Implementation of Neo Vernacular in Smart City Development by Increasing Community Involvement

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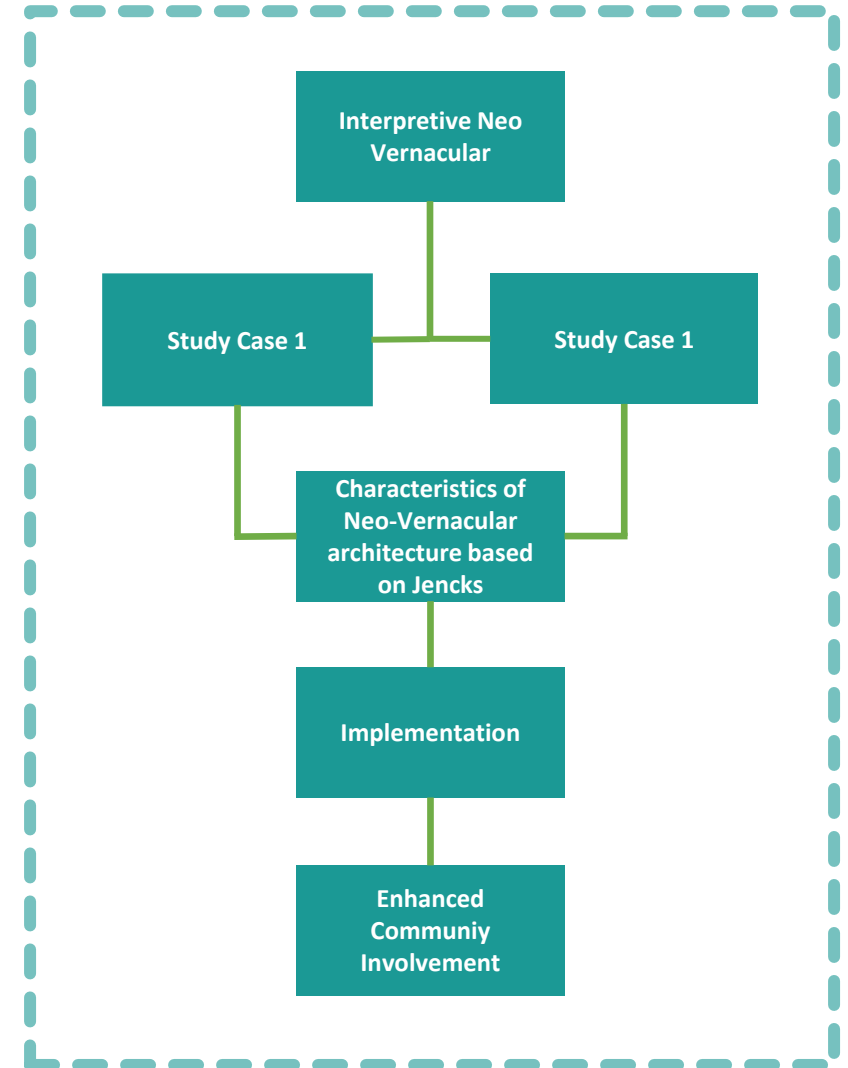
Introduction

- The study investigates the implementation of neo vernacular architecture.

- This study purpose is to understand how can the implementation of neo vernacular architecture can enhance community involvement by fostering a sense of local identity and ownership among residents.

- The research will contributes to existing literature on Cultural Sustainability, Community-Centric, and Social Inclusion and Equity in a smart city.

- The research can include case studies of successful implementations of neo-vernacular elements. Identifying best practices and lessons learned can provide valuable insights for future projects and contribute to the practical knowledge in the field.

Method

The method used in this study will used qualitative method.

- The literature data regarding the object of study that has been collected will then be reviewed regarding the principles of Neo-Vernacular Architecture using interpretive approach and then continuing with its suitability to the characteristics of Neo-Vernacular architecture based on Jencks, 1977

Result and Discussion

Variable	Case Studies		Implementation
	Masjid Raya Sumatera Barat, Padang, Sumatera Barat.	Istana Budaya, Kuala Lumpur, Malaysia	
Using local construction elements	 • The shape of the Grand Mosque itself is a transformation of the Rumah Gadang • We can see the application of local construction elements of this mosque from how the West Sumatra Grand Mosque building adapts its architectural pattern to traditional Minangkabau houses which have a characteristic pyramid-shaped roof or resemble buffalo horns.	 • The basic form of this building is an interpretation of the traditional Malay kite form "waubulan" • The application of local construction elements in this building can be seen how this building transforms one of the Malaysian cultures into a mass of this building	**In its implementation, interpretative neo vernacular really emphasizes the use of local construction elements by transforming them into a new form of construction but still maintaining its authenticity.**
Returning traditional, environmentally friendly forms with more vertical proportions.	 • This characteristic of neo vernacular architecture can be seen in how this mosque uses a split level system or elevation differences to create a more vertical proportion. • This is a transformation to give a metaphorical effect from the form of Minangkabau house stilts in this building	 • At the entrance of this building you can find a staircase that represents the "Melaka staircase" of a traditional Malaysian Malay house. The use of stairs is not only for aesthetic purposes, but is also influenced by the geographical conditions	**The interpretive approach in its implementation often restores traditional forms which then turns them into an implicit metaphor and then changes the composition of the form to be more vertical.**

Result and Discussion

Strong, contrasting colors.	• The use of strong colors is quite clearly visible in this mosque. The combination of yellow which is characteristic of Minangkabau culture and then combined with brown successfully emphasizes distinctive architectural details	• The use of a very contrasting sky blue color is found on the roof of this building. The use of this color has succeeded in making this building more highlighted especially on the neo vernacular part of the roof.	**The implementation of interpretive neo vernacular in color selection often uses strong and contrasting colors so that this can further strengthen the neo vernacular side of the building.**
The forms apply elements of culture, environment, including local climate which are applied in architectural forms	• The roof of this mosque is a transformation of the gonjong roof of the Rumah Gadang. The gonjong roof itself was designed to adapt to the tropical climate in the West Sumatra region, as well as its application to this grand mosque, where this roof itself is very suitable for the tropical climate in West Sumatra • Apart from that, on the roof of this mosque there are also carvings that have air grilles as a form of responsive design to increase the coolness of the air flow in this mosque.	• The roof of this cultural palace depicts a pile of traditional Malaysian flowers and leaves, namely "sirih junjung", the gable roof which is then designed to pile up is a form responsive to the tropical climate in Malaysia. • This roof shape also has steep and wide overhangs which are useful for blocking hot sunlight and controlling glare from the open sky.	**The interpretive approach applies forms of cultural elements which are then transformed according to the design response to the local environment and climate.**
Applying non-physical elements, namely culture, thought patterns, beliefs, layouts that refer to the macro cosmos or religion into the design concept	• The most prominent non-physical element in this mosque is the shape of the mosque's roof, where the roof of this mosque follows the shape of a rumah gadang pattern with a downward triangle and upward flower pattern, which is interpreted as a representation of the sky or the universe. • There is a bagonjong roof shape that leads to the four cardinal points of the wind that is sharp at all ends which has a meaning other than broadcasting, this mosque also accepts anyone who wants to use the mosque from various regions	• The application of non-physical elements in this building is in the composition of the space inside, where this building applies the spatial arrangement of a traditional Malay house, where the spatial arrangement in this building includes the veranda (as a lobby and foyer), mother's house (auditorium), kitchen house (stage and practice room).	**The implementation of non-physical elements in interpretive neo vernacular is very well implemented, neo vernacular buildings with this approach often incorporate implicit meanings into the building which are philosophical in nature referring to the macro or micro cosmos in the design concept.**

Conclusion

Based on the implementation analysis originating from this approach, it was found how these results can enhanced community involvement as follows:

- By incorporating local construction elements, smart city projects become a reflection of the community's cultural identity.

- Restoring traditional forms establishes a tangible link between historical roots and contemporary existence, providing a sense of historical continuity.

- The use of strong and contrasting colors can be a way to express diversity and inclusivity. It can signify a celebration of various cultural influences within the community.

- Adapting cultural elements to respond to the local environment and climate demonstrates a commitment to sustainability and environmental responsibility.

- Philosophical meanings related to the macro or micro cosmos often have connections to spirituality and well-being. Involving the community in discussions about these elements can create spaces that promote a sense of tranquility and wellness.

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