The Adventures of Harry Barber in OPEC Land

Wherein an apocryphal account is related ings for an unbuilt high-rise office building by a fictitious American architect who seeks his fortune in the Middle East and thus engages in a host of experiences.

Up till now my life had been reasonably prosperous. My partner and I had maintained a 50-person architectural office in New York. We had achieved no small renown in our 15 years of practicing architecture, having won awards for houses, then schools, finally office buildings. But the economic "downturn" of 1974-75 forced me to make a dramatic decision. Our professional and personal lives had been a year in the hands of our creditors when I decided to take leave of our comfortable New York office and journey to the unknown lands of the Middle East.

Of all the places to look for prospective clients, I reasoned that either Saudi Arabia or Iran would be the most promising.1 I decided to go to Tehran, since many of my local colleagues from New York's boom years had work there-I.M. Pei, Marcel Breuer, Skidmore, Owings & Merrill, Gruzen & Partners, Edward Durell Stone, John Carl Warnecke. These firms might be larger than mine, I realized, but the stakes were too high to get nervous about that. So I set out with only presentation draw-

Editor's note: The characters in the above article are purely fictitious, as are the "adventures." The story, however, is based on actual experiences reported by a number of architects working in the Middle East. The device of fiction was employed in order to circumvent the problem of confidentiality. Because of the sensitive architect-client relationships (which even prevented many projects from being published), many architects interviewed did not wish any of their observations or experiences to be quoted or attributed. While the single-person narrative is a limited one (excluding the many positive experiences and overlooking some OPEC countries), it was felt that this composite narrative might provide a capsulized view of what an architect working in the Middle East could encounter.

in Midtown Manhattan to comfort me-and to offer assurance of my abilities to interested parties.

Upon arriving I went directly to the Tehran Hilton. The sight I beheld in the lobby was most incredible. It was a market place for every commodity or service one could name; kewpie dolls, helicopters-and architecture. (One architect even had his drawings spread across the floor of the lobby.) Although I had booked a room in advance, the room clerk was unable to locate my reservation and assured me there was not another hotel room in all of the Shah's kingdom. Thus I was forced to retire to the bar to ponder my gloomy fate.

Standing there was a well-dressed Iranian fellow who, seeing my portfolio under my arm, looked over my dark navy pinstripe suit (too hot for the 120 F temperature) and my wire-framed glasses and asked me if I were an architect from New York. Astonished at his perspicacity, I asked him how he knew. He explained he too was an architect, a cousin of the Shah and was friendly with many architects from the States. His curiosity about my portfolio impelled him to ask to see it.

Upon my opening it he immediately began praising the office tower's aesthetic and functional merits, and proclaimed he must show it to the Shah. Since the Shah was known to favor high-rises and to influence a lot of architectural decisions in this country I gladly relinquished the portfolio. Explaining that I wasn't sure where I could be reached since I had no room, the architect immediately took me to the room clerk and demanded that he locate my room reservation.

Presently the clerk, his memory jogged with a "gift," (suggested by my new friend) found the correct records. Elated, I returned to the bar to ponder my good fate.

An old acquaintance

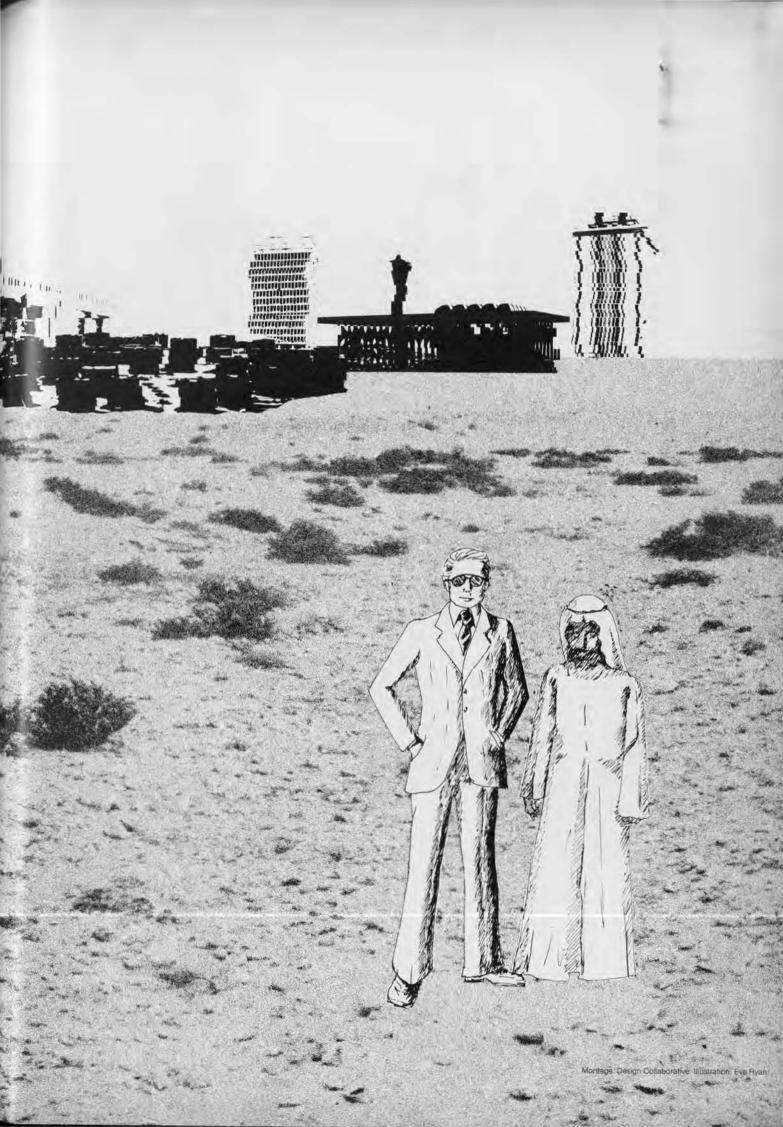
All of a sudden out of the corner of my eye I saw a person who looked vaguely familiar from my days in architectural school. Upon scrutiny he appeared to be much older than 41 however, for his face was



browned and wrinkled, his eyes, smoldering dark flames, glazed from alcohol. Presently he spoke, "Harry Barber, Yale '61." Astonished, I acceded I was Harry Barber and was it possible he was my old schoolmate. Much clasping of shoulders took place before I finally asked him what he was doing in Tehran.

His voice became slightly strangled as he told me he was studying the "rules of the game" that were essential for doing business in the Middle East successfully. Like another schoolmate of ours, Jaquelin Robertson, my friend had been a city planner in New York, where he had been drawn into the development game. "But New York was little league stuff," he claimed, "Here the projects are immense, the construction budgets staggering, and the fees monstrous. Even Robertson is here," he confided, alluding to the news that Jag had just been named director of the Llewelyn-Davies design team to execute the "new town" of Shahestan Pahlavi in Tehran.

But my prematurely aged friend proceeded to warn me that he wasn't sure Americans could ever understand the rules according to Persian practice and began recounting his experiences over the years. Tales of long detailed negotiations ensued, wherein the agreements of one day were no more binding than the shifting sands of East Hampton at high tide. "Remember every day is a new day," he muttered, "and the weather is always decided by the Shah."



Architecture in the Middle East

By that time my friend had, as we say, really tied one on and was babbling about the 19th-Century picaresque novel written by an Englishman, The Adventures of Hajii Baba of Ispahan." Hajii Baba, he philosophized, knew that "Truth can be but a matter of definition; it is so ephemeral that it may constantly elude you." Many more. Persian nights were to be spent in the company of this cynical friend, whom I enjoyed to a degree. His black humor could be entertaining, though I felt it shouldn't be taken too seriously.

Later, when I was finally contacted by the architect cousin of the Shah, I found he had set up some meetings with private developers for a condominium project where we would be joint architects. I related the news to my all-knowing friend. "Blood is thicker than friendship, friendship more binding than law, and money is the only force that transcends all," he responded darkly.

Design dilemmas

During the ensuing months of interminable negotiation and stops and starts, my spirits began to lag. "Persians don't really believe in planning as much as they believe in intrique," my friend cheerfully pointed out, "Negotiation is much more important than the design phase and will take more time. But learn to enjoy it, it can be fun.'

Still, several things bothered me. I was increasingly anxious about the elusiveness of the decisions made at the meetings. I had always prided myself on my ability to communicate with my clients, one of the reasons I'm sure my firm was so successful. We also were known for our realistic approach, based on attention to economics, user needs, existing technologies. I certainly did not neglect "design," but let's say that formalistic or theoretical considerations were not very interesting to me. In fact I resented their increasing significance to more than a few New York architects

Back home, controversies had been raging over the philosophical assumptions of "Modern Architecture," its functionalist tenets, its technological imperatives, its alleged lack of visual interest, human scale, or "content." "Don't ask questions, until you can give me answers" I always said. "Why tear something apart unless you have something else to replace it with?," I would go on, remembering how Modern Architecture had so aptly performed just that replacement role with regard to the Beaux-Arts architecture that had preceded it. A "hard-core pragmatist," I was especially sick of issues that weren't clear cut. The situation was all so ambiguous.

But I was not prepared for ambiguity and pragmatism in combination. After months of negotiation in which it was impossible for me to decipher the events, my architect-partner told me the developers had decided to build exactly the tower I had designed for Midtown Manhattan, Since it

had a glass curtain wall. I guestioned its appropriateness for the hot dry climate. And because most of Tehran is 3-to 6-stories high, I wasn't quite sure how its 50story height would fit in with the surrounding context.

When I expressed my surprise about the apparent abbreviated design phase to my bibulous friend at the Tehran Hilton, he gurgled pithily, "Remember this is a place where trading is a way of life. They want to get the tower built, get the money, and get out." I then explained that while the tower had originally been designed for offices the developers wanted condominiums. Surely, I conjectured, I would have to redesign the interior. My friend looked at me soberly, as he asked me about the contract. I quickly answered that we had signed it that day. To which he replied testily, "Not that it matters. Whereas we look on the contract as a legally binding document, some tend to see it as a statement of intent, sort of like our farewell greeting of 'Let's get together sometime.' 112

I asked why he hadn't imparted this advice to me before. "The safest, most expedient way to do it is have the contract drawn up in the States with payment in American dollars and with good accountants consulted," he replied. "You were too impatient. I figured you wanted to get in and get out too. That's what a lot of American architects are over here doing."

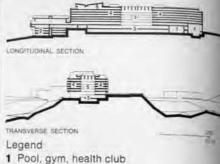
Gold at last

I congratulated myself for having at least persuaded the developers to give me an advance of the 5 percent design fee upon signing the contract. Not all of my business acumen had left me, I thought, though I was increasingly conscious of an ever-present, naiveté that had taken its place. I did have to give half the advance to my Iranian architect-partner, whose firm would execute the working drawings and supervise most of the construction.

Upon seeing the drawings later, I was perturbed by their sketchiness but was told Americans spent too much time on these drawings; contractors didn't need that much detail. I was to see why subsequently. Local contractors had a tendency to conform very loosely to the drawings, arbitrarily making changes when they so desired. First, however, I found that my associated architect was also making changes in the scheme. Ogee-type arches were added to the black spandrel paneland-mullion curtainwall. When the steel frame gave way to a concrete structure (heavy steel was not yet being manufactured there and had to be imported), the ogee arches were done in precast concrete panels.

Second thoughts about architecture

Iranian architects were hardly alone in this embarrassing attempt to fuse modern technologies and forms with Persian stylistic motifs. A good many American architectural firms were experimenting the same way with equally disheartening results. The effect went beyond that of the



- 2 Parking levels
- 3 Shops and main lounge
- 4 Guest rooms
- 5 Courtyard
- 6 Nightclub

A new luxury hotel on Mount Tochal, Tehran, is being designed by Marcel Breuer & Associates (Robert Gatje, principal in charge of design) for private Iranian investors. The hotel sited in a northern (and most exclusive) section overlooking the city has 320 rooms plus retail and recreational facilities organized around a seven. story-high skylit atrium. The structure will be concrete with thermally honed granite cladding

On a 36-acre site in the northwest section of Tehran, I.M. Pei & Associates in joint venture with Sazeh Consultants has designed Kapsad, a mixed-used center replete with apartments, 2 million sq ft of offices, 400 hotel rooms and 150,000 sq ft of retail space. Although the design has been reworked since this model was prepared, the new version is expected to retain the reflective glass skin and faceted massing of this earlier scheme.



Legend

- 1 Office tower
- 4 Office space
- 2 Residential 5 Banking 3 Hotel
 - 6 Retail





Architecture in the Middle East

"historical allusions" the newer generation of architects were so fond of employing in the States. This went back to the architecture of the 1950s when any number of effects were tried on to "soften" modern architecture or give it some particular identity.

I began to realize that serious issues were involved regarding Iran's quest for modernity. Journeys to Persepolis and Isfahan had made me increasingly enamoured of the mud brick vernacular of the village huts, the bubblelike roofs of the-bazaars penetrated by skylit apertures, the evanescent mosaic tiles of the mosques, the lush gardens and courtyards hidden behind walls, the varied spaces within the caravansaries. I was glad that some Iranian architects were trying to call attention to a fascinating tradition.

They clearly had a problem, but so did we. What kind of architecture could Americans hope to provide these people other than the very solutions that were being questioned back home? "Why do so many Iranians want to be accomplices to these acts of infidels," I asked my friend at the Hilton bar. "If you notice the Iranians and Arabs all seek our skills, services, and technologies, but are decidedly ambivalent about our presence here," he answered. "Aren't we all," I murmured.

Meanwhile the condominium tower went ahead. As it turned out my Persian partner did do most of the layouts since I wasn't aware of the ample space demands customary for wealthy middle Eastern clientele (3000 to 6000 sq ft per apartment) or their desire to have a series of closed off rooms for various uses.

The condominium developers were quick to excavate, but I soon found it had less to do with fast-tracking than with their unique methods of financing (in the process of improvement at this writing). At that particular time, (early 1976) there was no permanent financing in the country so the only way the \$50 million condominium tower could be started was by selling the condominiums before the building was completed (much less working drawings finished). To convince prospective buyers they were actually going to get the condominiums, the developers had to begin digging. "And you talk about New York's Dirty Dozen developers' my morose friend reminded me gleefully, "These guys will be out with their money before the lobby is decorated."

New York chic in Araby

Worried that I wasn't "spreading my risktaking around" as my old chum urged, I decided to go to Saudi Arabia until the condominium construction actually got underway. The factor that impressed me most about Saudi Arabia was the sheer size and magnitude of developments taking place there.³

Somewhere, I thought, I must fit into the picture. The picture, however, was consid-

erably cloudier than I had imagined. When I arrived in Riyadh, unpaved streets and buildings yet to be finished were bathed in a greenish gray haze formed by the dust and sand that fill the air. I quickly sought refuge in the Inter-Continental Hotel. The Inter-Continental was the only hotel in Rivadh to-speak of, a situation I hoped to change. Through some luck I had an old friend in a hotel chain in the States that was beginning to penetrate the Middle East market. My partner and I had contacted him before I left, and when I arrived in Saudi Arabia I was to find the chain had given our names to some Saudi developers. One hurdle over.

The interviews didn't take place for several weeks but this time I was prepared. (There is the joke about a Saudi ambassador to the United Nations who says to a Mexican ambassador "What does this word mean, manana?" The Mexican responds, "It means 'tomorrow.' Surely you have a number of words in your language for that." "Oh yes indeed we have," replies the Saudi ambassador, "but none with the same sense of urgency.")

I was not terribly surprised to find five other architects were being interviewed for this job. What did take me aback however was that the client, an intelligent but demanding fellow, asked to see a "suggestion" for the proposed site instead of my by then well-worn portfolio of past work. I thought this was stretching AIA codes of ethical practice a bit, but after paying \$100 a day for the room at the hotel (plus the "gift" to the reservation clerk) I was not going to ask questions. Ethics, schmethics, I figured, this was what the rules of the game were about.

Since the site had not been surveyed, determining the boundaries was not all that easy. And I had only four days to make some kind of presentation! (I found the Saudis were very true to their word about the deadlines they established, though they did mull over decisions.)

Success and hard work

My client came back to me presently and informed me I had the job. But he wanted to see several more "ideas" for the same site-within two weeks! I telephoned my partners about the project, explained that I would proceed developing the scheme I had proposed, if the office could draw up the other projects to show the client. I hesitated to return to New York (job stealing seems quite prevalent in the Middle East, along with job giving). And since my partner is Jewish we felt it best that he stay away. I was Irish and Jewish, but fortunately I had been brought up as a Quaker. Of course the morality of my accepting the proscriptive practices of the Arabs against Jews bothered me a bit. "Now is not the time to drag in Martin Buber-type arguments" reasoned the pragmatic me.

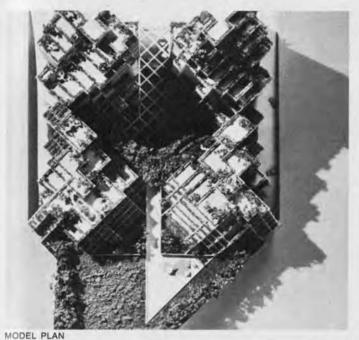
As it turns out of course, the client selected the scheme I had developed. (I was secretly glad, though I hardly wanted to tell my office after it had charretted night and day for two weeks on the other three.)



Eight multi-use complexes for the Kourosh department store chain of Iran are being prepared by the office of Edward Durell Stone. One, (above) in downtown Tehran, features a 28story commercial residential tower with a fivestory skylit galleria and below-grade department store. Four floors of parking will be included in the concrete frame and brick face structure. Another commercial residential project for Mashad. Iran (right) organizes terrace apartments around a central garden and three-story-high skylit shopping arcade. The apartment blocks step to 18 stories along the street and accommodate two levels of parking within the concrete frame and brick-faced structure. The "western" retailing concept includes air conditioned skylit malls in most projects.









While religious strife continues in Beirut this project for a large subcenter will be kept in abeyance. On a spectacular 22.7-acre site overlooking the city, private developers, Arab Investment Company, commissioned Gruen & Associates (with Beda Zwicker partner in charge) to design this 270 apartment, office, recreational,

shopping complex called "Beirut II." A 32-story tower combines 5 office floors with 27 floors of apartments plus 2 for restaurant/club facilities. Linking the tower at the highest portion of the site to the curved medium-rise apartment towers is the main promenade and shop-lined plaza. Structure is concrete, stuccoed walls.





Architecture in the Middle East

Now came the difficult part. I wanted to get an American builder to take charge of the project. Although large construction and engineering firms were plentiful, they usually preferred to subcontract to architects with whom they had done business in the past. Yet an experienced builder was highly desirable, since materials, technology, and labor all had to be imported.6 On top of that the port cities of Jidda and Dammam had such inadequate facilities that it took months for raw materials to be taken off the ships. One company even unloaded cement in the Jidda harbor by helicopter out of fear that the cement would first be ruined by moisture. Steel was flown in; some architects insisted bricks were too. And I was warned if you trucked in something through Turkey, chances were the cargo would be pirated before it reached Saudi borders.

Still trying

At last I was able to locate several firms who seemed promising. While my clients were deciding on which of them would be the best candidate, I speedily took the opportunity to go to Egypt where I could at least drink away my anxieties. Although I suspected some of the Middle East countries were too optimistic with their hotel construction where it seemed there were soon going to be more hotel rooms than travelers in the 120 F heat, this was not the case with Cairo—at the moment. Despite its lack of wealth in comparison to its neighbors, it needed hotels, and had the tourist attractions to warrant the increase.

By a fortuitous coincidence I bumped into an old colleague in the Nile Hilton, a planner from New York who had been doing some consulting work for the Egyptian government. He told me of a piece of land on the Nile near the Pyramids for which he had obtained development rights from the Egyptian government. The project he had in mind, a resort condominium, seemed extremely apropos for us to team up on. Of course there was a bit of a hitch. Egypt would put up the land and labor, but not hard currency. We would have to obtain outside investment to import materials and to build the project. The planner had established a connection with some Kuwaiti investors but needed more money. I wired my partner for a likely American prospect. Ironically it proved easier to interest some U.S. developers in a resort condominium in Egypt than in almost any kind of development back home.

Voice of the desert speaks

While I waited for the American investment representative to come to Cairo I traveled to the fabled city of Alexandria. The sea was stunning, although the city of my fantasies was decrepit and decaying. Then one steamy night as I wandered the broken dirty streets, I came upon a English-speaking Coptic soothsayer near one of the cafes. I was in the mood for profound

insight into how this whole thing would turn out. She seemed inconclusive. "Greed, opportunism, and hypocrisy are constantly at your side," she rasped. "And your future looks murky." Asked how I would avoid greed, opportunism, and hypocrisy she replied cryptically (coptically?), "Look within." "Just what I need," I thought.

In the single most discouraging two weeks of my life I returned to Tehran and found my condominium project was still in the same state as I had left it. Meanwhile a kickback scandal seemed to be brewing. The developers had allegedly paid off some of the government officials to push through rapid land clearance approvals. A similar situation had occurred with the Shahestan Pahlavi project, where government officials were still under investigation for receiving kickbacks for more than \$33 million from landowners who had obtained inflated land compensation. I found to my dismay that my contract would also make me liable to kickback charges if the investigation were undertaken in my project. I finally got hold of my lawyer who advised me to try to terminate the contract, even if it meant losing the rest of the fee. I did.

When I arrived in Saudi Arabia I learned the hotel project was held up because of delayed deliveries on materials and equipment. The firm with which I was allied wasn't big enough to fly in materials, à la Bechtel. Prices were rising so rapidly because of inflation that already the hotel was going to cost \$150,000 per room. (Construction figures are normally three to fives times those in the States.) And the clients were getting itchy.

Back in Egypt everything seemed peachy, except for one thing. My planning friend explained that the government approval process might take six months to a year. As it was we had to make quite a few charitable donations to the government officials just to keep up their sense of urgency. But bureaucratic snags were combined with official ambivalence. Egypt was uncertain how much to encourage foreign "invasion."

Homeward bound

The next day I flew home. Now I am back in New York where my analyst and my partner can comfort me. I had been secretly hoping to find my office down to just one person, my partner, who would announce that we had just gotten a house commission in Greenwich. No such luck. We still had some work, but we needed more.

All agreed it was necessary to maintain "a presence" in the Middle East. Even colleagues with some of the most positive attitudes toward the Middle East (for example The Architects Collaborative, who got in there 18 years ago with the University of Baghdad) maintained it was best to stay with the project from beginning to end. So there I was, looking forward to going back to rent a bungalow in Saudi Arabia for \$3500 a month or live out of a hotel room.

I have now had time and distance to mull



Steve Rosenthal



TYPICAL HOUSING UNITS

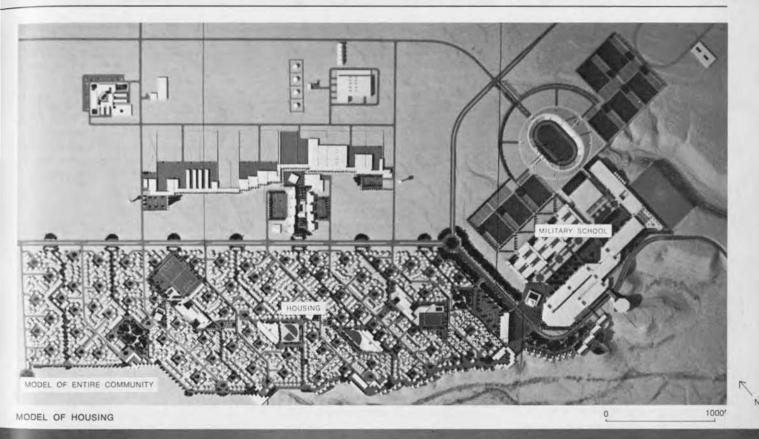


The U.S. Army Corps of Engineers commissioned Caudill Rowlett Scott/McGoughy Marshall & McMillan, architect/engineers, in joint venture, to design a military academy and new town in Riyadh for the Saudi government. The low-rise, 5-million-sq-ft complex will be located on 100 square miles of a rocky desert site Besides the school for 1500 students (modeled on West Point and the U.S. Air Force Academy) there will be a new town for 10,000 residents. Estimated completion date for the complex usinf poured and precast concrete construction is 1983:

A technical institute in Shiraz, Iran by Hugh Stubbins & Associates (with Pirooz Shahrdar, associated architect) was designed for the Imperial Organization for Social Services as Iran's first college-level industrial science and technical school. The 280,000-sq-ft concrete frame structure is organized around an academic spine covered by an open barrel-vaulted canopy to which ancillary facilities are linked by bridges and walkways, (photo, left).

The Saudi Fund for Development Headquarters in Riyadh designed by Urbahn-Coile Inter-national, is a five-story poured concrete building that will be sheathed in travertine marble. Because of the triangular site, and the partly speculative (rental) functions, the office space has been broken down into three staggered units. Skylighted interior atria occupy the cores of the two end units, (photo, right).







Legend

- 1 Low-rise cluşter
- 2 High-rise cluster
- 3 Hotel
- 4 Motel
- 5 Shops
- 6 Casino, restaurant
- 7 Recreation

over the events of the past year, Okay, I suppose I was greedy, impatient, and hypocritical. But you have to be all of the above (or crazy), don't you, to go over and try to adjust to such different mentalities, strange modus operandi, incomprehensible concepts of truth and time, not to mention actual physical hardship? You do pay a price!

I imagine most of us wouldn't be there if we had enough to keep us busy back home. And once the OPEC countries have developed their own professional work force, skilled labor, technology, and materials (which Iran is already on the way to doing) they won't be that intent on having us around anyway. In the meantime they'll get decent enough buildings and cities I suppose, though they may not have much to do with their physical landscape or way of life. Nor will they probably advance the state of architecture: most of the work going up is, at best, a series of facsimiles of Western modern architecture, at worst, ludicrous hybrids of Western and Middle Eastern architectural styles.

Our contribution, as I see it, lies not in generating architectural forms that are sensitive to the expressive needs of alien cultures. No, our contribution lies simply in the efficiency in the sophistication of our services, and the Middle East situation is forcing us to refine them and broaden them further. There we have to immerse ourselves in the entire process of building: not just design through construction supervision, but financing through labor and material supply. (In fact one firm, Adasco Tech International, was formed a few months ago by architect Paul Damaz and civil engineer Ergin Talimci to provide just that total range of services.

But I still wonder about the physical results. Can the increasing efficient production of architecture attain the level of design quality that we have known in the past (Persia and Egypt included)? After a year of being battered and bruised while tenaciously holding on to my pragmatic ''nuts and bolts' belief system, I am now asking questions. Even if there aren't any answers. [Suzanne Stephens]



Notes

- 1 By 1976 Iranian oil revenues had jumped from \$2.5 billion yearly in 1971 to \$27.6 billion. Its \$50.3 billion Gross National Product in 1975-76 is the "fastest growing" in the world. Its five-year plan initiated in 1973 for a country of 32 million, called for the government spending a total of \$98.2 billion by 1978. Last year the government began to pull back on its spending, so that spending for construction is now about \$3 billion a year (public) and \$3 billion a year (private). Saudi Arabia claims a revenue of \$32.7 billion in 1976 for a smaller population of five million. Its second Development Plan begun in 1975 calls for expenditures of \$142 billion over the next five years of which \$90 billion is expected to be devoted to construction.
- 2 A lawyer who has represented clients in the Middle East, Michael Lacher, advises that a firm's own American lawyer teams up with good local lawyers in preparing the contract. He also suggests that an arbitration clause should be included so that any dispute can be settled in the International Chamber of Commerce. Architects should also make sure they are protected for litigation (increasingly common) and for termination of contract, so that they may receive liquidation damages if fees haven't been paid.
- 3 Joint venture and registration requirements change from country to country. Joint ventures between local architects and foreign ones are required in Iran, Iraq, Kuwait, Jordan, and Syria. Associating with local firms is wise in order to overcome obstacles regarding building or municipal codes, economic conditions, cultural customs, etc. Since building codes tend to be much less stringent than in the U.S., architects advise going by the U.S. building codes.
- 4 See The Sense of Unity, The Sufi Tradition in Persian Architecture by Nader Ardelan and Laleh Bakhtiar, (University of Chicago Press, 1973)
- 5 The U.S. Corps of Engineers has at least \$8 billion worth of construction management projects underway for the Saudi government. It has subcontracted work to architects including a \$2 billion military city planned by Brown Daltas &

Associates and Sippicon Consultants and two military hospital complexes being designed by Ellerbe/Architects/Engineers/Planners and Daniel Mann Johnson & Mendenhall, Arabian-American Oil Company, originally Aramco, a company formed by Exxon, Texaco, Standard Oil of California, and Mobil, is being gradually sold to the Saudi Arabians. Meanwhile plans call for \$1.25 billion worth of construction in 1975, for which both Haines Lundberg Waehler and Caudill Rowlett Scott are executing a number of projects. All this work in Saudi Arabia affects architectural firms: at least ten A/E firms are involved in \$17 billion worth of contracts. Bechtel Engineering Corp. is also active. It is building an airport complex outside of Riyadh where Harry Weese & Associates is designing housing, Warner, Burns, Toan, Lunde, a hotel, and Hellmuth. Obata & Kassabaum the airport service facilities. Bechtel also just got the \$9 billion contract for managing construction of the new industrial town of Jubail.

- 6 Manpower is still a problem. Much of the labor is done by immigrants from Yemen, Pakistan, and Nigeria, with builders supplying their housing at the site. Office clericals tend to be Palestinian and Egyptian, while Lebanese and Syrians are involved in trading enterprises. The actual number of Saudi men who work (women aren't allowed to work, drive, or mix with strange men) is about 500,000.
- 7 Although Egypt is not technically an "oil-rich" country (its GNP is about \$10 billion; its population 37 million), it was selected for this account because of the unique opportunities it offers for foreign architects, builders, and investors who would like to enter in a arrangements for developing land with Egypt's Ministry of Housing and Reconstruction. The Ministry has just selected a team to develop a comprehensive plan for the new community of Sadat City, some 40 miles from Cairo. The city of 500,000 initially will be planned to be attractive to private investment, both Egyptian and foreign. David A. Crane & Partners will be planners for Sadat City; Marcel Breuer & Associates, architects; Warner, Burns, Toan, Lunde, architects; Sabbour Associates (from Cairo) architects and planners; Parsons, Brinkerhoff International, engineers; Peat, Marwick, Michell & Company economists.



SECTIONS - ELEVATIONS





Middle East checklist: architects' work recently completed, under construction, or projected.

1. Welton Becket & Associates

\$40 million Arva Sheraton Hotel, Tehran, Iran

2. Marcel Breuer & Associates

\$90 million (excluding Sadat City)
Mt. Tochal hotel, Tehran, Iran
Hotel, Cairo, Egypt
Sadat City, Egypt (architecture)

Hotel/shopping arcade, Manama, Bahrain Fish, meat, and vegetable market, Kuwait City, Kuwait

3. CRS Design Associates

\$5.5 billion

Aramco office buildings, Riyadh and Dhahran, Saudi Arabia

Photogrammetry building, Riyadh, Saudi Arabia

Saudi University for Girls (master plan), Riyadh, Saudi Arabia

King Abdulaziz Military Academy, Riyadh, Saudi Arabia

University of Petroleum and Minerals, Dhahran, Saudi Arabia

Bahrain Monetary Agency building, Manama, Bahrain

Gulf Air housing tower, Manama, Bahrain

Community Design Associates (CODA) \$40 million

New Maamoura housing, Alexandria, Egypt

The ELS Design Group \$130 million

New community, Tabuk, Saudi Arabia

6. Ellerbe/DMJM

\$925 million

Medical community, Taif, Saudi Arabia Medical community, Al-Kharj, Saudi Arabia

7. Gruen Associates

\$43 million

Beirut II urban subcenter, Beirut, Lebanon

8. Gruzen & Partners

(\$ withheld)

Farahzad housing, Tehran, Iran

9. Hellmuth Obata Kassabaum

\$5 billion

Terminal buildings for Riyadh airport, Riyadh, Saudi Arabia

University of Riyadh (in consortium, HOK + 4), Riyadh, Saudi Arabia

10. Philip Johnson and John Burgee

\$100 million

Housing, Isfahan, Iran

Commercial center, Isfahan, Iran

Bank headquarters, Tehran, Iran 11. Llewelyn-Davies & Partners

\$3-5 billion

Shahestan Pahlavi new town, Tehran, Iran

12. I. M. Pei & Partners

(\$ withheld)

Kapsad housing, Tehran, Iran

Bank headquarters complex, Tehran, Iran

13. William Pereira Associates

\$300 million

Medical complex, Tehran, Iran Hotel and new town plan, Doha Quatar

14. Perkins & Will

\$175 million

Jondishapour University, Ahwaz, Iran

Hospitals, Ahwaz, Iran

Hospital, Tehran, Iran

Khezar Shahr Resort, Iran

Iranzamin International School, Tehran, Iran

Palace, Ahwaz, Iran

Hospital, Cairo, Egypt

Town plan, Kuwait City, Kuwait

Three training centers, Saudi Arabia

Skidmore, Owings & Merrill (Withheld all information on their work)

16. Smith, Hinchman & Grylls, Associates (\$ withheld)

Royal Saudi Air Force headquarters, Riyadh, Saudi Arabia

17. Edward Durell Stone & Associates

(\$ withheld)

Kouroush department stores and housing (seven in Tehran, Iran, one in Meshad, Iran)

18. Hugh Stubbins Associates

\$8 million

Shiraz Technical Institute, Shiraz, Iran

19. The Architects Collaborative

\$600 million (since 1970)

University of Baghdad, Baghdad, Iraq (parts still under construction)

Institute of Public Administration,

Riyadh, Saudi Arabia

Al-Ghanim Villa, Kuwait City, Kuwait

Al-Shaya Village, Kuwait City, Kuwait Kuwait Fund for Arab Economic Develop-

ment, Kuwait City, Kuwait Kuwait Investment Company, two parcels in

Kuwait City, Kuwait

A condominium project for the coast near Alexandria has been proposed by an American-Canadian-Kuwait consortium to the Egyptian government. Called the New Maamoura community, the \$43 million project was put together by Preston-Budd, Division of Dominion Industries, Canada and Community Design Associates in New York. (Jan Dabrowski and Jerzy Glowczewski are the architects and planners for the project, Michael Drucker the construction manager). The 350 dwelling units, grouped in clusters around green space and linked by pedestrian paths, will be built in phases using tunnel form concrete construction with metal scaffolding.

National Real Estate Co., Kuwait City, Kuwait Arab Investment Co., Riyadh, Saudi Arabia Institute of Public Administration, Riyadh, Saudi Arabia

Cold Storage Facility, Abu Dhabi, U.A.E. Ministerial Office bldg., Manama, Bahrain Two parks, Riyadh, Saudi Arabia Abu Dhabi National Library, Abu Dhabi,

U.A.E. Kuwait Sheraton Hotel addition, Kuwait City, Kuwait

Sheraton Hotel, Baghdad, Iraq Sheraton Hotel, Basrah, Iraq

Hotel Inter-Continental, Sharjah, U.A.E.

20. 3D International

(\$2 billion)

(a subsidiary of Diversified Design Disciplines which includes the domestic subsidiaries of Neuhaus & Taylor, Architects and Engineers, Chenault & Brady, Consulting Engineers, and Brooks Barr Graeber White, Architects and Engineers).

Aramco housing and community facilities, Dahran, Ras Tanura, Abqaiq, Udhailiyah, Saudi Arabia

Dubai Inter-Continental Hotel, Dubai, U.A.E.

21. Benjamin Thompson Associates

\$150 million

Intercontinental hotel, Abu Dhabi, U.A.E. Intercontinental hotel, Al Ain, U.A.E. Intercontinental hotel, Cairo, Egypt

22. Urbahn-Coile International

(\$ withheld)

Saudi Fund for Development Headquarters, Riyadh, Saudi Arabia

23. Wallace McHarg, Roberts & Todd \$100 million

Pardisan, Tehran, Iran

24. John Carl Warnecke Associates \$15-20 million

Foreign trade bank, Tehran, Iran

25. Warner Burns Toan & Lunde

\$200 million

Ramses Hilton, Cairo, Egypt Riyadh Hilton, Riyadh, Saudi Arabia Riyadh airport hotel, Riyadh, Saudi Arabia

26. Harry Weese & Associates

\$60 million

Housing at airport, Riyadh, Saudi Arabia

Note: All figures given represent estimated total construction dollar volume.