An Exploration Journey of Architectural Façade in the Local Context

By
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Airmas Asri has approximately 32 years experience in the field of Architectural design. The works are in Indonesia, Java, Sumatera, Bali, Borneo, Celebes and in several Asian countries, Malaysia, Vietnam, Oman, Sharjah, Ras Al Khaimah.

Most of the design are commercial projects, malls, hotels and office towers, apartment.
Early façade exploration on Oman project

"To know your own place is to know how to build."
Glenn Murcutt

In Oman a new face started for exploration

"What kind of face will be created for Oman?"
First imagination on Oman

“Is it a hot and dry country?”

Architect first imagination on Oman
Traditional mud house
Learn to speak with Omani

Learn local Regulation

Royal Oman Police
Directorate General of Civil Defence
Civil Defence Fire and Life Safety Approval Process
January 2010
Revision 3.0

Conference

HOTELS
Fully Serviced

Classification Criteria and Standards for Hotels
Sultanate of Oman

★ ★ ★ ★ ★
According to Nassar and Hewitt, Oman's development strategy is a form of post-traditional statism, which is when modernization is a development goal, but is carried out by adhering to traditional political values and structures associated with the premodern era (Nassar and Hewitt, 2016).

All building shall be white, shall be in omani building shaped and style, shall have omani window and ornament, allowable opening is only max.30% due to hot and harsh sunlight.
First project: Muscat Grand Mall: First Learn
Strong approach to local typology
A Design Evolution from typology to more urban & environmental approach

Existing site
Second Building: Grand Millenium Hotel, 2008

A Design Evolution from typology to more urban & environmental approach.
Second Building: Grand Millenium Hotel, 2008
An urban approach
“Our task is not to imitate the past. But to understand it, so that we may face the opportunity of our own day and deal with them in an equally creative spirit,” (Mumford, 1941: 18).
From typology – inner court - to environmental approach
Second Building: Grand Millenium Hotel, 2008
An urban approach
environmental façade application
environmental façade application
Contemporary transformation to Tilal 3, understanding & controlling local climate
A transformation of a unique local landscape
carving the locality
Tilal Complex Phase 3, as a commercial building, it can be considered as the pulsating area of activities. As its significant role, a famous heritage of Oman since thousands of years ago in marine activities was adopted for strengthening its architectural image and anchoring its existence in Muscat commercial market.
carving the locality
A transformation of a unique local landscape
Transforming locality
Total Radiation on the south surface is higher than north due to solar path characteristic in OMAN (relatively in the south of the site)
Using run period weather file day: 5 Aug (the hottest average day)

OMAN

Cooling load is based on external heat gain only
Simulation is based on simplified modelling (10 m high space)

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Salalah is in Oman’s Dhofar province, Salalah is located in which is contrast to its arid surroundings. Where mostly Oman climate is subtropical dry, consisting of hot desert and low rainfall. In Salalah during moonson season (called khareef) in mid of year (between June-September). The temperature is low, 17~22 degree celsius) Such climate prompts GCC tourist and local people to enjoy Salalah, becoming Salalah a real green oasis in arabian peninsula.
Podium roof at Salalah Grand Mall (SGM) is designed to juxtapose public activities with the uniqueness of the khareef with various vistas that can be gazed upon by visitors. As Pomeroy (2008) said, “As a destination, they can provide a convivial environment for social interaction, (like the court); and as a transitional space, it provides an ease of movement (like an arcade).” Another important aspect has to do with access. Accessibility and layout had to be well planned. There is a reason for it. Just note what Richard Sennett (as quoted by Pomeroy, 2008) has to say: “Public space has become a derivative of movement…the erasure of a live public space contains an even more perverse idea that of making space contingent upon motion.”
Transforming natural wind pattern in a positive way

The Left (Fig. 12) is a present house in Salalah, Dhofar. At a glance the looks and material is almost the same concept of other traditional house in Oman. But, instead of having small inner court in the middle, this house has huge courtyard at the back of the house where the windows of the living room are facing. The courtyards are separated to the back lane by one story height wall. Wall facing to the sea have more windows and openings to get more breeze blow through the house and to the courtyards.

Interestingly, houses were separated for some distance from each other so that no neighboring houses will be blocked from the wind, thus permitting the wind to reach all the houses. One story height wall enclosed a courtyard on the south side in order to avoid other houses being constructed closely and then would block the sea breezes (see Fig. 13).

The north rooms usually had mud-plastered walls to shield from the northerly winter wind (Al-Hinai et al., 1993).
Transforming natural wind pattern to the facade shape
Entry Canopy

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Capturing monsoon season (khareef) for outdoor enjoyment
Transforming natural pattern to the facade

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Exploring potential local element for main architecture elements
CONCEPT & IDEA.
IDEA & CONCEPTS

FORM IDEA & INSPIRATION
NAUTILUS METAMORPHOSIS

The nautilus (from the Latin form of the original Ancient Greek ναυτοίλος, "navigator"; earlier ναυτόσ, "seaman") is a pelagic marine mollusk of the cephalopod family Nautilidae. It is the sole living species of the superfamily Nautiloidea and the smaller but more equal subclass, Nautiloidea.

It comprises six living species in two genera, the type of which is in the genus Nautilus. Though it more specifically refers to species Nautilus magnificus, the name Nautilus is also used for any species of the Nautilidae.

Nautiloids, both extinct and extant, are characterized by involute, in some cases or less convolute, shells that are generally smooth, with compressed or depressed whorls sections, straight to sinusoidal chambers, and with enclosed, generally central siphuncle. Having survived relatively unchanged for millions of years, nautiloids represent the only living members of the subclass Nautiloidea, and are often considered "living fossils".

(Source: https://en.wikipedia.org/wiki/Nautilus)

INSPIRATION

THE AREA CONTAINED WITHIN THE PLAN THAT IS LARGE AND DIVERSE, THE CHARACTER OF THE SITE VARIES THROUGHOUT, DEPENDING ON INFLUENCES SUCH AS THE NATURAL ENVIRONMENT, EXISTING AND ADJACENT LAND USES

ARCHITECTURE CONCEPT FOR LIVING INSPIRED BY OMAN TRADITIONAL HOUSE

1. FORM

FISH MARKET BUILDING INSPIRED BY NAUTILUS SHAPE

2. TEXTURE

FACADE AND TEXTURE INSPIRED BY OMAN GEOLGY TEXTURE

3. PATTERN

FACADE AND SCREEN PATTERN IDEA INSPIRED BY OMAN TRADITIONAL HENNA

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Exploring potential local element for architecture façade in Indonesia
TMT Tower
IAI award – Honourable Mention, 2012 an effort to explore potential green façade to office tower
Technical and cultural aspects are represented to combinations of shapes and carvings which are evident at the lobby area. The lobby area also serves as a focal point. The carvings are based on a painting by I Wayan Lungguh, Patra Sari, which depicts an ambience of sacredness.
Bali Nusa Dua Convention Center
A Local Approach, Ornament, Typology and climate
Subtractive Transformation – Manipulating space and form for capturing natural ventilation and shading sunlight
breathing building

integrated ground transit
multiple working environments
multi-layer green
locality and nature
Couch (1990) defines urban renewal as a process of physical transformation, a transformation of function and transformation of the intensity of land and building uses as an attempt to increase socio-economic qualities of the area. In the case of Landmark Residence, open spaces are provided to trigger interactions and public movements from and toward various facilities which are connected around the vertical residential complex.
Thank you

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