thank you,

Sylvian Braat

AR (3)

The room I would design would be a kitchen. The sketch shows views to the top of trees making the room located high up on treetops, so you feel closer with nature. A south facing window would feature in the room with glazed tracery to allow diffused light into the room. All the noise would be concentrated at the other end of the kitchen. A very modest, but modern fireplace is located where the dining room table would go, in the middle of the room. The ceiling is staggered to create a modern feature lighting, that runs the depth and along the width of the room. It derives from a classical design style, but with a modern use for a lighting system. I have also added a detail sketch of fabric backed wallpaper with a textured pattern.

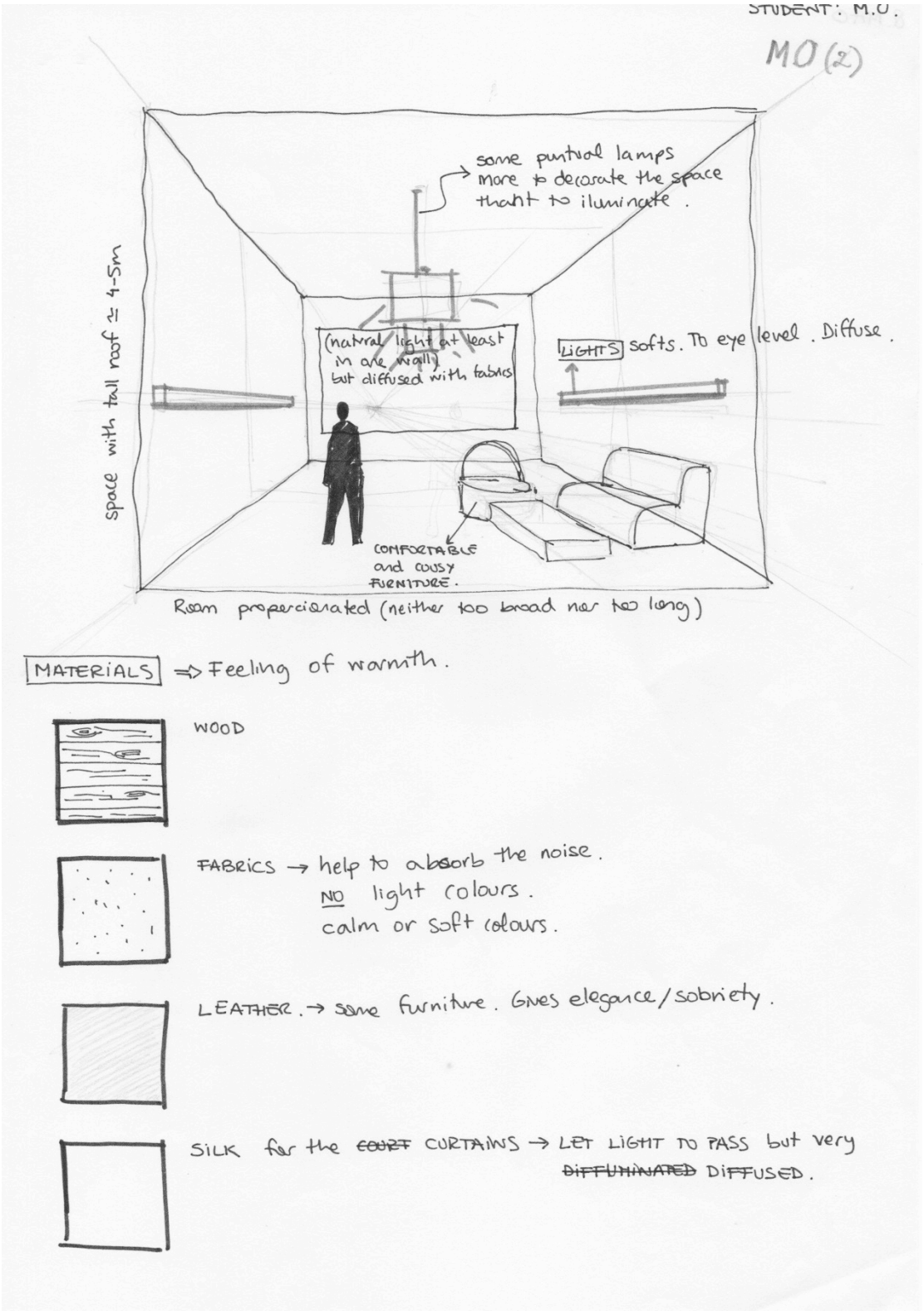


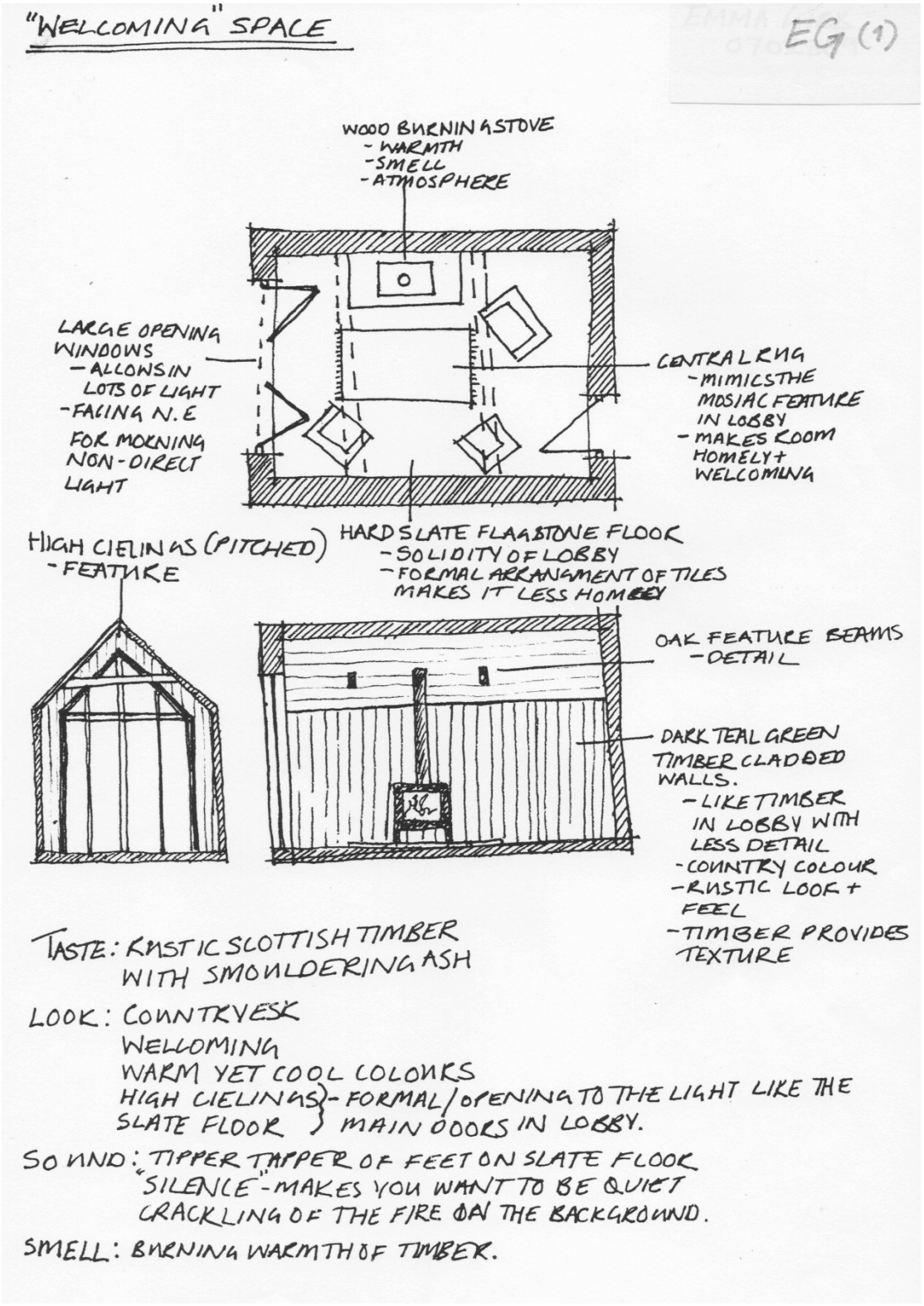
DP(3) DP

For part two of the assignment I choose to assess the lobby with the grand staircase. I recall the room was ornate and full of detail. The colour scheme was that of rich, warm colours, complemented by the dark carved wood and comfortable furniture. There room felt full, with so much detail there was something to catch the eye, no matter where you looked. The room was imposing, however not overwhelming.

I recall the sounds of staff and guest alike chatting happily as they walked through the room and the sounds of the phone ringing where the receptionist eagerly answered. I heard the warm fire crackling as a member of staff stoked the fire and added more kingling. The room smelled and tasted of fire wood and ash.

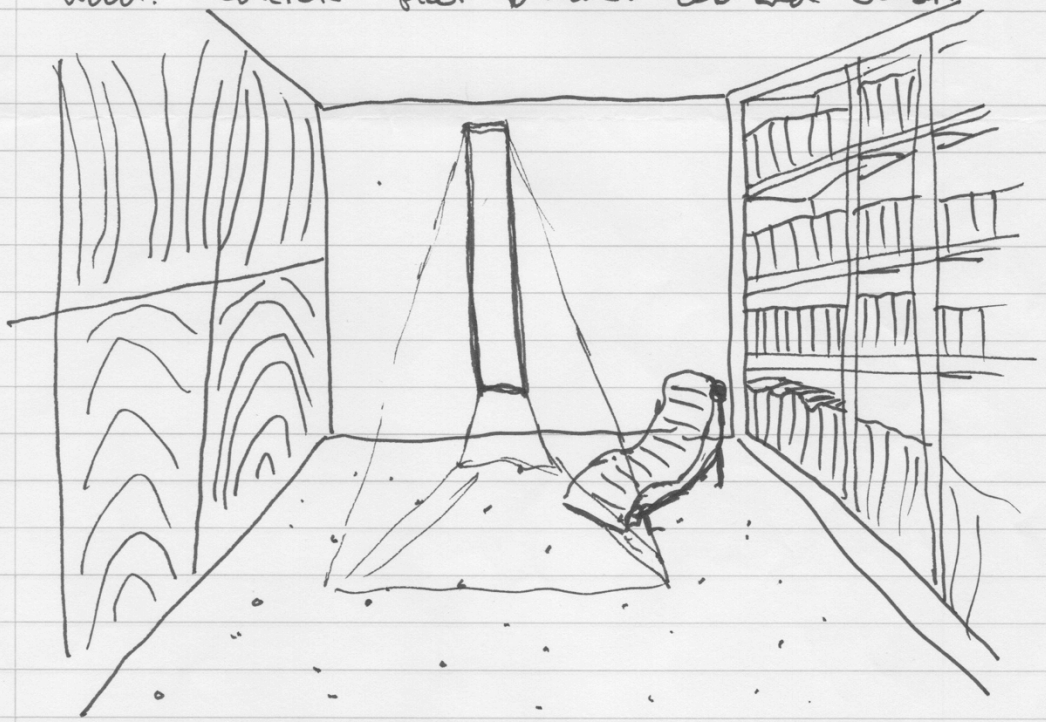
For part three of the assignment I will attempt to create a possible design for a room with the same atmosphere. The room will have a glass, angled staricase, which will create an imposing yet not overwhelming statement. The staircase will lead to a mezzanine floor. Behind the staircase there will be a corner stained glass window. This will create warm colours and continue the imposing nature of the atmosphere. There will be a large open fire in the room creating the feeling of warmth and will produce the smell of the wood and ash. There will be a large window in the room from which you can see the stark conditions outside as opposed to inside. This will make the room feel warmer in comparision. There will be pleanty of comfortabe seating as well as a large fur rug over a tiled floor. Again this will emphasis the warmth and the cold feelings one associates with these objects. I will use colourful textured, ornate modern wall paper to bring in the sence of fullness and detail, no matter where you look. This room may be part of a home where people fill the room with pleasant conversation.


STUDENT: M.U.
MO (2)
some puntual lamps more to decorate the space than to iluminate.
space with tall roof ≃ 4-5m
(natural light at least in one wall) but diffused with fabrics
LIGHTS softs. To eye level. Diffuse.
COMFORTABLE and cousy FURNITURE.
Room propercionated (neither too broad nor too long)
MATERIALS ⇒ Feeling of warmth.
WOOD
FABRICS → help to absorb the noise.
NO light colours.
calm or soft colours.
LEATHER. → some furniture. Gives elegance/sobriety.
SILK for the ~~COURT~~ CURTAINS → LET LIGHT TO PASS but very ~~DIFFUMINATED~~ DIFFUSED.


"WELCOMING" SPACE
EG (1)
WOOD BURNING STOVE
- WARMTH
- SMELL
- ATMOSPHERE
LARGE OPENING WINDOWS
- ALLOWS IN LOTS OF LIGHT
- FACING N.E
FOR MORNING NON-DIRECT LIGHT
CENTRAL RUG
- MIMICS THE MOSIAC FEATURE IN LOBBY
- MAKES ROOM HOMELY + WELCOMING
HIGH CIELINGS (PITCHED)
- FEATURE
HARD SLATE FLAGSTONE FLOOR
- SOLIDITY OF LOBBY
- FORMAL ARRANGMENT OF TILES MAKES IT LESS HOMEY
OAK FEATURE BEAMS
- DETAIL
DARK TEAL GREEN TIMBER CLADDED WALLS.
- LIKE TIMBER IN LOBBY WITH LESS DETAIL
- COUNTRY COLOUR
- RUSTIC LOOK + FEEL
- TIMBER PROVIDES TEXTURE
TASTE: RUSTIC SCOTTISH TIMBER WITH SMOULDERING ASH
LOOK: COUNTRYESK
WELCOMING
WARM YET COOL COLOURS
HIGH CIELINGS } - FORMAL / OPENING TO THE LIGHT LIKE THE SLATE FLOOR } MAIN DOORS IN LOBBY.
SOUND: TIPPER TAPPER OF FEET ON SLATE FLOOR
"SILENCE" - MAKES YOU WANT TO BE QUIET
CRACKLING OF THE FIRE IN THE BACKGROUND.
SMELL: BURNING WARMTH OF TIMBER.

AAx (1)

To recreate the feel of the room in Norwood Hall in a contemporary way I would recreate the smell and quality of the hall. The space would be large in size with good floor to ceiling height. It would be dark to create drama on textured sustenacy. The smell would be recreated with old books and the rich smell of wood. The walls could be simple wood panelling in rich dark colours that speak of quality. The whole room must speak of quality with its furniture, with leather and dark wood. Concrete floor to make it cold and sombre.



TY (3)

NORWOOD HALL HOTEL

One enters the room through a door, which is in perfect proportion to the room with highly crafted engravings, and recently polished brass handles, which were glistering in the early evening light. The room has a feeling on grandness, with high ceilings giving an atmosphere of spaciousness. There was a cool but comfortable climate to the room, from a visual perspective although there was a large ornate fireplace in the room, the ashes in the hearth signified that there was no longer the need for additional heat. There was that evocative aroma of wood smoke, which brings back fond memories of childhood christmas of putting a mince pie and carrot for santa by the fireplace. The decor chosen portrayed a formal but inviting aspect to the room in particular the use of beautifully detailed velvet curtains, which contributed to the grandness, as well as having a practical use of retaining the heat of the fire during the evening. When you first enter the room, your eye is immediately drawn to one of the most pleasing aspects of the room, this being a large stain glass window, being reminiscent of a window found over the alter in a church. The window had a timber surround which complemented the cool crisp granite of the wall. Although the window is a fragment from the buildings previous use, the composition of furniture and decor gave the room a contemporary feel.

The room had a welcoming feel which made you want to linger and explore the room for all it's detail, and escape from the realities of life.

Given all of the above I would want to incorporate into my design spaciousness, aesthetically pleasing elements, sensually features, such as visual enhancements and an atmosphere in which the client could feel at home and relax.

LJ (2)

Part 3: Re-Creation

Creating an environment, with the specific feel of Norwood Hall bar:

Material characteristics:	- use rich, grand materials which look expensive - lots of different materials which work together
Amount of detail:	- very detailed and extravagant furnishings, materials
Natural daylighting:	- large windows - deep rooms to create the feel of natural daylighting in one area of the room, with the rest being fairly dark
Artificial daylighting:	- low lighting creating a dark atmospheric room
Furnishings:	- warm, cosy, comfy, soft chairs, sofas - lots of tables
Smell:	- food cooking - alcohol scent
Visual impression:	- grand – create using a wide variety of furnishings and materials to give an impression of wealth - relaxing – create with the choice of seating
Appeal:	- comfort, therefore ensure that the furnishings are comfortable and relaxing
Touch:	- soft eg. curtains
Sounds:	- staff / customers talking

SP(2)

Part3: Re-Creation

When designing a room for Norwood Hall there are certain features that would need to be incorporated.

There would have to be a fireplace to give that same feeling of warmth, smell, taste and focal point to the room. It makes the space feel cosy and draws people around it.

The ceilings would be high and I would also use dark wood similar to what is there with some form of carving. Instead of having fastidious wallpaper which is common throughout the hall I would either use plain dark red wallpaper or paint the walls dark red. This way the focus is on the detailing of the woodwork and furniture which would no doubt be much more intricate. The wood gives a sense of warmth as well a fragrant smell which I think would be vital to include when designing a room for Norwood Hall.

I would keep any windows in the space in proportion with examples of the existing rooms in the Hall. Lighting would be dim but warm to keep a cosy feeling.

(2) II

On entry to the room you feel very welcomed. The warm homely atmosphere, with the grandness of decoration gives the room a great presence. The intricate detail on everything from the curtains to the columns adds to the grandness of the room.

A small fireplace to the side of the room, helps create a homely feeling. Alongside the thick curtains it makes the room feel even warmer and more welcoming. Fireplace obviously not used still creates a sense of there have being smoke, with a hazy covering in the room.

To adapt this into a bar for the client today I feel retaining the atmosphere is crucial.
I would take the decorative features and ensure my design was of high quality.
A good relationship with the exterior would be crucial as the window scale was large. The window was an important feature of the room and would remain like this in my design.

OD (1)

The room is full perhaps overfull of detail. Great attention is paved to every element. Even the wallpaper is detailed.
The room I would design would have the same level of detail, but with fewer key aspects. I believe that light in any room should be a main priority. The room I choose to look at was the bar, while some of the other rooms were dark, the bar benefited from a bay window. The room I would design would have a projecting glass box framing a view, but the window could open up as a seat. The floor I would chose would be a dark wood taking from the detail in the bar. The walls would be a smooth concrete, while undecorated the detail would be in its clear finish.
The bar and furnishing would be stand alone design icons which would be the works of art in the room.
The room overall feel would be calm with care and attention put into every aspect of the craftsmanship.

AC5005 – Research Methods

BK (2)

RE-CREATION – PART 3

To create a room with the same atmosphere as experienced in Norwood Hall I aim to achieve the same feeling in a contemporary way. Below are the relevant feelings with a description and explanation of my interpretation.

Natural lighting – The connection to the exterior played a large role in the experience and was emphasised by the mass, position and scale of glazing. I would create a large window opening which could be viewed on direct access to the room and would be a large projecting feature to resemble the historic bay window design. The window would also be split into smaller panels to resemble a sense of privacy.

Calmness – The decor and furniture created this feeling and my room would have deep colours and textures, with relaxing and comfortable furniture.

Quietness – A similar location and external presence would match the context of Norwood hall.

Warmth – The presence of an open fire in addition to the warm and detailed decor created a sense of warmth and I would adapt this into a contemporary central fireplace to act as a primary feature of the room.

Homely - This was created by paintings and other wall displays which would again be resembled in a contemporary way.

Generous – My room would have large circulation spaces to create a generous space.

Detailing – Although Norwood has a high level of detailing, I feel this can be converted to a simplistic method to highlight other features such as the fire place. In contemporary architecture, the simple details are more difficult to create and construct which illustrates a modern approach to high quality finishing. I would also adopt a less is more methodology while detailing.

RB(1)

Re-creation: Short Assignment for Year 5 Research Methods

Initial thoughts from visit to Norwood Hall:

Sight – Dark, ornate, patterns, depth, rich, soft.
Sound – Phones ringing, people talking, fire cracking, cutlery rattling in dining room.
Smell- Incense burning, smoky smell from fire.
Touch- Polished wood, rich curtains, warm fire.
Taste- Smoky, rich chocolate, cinnamon, Christmas turkey.

What elements would you use?
- Open fire to create a warm and inviting atmosphere. The open fire appeals to multiple senses; sight, sound, smell and touch from the warning affect on the skin. The fire place also acts as the meeting point in the room, where the people gather together to have a drink and converse.
- Ornamentation in the form of dark wood to create an historic and rich feeling, implying a sense of quality within the space. The ornamentation adds to the grandeur and formality of the room. An abundance of carvings and detailing in the wood (panels, staircases, ceiling, fireplace, etc) helps to express a sense of wealth and quality. A mixture of textures and patterns adds depth and appeals to the sense of touch.
- A central staircase provides a focal point to the room and creates a sense of occasion upon entering the room. It also adds to the mystification of the space, creating a sense of intrigue drawing the eye upwards, inviting one to explore further.
- Soft furnishings minimise echoes in large spaces and provides a softer, more appealing atmosphere in the room.

The entire appeal of Norwood Hall for me was its rich and grand nature. I do not feel that a contemporary space would have the same effect. The antiquity of the room I have imagined implies character and a history that has many memories to share. It is a very social and celebratory space.

Re-creation FF(1)

In the reception room at Norwood Hall there was a warm and grand atmosphere. This was due to the burning open fire that produced a warm feeling, but also lit up the room magically. Adding to this the timber columns that framed the grand staircase gave it the majestic feeling. When redesigning this for my own room I would use a grand staircase at the center of the building to create this grand illusion, and create a focal point of the room. I would use a horizontal emphasis on the staircase, using it as a main feature of the room. To emphasis the grand atmosphere I would use an exposed concrete structure columns, with a high ceiling height. Another focal point of the room would be a real fireplace. I think that this instantly warms a room, and would create the warm atmosphere.

The sound in the room you would here the crackling fire. Furthermore you would here the chatter of the ladies huddled around the fireplace, gathered drinking tea. There would also be soft sound of classical music playing in the background.

The polished concrete finish to the wall would be smooth, and classic. It would be a clean, cut finish which adds a classic feeling to the building. The concrete would feel warm to touch, as it would have absorbed some of the heat from the open fire and the underfloor heating inserted into the floor also is radiating off a warm heat.

The taste of the room would be smooth melted chocolate, and sweet biscuits along with a cup of tea. The smell of perfume of the ladies also adds a classic quality to the space.

TA (1)

Norwood Part 3 – Brief Re-Creation 23/10/11

Brief Re-Creation

- The high ceilings are something that is necessary to give the proportions to the rooms felt in the Norwood. This could be of similar proportions to the Norwood or even higher to give the feel of a dramatic entrance.

- The layering of materials is also something that I feel must be maintained, the depth of materials gives a warm rich feeling to the rooms. The texture changes of the materials used are also important, the difference in feel between smooth wood panelling and the textured wallpaper are a juxtaposition that aid in the richness and depth of the room.

- The open fireplace is a feature that enlights all the senses, giving the feel of warmth, the sound of crackling, the smell of deep smoke, and look of flickering light.

- The cave like qualities of the large single openings in each of the rooms, starting from the light cave door, moving back into the depths of the room with light becoming ever dimmer as you move away.

- The intricate details of the carved wood, give texture and depth to the otherwise smooth surface. This could be in the form of cornicing, or details on a Corinthian column, or even in the simplicity of form. Simplicity can often show the finest detailing.

- The smell of coffee and deep wood tones, created within the room are also an essential to the feeling one gets in the room. These deep tones are only created from years of aging in the wood.

These are the element that I feel would vitally need to be incorporated into the design of the room to give the characteristics.

Appendix 10: Study Three assessment

4th June 2013

SURVEY - PILOT
Scott Sutherland Building

Dear participant,

Thank you for participating in this pilot-exercise for the survey I am preparing to be carried out on a couple of buildings in Aberdeen.

Please find a questionnaire attached, which intends to provide me with data for my PhD research at RGU/SSS. The working title for my research is:

ASSESSING HISTORIC BUILDINGS THROUGH SENSORY PERCEPTION.

You have been asked to do this task in a real building, as we wish to understand your reaction to an actual environment.

Please respond stating your personal observations and opinions. None of the questions have a 'right' or 'wrong' answer.

Please mark all your sheets with the same name/initials, just so they can be kept together. Your name will not appear in any research outcome or report.

Thank you; your effort is most appreciated.

Sylvian Braat

s.a.i.braat@rgu.ac.uk

SCOTT SUTHERLAND BUILDING - PERCEPTION QUESTIONNAIRE

Please complete all questions honestly, and reflecting your own perceptions and responses. Keep in mind this enquiry is looking for perception rather than judgement.

The actual Building Survey has 2 parts, to be filled out on site, and to be handed in on departure.
Part 3 covers some practicalities.
Part 4 asks for your review of and comments on this pilot.

PLEASE FILL OUT FOR STATISTICS:

Age: 25-34 / 35-44 / 45-54 / 55-64 / 65+

Gender: M / F

Cultural background: UK / Europe / USA / other western / other non-western.

Had you noticed this building before? yes / no

Have you visited this building before? yes / no

If yes, how often have you been here before?

once / 2-5 times / 6-10 times / more

How would you rate your personal interest in Historic Buildings?

very high / high / regular / moderate / little / none

What is the weather outside like today/at the moment?

Please take note of the time:

Start time . . **:** . . am/pm

PART 1: GENERAL QUESTIONS

You are requested to visit the following rooms, and these only:

Please approach Scott Sutherland old house from the outside;
Enter through the old entrance.
Proceed to Main Hall
Grand Lecture Room SB 01
New Staff room SB02

You only need to spend a few minutes in each room.

EXTERIOR
(may be filled out inside)

What was your first impression, on approaching the building?

Which elements of the building's exterior do you recall?

*

*

*

*

Please mention anything, regarding this building, which you found especially remarkable, in any respect.

..

VESTIBULE & CORRIDOR

Give your first impression of these rooms in 2-3 keywords

*

*

*

Describe the general atmosphere within these rooms.

Which historic built elements or features do you feel contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

..

MAIN HALL

Give your first impression of this room in 2-3 keywords

*

*

*

Describe the general atmosphere within this room.

Which historic built elements or features do you feel contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

..

GRAND LECTURE ROOM – SB01

Give your first impression of this room in 2-3 keywords

*

*

*

Describe the general atmosphere within this room.

Which historic built elements or features do you feel contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

..

STAFF ROOM – SB02

Give your first impression of this room in 2-3 keywords

*

*

*

Describe the general atmosphere within this room.

Which historic built elements or features do you feel contribute to this atmosphere?

*

*

Please mention anything other you find especially remarkable or catching:

..

ALL ROOMS/ ENTIRE BUILDING

What have you used in orientating and navigating through the building?

While moving through the building, were you drawn in any specific direction?

Did you identify any elements that are not contributing to, or are disturbing, the buildings' character?

While inside, have you been aware of anything outside of the building?

..

Part 2: Sensory Perception

Take a seat/ find a place to pause in one of the rooms/spaces you have just visited; make yourself comfortable to spend 5-10 minutes in this room.

Room chosen to be observed:

- ☐ *Entrance vestibule & corridor*
- ☐ *Main hall*
- ☐ *Grand Lecture Room (SB 01)*
- ☐ *Staff room (SB02)*

State in a few words why you have chosen this particular room:

..

Appreciation:

Does the room appeal to you?

yes / no / I do not know

What do you appreciate most in this room?

..

The above stated, now kindly focus on your sensory registrations. You might close your eyes or ears to be able to focus on another sense.

GENERAL:
What do you feel/sense (what experience does the room provide)?

How do you feel about the size of this room:

Do you feel comfortable and would you choose to linger in this room for a while? Why?

..

HEARING:
Which sounds do you pick up that belong to the building?

Which other sounds do you pick up?

..

TOUCH:
What can you feel with/through your skin?

What, in this room, would you like to touch?

..

VISION/ SIGHT:
What, of this room, has the greatest visual impact on you?

What more do you register through sight?

..

SMELL/TASTE:
What can you smell in this room?

Do you get any sensation of taste in this room?

..

Please take note of the time:

End time . . : . . am/pm

PART 3: REVIEW

Do you feel you have noticed or experienced more than you 'normally' would have? Has your awareness of the building changed?
..

PART 4: SCRUTINY OF THIS QUESTIONNAIRE (pilot only)

Did you understand all questions?

Did you understand all terminology?

Did the questions make sense?

Is the amount of questions:

- too many / appropriate / too few ?

Is the time needed to do and fill out the survey:

- too long / appropriate / too short ?

Did you have enough writing space to fill out your answers?

Was taking the questionnaire sufficiently entertaining to have a positive experience?

General comments:

Recommendations:

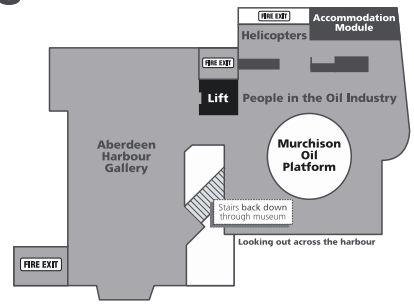
Thank you for your participation; your time and effort is greatly appreciated! Sylvian

Appendix 11: Study Four Floor Plans

floor plans

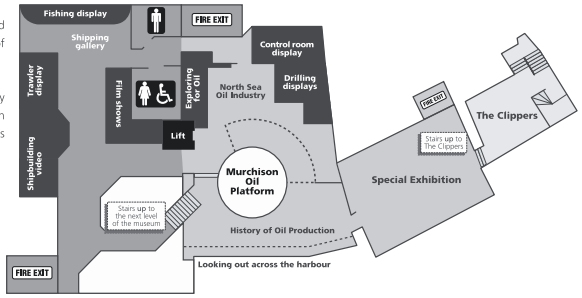
Third Level:
The museum's top floor provides magnificent views of the harbour, full of multi-coloured oil supply vessels, and displays on its development.
The eight metre high *Murchison* oil platform model can be viewed and the life and work of a modern offshore installation experienced.

3



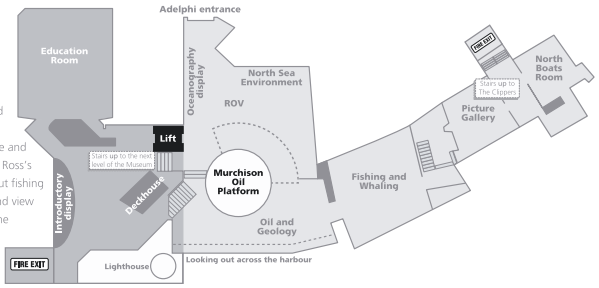
Second Level:
Displays of historic models and paintings covering the age of sail. Exhibitions on the 3000 ships built in the city, the fishing industry and the history of offshore oil are told though artefacts, computer interactives and graphics.

2



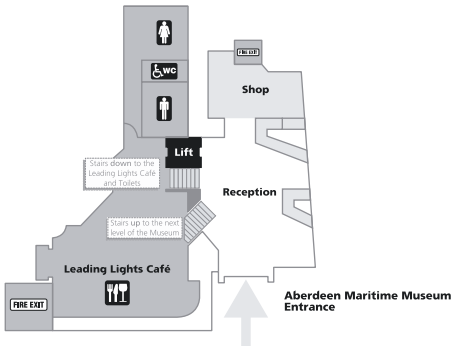
First Level:
An introduction to Aberdeen's maritime heritage, featuring the Duthie Deckhouse and Rattray Head lighthouse lenses.
The North Sea is explored using diving suits, a real remotely operated vehicle and undersea film. In Provost Ross's House you can learn about fishing in North East Scotland and view fine marine artworks in the Picture Gallery.

1



Ground Level:
The Leading Lights Café serves a wide range of delicious meals and refreshments throughout the day.
The main reception area has up-to-the-minute information on tides, oil prices, fish landings and ships in port.
The Shop offers an extensive range of quality gifts, books, cards, toys and games, all with a nautical flavour.

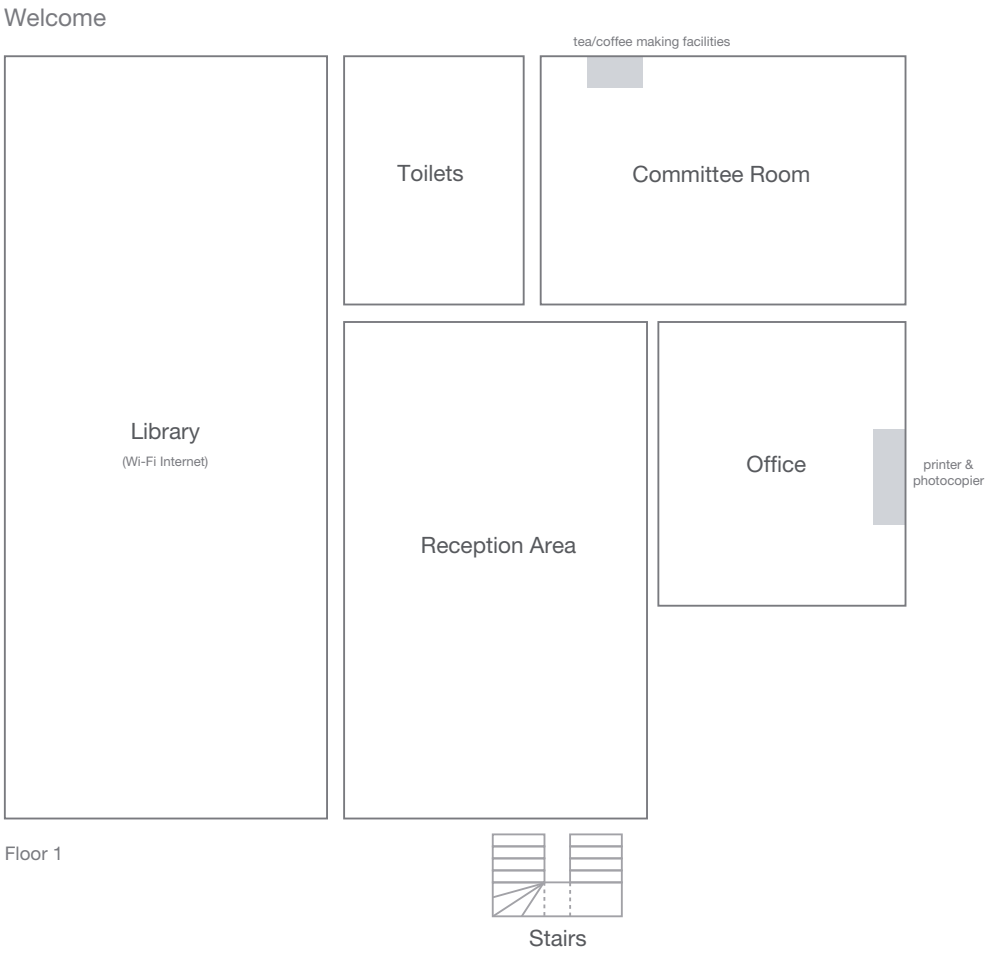
G



Society of Advocates

Society of Advocates in Aberdeen

Concert Court, Aberdeen AB10 1BS United Kingdom t+44 (0)1224 640079

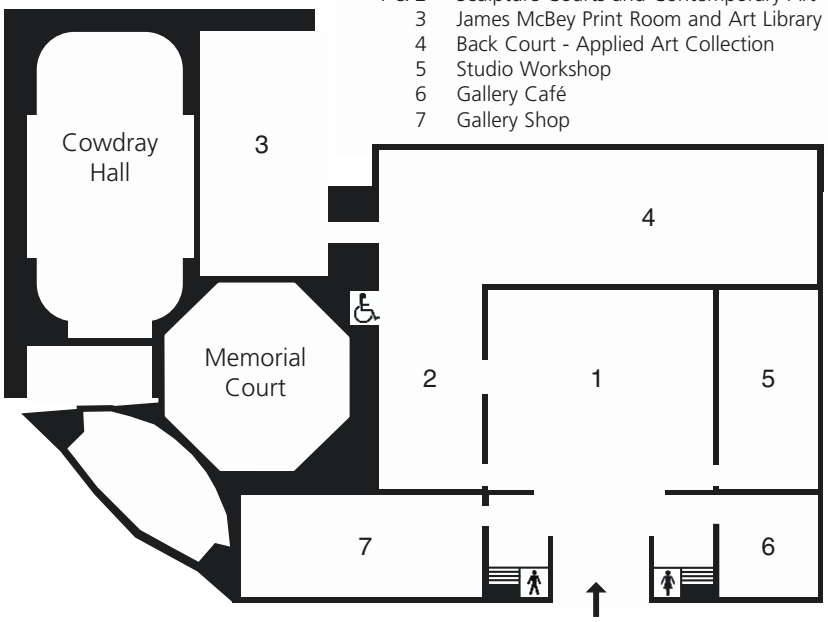


from: www.socofadvocates.com

PLAN OF ABERDEEN ART GALLERY

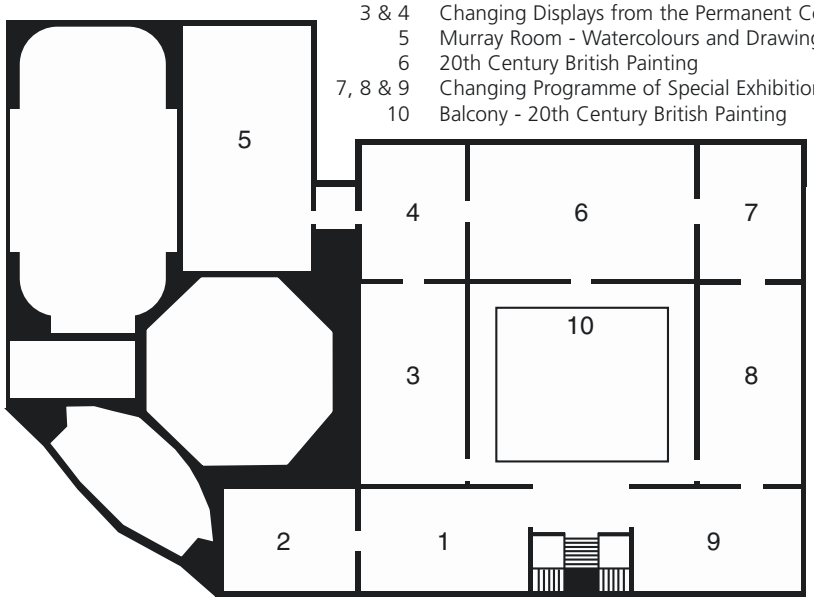
GROUND FLOOR

1 & 2 Sculpture Courts and Contemporary Art
3 James McBey Print Room and Art Library
4 Back Court - Applied Art Collection
5 Studio Workshop
6 Gallery Café
7 Gallery Shop



FIRST FLOOR

1 & 2 MacDonald Collection - 19th Century British Painting
3 & 4 Changing Displays from the Permanent Collections
5 Murray Room - Watercolours and Drawings
6 20th Century British Painting
7, 8 & 9 Changing Programme of Special Exhibitions
10 Balcony - 20th Century British Painting



125 ABERDEEN ART GALLERY www.aagm.co.uk

Appendix 12: Study Four assessment

PHD MAIN STUDY SURVEY
Three Historic Buildings in Aberdeen

PROVOST ROSS'S HOUSE, Shiprow
ADVOCATES SOCIETY, Concert Court
ART GALLERY, Schoolhill

Friday 20th September 2013
Tuesday 24th September 2013

Dear participant,

Thank you for agreeing to participate in this study. Please find a questionnaire attached, which has been designed to provide me with data for my
PhD research at Robert Gordon University. The working title for my research is:

ASSESSING HISTORIC BUILDINGS THROUGH SENSORY PERCEPTION.

This study will take you through three buildings in this area. The entire exercise is expected to last 2,5 hours. We will proceed to each next building together.

You have been asked to do this task in actual buildings, as we wish to understand your reaction to those environments.
Please respond stating your personal observations and opinions. None of the questions have a 'right' or 'wrong' answer.

Please mark all your sheets with the same name/initials, so I can keep them together. Your name will not appear in any research outcome or report, and all responses will be anonymised.

Thank you. Your participation is most appreciated.

Sylvian Braat

s.a.i.braat@rgu.ac.uk

PLEASE FILL OUT FOR STATISTICS:

Age: 18-24 / 25-34 / 35-44 / 45-54 / 55-64 / 65+

Gender: M / F

How many years have you lived in the Aberdeen area?

0 – 3 yrs / 4 – 10 yrs / 10+ years

How would you rate your personal interest in Historic Buildings?

very high / high / regular / moderate / little / none

What is the weather outside like today?

.

Please complete all questions honestly, and reflecting your own perceptions and responses. Keep in mind this enquiry is looking for perception rather than judgement.

The actual Building Survey for each building has 2 parts, to be filled out on site, and to be handed in on departure from that building.
Part 3 (at the very end) covers some practicalities.

PROVOST ROSS'S HOUSE, PART 1: GENERAL QUESTIONS

Welcome to Provost Ross's House, the second oldest building in Aberdeen.

Had you noticed this building before? yes / no

Have you visited this part of the Maritime Museum before? yes / no

If yes, how often have you been here before?

once / 2-5 times / 6-10 times / more

You are requested to remain within in the old buildings and visit, in no particular order:

Hall
Anteroom (tiny)
North Boats Room (white walls)
Picture Gallery (green walls)
The Clippers (upstairs)
Fishing and Whaling (connection to Maritime Museum)

Please spend no more than 5 minutes in each room.

EXTERIOR
(can be filled out inside)
What was your first impression, on approaching the building?

Which elements of the building's exterior do you recall?

*

*

*

Please mention anything, regarding this building, which you found especially remarkable, in any respect.

NORTH BOATS ROOM (white walls)

Give your first impression of this room in ±3 keywords
*

*

*

Describe the general atmosphere within this room.

In your opinion, which historic built elements/features contribute to this atmosphere?
*

*

*

Please mention anything other you find especially remarkable or catching:

PICTURE GALLERY (green walls)

Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room.

p.t.o.

PICTURE GALLERY, continued:
In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

CHOICE OF: (please tick)
☐ **HALL WITH STAIRCASE**
☐ **ANTEROOM**
☐ **THE CLIPPERS** (upstairs)
☐ **FISHING AND WHALING** (towards Maritime Museum)

Give your first impression of this space in ±3 keywords

*

*

*

Do you feel historic elements still have an influence on the atmosphere of this space?

Please mention anything other you find especially remarkable or catching/striking:

ALL ROOMS/ ENTIRE BUILDING

While moving through the building, were you drawn in any specific direction?

Did you identify elements that are not contributing to, or are disturbing, the buildings' character?

While inside, have you been aware of anything outside the building?

..

PROVOST ROSS'S HOUSE, PART 2: SENSORY PERCEPTION

Take a seat/ find a place to pause in one of the rooms/spaces you have just visited; make yourself comfortable to spend approximately 10 minutes in this room.

Room chosen to be observed:

- ☐ Northern Boats Room (white)
- ☐ Picture Gallery (green)
- ☐ Hall
- ☐ Anteroom
- ☐ The Clippers (upstairs)
- ☐ Fishing and Whaling

State in a few words why you have chosen this particular room:

..

APPRECIATION:
Does the room/space appeal to you? yes / no / I do not know

What do you think generates this appeal; what makes the space attractive?

..

The above stated, now kindly focus on your sensory registrations. You might wish to close your eyes or ears to be able to focus on another sense.

GENERAL:

What do you feel/sense, (what experience does the room provide)?

How do you feel about the size of this room:

Do you feel comfortable and would you choose to stay around in this room for a while? Why?

..

HEARING:

Which sounds do you pick up that belong to the building?

Which other sounds do you pick up?

..

TOUCH:
What can you feel with/through your skin?

What, in this room, would you like to touch?

VISION/SIGHT:
What, of this room, has the greatest visual impact on you?

What more do you register through sight?

..

SMELL/TASTE:
What can you smell in this room?

Do you get any sensation of taste in this room?

..

Please hand in this first part of your questionnaire to Sylvian.
Collect in the Maritime Museum by the panorama window above the entrance.

PHD MAIN STUDY SURVEY
Three Historic Buildings in Aberdeen

PROVOST ROSS'S HOUSE, Shiprow
ADVOCATES SOCIETY, Concert Court
ART GALLERY, Schoolhill

Friday 20th September 2013
Tuesday 24th September 2013

ADVOCATES SOCIETY, PART 1: GENERAL QUESTIONS

Welcome to the Advocates Society Building, which is not normally open to the public. Please enjoy your visit!

Had you noticed this building before? yes / no

Have you visited this building before? yes / no

If yes, how often have you been here before?

once / 2-5 times / 6-10 times / more

You are requested to proceed upstairs and visit only the following spaces, in no particular order:

Entrance & Staircase
Grand Library
Committee Room

Please initially spend no more than 5 minutes in each room.

EXTERIOR
(may be filled out inside)
What was your first impression, on approaching the building?

Which elements of the building's exterior do you recall?

*

*

*

Please mention anything, regarding this building, which you found especially remarkable, in any respect.

..

ENTRANCE AND STAIRCASE (downstairs)
Give your first impression of these spaces in ±3 keywords

*

*

*

Describe the general atmosphere within these spaces.

In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching/striking:

..

COMMITTEE ROOM
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room.

p.t.o.

COMMITTEE ROOM, continued:
In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

GRAND LIBRARY
Give your first impression of this room in ±3 keywords

*

*

*

Describe the general atmosphere within this room.

In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

ALL ROOMS/ ENTIRE BUILDING

While moving through the building, were you drawn in any specific direction?

Did you identify elements that are not contributing to, or are disturbing, the buildings' character?

While inside, have you been aware of anything outside the building?

..

ADVOCATES SOCIETY, PART 2: SENSORY PERCEPTION

Take a seat/ find a place to pause in one of the rooms/spaces you have just visited; make yourself comfortable to spend approximately 10 minutes in this room.

Room chosen to be observed:

- ☐ Entrance
- ☐ Hall and Staircase downstairs
- ☐ Hall upstairs
- ☐ Grand Library
- ☐ Committee Room

State in a few words why you have chosen this particular room:

..

APPRECIATION:

Does the room/space appeal to you? yes / no / I do not know

What do you think generates this appeal; what makes the space attractive?

..

The above stated, now kindly focus on your sensory registrations. You might wish to close your eyes or ears to be able to focus on another sense.

GENERAL:
What do you feel/sense, (what experience does the room/space provide)?

How do you feel about the size of this room/space:

Do you feel comfortable and would you choose to hang around in this room/space for a while? Why?

..

HEARING:
Which sounds do you pick up that belong to the building?

Which other sounds do you pick up?

TOUCH:

What can you feel with/through your skin?

What, in this room, would you like to touch?

..

VISION/SIGHT:

What, of this room, has the greatest visual impact on you?

What more do you register through sight?

..

SMELL/TASTE:

What can you smell in this room?

Do you get any sensation of taste in this room?

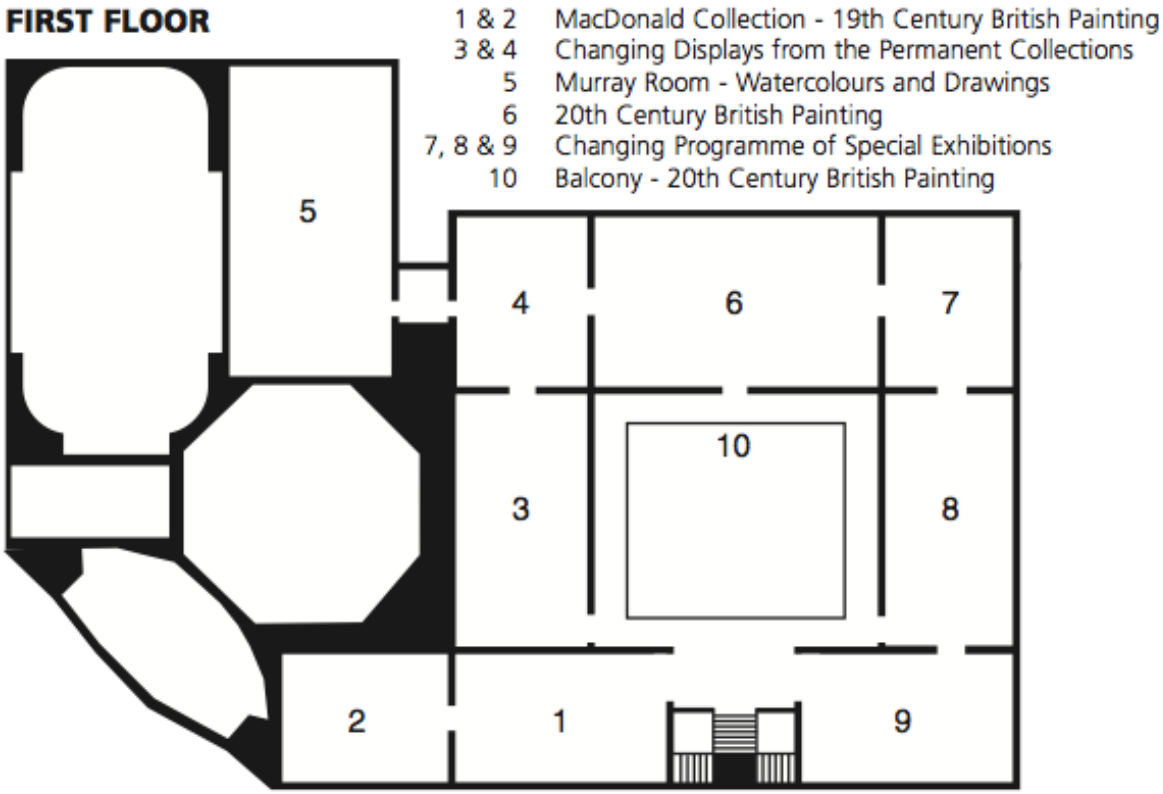
..

Please hand in this second part of your questionnaire to Sylvian. Collect downstairs, in view of the front door.

PHD MAIN STUDY SURVEY
Three Historic Buildings in Aberdeen

PROVOST ROSS'S HOUSE, Shiprow
ADVOCATES SOCIETY, Concert Court
ART GALLERY, Schoolhill

Friday 20th September 2013
Tuesday 24th September 2013



At this point, in return for your time and effort, we are happy to offer you a break, with a coffee and cake at the Art Gallery Café, courtesy of the IDEAS Research Institute (research centre for Engineering, Environmental Science, Computing, Architecture & Built Environment and Art & Design).

However, if you are pressed for time, feel free to proceed with the questionnaire first and get a takeaway on your way out.

ART GALLERY, PART 1: GENERAL QUESTIONS

Welcome to Aberdeen Art Gallery!

Had you noticed this building before? yes / no

Have you visited the Art Gallery before? yes / no

If yes, how often have you been here before?

once / 2-5 times / 6-10 times / more

You are requested to visit only the following spaces, in no particular order:

Main Hall / Court and its Balcony on the first floor.
MacDonald Collection Rooms (Rooms 1&2 upstairs)
Room 9 upstairs, across the staircase.

At this stage remember to focus on the building, rather than the artwork ☺
Please spend no more than 5 minutes in each room.

EXTERIOR
(may be filled out inside)

What was your first impression, on approaching the building?

Which elements of the building's exterior do you recall?

*

*

*

Please mention anything, regarding this building, which you found especially remarkable, in any respect.

..

MAC DONALD COLLECTION ROOMS
Give your first impression of these room in ±3 keywords
*

*

*

Describe the general atmosphere within these rooms.

In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching/striking:

PS. Had you properly visited these rooms before? yes / no

ROOM 9
Give your first impression of this space in ±3 keywords

*

*

*

Describe the general atmosphere within this space.

p.t.o.

ROOM 9, continued:
Do you feel the historic elements still have an influence on the atmosphere of the room?

Please mention anything other you find especially remarkable or catching:

MAIN HALL / COURT AND BALCONY
Give your first impression of this space in ±3 keywords

*

*

*

Describe the general atmosphere within this space.

In your opinion, which historic built elements/features contribute to this atmosphere?

*

*

*

Please mention anything other you find especially remarkable or catching:

ALL ROOMS/ ENTIRE BUILDING
While moving through the building, were you drawn in any specific direction?

Did you identify elements that are not contributing to, or are disturbing, the buildings' character?

While inside, have you been aware of anything outside the building?

..

ART GALLERY, PART 2: SENSORY PERCEPTION

Take a seat/ find a place to pause in one of the rooms/spaces you have just visited; make yourself comfortable to spend approximately 10 minutes in this room.

Room chosen to be observed:
- ☐ Main Hall
- ☐ Room 1/ Macdonald red
- ☐ Room 2/ Macdonald green

State in a few words why you have chosen this particular room:

..

APPRECIATION:
Does the room/space appeal to you? yes / no / I do not know

What do you think generates this appeal; what makes the space attractive (or not attractive)?

..

The above stated, now kindly focus on your sensory registrations. You might wish to close your eyes or ears to be able to focus on another sense.

GENERAL:
What do you feel/sense, (what experience does the room/space provide)?

How do you feel about the size of this space:

Do you feel comfortable and would you choose to stay around in this room/space for a while? Why?

..

HEARING:
Which sounds do you pick up that belong to the building?

Which other sounds do you pick up?

TOUCH:
What can you feel with/through your skin?

What, in this room, would you like to touch?

..

VISION/SIGHT:
What, of this room, has the greatest visual impact on you?

What more do you register through sight?

..

SMELL/TASTE:
What can you smell in this room/space?

Do you get any sensation of taste in this room/space?

..

You have now finished the survey (phew . . . . WELL DONE ☺)
Please turn over and fill out a few review questions.

PART 3: REVIEW

Do you feel you have noticed or experienced more than you 'normally' would have? Has your awareness of these buildings changed?

..

Would you be willing to join a focus group? yes / no
[*Typically, this would involve one two-hour meeting in a group of five people, to be held November 2013 or January 2014*]

Would you be willing to answer some follow-up questions?

If yes, please provide your contact email: . . . . . @ . . . . . .

..

Space for general comments:

Thank you for your participation; your time and effort is greatly appreciated!

Please hand in this final part of your questionnaire to Sylvian, in exchange for a goodie bag, courtesy of Scott Sutherland School of Architecture and Built Environment.

Participant's initials: . . . . . .

PROVOST ROSS'S HOUSE, PART 1: GENERAL QUESTIONS

Welcome to Provost Ross's House, the second oldest building in Aberdeen.

Had you noticed this building before? (yes) / no

Have you visited this part of the Maritime Museum before? (yes) / no

If yes, how often have you been here before?

once / (2-5) times / 6-10 times / more

You are requested to remain within in the old buildings and visit, in no particular order:

Hall
Anteroom (tiny)
North Boats Room (white walls)
Picture Gallery (green walls)
The Clippers (upstairs)
Fishing and Whaling (connection to Maritime Museum)

Please spend no more than 5 minutes in each room.

EXTERIOR
(can be filled out inside)
What was your first impression, on approaching the building?
hidden building, not obvious from the street, new museum & VUE overpowering

Which elements of the building's exterior do you recall?

* the stone wall
* small entrance
* strict facade

Please mention anything, regarding this building, which you found especially remarkable, in any respect.
overlooking the harbor — the position of the building — the place where it was built.
the strict facade

Participant's initials:

NORTH BOATS ROOM (white walls)

Give your first impression of this room in ±3 keywords

* BRIGHT
* INTERESTING
* WHITE

Describe the general atmosphere within this room.

COSY + INVITING/LEADS YOU TO INVESTIGATE ALL AREAS

In your opinion, which historic built elements/features contribute to this atmosphere?

* PANELLING
* RECESSED WINDOW / small panes
* LOW CEILING - TINY BACK ROOM.

Please mention anything other you find especially remarkable or catching:

I like the uncluttered ~~emptiness~~ feeling to emphasise the boat models

PICTURE GALLERY (green walls)

Give your first impression of this room in ±3 keywords

* WARM - colour to show off paintings (paintings) we
* good choice of flooring - natural.
* not sure of big round light!

Describe the general atmosphere within this room.

- A bit dark + not as interesting as there's no daylight.

p.t.o.

Participant's initials: . . . . . .

PICTURE GALLERY, continued:
In your opinion, which historic built elements/features contribute to this atmosphere?

* fire place gives a sense of buildings low use
* panelling & cornicing
* low doorway / entrance & exit

Please mention anything other you find especially remarkable or catching:

The fire place & panelling, sash & case windows

CHOICE OF: (please tick)

☐ **HALL WITH STAIRCASE**
☐ **ANTEROOM**
☑ **THE CLIPPERS** (upstairs)
☐ **FISHING AND WHALING** (towards Maritime Museum)

Give your first impression of this space in ±3 keywords

* Huge (for the size of the building)
* Dark & low
* interesting

Do you feel historic elements still have an influence on the atmosphere of this space?

Totally yes. The wooden stairs leading up to the room and the roof space leading from the room

Please mention anything other you find especially remarkable or catching/striking:

nice that the original staircase has been left in leaving a sense of the original structure of the old building.

..

Participant's initials: V

ALL ROOMS/ ENTIRE BUILDING

While moving through the building, were you drawn in any specific direction?
upstairs, due to that beautiful wooden staircase.

Did you identify elements that are not contributing to, or are disturbing, the buildings' character?
the straight walls in the modernised rooms. It damages the atmosphere.

While inside, have you been aware of anything outside the building?
no. I think it is due to the amount of windows. There are not so many of them and they are tiny.
..

PROVOST ROSS'S HOUSE, PART 2: SENSORY PERCEPTION

Take a seat/ find a place to pause in one of the rooms/spaces you have just visited; make yourself comfortable to spend approximately 10 minutes in this room.

Room chosen to be observed:
- ☑ Northern Boats Room (white)
- ☐ Picture Gallery (green)
- ☐ Hall
- ☐ Anteroom
- ☐ The Clippers (upstairs)
- ☐ Fishing and Whaling

State in a few words why you have chosen this particular room:
it is a very bright and light room. To me it feels cosy.

..

Participant's initial

APPRECIATION:
Does the room/space appeal to you? (yes) / no / I do not know

What do you think generates this appeal; what makes the space attractive?
It has light coming in from front and back and the white walls, wooden floors
..

The above stated, now kindly focus on your sensory registrations. You might wish to close your eyes or ears to be able to focus on another sense.

GENERAL:

What do you feel/sense, (what experience does the room provide)?
wooden smell. , squicky floors

How do you feel about the size of this room:
depends what your intentions are but as it is used I like the space.

Do you feel comfortable and would you choose to stay around in this room for a while? Why?
there are nice elements of wood work in the walls but I would open a window if I had to stay here longer , smell is a bit stuffy
..

HEARING:

Which sounds do you pick up that belong to the building?
flooring squeeking

Which other sounds do you pick up?
soft music
..

Participant's initials: . . . . . .

TOUCH:
What can you feel with/through your skin?

carpets / floorboards

What, in this room, would you like to touch?

not much.

..

VISION/SIGHT:
What, of this room, has the greatest visual impact on you?

lack of light, because of light that exists

What more do you register through sight?

traditional displays - v. dated
a sense of being forgotten to the pa

..

SMELL/TASTE:
What can you smell in this room?

heater / carpets - not one sort of musty smell.

Do you get any sensation of taste in this room?

slightly bitter?

..

Please hand in this first part of your questionnaire to Sylvian.

Collect in the Maritime Museum by the panorama window above the entrance.

3BLD MAIN STUDY - PROVOST ROSS's Pt1
20th 24th September 2013

		age	gender	in Abd affinity	noticed	visited	frequency	EXTERIOR 1st impression	elements	remarkable	NORTH BOATS ROOM 1st impression 3 keywords	general atmosphere	historic elements contributing	other	PICTURE GALLERY 1st impression 3 keywords	general atmosphere	historic elements contributing	other
QF20	FA	EU	25 F	1 hg	y	y	2	hidden	stone wall, small entrance, strict façade	situation vs harbour, strict façade	white walls dark floor, lights, rusty/old, fireplace	maritime, on a boat	view from windows, materials, low ceiling	exhibits, small windows, low doors	low ceiling, well organised, green	smells old, historic, wall colour	low ceiling/small space, wall decorations, tough carpet	central showcase; have to move around
QF20	FB	UK	45 F	4 rg	n	n	n	x	stonework	almost unnoticed, little gem	bright, interesting, white	cosy, inviting	panelling, recessed window, low ceiling	uncluttered, emphasis on boat models	warm-colour, natural flooring, not-sure-of-big-round-light	dark, no daylight; less interesting	fireplace, wall panelling, no windows	doorframes appear wide (sb: due to short)
QF20	FC	EU	25 M	1 hg	y	n	n	history surrounded by modern	small white windows, masonry, metal fence	no plaque telling history (sb:is there though?)	bigger, fancy, noisy	light due to windows, hard floor is noisy	wooden floor, cornicing, wood panelling	chimney, size; larger than other rooms frames and panels above door and fireplace,	warm, quiet, bright	warm, square, renovated	chimney, wood panelling	heating HVAC system disturbs, small (=low?) door>old building
QF20	FD	NL	35 F	1 hg	n	n	n	old building	stone structure, gate	PrRoss coat of arms, façade	panelling (also between ceiling and walls?), sash windows, fireplace	light due to white and windows, refreshing	reclined sash windows, low doors, panelling	wooden floor, foldaway window shutters	low doors, panelling, ceiling structure	warm, peaceful (due to green), fire place	fireplace, ceiling, walls	no windows, carpet
QF20	FE	NL	45 M	4 hg	x	x	x	hidden, realised what it was when seeing photo inside	double porch(ref to what?) stonework	street dominated by new buildings	pleasant, inviting, originally livingroom (?)	historic; can imagine how it used to be	black floor, side room, windows recessed	horrible view out window, small room connected	strange, what function, what use	tranquile museum, dare-not-speak	low ceiling, panelling, floor covering	not square, text above door (not authentic but gives old feel to room)
QF20	FF	EU	25 M	4 hg	y	y	1	hidden treasure	x	x	small, open, interesting	relaxing, inviting	woodwork (floor, panels) fireplace, windows, light colours	small doors, recessed nook	low ceiling, nice woodwork, small	peaceful, yet not-inviting	no windows, low ceiling, too much information, boat model	x
QF20	FG	UK	35 M	4 hg	y	y	1	charismatic, old	blockwork, doorways	construction on a slope	floorboards, echo of footsteps, low ceiling	ships cabin, fresh n clean	floorboards, recessed windows, white panelled walls sash n case	very light	no daylight, panelled walls, small wide doorways	quite dark	ceiling pattern, fireplace, panelled walls	short wide doorways
QF20	FH	UK	45 F	1 hg	y	n	n	dwarfed by surrounding buildings, interesting skyline	size of building vs surroundings, small windows, stonework	how solid it looks, feels	light, ante-room, reasonable size	cosy but quite large, traditional	windows, floorboards, fireplace, low doors, anteroom	x	good size, warm, corridor-like, no natural light	cosy with many formal features	fireplace, panelling and cornicing, low doors	fireplace, panelling, sash n case windows
QF20	FI	NL	45 F	10 rg	y	n	n	nice, restored	big stone walls	gate, great wooden door	nautic, wooden floor, low door	livingroom	wooden floor, wall panelling, small windows	windows	low doors, fireplace, panelled walls	cosy	ceiling ornament, fireplace, doorknob	no daylight, bad lighting
QF20	FJ	NL	35 F	4 hg	n	n	n	clearly an old building, through windows, stones, shape	windows and situation in façade, round shape of wooden door (sb: the door is square!)	low ceiling, low doors, wall ornaments, sash window details	cosy, tiny, nice panelling	typical ancient (?)	fireplace, windows, low ceiling	low doors, wooden floor > sound, connection to anteroom	larger than North Boats, nowindows, dark, nice panelling	cramped due to lack of daylight	fireplace, panelling, low ceiling	no windows. Potentially warm room though
QF20	FK	NL	35 M	1 rg	n	n	n	nice, in good condition, in wrong place	drains and gutters, small white windows, granite blocks relatively small	out of place with surroundings	better light, elaborate panelling, original	pleasant, like a small dining room	panelling, window design, small doorways, anteroom	small anteroom with fireplace	salon (drawing room), secret door, poor light	decorative, some old grandeur elements left, needs natural light	panelling, fireplace, ceiling mouldings	room seems split in half by radiator
QT24	TA	US	35 F	1 lt	y	y	1	not noticed building, just entrance	gate, door to hallway	age, well conserved	too much detail, asymmetric	bit closed up, in spite of windows	too much on walls, door sizes	cabinets on walls by windows	good space, fairly symmetric, nice details	central location, connecting (not like color)	details on walls. Fireplace, location inside building	round detail on ceiling
QT24	TB	US	35 F	1 rg	n	n	n	been here for a while, cobblestones, old stone bldg	cross to Mar Museum, stone façade, nice curved street	never knew this existed	bright, warm, creaky floors	cozy, comfortable	frame wall panels, wood floors, fireplace, windows	low doors	older room, character, history	warm	fireplace, ceiling oval, wood panel frames wall objects give historical feel, fire	low door to other rooms
QT24	TC	UK	45 F	1 vh	n	n	n	interesting	large old stones	x	smells old, period room, notice room before display1	old, cosy, soft white colour	panelling, windows, wooden floors, low doorways	nook in the corner; what org. use?	quaint, cosy, small	warm room with interesting displays	place, wall panelling, ceiling all indicate earlier period	wall structure of fireplace; seems very old

3BLD MAIN STUDY - PROVOST ROSS's Pt1
20th 24th September 2013

	HALL WITH STAIRCASE			THE CLIPPERS			ALL ROOMS/ENTIRE BUILDING			FISHING AND WHALING		
	1st impression 3 keywords	hist elements influencing atmosphere	other	1st impression 3 keywords	hist elements influencing atmosphere	other	direction/drawn to	disturbing	outside	1st impression 3 keywords	hist elements influencing atmosphere	other
FA	higher ceiling, bigger window;lighter, ceiling beams	materials used and old	H&S elements obviously contemporary while otherwise in another time	x	x	x	deeper inside, up the stairs towards North Boats room	fire door, H&S fixtures	view, wall thickness, granite outside	x	x	x
FB	bright, solid, spacious	heavy wood staircase-solidity	dark painted wood	x	x	x	(sb:=light), then upstairs	lighting in PictGallery; dark	no	x	x	x
FC	x	x	x	dark, humid, colder	proportions, low ceiling, small doors	lower staircase original, upper flight replica?	trying to find a quiet place	modern heating, big wooden panels (for display?), different wall colours (sb:potentially original though?)	no, not interested	x	x	x
FD	ceiling beams, low doors, stone doorpost	beams, staircase	thick walls with recessed windows	x	x	x	towards small rooms and narrow corridors	modern central heating	no, due to windows being high or blinded	x	x	x
FE	x	x	x	attic, historic, messed up (?)	limited; doors, doorknobs, staircase, colour, floorcovering. Cheap ceiling messes it up	historic feel largely derived from artifacts	maze like structure; pulling to explore	partition is entrance stairwell (sic; ???)	depressing view from boat room	x	x	x
FF	spacious, strong, history, time	stone windowsill, wooden ceiling, small window with view (no longer harbour)	paintings, clock, ambient music add to atmosphere	x	x	x	towards the staircase	contemporary lighting, H&S fixtures	change of weather; change of light even through small window	x	x	x
FG	x	x	x	low ceiling, no daylight, old	low ceiling; feels like ship's cabin	striking drop in level between this room and the next	up	modern spotlights, storage heaters	hear traffic, not see through blinded windows	x	x	x
FH	x	x	x	huge, dark n low, interesting	totally yes, wooden staircase and stairs to roofspace	nice that the staircase has been left	upwards	lighting rails in middle of corniced ceilings	noise level from outside very low	x	x	x
FI	wooden staircase	yes	looking through small window while coming down stairs	x	x	x	towards the bright light in the Maritime Museum	blocking windows makes spaces too dark	surroundings visible through some windows	x	x	x
FJ	x	x	x	x	x	x	up the staircase	absense of panelling in some rooms	no, due to few tiny windows	modern, two old windows	unfortunately none	no panelling; now missed
FK	x	x	x	stuffy, intriguing stairs, connection	all boarded up	use of the space under the stairs. Décor not so nice.	towards natural light in North Boats room	wood/plaster board panelling and paint used on walls and ceilings very ugly	traffic noise, views of modern grey walls of adjoining buildings	x	x	x
TA	x	x	x	x	x	x	no	green walls do not seem to match its(?) character	no	unique setting, open space, big	not really	size and openness compared to other rooms
TB	x	x	x	x	x	x	upwards, to the right towards the museum	green walls in PictureGallery and lack of character in PG	grey buildings outside	small, medical (green walls), low ceiling	no	drawn to natural light from main museum
TC	x		x	old space, sturdy staircase, low ceiling	not so much as other rooms	stairs leading to attic (where sailor hidden; humour and authentic)	no, generally exploring	radiators, boxed pipework	no	x	x	x

3BLD MAIN STUDY - PROVOST ROSS's Pt1
20th 24th September 2013

		age	gender	in Abd	affinity	noticed	visited	frequency	EXTERIOR 1st impression	EXTERIOR elements	EXTERIOR remarkable	NORTH BOATS ROOM 1st impression 3 keywords	NORTH BOATS ROOM general atmosphere	NORTH BOATS ROOM historic elements contributing	NORTH BOATS ROOM other	PICTURE GALLERY 1st impression 3 keywords	PICTURE GALLERY general atmosphere	PICTURE GALLERY historic elements contributing	PICTURE GALLERY other
QT24	TD	US	55 F	1 rg		n	n	n	entrance non-descript, noisy with trucks. archway entry spooky	stonework, archway, recessed door/entry	new and old kept separate	bright, cozy, uncrowded	cheery, home-like	fireplace, good lighting, creaky floors	odd-sized doorway	dim, ship model only focal point, walls too busy w prints	dreary	color of walls, boxiness of space	fireplace does not add anything to room
QT24	TE	EU	45 F	1 hg		n	n	n	small building dwarfed by modern MarMuseum	small windows, thick walls	small windows; one in particular too small to let light in	looks older than other rooms, low ceiling, big fireplace	warm, cosy	big fireplace, two windows, bright wood features aroudn	wide low doorway, lots of doors (rabbit warren), tiny window larger in reality	small, low ceiling, low doorway	brightly lit (artificially), wmall room, cosy	small size, big fireplace	no windows
QT24	TF	AU	35 F	4 hg		y	y	2	granite, old, cold	iron gates, grey stone wall, arches	panelling	light, open, character	nice light, love wood flooring, panelling	wondsows and walls, wood floors, room shape	low door height	enclosed, wood paneling, ceiling height	lacks air; no windows, no natural light	wood panelling, green colour, fireplace	x
QT24	TG	US	45 F	4 hg		n	n	n	old granite entrance	granite blocks, arch and gate	x	coay, bright, welcoming	nautical, antique, inviting	old fireplace, wooden creaky floors, sash windows	model ship in glass case, binnacle (compass case) in alcove	formal, stark, pirate ship	military, severe, nautical	colour of walls, moulding on walls/doors	big ship in glass case is striking
QT24	TH	UK	35 F	1 rg		n	n	n	surprise to find old building here	arches, black gates, grey granite	solid wooden door	warm, bright, wooden floor boards	inviting, friendly	sash windows-inset, wooden surround to fire place, wooden floor	knobs on panels on either side of window (shutters)	some original features, walk through area, fireplace gives atmosphere	room transformed for other purpose, due to green walls	repainted walls, moulded plaster	surround of fireplace; unusual profile
QT24	TI	US	35 F	1 hg		n	n	n	neat old building, character windows	tiny window, stone structure, arches at doorway	neat stone structure	inviting, historic, cozy	important room; lots of attention to detail	creeky wooden floors, fireplace, mouldings	well used floors, low door heights, natural light	love mouldings and trim details, old fireplace, cozy/low ceiling	cozy but claustrofobic	fireplace, ceiling mouldings, low door height	love fireplace; looks like still might work

3BLD MAIN STUDY - PROVOST ROSS's Pt1
20th 24th September 2013

	HALL WITH STAIRCASE			THE CLIPPERS			ALL ROOMS/ENTIRE BUILDING			FISHING AND WHALING		
	1st impression 3 keywords	hist elements influencing atmosphere	other	1st impression 3 keywords	hist elements influencing atmosphere	other	direction/draw n to	disturbing	outside	1st impression 3 keywords	hist elements influencing atmosphere	other
TD	x	x	x	items have variety, case with room name unwelcoming barrier on stairs, fun	low ceiling, cramped feel and boat parts well suited. Feel connected to topic	music right for space/topic (waves splashing on hull)	no, no obvious flow	the chicks (s: indicating kids treasure hunt)	no, nothing	x	x	x
TE	x Anteroom: small, narrow doorways, window design	x Anteroom: windows- and door sizes	x Anteroom: granite door frame	x	x	x	doorways everwhere; I went in circles	low ceilings, partitions, doorframes, spotlights, aircons	no	low ceilings, small window	quite modernised, doesn't feel like room inside old house	x
TF				x	x	x	up, towards natural light	heating system, lighting, cabinetry, carpets	not - some traffic noise	x	x	x
TG	x	x	x	interesting, want to explore, dark, intimate, mysterious	staircase leads up to something mysterious	mast cap and keel place, long wooden display cabinet with ship lighting	upwards and towards white N Boats Room	track lighting, glass cabinet in pict gallery ugly and not blending in	no	x	x	x
TH	x Anteroom: awesome, cozy, secret	x Anteroom: lots of original charm and character	x Anteroom: fireplace and details preserved, even if no longer functional	x	x	x	interesting to explore (anteroom), like a maze	green paint, aircon units	no - feel very detached	false ceiling, squeeky floorboards, irregular angled corners	not the building, just the artefacts	quite dark due to two windows only; org different layout?
TI				x	x	x	away from first room that lacked historical details	whaling room boarded-over feeling, painting over bricks	light through windows	x	x	x

		age	gender	in Abd	affinity	noticed	visited	frequency	APPRECIATION: why this room	appeal	what generates appeal	experience	GENERAL: size of room	comfortable?	HEARING: belonging to building	other	TOUCH: feel through skin	like to touch	VISION/SIGHT: greatest visual impact	registered through sight	SMELL/TASTE: smell	sensation of taste
NORTH BOATS ROOM																						
QF20	FB	UK	45	F	4 rg	n	n	n	light, airy compared to other rooms	y	light, recessed spaces interesting	light, echo from floor	good, cosy	yes, white but not harsh	floorboards, stairs creaking	background music, muffled voices	temperature (warm room, cool by windows)	nothing	panelling, white walls vs dark floor, boat model	x	slight woody smell	no
QF20	FG	UK	35	M	4 hg	y	y	1	fresh, daylight, bare floorboards, ships' cabin	y	light, spacious, not cluttered light from wooden	creaking floorboards add to feeling at sea	like. Low ceiling works here	comfortable, less claustrofobic than rest	creaking floor and stairs. Echoes	background music	light, reflextion from floor	fire surround (sb=chimney piece/fireplace?)	floorboards	light and pleasant	woodcleaner from floor	no
QF20	FI	NL	45	F	10 rg	y	n	n	light, airy, not too hot, spacious	y	two sides, white walls, wooden floor	smell, squeaky floors	good	nice, but bit stuffy, could open window	squeeky floors	soft music	warmth	x	windows	cracks	woody, stuffy	oak flavoured food
QF20	FJ	NL	35	F	4 hg	n	n	n	bright, light, cosy	y	windows back and front of room	comfort	tiny but nice	yes, due to light	creaking floor	noise from outside (sb:outside room or building??)	dry and dusty wood	sash and case windows	connecting room (anteroom)	x	dusty	none
QF20	FK	NL	35	M	1 rg	n	n	n	light (fewer people present)	no	most attractive option, but not special	slight unpleasant smell, good light	ok, ceiling height reasonable	yes, but not attractive enough to stay standing	creaking floor, panelling	ambient music, traffic, people talking	panelling, cold stone, cast iron radiators	ship's bell	windows, boat model	sun outside	old (don't know what)	no
QT24	TB	US	35	F	1 rg	n	n	n	brightness, homey feeling	y	kind of room I'd like in my house	warmth, cozy, comfortable	nice small room, ceiling higher than some other rooms	love white walls, dark floor, creaky floorboards	echo, creaky stairs	murmurs from other people	warmth	bell on the wall	boat in glass box, dark wooden floor, panelling	knobs on windowshutters, knob next to radiator (s:bell?), curve inside fireplace, dirty windows, string on windows (s:sash rope?)	old wood old smell- lime plaster?	no
QT24	TC	UK	45	F	1 vh	n	n	n	like most, elements of different periods	y	cosy, warm, nooks and anteroom	quiet, old, peaceful	small	cosy, comfortable	quietness	none	nothing	painted walls	wall panelling	height of the doors	(sb:highly unlikely)	no
QT24	TH	UK	35	F	1 rg	n	n	n	more inviting and appealing; white walls wooden floors	y	interesting layout with anteroom and door in corner	warmth, variety of sounds	cosy yet practical	nothing off-putting. Possibly too bright eventually	lights humming, squeeky floors	traffic, coughs, chatting, siren outside, piano	paintwork; repainting/repairs not too smooth	surround of door frame, being unusually rounded	black floor	panelling	slightly musty/old	no
PICTURE GALLERY																						
QF20	FE	NL	45	M	4 hg	x	x	x	not really a room, original purpose and function not clear	no	modified, purpose unclear, no daylight	lack of purpose, fake, not original	good	no, a through-space; visitors appear to pass through	footsteps on wood, creaking floors	low voices, due to museum atmosphere	transit, unwelcoming	panels over windows to see what's behind	text above the door	ceiling ornament, room panelling	musty (possilby mental rather than actual)	no
QT24	TA	US	35	F	1 lt	y	y	1	location, shape, details, simplicity	y	two doors on opposite sides of the room	flow	good (big=lost, small=claustrofobic)	connected to both sides (parts) of the building plus privacy	creaking floors	fan running, people speaking	humidity and coolness	nothing	doors, ceiling detail	fireplace, side door, wall colour	old wood	not really
QT24	TF	AU	35	F	4 hg	y	y	2	least attractive; heavy and oppressive	no	no natural light, no windows, 'no air', low ceiling	noisy, enclosed, shut off outside world	is spacious but feels closed and small	no; no light, no view	air conditioning humming, staircase squeeks and groans	people moving around	different textures; granite, wood	wooden walls, original panels, fireplace	original fireplace	ceiling, corniches, woodwork	stale; old carpet	no
HALL																						

		age	gender	in Abd affinity	noticed	visited	frequency	why this room	appeal	what generates appeal	experience	size of room	comfortable?	belonging to building	other	feel through skin	like to touch	greatest visual impact	registered through sight	smell	sensation of taste
									APPRECIATION			GENERAL			HEARING	TOUCH		VISION/SIGHT		SMELL/TASTE	
QT24 TI	US	35	F	1 hg	n	n	n	old, important, cosy, natural light, contrasts	y	contrast dark wood-light walls, bright windows; inviting	part of past, belonging; creaking because other people here	grand, higher ceiling gives sense of space	good daylight, warm atmosphere	creaky floorboards	soft music, shuffling feet, papers turning	textured carpeting, smooth handrails	wooden railings; smooth & can feel worn places and holes	dark wooden exposed beams	textures; carpet, walls, stonework	old, musty	through smell; a woody taste
ANTEROOM																					
QF20 FC	EU	25	M	1 hg	y	n	n	small, quiet, windowsill as writing table with daylight nice and small	y	size, proportion, light, connection to rest of building	calm, nice to spend some time	small, but has two windows, so comfortable	light and quiet atmosphere	people walking in next room (footsteps and floorboards), music	cars outside	nothing really	wood panelling around window; many coats, smooth, cold	sum of individual features; nothing particular	different materials, sun through window	nothing	no
QF20 FD	NL	35	F	1 hg	n	n	n		y	gezellig', cosy	x	good	x	x	x	x	x	x	x	x	x
THE CLIPPERS																					
QF20 FA	EU	25	F	1 hg	y	y	2	transition between old and new, upstairs, darker, more peaceful	y	dim light, dark wood, sense of materials (lacking in other rooms) space down through staircase, light from window, attic staircase leading up to somewhere	relaxing, peaceful, window but barely sound from outside	rather small, low ceiling but comfortable	yes, comfortable	people moving, exhibition sound, voices	bit of traffic	hard, cold materials; sitting on wooden staircase	woodwork	dim light	carved wood, display cases	old	no
QF20 FF	EU	25	M	4 hg	y	y	1	woodwork on staircase, sun through window, really quiet	y		calm, relaxed, enjoying	spacious, breathable	relaxed	creaking wooden floor	ambient music	x	x	woodwork, colours, shadows	x	x	x
QT24 TD	US	55	F	1 rg	n	n	n	creaky stairs, music, slide show, boat-parts	y	variety of objects	calm, melancholic, movement like on a ship (due to light/slides)	right	soothing?, warm	creaky floors and stairs	HV hum, music	nothing	boat part; bolts/rotting wood/rusty iron	real bits of ship	slides without words are eyecatching	old and musty	no
QT24 TE	EU	45	F	1 hg	n	n	n	old staircase leading up to attic	y	wooden staircase	peaceful and quiet	nice, small	nothing to disturb the peace; good to sit and think	creaking wooden floors and stairs	music, people talking/laughing, airco humming	warmth	posts on wooden stairs	stairs and small window on return (halfway landing)	exhibits	musty	no
FISHING AND WHALING																					
QF20 FH	UK	45	F	1 hg	y	n	n	totally devoid of historic elements exept exhibits. homey feel, comfortable, wood furniture, ships bell, smokehouse model	no	no clue to historic value of next rooms.not part of hb(sb:it is!)	transitional, utilitarian, overheated	large but underused	no; no sense of permanence, transitional	creaking floorboards	chatter but people are quieter than in modern museum part	carpets/floorboards	not much	lack of light, bad use of lights	very traditional and dated displays	heater, carpets. ?something musty	slightly bitter
QT24 FG	US	45	F	4 hg	n	n	n		y	familiar; furniture and household objects on display	humming ventilation, voices, wood-polish smell, lower lighting level	reasonable	comfy stool, not crowded, lots to look at	ventilation fans, creaky floor	voices from museum	warm air blowing	oak/pine dresser	oak/pine dresser	objects on display, video on wall, boat models	wood smell, basket smell, musty smell	no

		age	gender	in Abd	affinity	noticed	visited	frequency	EXTERIOR 1st impression	EXTERIOR elements	EXTERIOR remarkable	ENTRANCE AND STAIRCASE 1st impression 3 keywords	ENTRANCE AND STAIRCASE general atmosphere	ENTRANCE AND STAIRCASE historic elements contributing	ENTRANCE AND STAIRCASE other	ENTRANCE AND STAIRCASE 1st impression 3 keywords
QF20	FA	EU	25 F	1 hg		n	n	x	not obvious, very nice little alley	door, entrance (important place), hidden	dark granite camouflage of impressive inside	green, high ceiling, lots of different patterns	elegant, sense of importance, fantastic floortiles	decorative wall elements, marbles, impressive staircase leading up	fireplace w huge mirror on top	beautiful, impressive
QF20	FB	UK	45 F	4 rg		n	n	x	surprise, hidden by modern building	large entrance door with columns either side, dark granite stonework	x	imposing, elegant, grand, ornate	grandeur	high decorated ceiling, large fireplace, ornate mirror, wide steps/low rise-elegant, wide hallway	details at top of columns, different materials, atmosphere of wealth.	impressive, but austere, warm, dark/softened by large windows
QF20	FC	EU	25 M	1 hg		n	n	x	building hidden, not a welcoming place	stone walls, big .. door, anti-pigeon nails	building located in small dark street, car parked in front of entrance	fancy, cold, colourful	big space high ceilings, covered with colourful patterns	proportions, high ceilings, floors, coloured capitels	huge window on left wall, big mirror opp entrance	serious, old, robust
QF20	FD	NL	35 F	1 hg		n	n	x	granite stones, old building, impressive	granite stones, big door w stairs leading upto, big windows	fits well into its surroundings	beautiful painted ceilings, bows w ornaments on ceiling, floortiles	impressive, asks for silence	pillars (marble) on wall, fire place, wall panelling	high windows w wd shutters, stair handrail, wide stairs, wd panelling under windows	high ceiling, lots of light, beautiful wallpaper
QF20	FE	NL	45 M	4 hg		n	n	x	hidden entry, behind air bridge	door, alley	connection to other blds, typical british (?) adding onto existing	wow, victorian, waste (view through windows)	very formal, impresive, historic; not very efficient nowadays	light (high) stairs leading to dbl doors/ arched door, marble columns	floortiles, high window w huge bottom sill on left	tranquil, messy, run down
QF20	FF	EU	25 M	4 hg		y	n	x	off the main street, discreet	number plate on wall, impressive windows, reached through small alley	x	really big, attention to detail, bright	building size impressive, more than judged from outside	sculpture, high ceiling, marble and arches, staircase, painted ceiling, woodwork on doors	really impressive, marble, painted sculpture on arch, attention to detail, h&s fixtures discreet. Internal wooden blinds!	big, knowledge and wisdom, fancy
QF20	FG	UK	35 M	4 hg		n	n	x	hidden, out of nowhere	doorway, door	low profile fact of being hidden	grand, high, impressive	grand and austere, amazing mix of materials	high windows, staircase, marble columns	ceiling and archway	cosy, personal, bright
QF20	FH	UK	45 F	1 hg		n	n	x	grand arched windows, stone steps, light over door, tall windows, ceiling height	huge grand arched windows, imposing grand façade, climbing steps to enter	hidden down alleyway but stands own ground in space it occupies	grand, imposing, ciling height, light, airy	municipal, cool, imposing grand staircase and fireplace (tiny fire!) transitory space	ceiling heights, wide stairs, large windows	fireplace too small to heat this space, expense and grandeur in marble columns, tiles, high doors	cosier, grand, nothing space / communicatio n room
QF20	FI	NL	45 F	10 rg		y	n	x	nice historic little street between big new bldgs	door, entrance stonework, long windows	hidden gem	floortiles pattern, wide stairway, marble pikllars	airy, spacious, high ceiling, fireplace, pannelling, long impressive door, long windows	high ceiling, ornaments, panelling, fireplace	floortiles, wide staircase leading to glass doors, wooden handrail, coloured glass window	library feel, great ornamented ceiling, white wall units not nice
QF20	FJ	NL	35 F	4 hg		n	n	x	grey, nice door	underneath the town house(?), grey, door	entrance; floortiles, length of door, very high ceiling, wide staircase	very wide space, wide broad staircase, nicely decorated pillars	posh, formal, (like my previous advocate's workplace)	shape n decoration of ceiling, shape of high dbl doors w low handle, wooden wall panels	colour of floor n ceiling, marble of pillars,huge windows n stained glass window	nicely decorated ceiling, huge bookshelves, huge windows w wooden panels

3BLD MAIN STUDY - Advocates Society Pt1
20th 24th September 2013

	COMMITTEE ROOM				GRAND LIBRARY			ALL ROOMS/ENTIRE BUILDING		
	general atmosphere	historic elements contributing	other	1st impression 3 keywords	general atmosphere	historic elements contributing	other	direction/drawn to	disturbing	outside
FA	small but cosy, warm	wallpaper, old carpet, old furniture, curvature of ceiling, decorative wallwork	warm colours, gold, obviously used a lot	big, comfortable, spacious, well lit	captivating woodwork, organised as library, very nice balustrades, curved ceiling, captivating space	ceiling curves, dark colours, architecture of the room	dark red and soft carpet	up, towards light of staircase	some decoratie features (round lamps in library)	adjacent buildings, light of beautiful sunny day
FB	quiet, sombre, stuffy, but lightened by light bookcases	high decorated ceiling, large bookcases with old volumes, long windows w large panes	decoration; details in plasterwork	wow, lightness despite dark colours, imposing	calm, warm, studious, quiet	heavy wood furnishings, dark + ornate plasterwork on ceilings, many large windows	good choice of lighting	up, through hallway to upstairs staircase	very patterned carpets take away from design details, posters, stepladders in entrance	view through large windows throughout
FC	warm room appt used for long meetings, serious, important	high decorated ceilings, cabinets, big windows w panelling	decorated cornicing, marble chimney, wallpaper	big, quiet, wood	huge; still quiet w 9 people; warm, quiet, relaxing; books-wood	wooden cabinets, furniture, decorated ceiling, books covering walls	staircase and gallery, room fully carpeted, modern lighting	attracts upward; doors to rooms identical, signs needed	modern lighting well integrated (not disturbing)	annoying noise from outside committee room
FD	peaceful, warm	fireplace, windows, ceiling	bookcases part of wall, wooden shutters	huge room, beautiful ceiling w ornaments, lots of carved wood, light through high windows	warm, welcoming, asking for silence-as a library does	ceiling, windows w panelling, double doors	more bookcases on balustrade, staircase; pipeline above bookshelves (s:??)	up the stairs towards stained glass window and ceiling	x	churches and neighbouring buildings visible through windows
FE	messy, bygone glory, decay. Neglected, but old grandeur still felt through	bookcases, ceiling (grandeur), trinkets, frames (mess)	picture over fireplace. Colour of bookcases unfitting. Carpet etc. decay while easy fix.	static, formal, impressive	very formal and impressive; urging to work	bookcases, high curved ceiling, light coming from two sides	view from windows (laughable). run down(?) atmosphere adding to historical importance; reasonably maintained	upstairs, to grand library	exterior surroundings, mismatched coffee table	view from all windows, while in a different world inside
FF	quiet, full of knowledge, unnoticed and used for other functions	all around cases full of old books, big old table and chairs, decorated high ceiling	entrance door really thick, sturdy, heavy	breathtaking, knowledge and wisdom, beautiful, deserving respect	study, quiet, eagerness to read	beautiful work on ceiling, numerous large windows, library shelves and balcony, desks	x	x	modern safety features, though obviously designed to minimum disruption	very open to view city from a new angle
FG	informal	ceiling, huge windows, room height bookshelves	very relaxing, like a staff-room	magnificent, wooden, quiet	very relaxing, imposing to whisper	amazing ceiling, walls of books, mezzanine balcony	amazing wooden pan..	to the library	electric kettel, cheap plastic bin	nothing noticeable
FH	light n learned, warm n friendly, used often	large windows, high ceiling, space	window shutters n mouldings, marble fireplace, high doorways, solid door	light, grand, comfortable	still, calm, bookish, learned n quiet, decorative but restrained, oasis in city	staircase, bespoke bookcases, ceiling decoration n height, large windows (light)	victorian fireplace inside traditional surround (???)window shutters, external pipework	anticlockwise, upwards []	victorian fireplaces within original surrounds, lgithning, exposed pipework	very quiet. Visually away of skyline of roofs
FI	wooden panelling, old library feeling	window shutters, hiegh ceiling,wall units	marble fireplace, panelled wall w half circle in wall above (?)	staircase n balustrade, wooden shutters at windows, light n airy	grand, important, major law books collection	staircase n balustrade, book units w locks, impressive ceiling, woodwork	high windows, thick walls, wooden ornaments under balcony walkway	following stairs up to stained glass window	fireplace in Library with radiator in it n modern marble around	the sunny weather
FJ	comfortable, nice light room	sliding windows, ornaments at ceiling, ornamented wooden door w low handle	structure of the windows (?)	fantastic space, formal, round ceiling, impressive bookshelves w balcony	familiar, recognition,ancient, **appt resembles other Adv Libs in Europe**	wooden bookshelves, high decorated ceiling, shape of sash windows	windowshutters, bookselves on balcony. [sb: room appt. enticing!]	to the coloured stained glass window	hallway to the toilets (first floor)	yes, due to many enormous windows

3BLD MAIN STUDY - Advocates Society Pt1
20th 24th September 2013

		age	gender	in Abd	affinity	noticed	visited	frequency	EXTERIOR 1st impression	EXTERIOR elements	EXTERIOR remarkable	ENTRANCE AND STAIRCASE 1st impression 3 keywords	ENTRANCE AND STAIRCASE general atmosphere	ENTRANCE AND STAIRCASE historic elements contributing	ENTRANCE AND STAIRCASE other	ENTRANCE AND STAIRCASE 1st impression 3 keywords
QF20	FK	NL	35 M	1 rg		n	n	x	same style as court building	large, grey, Victorian	nice tall windows	classic, impressive, reminiscent smell (old building), interesting ceiling	regal, though somewhat tired	use of marble, red carpet, ornaments, gilding, ceiling work	mosaic floor excellent condition, stained glass w Justice	very good proportions, light, white bookshelves not nice, original wallpaper? (sb stencils?)
QT24	TA	US	35 F	1 lt		n	n	x	bit secluded from main street, beautiful entrance	door, lamp on top	door seems different from doors elsewhere	regal, imposing, beautiful	imposing, feel to be quiet, demands respect	size of staircase, 'vitral' window (sb: stained glass), ceiling details	details on doorways, woodwork	bright, simple, businessike
QT24	TB	US	35 F	1 rg		n	n	x	grey, old, granite	light fixture, small road, cobblestones	small door for grand entry	grand, ornate, important building	entrance cold, intimidating; nice further up towards staircase	high ceiling, ornate tiled floor, huge windows	not cohesive; lightfixtures donot mix,marble w colored tiles	for important people (men), interesting, wallpaper, official/business/important
QT24	TC	UK	45 F	1 vh		n	n	x	grim, dirty	nails on window ledges	x	grand, wealthy, class system	quiet	ceilings, decorated pillars, stained glass windows	first floor ceiling very stunning and unusual	dull, worn, old
QT24	TD	US	55 F	1 rg		n	n	x	bldg can only be found when shown	massive, unremarkable, stone pale r than dark	nothing	tile floor, stone columns, high bful ceilings	grand, rich, bright n cheery	intricate woodwork n painting, lots of color. Fancy gilded frames, old books	clock ticking n chiming on the hour	dark, but love near windows, views, more inviting to conversation than library
QT24	TE	EU	45 F	1 hg		n	n	x	big, impressive looking, symmetrical	large doorway, v large light over doorway, dull/grey bldg (due to weather?)	large lamp over doorway	large, bf decorative high ceilings, wide staircase	quiet, almost sombre	high ceilings, not very bright; stained glass cuts light	ornate wooden doorways, domed ceiling, bf plasterwork	smaller, cosy, more casual than library
QT24	TF	AU	35 F	4 hg		n	n	x	nothing very obvious, grim outside - surprised by inside	granite, cobbled streeets, large entrance door	x	grand, heigh ceiling w painted panels	old, character, looks unchanged	stainded glass, woodwork, ceiling height, ceiling plastering work	intricate wood panelling above doors to comm room and library	large windows, natural light, details on ceiling
QT24	TG	US	45 F	4 hg		n	n	x	liked how new section blended in using smaller granite blocks	big oak door, granite stoop	tile mosaic floor, decorations on marble columns	grand, elegant-formal, classical - beautiful	subdued, quiet, formal, heavy; best-behaviour	arches on windows through to ceiling, classical moulding, heavily carved surrounds of large oak door	ceiling w skylights n stars, justice stained glass window, oak staircase n bannisters n door frames	old books in cases, decorated ceiling, beautiful fireplace
QT24	TH	UK	35 F	1 rg		n	n	x	grandeur, but secret hidden gem	polished door, lots of windows, tall building	dirty windows on basement level!	bf marble columns w colourful leaves on top, bright floortiles, lg windows w shutters	refined, well kept	high ceilings, bright colours on floor, ceilings, decorative plaster, wd varnished panelling	very wide corridors, arches at ceiling, deep tread to staircase-luxurious, bf stained glass	quite dark even though big windows, historic, authentic colours, very special place
QT24	TI	US	35 F	1 hg		n	n	x	nice orderly building. Granite-did not seem very old	lots of windows, height of building taller, granite	stone building > precise blocks of stone	awe inspiring, higher class of people associated w this building, oppulent	important, self assured	details of arch, stained glass window, high ceilings, grand staircase	ceilings decorated in detial, marble accents, floor	old very old books, quieter, more intimate than libr, great light

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	COMMITTEE ROOM				GRAND LIBRARY			ALL ROOMS/ENTIRE BUILDING		
	general atmosphere	historic elements contributing	other	1st impression 3 keywords	general atmosphere	historic elements contributing	other	direction/draw n to	disturbing	outside
FK	quiet, good for study (if remove mini-fridge)	good proportions, high ceiling, large windows	looks untouched for 110 years; apart from white painted shelves	grand, tradition, not loved	seems disused but retains impressive grandeur	classic library with gallery, light through large windows, victorian portrait on wall	not much effort into maintainig originality (fireplace tiles, ceiling spotlights, h&s etc.)	to upper landing w view of stained glass window	details of 1950/60's (SB???) changes, visible radiators, light balls (in library)	not much but sunshine
TA	businesslike but relaxed	bookcases lining walls, windows and location	x	grand, stuctured, silent	very quiet and isolated from outside noise/disturba nce. Very organized, ample space	bookshelves;p erfect order, shape, door size comp to room size	symmetry (love this room) 1881 chairs by fireplace.	upstairs while entering building	no	no
TB	studious, masculine, warm, cozy	patterned carpet, built in book cases, color scheme	great firplace w marbe, tile, smooth black boundry	quiet, warm, want-to-study/read	studious, useful, resourceful, peaceful	bookcases, patterned carpet, wallpaper, ceilings, stairs and balcony	Ceilingpanel which is lighter (cleaned). So grey outside through windows	only up	light fixtures. Entrance: rugs conflict w space. Could tie tiles n marble together	so grey/boring outside comp. to colorful inside
TC	a working room	furniture, ceiling, fireplace	marble fireplace very grand	wow, beautiful, traditional	solid, sturdy, serious yet trustworthy n cosy	ceiling, lightning, furniture, bookcases, shutters, carpet	stunning ceiling, beautiful gallery, whole room coordinates	to ceilings n stained glass window	where it has been modernised and changed	no
TD	busy, where work gets done; roll up sleeves n write	worn n unmatching chairs	arched cut-outs above bookcases, austere color, intricate woodwork n textures	wow, love ceiling, big windows, light	studious, intimidating, quiet, bit frightening	high ceilings, woodwork, catwalk	exposes pipes, old radiator io fireplace. Big light globes n ceiling feel astronomical	up!	nothing	views over spires n rooftops
TE	warm, more intimate	fireplace, bookshelves	large windows	impressive size, big windows, fab domed ceiling, ornate woodwork	quiet/ hushed	dark colour of ceiling n woodwork	staircase to bookshelves	upstairs; large sweeping staircase waiting to be climbed	fire alarms, no smoking signs, fire extinguishers (h&s appl)	no
TF	quiet, spacious	window size, ceiling height, intricate detailing in border	panels, fireplace, large space for old building (?)	woodwork, staircase, ceiling, lighting	calm, old world, steeped in traditions, formal	woodwork, painting on ceilings, intricate detailing in plasterwork on ceiling	lighting:warm but quite dim. Bf use of wood. Very tactile room. Cosy but traditional n formal	towards library - open space, light, warmth, smell	lighting in library not in keeping but not too noticeable	traffic noise, church bells
TG	relaxed, cozy, comfortable	fireplace surround, cabinets w old law books, ceiling decoration, windows w shutters inside	crown moulding carvings, old wallpaper covering top section of wall, colors of ceiling	scholarly, exquisite, grand	bookish n studious, very quiet n subdued, elegant	bf ceiling wd/plaster w stars, wd bookcases n gallery, narrow wd staircase, globe lights, oak table leather chairs	ceiling w paining n copper flowers at intersections, staircase	up to staircase	radiator in fireplace, granite fire surround does not belong	traffic sounds
TH	like important meetings are taking place	high ceilings, panelling around walls, symm shape - ordered	org dark wallpaper, rounded ceiling edges, decorative plaster edging	very musty old smell (expected), bf wooden bannister mezzanine, wd bookcases all to match	quiet, concentrated, peaceful, pleasant; advocates will be proud of bldg	dark, high, ornate wd ceiling, long rm-lots of space, many large windows-inset in wall w shutters	detail on wood carvings, particularly on ceiling	to stained glass window, to library once seen it	papers laid out, modern fire doors	only a dull traffic noise
TI	inviting-envision good loud conversations , welcoming yet intimidating	high ceiling n windows, bookcases built in, ornate ceiling	fireplace almost lost in toom, striking light bookcases against dark wall	wow, important, grand	educated, important, scholarly, inviting yet intimidating	woodwork, curved detailed ceilings, tapestry rug	detailed door panels covering each section of bookshelves	up the stairs - needed to take the grand stairs too. To library - huge, inviting, important	new h&s necessities	clock bell sounding, some traffic, light from outside

									APPRECIATION		GENERAL				HEARING		TOUCH		VISION/SIGHT		SMELL/TASTE	
		age	gender	in Abd affinity	noticed	visited	frequency	why this room	appeal	what generates appeal	experience	size of room	comfortable?	belonging to building	other	feel through skin	like to touch	greatest visual impact	registered through sight	smell	sensation of taste
ENTRANCE																						
HALL AND STAIRCASE DOWNSTAIRS																						
QF20	FB	UK	45	F 4 rg	n	n	x	elegance and formality, wide hallway leading up. Ornate but inviting	y	crisp, cool choice of colours; quite decorative but still elegant	space	very ample - good proportions	co much interest - different styles in features	muffled buzz (heating/airc on?) muffled voices; very quiet	some outside traffic	coolness	marble columns	ceiling height and long windows, plasterwork details enhanced by colour	painted ceiling and elegant simple carpet	slight woody smell. Slightly stale air??	no
QT24	TD	US	55	F 1 rg	n	n	x	feast of colors, stone columns, paintwork	y	big space broken up by pillars n archways- makes want to move along	cool, like the stone n tile entry	big but not intimidating	uplifting when moving through (not a hangout space)	echoes of voices above, creaky floors	x	coolness	nothing. Maybe wooden ceiling	painting of ceiling and woodwork on top of columns	high light; draws upward	nothing	no
HALL UPSTAIRS																						
QF20	FA	EU	25	F 1 hg	n	n	x	most beautiful, airy, lots of space	y	everything, stained glass	silence, official space, like part of a movie	big! Enhanced by roof window, high ceiling, stained glass window	passing space, but nice to stay because quiet	bells-clock, clock from the building, voices, shuffling	nearly no traffic	soft materials, carpet. Sitting on hard wooden surface	books, furniture	stained glass, dark and soft carpet	green ceiling with painted stars, wall decorations	old, bit humid	no
QF20	FD	NL	35	F 1 hg	n	n	x	wide open space w light from different angles, stained glass window	y	light, wideness	freedom; light and stars on ceiling; like looking at stars in moonlight	comfortable	lots to see and take in	creaking of wood	voices traveling up stairs, ticking clock	soft carpeting, smooth wooden framing	wooden carvings	stained glass window	ornaments on wall	books, bit musty or smokey, wood	English tearoom
QF20	FI	NL	45	F 10 rg	y	n	x	long streched ceiling with rooflight, eyes drawn to sun through stained glass, long window accentuates high ceiling	y	spacious, beautiful window, lovely balustrade, wide staircase	cool, quiet, ticking clock	comfortable, lovable	composition is right. Colouring and woodwork in balance w space and enhancing stained glass colours.	echo of high ceiling, squeeks of wooden floor	clock ticking, doors squeeking, walking on thick carpet	cool	carpet, stained glass window	colours of stained glass	bright light through window in (into?) downstairs hall	bit stuffy	no
QF20	FK	NL	35	M 1 rg	n	n	x	space, stained glass window	y	size, light all mumble jumble;	ticking clock, space	nice, classic	yes, like light and detailing in window	ticking Grandfather's clock, talking in distance	no road noise- quiet	warm, without the sense of old/musty from other bldgs	look at some books	stained glass window	coat stands, elaborate carving of doorframes a stairs	dusty carpet	no
QT24	TB	US	35	F 1 rg	n	n	x	because of contrast to entrance yet spaces connected	n	stained glass vs ceiling vs carpet vs plain white walls	renovated , redecorated sev times; such potential	big but want to keep going upstairs (?)	not comfortable, but good place to observe	creaky benches, talking in ooms	conversations , very quiet in library	like back at university	wood carvings above each door	carpet, then stained glass	people around (talking)	old wood, musty	no
QT24	TH	UK	35	F 1 rg	n	n	x	unexpected, nice to find such an open area, beautiful window	y	size, use of wood, feeling of history	feeling of respect for users of this place	size gives importance	there is a lot to appreciate	creaking staircase, echoes fr people talking	chat, ticking grandfather clock, shoes on non- carpet floors	good temperature	wd carvings above each door- fascinating	open, large, wide staircase	plain walls n ceiling painted like windows - starry night sky	smell' history. Strong musty/dusty smell from library here slight only	no
GRAND LIBRARY																						
QF20	FE	NL	45	M 4 hg	n	n	x	impressive feel	y	historic, quietness, learned feel, size; big enough	quietness, concentration	good. Cosy and big enough for individual space	yes, can stay undisturbed	voices, silence	outdoor traffic	warmth, cosyness	would like to walk on the balcony	bookcases ending in curved ceiling, w balcony and stairs	colour balance between wood and carpet	old books, intellect	cigars & whisky

		age	gender	In Abd	affinity	noticed	visited	frequency	why this room	what appeal	APPRECIATION what generates appeal	GENERAL experience	size of room	HEARING comfortable?	belonging to building	other	TOUCH feel through skin	like to touch	VISION/SIGHT greatest visual impact	registered through sight	SMELL/TASTE smell	sensation of taste
QF20 FF	EU	25	M	4	hg	y	n	x	peaceful yet impressive. This and staircase most impressive	y	really spacious, full of knowledge and history, feeling increased by books	relaxed, comfortable, humble	right	yes, always comfy in room full of books (ref to youth)	silence	street noise, modern noise from outside	imperfection of the wood	books, big armchairs next to fireplace	shelves filled with books, detailed ceiling, woodwork on armchairs	the space and how it has been adequately filled.	humidity, old books	heat from the sun through the window
QF20 FG	UK	35	M	4	hg	n	n	x	enjoyable to be in a magnificent room with personal familiarity, books are stimulating, formal and comfortable size, shape, organization. Feels bit isolated despite size	y	like stepping back in time	peace and study	wonderful size	totally relaxed, a sanctum from the busy world outside	footsteps	nothing but the 'hum' of the space	varnish	wooden bannisters	the ceiling meeting the rows of books	a kind of sepia glow to the room	books, varnish cleaner	varnish
QF20 FJ	NL	35	F	4	hg	n	n	x		y	light coming in, size of room	fresh, bit cold	dissolving in space; huge room vs tiny person like;	comfortable, stimulating, reminiscent	whispering in background	sound from outside; cars	fresh air	wooden panel along staircase in front of books at balcony	wooden panel (sb:trellis?) in front of books	warm colours	bit dusty/old room	none
QT24 TA	US	35	F	1	lt	n	n	x		y	size, all books	isolated but not claustrophobic	regardless of other people you have own space	quiet place in plain view(?)	none	people speaking outside room	nothing really	little staircase up to balcony	bookshelves	ceiling and windows	old books, wood	no
QT24 TC	UK	45	F	1	vh	n	n	x	beautiful old room comforting smell of wood, right level of light for this room, smeel-feel-look of all the wood	y	complete, orignal without too many changes	quiet, solid, responsible	high ceiling but still cosy	happily be reading or writing. Solid. But not a creative place	quiet	none	nothing	wooden stairs n railings	wooden gallery, lights, ceiling	room is coordinated	age	no
QT24 TF	AU	35	F	4	hg	n	n	x	love libraries, feel safe n comfortable	y	quiet, calm. Ceiling height, natural light, large windows, space decorations, quietness, hushed tones, orderliness of books	lovely smell, quietness. Lighting is comforting n relaxing	good size- large n spacious	light, warmth, comforting, space. Windows to world outside	people in other rooms, creaking wood in stairs/floors	very quiet hum - computers?	wood solid oak table, soft leather on chairs, cushion carpet	staircase, bookshelves wd bannister n railings of upper level, maroon armchair by fireplace	wooden staircase	dark painted ceiling	books, wood	whisky
QT24 TG	US	45	F	4	hg	n	n	x	glorious room. Smells musty. Leather bound books are amazing	y	books displayed in such grandeur	quiet, content, studious, reminiscent of university	good size - big enough, not too big	quiet, great place to read or think	shuffling in carpet, muffled voices, footsteps	outside traffic	smooth almost sticky table top	book! Leather bound books	ceiling staircase n railings to higher shelves, ornate carvings on shelves	fireplace	old books, leather, wood polish, cigar smoke	whisky n cigars
QT24 TI	US	35	F	1	hg	n	n	x		y	warm-part of something bigger n more important	nothing special	huge but equals vast knowledge contained in it	light wood, amazing workspaces, comfortable chairs	creeky floors, some talking	bell fr clock outside, chimes fr clock inside	continuous sound outside (generator engine?)	wallpaper upper part walls, books in cabinets	books, big windows, sunlight	x	nothing	x
COMMITTEE ROOM																						
QF20 FC	EU	25	M	1	hg	n	n	x	mainly because of sun coming through windows	?	nice, but too decorated and too classic		nice size, like proportion of windows	comfortable, sp for meeting and chat	people talking, wooden furniture sounds		x all carpeted to kill noise (ex hall), all wood, heavy doors		shutters, doors	ceiling height	fireplace, bookcases	not much; age, dust	no
QF20 FH	UK	45	F	1	hg	n	n	x	comfortable, small, light	y	useable space, friendly atmosphere	comfortable but studious	useable	warm, light, enveloping	very quiet, whispering	newspaper rustling, creaking floorboards	warmth in this room	marble fireplace				
QT24 TE	EU	45	F	1	hg	n	n	x	smaller n more intimate comp to other spaces	y	smaller size comp to rest	quiet, restfulness	like smaller size	relaxed, more sitting room; w lighted fire be a refuge	doors open/close, footsteps on stairs	cups, people, machine hum (aircon?)		fireplace	big windows, vaulted ceiling smaller size of room	coffee	no

3BLD MAIN STUDY - Art Gallery Pt1
20th 24th September 2013

ART GALLERY

		age	gender	in Abd	affinity	noticed	visited	frequency	EXTERIOR 1st impression	EXTERIOR elements	EXTERIOR remarkable	MACDONALD COLLECTION ROOMS 1st impression 3 keywords	MACDONALD COLLECTION ROOMS general atmosphere	MACDONALD COLLECTION ROOMS historic elements contributing	MACDONALD COLLECTION ROOMS other	visit before	1st impression 3 keywords
QF20	FA	EU	25	F	1 hg	y	y	2	impressive, granite shining in sun, beautiful	two big columns at entrance, statues on top it	big entrance hall, roof window	spacious, bright, overwhelming	feeling old, sense history, too many paintings	wdn floor, wdn wall panels, old materials (feeling of time) impressive red wallpaper	gold details-fancyness, roof windows	y	open, empty, clean-white
QF20	FB	UK	45	F	4 rg	y	y	2	elegant	pillars at entrance, light stonework, cherubs above door	x	grand, warm, inviting	peaceful, wealth, light	the wide rooms, large archways, high ceiling w skylight	warm colours to show off paintings to advantage, end room particularly spacious n impressive	y	clean, white, empty
QF20	FC	EU	25	M	1 hg	y	y	1	big bld w educational or cultural use	columns, signs, disabled access	colour; any coloured bld remarkable in a grey bldg city	fancy, colourful, bright	colourful, bright, vivid	walls lining, wooden floor n ?, furniture	painting frames (bright, golden,decorated) skylights	n	white, clean, noisy
QF20	FD	NL	35	F	1 hg	y	n	0	big building, bf façade	entrance w pillars, statues above door, stone structure diff above n below	wide double doors	nice woodwork; wall pann, bow (arch) between rooms, light fr above, wallpaper nice print	nice, warm	wooden floor, carvings, curved ceiling	olden bars on side to keep distance from paintings	n	big room, natural light, empty
QF20	FE	NL	45	M	4 hg	y	y	2	fits in scenery, drawn to entrance	porch, long front (façade)	wheel chair ramp	classical, puposeful, fitting	very clear sense of purpose, classical museum room, fitting for contents	lay out: typical picture gallery, lighting, wallpaper/colour scheme	length of gallery: two connecting rooms, floor	n	cold, dark, empty
QF20	FF	EU	25	M	4 hg	y	y	2	big n bright, spacious surroundings, not hidden	pink granite, .. ramp, golden lettering	x	spacious, bright, detailed artwork (walls n floor)	open and busy at same time	high ceiling, fine wd floor n wd panel, roof window	impressive frames onpaintings almost occulting paintings themselves	x	empty, emotionless, spacious
QF20	FG	UK	35	M	4 hg	y	y	10+	impressive façade	doorway, columns, granite blocks	it caught the sun very well	golden, spacious, grand	peaceful n reflective	flooring, red/green coloured walls, gold picture rails	centre arch is fantastic	y	light, empty, yellow
QF20	FH	UK	45	F	1 hg	y	y	10+	grand, imposing, municipal	large high windows, columns, grand entrance, carvings above door	lion in corner of building	high ceilings, traditional, warm	warm wd flooring helps red walls be comfortable, ceiling height gives grandeur	flooring, skylight, large grand entrances, corniched doorways	arched ceilings reflecting light, wd panelling, brass handrail. Lighting not imposed on hist structure	y	stark, modernised traditional, cavernous
QF20	FI	NL	45	F	10 rg	y	y	2	new/old building	plaquette with . . . above door, golden lettering AG	great entrance every time immediately	authentic, light, gold/wood	large, airy room, spacious, benches cover ugly radiators from a different era	wd panels along walls, wd archway n ornaments, music unit, wall fabric rather than paper	hooks fixing rails on wall, ugly marble stand in alcove should have been wooden like two in front room	n	dark, spacious, not cosy
QF20	FJ	NL	35	F	4 hg	y	y	6	formal, nice old building	nice ornaments, huge entrance	feels very spacious due to big hall and light	x	x	x	x	x	x
QF20	FK	NL	35	M	1 rg	y	y	2	nice, impressive	neoclassical, rough worked pink granite	prominent position	pleasant, classic art gallery, bf floor, good light, airy	classic env to appreciate paintings, plenty light, quiet colours	floor, wall covering, high ceilings	copper railing is unusual	y	bland, sterile, annoying
QT24	TA	US	35	F	1 lt	y	n	x	fresh, sort of friendly	diff color stone sculpture above entrance, length of bld	sculptue of little angels on top	grand, strudctured, spacious	no impression of intimacy - like a ballroom	shape, tapestry (fabric) on walls, boarding (wainscotting) on wall	lack of ceiling detail; plain. Back part (green) of the room feels different; more intimate	n	simple, ample, plain

3BLD MAIN STUDY - Art Gallery Pt1
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LERY

	ROOM 9				MAIN HALL / COURT AND BALCONY			ALL ROOMS/ENTIRE BUILDING		
	general atmosphere	historic elements contributing	other	1st impression 3 keywords	general atmosphere	historic elements contributing	other	direction/ drawn to	disturbing	outside
FA	high ceilings, minimal, no fancy materials, old but different- more scottish (?)	thick walls, old flooring, wall decorations	style of paintings totally different n room fits them	spacious, airy, impressive, colourful, versatile	versatile space, lots of different input- people/café/ex hibits, big whitew lots of marble	neo-classic style, white marbles, black/white tiling	big roof window n fountain- bringing nature's elements inside	towards main hall	coffee tables- even though helping people relate to space	slightly adjacent buildings but most windows covered
FB	tranquility, but not particularly inviting	only the height of the ceiling	white décor throughout emphasises paintings - no distractions	bright, spacious, inviting	relaxing, inspiring, interesting to hear echoes	sky lantern -light factor, central tall pillared atrium, predominantly white decoration- crisp/clear lines	water feature adds to feel of tranquility despite people sounds	into central atrium, then to gallery upstairs	no	no
FC	room seems empty; noisy n cold compared to other rooms	only shape of ceiling n cornicing remind of hb	modern furniture n mod heating (noisy), skylight covered, artificial light only	echo, cold, hard	big space w high atrium. Atmosp cold n noisy because echo. Stone floor n columns make room feel cold	stone, height, fountain	columns w golden capitels, skylight	main hall most interesting; first you see when entering, most appealing	this building does not have a strong character; notdue to anything specific	no; no connection w outside, forget what is outside
FD	sterile misplaced: sort of modern	little bit, not as much as they could have	double doors leading into room	bows n pillars, lots of light, ornaments on pillars	spacious area, open light	pillars, statues on walls, arches	the balcony, tiled floor, wide marble stairs leading you up downstairs you can talk to eachother,	going towards warm n welcoming rooms w natural light	no	hardly; no windows to looke outside
FE	atmosphere which gets lost due to historical untdertone	yes, though competing with more modern 'empty' look	heating elements in middle, lighting; door is light source which does not work	functional, welcoming (for a museum), hall like	pleasant, though not an area to linger in for long	size n shape (high), balcony n columns, sound (echo, fountain).	but echoing sound not pleasant on balcony (too public)	from outside to the hall. To the Macdonald rooms	no	no
FF	empty room w not much atmosphere	barely, wd floor brings bit of warm but nearly empty high walls make unattractive	missing natural light; might influence atmosphere	spacious, impressive, oisy	open, at ease and not clustered (sic)	vast open space w balcony, columns, big roof window, sculpture on balcony walls	fountain in middle brings more natural element within building	towards main hall-open space	coffee tables in hall out of place. Some of the art distracts from focus on building	weather chang through rooflight. Hall big enough to not pay attention to outside
FG	clean, sterile	no	nothing; very plain	spacious, airy, echoes, light	open, encourages conversation, sultan's palace	arches, columns, tiled floor	water feature, glazed ceiling	centre of main reception/hall way	coffee tables	no
FH	contemplativ e, simple, refined, quiet, thoughtful, vast	reminiscent of but paired down/simplifi ed. Shape of rm, size of entrances, corniches, flooring	space, height n size of connecting doorways to different galleries	cavernous n light, echoey, palacial	cool, contemplative, grand, earned, self conscious bcs echo. Stone reflections, light fr above	columns, balconies, large entrances to rooms, very high ceilings, fountain	fountain- palaces n leisure bldgs. Confidence to show of granites of the area-diff colours. Elgin marbles around ceiling	into main hallway, through lower galleries, up the stairs	pokey coffe shop, toilets, fans running in every gallery	no
FI	chilly, businesslike	just bands/ corniches on wall and doors	rooflight covered, small floorplanks do not match ones on wall	light, spacious, light glass ceiling, feature fountain in middle	grand, social atmosphere	tall pillars (columns), arches, balustrade	glass ceiling, marble flooring, columns	hall, open, light colours, daylight	modern art standing in hall, chairs of sitting area (café)	in the hall you look out into Belmont St, but hear nothing but echo from any noise
FJ	x	x	x	spacious, luxurious, nice arches and coloured columns (in pattern??sb)	spacious n luxurious-also due to fountain	high ceiling, decoration of the walls, marble floor tiles	lighting n huge glass rooflight above fountain	central hall, due to lighting	x	x
FK	focusses on artwork, as rest is 'nothing'	none, except floor	lack of anything nice (art included)	pleasant, good mix modern- classic, colours work for me	clearly public space, designed to impress, open- not formal	glass ceiling, varied granite columns, vaulted arches (?)	patterned floor makes room appear larger	around central hall	some neon downstairs; but that is nice	no
TA	quiet, very simple, make you pay attention to anything but the room itself	plain wall color, no detail, lack of light from above	simplicity; shape of doorways different from MacD rooms	interesting, friendly, inviting	friendly feel, like telling a story	carvings along top, atrium space	contrast of colors gray n white	to the balcony	not really	not at all

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										EXTERIOR			MACDONALD COLLECTION ROOMS					
		age	gender	in Abd affinity	noticed	visited	frequency	1st impression	elements	remarkable	1st impression 3 keywords	general atmosphere	historic elements contributing	other	visit before	1st impression 3 keywords
QT24	TB	US	35 F	1 rg	y	n	x	elegant, glass, rose stone	color of stone, color of building, glass windows	like a small palace or nobleman's home	bright, warm, elegant	rich, fancy, warm	textured wall paper, wd floors n side panels, lighting, arched walkways	organ (???), furniture is rich n fancy, picture rails, glass on paintings	n	white, sterile, modern
QT24	TC	UK	45 F	1 vh	n	n	x	just the doorway	x	x	grand, rich, period style	sedate, quiet	wooden panelling, moulding/picture rail, domed shaped ceiling, colour of walls simple/plain,	solid wooden floor	n	large, open, space
QT24	TD	US	55 F	1 rg	y	n	x	easier to appreciate exterior due to wide sidewalk	sculpted portrait, attractive stonework, wide sidewalk	NOT dreary grey granite of Aberdeen	nice displays, perfect space n layout, perfect amount of visual business	interesting n attractive	but high ceiling-no distractions from art, undistracting floor, perfect couches for the job	skylight is ugly; detracts from beauty within room	n	stark, empty, austere
QT24	TE	EU	45 F	1 hg	y	y	1	large, quite plain except entrance	symmetry of building, nice entrance	it's NOT granite	high ceilings, very bright-artificial light, warm	hushed, bright	none of them. Bright light is artificial, quiet because not many people	parquet floor	y	large, bland, apart from artwork, high ceiling w glass
QT24	TF	AU	35 F	4 hg	y	y	6	grand old bld but entrance quite small; disproportionate	pink granite, height	lack of colour n warmth	warmth, characterful, colour, comforting	cosy, comforting, interesting	wd panelling n detailing n floor, brass handrails, wd arches, ceiling height	oak doorframes, arch, wd panelling	y	space, light, ceiling height, austere
QT24	TG	US	45 F	4 hg	y	y	1	classical style, softer colour than grey granite	mural/frieze above door, columns	reddish colour of stone	nice wd floor, elegant, old world feel	quiet, comfortable, welcoming	high ceilings, green/red wall covs, picture rails, lrge french doors to balcony, wd floor, skylights	curved oak arch separating rooms, parquet floor	y	empty area (ex paitings), stark white walls too big, covered up ceiling
QT24	TH	UK	35 F	1 rg	y	y	2	windows up high	pink marble, 4 cherubs in frieze, lots of windows	glass sliding doors added to historic bldg	warm colours, shiny floors, large rooms	inviting, relaxing	archway btw rooms-no doors, wd floor n panels to waist height, curved ceiling	herringbone flooring	y	bare, bright, plain
QT24	TI	US	35 F	1 hg	y	n	x	grand, blends into surroundings	cherubs at entrance, discs above windows, stone	blends into RGU (Robert Gordons School; sb); lots going on around bldg	warwm, inviting, easy on eyes	calm even though more to look at with lots of detail	wd floors w herringbone, warm colours of wall tapestry, textures on every surface	organ in green fm draws eye in; modern things (lighting) do not detrac fr hist features	n	white, big, overwhelming

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	ROOM 9				MAIN HALL / COURT AND BALCONY			ALL ROOMS/ENTIRE BUILDING		
	general atmosphere	historic elements contributing	other	1st impression 3 keywords	general atmosphere	historic elements contributing	other	direction/ drawn to	disturbing	outside
TB	plain, not cozy, not inviting, coldm only 2 chairs for people to sit lots of space, interesting	yes, they are darker, not as colorful	lack of seating, everything focused on paintings	spacious, grand, elegant lovely-airy,	bright, historical in light colored marble, fountain makes elegant, artwork of importance	fountain, light n dark marble, many windows	hard to know where to go next	to the @ (some sign?) when taking staircase	stained glass window by staircase	how grey it is
TC	moulding n shaped ceiling, but bland space	only the moulding n shape of ceiling	nothing else	spacious, marble pillards, greek/roman feel	light, airy feel	pillars, galery, arched ceiling	shiny marble pillars	to the main hall	yes	no
TD	bland, uninviting blandness,	room sanitized; makes art feel ugly without even looking at	blocked skylight helps 'fill' the room	spacious, bright but cold, sterile	disjointed;mis h-mash of colors n styles	round columns--mismatched stone columns; square fountain--oval but boxy skylight; round archway--square geometric floor	identity crisis here	no- why go beyond entry?	(an art museum should not have any space)??	no
TE	probably to focus on artwork rather than room	no, appear no historic elements in room	how remarkably un-remarkable the room is	busy, lots of people; still feels roomy, not crowded	large vaulted ceiling gives light n feeling of space	double staircase, again symmetrical	rooms seem to naturally lead from one to the other	aorcon, fire-exit signs, leaflet stands, café, **fountain** not really;	traffic noise	
TF	austere, quiet, calm, sparse	ceiling height	white walls, lack of colour against wd floor (like stark contrast)	large open space, natural light, arches,	austere, traditional, quite noisy for gallery	marble features, plasterwork, granite columns	marble floor, plasterwork frieze	followed staircase to upper. On arrival drawn to rear of main hall	glass dome; enjoyed light but nature of glass n frame seems too modern	minor traffic noise
TG	dull, not very stimulating, large, making sleepy	no	nothing	mishmash of styles, diff stones of columns, splashing of fountain	very open, poor acoustics, nice lighting, confusing	ceiling skylight, friezes around 2nd floor ceiling, columns/arches n décor at top of columns	sounds of fountain, neon signs on walls	to center of lobby where fountain is	covers over skylights in some rooms, eclectic style of main floor w old and modern mix	no
TH	bland	not as much as McDonald rm- clearly influenced by interior colours n materials used	archway to next rm just a rectangular hole- no decorations	large, open, light, random	artistic, inspirational	checkered floor, diff coloured columns n fountain in middle - bannister has alternating pattern around balcony	frieze aound top of balcony on wall, round window array on ceiling	Macdonald room was most appealing up the stairs.	lots of chat from hallway	nothing; too much going on inside- many room without street windows
TI	big room draws eyes to artwork but high ceiling w dark centre made dizzy	size, mouldings, ceiling; make me look at art, which is purpose-but do not like room	great character in floor	love different coloured columns, modern/histo rical blend, windows, on to of dome-bright	cold almost but airy/light	columns, arches, marble floor	very busy-hard to know where to look	Hall too overstimulati on w noise so drawn upstairs. Visually more so as going up	white walls/ dark ceilings	some traffic while in entrance, otherwise no. not even natural light since panels seem to be covered.

ART GALLERY

		age	gender	in Abd	affinity	noticed	visited	frequency	why this room	APPRECIATION: appeal	APPRECIATION: what generates appeal	GENERAL: experience	GENERAL: size of room	GENERAL: comfortable?	HEARING: belonging to building	HEARING: other	TOUCH: feel through skin	TOUCH: like to touch	VISION/SIGHT: greatest visual impact	VISION/SIGHT: registered through sight	SMELL/TASTE: smell	SMELL/TASTE: sensation of taste
MAIN HALL																						
QF20	FA	EU	25	F	1 hg	y	y	2	the most impressive n relaxing one	y	colors, materials (marble) abundance of light	open space, interestinf semi-public space, play of open-closed and inside-outside celarly a transit space, both modern and classic feel , aligned with surrounding rooms	big, but not too big	bf space, good qual air/temp/light n clean environment stimulate pleasant feel	noise of fountian, visitors	sounds from café, plates etc	cold, too cold, the marbles	nothing in particular	contrast between white n colored marbles n color of paintings	movement of people	nothing	(just had coffee)
QF20	FE	NL	45	M	4 hg	y	y	2	the idea that you cannot talk on the balcony	y	its sense of purpose		proper for its use	downstairs good to communicate , upstairs to observe	movement, voices echoing; fitting to transit nature of room	fountain, being good background noise for the room	space	columns	light from ceiling	the space (while standing on balcony)	x	no
QF20	FF	EU	25	M	4 hg	y	y	2	open welcoming space w plenty nat light; water noise calming n relaxing	y	size, balcony, rooflight; plenty space to go round undisrupted andd not disrupting	open space, white is calming, nat light n water giving feel good touch	good size, feel of freedom, centre point where things evolve	relaxing, enjoyable space	wate fountain, wooden floor	people talking	wooden panel, marble	sculpture on wall, design of painting frames	brightness of the space	all different colors from building and art	nothing	x
QF20	FG	UK	35	M	4 hg	y	y	10+	palatial, magnificent social area, light, great view at ceiling, art deco inside bldg (sb:where?).	y	columns, balcony (4 sides!), flooring, water-feature	feel of freedom to move about	just perfect	cool n relaxing	whispered voices, footsteps	dehumidifier	marble/cool	columns, water	columns of different granites, arches	general 'blueness' to the space	nothing	no
QF20	FI	NL	45	F	10 rg	y	y	2	Fountain is relaxing	y	social noisy element in spacious area. Fountain inside bldg	relaxing, like sitting on a streetside terrace	spacious, light	sound of water lets your mind wander	walking on marble	water splashing (fountain), people talking, cutlery on plates (café)	cool but not cold	water	high ceiling with glass	fountain, all the marble	food of canteen	coffee
QT24	TF	AU	35	F	4 hg	y	y	6	large, impressive, natural light appeals	y	nat light, large space, ceiling height	gentle noise fr others echoes, smells old-traditional, historical	too big, but enjoyable; lacks warmth n character; a little soul-less	dark day; bright nat light-open n spacious	gentle noise of fountain n coffeeshop patrons, footsteps	minor traffic noise	coolness; marble feels cold, unfriendly	marble columns	columns, water feature	arches, balustrade, glass dome; very austere, lacking in colour	stale- water fr om fountain?; not comforting	not really
RM1 MACDONALD RED																						
QF20	FJ	NL	35	F	4 hg	y	y	6	love paintings, specially 'Highland flooding'	y	lighting (though less than hall) and wooden floor	space	enormous, also due to connecting rooms	"home"-feel, through wooden floor and its sound	echoes, sound of water fr fountain	sound of wooden floor	dryness	red wallpaper	painting of Scottish flooding	high ceiling	stale air	dry mouth
QF20	FK	NL	35	M	1 rg	y	y	2	feels nice	y	unusual, airy but old, nice paintings color, lighting,	art, culture hear	just right	could easily spend an hour or so	children, talk, laughter	nothing	comfortable temperature, cool brass railing	wall covering	central arch leading to green room red walls, light wood	perspective of size of sofa's vs room size	nothing disturbing	no
QT24	TB	US	35	F	1 rg	y	n	x	cozy, bright, elegant, warm	y	footsteps, comfy sofa, picture rails, statues	relaxed, echoes from hallway	spacious but not too big	inviting, warm, comfortable	lots of echoes, water from fountain	footsteps, coughs, conversations	warmth, relaxed	wallpaper	panels on archways n walls	shiny guard rail n picture rail	smells like my grandma's place	no
QT24	TD	US	55	F	1 rg	y	n	x	right balance of comfort, interest n appeal	y	comfortable for walk-through room, broken up nicely by sculptures, seating focus colour,	feels warm n inviting in spite of size. Grand but well arranged	perfect for the purpose	lots to see. Could sit n enjoy paintings at leisure	creaky floors,echoes of voices	footsteps of others	x	walls	large arched opening to next room	art in colorful band of red is just right. Not too regular but not too chastic (drastic?)	cafeteria adds an aroma	same cafeteria aroma
QT24	TE	EU	45	F	1 hg	y	y	1	like the colours, seems like a warm room	y	smaller, more sitting rm than public gallery	quiet, calm	like smaller size	relaxing, could sit all day	creaky floor, footsteps	telephone, people talking, aircon	warmth	paintings	art display	architectural details; arched ornated wd doorways	nothing appearing	no

	age	gender	in Abd	affinity	noticed	visited	frequency	why this room	APPRECIATION appeal	what generates appeal	GENERAL experience	size of room	comfortable?	HEARING belonging to building	other	TOUCH feel through skin	like to touch	greatest visual impact	VISION/SIGHT registered through sight	SMELL/TASTE smell	sensation of taste
QT24 TI	US 35	F	1 hg		y	n	x	love colours, relaxing. Visually busy, but calming.	y	everything goes together. Furniture style matches walls n floors.	coziness in big room. High ceiling draws eyes to wall where colour. Things not lost in space.	size of furnishings/paintings fit in ceiling makes space. White lighter, dark walls focus attention.	mostly colour n warmth of space; very inviting n appealing	creeky floors, echoeing of footsteps, fountain	people noises, cameras, phones, footsteps	soft velvety couches, pattern of flooring	ornate picture frames	pattern on tapestry on wall under paintings	scale of paintings matches scale of room but all at same level so easy to follow artwork around room	nothing. Doesn't smell old so cleaned and/or good air circulation	no
RM 2 MACDONALD GREEN																					
QF20 FB	UK 45	F	4 rg		y	y	2	calm atmosph, light, high ceiling w skylight, comfy seat-much contrast to rest of gallery quiet (at end of exhibition room),	y	symmetry, not sharp corners, high ceiling w light flooding, simple archways, wd floor n matching panelling	peace, awe, grandeur	great size for size of paintings. Cluttered walls compensated by floorspace	feels warm, comfortable, lot of visual impact ok if interested in particular painting, otherwise move to next lot to see apart from paintings; wallpaper, carvings, floor	muffled voices, foorsteps on wooden floors	sounds from café, children playing heating systems, steps, people talking in cafeteria downstairs	x	x	nothing	green wallpaper to show off paintings, white ceiling n lightwell	little touches of appulence; like brass railings, warm colour of wooden floor n panelling	x	x
QF20 FC	EU 25	M	1 hg		y	y	1	comfortable, warm, comf furniture	n	no special appeal, just convenient n quiet	old n fancy decorated, no special feel	too big, even though filled w paintings n furniture		foorsteps on wooden floor, creaking wood	voices travelling up from big hall, aircon	x	softness, smooth	silk? linings of walls	coloured walls, esp contrast red-green btw two rooms	bright refelctions from golden metallic bars	humid' smell-like moisture from heater or furniture	x
QF20 FD	NL 35	F	1 hg		y	n	0	warm nice colours	y	high curved ceiling	welcoming to sit down n take all in	good				wooden panels/carvings, wallpaper, golden bar	wallpaper	wallpaper	light	wood	not really
QF20 FH	UK 45	F	1 hg		y	y	10+	interesting octagonal-ish shape, light airy, through height less oppressive than red room, restful space	y	light from skylight; height of ceiling, wd floors-warmth, peacefulness	room to think, feel, experience pictures without interruption	comfortable	allows time to contemplate whilst enjoying the peace	echo fr people in main courtyard	footsteps, people discussing the pictures, rustling papers, otherworldliness	comfort of victorian sofa, warmth of wood beneath feet, pleasant air temperature	sculpture-shiny surfaces	great archways you enter, light from skylight	light contrast w room 9 where light excluded	slightly musty dust	
QT24 TA	US 35	F	1 lt		y	n	x	location isolated from the rest	n	does not give any feeling; attracted to size only	bit isolated	good, not huge like other rooms. Helps concentrate on contents	no, does not appeal, does not welcome comfortable, when you start looking in detail it's attractive	none	some vehicles outside	nothing	wall tapestry	arched entryway, wall color	nothing catching	old, bit like old clothes	no
QT24 TC	UK 45	F	1 vh		n	n	x	because it is different to my taste	n	heavy feel, old, past, days gone by, dull	I am in the past	good, open yet cosy n warm	footsteps, voices, echoes	none	nothing	panelling	wooden floor	colours of the room	nothing	no
QT24 TG	US 45	F	4 hg		y	y	1	v beautiful, slightly unique due to hexagonal shape, floor, parquet floor, small organ	y	lots wood-panelling, floor high ceilings, good light	quiet, comfortable, soft sofa, easy lighting	good size	love wood all around, green colour soothing. Paintings colours, nothing too bright	humidifiers, footsteps, high heels, papers rustling, ventilation	echoes downstairs	soft velvet of sofa's, smooth coldness of marble	white marble tea table w bust	organ on far wall	pattern of floor, greyess outside	dry air, other people	no
QT24 TH	UK 35	F	1 rg		y	y	2	(there was a seat!) furthest from noise of hallway	y	good as art gallery-appealing to sit n observe, could appeal to many other functions	peaceful n relaxing	not huge but nice n roomy for this purpose	nothing to make me uncomfortable	distant noises downstairs; echoes, low grade noise fr aircon	papers russeling	good temperature	x		light colours of varnished wd floors n panels	green walls pleasant on eyes	slight smell of varnish	x

Appendix 17: Descriptions of the assessed buildings.

'**Norwood**, 1859, may incorporate earlier work, as it is on the site of Menzies of Pitfodels' own house; the ancient motte of Pitfodels Castle survives east of the house. Low pedimented gables flank the front entrance porch, the architectural features picked out in sandstone, the rest harled standing on a granite base. Although symmetrical at the entrance, the effect of Norwood now is asymmetrical, even rambling, due to J. Russell Mackenzie's reworking of the house in 1881. The interiors by W. Scott Morton are quite superb: a long hall (a sort of lounge-hall before its time) runs through the house and occupies the original right hand bay. From this a very grand staircase opens to the left and is lit by a coved lantern in the roof. The woodwork is of the best, its richness enhanced by extraordinary anaglypta paper masquerading, very effectively as Spanish stamped leather. This continues into a drawing room added by Mackenzie, Norwood was well converted into a hotel in 1972 by M.F. Beattie and W. Cowie. A Loudonesque Gate Lodge, 1859, survives as does the woodland garden, probably laid out by Forbes Beattie.'

'**Provost Ross' House**, George Johnstone, 1593. The only houses that survived the zeal to demolish are the pair known as Provost Ross' House. The eastern section is the earlier, the five-bay western section, with its arcade, is early 18th century. Some of the small rooms retain original features. Repaired and part restored by A.G.R. Mackenzie in 1954. Provost Ross' House is shared by the National Trust for Scotland and the Maritime Museum, greatly augmented in 1996 by the City Architects Department.'

'Netherkirkgate leads to Broad Street opposite Concert Court (the only of these vey numerous Courts to survive mid 20th century clearances) which contains the **Advocates' Hall**, by James Matthews, 1869. Of no particular interest externally, the surprise is the splendid decoration inside, especially the stencilled walls by Arthur Clyne. It is usually entered from the south from the Sheriff Courts within the Town House. The main room was restored as an extra High Court Room and the Advocates' Library above is also notable.'

'**Art Gallery.** In 1905 A. Marshall Mackenzie added the top-lit Sculpture Court to the Art Gallery and Museum, to accompanying protests at *details more fitted for anatomical classrooms which hinder rather than invite inspection and study*. The gallery is supported on an arcade of polished columns exemplifying the various colours of granite, then at the peak of its architectural and commercial importance.'

'The main galleries are on the first floor and the Macdonald Collection of 19th century paintings, formed by granite merchant Alexander Macdonald of Kepplestone (advised by his friend Sir George Reid whose own paintings can be seen), hangs in two rooms which are still as they were finished by A. Marshall Mackenzie.'

All from: BROGDEN, W.A., 2012. *Aberdeen, an illustrated architectural guide*. RIAS.