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TRADITIONAL ARCHITECTURE TO ENHANCE OCCUPANTS' WELL-BEING FOR A SUSTAINABLE FUTURE IN THE MIDDLE

This is a PhD research questioning to what extent modern adaptations to traditional architecture can affect occupants' well-being by modulating temperature and relative humidity. The research aims to assess traditional architecture in the modern context to understand people's physical and psychological needs and preferences. With focus on building performance; temperature as an indicator for thermal comfort.

Research Significance

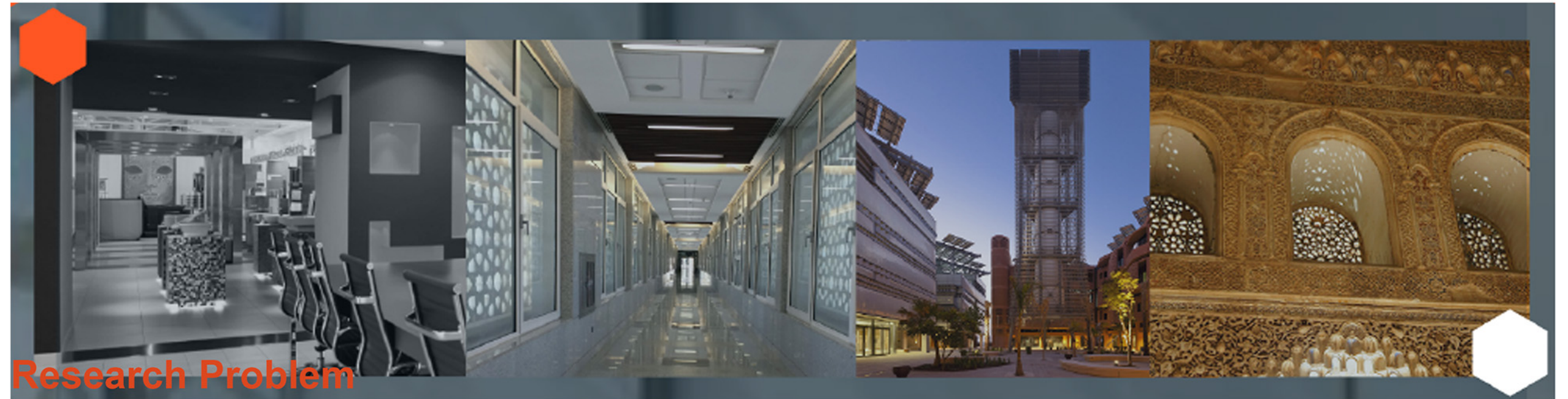
This research attempts to contribute to the environmental design for an improved human well-being. That is about how to improve the relationship between people and their environment, and to compromise between this relationship with the built environment for a sustainable future in the Middle East.

Keywords

Traditional environmental architecture, cultural Heritage, Thermal comfort, well-being

Research Rationale

To establish whether the community is in favor of traditional architecture despite the over go of modern influence when their continues thermal comfort is responded to.



The high growth of population since the 1970s. The huge demand on dwellings didn't allow local builders and architects to respond. The shortage was filled by international expertise, who could not respond to cultural aspects of local users.

Researcher will review the topic from either points-of-view regarding cultural and social aspects to reach the approach of the research.

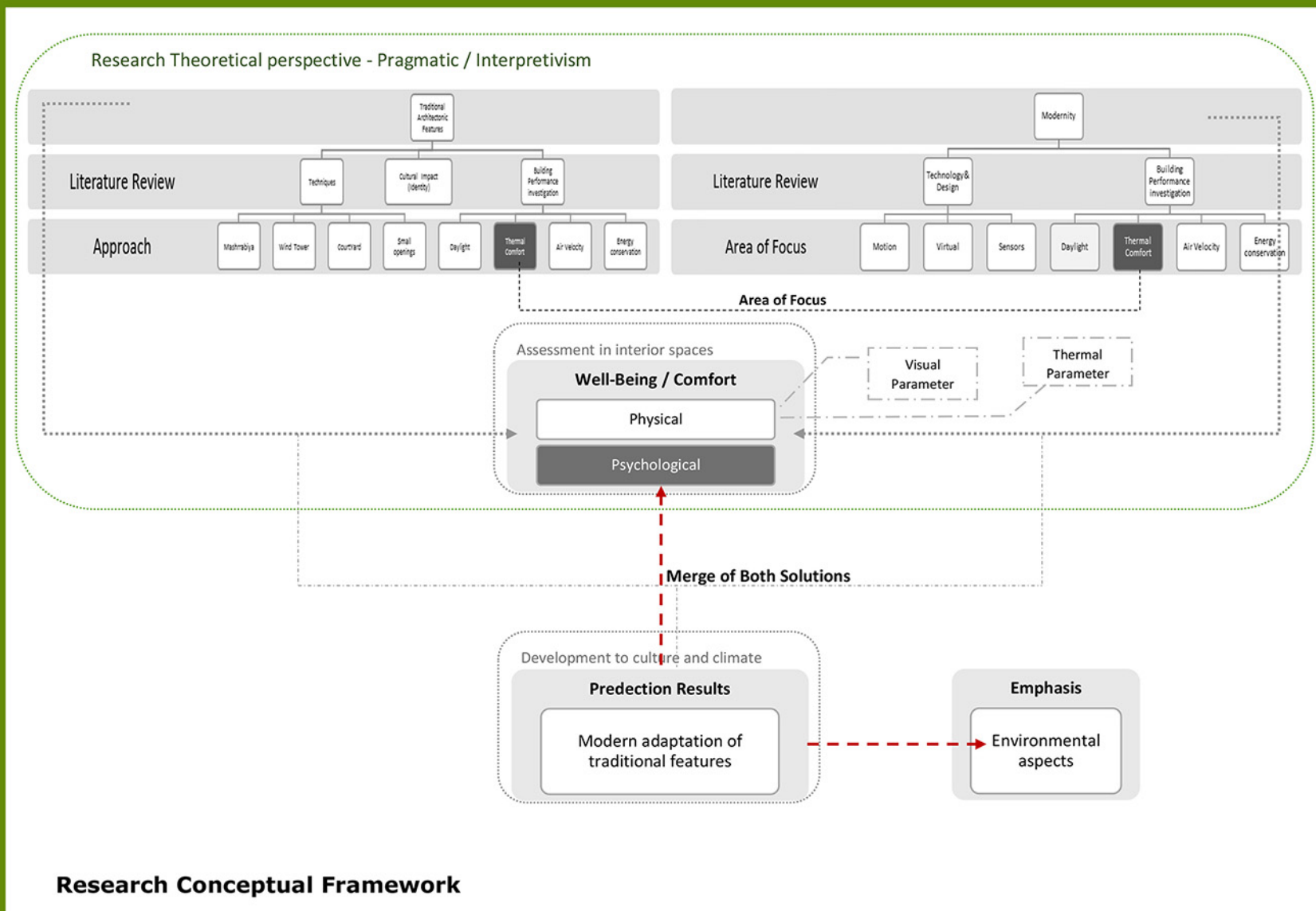
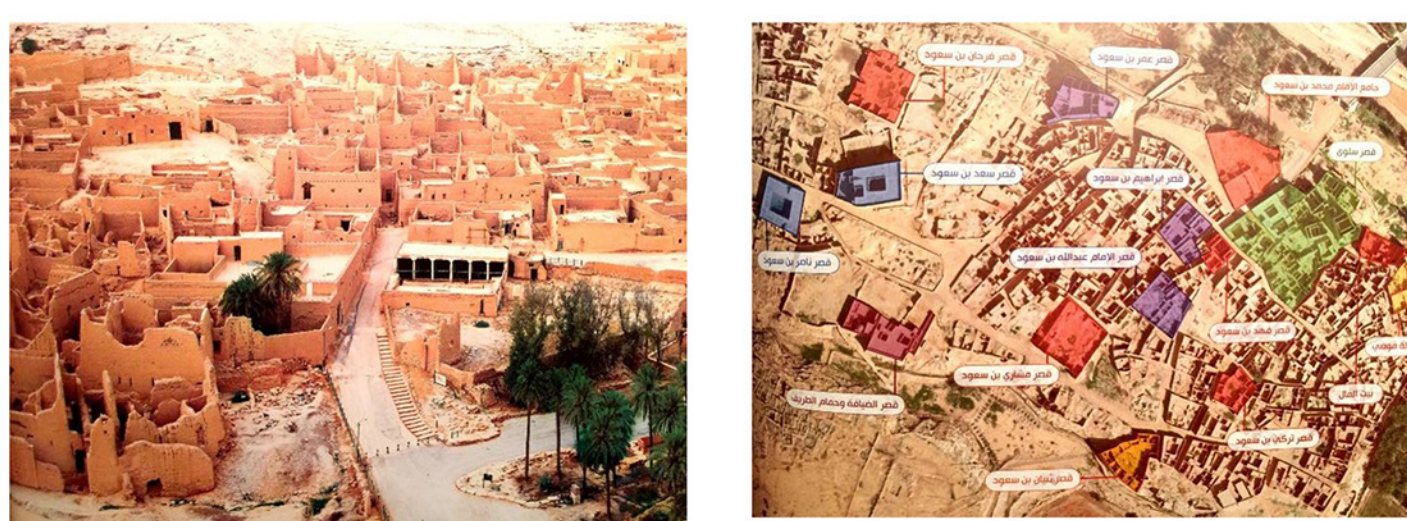
Researcher will emphasize on people's perception, behavior and decision and their view to cultural existence and change, and the meanings that are important to them.

Historical DIRIYAH, Riyadh

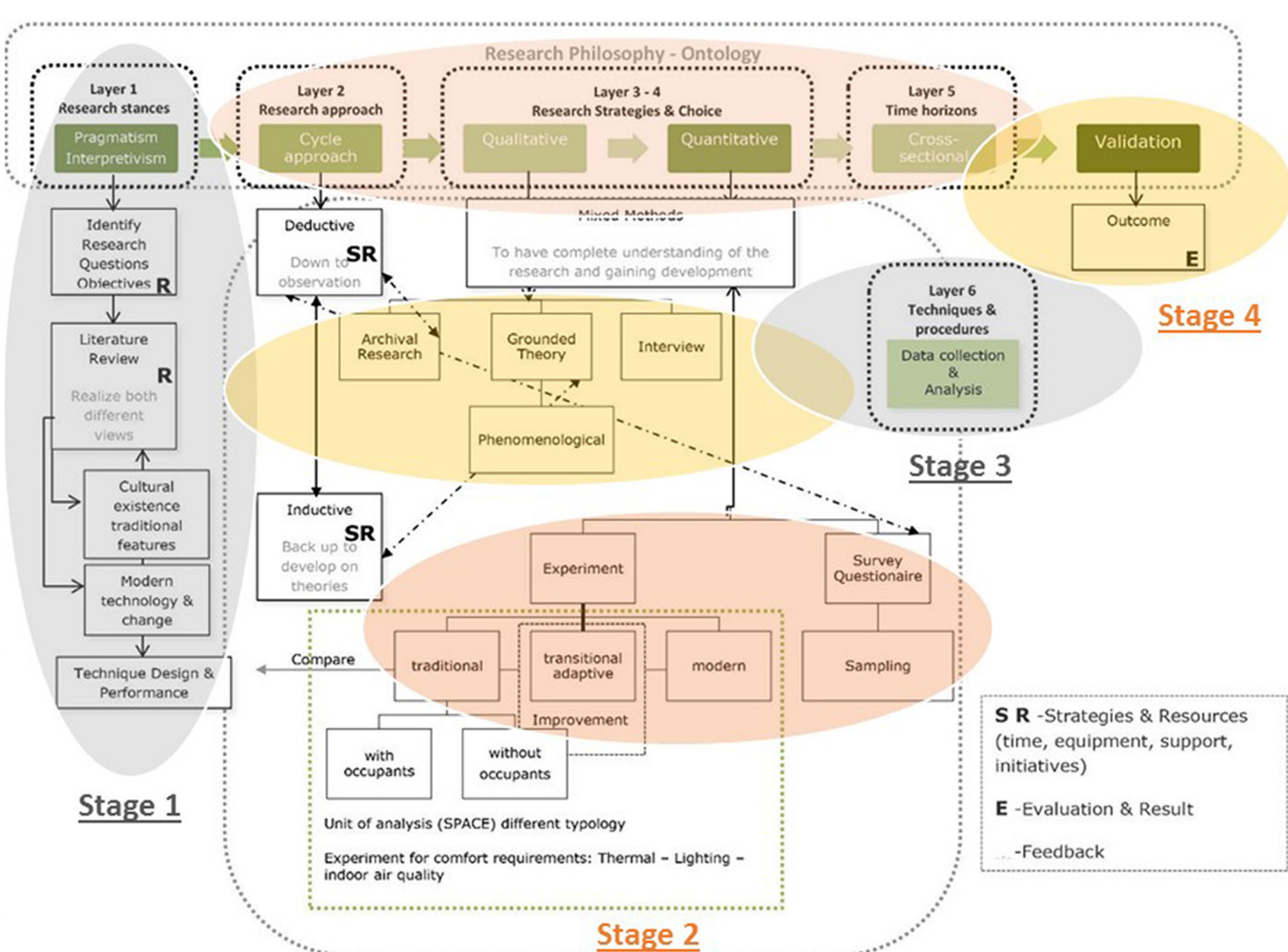
Data Collection – Field visit unstructured interviews

Researcher went on a field visit to a refurbished site to demonstrate that people come back to their traditional buildings with reference to their culture.

Also, informal interviews have been conducted with the people living in traditional houses around the site to see how people deal with climate control.



Strategy and Research Approach



Research methodology process based upon Saunders et al's onion diagram, 2009

LANDFORM HOUSE

the building were designed to get certified from the BREEAM international "LANDFORM HOUSE" for architect Adib Dada.

Two devices were installed in two different spaces typology modern and transitional.



CONCLUSION

This is a preliminary analysis of a thermal parameter in the Traditional Environmental Architecture. The research will contribute to subject-matter knowledge and increase awareness of environmental, physical and psychological factors in relation to cultural values. Further study will be conducted once the building is open to the public since the research reported here was conducted while the buildings had no occupants. Occupants' level of satisfaction and their response regarding spending time in the location and which site has been appropriate in the current situation will be investigated.

The intention in further investigation is to confirm the best building typologies for occupants' well-being and to thermal comfort the best combination of traditional techniques and twenty-first-century modern technology.

References

DADA, A., 2013. 3 Case Studies Comparative Analysis: The Other Dada.

Saudi National Architectural Heritage Center and the Saudi Commission for Tourism and National Heritage

Reyes, V.A., Moya, S.L., Morales, J.M. and Sierra-Espinosa, F.Z., 2013. A study of air flow and heat transfer in building-wind tower passive cooling systems applied to arid and semi-arid regions of Mexico. Energy and Buildings, 66, pp.211-221.

Taib, M.Z.M. and Rasdi, M.T., 2012. Islamic Architecture Evolution: Perception and Behaviour. Procedia-Social and Behavioral Sciences, 49, pp.293-303.

TWIGGER-ROSS, C.L. and UZZELL, D.L., 1996. Place and identity processes. Journal of Environmental Psychology, 16(3), pp. 205-22

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