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The Middle East City: Identity Crisis or Design Crisis?

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There once was a man called Ahmed bin Khalid Al Sharif. His family had lived in the central district of Ras Al Bourj for as long as anyone remembered. His old house was of one storey and encircled a courtyard. On two sides the plot connected to property owned by his brothers. The entrance side had a wall that opened to a lane. The courtyard provided some green space and was shaded by a healthy Banyan tree, grown tall and strong on daily watering and the little rain the winters brought. Here his kids would play while Summaya, his wife, prepared food and presided over other household chores. During the cooler season, the family would often take their meal under the tree, and sometimes his brother's family would join in after Friday prayers. In the summer, Ahmed would sleep on the roof to catch the cooling breeze.

When the aluminum smelter factory opened, a lot of foreign workers came to live in Ras Al Bourj. Ahmed bin Khalid had a brother in law; a man named Basil "the great". Nobody knew why he was called "great" because he was little, but he owned the aluminum factory and commanded the highest dowry for his daughters. Basil owned the empty lot south of Ahmed's house and one day bulldozers moved in to build a 3-storey apartment house, quite different from anything seen before in Ras Al Bourj. At first everyone was excited about the change and, in the *shisha* café, there was lots of talk about the success of Basil, who everyone claimed as best friend. Four months later, the foreign workers moved into the new apartment building. On evenings and weekends they would sit on their little balconies amid their drying laundry. The workers seemed to enjoy looking down at Ahmed's green courtyard. On one such occasion Summaya decided that it would be better if they stopped eating outside and angrily moved the tray of food into the house, away from the curious eyes of the new neighbors. Soon, Ahmed's family stopped using the roof at night altogether, and the courtyard was deserted except in the mornings after the neighbors had been picked up by the truck that took them to the factory.

Ahmed talked the situation over with his brothers and they agreed to go to the *Kadi* to complain about their loss of privacy. Kadi Suleiman, a well respected elder, asked many questions and finally summoned Basil Al Khabir to tell him about the complaint. The *Kadi* cited many precedents and often quoted the prophet, PBUH. At last he addressed both Ahmed and Basil and suggested they come to an agreement that would remove the "harm and damage" done to Ahmed's family. Otherwise, he said, he'd be forced to call in the *mutasil* who'd call in the stonemason to brick up the windows in the new building that offended the neighborhood. Basil was angry at first and spoke of his rights and modernization, and even mentioned that his tenants had air conditioning, a first in Ras Al Bourj.

It did not look like they were going to come to a peaceful conclusion until one morning Basil's wife Leila, herself the daughter of a well-to-do wood merchant originally from Iran, called on Summaya. After talking about the children and the family and drinking two cups of tea, Leila pulled out a photograph of their new villa in the suburbs. It had a swimming pool and a bougainvillea hedge and many windows covered by beautifully carved *moshrabiyyah* screens. "How fortunate you are," exclaimed Summaya. "That's what we need here," she thought, "*moushrabiyya* and bougainvillea hedge, to protect our privacy from the curious eyes of those workers your husband has put in the building next door."

Well, the story continues for a while, but the court case was settled; bougainvillea was planted, screens were installed. A year later, by the time the plants had grown to maturity, another apartment block had gone up, this time six stories high. By then, however, Ahmed and his brothers had left the neighborhood that was slated for demolition to make room for more workers' housing. They moved to a new residential suburb where every villa had a wall, a pool and many windows. They hired a gardener who came daily to turn on the sprinkler system for the lawn, and once every two weeks a team of fellows came to mow the lawn. It was usually too hot to sit outside, and they stopped using the pool after their son developed a rash from the chlorine. Instead of visiting, they used their mobile

phones to talk to the relatives who lived down the road. But what chagrined Ahmed the most was that there was no *shisha* café close by.

Hidden in the story of Ahmed and Basil is the notion of an original state of self-sufficiency and permanence. But in the outcome, Ahmed's family experienced a shift to dependency. Their green lawn depended on a costly mix of desalinated and treated wastewater. A weekly truck delivered drinking water. The distance to the town forced Ahmed to buy two cars to meet family needs. The detached villa with multiple windows facing the sun quadrupled dependency on fossil fueled air conditioning. The garden relied increasingly on artificial fertilizers for survival, the pool needed frequent chlorine treatment, and household pests and mosquitoes grew increasingly immune to the newest pest control products. The list of harm and damage is endless.

Assuming that Ahmed's Ras Al Bourj is the typical Middle Eastern town, we can draw inferences to significant changes in development over the last decades. Regardless of the particular location, Tunis, Mecca, Baghdad, and Dubai all have in common an exponentially growing dependence on centralized technological infrastructure.

The dependence affects what we eat, how we heat or cool our homes, how we get where we need to go and the materials we use for building. It now takes about as much energy to cool our houses for 3 years as it took to build them in the first place. According to World Bank figures, the yearly energy use in kg of oil (or fuel) for the UAE in 1996 was 115,600 – 1/3 more than the per capita consumption in the USA, often cited as the greatest consumption villain of all.

Rainfall in this region in the last six years has dropped from an annual average of 220mm to less than 1 mm this last season. At the same time, average water consumption in the UAE with 353 liters per day per person is the highest in the world after the USA. To make matters worse, all water used in buildings, be it to wash dishes or flush toilets, exits as sewage. We quite literally defile our drinking water systems in the name of personal hygiene.

The UAE is paying for its world class ranking in infrastructure growth with world class ranking in energy consumption, water consumption and waste production.

What does this all have to do with architects and designers?

Plenty. If we define design as the “intentional shaping of matter, energy and process to meet a perceived need” (Van der Ryn, 1996, p. 8) then city planners, traffic engineers, hoteliers, water managers, nutritionists, interior decorators, even farmers are designers. All are involved in shaping the physical details of our daily experience. Our world is a designed world. Our life mirrors what is most valued in our designed culture. This hotel and what it represents in terms of mass tourism, energy dependence, and waste production illustrates the point: the sustainability crisis of the Middle Eastern City is at its core a design crisis.

The way we make things, construct houses, build roads, grow food and travel follows patterns incompatible with sustainable systems. We consistently design with myopic focus. Two telling examples of how narrow-minded design solutions had unexpected ecological domino effects are well documented, (Al-Hathloul, 1996, pp. 149-236).

Both were first applied in oil country. Both were meant to facilitate rapid expansion. In Saudi Arabia in the 1940's the grid pattern of highways with concomitant shopping centers and port terminals began to replace the organic Islamic urban pattern. In the early 1950's, the Aramco Home Ownership Plan for Saudi employees imported the western suburban detached house. By 1974 more than 7500 units had been built.

Master plans, zoning regulations and the governmental trend-setting that followed have today reduced the sustainable organization of Islamic cities to an asphalt network of design templates, all hooked up to an environmentally devastating infrastructure.

The *Bourj Al Arab* Hotel, just across the way from here dramatically illustrates another aspect of the design crisis.

For most of this century, architectural design has been informed by the metaphor of the machine, a grandiose statement of modernist form and unfettered creative will. The heralded *Bourj Al Arab* looks as natural as a ship under sail supported by a wooden hull, dancing with buoyancy on the crystal clear surface, a testament to natural energy and resourcefulness.

In reality it is a monument to the hubris of our age, a brutal invasion into the equilibrium of landscape, arrogantly treating nature as a totally “passive and malleable resource” ready to be exploited for an exclusive up market clientele.

The fact that this hotel was conceived and built in a decade of low energy prices is telling. Architectural priorities in the 90's considered buildings as separate from the larger environment. No one cared about the energy required to manufacture and transport materials or about climate responsiveness. Even today, with the oil price moving upward, climate responsive design is neglected, resulting in grossly inefficient buildings.

We should give a drop quiz to all final year architecture students in the world. How many have visited construction sites during their studies? How many have lifted a concrete block? How many got away without an inkling of biology or environmental science? How many know how the sun moves through the sky?

We should ask designers, engineers and contractors what measures do you take to salvage building materials during the construction process, how much energy do you spend to make your new buildings recyclable? Do you dare to convince your clients to forego extrovert design and glass facades? Does your bid include warnings about toxic paints and finishes? And all of us who work in offices: what do we really do to facilitate recycling of office materials?

I can see that this is getting uncomfortable. Taking the moral high ground induces altitude sickness. But let us be honest. Design is in a crisis because we as individuals and as a group deny the interconnection between nature and culture every day.

Our lives are shaped by two worlds: first is the living natural world of our body, forged over billions of years of development, given life for some time by DNA procreation, nourishment, and oxygen. The second is the social, cultural, man-made world of labor and leisure, of farms and factories, of traffic, schedules, and conferences.

Unsustainability results when these two worlds oppose each other to such an extent that the balance is lost. Ecological design is the effective integration with nature's processes. It is easily understood that the human body (like nature at large) can withstand moderate abuse, but dirty water will weaken it, toxic substance will poison it, diarrhea will dehydrate it, smoke will asphyxiate it, excessive speed will run it into a wall. The same is true with the world at large.

To strengthen the link with nature we need to learn from nature. Design needs to look again at nature as teacher. And there are encouraging examples where this is happening.

The UAE has learned to safely re-utilize 100% of effluents and biosolids to provide habitat for life. The UAE is beginning to reinvent agriculture that mimics natural ecosystems. The UAE is finding new kinds of processes, which employ the waste product of one step to become a useful ingredient in a new product. Worldwide, computing power that filled a room 50 years ago now fits into our wallets. And in some European countries near total recyclability of building material is making its way into building codes.

We recognize that we are facing a global crisis. Why, then does the theme of this conference concentrate on the Middle Eastern city? Why is Islamic identity and tradition even an issue when we are concerned with global survival?

Tradition, paraphrasing Karl Popper has two functions: one is to create a certain order or structure that gives identity. The second is, to give us something upon which we can operate; something we can question, can criticize and change. If we apply this dual role of tradition – order and basis for change – to the Islamic city, we are confronted with an extraordinary dilemma: orthodox Islamic legal tradition discourages change and favors instead strict imitation of established rules of conduct. (You noticed that in the story of Ahmed and Basil, the municipality allowed Basil's apartment building, but the judge forced modifications).

On the surface the trouble seems to be that while normative *Sharia* remains in place, traditions are challenged on all fronts.

Below the surface, however, traditional Islamic doctrine offers us a worldview that is astoundingly ecological. The Islamic cosmology of unity, the *Tawhid*, sets the direction: God and world, humanity and universe, not separated but connected in one destiny of survival.

Our aim as designers then is the relinking of culture with nature, what Nader Ardalan called "Sympathetic Resonance". Restoring the identity of the Muslim city requires all who live in it and shape it to adopt rules of conduct in which the concept of stewardship implies sustainable management of resources. To do that, planners have to talk with scientists, designers with biologists, users with builders, and rulers to them all.

For faithful Muslims, the matrix is readily provided in *Tawhid* – the oneness of God. The ethics of action that flow from *Tawhid*, measure a man's and (a woman's) worth by the degree to which duality between the spiritual and material, between God's centrality and man's egocentricity is overcome. Not bad advice: for Muslims – and for everyone else.

– End –

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