

## POLEMICS IN ARAB ARCHITECTURE: THEORY VERSUS PRACTICE

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### Abstract

There is a great divide between academic field and professional practice. In many Arab countries academics are advocating traditional architecture in a "traditional" way. They believe in image cloning and visual abstraction from history. However, because of rising competition, architects in the market are giving what the society aspires for: modern architecture. This polemical practice has not yet penetrated the thick skin of academics. Yet, new identity is in the making contrary to what intellectuals and officials would like to see. No more direct cut and paste from history. Common practice that strives for Identity today is more or less tall buildings with curvilinear glittering planes. Less common, is the one that is slowly germinating from environmental awareness which in turn touches upon traditional values in a subtle way. More interestingly, the less frequently practiced type of identity is proving profitable ventures for their clients. Investors are gradually accepting the new language for it brings them prestige. In this research, two villas, one apartment building and a university campus introduce traditional values in a disguised way showing innovative solutions that will slowly turn the current practice into a better future for Arab cultures.

### Keywords

Divide, tradition, modern, disguise, environment

### Introduction

During the early eighties Arab intellectuals started to criticize their own version of Modern Architecture. Debates suggested, particularly in the Gulf region, the restoration and recycle of traditional architecture as a way of inflicting character upon the city. Old palaces were refurbished to become museums and visual references for current practices. Large-scale commercial projects, developed around historic cores such as that of Kasr Al Hokm in Riyadh (1992-98), or developed around waterfronts such as Suq Sharq in Kuwait (1998), are examples of mega projects that used traditional imaging to impress the society by their origins; and in the process boast their marketing profile. Many government offices followed the same approach representing the official heritage of the place.

With such focused traditionalist campaign Arab intellectuals hoped to cause tidal wave of influence on the rest of the community. However such influence hardly materialized

despite architectural excellence in some cases! (Fig 1). The paper will show the schism between what ought to be and what actually is. Ideal theoretical positions in architecture schools do not match real practice. Through examples that are widely acknowledged in their hometowns, the paper identifies architecture trends in the Arab world that can suggest future positive trends and perhaps bridge the gap between theory and practice.



Figure 1: Suq Sharq, Kuwait.

### Intellectual Isolation

It seems from the prevailing practice that there is a strong cultural mechanism of "social aspiration" towards the western model that rejects the saga of heritage cloning. Despite all intellectual arguments about why Arab cultures should return to their urban traditions, these large public projects dressed historically failed to give the contemporary urban fabric an identity among its inhabitants. They became isolated events, despite their scale, that were

not inspiring the masses. (Fig 2).

Contrary to the wishes of intellectuals, what proves to be successfully vibrating with the society at large does not exist in their debates. "Return to tradition" (1) was an exciting new motif during the eighties in the Arab intellectual world. These arguments about visually abstracting history in a modern way still exist today surprisingly among new generations of intellectuals, and even editors of magazines. They cannot break the code of stagnation. It became a sort of an official position for academicians in front of their students.



Figure 2: A Typical Isolated Event: A High Rise in Abu-Dhabi.

When students graduate they find a different attitude among society and nobody tells them why this is the case. What they know is that the academic zeal for tradition is ideal, and what is outside in real life is contradicting and hence corrupt.

What they don't know is that those academicians have succeeded in further isolating future generations of professionals from their cultures. Those academicians refuse to see their contemporary cityscape as produced by their societies and prefer to live in the cyberspace they have imagined hoping one day the latter replaces the former.

Only few Arab cities noticed the problem and searched for identity elsewhere that satisfies social aspirations. They redefined the term as not an immediate reference to tradition, but rather high-tech imaging of classical and modern architecture. The easiest way to practice the alternative approach is to erect a very tall building showing signs of modernity to be easily identifiable from all over the city such as Mamlaka tower of Riyadh (Fig 3).

The ninety - nine- story tower is not a typical matchbox architecture. It has only two facades curved out forming almost an ellipse in plan. What distinguishes it is the large half elliptical hole piercing the upper forty percent of its floors. The new form talks to everyone. A cab driver will proudly tell you about it if you are a visitor for the first time. It is simple and easily reduced to a logo, so that it registers firmly in the public's cognition. In no time it became the city's landmark.

City's landmark means good profit for the owner. It is now the most expensive office rental in Saudi Arabia. Even when economy is not at its best, multi-national businesses cannot afford to leave the tower since it is becoming part of their image making.

High tech imaging succeeded in reassuring Arab societies that latest version of modernity

or western classicism with a bit of novelty is part of their cultural landscape. They travel abroad and see it fashionable, they identify with it. On possessing it they understand its impact on their surrounding neighbors. It gives them prestige and a window with a view on the advanced world.



Figure 3: Al-Mamlakah Tower in Riyadh, An Example of A High Tech Imaging.

### The Financial Harbor, Manama, Bahrain

The Bahrain Financial Harbor designed by Ahmed Janahi is another excellent example (under construction). To achieve distinction, the architect created curvilinear planes, slanting rooftops and staggering facades for all his buildings. By this he achieved collective character and hence a powerful image for Manama. Lagoons penetrate the heart of

the project tying all buildings together thus further strengthens its collective character. The project became a small Venice with plenty of waterfront to host leisure and business activities (Fig 4).

Unlike many landmark projects such as Burj al Arab of Dubai that are usually tailored for the urban elite Bahrain Financial Harbor is fully opened for the community at large. They will

find shopping boulevards along the waterfront, marina, water taxis, restaurants, coffee shops and opera house. All those activities infiltrate within the business oriented buildings such as, a stock exchange center, insurance companies, financial enterprises, hotel, upscale apartments, and media center.



Figure 4: Bahrain Financial Harbor, Designed by Ahmed Janahi.

The Bahrain project did not only create large water frontage but equally large garden area along its side. This means that the public along with the professional community will view the landmark ensemble through endless vistas of the garden. People strolling through the garden or along the seafront using various facilities, will be amused by the changing panoramas; for buildings vary in height, mass and orientation. The project becomes their city icon, their image in front of the rest of Gulf States, their pride to the outside world (Fig 5).



Figure 5: Bahrain Financial Harbor Designed by Ahmed Janahi.

### Many Questions Evolve:

The Bahrain harbor and Saudi tower no doubt succeed in responding to social aspirations and dreams. However, they raise many concerns. What are the sustainable qualities that should be associated with foreign ideas on entering the hosting culture especially those pertaining to energy consumption?

What is the environmental impact those ideas cause in the new setting and how can their

negative effects, if exist, be reduced? What is the running cost of those ideas and how it affects the average citizen on a daily basis? Can there be a niche within social aspirations for traditional ideas that are still valuable for today's culture? If the answer is positive how it can be introduced to the culture without facing resentment? All these concerns are not part of the cultural debate. The public is unaware of them; let alone understands their implications or finds remedies. Nevertheless, they still search for architecture of reassurance that is beyond their traditional sphere.

### Wisa Wasef, Giza, Egypt

Forty years ago, Wisa Wasef was the first person who tried to find a traditional niche within social aspirations. He believed the return to traditional building construction is a way of life and not just architecture. In Harania Village, Giza (1957-74), he built villas for his family and farmers using natural



He taught farmers how to weave carpets using rural landscape as their sole theme for carpet design. The rural community realized for the first time that its authentic setting is a lucrative source of income and hence worth respecting and preserving (Fig 7).

The rural community elsewhere in Egypt has abandoned traditional construction for the sake of modern concrete buildings that is far

less efficient when it comes to environmental measures. By linking the rural setting to their source of income, farmers trained by Wisa Wasef realized that social aspiration must include their indigenous built environment. Their carpet design became world famous and their village became a landmark in Egypt proudly



Figure 7: Harania Village, Designed and Developed by Ramses Wisa Wasef.



Figure 8: Carpet, Designed and Manufactured by Farmers at Harania Village.

### Tradition Disguised: Alayli –Amawaj -Nammari

If Wisa Wasef succeeded with his farmers can architects succeed with their urban elite clients? Only few architects today succeeded in introducing traditional ideas as a niche within social aspirations. They realize that if authentic ideas has a chance to survive it needs to be disguised and diffused within the aspired vogue so much desired by Arab societies. Their works represent the future trends of architecture in the Arab world, since it is the kind of architecture that is attractive to the society and has a peaceful dialogue with the environment.

### Alayli Villa - Alexandria, Egypt

Mohamed Awad, the architect of Alayli villa

in King Maryout, Alexandria (1995), included a major traditional space, the courtyard. However it has a different connotation. In the past the court is mainly a circulation space tying one corner of the house to the other; it is a buffer space that separates the living quarters from the guest reception areas. It is also a place where there may be an attractive fountain to be remotely appreciated by family members and guests alike sitting in adjacent spaces. In Alayli villa, the court is an activity space in itself. Family members together with their friends can enjoy the swimming pool and the Jacuzzi bath that occupy most of the court (Fig 9).

It is a space that invites spillover of activities for it directly opens to the garden through glass panels where there is another pool for outdoor swimming. Between the two water activities there are plenty of sitting areas partly inside the court partly outside the garden for daily interaction. This in-between space is what makes the court so transparent to the outside world thus marking the modern lifestyle of the family (Fig 10).

The space in this way holds far less privacy connotation than it used to be in history, it does not separate family living from outside world, in fact it is a smooth transition. Complimenting such smoothness is the diffused natural top light filtering through a large perforated wooden dome that covers the courtyard. In this way intensity of light in the court is comparable to that of living spaces surrounding it; thus further departing from the traditional essence and getting closer to contemporary lifestyle of a



Figure 9: The Courtyard of Alayli Villa Acting as a Socio-Spatial and Climatic Modifier.



Figure 10: The Transparency of the Courtyard of Alayli Villa Marking the Modern Lifestyle of the Family.



b.



a.

Figure 11: a) The Spatial Interior Environment of the Family Living Space at Alyali Villa, b) Perforated Wooden Dome Allowing for Proper Lighting.

### Al Nammary Villa-AI-Khobar City, KSA

Another architect who introduced traditional forms in a new manner is Mohamed Abulnour through his villa design of Al-Nammary in Khobar city (2000). Unlike Alayli villa, privacy is one of the major factors affecting the courtyard design. Usually in this region, residents build party walls two stories high to provide privacy for open-air swimming pool located in their backyard. The feeling of imprisonment cannot escape those typical outdoor spaces (Fig 12).

However, in the case of Al-Nammary villa, the courtyard has one side opened to the backyard only at the ground level. The upper floor is raised on columns, allowing for cross ventilation of the courtyard, and is a visual barrier to the surrounding neighbors. Villa residents can now use the pool in the courtyard with extended view to the back garden without being threatened by their neighbors' proximity. In this case the architect retained the original

meaning of the court but changed its shape- (Fig 13).

The pool with an extended view towards the garden becomes a good pretext for placing the family living in front of it. Furthermore the space takes the NE orientation, which is ideal for hot climates. The family living, being the most usable space in the house, follows the idea of classifying spaces into important and less important giving the first group more autonomous status with freedom to rotate in any direction in the site searching for best view and climate while disregarding the initial geometry of the land. Such idea is a design approach so much practiced in traditional houses, which enable dwellers to make best use of their local environment.

More of this approach is evident in Al-Nammary villa. Natural soft light fills most of the essential spaces of the villa by adopting another



Figure 12: A Courtyard with a Central Pool at Al-Nammary Villa, Designed by Mohamed Abulnour.



Figure 13: The Living Space Opened to the Courtyard and the Swimming Pool.

traditional element. The architect added clerestory windows located in vault structures surmounting the roof. As a result, the curved surface of the vaults is lit and in turn becomes a source of indirect diffused light to the whole interior. This is suitable for hot climates that forces residents to close wall openings with shutters or curtains for most of the day to avoid direct glare (Fig 14).

The villa as whole through its detailing and syntax is absolutely Modern fulfilling the wishes of the client, but the quality of living recalls traditional standard that is proven throughout centuries to be the most sensitive towards local environment.



Figure 14: Interior and Exterior Views Showing Clerestory Windows Accommodated in the Roof Vault Structures to Allow for Indirect Diffused Light.

### Amwaj Residential Tower – Kuwait

Yet making use of traditional dwelling need not be limited to courtyard design. This conclusion is valid in the case of residential high-rise buildings in which courtyard design is increasingly difficult to adopt. In this case traditional ideas are focused on environmental qualities (Fig 15).

Option One International decided to adopt this approach through their design of Amwaj Residential Tower in Kuwait city. The land was large enough to place the tower in any direction. Since the floor-area-ratio (FAR) is constant, the conventional wisdom would be to minimize the number of floors and maximize the number of units per floor. This would have meant the placement of considerable number of units towards the west and south using a double loaded corridor arrangement.

Option One discarded such common alternative by arranging the units on a single loaded corridor with the units facing north; while the corridor, stairs and elevators facing south. This situation is plausible since all the living and reception areas and most of the master bedrooms face north (Fig 16).



Figure 16: Orientation of Main Spaces Toward the North.



Figure 15: A Conscious Attempt at Introducing Environmentally Responsive Articulations.

With this arrangement, they had to go for a high-rise instead of a low-rise building achieving the same floor-area-ratio. Although this meant 20% increase in construction cost and 12% longer in construction time, nevertheless, there was less dependency on mechanical means to cool the space during hot months. On reviewing the sides of the tower, it becomes clear that the North façade has the highest concentration of glazed surface. The west façade, being the worst in hot climate, is almost solid. The east

façade has more glazed surface than the west since it is commendable to allow early sunrays of the morning to flood the bedroom spaces and unlike the west, the east sun makes short morning visits any way. The south side has conservative openings on the few bedroom spaces situated in this direction; otherwise, standard small openings are for service areas. The final outcome is that the four sides have different façade treatments directly influenced by climatic considerations, which is something so rare in tower design, particularly in the Gulf (Fig 17).



Figure 17: Treatments of Northern Façade, Directly Influenced by Climatic Factors.

That is not all. The designers looked for additional means to reduce energy consumption. They used high performance double glazed panels that save energy by 10% during peak load if compared to normal double glazed panels. More important, they adopted wheel type heat recovery system that tends to absorb the coolness of the exhaust air only to cool down the fresh air intake. This in turn reduces load on the chillers. The energy saving from this system is 19% during peak load condition. Total energy saving is 29%. If we add to this number the fact that the units are oriented to the north and not to the west or the south, that amount of energy saving becomes even higher.

With all those green measures, did the building pay off when introduced to the real estate market of Kuwait? Despite its high initial construction cost, apartment units were renting with a high rate at an early stage of development at a much higher rent than was preliminary estimated. In fact it turned out to be 30% more profitable than if the building were double loaded with apartments, half of which would have been facing wrong orientation.

In light of this analysis, Amwaj tower design answers the worrisome position of academicians who believe that the only way to revive tradition is by visually recalling traditional forms in contemporary architecture. By adopting basic environmental ideas found in traditional architecture through high tech applications, the tower became very attractive to the society causing demand to soar high up in the blue skies of Kuwait. Today rental value of Amwaj apartment is between 1500 to 1800 KD per year while neighboring apartments are rent for 800 to 1000 KD.

### The American University in Cairo, Egypt - AUC

Do architecture curricula promote this kind of examples in our part of the world? Very few! Does anybody tell the public about those success stories? Shall we continue leave the society run after its aspirations in a damaging unsustainable format? What if we use community-based projects as a vehicle to inform the public about traditional values rather than forms?

A project that attracted the public to its base then presented environmental values

stemming from tradition is the new campus of the American University in Cairo.

Abdel Halim Ibrahim, the "Prime architect" together with Sasaki, had the intention to revive the university tradition of interacting with local community. He envisioned the space in front of the main entry portal to become a park that provides the potential for community interaction with AUC members. The park is a space full of activities that can be of interest to the public (Fig 18).



Figure 18: A Park in Front of the Main Entry Portal of the New AUC Campus.

The scheme suggested the location of Performing & Visual Arts Theaters (PVA) right beside the entrance portal overlooking the park. The Black Box theatre, an experimental theatre that is part of PVA, has an octagonal projection for a single artist to perform in front of the public. Another octagonal projection is at the other side of the PVA to display art objects, also for the public to appreciate. The main auditorium located in between, has an entrance porch projecting with vegetation to keep its audience posted with current events of the theatre. A curved wall, full of openings for the public to peak their heads through and watch those on-display activities, gives partial privacy to PVA and acknowledges its integrity as an academic institution, such privacy increases as students and faculty staff walk towards their courtyards and classrooms located behind the theatres.

Beside the PVA is the university bookstore with display windows to show latest publications released. Adjacent to the bookstore is a coffee shop that offers refreshments and snacks to serve the visitors of the park. At the other side of the square is another projecting octagonal space acting as information center and registration booth.

Other outward oriented activities that can enhance the public life are occasional used book fairs as an extension to library functions, in addition to various faculty activities such as conferences and exhibitions. Among future sites around the park is that of a museum for Hassan Fathy archives to commemorate the first Arab architect in modern history to advocate sustainable standards in architecture.

As if all this was not enough to enrich the cultural life of the surrounding community, the architects introduced an amphitheatre setting in the middle of the park for additional activities that can attract the public.

To ensure that great number of people can come to those activities from all over the city, the Cairo Underground Metro will erect a station right beside the park. The architects from their side provided shaded parking lots that can hold over four hundred cars.

By the time the community gets preoccupied with park activities, Abdel Halim will have introduced in the same space some environmental ideas pertaining to tradition. He provided a comfortable environment throughout the square by covering it with a palm grove composed of three hundred and sixty palm trees. This high concentration of palms recalls favorable microclimate conditions that used to be available in open spaces during the classical era of old Cairo (Fig 19).

The palm grove is easily identifiable from far away. All around the site a stream of trees on various terraced planes are planted to cover parking lots or compose a protective belt from undesirable desert winds. The message is clear. The local community should quit the bad practice of disregarding the living requirements in a desert climate. Instead of defusing the harshness of the desert environment by mechanical gadgets all the time, they should think of exploiting natural sustainable means first. Instead of planting gardens as vast lawns and shrubs, they should think of creating shade through clustering of trees and palms. When

the public use the park and realizes the drop in temperature during summer due to the clustering of palms then return home to use mechanical means to reach the same coolness of the park they will understand for the first time that something is wrong in the built environment they are living in.

The environmental message continues beyond the park. Visitors entering the main gate looking straight ahead will find a long spine of palms, trees and water bodies all forming an impressive stretch of lush green panorama. To the side of the entrance, another axis, bending its way around the green panorama, includes a string of courtyards around which all the administrative and academic buildings are

gathered. The two spines converge to greet the students housing and athletic zone at the end of the campus. Placing the university garden in front of the main portal while the academic spine on the side shows the great extent AUC focuses its public image on green ideas rather than buildings (Fig 20).

Friendliness to the public and the environment becomes the most significant statement a foreign university can offer to the surrounding milieu; hopefully it can influence other public institutions of similar nature in the vicinity to follow suit.



Figure 19: Three Hundred and Sixty Palm Trees Simulate the Classical Era of Old Cairo.

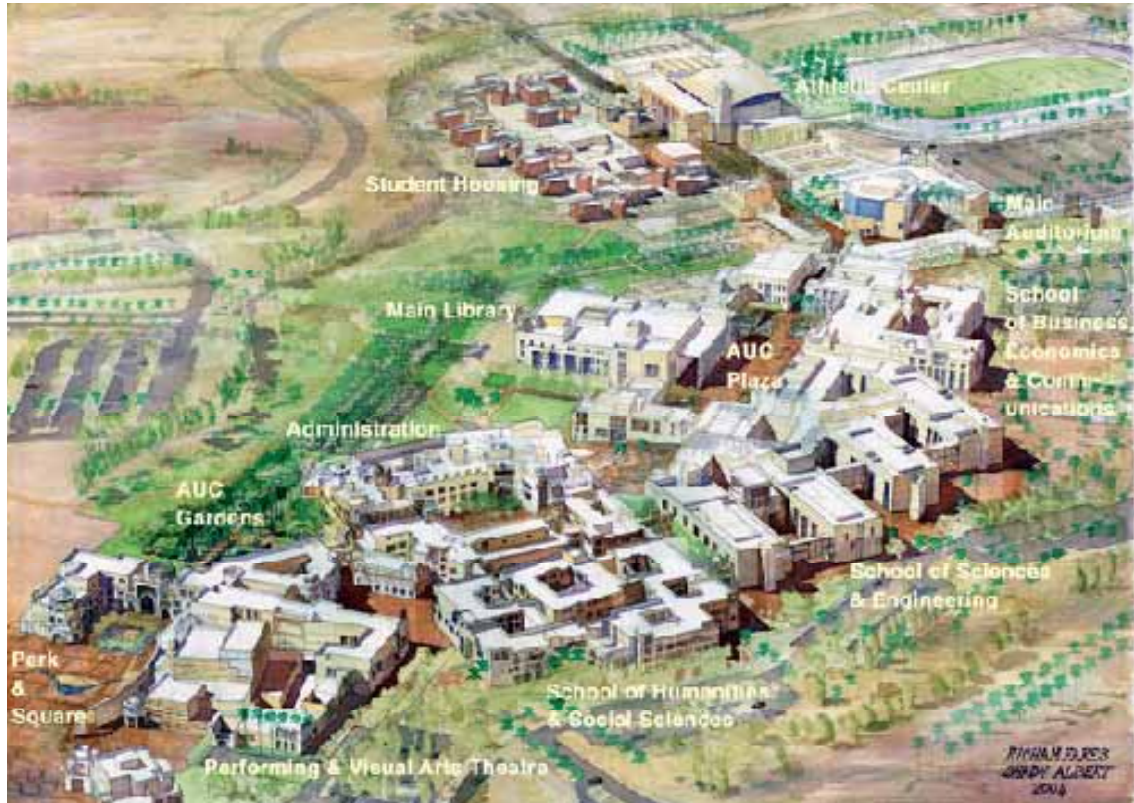


Figure 20: The Focus of AUC on Green Ideas is Reflected on the Design of the Master Plan.

### Conclusion

On reviewing the selected projects it is evident that the architects have accepted the social aspirations of their clients in terms of giving them prestige through modern distinguished images. The source of distinction, surprisingly, was coming from historic practices in disguise filtering through the modern images. The latter became a sort of an introductory card for the

former, which otherwise could not have been admitted in the web of social aspirations.

In many Arab countries academics are advocating traditional architecture in a “traditional” way. They believe in image cloning and visual abstraction. However, because of rising competition, architects in the market are giving what the society aspires for. This polemical practice has not yet penetrated

the thick skin of academics. Yet, new identity is in the making contrary to what intellectuals and officials would like to see. No more direct cut and paste from history. Identity today is slowly germinating from environmental awareness which in turn touches upon traditional values. More interestingly, this type of identity is proving profitable ventures in front of their clients. Clients are gradually accepting the new language for it brings them prestige. Introducing traditional values in a disguised way within ultra modern imaging is a polemic that will slowly turn the current practice into a better future for Arab cultures.

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