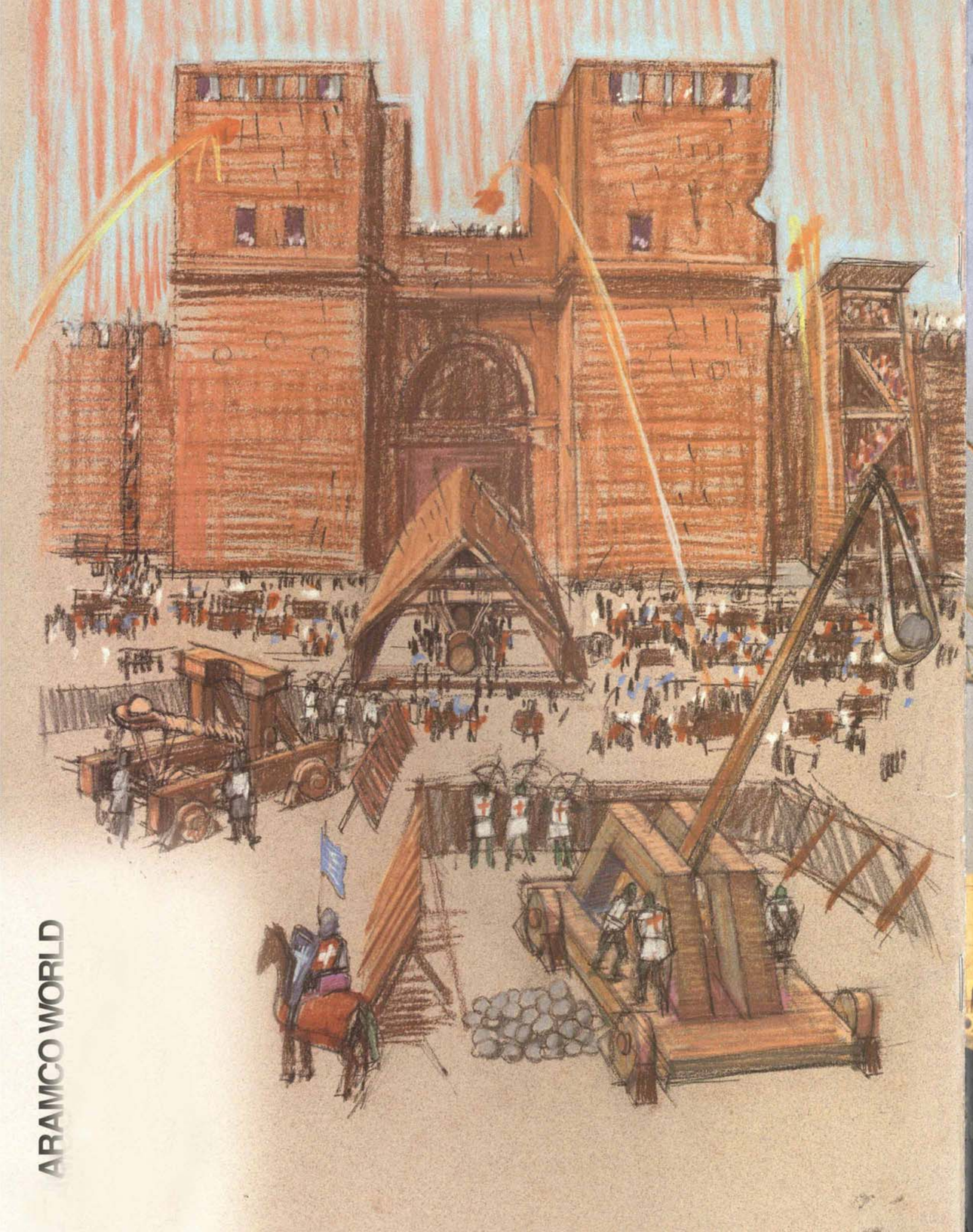

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INSIDE THE *Cairo* MEGACITY

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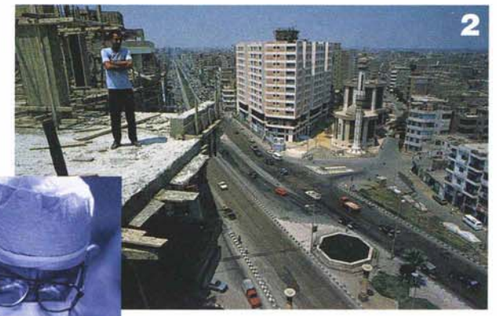

COVER:
A statue of pharaoh Ramses II, ruler of Egypt more than 3200 years ago, watches over the Cairo square that bears his name. Behind him stands the city's Bab al-Hadid railroad station, built at the turn of the century and soon to be overtowered by a modern office building under contruction. Cairo's lively "mosaic of sub-cities" has much to offer residents—including hope. Photograph by Dick Doughty.

OPPOSITE:
A Red Sea resident exchanges cautious looks with a curious visitor to his domain. Photograph by Eric Bjurström.

BACK COVER:
The Crusaders' trebuchets, mangonels, rams and siege towers battered Alexandria's walls for 75 days, but Saladin's outnumbered defense force—and the city walls—held firm, and his reputation grew. Illustration by Michael Grimsdale.

Saudi Aramco, the oil company born as a bold international enterprise more than half a century ago, distributes Aramco World *to increase cross-cultural understanding. The magazine's goal is to broaden knowledge of the culture of the Arab and Muslim worlds and the history, geography and economy of Saudi Arabia.* Aramco World *is distributed without charge, upon request, to a limited number of interested readers.*

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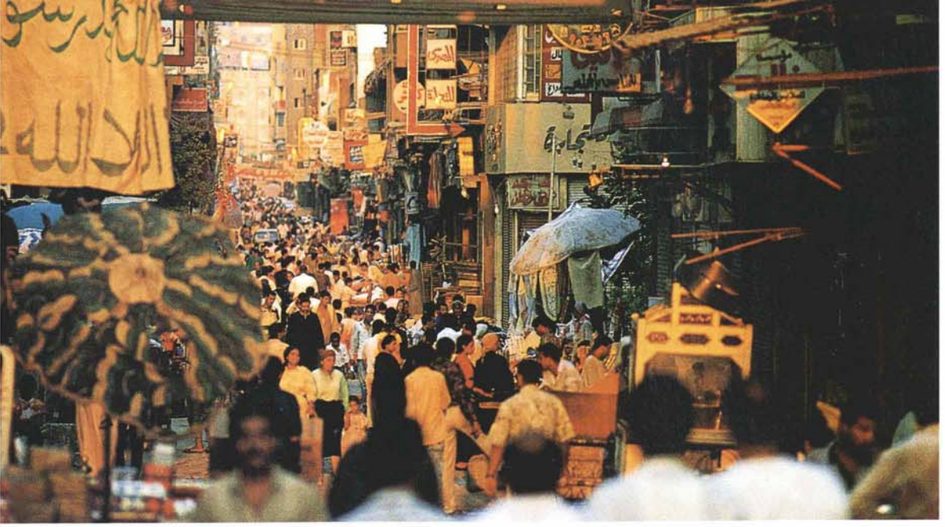
INSIDE THE *Cairo* MEGACITY

WRITTEN AND PHOTOGRAPHED BY DICK DOUGHTY

At twilight, a Nile-cooled breeze twists through a labyrinth of balconied apartment towers, some still cocooned in wooden scaffolding. It ruffles streetside rows of young trees and eddies dust on the sun-warmed asphalt that defines blocks of offices, shops, boutiques, apartment homes and mosques in Mohandiseen, Cairo's smart commercial center west of the Nile. An Egyptian pop cassette pumps rhythm from a waiting taxi while car horns bleat, atonal and plaintive. A drill whines somewhere above, and near the corner a pushcart vendor lauds his produce to passersby. Two young men in fluorescent sports outfits walk past, gesturing intently. Their white jogging shoes crunch softly in the street grit.

Two decades ago, when these young men were children learning to walk, there was no grit in this street. There was no street—and no apartment towers, no car horns. Mostly there was only dark Nile Valley soil, moist and fertile with cotton and vegetables. Above the green leaves you could watch the Great Pyramids shimmer in white haze.

But not now. Now 16 million people live in Greater Cairo. Some say there are fewer, some say more. There are no reliable statistics. But two things are certain: Cairo is very big—and it's getting bigger very quickly. Cairo is a megacity.



"A mosaic of sub-cities" is how anthropologist Janet Abu-Lughod described Cairo, where Muski Street (left) is a popular shopping street not far from the site of the original 10th-century palace of Cairo's founders. Opposite: Commercial life clusters around mosques in Cairo's pre-19th-century neighborhoods—as these blocks of fruit stands do in Al-Saiyydah Zaynab. This is much less so in the modern downtown (inset), where suits and contact-lens advertisements harmonize with colonial and modern architecture in a Parisian street plan. "What people do in Cairo has form," says architect Abdel Halim. "It's the product of thousands of years of living together."

"For the first time, wherever you go, it seems that the city is still there," says Dr. Mohammed Taher al-Sadek, editor of *Al Memar*, the Egyptian Architectural Association's quarterly, and professor of city and regional planning at Cairo University. "Even I can't grasp it any more."

Like any great city, wrote anthropologist Janet Abu-Lughod, Cairo is "a mosaic of subcities," each the product of a different social order, a different technological era and a different economy. Cairo is thus much more than a "new city" added to an "old city."

Much of today's Cairo is of course a product of the industrial age, from neighborhoods of quotidian family-run shops all the way out to huge government or privately-owned factories on the city's outskirts. Almost eclipsed now are the old suqs and capillary alleys where shops are still organized in clusters by trade, just as they were in the Middle Ages. In Cairo's multiple commercial centers, franchise stores offer the abundance of the global consumer economy and the streets are peppered with corporate advertising, sometimes in Arabic, sometimes in English. And only a few kilometers away, there still lie quiet, ox-plowed fields edged by brick-house neighborhoods organized along village lines, the remains of Cairo's once-dominant agricultural economy.

Every one of these sub-cities has a square or a neighborhood or a mosque that is its hub, where the faces of Egypt mingle with those of other parts of the Arab world and Africa and those of the West. When plodding wooden carts, ingeniously repaired Fiats and tinted-window BMW's clog the streets, and when thick crowds of people—from poor to rich, illiterate to university-trained, wage laborers and civil servants, merchants and mothers, students and peddlers—fill the sidewalks and the squares, every morning and well on into the night, then Cairo pulses as the heady center of uncountable human universes. Intoxicating yet exhausting, it is this seemingly infinite human wealth that lends magnificence to Cairo's soul—and confronts it with its greatest paradox.

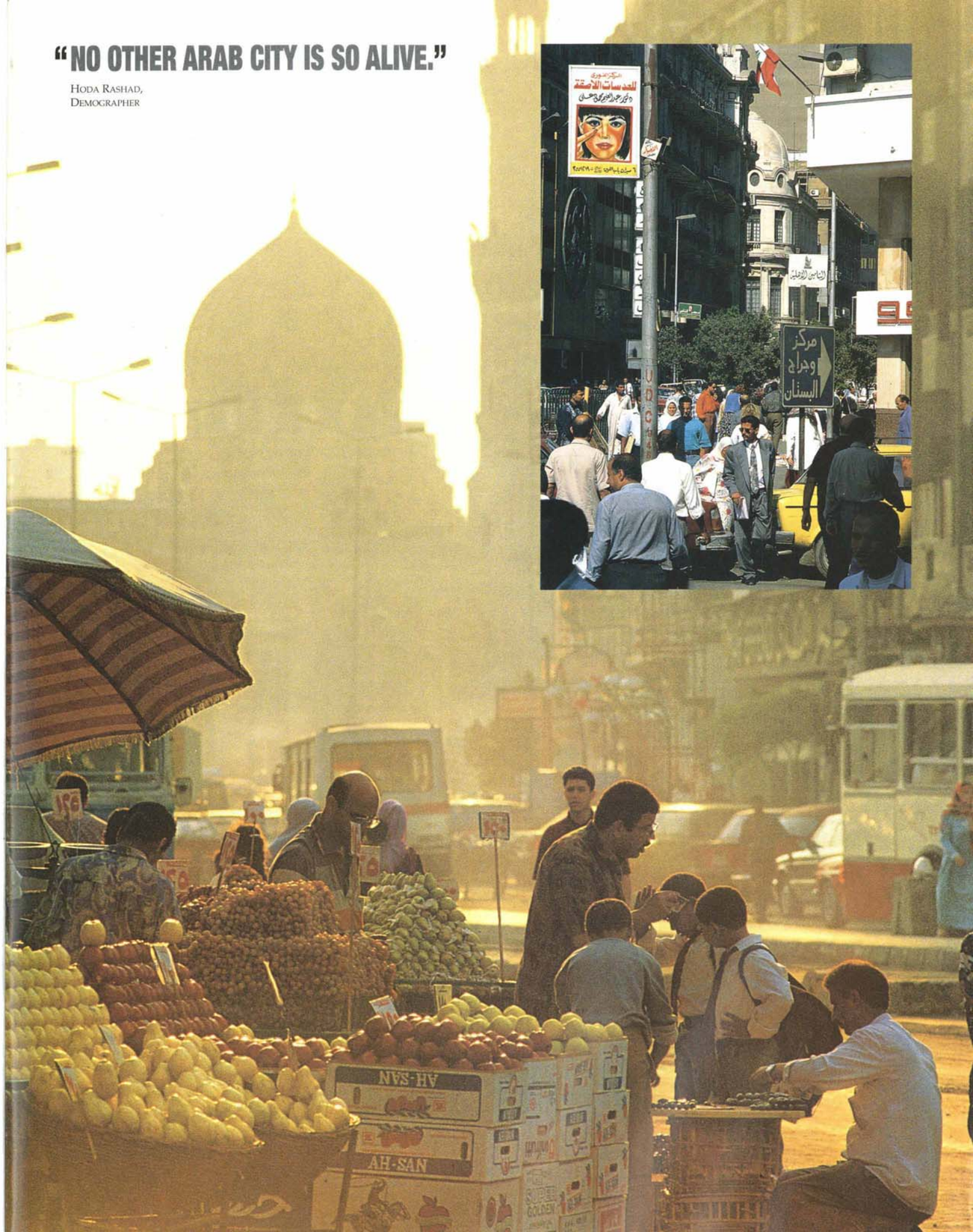
"No other Arab city is so alive," says a local expert who has studied Cairo's varying neighborhoods. A Cairo-based US advisor to the Government of Egypt observes that international news from Cairo frequently fails to communicate the "tremendous vibrancy here."

Cairo has earned an enviable reputation as one of the friendliest of the world's great cities. Relaxed attitudes, a tradition of hospitality and the renowned Egyptian sense of humor have smoothed daily troubles for centuries. But Cairo is also the heart of Egypt, where 60 million citizens today face the unprecedented challenge of housing, schooling and employing more than 1.3 million newborn compatriots every year. This must be done using little more than four percent of Egypt's territory, the ribbon of Nile-watered land whose total area is only two times that of tiny Kuwait. And of these new citizens, more than 350,000 are born each year in Cairo.

The face of "modern" Cairo began to appear in the late 1860's. Only 300,000 people lived in the city then, half as many as in the 14th century, when it was the most populous capital in all of Europe and the Middle East—until the plague of 1326. In the 1860's and early 1870's, the new Suez Canal and the Cairo-

"NO OTHER ARAB CITY IS SO ALIVE."

HODA RASHAD,
DEMOGRAPHER



Alexandria railroad reinforced Cairo's role as an East-West trade center of the early industrial age. Civil war in the US drove a surge in world demand for cotton, already Egypt's top export.

Flush with this trade, Khedive Ismail, ruler of Egypt, decided in 1867 that Cairo deserved the same wide, radial boulevards that had just reshaped and modernized Paris. Ismail drained the shallow lakes that separated Cairo from the Nile, tore through a jumble of traffic-clogged streets and laid down the network of boulevards and *maydan*s—small, circular plazas—that are modern Cairo's geometry.

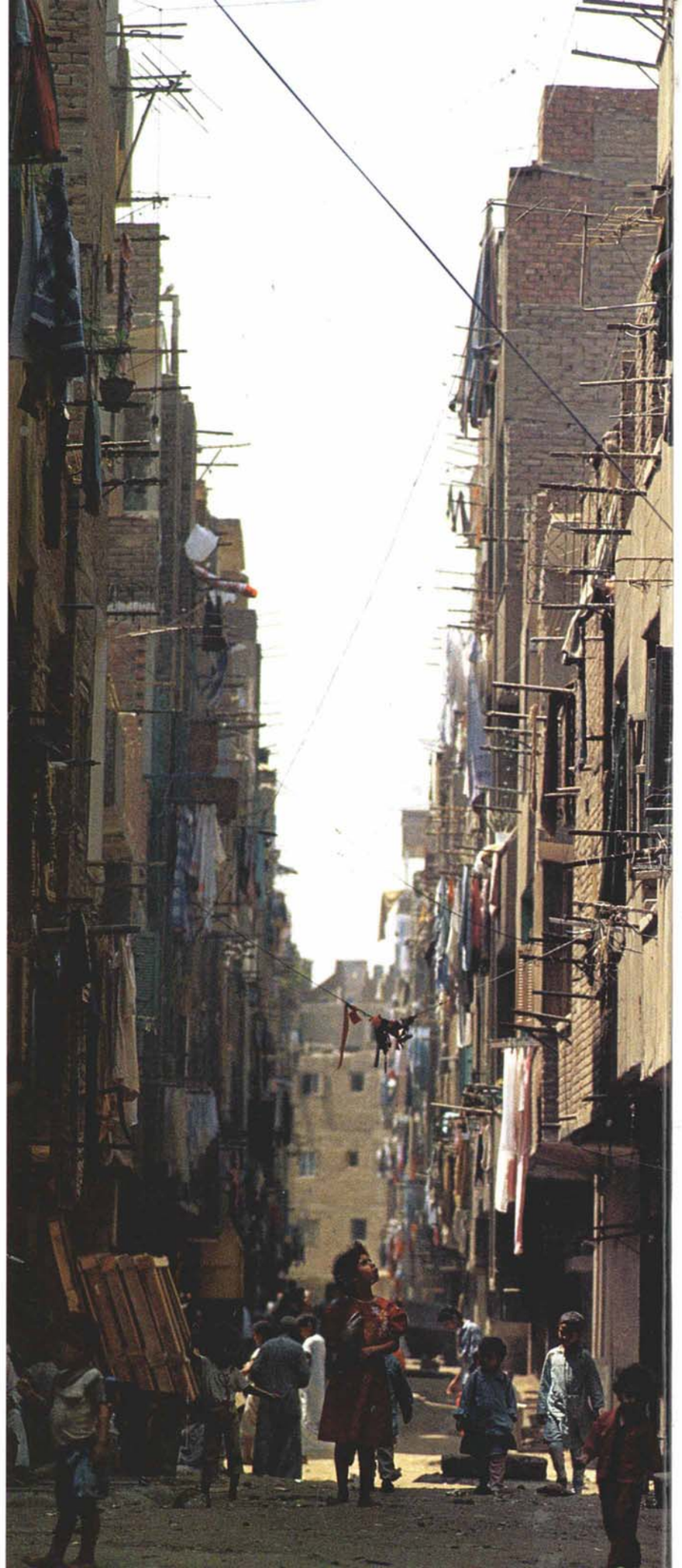
The expansion of Cairo's population, however, did not begin in earnest until nearly half a century later. Underground sewers, installed in 1915, brought dramatic improvements in public health that nosed the birth rate above the death rate for the first time. By 1930, Cairo's population passed the one-million mark. A wartime manufacturing boom brought a wave of migration that nearly doubled this figure by 1945.

But nothing has been like the last two decades. In the early 1970's, climbing oil prices brought an indirect windfall to the economy. At the same time, farms throughout Egypt were becoming too subdivided to satisfy family needs as they had for centuries. As a result, men sought opportunities in the Arabian Gulf in record numbers. The wages they wired home allowed families once accustomed to subsistence living to step into a nascent consumer economy, buying televisions, home appliances and the like. Many also forsook the village for the city, carrying with them the dreams of education and prosperity that would reshape Cairo.

In 1974 the late President Anwar Sadat's *infitah*, or "open door" policy, allowed foreign investment in Egypt—largely banned since the country's 1952 socialist revolution—and ushered in what city planner al-Sadek calls "a new philosophical era." It was a turning point. The boom was on.

Over the next 20 years, more than seven million people poured into Cairo. They filled the Nile valley to overflowing and spilled out into the desert, settling in a few years more than twice as much land as Cairo had covered in all its thousand previous years of history.

Now, in the Middle East, Istanbul and Tehran are each only half of Cairo's size. If Cairo were sovereign, it would be the fifth-largest Arab country. Even some Cairo neighborhoods have nation-sized populations: Shubra, north of the city center, houses three million people, comparable to the population of Lebanon.



In some areas, land is in such demand that a single square meter can cost months of a common laborer's wage. Here, narrow streets thread unplatted blocks in Imbaba, northwest of Cairo's center, one of nearly 100 neighborhoods that since the 1970's have absorbed one of the largest and most rapid urban migrations in world history.

Cairo is also in every respect the center of Egypt, as it has been almost since its founding in 969. One quarter of all Egyptians live there. The majority of the nation's commerce is generated there, or passes through the city. The great majority of publishing houses and media outlets and nearly all film studios are there, as are half of the nation's hospital beds and university desks. The population density of Cairo is exceeded only by the cities of India. And just how new is Cairo? Look out a window: Stone-crafted minarets still grace the sky—here and there—but one building in five is less than 15 years old. And now, fewer than one in eight Cairenes goes to sleep each night in the historic quarters that knew the ways of the city's Fatimid founders.

This astonishing growth until recently surged well ahead of city services. Homes, roads, electricity, telephones and sewer services were all suddenly in short supply. Analysts trying to grasp the magnitude of the change coined terms like "hyper-urbanization." On the ground, planners struggled: Only bits of the Cairo Master Plan of 1970 and the Greater Cairo Master Scheme of 1982 were ever implemented.

"Planning has not coped with the migrations. How could it have?" says Abdel Rahim Shehata, governor of Giza, which encompasses all of Greater Cairo west of the Nile. "We are busy providing the minimum services. It is a race against time."

"INFORMAL HOUSING IS NOT A 'PROBLEM.' IT'S A CREATIVE RESPONSE."

LINDA OLDHAM,
ANTHROPOLOGIST

And what a race it is. In a 1990 report, the United Nations called the city's response "one of the most ambitious physical planning efforts in the developing world." As a result, Cairo is catching up with itself.

A drive around the city can be as impressive as the figures. Seven bridges now span the Nile. Downtown expressways and lesser flyovers bypass coagulated traffic circles. New roads knit outlying suburbs into the urban fabric. A 100-kilometer (62-mile) ring-road expressway is largely complete. Donkey carts are banned from the city center, and traffic police keep everyone moving. Trips that used to be measured in whole hours are now, on good days, a matter of minutes, even as the number of cars in the city threatens to triple, since 1980, to nearly one million.

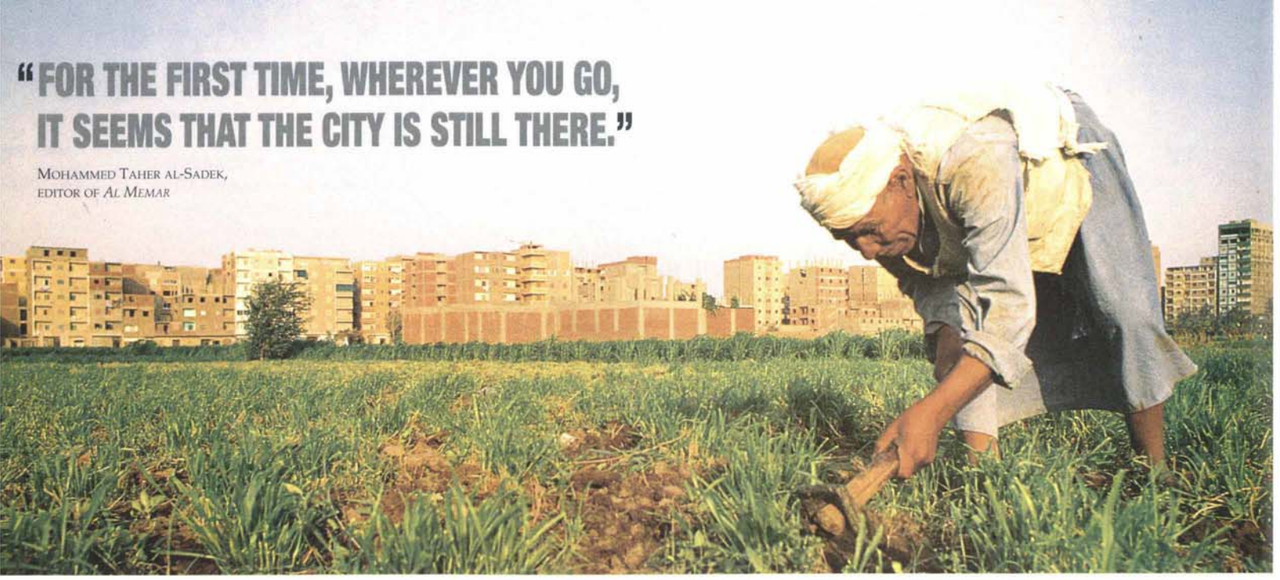
Like vertebrae along Cairo's riverine spine, 33 stations now articulate the first of three planned Metro rail lines, open since 1988; the second line is slated to open next year. The trains run on time. Along well-swept platforms in downtown stations, locally produced music videos—and advertising—play on television monitors. For thousands of factory workers who live in the north of the city and work in the south, the Metro has sliced commuting time in half.

The number of telephones has more than quintupled since the early 1980's, years that Cairenes recall with wry comments about the legions of couriers who threaded the gridlock afoot and on bicycles to deliver business messages, because telephones were so scarce. Now, businesses and homes often have lines for voice, fax and modem, and cellular phones are expected to be introduced soon.

The scarcity of land with access to water has historically favored apartment-style housing. For the middle and upper classes, private developers and land speculators—who have sought to capitalize on a tenfold rise in land values since 1970—have built a surplus of comfortable housing. For the majority of Cairenes, however, demand for modest, low-cost housing has run well ahead of the massive, government-sponsored construction programs. This has led to the third—and ultimately most traditional—type of Cairene construction: the owner-built, brick-and-concrete houses of one to five stories that now shelter more than four million people, or one fourth of the city. One Cairo-based US development specialist calls this wave of "informal" housing "the most unique phenomenon of modern Cairo."

Many of these nearly 100 unplatted neighborhoods, now sub-cities in their own right, have their origins in the wages sent home from the Arabian Gulf countries before the 1990 Gulf crisis. Without that flow of money into the economy, experts say, Cairo might have been ringed by shantytowns, a fate that—nearly alone among the developing world's megacities—it has avoided.

"Informal housing is not a 'problem.' It's a creative response," says anthropologist Linda Oldham, co-author of a 1985 study of these communities and a resident of Cairo since 1976. She points out that even though such a home often lacks utilities for a number of years after it is built, it is nearly always structurally sound. The owners usually supervise the construction, and because the home is often built piecemeal as the



family acquires cash, contractors, too, have clear incentives to do good work in order to be hired to put up the next story. "It's a very solid social process," Oldham says.

But Sahal Abou Ezz, undersecretary in the Ministry of Development, New Lands, Housing and Public Utilities, believes that instead of building informally, most people should apply for government-built apartments that—unlike many informal buildings and communities—are supported with needed utilities and services. Since 1977, he points out, the government has built nearly a million apartment units throughout Greater Cairo. Some of the greatest concentrations lie in the deserts northeast and west of the city, where hundreds of buildings in styled clusters of a dozen or more rise in unbroken, serried ranks, bristling with matchbox balconies.

Many Cairenes, however, hold different views. "People stay in [downtown] Cairo because it has spirit. Thousands of years of dwelling has created a pattern of relationships that is very valuable," says architect Abdel Halim Ibrahim Abdel Halim, whose recent work has been aimed at restoring key points in Cairo's urban core. The families of many of the city's unskilled and semi-skilled workers, he explains, often come either from the old parts of Cairo or from villages. "In their presence and their culture the people embody the geometry of the old city," he says. This can make a move to what planners call a "modern" housing complex a culturally difficult experience.

For example, points out sociologist Nawal Hassan, head of the Center for the Study of Egyptian Civilization, laws barring market stands on the streets of public housing areas—enacted to keep streets free of congestion—often impose an unfamiliar pattern of neighborhood organization on residents who are accustomed to purchasing modest food needs from in front of their homes, or at most within several blocks of home. Accordingly, "people have to adapt to the plan, rather than vice versa," she says, adding that the same situation occurs frequently in public housing projects the world over.

But for "Chef" Gamal, who commutes from an "informal" community west of the Nile to supervise two cooks at a sandwich stand along a canyon-like street lined with apartments near the city center, such mass-produced housing is simply practical. "These towers take in the rising population," he says glancing upward. "How else are we supposed to do that here?"

Since the 1970's, the government has taken the idea of public housing a step further and built half a dozen "satellite cities" or "new towns" in the deserts surrounding Cairo. The one named Fifteenth of May, to the south, began in 1979 as a commuter city serving nearby factories. Of the six new cities, it is now the closest to being successful, and the key, says Hosni Abu Elenin, chairman of the Fifteenth of May Authority, was that the 80,000 residents didn't have to change jobs when they moved.

Other new cities, however, remain sparsely inhabited. A 1989 government report estimated the population in all the satellite cities around Cairo at one-fifth of that called for in the original plans. But this is changing: Tax incentives have prompted a slow but promising migration of private industry, and Cairo's steady expansion may yet weave all into a single cosmopolitan carpet. "As soon as a major international hotel gets built [in Tenth of Ramadan city]," says a German owner of a diaper factory in that new city, "business will really take off. When that happens, people will flock to where the jobs are. I think it is inevitable."

Demographer Hoda Rashad, director of the Social Research Institute at the American University in Cairo, lives in Madinat Nasr, "Victory City," one of the largest and earliest of the desert development areas of the 1970's. Back then, she says, Madinat Nasr was just as bare as the new satellite cities are now, and people spoke of it just as disdainfully. But today, it is a part of Greater Cairo—and one with status, to boot. "I was walking home the other night along one of the main streets, with all the shops and lights and cars, and I found myself wondering, 'Am I really still in Egypt?' The change has been so astonishing. [Madinat Nasr] is one of the most popular places now!

"People's feelings about the desert are changing," she adds. "Sometime in the last five years it became a less frightening or lonely place. We Egyptians are people of the river, you know, historically. But now people are more willing to invest [in the new cities]."

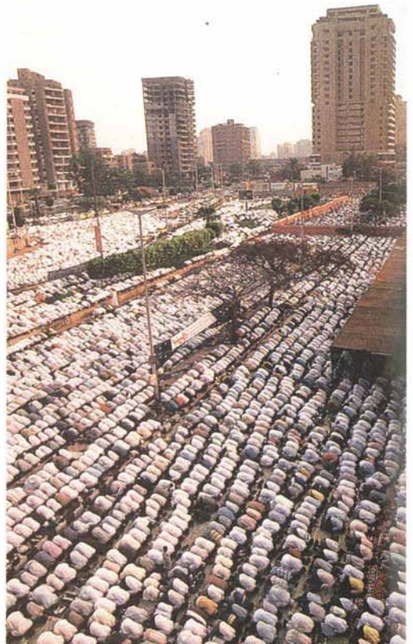
Salah Al-Shakhs, who headed the government's Division of General Planning in the late 1960's, maintains that despite the overly optimistic early projections, the new cities are bound to fill up. He points out that it took more than 20 years for Brasilia, Brazil's new capital city, to become popular. "Now it has twice as many people as it was supposed to," he says. "It just takes time."

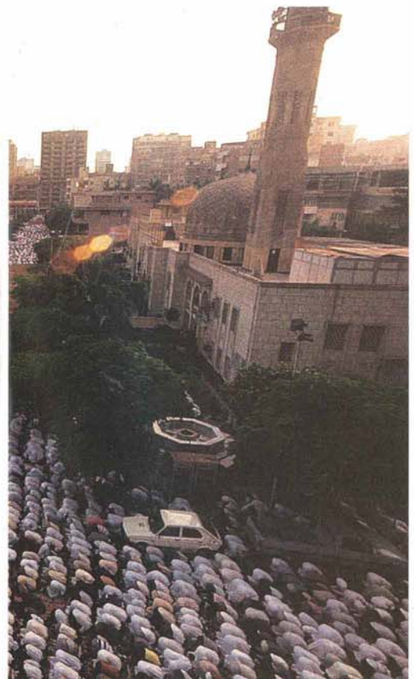
One of Cairo's most urgent—and newly acknowledged—tasks is to reverse growth- related environmental degradation. Until recently, pollution, from litter to choking smog, had been largely tolerated as a cost of economic growth. But this attitude too is changing.

"We now view pollution as a cost to Egypt," says Salah Hafez, director of the Egyptian Environmental Affairs Agency. "Our main mission is to institutionalize this new way [of thinking]."

In 1994, Egypt's legislature passed the Law on the Protection of the Environment, which is, according to Hafez, "unprecedented and very promising." He points out that, for the first time, air- and water-quality standards are set under one law. Automobile emissions testing will be enforced gradually over the next three years and, by 2000, Cairo's standards will be based on those commonly used in European cities. Efforts to reduce lead in gasoline have already cut airborne lead emissions by 24 percent. All industries will be held to emissions standards for both air and water. "Enforcement is a matter of education, and of building alliances," Hafez explains.

The once-vast farmlands of the Nile Valley are steadily giving way to homes and non-agricultural businesses (above). Faced with soaring land values that may far exceed the profits they can expect from their crops, many farmers have sold a few square meters of their fields at a time to extended families who pay cash to build a new house at the field's edge. Opposite: With: more than one million high-rise housing units and six entire "new towns" to its credit, the government nonetheless struggles to keep abreast of housing needs that exceed even those efforts. Below: At sunrise during the 'Id al-Adha, which commemorates Abraham's faithful willingness to sacrifice his son, worshipers fill a suburban square in Mohandiseen that was farmland until the 1970's.





"UNLESS WE PROVIDE HALF A MILLION NEW JOBS A YEAR, WE WILL BE IN TROUBLE."

ABDEL RAHIM SHEHATA,
GOVERNOR OF GIZA

Cleanup is also going on underground, as the first segments of the world's largest sewage engineering feat opened their sluice-gates in 1994. The $4-billion Greater Cairo Wastewater Project is moling tunnels—some wide enough to drive a bus through—under nearly every section of central Cairo. This spells relief for the pre-World War II sewer system, which, according to Talat Abu Seida, vice-chairman of the project, used to leave up to half the city's daily output untreated.

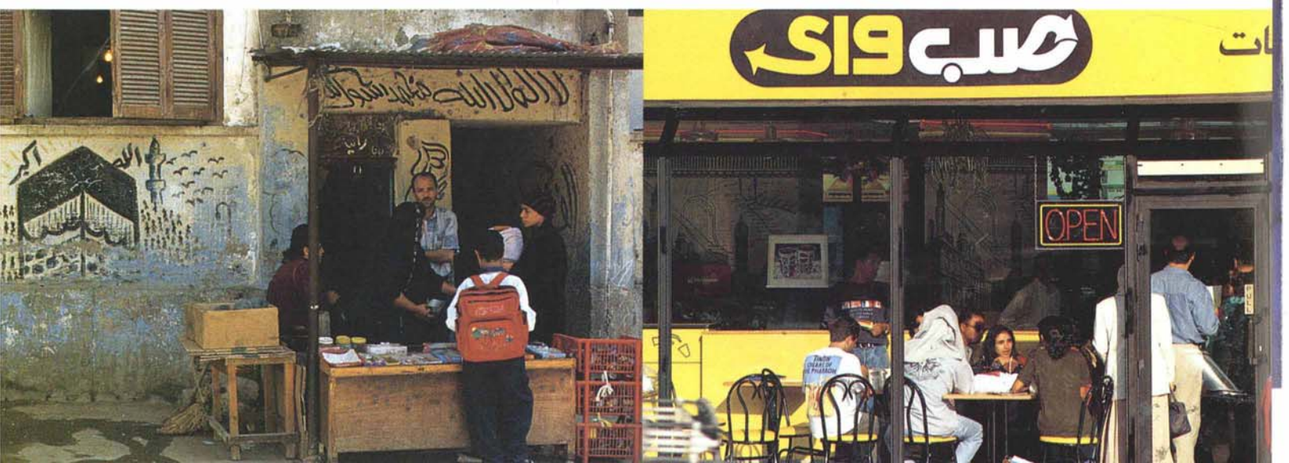
Few in Cairo speak ill of these physical improvements, or even take them for granted. But opinions and hopes for the future time and again turn on the more personal axis of economics. "The roads, the new highways, the telephones, these are very nice," says one public-sector architect who moonlights as a taxi driver. "But the standard of living has not kept up." Since 1982, inflation has gnawed away 40 percent of the purchasing power of wages.

"Unless the economy is sufficiently activated to provide one-half million new jobs each year for the next 10 years," observes Governor Shehata of Giza candidly, "this country will be in trouble. And we must do this at a time when the role of government is shrinking" through privatization. To this end, many of Egypt's 400 state-owned companies are in the process of being sold to private investors, and the government is working to smooth a variety of legal and regulatory paths for entrepreneurs (See *Aramco World*, January-February 1996). This process of privatization, which now largely dominates economic philosophy in Egypt, both drives and reflects a cultural shift in attitudes toward work in Cairo: Today, a job is often viewed less as a social right—as it was in the 1950's and 1960's—and more as a reward for individual achievement.

"Government jobs are not the status symbols they once were," says Abdel Salam Hasan, who came to Cairo with his parents 20 years ago from a Delta village and now is a business administrator with a Swedish-owned firm. "Even public sector employees work after hours [in private businesses]. People have more initiative these days."

Until the Gulf crisis, one popular field of employment lay in the oil-producing countries of the Arabian Gulf. When those jobs temporarily dried up, increasing competition in the streets of Cairo led many to look west instead of east for jobs outside Egypt. But in Europe, Canada and the US, languages other than Arabic are spoken, Islam is a minority faith, the skills required tend to be high, and uprooting oneself—even temporarily—is rarely a simple matter, either practically or emotionally. "The West has a reputation for being cold," says Nazli Islam, a recent graduate of the American University in Cairo. "Of my [English-speaking] friends, about half of them want to go and half of them don't." There can be a lot of opportunity, she adds, "but we are very aware of what we would be leaving: our families and the warmth of our culture here."

Among Cairo's most cherished characteristics, many put this ineffable sense of warmth high on today's endangered list. "There is a growing feeling that people are fending for themselves," says demographer Rashad, who says she notices this tendency particularly among young people, who worry about future job prospects.



Maydan al-Tahrir, Victory Square (above), the hub of modern Cairo, is home to government ministries, the Arab League, the Egyptian Museum, top hotels and the city's largest bus station. Right: In Fifteenth of May, one of Greater Cairo's new satellite cities, young women receive training in clothing design. Opposite, left: A home-based store—with a mural depicting the owner's completion of the hajj—has much in common with centuries of Cairene businesses which, today as then, remain overwhelmingly family-based: 90 percent of businesses in the city employ 10 people or fewer. Opposite, right: A popular downtown branch of a transnational sandwich franchise—where wall murals depict the streets of New York—marks the growing internationalization of Cairo's young and well-educated.

"It seems that people dealt with each other more like family before," says a 21-year-old medical student at Cairo University, when asked how her city is changing. "Now people deal with more their own problems. Sometimes everybody seems only to care for money."

These concerns lie at the heart of long-running controversy over what "modernization"—*al-tahdith* in Arabic—means on the streets of Cairo. For years, as in many other non-Western cities, it has been understood, too simply, as "old" giving way to "new"—terms that are often used to refer, on the one hand, to all that is traditional, based on religion and centered on the extended family, or, on the other hand, to things that are commercial, secular and centered on the individual. The result is a mosaic of frequently competing values. "There used to be a sharp line between wrong and right," says planner al-Sadek. "Now it's mixing up."

"This 'modernization' is a problematic term," says business administrator Abdel Salam Hasan, who is taking a break from work to relax on a newly installed bench alongside a busy street. "'To become modern,' to me, doesn't mean machines or computers but more that, say, someone like me can sit here in a public place and care about it, feel some investment in it. We have to modernize ourselves before we modernize our machines. Real modernization is a human affair."

One who recognizes this daily is Magdy Fahim Aly, MD, who is, outside his medical practice, a community organizer in government-built housing in the northern district of Shubra. He witnessed a breakdown of community when apartments in his housing project were assigned randomly, rather than according to residents' pre-existing family and social affiliations. As in many such new complexes, "people didn't know each other anymore. You didn't know your neighbor in the same building," he says.

For 12 years Aly worked with a local committee to build cooperation in what became one of Cairo's most effective citizen groups. According to Dr. Wafa'a Abdullah, director of the Social and Cultural Center of the National Institute for Planning, Aly and the 1000 families of the Khalafawi public housing complex—now affectionately called "Khalafawi Gardens"—show that Cairenes can live and even thrive within an often-criticized housing system.

Garbage, Aly says, filled the areas between buildings for years after the complex was built in 1969. But it was when leaky sewer pipes contaminated the drinking water that Aly, then a medical student, joined with six others who decided that something had to change.

In 1979, the group collected donations and laid new sewer lines to their own building. They hauled off the garbage themselves and began planting shrubs and trees. Within two months, 14 other buildings in the complex had followed suit. Five years later, "Khalafawi Gardens" had been transformed by more than a dozen islands of trees, a mosque, a volunteer health clinic, a weekly cinema, a sewing center and a playground that now is packed with several hundred kids every evening.

"At first it was very hard to change people's minds," Aly says. "But conditions forced us to change." "It was not just a physical change, but a social change," adds Abdullah. Now, under Abdullah's guidance, Khalafawi residents are helping train similar groups in eight other government-built housing complexes.

Architect Abdel Halim is similarly committed to nourishing the best in Cairo's urban character by preserving and upgrading its public places. Because land is so scarce, he points out, the city has historically offered little common recreational space.

"Common land is the most vital part of any city. People need a place where they can be aware of their common bonds," he says.

His most recent project is a children's park tucked into a bit more than a hectare (about three acres) of the historic district of Al-Saiyydah Zaynab, just south of the modern city center. Its several plazas, small amphitheater and craft shops offer "a setting to open up activities," he says. His success led the Aga Khan Commission to assign him to develop a 30 hectare (75-acre) park, which will become the city's largest when it is completed in 1999. Set on a small hill overlooking Al-Azhar university and the oldest part of Cairo, it will provide "a point from which the city can look at itself," he says. It will feature a promenade atop Cairo's restored city wall, an amusement park, an Islamic garden, an outdoor amphitheater and spacious lawns. One section is being designed exclusively by residents of the neighborhood it adjoins.

Efforts such as Aly's and Abdel Halim's are increasingly reflected in official programs. Neighborhood self-help associations are more common than ever, and often work in tandem with government and international agencies. There is "real effort," Abdel Halim says, to nurture cultural institutions, including theater, film and literature.

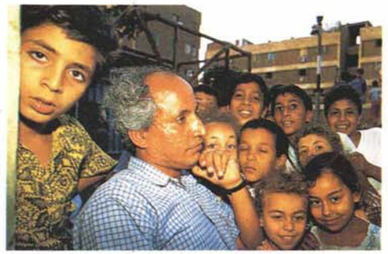
Now that the boom-town growth has slackened and Cairenes have grown increasingly acclimated to an accelerated pace of change, he says, there is more talk, in political and intellectual circles, of the years to come. "The question of sustainability is now being discussed widely," he says. "We have to understand how to get and manage resources as government shrinks."

According to Governor Shehata of Giza, one of the city's most innovative programs, "The Educated Village," has employed 3000 university graduates—who otherwise had no work—to teach evening classes in adult literacy that will help people find—and create—jobs. "And we are opening one new school every three days, on the average," he adds. "Not every Egyptian is going to have a yacht on the sea, but it is possible for the majority of people to have basic services, keeping in mind that our resource base is very fragile."

Encouraged by this rise in official support, Abdel Halim remains doggedly hopeful about Cairo's future. "Cairo is on a threshold. It will cost a lot to clean the air and the water, and to provide people with jobs and places to live."

But Cairo's effort to address unprecedented challenges by drawing on its vast cultural wellsprings, he says, is ultimately a creative process. "The old city is an endless reservoir of culture. Something is going to come out of Cairo that is really revealing, that will produce beauty of a different order altogether. Then we can share it with other cities."

But in the remote Tenth District of Madinat Nasr, which presses against open desert far from Cairo's center, Sherif Shehata Muhammad, an honors graduate in transportation engineering from Cairo University, finds that such vision demands a daunting leap of faith. Newly married and 27, he faces hard, practical choices. His eyes widen as he sketches his ambitions—for himself and his city. But a moment later, he concedes these may prove beyond reach due to scarcity of resources, and the overabundance of talent for too few jobs. When asked if he might consider applying his own talents outside Egypt, his answer comes as slowly as the evening's desert breeze curling among the ranks of apartment towers.

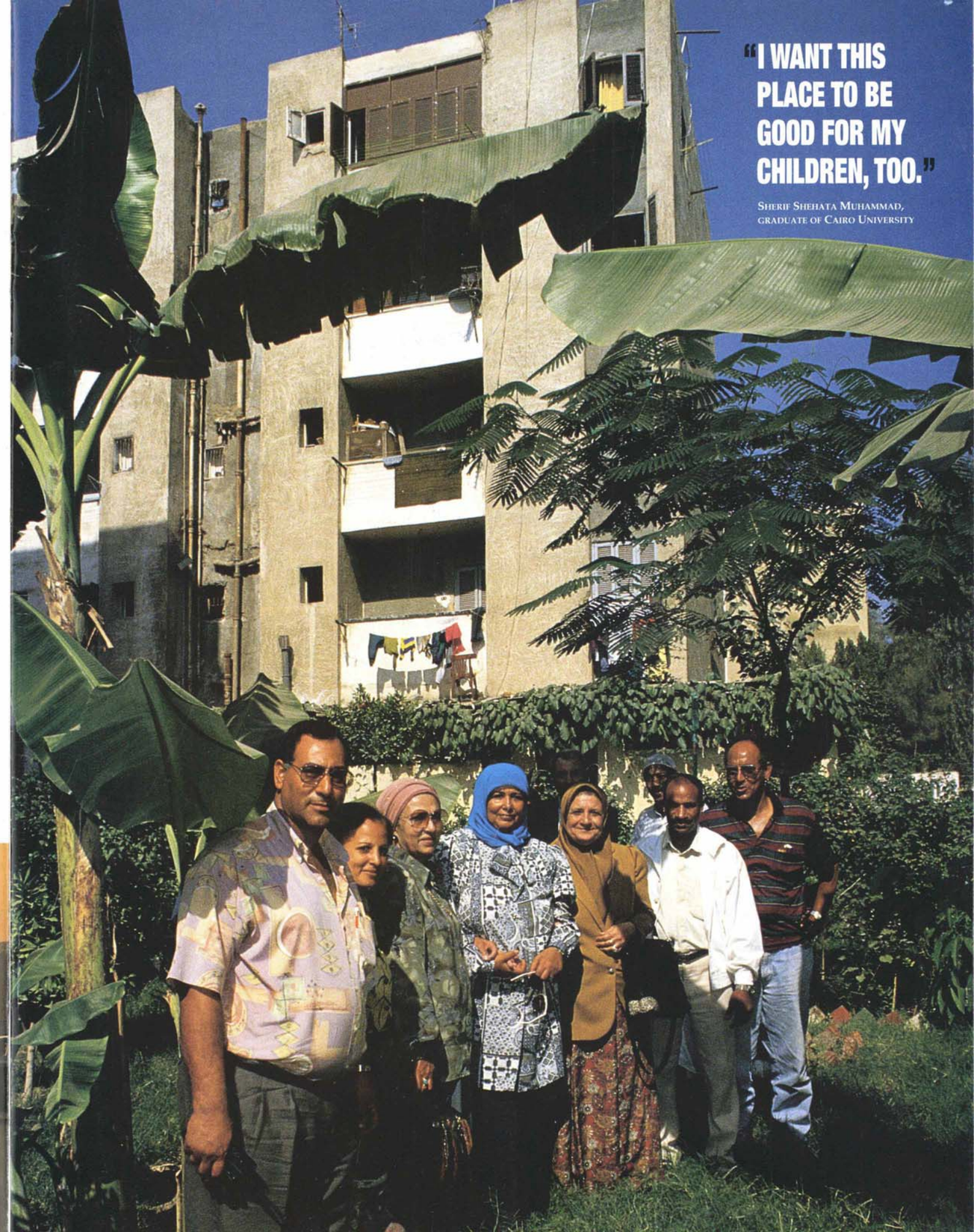


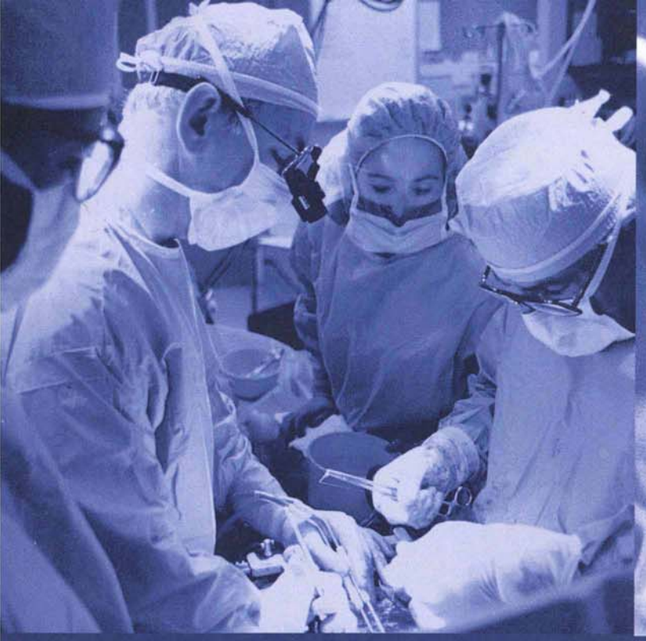
"My friends and I all work hard. I want to help," he says. "I want this place to be good for my children, too. We are like a fire. But if something throws water on us, then what?"

But if he stays in Egypt, then perhaps Abdel Halim can be right after all. ⊕

Dick Doughty is Assistant Editor of Aramco World *and author of* Gaza: Legacy of Occupation—A Photographer's Journey.

"Now a clean environment is as much a priority as food," says Magdy Fahim Aly (below), who helped friends and neighbors turn a public housing complex into a model community, Cairo-style. Bottom: Even as the number of cars in Cairo triples between 1980 and 2000, unleaded fuel and new pollution standards afford a measure of hope for the city's air. Opposite: With Aly's group as an example, these residents of 'Ain Shams, northwest of the city center, transformed a vacant lot into a garden. Dr. Wafa'a Abdullah of the National Institute of Planning (third from left), hopes many more will follow suit, creating "not just a physical change, but a social change."

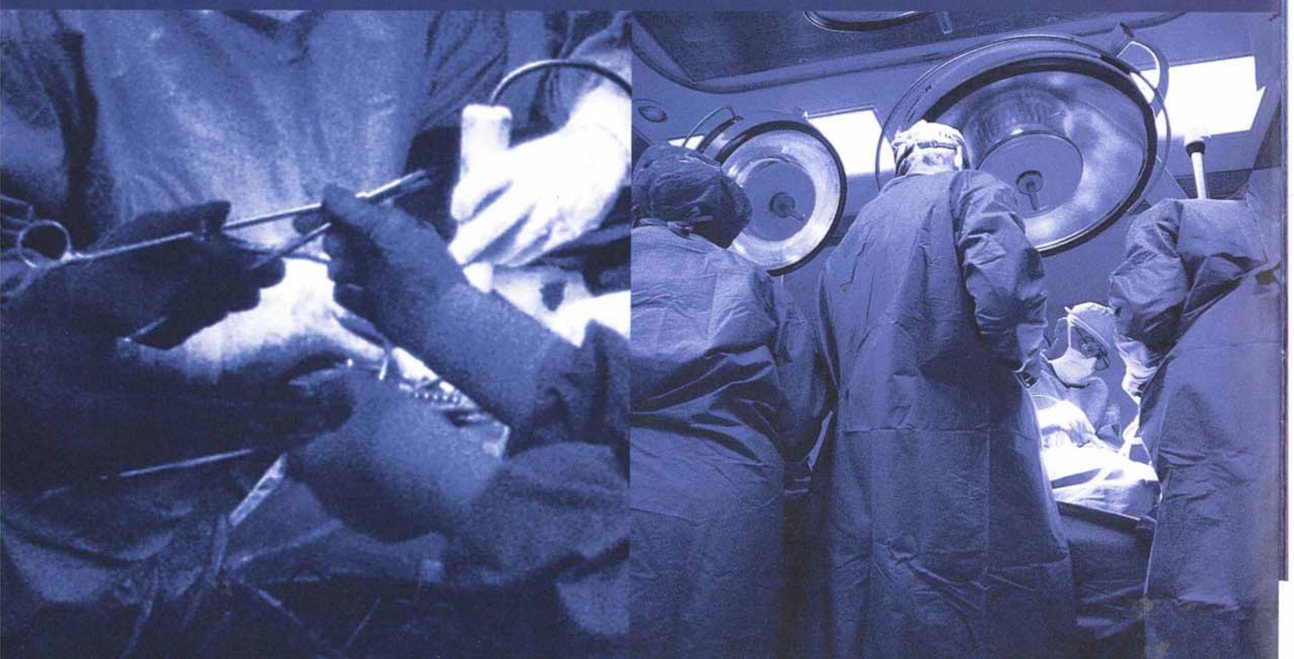




WRITTEN AND PHOTOGRAPHED

HEARTistry

BY GEORGE BARAMKI AZAR



"...the fastest hands in the West."

It seems strange that this soft-spoken, calm and graceful man should astonish the medical world with his speed in the operating room. But speed is only one of the things that San Francisco cardiologist Dr. Elias S. Hanna is known for.

"I visualize my moves very quickly, and I have simplified the procedures of cardiac surgery. That is where the speed comes from," he explains. "I don't look very fast, but there is no wasted motion. I have a gift: What some surgeons take hours to do, I do in 45 minutes."

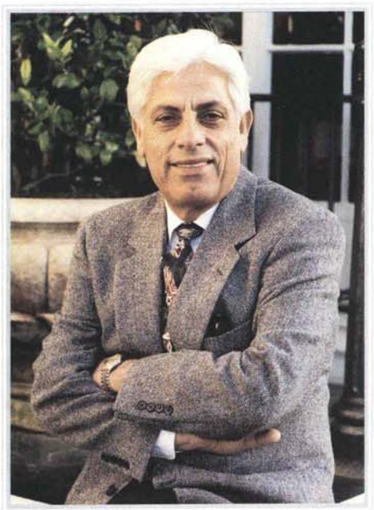
Hanna, born in Syria, was trained at Texas's Baylor University School of Medicine by Michael DeBakey (See *Aramco World*, January-February 1995) and Denton Cooley. In 1969, he was drafted into the US Army and sent to Vietnam, where he eventually became the chief cardiac and thoracic surgeon in the theater.

In 1970, at a field hospital in Saigon, Hanna removed a machine-gun bullet from the heart of a wounded soldier—a medical first. The operation was performed without the machinery used today to recirculate a patient's blood. A quarter-century later, the precision and speed of Hanna's procedure, completed in just over an hour, still takes other physicians' breath away.

"There wasn't much of an exterior wound, just a little hole in the chest. We didn't know until we opened him up that the bullet had actually hit the heart," Hanna says. "He had holes in the right and the left [ventricles]. I made an incision in the right ventricle, took the bullet out and closed it. You have to do it within three minutes."

It was during "slow times" in the Mekong Delta that Hanna launched what became the focus of his career: the training, without charge, of physicians in open-heart surgery techniques, many of which he has greatly refined.

"I would bring in Vietnamese kids with congenital heart disease and help them if I could. The hospital allowed me to use its facilities, and medical-supply companies in the US sent me a lot of equipment free."



Hanna (above) "displays an economy of motion that gets the job done," says friend and colleague Dr. T. Anthony Don Michael, professor of medicine at the University of California Los Angeles. What Don Michael calls Hanna's "tremendous leadership" comes through outside the operating room, too: Hanna has set up heart-surgery training programs in more than half a dozen countries.

Hanna later set up training programs in heart surgery for Vietnamese physicians. Today, his nonprofit Hanna Cardiovascular Foundation sends volunteer teams of cardiac surgeons to teach the latest open-heart techniques to physicians around the world. Hanna is credited with organizing cardiac surgery units in Syria, Iraq, China, Sri Lanka, Taiwan and the Philippines.

In 1973, Hanna led an 11-person medical team in open-heart surgery on a patient who could not accept blood transfusions. His team successfully replaced three blocked coronary arteries in only 75 minutes, avoiding the need for transfusion. Hanna was hailed as "the fastest hands in the West." Now, since the appearance of AIDS, his transfusion-free techniques are increasingly in demand.

A farmer's son, Hanna grew up on the terraced slopes of al-Metin al-Sahel, a village above the Syrian port of Tartus. Today, he still delights in the outdoors, and spends his free time on his farm in Sonoma County.

"You can't do things the same way twice, because every heart is different," he says. "You have to have a feeling both for the patient and for the beauty of the operation. When I operate, I feel a certain sense of artistry because, each time, I create something new."

San Francisco photojournalist George Baramki Azar is a frequent contributor to Aramco World.

SULTAN of EGYPT & SYRIA

My son, I commend thee to the most high God, the fount of all goodness. Do his will, for that way lies peace. Abstain from the shedding of blood; trust not to that, for blood that is spilt never slumbers. Seek to win the hearts of the people, and watch over their prosperity.... I have become as great as I am because I have won men's hearts by gentleness and kindness.

— Salah al-Din Yusuf ibn Ayyub —

In 1187, Saladin's victory at the Battle of Hattin forced Guy de Lusignan, Crusader king of Jerusalem, and Reynaud de Chatillon, lord of Kerak, to negotiate a surrender in Saladin's tent, an event that marked the end of Crusader hopes of enduring hegemony in the Holy Land.

WRITTEN BY MICHAEL STERNER ILLUSTRATED BY MICHAEL GRIMSDALE

Early in the twelfth century two Kurdish brothers made their way to Mesopotamia from their hometown near Tiflis, in what is today the Republic of Georgia. The elder, Ayyub, won favor at the sultan's court in Baghdad and was placed in charge of Tikrit, a small town midway between Baghdad and Mosul.

At Tikrit, Ayyub helped the ruler of Mosul, Imad al-Din Zangi, in an abortive coup against the sultan. This cost Ayyub his job, but it proved to be a blessing in disguise, for it was his alliance with Zangi, and Zangi's son Nur al-Din, that was to project Ayyub and his family to power and fame. On the eve of his departure from Tikrit to take up service with Zangi, a son was born to Ayyub. He was named Yusuf, and given the honorific Salah al-Din, or "Righteousness of the Faith"—a name that was to be immortalized in the West as "Saladin."

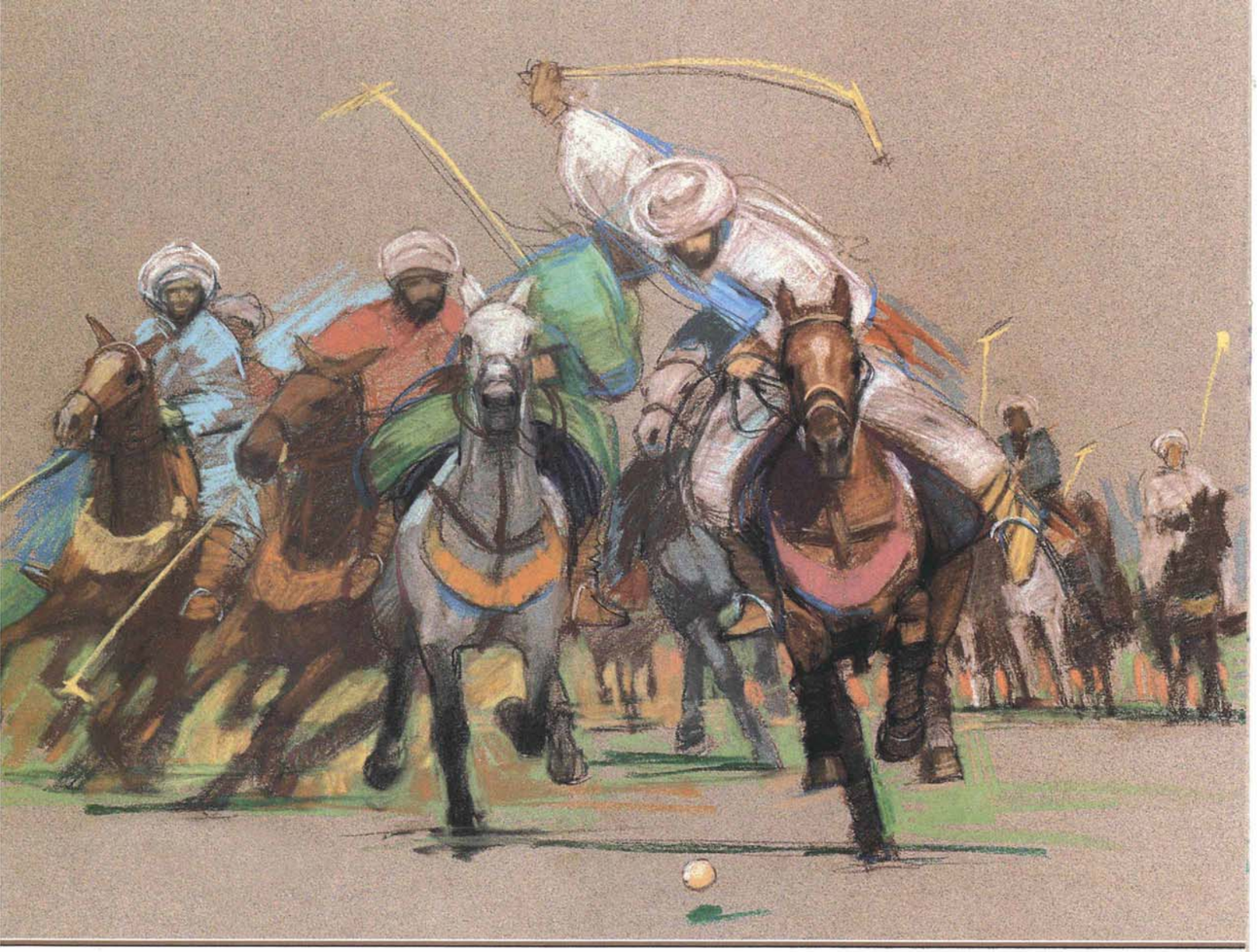
Saladin was to become one of Islam's greatest heroes, uniter of the divided lands of western Asia, scourge of the Crusaders and liberator of Jerusalem. In the West his image has been distorted by the 19th-century romantic revival, which focused on his battles with the Crusaders, casting him as a "parfait gentil knight" dressed up in Arab robes, full of mighty sword-blows and chivalric gestures. That the Crusaders were impressed by him as a military adversary and for his honor and magnanimity is evident from their chronicles. But Saladin could not have waged his successful campaign against them had he not spent the previous 25 years in a tireless struggle to unify the feudal principalities of western Asia into one host. And he could not have done that without superior political as well as military skills.

Indeed, as Saladin was growing to manhood, conditions in western Asia could not have been much worse. A century previously, an energetic new people, the Seljuk Turks, had descended on the Middle East from central Asia, "with their thousands of nomadic horsemen sporting braided hair," as Amin Maalouf has written. But within 50 years the Seljuks' central authority had begun to disintegrate, leaving a mosaic of independent fiefdoms. These were based in the principal cities of the region, each ruled by a Seljuk emir or, increasingly, by the Turkmen officers who became the guardians, or *atabegs*, of young emirs.

The Crusaders, at the end of the 11th century, plunged into this enfeebled polity with relative ease. So self-interested were the Turkmen rulers, and so bitter their rivalries, that as the Crusaders advanced down the coast of Syria and Palestine there were virtually no instances when one Muslim ruler came to the assistance of another. In 1099 Jerusalem fell to the Crusaders, and within a few decades the Franks controlled all of the eastern Mediterranean coast.

The Muslim world was slow to respond. One of the first leaders who began to mobilize widespread support for a response to the Crusaders in the name of Islam was Zangi, atabeg of Mosul. An even more remarkable figure was Zangi's son Nur al-Din, ruler of Syria. Devoutly religious, austere in his personal habits, a capable administrator as well as military commander, Nur al-Din was also, in the words of a modern biographer, "a political genius" who created a propaganda apparatus to appeal to public opinion over the heads of rival rulers. It was a lesson that the young Saladin was to absorb well.

Saladin grew up in Baalbek (now in Lebanon) and at Nur al-Din's court in Damascus. Little is known about his early life beyond his taste for religious studies, hunting and playing polo. As an adult he was described as short and dark. He was given some administrative responsibilities as a young man, but his first big opportunity came in 1164, when Nur al-Din decided to send a military expedition to Egypt in response to the appeal of the deposed vizier of the Fatimid caliph in Cairo (See *Aramco World*, March-April 1993). Egypt's wealth, combined with the political weakness of the decaying Fatimid dynasty, drew both the Syrians and the



SALADIN GREW UP IN BAALBEK, IN THE MOUNTAINS OF WHAT IS NOW LEBANON, AND IN THE SULTAN'S COURT IN DAMASCUS. LITTLE IS KNOWN ABOUT HIS EARLY LIFE BEYOND HIS TASTE FOR RELIGIOUS STUDIES—AND FOR POLO.

Frankish Kingdom of Jerusalem like a magnet. Each sought to extend its influence there, or at least prevent the other from achieving a commanding position.

Nur al-Din's three expeditions to Egypt between 1164 and 1168 were commanded by Saladin's uncle Shirkuh, with Saladin going along as one of his lieutenants. They were to be the proving ground for Saladin's growing military and political talents. Most impressive was Saladin's role during the second campaign, when Shirkuh left him in command of Alexandria. There, with only a small Syrian fighting force, and with wavering support from the city's population, he withstood a 75-day siege by a superior Crusader force.

By the end of the third expedition the Franks had withdrawn from Egypt, Fatimid resistance had collapsed and the Syrians had made up their minds to stay. The teenaged caliph, who had been the puppet of his powerful Egyptian viziers, now had little choice but to accept the Syrians as the ruling force in Egypt, with Shirkuh as his new vizier.

Saladin now had the reputation of a young man of promise, but it was at this point that chance intervened, in the form of three advantageous deaths, to greatly widen the stage for his ambitions. First, Shirkuh died, and Saladin was chosen to succeed him as vizier. Once in this position, Saladin moved with characteristic energy and efficiency to build his own power base in Egypt. He suppressed a revolt by Egyptian Nubian infantry regiments, fortified Alexandria, installed his kinsmen in key positions, won public favor by abrogating unpopular taxes and, by prompt deterrent military moves, forced a Sicilian-Byzantine expedition to abandon an intended invasion attempt.

Two years after Shirkuh's death, the Fatimid caliph also died, just short of his 21st birthday. Saladin seized the opportunity to announce the end of the Fatimid dynasty and the restoration of the spiritual authority of the Abbasid caliphate in Baghdad.

By any measure, the 33-year-old Saladin, now outright ruler of Egypt, was as powerful as his nominal suzerain, the atabeg Nur al-Din in Damascus. Over the next three years, the correspondence between them shows clearly that Nur al-Din was uncomfortably aware of this. But before a showdown could occur Nur al-Din himself died in 1174, leaving his 11-year-old son, al-Salih, as heir, and leaving also a power vacuum into which Saladin was bound to move.

But Saladin was conscious of the proprieties, and waited for a suitable pretext. This came several months later, in the form of dissension among the Damascene emirs contending for influence over the young ruler. In October that year Saladin made a rapid march north, with only a small fighting force but with lots of money, hoping to win his objective with gold instead of blood. The strategy worked and, with al-Salih away in Aleppo, Damascus opened its gates to Saladin.

Saladin had hoped that he would now be accepted as the ruler's guardian, but in Aleppo the young atabeg made an impassioned plea to his assembled emirs to stand by him and resist the usurper. To the Zangid loyalists, Saladin was not only an ungrateful upstart, but an ungrateful Kurdish upstart who threatened the monopoly of power that the Turks enjoyed. Saladin marched north, but though he took Homs and Hama, he was checked at Aleppo. Its massive citadel was too strong to assault by force, and the obdurate Zangids proved impervious to Saladin's attempts at diplomacy.

Saladin now faced a difficult dilemma. He wanted to be accepted as the leader of Muslim forces against the Franks and to be anointed in this role by the caliph. But he knew that, so long as the Muslims were divided, he could not fight an effective campaign against the Franks; furthermore, his flank would be continually threatened by the Zangids. He also knew that it would take time to reduce the Zangids, and that if he concentrated on that goal without fighting the Franks he would be vulnerable to the charge that he was using Islam to cloak his own ambitions.

Over the next decade Saladin dealt with these difficulties with both energy and patience. Using his abundant revenues and manpower from Egypt, he placed an army in the field each year to keep the pressure on both the Franks and his Muslim rivals. Against Zangid forces from Aleppo and Mosul he won notable battlefield victories—but farsightedly did not press his advantage against his fleeing adversaries. Against the Franks his results were more variable, but on the whole he harassed them effectively and kept them bottled up in their fortresses. During this period Saladin also survived two attempts on his life—one of them a very close call—by the Assassins, who had probably been hired by the Zangids.

Finally, in 1181, al-Salih too died, and Saladin moved rapidly to exploit the moment. In a masterful campaign combining military power, diplomacy, largesse, and siegecraft, Saladin cut communications between Aleppo and Mosul and either captured or won over the towns surrounding Aleppo. Aleppo itself negotiated a surrender in 1183, and in 1186 he struck a truce with the Mosulis by which Mosul accepted Saladin's authority and promised to send troops to serve under his command against the Franks.

In 1186 he struck a truce with the Mosulis: Saladin was now ready to confront the Crusaders.

Saladin was now ready to confront the Crusaders. Assembling a large army in the spring of 1187, he moved into Palestine in the hopes of bringing the Franks to battle. The Muslims had learned that, man-for-man, their lightly armed Turkoman cavalry was no match for the chain-mailed knights: It was "like attacking a block of iron," in the words of one contemporary Muslim chronicler. Muslim battlefield tactics therefore sought to use the advantages of mobility—giving way before the heavy Frankish charges, then returning to harass the knights as they regrouped, hoping to draw them out of their tight formations. The Muslims usually outnumbered the Franks, but even so they generally needed some further advantage, such as surprise or favorable terrain, to prevail.

Now, in an effort to draw the main Frankish force into the field, Saladin laid siege to the Crusader fortress at Tiberius. The tactic worked. Under the banner of Guy de Lusignan, king of Jerusalem, a Frankish force of some 30,000 knights and infantry set out to relieve the siege. Saladin caught them on the march, on a boiling hot day in July, with inadequate water supplies, at a place called Hattin. The Franks were surrounded, and to add to the distress of the thirst-crazed knights the Muslims set fire to brush, so that the smoke blew down on them. Except for a handful of knights who broke out and escaped, the victory was complete.

After the battle Saladin had his two most important prisoners—the king and Reynaud de Chatillon, lord of Kerak—brought to his tent. He treated the king kindly but, after he refused an offer to convert to Islam, executed the duplicitous Reynaud, who had twice violated truces. King Guy no doubt feared he was next, but Saladin calmed him, saying, "It is not the custom of kings to kill each other, but that man exceeded all bounds."

Numerous other Frankish prisoners were either held for ransom or sold into slavery. The 200 captured knights of the military orders—Templars and Hospitallers—were even less fortunate. These were the shock troops of the Crusades; the Muslims feared them for their fighting ability, disliked them for their fanaticism and knew that no one would ransom them. Those who refused conversion to Islam—and most did—were also executed.

Hattin was the most devastating blow the Crusaders had ever suffered in the Holy Land. Now, one by one, the Frankish garrisons surrendered—Nazareth, Nablus, Acre, Haifa, Jaffa—knowing no help would come once the Muslims invested their forts. Finally, in October 1187, Saladin's army appeared before the walls of Jerusalem. The defenders' position was hopeless, and after negotiations the city surrendered on terms that allowed the Christian population to leave in peace in return for a per-head ransom. Saladin's treatment of the city's Christians was in marked contrast to the indiscriminate slaughter of Muslims that had occurred when the Crusaders first took the city 88 years previously.

This was the high point of Saladin's career, but it was also the moment when he made his worst strategic error. He had earlier laid siege to Tyre, knowing its impor-

SALADIN'S LIGHT CAVALRY, UNBURDENED BY THE HEAVY CHAIN MAIL WORN BY THE CRUSADERS, HAD AN ADVANTAGE OF MOBILITY THAT MORE THAN COMPENSATED FOR THEIR DISADVANTAGES IN WEIGHT AND NUMBERS. ON A HOT JULY DAY IN 1187, THE MUSLIMS LURED A 30,000-MAN CRUSADER FORCE TO A WATERLESS TABLELAND SOUTHEAST OF A LIMESTONE RIDGE CALLED HATTIN, WHERE THE MUSLIMS SURROUNDED THE CRUSADERS, SET FIRE TO THE FIELD AND WON THE VICTORY THAT WOULD, THREE MONTHS LATER, SECURE JERUSALEM FOR SALADIN.

tance, but had abandoned the siege when he found his troops tired of battle and eager to go home. Under the redoubtable Conrad de Montferrat, however, Tyre became the rallying point for the Third Crusade. By the spring of 1189, reinforcements were already beginning to arrive, and later that summer the Crusaders felt strong enough to move south to lay siege in their turn to the Muslim garrison in Acre. Saladin moved up forces to relieve the siege, but with fresh troops arriving daily from Europe, the Crusaders proved too strong.

They were further reinforced by the arrival, in the spring of 1191, of large contingents under King Philip of France and King Richard of England. Richard the Lionheart's formidable reputation had preceded him: "The foremost man of his time for courage and guile," the contemporary Muslim historian Ibn al-Athir called him.

Richard's reputation as a fighter and his outstanding generalship indeed made a difference. Under his energetic leadership the siege of Acre was intensified, and in July, after holding out for 18 months, the Muslim garrison capitulated. Later that summer a Crusader force under Richard, moving south along the coast, defeated Saladin's army at Arsouf.

The loss of Acre and the reverse at Arsouf were serious blows to Saladin's prestige, but they were not strategic defeats, and Richard knew it. With the coastline at their backs the Franks could thwart the Muslim tactic of encirclement and could benefit from their command of the sea, but as soon as they tried to move inland toward Jerusalem, it would be a different story. Richard was also receiving increasingly urgent messages about what was happening to his throne in England, and opened negotiations with Saladin. He proved an artful and creative negotiator, but the two sides were too far apart to reach agreement in 1191.

Saladin suffered another blow as the campaigning season opened in 1192: Richard, with expert timing, captured a large caravan from Egypt that was bringing the Muslims badly needed supplies, money and pack animals. Richard reconnoitered Jerusalem, but found the defenses too strong and embarked instead on an expedition against Beirut. Saladin sought to exploit his absence by laying siege to Jaffa, but the Franks' spirited resistance, Richard's timely return, and unmistakable signs of fatigue and lack of discipline among Saladin's troops foiled the effort.

Both leaders now recognized they were at an impasse. Saladin could not deal the Franks a decisive blow as long as they stayed on the coast, and Richard did not have the manpower, the money or the unity within his command to reconquer the hinterland. Eager to return to Europe, Richard dropped his earlier demands for Jerusalem and on September 1 gave his hand to the Muslim negotiators on a truce. It left the Franks in control of the coast from Tyre to Jaffa, but recognized Muslim control everywhere inland. Among its provisions, the agreement gave the Franks the right to visit Christian shrines in Jerusalem, a promise which Saladin scrupulously honored.

Saladin remains an exceptionally attractive figure, one who has captured the imagination of generations of Muslims ever since. He was, above all, successful in unifying the Muslims so that they could more effectively face external challenges.

Saladin then had but six months to live. Undermined by constant campaigning, his health deteriorated, and he died in Damascus on March 4, 1193. He was buried in the Umayyad Mosque, where his tomb can be seen to this day.

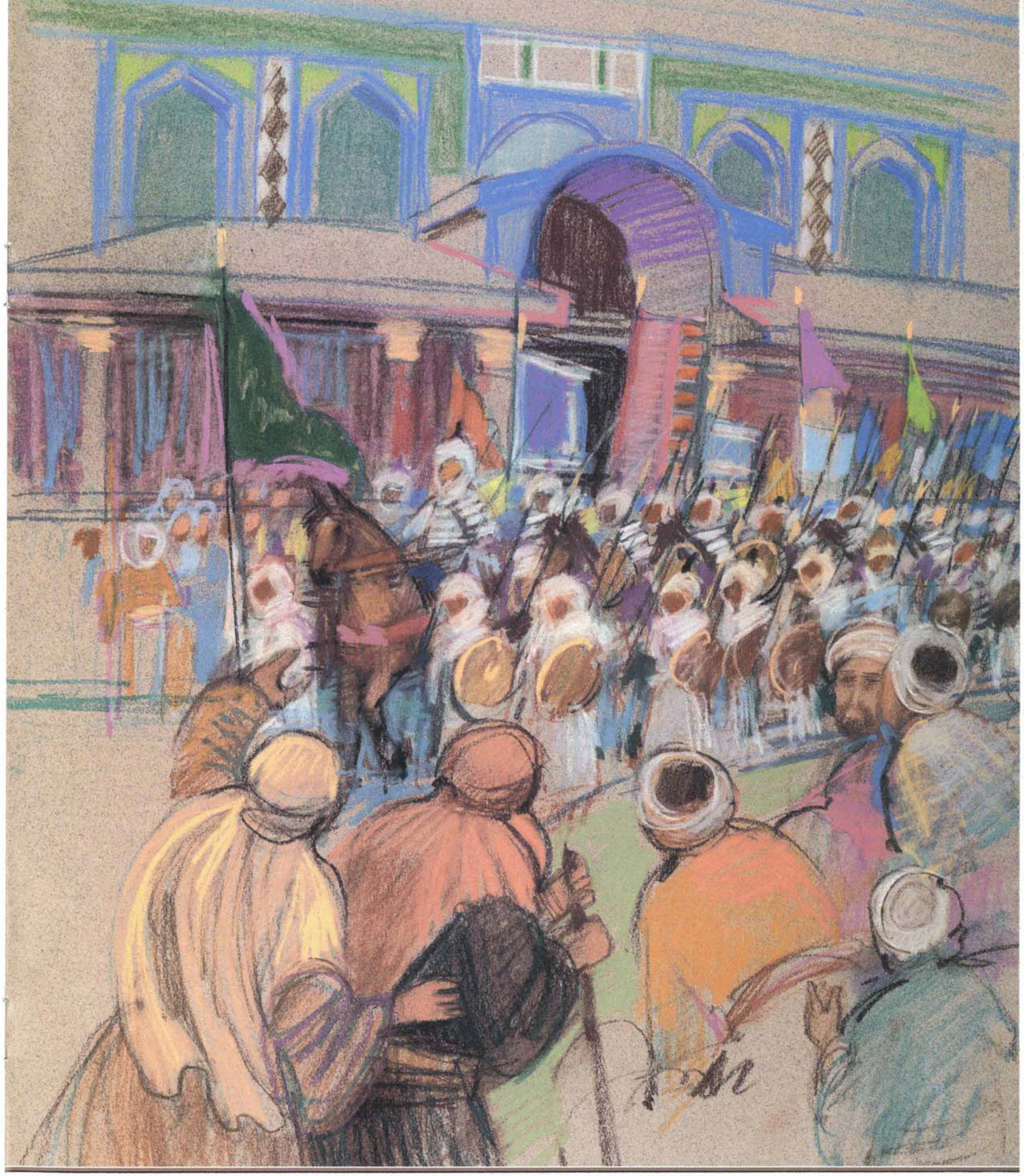
Saladin ended the possibility of Latin hegemony in Palestine, a momentous achievement in historical terms. But he did not have time to institutionalize his unification of Muslim west Asia, and none of his sons or surviving kinsmen had the leadership abilities he had demonstrated. Within a few decades, the Muslim lands slipped back into division, dynastic quarreling and political weakness. Even Saladin's own house in Egypt lasted barely 50 years before being overthrown by Mamluk mercenaries.

Yet Saladin remains an exceptionally attractive figure, one who has captured the imagination of generations of Muslims ever since. He was, above all, successful in unifying the Muslims so that they could more effectively face external challenges. He achieved this, moreover, at least as much by political skill and personal charisma as by force of arms. Saladin's undeniable military and organizational abilities would not have been sufficient for the task had they not been married to excellent judgment, energetic application, resilience in the face of setbacks, and generosity of spirit. He respected the Crusaders as warriors, and because they were fighting for an ideal, but he never wavered in his conviction that his life work was to expel these foreigners from "the House of Islam."

Above all, Saladin had personal qualities that drew men to him throughout his life. His career presents an astonishing record—particularly for the times—of defeated adversaries who later became his loyal friends and allies. His friend and biographer Ibn Shaddad wrote, "I have heard people say that they would like to ransom those dear to them with their own lives, but this has usually been a figure of speech, except on the day of *his* death. For I know that had our sacrifice been accepted, I and others would have given our lives for him." ⊕

Michael Sterner served as US ambassador to the United Arab Emirates in the 1970's and then as Deputy Assistant Secretary of State for Near Eastern and South Asian Affairs. He was educated at Harvard.

Illustrator Michael Grimsdale has been a regular contributer to Aramco World *for more than 15 years.*



IN HIS CROWNING ACHIEVEMENT, SALADIN ENTERED JERUSALEM ON OCTOBER 2, 1187 AFTER A TWO-WEEK SIEGE, AND ENDED 88 YEARS OF CRUSADER RULE. HIS MAGNANIMOUS DECREE THAT THE DEFEATED CRUSADERS COULD RETURN TO THEIR HOMES IN EUROPE—RANSOMED BUT UNHARMED—IS ONE OF THE ACTS THAT EARNED HIM A GLOWING REPUTATION FOR CHIVALRY EVEN AMONG HIS OPPONENTS.

Suggestions for Reading

As in our earlier "*Suggestions for Reading*," we offer here a listing of books—and, for the first time, some videos—that seem to us to offer thoughtful readers breadth, depth and perspective on the Muslim and Arab worlds. We continue to provide these listings without specifically endorsing any author's point of view, in the belief that reading widely is conducive to thinking broadly. For our previous lists, see *Aramco World*'s issues for March–April 1991, March–April 1993 and September–October 1994.

■ **Approaches to the History of the Middle East: Interviews with Leading Middle East Historians.** *Nancy Elizabeth Gallagher, ed. Reading, UK: Ithaca Press, 1994, ISBN 0-86372-185-0 (hb).* Eight historians whose scholarship has shaped Western understanding of the Middle East—Hourani, Issawi, Raymond, Marsot, Rodison, Keddie, Inalcik and Rafeq—share memories and insights that put their writing in the context of their lives.

■ **Arab Social Life in the Middle Ages: An Illustrated Study.** *Shirley Guthrie. London: Saqi Books, 1995, ISBN 0-86356-043-1 (hb).* The author, a specialist in Islamic painting, uses the celebrated illustrations of Al-Hariri's 11th- and 12th-century *Maqamat*—the best of the few visual documents of the era—as windows on the daily life they depict through their Falstaffian protagonist, Abu Zayd.

■ **Arabian Oasis City: The Transformation of 'Unayzah.** *Soraya Altorki and Donald P. Cole. Austin: University of Texas Press, 1989, ISBN 0-292-78517-8 (hb), 0-292-78518-6 (pb).* The authors chart some of the extensive social changes that have taken place in a conservative central-Arabian town since the mid-1970's.

■ **Architecture of the Islamic World: Its History and Social Meaning.** *George Michell, ed. New York: Thames and Hudson, 1995 (first printed 1978), ISBN 0-500-27847-4 (pb).* Now in paperback for the first time, this is an easy-to-follow, well-illustrated introduction to the diversity of Muslim architecture and the social contexts that give it form and function.

■ **The Art and Architecture of Islam 1250-1800.** *Sheila S. Blair and Jonathan Bloom. New Haven: Yale University Press, 1994, ISBN 0-300-05888-8 (hb).* A magnificent sequel to Ettinghausen and Grabar's volume covering the years 650-1250. More than 200 works of art and architecture are discussed, along with their social and economic contexts. A beautiful introduction to Islamic art and a useful—heavily illustrated—reference.

■ **The Art of the Turkish Tale.** *Barbara K. Walker, illustrated by Helen Siegl. Lubbock: Texas Tech University Press, 1993, ISBN 0-89672-317-8 (pb).* The 80 well-translated tales, which won the 1994 Anne Izard Storytelling Award, have made the diversity, inventiveness and delight of Turkey's oral tradition available in English for the first time.

■ **Bedouin Life in the Egyptian Wilderness.** *Joseph J. Hobbs. Austin: University of Texas, 1989, ISBN 0-292-71556-0 (pb).* This first modern ethnographic portrait of the Ma'aza Bedouins, with whom Hobbs lived for almost two years, includes descriptions of their conservationist patterns of resource management in Egypt's Eastern Desert.

■ **The Bedouins and the Desert: Aspects of Nomadic Life in the Arab East.** *Jibrail S. Jabbur. Albany: State University of New York Press, 1995, ISBN 0-7914-2851-6 (hb).* The author, who grew up in Syria at the edge of the desert, draws on a lifetime of experience with Bedouin as well as his expertise in Arabic literature in this painstakingly researched survey of the "four pillars" of Bedouin life in Syria: desert, camel, tent and character.

■ **Black Sea.** *Neal Ascherson. New York: Hill and Wang, 1995, ISBN 0-8090-3043-8 (hb).* In an easy, convivial style that synthesizes deep scholarship with personal experience, the author investigates the Black Sea as the site upon which "patterns of relationships"—some intended, many unintended—were forged as cultures from all points of the compass interacted with each other and with changing natural forces over 4000 years.

■ **Children in the Muslim Middle East.** *Elizabeth Warnock Fernea, ed. Austin: University of Texas Press, 1995, ISBN 0-292-72490-X (pb).* Forty-one articles by 30 different authors offer a unique and balanced survey of the region's next generation of leaders.

■ **Costumes of Morocco.** *Jean Besancenot. London: Kegan Paul International/Routledge, Chapman & Hall, ISBN 0-7103-0359-9.* The first translation into English of the finest study ever done of Moroccan costume, originally privately published in 1942. Superb color paintings show costumes of 10 peoples; they are accompanied by text that provides social and cultural context.

■ **Culinary Cultures of the Middle East.** *Sami Zubaida and Richard Tapper, eds. London: I.B. Tauris, 1994, ISBN 1-8503-742-4 (hb).* This collection of essays—ranging from "fast food" in Istanbul to the sweeping regional role of rice and the meanings of food motifs in Arabic literature—further establishes the history of what we eat and drink as a fascinating, oft-neglected window into human societies.

■ **Flatbreads and Flavors: A Baker's Atlas.** *Jeffrey Alford and Naomi Duguid. New York: William Morrow and Company, 1995, ISBN 0-688-11411-3 (hb).* A delicious passion for the stunning variety of flatbreads—many from the Middle East and Central Asia—spices this part-cookbook, part-travel journal. Personal memories give dimension to more than 60 recipes that include simple instructions that welcome newcomers to the world of flatbread.

■ **From the Lands of Figs and Olives.** *Habeeb Salloum and James Peters. New York: Interlink Books, 1995, ISBN 1-56656-159-0 (hb).* An easy-to-follow collection of more than 300 traditional recipes from the Middle East and North Africa.

■ **Gaza: Legacy of Occupation—A Photographer's Journey.** *Dick Doughty and Mohammed El Aydi. West Hartford: Kumarian Press, 1995, ISBN 1-56549-044-4 (pb).* Taking the opposite point of view of news coverage, the authors—a US photojournalist and a Gazan sociologist—tell a story in words and pictures of months before and after the 1993 Oslo accords spent in an eye-opening search for the qualities of daily life in the Gaza Strip.

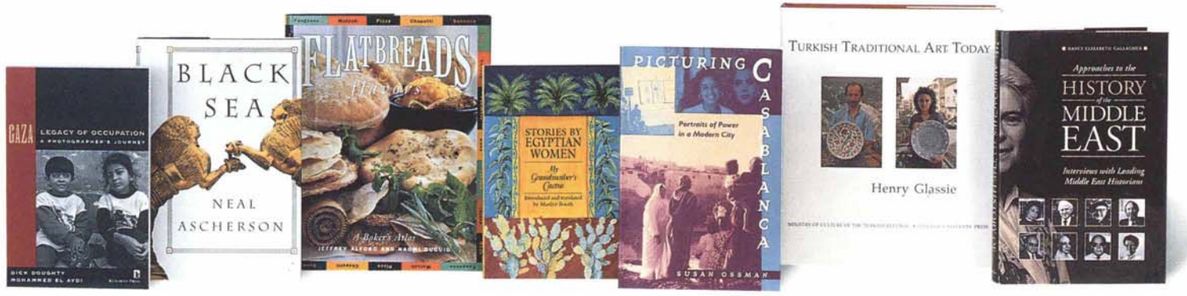
■ **The Golden Trade of the Moors: West African Kingdoms in the Fourteenth Century.** *Edward William Bovill. Princeton: Markus Wiener Publishers, 1995 (first printed 1958), ISBN 1-55876-091-1 (pb).* This new edition makes Bovill's lively, peerless volume on the extent and effects of trans-Saharan trade among Sudanese kingdoms and the cultures of North and West Africa accessible to a new generation of readers.

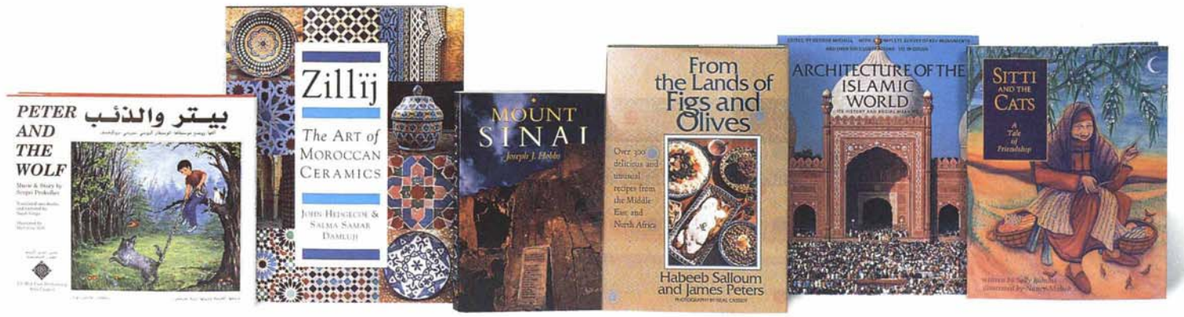
■ **The Hajj: The Muslim Pilgrimage to Mecca and the Holy Places.** *F.E. Peters. Princeton: Princeton University Press, 1994, ISBN 0-691-02120-1 (hb).* Drawing upon extensive quotation from pilgrims and historians, this well-researched book documents the significance of the Hajj from the dawn of Islam to the present day.

■ **Hajj Paintings: Folk Art of the Great Pilgrimage.** *Ann Parker and Avon Neal. Washington, D.C.: Smithsonian Institution Press, 1995, ISBN 1-56098-546-1 (hb).* This skillfully designed, sensitive photographic volume explores a "living folk tradition" and also offers non-Muslims a detailed, colorful understanding of the Hajj as a pillar of Islam and a central fact of contemporary Egyptian life.

■ **The Illustrated World's Religions: A Guide to Our Wisdom Traditions.** *Huston Smith. San Francisco: HarperCollins, 1994, ISBN 0-06-067453-9 (hb).* A beautiful edition of Smith's excellent *The World's Religions*, itself an offshoot of a public-television series. Smith is erudite and accessible, focusing on theology, not institutions.

■ **An Introduction to Islamic Cosmological Doctrines.** *Seyyed Hossein Nasr. Albany: State University of New York Press, 1993, ISBN 0-7914-1516-3 (pb).* In a new edition of the classic first published in 1964, a preeminent scholar writes from within Islamic tradition to articulate the concepts of universal order that emerged in the 10th and 11th





centuries among al-Biruni, Ibn Sina and the Ikhwan al-Safa. Although rooted in Aristotelian rationalism, this unique line of thought grew increasingly mystical without, paradoxically, denying those roots.

■ **Jihad in Classical and Modern Islam.** *Rudolph Peters. Princeton: Markus Wiener Publishers, 1996, ISBN 1-55876-109-8 (pb).* Using six translated, seminal texts of hadith, legal doctrine and philosophy from the ninth century to the present, the author elucidates one of the concepts of Islam most frequently misunderstood by non-Muslims.

■ **Morocco: Sahara to the Sea.** *Photographs and text by Mary Cross. New York: Abbeville Press, 1995, ISBN 0-7892-0030-9 (hb).* Exquisite views of traditional Morocco.

■ **Mount Sinai.** *Joseph J. Hobbs. Austin: University of Texas Press, 1995, ISBN 0-292-73094-2 (pb).* Mount Sinai is not only sacred to three faiths: It hosts a unique natural environment, which together with the forces of religion has shaped life for centuries for Bedouins, Egyptians, Christian monks, pilgrims and—more recently—tourists and tourism developers. Hobbs tells the many stories of one of the world's most famous mountains as a plain-spoken, warmly insightful geographer.

■ **Mythology and Folklore of the Hui, a Muslim Chinese People.** *Shujiang Li and Karl W. Luckert. Albany: State University of New York Press, 1994, ISBN 0-7914-1824-3 (pb).* Stories from the largest of China's Muslim minorities appear for the first time in one carefully assembled volume that enriches ethnographic literature about the Muslim world.

■ **Napoleon in Egypt: Al-Jabarti's Chronicle of the French Occupation, 1798.** *Shmuel Moreh, trans. Princeton: Markus Wiener Publishing, 1993, ISBN 1-55876-070-9 (pb).* For six months in 1798, historian Abd al-Rahman al-Jabarti wrote of the French occupation of Egypt and thus left one of the most detailed accounts ever written of a colonial encounter from the point of view of the colonized. An introduction by Robert Tignor and a concluding essay by Edward Said neatly frame this important historical moment.

■ **The Origins of Kuwait.** *B.J. Slot. Leiden: E.J. Brill, 1991, ISBN 90-04-09409-1.* Local sources take the history of Kuwait back to the beginning of the 19th century; this book goes back to the 16th century, analyzing and comparing maps as well as references in documents from Dutch and British sources and in early travel accounts.

■ **Ottoman Seapower and Levantine Diplomacy in the Age of Discovery.** *Palmira Brummett. Albany: State University of New York Press, 1993, ISBN 0-7914-1702-6 (pb).* In an enthusiastically well-written reframing of 16th-century historiography, Brummett demonstrates that the Ottoman empire, supported by its navy and merchants as much as by its army, played an active, central role—not a reactive, peripheral one—in the global "economics of conquest" that became the Age of Discovery.

■ **Peter and the Wolf.** *Music and story by Sergei Prokofiev; translated into Arabic and narrated by Nazih Girgis; illustrated by Madeleine Toth. US-Mid-East Performing Arts Council, 1995, ISBN 0-9648607-0-8 (hb); cassette 0-9648607-1-6.* This bilingual Arabic-English rendition of Prokofiev's classic tale is presented in both text and audio-cassette form, which makes it ideal for children—and adults—learning Arabic.

■ **Picturing Casablanca: Portraits of Power in a Modern City.** *Susan Ossman. Berkeley: University of California Press, 1994, ISBN 0-520-08403-9 (pb).* Mass images—from posters and film to staged spectacles and royal portraits—provide clues to emerging forms of community, organization and power in Casablanca, and affect not only the way we see its society, but the way that society is. An innovative form of cultural anthropology.

■ **Recognizing Islam: Religion and Society in the Modern Middle East.** *Michael Gilsenan. London: I.B. Tauris, 1992 (first printed 1982), ISBN 1-85043-743-2 (pb).* Drawing extensively on fieldwork, the author explores a variety of social worlds that all claim Islamic affiliation. A seminal contribution to understanding the varied and dynamic role of religion in the Middle East.

■ **Sitti and the Cats: A Tale of Friendship.** *Sally Bahous; illustrated by Nancy Malick. Niwot, Colorado: Roberts Rinehart Publishers, ISBN 1-879373-61-0, (pb).* In this children's story, an old woman in a Palestinian village has a magical encounter with talking cats, whose generous gifts help her help her bring an understanding of kindness to her selfish neighbor.

■ **Stories by Egyptian Women: My Grandmother's Cactus.** *Introduced and translated by Marilyn Booth. Austin: University of Texas Press, 1991, ISBN 0-292-70803-3 (pb).* This fine and gracefully translated contemporary collection features eight writers whose work began to emerge in the late 1970's and early 1980's.

■ **Three Women of Herat.** *Veronica Doubleday. Austin: University of Texas Press, 1990, ISBN 0-292-78112-1.* This touching and perceptive account of the special friendships the author formed "behind the veil" with three young mothers of Herat, Afghanistan, describes how they nourish and sustain one another and offers convincing evidence that they enjoy surprising freedoms.

■ **Turkish Traditional Art Today.** *Henry Glassie. Bloomington: Indiana University Press, 1993, ISBN 0-253-32555-2 (hb).* Partly an introduction to modern Turkey, partly an ethnographic study of folk art in the late 1980's, this formidable volume is a gracefully written—and occasionally poignantly personal—survey of architecture, calligraphy, weaving, ceramics, woodworking and other arts, discussed by region, as well as of a number of artisans and the theories each articulates to root his or her work in Turkish traditions.

■ **Walking Into the Sun: Stories My Grandfather Told.** *Jon Schrieber. California Health Publications, 1991, ISBN 0-9623581-3-4 (pb).* More than 100 traditional stories, anecdotes and parables from a Kurdish mountain village, each with a spiritual message. Although enjoyable for adults, their brevity makes them perfect bedtime reading for children.

■ **Workers and Working Classes in the Middle East: Struggles, Histories, Historiographies.** *Zachary Lockman, ed. Albany: State University of New York Press, 1994, ISBN 0-7914-1666-6 (pb).* Based on a 1990 Harvard conference, this collection of 12 articles questions assumptions upon which many social histories have until recently been based and explores the implications of new historiographic paradigms.

■ **Zillij: The Art of Moroccan Ceramics.** *John Hedgecoe and Salma Samar Damluji. Reading, UK: Garnet Publishing Limited, 1992, ISBN 1-873938-02-0 (hb).* This masterfully photographed volume is a feast for the eyes and a cultural testament to the stunning richness of Moroccan ceramic arts. Chapters explore *zillij* in light of history, geometry, architecture and execution of the craft.

VIDEO RESOURCES

■ **Morocco: The Past and Present of Djemma El Fna.** *Steven Montgomery, producer. New York: Filmakers Library, (212) 808-4980, 18 minutes VHS, 1995.* A candid, surprisingly intimate survey of Marrakech's famous square as a meeting ground for history and cultures that will enrich the viewer's understandings of public places in general.

■ **Tales From Arab Detroit.** *Joan Mandell, producer. Venice, Calif.: Olive Branch Productions, distributed by ACCESS, (313) 842-7010, 45 minutes VHS, 1994.* The visit of an aged Egyptian *hakawati*, or storyteller, to the largest Arab-American community prompts reflections from young and old about what has changed and what has endured among the many identities of Arab Americans, which shed light on the experiences of immigrants everywhere.

■ **Oasis of Peace.** *Jocelyn Ajami, producer. Landmark Media, (800) 342-4336, 28 minutes VHS, 1995.* The film imparts lessons from an experimental village near the West Bank/Israel border, where Palestinian Muslims and Israeli Jews have struggled together to forge a living model for peace since 1978.

***The books listed are available from libraries and bookstores or can be ordered from the publishers, whose addresses can be found in* Books in Print *and other sources. We have included International Standard Book Numbers (ISBN) to simplify identifying and ordering them, though in some cases other editions than those listed may be available. In the case of videos, telephone numbers are provided for further information. Please do not order books from* Aramco World.**

COMPILED BY DICK DOUGHTY

Swims with SHARKS

Written and Photographed by Erik Bjurström

Just off the Red Sea coast of southwestern Saudi Arabia lies the Farasan Bank, an 800-kilometer (500-mile) string of intricate coastal islands and brilliant, little-explored coral reefs. When I moved to the city of Khamis Mushayt in 1981, not far inland from this coast, to work at a hospital, I arrived determined that in my spare time I would dive these reefs to photograph and learn about the more than 40 species of sharks that inhabit them.

TO ANY DIVER, SHARKS ARE EITHER the spectacular highlight of a dive or a source of undiluted terror—depending upon the type of shark and the circumstances of the encounter. My interest in sharks had come from reading the works of the Austrian underwater photographer and filmmaker—later a professor of zoology—Hans Hass. His 1942 film *Man Among Sharks* was the first to demonstrate that sharks are magnificent creatures that have gone through a long adaptation process in an environment filled with predictable demands. It followed, Hass believed, that the behavior of sharks must be as understandable—perhaps even as predictable—as that of any other creature. Hass proved his point by diving, unprotected, among the sharks he filmed.

The islands and cays of the Farasan Bank are the surface indications of the diver's paradise below. Previous spread: Since they lack a swim bladder, sharks would—theoretically—sink if they ever stopped swimming, but their flawlessly hydrodynamic shape and large pectoral fins enable them to glide in a continuous motion more like flying than swimming.

But Hass's point of view never became as popular as that of another undersea pioneer, Jacques Cousteau. Cousteau came from a seafaring background, and his frequent descriptions of sharks as ferocious, unpredictable, aggressive and even "enraged" sat well with a public whose fears of sharks are not easily allayed. In the 1970's, the Hollywood hit film *Jaws* reinforced those stereotypes in the most spectacular fashion.

My plan to dive on purpose to meet sharks persuaded people in Khamis Mushayt that I was crazy. The sharks, I heard several times, would regard me as little more than an interesting dietary novelty, and they cited stories of fishermen who had fallen into Red Sea waters and met a toothy fate. I was even introduced to a boy who had been attacked by a shark in shallow water and was missing a piece of the muscle of one arm. But I took Hass seriously, believing that, within their ecological context, sharks must be respected but need not be feared, and I would not be discouraged. With diving gear, an underwater camera and a couple of friends, I set out in two inflatable boats in search of sharks.

UNDER WATER, WE DID NOT HAVE to wait long for our first encounter. A half-dozen silver-gray sharks approached, each somewhat less than two meters (six feet) long, with black-tipped fins. They were an extraordinarily beautiful sight, a perfect biological design that has not changed in 135 million years. They showed no aggression toward us, only curiosity. They moved slowly, gracefully, around us and then slipped away.

They were what divers commonly call gray reef sharks, more properly called shortnose blacktail sharks *(Carcharhinus wheeleri)*. With the whitetip reef shark, *Triaenodon obesus*, they are the most common sharks in the Red Sea. Both species belong to the family of requiem sharks, *Carcharhinidae*, which embraces 19 of the Red Sea shark species. Gray reef sharks are strongly territorial, which has given them a reputation for aggressiveness.

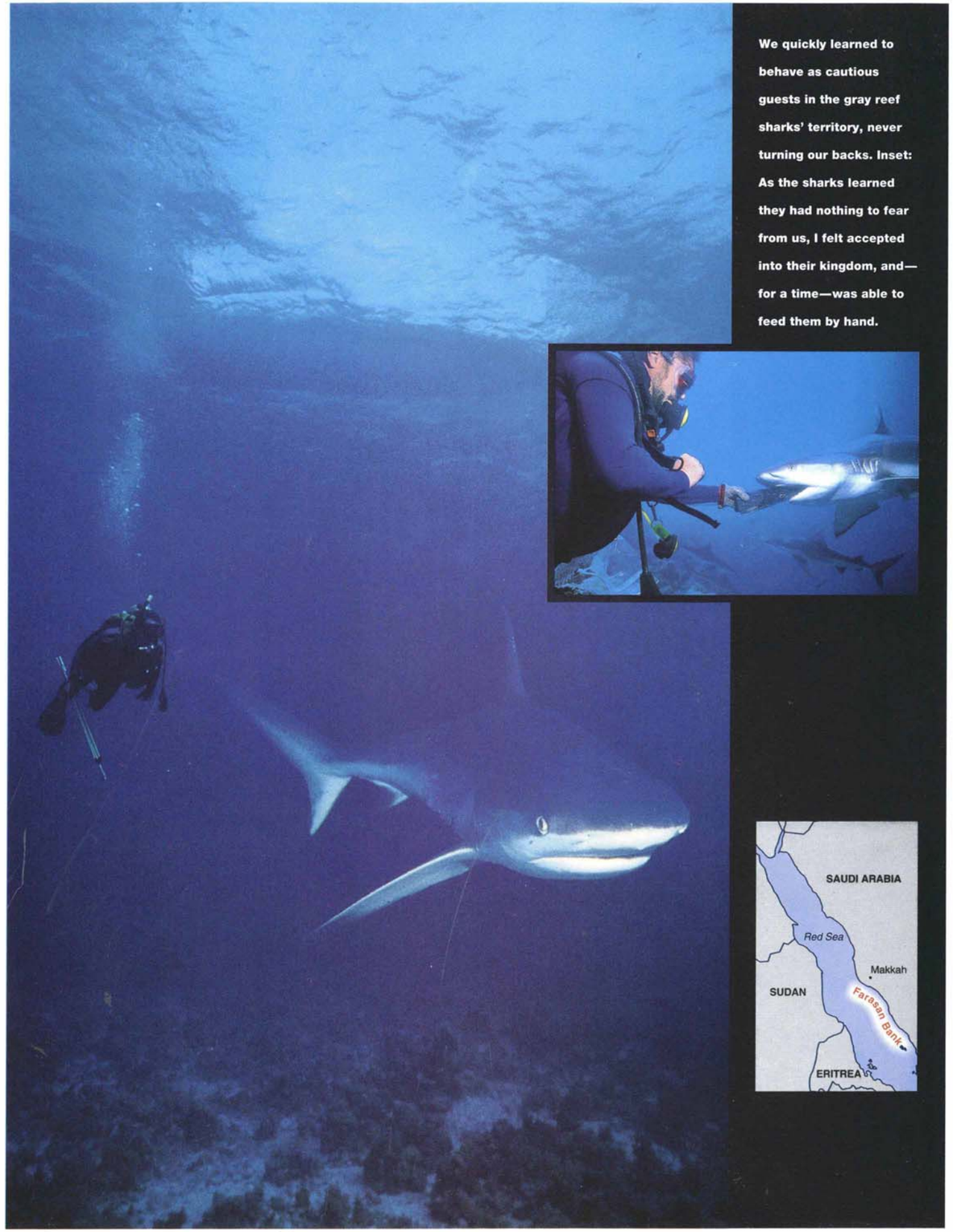
It was only later, when I had my first meeting with a solitary gray reef shark, that I began to understand this territoriality. On that dive, the sharks had come just as they had many times before: like a pack of watchdogs that investigated us and then departed after a few minutes. But this time, soon after the sharks' departure, I saw my dive partner making frantic pointing gestures to something behind my back.

I turned around and saw a shark coming at me, looking very determined. It was in a typical attack posture: stiff body, pectoral fins bent down, twitching nervously. I immediately felt that this one meant business. Without thinking, I raised my camera in front of my face and triggered the flash, hoping that the bright burst of light might confuse or frighten it. The shark swerved, missing me, but as it turned around it gave me a no-nonsense thump on the leg with its thick tail. I was very lucky that my only souvenir was the blurry close-up portrait in my camera.

As we made more dives, we met more solitary sharks who exhibited the same aggressive behavior. We learned never to turn our backs—even if the shark looked relaxed, even if it had gone out of sight. But aggression was never exhibited when the sharks came in groups. I began to suspect that sharks "turn off" their territoriality when in groups in order to allow cooperation in finding prey. Wolves, also well-adapted predators, do this too. The shark that attacked me, I realized, was probably one of the original watchdog group that had returned to let us know that we were in its territory.

ON STILL LATER DIVES, WE BEGAN using fish bait hidden amid the coral to lure sharks into staying around long enough to be photographed. It took the sharks only a few minutes to appear once we opened our bait bag: Research has shown that some sharks can detect a single molecule of fish blood in 65 liters (17 US gallons) of water. To our surprise, however, they appeared to have difficulty determining the exact location of the bait. They always came up-current, with the scent, and then started circling, trying to locate the source. One by one they zeroed in on the bait, swinging their heads from side to side to follow the scent trail. At these times we got the impression that, although their eyesight has been shown in medical experiments to be acute, they did not appear to rely on it much in locating the bait.

The shark's other senses are unusually sophisticated. The ultra-sensitive ampullae of Lorenzini, minute gelatinous canals in their noses, can register underwater electrical currents equivalent to those generated by a single flashlight battery with its electrodes separated by up to 1600 kilometers (1000 miles) of water. Some sharks have been seen using this electrical sense as a kind of scanner,

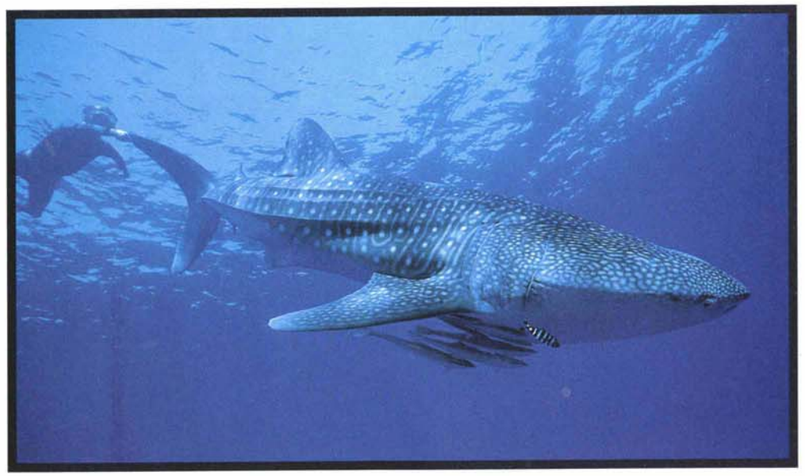


We quickly learned to behave as cautious guests in the gray reef sharks' territory, never turning our backs. Inset: As the sharks learned they had nothing to fear from us, I felt accepted into their kingdom, and—for a time—was able to feed them by hand.

"Hans Hass had been right:
A diver risks attack only by
carrying fish or by provoking
the sharks' territorial behavior."

Attracted first by our movements and sounds, one of the pack of whitetip reef sharks that regularly investigated us came in for a close look.

As they became accustomed to us, they became increasingly aggressive in their demands for bait, and hand-feeding gave way to fending them off with pushes and blows (insets, opposite and below). To provide a measure of protection, we wore chain-mail gloves (inset, above).



The rare, plankton-feeding—and thus toothless—whale shark can grow to be 18 meters (60 feet) long.

cruising over the sea bottom to locate living fish under the sand. This sense also apparently makes it possible for sharks to register the earth's magnetic field, giving them a "compass" to guide long migrations that, for some species, stretch more than 15,000 kilometers (9,300 miles). Their hearing is not bad, either: They can detect the vibrations of a fish in distress from one and a half kilometers (one mile) away. The sound of a diver, of course, travels considerably further.

Once they found our bait, however, and displayed a few moments of caution—the kind that keeps even sharks from fatal mistakes—their attack came swiftly and with a force that gave us chills. With violent sawing movements of their heads and sickening crushing sounds, the bait fish was gone within seconds.

SIX YEARS AFTER MY FIRST DIVE AMONG the Red Sea sharks, one of the highlights of my diving life took place at Sha'ab Rumi, or Roman Reef, on the Sudanese side of the Red Sea, where the shark populations are thicker than on the Saudi side (See *Aramco World*, July-August 1991). In what had become a familiar ritual, we had attracted several species with bait and they were circling slowly in front of us. The usual gray reef sharks were there, along with whitetip sharks, but then one appeared that we had never seen before: the silvertip shark, *Carcharhinus albimarginatus*, an open-ocean dweller that only occasionally approaches reefs.

The scene was peaceful. Somehow, at that moment, I sensed a signal from the sharks that they felt no hostility toward us, that they accepted us into their kingdom. I opened another fish bag and held out the bait for them. One by one, like pets, they came up to me and took the fish from my hand. I was euphoric. When I had given them all the fish I had, I left the protection of the reef. The water was superbly clear and I was floating in a dark blue space surrounded by 20 beautiful sharks.

Following this magical experience, I wanted to determine the extent to which these sharks might actually consider humans to be edible. We gathered the sharks using fish bait and, after exciting them with this, we offered them beef. The result was clear: They approached, smelled the meat, and then immediately turned around without taking it. To us it proved what the pioneer Hans Hass had maintained all along: A diver risks attack only by either carrying fish or provoking territorial protection behavior.

BUT SADLY, THIS HARMONY between us and the sharks was to end. After about 20 dives in the same area, the sharks appeared to learn that they could approach us without risk. Then, the underwater atmosphere changed, and the sharks became more aggressive in their demands for bait. On several dives, my companions had to kick them away or beat them on the nose, sometimes desperately. We had become overconfident, and we had forgotten—temporarily—that we were playing with powerful creatures whose instincts we did not fully understand.

My final encounter with the sharks' territorial habits came while I was sitting on top of the reef, just below the surface, with bait still securely enclosed in a double plastic bag. Suddenly, from the back, I received a terrible blow to my head. I turned around and looked into the white eye of a shark who had an unshakable grip on my diver's vest and was trying to chew it, exactly as it was accustomed to chewing the bait fish, all the while shaking me like a puppet. I beat it on the nose with my elbow, and—fortunately—that was enough to make it flee. Shocked, I aborted the dive at once. My now-shredded vest had protected me from severe injury.

This experience cooled my confidence, but not my interest. I dived more cautiously now, but still among sharks, where other experiences awaited me. At Sanganeb Reef, about 30 kilometers (19 miles) northeast of Port Sudan, we at last met a large group of the elusive hammerhead sharks (*Sphyrna* spp.). We spotted them patrolling the southernmost point of the reef at a depth of about 25 meters (80 feet). From other encounters we had learned that hammerheads are not attracted by bait: We just hoped to be lucky enough to get close to them. But they were shy, and kept their distance—until one day when I did not expect them.

I was floating alone at the reef's edge 30 meters (96 feet) down. My map indicated that there was nearly a kilometer (about half a mile) of water below me, and I was trying to imagine what unknown creatures might be hiding in that blue-black depth. Then I saw what first looked like a dark cloud in the water above and in front of me. Gradually, it resolved into individual sharks, and I saw it was a school of more than 50 big, three-meter (10-foot) hammerheads coming toward me.

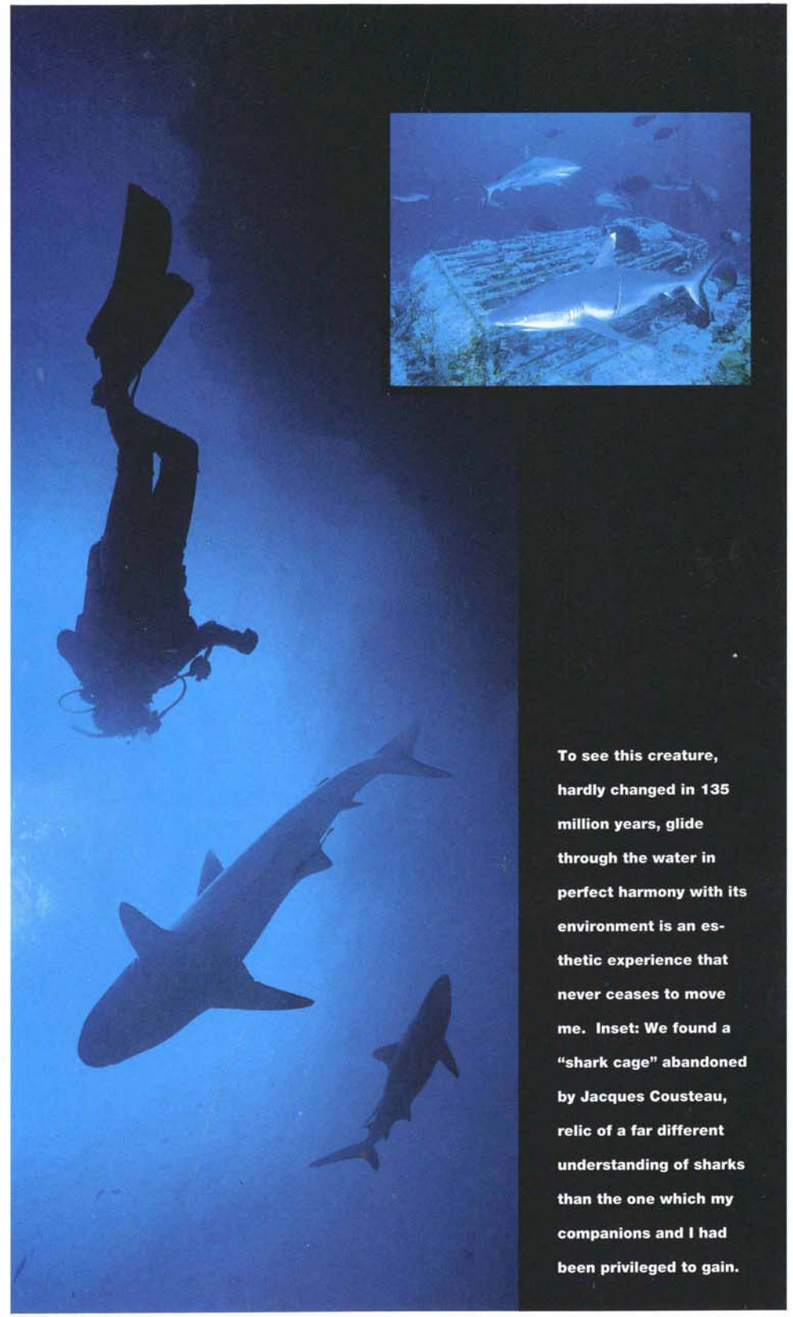
They glided slowly by, only a few meters above me. Their perfectly streamlined bodies shone like polished steel, and their incongruous, T-shaped heads made them look like monsters from a long-forgotten era. They paid no attention to me and disappeared into the water's haze. I was down too deep for my film to work properly, but in my mind is etched one of the most fascinating sights in my 30 years of diving.

It was also off the coast of Sudan, in 1993, that I fulfilled another diver's fantasy: a ride on a whale shark *(Rhincodon typus)*, the biggest fish on earth, a plankton-feeder harmless to humans. In a channel just outside Port Sudan, we encountered three whale sharks swimming together just below the surface, sieving plankton through their enormous mouths. The biggest one was about six meters (19 feet) long—big enough, but a shrimp compared to a full-grown adult, which can measure up to 18 meters (60 feet)! It was blue with white spots all over its body.

I handed my camera to one of my companions and did what I had dreamt of since I was a child: I reached out and grabbed one of the shark's pectoral fins and, with my other arm, reached across its back and rode it. Surprisingly, the shark's skin was smooth and its body soft. When it noticed my presence, it accelerated and started rolling gently through the water. When it finally sounded past a depth I dared not go, I released it. Alone again, I watched it disappear.

THE SLOW REPRODUCTIVE RATE of sharks, together with increasingly intense demand for dried shark fins—particularly in some parts of Asia—has led to humankind's first significant threat to shark survival. To date, the Red Sea has been spared the excesses of fishing that have depleted shark populations in other parts of the world, but with recent dramatic rises in world fish prices—including those of shark and shark fins—it is clear that official protection will be necessary.

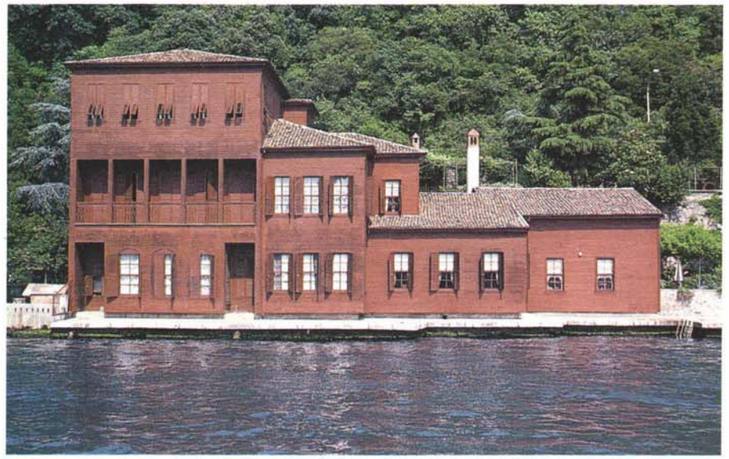
It was while diving at Sha'ab Rumi that we found one of Jacques Cousteau's old "shark cages," left there after he filmed his 1965 production, *World Without Sun*. It was the device Cousteau had used to protect himself from the "ravening" sharks. We spent part of that dive trying to lure a shark *into* the cage, so I could take a photograph illustrating my belief that, in the end, humans are more dangerous to sharks than sharks are to humans. But the Red Sea gray reef sharks had no desire to enter a cage, even for a moment.



To see this creature, hardly changed in 135 million years, glide through the water in perfect harmony with its environment is an esthetic experience that never ceases to move me. Inset: We found a "shark cage" abandoned by Jacques Cousteau, relic of a far different understanding of sharks than the one which my companions and I had been privileged to gain.

Dr. Erik Bjurström, a consultant at the King Faisal Specialist Hospital and Research Center, has lived in Saudi Arabia for 12 years. In that time, he has dived and photographed "every corner" of the Red Sea and has won awards in major photographic competitions. Approximately 200 of his dives have focused on sharks.

Hekimbashıların Yalı

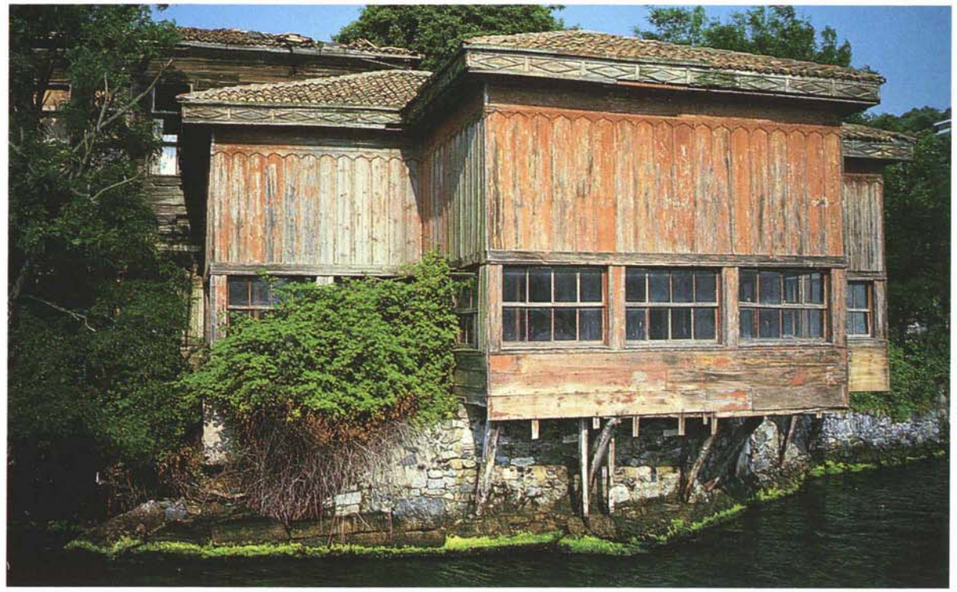


MANSIONS ON THE WATER

The Yalıs of Istanbul

"[A] glimpse of a perfect ceiling is to be caught by any one who rows up the Asiatic shore [of the Bosporus] from Anadolu Hısar.... This ceiling, and the whole room to which it belongs, is the most precious thing of its kind in all Constantinople, if not in all the world."

[WRITTEN AND PHOTOGRAPHED BY CHRIS HELLIER]

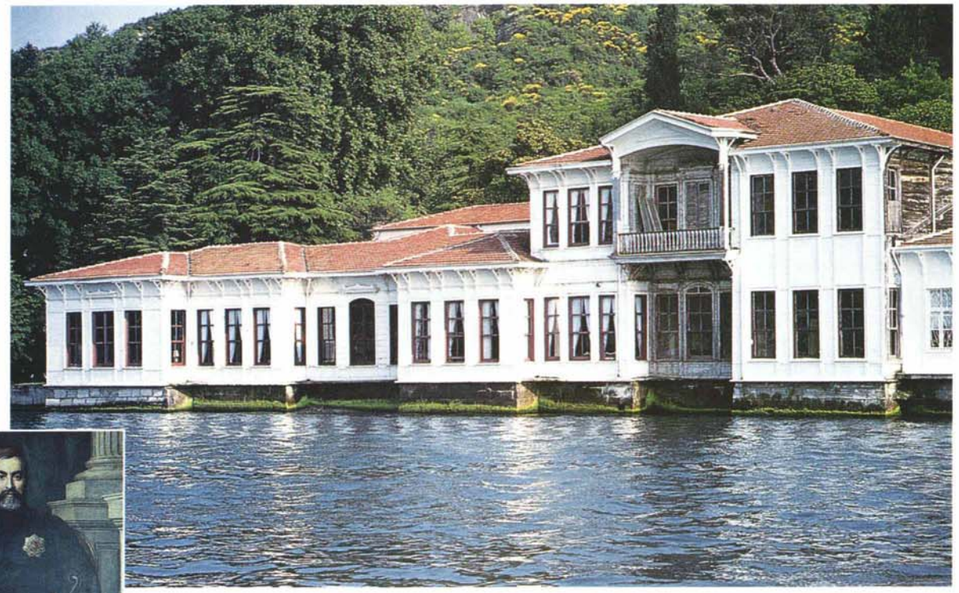


Köprülü Yalı
Built by Köprülü Amcazâde Hüseyin Pasha, the fifth member of the influential Köprülü family that dominated Ottoman politics during the latter half of the 17th century, the oldest surviving yalı bears all the characteristics of the most traditional: a central fountain in the salon, a cumba, *or bay-window sitting area, above the water, solid window covers and timber walls painted terracotta red. Inside, despite its disrepair, the elaborate ceiling, with its Arab and Persian influences, that so overwhelmed H.G. Dwight is a reminder of its celebrated past. The built-in cupboards and carved niches that distinguish Ottoman interiors are there, along with faded interior panels painted with roses, lilies and tulips, recalling the Ottoman Tulip Period of the early 18th century, when leading citizens competed to grow perfect blooms (See* Aramco World, *May-June 1977). Below: the central fountain in the Sa'dullah Pasha Yalı.*

That was how American writer H.G. Dwight in 1907 described what is today the oldest surviving yalı (*yah*-lih), the home of Köprülü Amcazâde Hüseyin Pasha, who served as grand vizier under the Ottoman sultan Mustafa II in the last decade of the 17th century. Though its terracotta-rose paint has long since faded and its timbers have grown weary, the grand house still stands on the Bosporus shore, one of the several dozen remaining yalıs of the former Ottoman elite.

It was in the latter half of the 17th century, when the Empire stretched from Makkah to Budapest and from Tunis to Tabriz, that it became fashionable for Ottoman viziers, admirals and civil and military pashas to build prestigious summer homes along the Bosporus, the strait that separates Europe and Asia. These homes were called *yalıs*, a word deriving from the Greek *yialos*, or seashore.

Like the Newport "cottages" of the American elite in the late 19th century, yalıs in their time functioned as extravagant retreats where the owners and their families escaped the sweltering bustle of the city. Today, however, Istanbul's remaining yalıs are glimpses into Ottoman high culture across more than two centuries, and the social standing of their owners gave these homes important roles in society, politics and architecture.



Kıbrıslı Yalı

The long, low Kıbrıslı Yalı, built in 1775, was named for Kıbrıslı Mehmet Emin Pasha, the Cypriot grand vizier of Sultan Mahmut II who bought it in 1840. The yalı has the typical cruciform plan but the main fountain—usually located in the center of the grand hall of the selamlık*—has been relegated to the "winter garden," one of the corner rooms that is glazed on two sides. The fountain rises from a pebble-mosaic floor (below)—a feature inherited from the Byzantines.*

Seven generations of the Kıbrıslı family have lived in the yalı, and today it is still the family's summer home. Selim Dirvana, the senior member of the family, still remembers the revolving door that once divided the gardens of the selamlık *and the* haremlık*, permitting male members of the household to pass in and out without allowing others a glimpse of the women's side, which constituted the family quarters.*

Only a handful of the earliest yalıs still stand. These were invariably built of timber and roofed with red tile. The exterior walls were stained a deep earthtoned red, known as "Ottoman rose," which made the facades stand out against the forested slopes with their pink cherry blossoms, green-leafed chestnuts and slim, dark cypresses. During the 18th and 19th centuries, the increasing popularity of European tastes led to the supplanting of the traditional red facade by pastel shades.

The arrangement of rooms within each yalı harks back to the earliest Turkish houses that, like the Turks themselves, can be traced to Central Asia. From the *sofa*, or central salon, where a free-standing fountain cooled the summer heat, internal doors typically led into four corner rooms.

The cruciform central hall often included one or more recessed sitting areas that overhung the Bosporus waters, thus affording unobstructed views. Here, members of the household received their guests.

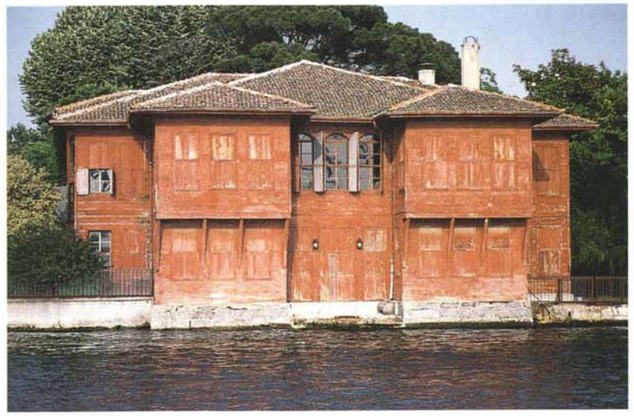
Like all larger Ottoman houses, yalıs were divided into a *selamlik* for the men and a *haremlık* for the women—though the women's side was sometimes a separate building. Each yalı also had its *hamam*, or bath, often made of marble, which was divided into steam and cool rooms. Men and women used the hamam at different, designated times of the week.

Upper-class ladies often spent summer days on excursions in the gardens and the extensive grounds that surrounded nearly all yalıs on the landward side. Enclosed footbridges, known as "privacy bridges," often spanned the narrow access road behind each house and connected the enclosed gardens with the forested grounds, allowing the women of the household private passage to the grounds. Over the last century, road-widening projects have torn down all but one of these.

Toward the end of the 19th century, when the number of yalıs had reached its peak, a highlight of the summer social season was the *mehtâb*, one of the most extraordinary spectacles of an affluent and esthetically refined era. On summer evenings when the moon was bright and the Bosporus calm, rich and poor alike would throng the shore to watch and listen as a flotilla of private boats—sometimes numbering in the hundreds—would weave its way north in a snake-like procession, often calling at prominent yalıs on both shores along the way. In the lead was a special concert boat fitted with a raised platform on which an orchestra performed, or vocalists accompanied by the flute-like *ney*, the stringed dulcimer and the *saz*.

With such prominent owners, yalıs invariably also played host to history. In the central *sofa*s, viziers received visiting ministers and heads of state, treating them first to banquets and later to negotiations that, in several instances, altered the shape of the Empire. The far-reaching Karlowitz Treaty—which ceded to Austria territories in the Balkans, including Hungary and Transylvania—was ratified in the Köprülü Yalı in 1699. The Küçük Kaynarca Treaty recognizing Crimean independence was also signed there in 1774. Early in this century, negotiations with German officials in the Sait Halim Pasha Yalı led to Turkish involvement in World War I.

Architecturally, yalıs were bellwethers of style. From the earliest, entirely Ottoman yalı, they gradually adopted features that reflected Istanbul's rising fascination with European designs. From the 1730's to the early 1800's, a style now called "Turkish baroque" brought elaborate decorative schemes to the Bosporus



Sa'dullah Pasha Yalı

Although some 18th-century yalıs were influenced by European baroque and rococo styles, it was not until later in the century that a self-conscious style—Turkish baroque—emerged to systematically assimilate the imported styles into Ottoman tradition. Though the baroque yalıs varied greatly in size and in the details of their interior decors, externally all retained the simple timber facades, tiled roofs and cruciform floor plans of the traditional yalı.

The upper-floor salon (right) of the Sa'dullah Pasha Yalı, which dates from the 1760's, was based on an oval otağ*, or traditional Turkish tent. Moldings carved and painted to look like ropes stretch from a wooden boss in the center of the ceiling, "tying" it to the curved walls. An enclosed musicians' gallery on the north side and carved doorways based on floral themes further enhance the baroque effect. This salon is the only one of its type to have survived.*

Other traditionally Ottoman elements were also reworked in light of baroque fashion, which emphasized theatrical qualities. Painters decorated large niches in the four principal corner rooms and, in each, they painted stage curtains drawn back to reveal landscapes and idyllic Bosporus scenes.

Sherifler Yalı

Across the water from the Sa'dullah Pasha Yalı, on the European shore at Emirgân, stands the smaller Sherifler Yalı. In this full-blown example of Turkish baroque-rococo melange, an 18th-century remodeling of a more traditional yalı resulted in an astonishing candy-box interior.

Although the floor plan is still based on earlier conventions, the ceiling of the central hall received an elaborate decoration primarily in red and yellow. Each window was crested with rococo scallops, and small wall paintings depict Ottoman kiosks beside deserted pools. Painted brackets and clusters of fruit-like carvings reinforce the sense of extravagance.

Sait Halim Pasha Yalı

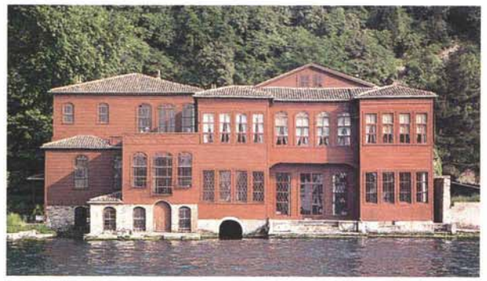
It was only in the early 19th century, during the empire period, that the Ottoman fascination with Europe began to affect the facades and layouts of yalıs. From 1808 to 1867, yalıs began adopting an almost neo-classical look. Unlike the early yalıs with their bay windows overhanging the water, the empire-style yalıs were fronted by a quay. Instead of solid window covers hinged at top or bottom, lattice shutters and sliding "jalousie" screens (far right) were adopted to shade the interiors and provide privacy.

The Sait Halim Pasha Yalı, on the upper European shore at Yeniköy, is one of the best-preserved of the empire-style yalıs. It is named for the Egyptian prince and aristocrat who held important positions in the Ottoman administration, and who rose to serve as grand vizier during World War I. From the yalı's quay, two stone lions, brought from Egypt in the 1860's, keep a silent and distinctive watch to the east.

Unlike earlier yalıs, the Sait Halim Pasha Yalı's traditional sofa, *the original heart of the Ottoman home, was replaced by several reception rooms. Today, guests are often led into the* haremlık *through a porch glazed in colored glass, which throws pools of red and yellow light on the marble floor. Beyond lies the entrance hall of the women's side and a grand, split staircase with ornate iron balusters.*

The columned hallway, with its Corinthian capitals and paneled walls embellished with egg-and-dart cornice moldings, is pure empire style. But in the small ground-floor study and reception room fronting the quay, the atmosphere changes: Rich gold-brown colors and doors sparkling with mother-of-pearl inlay combine Egyptian and Ottoman themes.

The yalı's substantial collection of European paintings reflects the increasingly western orientation of upper-class Ottoman taste and culture.



Yalıs were rarely built for longevity. In Ottoman Turkey there was no hereditary aristocracy that bequeathed property from one generation to another, as was the custom in Europe. A pasha's position depended on his relations with the sultan: Should the pasha fall from grace or the sultan fall from power, the family's fortunes fell as well, and the yalı often became impossible to maintain.

Indeed, temporality is intrinsic to timber buildings. Winter rains and the moist sea air both encouraged rot. On an unseasonably chilly July day in 1910, the romantic French novelist Pierre Loti, staying at the yalı of his friend Count Ostrorog (above), noted that "a balmy dampness fills my bedroom overlooking the sea, like an old ship whose hull is no longer watertight."

and encouraged the replacement of traditional built-in cupboards and divans with European-style, free-standing furniture (See *Aramco World*, July-August 1994).

In the latter half of the 19th century, this gave way to a neo-Western classicism, the "empire" style—a term the Ottomans borrowed from the French—that produced several of the largest yalıs. Toward the close of the 19th century, this was overshadowed by an eclectic "cosmopolitan" style wherein several yalıs became ensembles of European towers and Ottoman onion domes, each ornamented with Islamic motifs. Finally, during the decade prior to World War I, a Turkish expression of art nouveau influenced some of the last of the Ottoman yalıs to be built.

The Huber Mansion and Afif Pasha Yalı

As the 19th century drew to a close, Istanbul architects abandoned earlier yalı traditions and fashions almost entirely, and began to search for new styles appropriate to a new era. The eclecticism of the so-called cosmopolitan period, which lasted from 1867 to 1908, is perhaps best illustrated by the Huber Mansion. This former French school has recently been renovated as a presidential summer house. Its elaborate onion domes appear to have been borrowed from Russian palaces, while its carved eaves and elaborate fretwork recall English Victorian taste.

Another elaborate yalı in this style is that of Afif Pasha at Yeniköy (inside back cover), a tall, fantastic efflorescence that lately has been converted into apartments. In addition to the fretwork and corner towers, the facade includes panels of calligraphic script and patterned window covers which recall the jalousie screens of an earlier age.

The Egyptian Consulate

Chief among the Ottoman art-nouveau designers was an Italian, Raimondo d'Aronco, who served as imperial architect to Sultan Abdul Hamid II between 1896 and 1908. His work was influenced by the Viennese secessionist movement and the Italian stile floreale*—both branches of art nouveau—which, in Istanbul, he attempted to fuse with Turkish forms.*

The most distinctive art-nouveau yalı today stands in the suburb of Bebek and houses the consulate of the Arab Republic of Egypt. This yalı was originally built for the last Ottoman-appointed ruler of Egypt, Khedive Abbas Hilmi II,

who, following a family tradition, escaped the Egyptian summers for the cooler Bosporus.

Architecturally, the Bebek yalı is an odd mix of styles, so much so that it is here that the claim of the yalıs to an architectural character of their own appears finally to dissipate. The heavy mansard roof appears to have been imported from a northern French chateau. Ornate art nouveau railings run along the shore, cutting off the house and garden from the sea.

After the proclamation of the Republic of Turkey in 1923, the Bosporus shores continued to be a stylistic melting pot, but by that time, few yalıs—or apartment buildings—bore more than decorative signs of connection to the yalıs of the Ottoman empire.

Simple forms of heating, such as the common open brazier, or *mangal*, caused several devastating fires. Later, in the 1940's and 1950's, rising land prices took a further toll. Thus only a handful of 18th-century yalıs have survived, and a number more from the 19th century. During the 1980's, some of these received new leases on life as a new class of monied Turkish entrepreneurs revived the prestige of a historic Bosporus summer home.

Today, the remaining yalıs are protected buildings, divided into several categories according to their architectural importance. One, the 18th-century Bostancibaşi Abdullah Ağa Yalı at Çengelköy, has been acquired by the Ministry of Tourism, and it is being remodeled to accommodate a restaurant and a souvenir shop.

The future of the best 18th-century yalıs—many of them illustrated here—now seems brighter than at any time this century. Several have actually remained in the same family for generations, and the current owners are committed to their upkeep. The Çürüksulu Yalı at Salacak, for instance, is maintained largely as it was originally conceived by one of Turkey's leading industrialists.

Istanbul socialite Ayşegül Nadir is restoring the Sa'dullah Pasha Yalı. Further up the Asian coast, plans are again afoot to restore the dilapidated 1698 Köprülü Pasha Yalı. Restoration of this oldest of the yalıs was first planned in 1915, but was derailed when, following World War I, the Ottoman era ended with the establishment of the modern Republic of Turkey. If today's conservationists succeed, the Köprülü Pasha Yalı may have its facelift in time to celebrate its 300th anniversary in 1998.

Provence-based writer and photographer Chris Hellier began his career as an urban conservationist. He is the author and co-photographer of Splendors of Istanbul: Houses and Palaces Along the Bosporus, *published by Abbeville Press in the US and Tauris Parke Books in Britain.*

Events & Exhibitions

Morocco: *A Celebration*. Films, lectures, music and food. Telephone (212) 355-6100. French Institute/ Alliance Française, **New York,** March 14–20.

Current Archeology of the Ancient World. Talks on research and discoveries by the specialists involved: Excavations at the aceramic Neolithic Site of Asıklı, Cappadocia: Ufuk Esin, March 29; Recent Excavations at the Parthian Royal Citadel of Nisa, Turkmenistan: Antonio Invernizzi, April 5; Spanish Silks of the late 12th and 13th Centuries: Sophie Desrosiers, April 12; The Greek and Roman City of Paphos, Cyprus: Victor Daszewshi, April 19. The Auditorium, Musée du Louvre, **Paris,** 12 o'clock noon.

Mongolia: *The Legacy of Chinggis Khan* highlights the Mongolian renaissance that began with attempts in the 16th century to re-create the Mongolian empire that had flourished three centuries earlier. National Geographic Society, **Washington, D.C.,** April 3 through July 7.

Incense and Silk: *Money and Luxury in the Ancient Orient* displays articles that show the characteristics and the diversity of the peoples who lived along the Silk Roads. Palais Harrach, **Vienna,** through April 14.

Sons of Ra: *Images of Egyptian Royalty from the Louvre*. The closing of the Egyptian galleries at the Musée du Louvre for renovation permitted the loan of 30 exceptional works. **Cleveland [Ohio]** Museum of Art, through April 14.

The Telephos Frieze of the Pergamon Altar. The citadel of Pergamon, in what is now northwest Turkey, was the center of one of the richest kingdoms in the Greek-speaking world from the mid-third to the mid-second century BC. Twelve blocks illustrate the life of Telephos, hero of Pergamon; 50 works explain the frieze. The Metropolitan Museum of Art, **New York,** through April 14.

American-Arab Anti-Discrimination Committee 13th Annual Convention. Telephone (202) 244-2990. **Arlington, Virginia,** April 18–21.

Dar al-Islam: *Art, Life and Cultures of the Islamic World*. This comprehensive exhibition in two of the Smithsonian's largest exhibit halls surveys art from every corner of the Islamic world from the seventh century to the present. National Museum of African Art and the Arthur M. Sackler Gallery, **Washington, D.C.,** April 28 through October 27.

Hofuf and Al Hasa Oasis uses photographs, paintings and artifacts to look at these historic towns in Saudi Arabia; **The Arab Woman** displays jewelry and drawings of Saudi and other Arab women. The Nance Museum, **Warrensburg, Missouri,** through April 30.

Uzbekistan: *Heirs of the Silk Road*. The Silk Roads created a confluence of Chinese, Indian, Middle-Eastern and European civilizations in what is now Uzbekistan, and this exhibition is the first in Europe to include loans from Uzbek museums. Linden Museum, **Stuttgart,** through May 12.

Jerusalem in Judaism, Christianity and Islam uses historical views of the city and the unifying figure of Abraham to depict the bonds among the three monotheistic religions in Jerusalem. Jewish Historical Museum, **Amsterdam,** through May 19.

Power and Gold: *Jewellery from Indonesia, Malaysia and the Philippines* commemorates the 50th anniversary of the Republic of Indonesia with more than 250 pieces from the island cultures of southeast Asia. Museum voor Volkenkunde, **Rotterdam,** through May 19.

The Power of the Pen: *Islamic Calligraphy in the 14th Century* explores a "golden age" of Islamic calligraphy during which artists under Mamluk and Mughal patrons standardized cursive scripts, allowing ever more sophisticated refinements. Sackler Gallery, **Washington, D.C.,** through May 27.

Rivalry and Power: *Arts of the Book in the 14th Century*. The exhibit explores the interchange of calligraphic and manuscript traditions between the rival dynasties of the Mongols and the Mamluks. Sackler Gallery, **Washington, D.C.,** through May 27.

Elihu Vedder's Drawings for the Rubáiyát. This exhibition of all 54 original drawings for the celebrated 1884 edition of the *Rubáiyát of Omar Khayyám* also includes photographs of Vedder and various editions of the book. National Museum of American Art, **Washington, D.C.,** through June 9.

Empires of the Sultans: *Ottoman Art from the Khalili Collection* opens the new Brunei Gallery at the School of Oriental and African Studies (SOAS) with more than 200 works from the celebrated collection of Nasser D. Khalili. Brunei Gallery, **London,** through July 5.

Seydou Keita, Photographer: *Portraits from Bamako, Mali* presents 24 evocative portraits by the self-taught photographer. National Museum of African Art, **Washington D.C.,** through July 28.

Traders and Raiders on China's Northern Frontier. Contacts among urban Chinese and pastoral nomads to the north of China in the first millennium BC produced unique variations in the arts associated with war and commerce: harness fittings, weapons and vessels made of precious metals. Sackler Gallery, **Washington, D.C.,** through August 18.

Portraits Without Names: *Palestinian Costume* includes more than 100 items drawn from the Tareq Rajab Museum, Kuwait, and the Palestine Costume Archive in Canberra. Powerhouse Museum, **Sydney,** through August.

Permanent Collection of Contemporary Art. A display of some 100 artworks by painters from the Arab world. Institut du Monde Arabe, **Paris,** indefinitely.

The Saudi Aramco Exhibit. Centered on the Arab-Islamic technical heritage, this permanent interactive, "learn-by-doing" scientific exhibit relates the historical background to today's petroleum exploration, production and transportation. **Dhahran, Saudi Arabia.**

Information is correct at press time, but please reconfirm dates and times before traveling. Readers are welcome to submit information for possible inclusion in this listing.

The Artistic Splendor of the Spanish Kingdoms: *The Art of Fifteenth-Century Spain* argues for increased appreciation of Spanish art of the late Middle Ages, a time when the 1492 unification under Catholic rule of the Muslim kingdom of Granada with the Christian kingdoms of Aragon and Castile "curtailed an era of rich cultural diversity and creativity...that was unique to Spain," says Hilliard T. Goldfarb, chief curator. The exhibition focuses on the cultural interplay in the visual arts. One superb example of this is Bartolomé Bermejo's central panel *(above)* from his 1475 *retablo* of St. Engracia. In the image, St. Engracia is surrounded by eight-pointed stars on the throne and carpet, a motif borrowed from the Muslim visual vocabulary. The other 19 works document further interconnections. The Isabella Stewart Gardner Museum, **Boston,** through April 7.

ARAMCO WORLD INDEX

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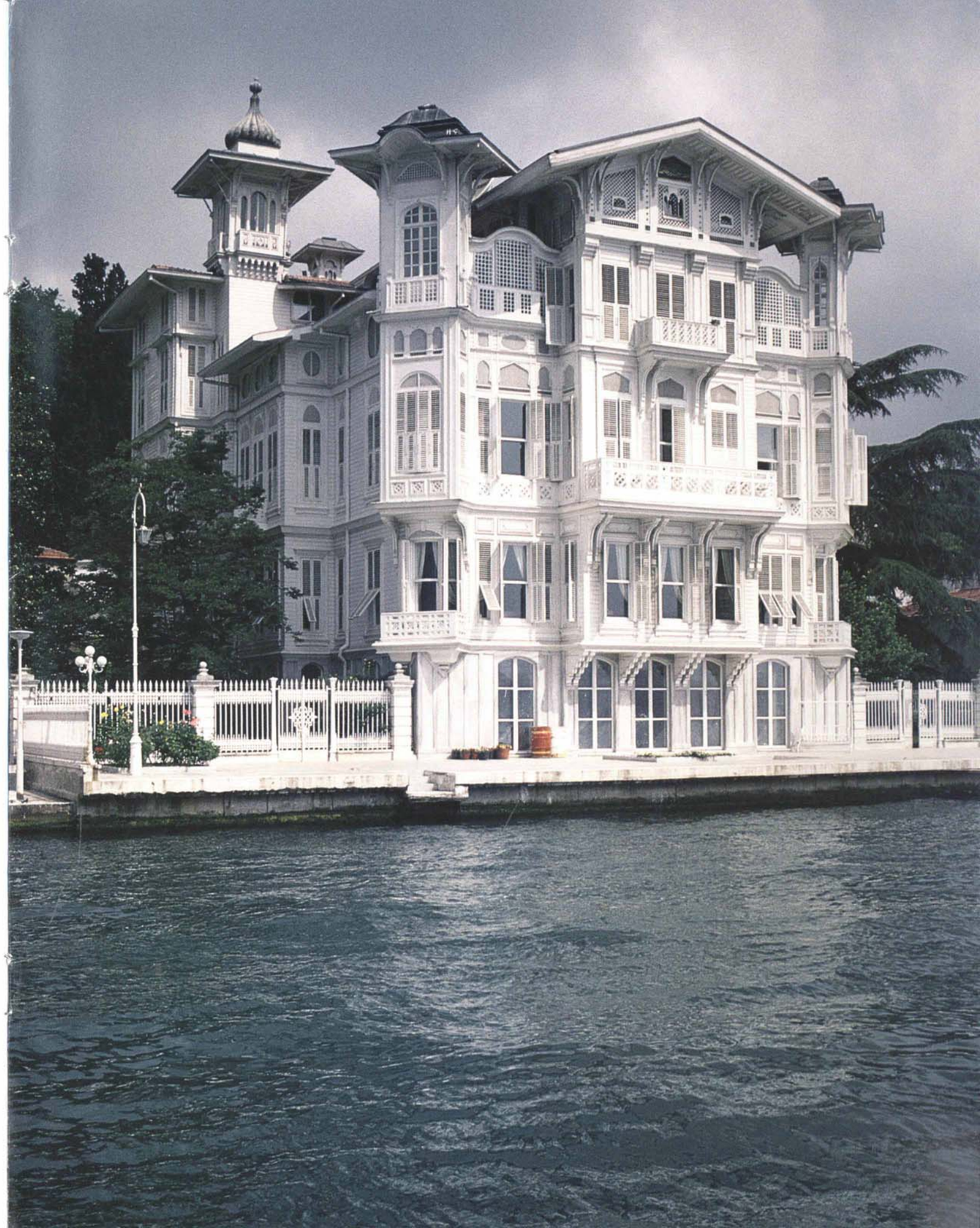

DAVID BOHL