ARAMCO WORLD

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ON THE FLATBREAD TRAIL

CANADA CHINA EGYPT SYRIA TURKEY AZERBAIJAN TUNISIA MOROCCO CHINA PAKISTAN UZBEKISTAN TA

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Mustafa A. Jalali
PRESIDENT

Shafiq W. Kombargi
DIRECTOR
PUBLIC AFFAIRS

Robert Arndt
EDITOR

Dick Doughty
ASSISTANT EDITOR

DESIGN AND PRODUCTION
Herring Design

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The Editor, Aramco World
Post Office Box 2106
Houston, Texas 77252-2106, USA
Send subscription requests and changes of address to:
Aramco World
Box 469008
Escondido, California 92046-9008

Front cover: Flatbread takes form under the practiced hands of a Moroccan housewife in Taroudant. Like millions of men and women around the world who rely on nourishing, chewy flatbreads as an important part of their families' daily diets, she bakes for every meal. Photograph: Naomi Duguid/Asia Access. Back cover: At play in the shadow of history, children run past the walls of Raqqa's Qasr al-Banat, partially restored by archeologist Kassem Toueir. Photograph: George Baramki Azar.

◀ A Nubian ibex and her kids are alert but safe in a Saudi reserve.

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A Career at Raqqa 2
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A mysterious platform in northern Syria, the size of a city block, is the only surviving structure built by Caliph Harun al-Rashid. It is also one of several sites, excavated under the direction of one man over 24 years, that illuminate an era and a region between two empires.


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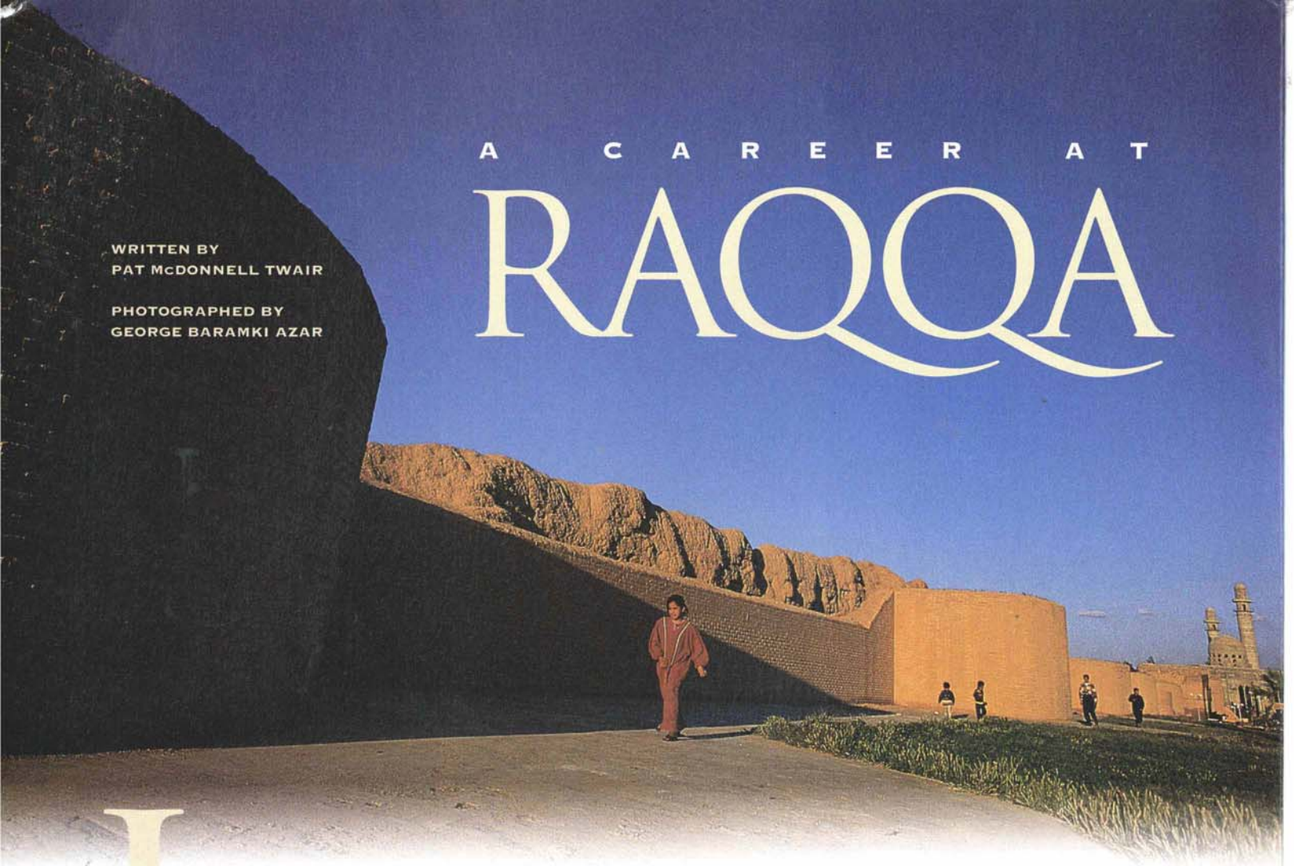
MORGAN

A CAREER AT RAQQA

WRITTEN BY
PAT McDONNELL TWAIR

PHOTOGRAPHED BY
GEORGE BARAMKI AZAR



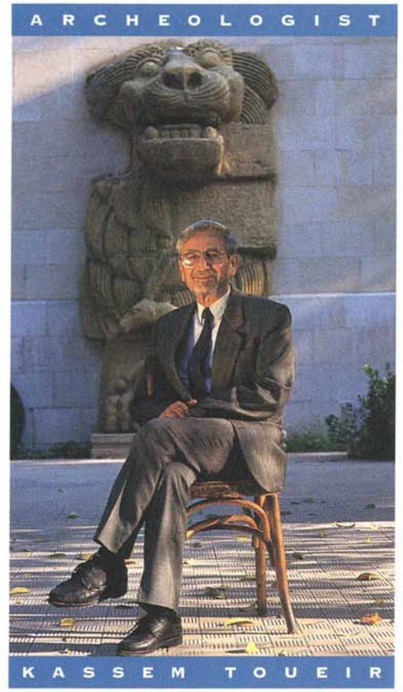
In 806, the Abbasid caliph Harun al-Rashid and his troops rode west from north-central Syria to conquer the key Byzantine city of Heraclea, in southwestern Anatolia. In the eyes of the 10th-century historian al-Tabari, the 13th-century geographer Yaqut al-Hamwi and—those scholars wrote—of Harun al-Rashid himself, the victory was the greatest of many in a career that marked both the zenith of Abbasid power and the beginning of its gradual decline.

The caliph and his troops had departed from Raqqa, near the banks of the Euphrates, whose Islamic city had been founded by al-Rashid's grandfather, Caliph Abu Ja'far al-Mansur. Raqqa had been a provincial center until al-Rashid, at age 30, moved his capital there from Baghdad in 796.

With Abbasid trade routes stretching all the way from China to North Africa, the 47-year-old empire was wealthy enough to begin to challenge the Byzantine Empire at its eastern fringes. But it was near those borders, too, that al-Rashid faced disputes among rival Arab factions. His move to Raqqa was also intended to put a lid on those quarrels. Each summer, his armies marched from the new capital at Raqqa to mount, in the name of Islam, the border campaigns that brought al-Rashid much of his fame.

Following his great victory at Heraclea, al-Rashid commissioned the building of a structure that he called Haraqlah. Its purpose has been a mystery until recently. Only two years after his victory, al-Rashid quit Raqqa for Persia, where uprisings in the eastern empire threatened its unity. Baghdad once again became the Abbasid capital, and al-Rashid died a year later, in 809.

More than a millennium was to pass before a German traveler, Ernst Sachau, became in 1856 the first Westerner to set eyes on al-Rashid's monumental structure. The first archeological survey of Haraqlah was undertaken five decades later, in 1907, by E.D. Herzfeld, who theorized that it was an unfinished fortress named after the caliph's signal victory, as several earlier Arab writers had surmised. Herzfeld reasoned that, because al-Rashid had spent only two years in Raqqa following his victory, a fortress on such a grand scale would have been impossible to complete.



Archeologist Kassem Toueir of the Syrian Antiquities Department, however, maintains that the structure is not a fortress at all, but rather a massive, and largely complete, victory platform—the only known structure of its kind in the history of Islamic architecture.

Photographed under the gaze of a 4000-year-old limestone lion, Kassem Toueir, top, supervised both the restoration of Raqqa's Abbasid-era city wall, left, and the investigation of the slab-like ruin—as large as a city block—of Haraqlah, above, all that remains of Caliph Harun al-Rashid's monumental platform.

Each summer from 1966 to 1990, Toueir excavated two sites at Raqqa: Haraqlah and a castle, its original name unknown, locally called Qasr al-Banat, or Castle of the Girls. From August to mid-October each year, Toueir made his headquarters in a mud-brick house without electricity or running water, adjacent to Haraqlah; visiting archeologists and archeology students from throughout the Middle East, Europe and North America often slept on the roof.

During his first seasons, Toueir believed the castle was a residence dating from the 12th or 13th centuries and built by the Okaylid Arabs, allies of the Seljuk Turks. In 1986, however, soundings revealed that it had been constructed on undisturbed soil at the same archeological level as Raqqa itself, and must therefore also date to the time of Caliph al-Mansur. Thus, Toueir found, the castle predates Haraqlah and offers an example of the architecture of al-Mansur's time equal in its rarity to Haraqlah itself.

Over almost three decades, Toueir's interpretations of the sites have grown with his knowledge, and Raqqa has become the pride of his career. Standing in front of the city-block-sized Haraqlah platform, he spreads his arms as if to symbolize the extent and power of the bygone Abbasid empire.

During the 12-year period that al-Rashid's court sat at Raqqa, Toueir speculated, Raqqa was one of the most culturally active places in the world, the center of the East's richest empire.

"What a center it must have been," he commented, "with architects, artisans and workers constructing the platform while al-Rashid's artists, poets and musicians entertained. It is said that the beauty the poets created for him in words, he constructed in stone.

"Raqqa is unique," he continued, because all other examples of the legendary structures built in Baghdad by al-Rashid or his grandfather al-Mansur have long ago disappeared beneath the sprawling modern city.

A small, intense man, Toueir is one of the fortunate few able to pursue a career that is also his consuming passion. In 1956, one of the top five students in all of Syria, he won a scholarship to study his favorite subject—Islamic archeology—in Berlin. He returned to Damascus in 1963 with an international outlook, perfect German and a Teutonic work ethic that made him one of the most respected scholars at the Syrian Department of Antiquities for more than three decades. He retired from his post as deputy director of antiquities in 1994 with accolades from archeologists around the world.

Toueir's investigations have illuminated not only the architectural designs but also the masonry techniques and decorative motifs that Harun al-Rashid preferred. Haraqlah is best described as a massive, flat, square structure just over three meters (10 feet) high; it had a tower of unknown height on each of its four corners. Its purpose, Toueir says, was to serve as a grand display site for ceremonies honoring the caliph's victory. No evidence of other functions has been found, and due to al-Rashid's hasty departure from Raqqa, it is unlikely that it was ever used.

"Not only is Haraqlah the only remnant of a

victory platform in Islamic architecture, but its gate rooms, built of cut gypsum stone, are unique in this region where mud brick was the norm," he said.

Several seasons into excavating, Toueir ruled out the theory that the enormous platform had been intended as the foundation of a palace. He reached this conclusion after several tons of earth were removed from inside the platform and dividing walls were discovered.

The walls were coffers, Toueir believes. "They clearly didn't demarcate rooms, because there were no windows or doors. Furthermore, the cubicles had intentionally been filled with dirt," he commented. "We believe al-Rashid's architects were aware that the pressure of so large a mass of earth would eventually buckle the outer walls. Their solution was to install dividing walls to strengthen the structure and alleviate the pressure. Al-Rashid wanted a victory monument that would withstand time, earthquakes and even inundation by the Euphrates River."

The Haraqlah platform is enclosed by a monumental circular wall half a kilometer (500 yards) in diameter with four gates, each facing one of the cardinal directions. Each gate also enclosed a differently-shaped room—circular, hexagonal, square and octagonal—which constitute another of Raqqa's mysteries. The conjunction of these shapes is only known at Raqqa and is without precedent in Islamic architecture; Toueir believes the rooms may be linked with numerological symbolism common in Old Egyptian, East Indian and pre-Islamic architecture of the Near East—but not known to be an aspect of Islamic architecture.

Qasr al-Banat, Toueir's second project, represents the Syrian Antiquities Department's first effort to follow excavation with reconstruction. Each season of excavation has brought forth colored and glazed stucco window grids, wall paintings, stone carvings and the remnants of stalactite domes. An octagonal fountain was discovered in a courtyard paved with blue-glazed tiles. Terracotta drainage pipes have been uncovered beneath floor surfaces. As a residential building, Toueir said, Qasr al-Banat is unique: "The only other existing structures of its period are mosques, hospitals and schools."

A perfectionist, Toueir decided that if the reconstruction project was to be carried out properly, the bricks used must be not only replicas of the originals, but should be manufactured using the same materials, methods and forms as those used in the eighth and ninth centuries. His team made casts of the original square bricks and constructed kilns according to Abbasid drawings and written descriptions.

Euphrates mud was mixed with sand and straw and left to dry in the molds for two or three days before firing, Toueir explained. "At first, we used diesel oil for fuel, but it didn't produce the desired texture of brick, so we increased firing temperatures by adding sawdust and sheep manure."

Toueir even shunned thermometers. Technicians peered through a window in the oven to determine when the bricks glowed to the particular hue of red that indicated "ripeness."

Bricks produced by these kilns have also been used in restoring Raqqa's eighth-century city wall and the mosque built by al-Mansur. Originally covering a square 100 meters (320 feet) on a side, the mosque is the second-largest in Syria, and plans are under way to reconstruct it as a public place of prayer nearly 750 years after its destruction by the Mongols.

Toueir's reconstruction efforts have reproduced the entire five-kilometer (3-mile) length of the wall to a height of 12 meters (38 feet). Illuminated at night, the wall is a stirring sight, especially seen from the Baghdad Gate, in the only portion of the original wall that did not require extensive restoration.

The Antiquities Department spotlighted these ambitious projects with an international archeological symposium at Raqqa in October 1981. But before the conference convened, local leaders decided that, if renowned experts were to visit their city, they must have a museum ready to display the thousands of artifacts that had been excavated over the past century.

And so, two months before the symposium was to open, a group of Raqqa citizens brought their idea to Toueir.

"I was fired by their enthusiasm," Toueir recalled. "Qasr al-Banat was planned to be used as a museum, but would not be ready in time. So I walked the streets of Raqqa looking for an appropriate building. I found a *saray* built in 1924 that was perfect." It was one of a series of administrative buildings constructed under Tajed-din Husseini, the first Syrian president to serve during the French Mandate.

"We regard the building as a symbol of Syrian nationalism," Toueir noted, "of our desire for political and architectural independence. Its porticoes and Arab arches are representative of Arab-Islamic architecture." Toueir met the same evening with the governor of Raqqa, who agreed to the proposal.

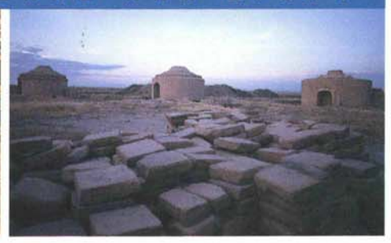
Islamic coins, carved stucco sculpture and, above all, the famous "Raqqa-ware"—prized for its black painting under turquoise luster glaze—are all on display at the temporary museum. Terracotta sculptures from Tell Mureibit and objects from other regional sites, some going back to the fourth millennium BC, will be on view at Qasr al-Banat once it is prepared to house exhibitions.

The significance of the Raqqa discoveries has also won attention for the archeological field-training school Toueir established in 1976. Teaching comes easily to Toueir, perhaps because he grew up as the oldest of 19 children. Graduate students from France, Holland, Germany, Switzerland, Lebanon, the United States and, of course, Syria have learned excavation techniques at Raqqa.

ON EXHIBIT AT THE RAQQA MUSEUM

A fragment of a calligraphic tile frieze, above, from the mosque of al-Mansur, is one of few pieces of the distinctive blue Raqqa tilework to survive the centuries. It is now at the Raqqa Museum. Pre-Islamic mosaic animals from a nearby Byzantine monastery, below, also on display, testify to Raqqa's position as a frontier city at the western edge of the Abbasid Empire.

EUPHRATES MUD WAS MIXED WITH SAND AND STRAW



But in his years at Haraqlah, Toueir has faced one problem few archeologists ever encounter. He cannot find anyone to work as a guard for Harun al-Rashid's monumental terrace. The present citizens of Raqqa insist it is haunted, and they have a modern legend to back up their claim.

The story goes that in the early 1970's a guard killed a snake at Haraqlah. The same day, an official-looking car came to his home, and its uniformed driver told the guard he must come to town for questioning. Instead of heading for town, however, the driver turned the car toward Haraqlah.

The guard was escorted into the underground chambers of the platform, he said, where a crowd rushed at him and one woman screamed, "There he is! That's the man who killed my son!" At this point, the horrified guard saw that the faces of the people surrounding him were not human but snake-like.

For three hours the guard was tried before a judge who finally acquitted him on the grounds of self-defense. He was returned in the same car to his home, where he fell unconscious for three days. He only told the story once, and never uttered another word about the incident until his untimely death.

Since then, no one has accepted guard duty at Haraqlah.

"I've taken my students there and we've slept on the ruins," Toueir says. "We didn't see so much as a night crawler—but that hasn't convinced anyone."

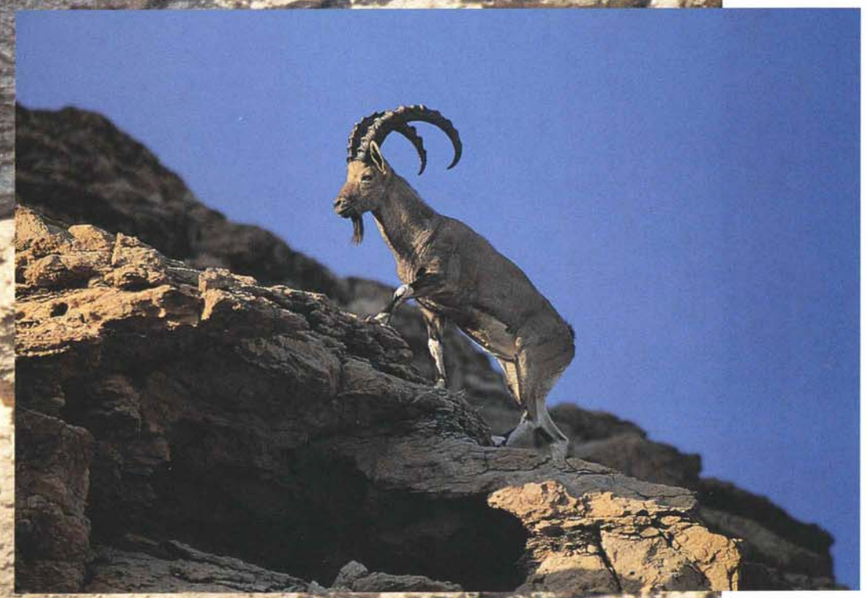
In the 13th century, Mongols destroyed all but the minaret and one of the massive walls of the eighth-century mosque of al-Mansur, top, the second-largest mosque in Syria and now the site of a government-sponsored restoration effort. Above, mud from the Euphrates is collected, smoothed into molds by hand and fired in kilns, just as it was in Abassid times, to make bricks for the restored walls of Qasr al-Banat, Haraqlah and the city of Raqqa itself.

Pat McDonnell Twair, now a free-lance writer based in Los Angeles, worked as a journalist in Syria for six years.

Lords of the Sandstone Canyons

WRITTEN AND PHOTOGRAPHED BY

KHUSHAL HABIBI



As you cross the Arabian Peninsula from east to west, the sandy plains seem to roll gently on for hours—until they are gouged abruptly by the 900-kilometer (560-mile) Tuwayq Escarpment, or Jabal Tuwayq. This intricate strip of sandstone canyon wilderness extends in a gentle *s*-shape from the fringes of the Rub' al-Khali in the south, past Riyadh, almost to the borders of Qasim Province in north-central Saudi Arabia, and it is full of surprises for the naturalist.

Once, the Nubian ibex *(Capra ibex nubiana)* made the whole length of the Tuwayq Escarpment its home. Except for habitats to the southeast, in the mountains of Oman, this marked the eastern edge of a range that stretched westward across the Red Sea to Egypt's Eastern Desert and, from there, south to the Horn of Africa. In advance of expanding ice sheets approximately 40,000 years ago, these magnificent mountain goats traveled south from regions near the Black Sea. When the ice retreated, the ibex stayed, and gradually adapted to what became, over the millennia, one of the driest climates in the world. Other subspecies of ibex today inhabit the Alps *(Capra ibex ibex)* and the Himalayas *(Capra ibex siberica)*.

Several hundred remaining Nubian ibex live in most of the mountainous regions of the Arabian Peninsula; in Saudi Arabia proper, they inhabit 'Asir, the country's southwestern province, as well as the Tuwayq Escarpment. Ibex are clearly recognizable in Neolithic rock drawings in a number of locations around Saudi Arabia.

Previous spread: The crumbling sedimentary labyrinths of the canyonlands near Hawtat Bani Tamiim afforded the Nubian ibex a precious refuge against hunters over the last 50 years. Today, the canyonlands are one of the legally protected areas of Saudi Arabia where ibex can reach their magnificent full growth in security. Inset: A Class IV male, at least nine years old and with horns nearly a meter long, surveys his domain.

In this century, however, increased livestock grazing in wadis—streambeds that are usually dry—in the Tuwayq Escarpment often left the ibex short of food. At the same time, hunters acquired automatic weapons and four-wheel-drive vehicles and came to the canyonlands seeking meat and hides. By the mid-1980's the Nubian ibex was reduced to isolated populations of less than 100 animals each. It faced elimination from the Arabian Peninsula.

One of the largest of 15 known surviving groups of ibex found refuge near Hawtat Bani Tamiim, where sheer walls and labyrinthine canyons hindered human penetration. Here, villagers had long maintained an informal, partial ibex sanctuary by prohibiting livestock grazing—except for camels—in the central canyons.

In 1988, Saudi Arabia's National Commission for Wildlife Conservation and Development (NCWCD) declared the 2400-square-kilometer (927-square-mile) area a special ibex reserve, based largely on surveys my colleagues and I had conducted. It is now the second-largest of several protected areas for ibex in Saudi Arabia, and more are being planned.

We first entered the ibex habitat in November of 1987, in the time of year when the daytime temperatures are mild and the nights are cool. We quickly found that the animals were so wary of humans that it was almost impossible to catch sight of them. For three days we stopped along the rims of canyons, scurried up to the edges of weathered slopes and scanned the wadi beds with binoculars, all without spotting anything more than droppings and tracks.

On the fourth day, the mid-afternoon sun had filled the canyon with dazzling brightness. Scanning the slopes, I saw what first looked like a small rock moving. Then I could tell it was the tip of a long, curved, knobbed horn: Our team's commotion had stirred a male—easily distinguished from the females by the great size of his horns—that had been waiting out the day's heat under a ledge. When he stood, he barely fit the narrow crevice he had chosen. At once he nimbly ascended the steep wall toward the escarpment and, within seconds, disappeared.

We were happy our effort had at last paid off. The sighting, along with the numerous tracks we had seen, strengthened my conviction that there was indeed a viable population in these mysterious canyons that was worth national effort to conserve.

Two years passed before I was able to see the ibex again, despite regular field trips to the area and the services of an NCWCD ranger who knew every bend in the maze of canyons. The ibex, with their cryptic coloration and keen senses of smell and hearing, were superb at concealing themselves. Toward the end of 1990, two years after the hunting ban went into effect, a few females began to return to the wadis that formerly had been the sites of hunters' ambushes.

About this time I also realized that searching for ibex by traveling within the protected area was not going to permit the observation I sought: I had to let the ibex come to me. The confluence of two major canyons known as Ghaba and Ghafar is wide and filled with acacia and other browse that ibex enjoy. It seemed the ideal spot to wait. I regularly went there at dusk, and waited until morning with hopes that ibex would come to feed.

Two weeks passed. One January morning when the sun had not yet hit the canyon walls, I heard the sound of sliding rocks. I sat still, anxious, not daring to stir inside the car lest I scare the animals that I could not yet see. I first saw a shape beyond a large boulder, and a moment later it was clearly a female ibex, followed by a kid less than a year old. Then two males came into view, another juvenile and a few more females and other young. I had hardly expected to see more than a dozen of these wonderful animals! At about 70 meters' distance (230 feet), they did not seem to be disturbed by my vehicle.

The males stood by the boulders for a while and then started clashing their horns, mock-fighting. One of the male juveniles stood nearby and watched the rivals attentively. The females, in the meantime, began feeding on the vegetation in the wadi bed. Later, the males joined them.

Moving as little as possible, I began to take photographs. But when I had to change the film, one of the ibex saw me stir and gave a shrill hiss, a sound whose meaning I knew all too well from other field studies. The others immediately raised their heads and looked in my direction; at a second hiss, the whole group took flight, scurrying toward the slope, up and out of view.

I was stunned by this first major encounter, which led to three more years of intensive study. I had not expected to be able to make close observations for a number of years, because nearly five decades of hunting had made the ibex extremely shy of humans. The young animals in this endangered population, I realized with my ranger guide, might be the first generation in 50 years to grow up without hearing rifle shots.

The frequency with which I could observe the animals gradually improved. Within a year there were instances when I was able to make day-long observations. As I started learning about their activity patterns and movements, I adjusted my own timing to favor the early-morning hours when the ibex were most frequently active. Then, the wadi beds were deserted and camels had not started their feeding rounds.

Research at Bani Hawtat Tamiim has shown the ibex to be most active around dawn and dusk, feeding when temperatures are lowest and the water content of their forage is highest. Here, a group of females and kids prepares to take flight.

Shorter, less knobby horns and a lighter build mark the female Nubian ibex, and make her distinctly more nimble than the male. Black-and-white markings on the legs distinguish the Nubian ibex from other subspecies.

In late September, I found that the cooling of the nights brings about a change among the males. Large males that spent the summer months in the higher drainages started to appear in the lower wadi beds. They are almost twice as large as the females, and their massive knobbed, scimitar-curved horns—some more than a meter long—make them look like lords of the sandstone pinnacles. They are muscular and stocky, with thick necks, long goatees and a dark coat. They hold their tails stiffly over their backs, and the gray hair on the mane remains erect throughout the rutting season.

It is these older males that are most successful in breeding the females. They dominate the younger males with a mere threat of their horns or a brief rush at a rival that is enough to deter a challenger, or, sometimes, make him leave the area entirely. Thus most conflicts are settled without physical contact.

Actual fights arise only when rivals of relatively equal strength meet, or if one male seriously challenges the dominance status of the other. Such fights can be prolonged; we watched one that lasted nearly two hours. In the beginning, the rivals clashed by rearing up and then striking head-to-head with full force. Fortunately, both the horns and the skull of the ibex have pneumations, voids which can absorb the blow and prevent injury to the head. Injuries do occur, however, when the horns slip. In one instance, a male started bleeding profusely from the forehead when he was struck between the horns. As the blood trickled over his muzzle, he continued to fight for another half-hour.

Most times, however, about a quarter-hour of initial clashing led to what appeared to be a shoving and pushing contest. The combatants maintained horn contact and tried to push each other off balance. This often went on for half an hour or so, after which horn clashes were often repeated, followed by more shoving and pushing. This continued until one male was hurt or became so tired he was unable to continue.

The hierarchical system of dominance appears to start among males at about one year of age. That is when males separate from the female groups and form bachelor groups. Here, young males frequently play-fight with each other: Once I saw a pair do this on top of a huge boulder for three hours, as if they were playing "king of the mountain." Juvenile females do not engage in such activities.

After the mating season, large males segregate from the female groups in which they do their courting. Juveniles of the previous year continue to follow their mothers, but with the advancement of pregnancy the females begin making it more difficult for the kids to follow, sometimes charging them. Juvenile males of eight to nine months, only slightly smaller than the adult females, challenge the females at this time, causing bouts of clashing.

When their time comes, the females retreat to the heads of the canyons, where the terrain is so steep that no other animal can enter the area. Here they give birth and stay with their young for three to four weeks.

One April morning I escorted a colleague who had studied the ibex of the Alps to these wadi heads, where I suspected that—with luck—we might find a female. We came to the head of Wadi Ghafar in the central part of the reserve, where the side canyons are impossibly steep and narrow, and the place has the kind of lonely feeling about it that a female ibex, I imagined, might find comfortable. When we had almost given up our search, my colleague saw something stir half a kilometer (500 yards) away: a female with her twins. She had chosen a sunny spot nestled under a ledge. Minutes later she got up and the kids started suckling. It was one of the brightest moments in my fieldwork, almost a symbol of the success of the protection effort that has raised the Nubian ibex population in the reserve from only a few dozen to today's estimate of more than 300.

When only a few weeks old, juveniles are capable of following their mothers, but I noticed that they cannot jump more than a meter. At times this forces them to seek alternate paths in order to keep up with their mothers, who will wait for them to catch up when necessary.

Soon the young are as sure-footed as adults, however, and can traverse what appear to be sheer cliffs without difficulty. Females and juveniles are more agile than adult males, which can weigh up to 100 kilograms (220 pounds) and which often have more difficulty negotiating some of the steep paths. Panting and puffing, the males lag behind when a group flees. As if they were aware of the implications of their limitations, males never lead groups in flight: That leadership belongs to the females.

The young born in late March and April benefit from the new growth of grasses and herbs brought on by the winter rains. Although the wadi beds are dry throughout the year, even a few centimeters of rain can cause flooding in the canyons, which relieves the plants and brings the annuals to bloom. One January while I was observing a group, it began to rain, and the ibex began racing up and down the scree slope, apparently very excited. Since most ibex habitats in Saudi Arabia receive between 33 and 108 millimeters of rain a year (1⅓ to 4¼ inches), excitement would be understandable.

The young grow quickly, and it is not uncommon to see them mock-fighting, rushing at each other and gamboling fearlessly on the walls of the canyons, occasionally in apparent defiance of gravity. When they slip, they are sometimes able to turn in mid-air to land on their feet.

They are inquisitive. One curious juvenile once investigated a fox that was hiding behind a rock. When only a meter separated them, the fox decided not to challenge the kid and scrambled away.

I have also seen a male juvenile play with the spherical, melon-like fruit of the herb *Citrullus colocynthis*, which is a delicacy to the ibex. He picked up the tennis-ball-sized fruit in his mouth, dropped it and then rolled it about with his horns. Eventually he ate it. These "desert melons"—*shary* or *hanzal* in Arabic—are eaten only by ibex and gazelles: They make camels and cattle sick, and have a laxative, ultimately poisonous effect on humans. Ibex similarly consume the leaves of the shrub *Calotropis procera*, whose free-flowing milky latex contains a glycoside, calotropin, that in some tropical countries is used to make arrow poison. Bedouin call the plant *'ushar*, and preferred charcoal made from its wood for manufacturing gunpowder.

With the help of local people who have observed the hunting ban and supported the stationing of rangers—most of them born in the area—the Nubian ibex at Hawtat Bani Tamiim seem to have regained their ancient foothold in the Tuwayq Escarpment. The first years of protection appear to demonstrate that, once the threats to their population are reduced, the lords of the sandstone canyons can propagate easily and abundantly.

Dr. Khushal Habibi was educated at Kabul and Michigan State universities, and worked as a consultant with the NCWCD. His book The Desert Ibex *was published in the UK by Immel.*

A full-grown male Nubian ibex can weigh up to 100 kilos, and his horns can reach a full meter in length. Below, a young female browses on acacia, one of the more than two dozen varieties of grasses, herbs, shrubs and trees that supply much of the moisture the ibex require.

Playing in Interesting Times

Written by Susan T. Rivers

Photographed by Chad Evans Wyatt

Ali Jihad Racy was five years old, at his mother's knee, when he fell in love with music. "She played the violin. She used to help me put my fingers on the right spots." A smile rounds his square face. It was from those gentle first lessons that Racy set off on his continuing exploration of traditional Arab music.

Now, the 51-year-old University of California ethnomusicologist is regarded as one of the world's top experts on Arab music, credited with the preservation of centuries-old regional traditions. More than that, he is a composer and musician in his own right. His performances on the *'ud, buzuq* and *nay* throughout the United States and the Arab world have introduced traditional Arab music both to western audiences and to a new generation of Arabs.

The list of Racy's achievements suggests a high-energy personality: advanced degrees in musicology from the University of Illinois; hundreds of performances, including at New York's Carnegie Hall and the Kennedy Center in Washington, D.C.; compositions for films and television, including the 10-part British series *The Arabs*; and countless articles on Arab music.

Yet just hours before a recent performance in New York, Racy, gray-haired and stocky, is serene.

A collection of end-blown reed flutes, or nays, *spills onto a tabletop while Ali Jihad Racy practices his three professions: performer, composer and ethnomusicologist.*

Wearing a muted sport coat, tie, and a crisp ivory shirt, he looks as if he belongs on campus in Los Angeles, rather than on stage.

He talks about his childhood in south Lebanon, where his mother and two uncles were violinists. "In my village there were many musicians. And my father, Salam al-Rasi, was a storyteller, and he had enormous influence on me," he recalls. His father was also a folklorist, author of 10 books on folk literature, much of it collected locally. With his two brothers, Racy performed on Lebanese television and radio for several years.

War dispersed his family to England, the Arabian Peninsula, and the United States. "When I play in the Middle East now, a lot of older musicians who come to listen see that I am preserving traditional music that they feel is endangered in their own countries." Racy's voice is matter-of-fact. "But I also see a lot of the musical tradition still thriving, and younger generations of Arabs, all over the world, do appreciate their musical heritage."

Racy matured as a musician in Beirut, where one of the most valuable lessons he learned, he says, was how, during a concert, improvisation flows from the relationships among the performers. Just as important, he adds, is the rapport between musicians and audience. In Arab concerts, he

explains, listeners participate with delighted cries and exclamatory gestures, creating a sort of dialogue, or even communion. "In our tradition, these music connoisseurs were called *sammi'ah*. Without such individuals to respond, an Arab-music concert loses its soul," Racy says.

His doctoral dissertation looked at the impact of the recording industry on the musical life of turn-of-the-century Cairo, a time when the recording of Arab music began to alter what had been largely an unwritten tradition. "A lot of musical traditions stay alive without musical notation—some, in fact, *despite* notation," Racy smiles. "Ironically, traditions that have notation seem to have changed more than those that are oral."

Racy plays a buzuq, *or long-necked lute, in a practice session with fellow musician Simon Shaheen. On the table are goblet drums* (tablah) *and tambourines.*

A few years ago Racy and his wife, Barbara, a dance ethnologist, clinical psychologist and photographer, recorded music and folkloric traditions in Qatar and the United Arab Emirates, at the invitation of the Arab Gulf States Folklore Center in Doha. His work included research into a traditional healing ritual that uses music and dance.

That led Racy to his current examination of the ways music is used to create and sustain altered states of consciousness, or ecstasy. For the last few years, he has been at work on a book about the art of *tarab*, which deals with the emotional effect of music.

Racy's subdued manner becomes animated when he turns to his instruments. He cradles them like children. Rising from his seat, he lifts his honey-colored *buzuq* off the bed and clasps it to his heart. His strong fingers hover over the instrument's taut steel strings and, as he strums, the rich sound fills the room. Resonant chords hang for a timeless moment before they fade.

"I perform two particular music traditions," Racy says. "One is the rural folk music I learned as a child—poetry singing and folk instruments played at weddings. And the other is the urban music one finds in the eastern Arab world."

In composition and performance, Racy also enjoys fusing the traditional Arab sound with other musical traditions through concerts and recordings with groups from diverse traditions. Recently, the distinguished Kronos Quartet, a Grammy-winning experimental ensemble, premiered Racy's "Zaman Suite," which he wrote specifically for Kronos based on the ageless traditions he knows so well.

"It's amazing how these world blends are bringing vitality to the music scene," Racy says. "I have never recorded with such a variety of musicians—jazz artists, rock groups!—as I have in the last few years."

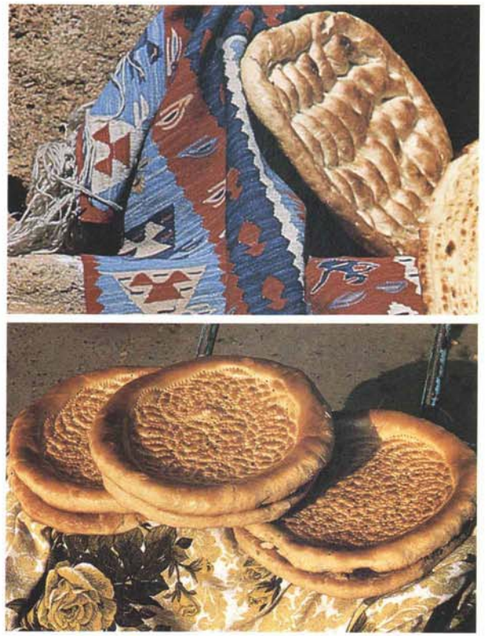
All this cross-pollination indicates to Racy a broadening of American musical taste. "We're living in a very interesting and lively time for all music," he says.

Hours later, night has fallen and a run-down church off Washington Square is filling with aficionados who have come to hear Racy perform with Simon Shaheen and Mansour Ajami, both also noted Arab musicians. Taking the stage, Racy sheds his sedate professorial air like an old skin; he even appears taller, more imposing, as if he has expanded physically. No longer shy and mild-mannered, Racy the performer radiates, captivating his audience and sweeping it with him on his musical journey. It is a journey he began a long time before this night, and which he will continue long after we have all gone home.

Susan T. Rivers is the publisher of Maghreb Report, *a newsletter about North Africa. She wishes to thank Mansour Ajami for his assistance with this article.*

"I have never recorded with such a variety of musicians—jazz artists, rock groups!—as I have in the last few years."

ON THE FLATBREAD TRAIL



Armenian flatbreads, photographed near Lake Van, Turkey (top), and stamped, nigella-seeded flatbreads on a market barrow in Azerbaijan (lower), are among hundreds of delicious varieties. At right, a round of whole-wheat dough, carefully prepared at home, slides into a neighborhood baker's oven in Casablanca.

IMAGINE YOURSELF ALIVE SIX, EIGHT, ten thousand years ago, living in the Fertile Crescent along the Tigris or the Euphrates rivers, growing a patch of barley or wheat, and having to live on what you grow. Imagine that you have just harvested a bountiful crop of grain, and it has been dried, threshed, and winnowed. Now what do you do?

If you have ever run your fingers through a big bin of barley or wheat berries or kernels of rye, you know the pleasure of feeling all that grain trickle through your fingers, and of the fresh grain smell which tickles the inside of your nose. You also know how hard the grain is: You can bite into it, but just barely. To soften it to edibility you could boil it, but that will take a long time and require a lot of fuel. The obvious solution is to pound it, break it down, and transform the hard grain into flour.

Now comes the fun part, now you're cooking. To flour you can add water and make porridge, or stir a batter or make a dough and bake flatbreads. What are flatbreads? Well, to us in North America the best-known flatbread is pizza; pita—or pocket bread or Arab bread—is sold in most supermarkets, and Indian and Mexican restaurants have introduced us to *nan* and tortillas. But there are many more: *chapatti* in India, *k'sra* in Morocco, *lahmajun* in Turkey and West Asia, *flatbrød* in Scandinavia, bannock in Scotland and Canada.... The world is full of flatbreads. You can find them in Afghan or Iranian or Ethiopian restaurants from Seattle to Riyadh to Melbourne—and you can see, smell and taste them in thousands of towns and villages in a region stretching from North Africa through central and southern Asia.

Most flatbreads begin with a harvest of

LOWER: BRYNN BRUUN; OPPOSITE: THE PHOTOGRAPHIC AYE

An Uzbek baker sitting atop his tandoor oven in Ferghana (left inset) fans both himself and the fire as round loaves bake stuck to the oven wall. In the same position on a similar oven in Tibet, a Muslim Uighur baker from China's Xinjiang Province hooks a finished flat loaf out of the oven with a wire tool (center inset). In northeastern Kyrgyzstan (right inset), a woman produces flat, concave loaves by placing the dough between two domed metal griddles, with fire both under and atop the bread. Above, grandfather, father and son thresh wheat on a hilltop near Manakhah; the bullock drags a heavy stone threshing sled. In Taroudant, Morocco (right inset), a woman bakes at home in a concave griddle atop a portable hearth.

grain, whether it be wheat, barley, rye, corn, sorghum, millet, buckwheat, oats, or teff. They can also be made from tubers such as potatoes and manioc, or legumes such as chickpeas and lentils. Flatbreads can be unleavened, leavened with yeast or soda, or raised with a natural (sourdough) leavening. The earliest breads must have been unleavened, but the discovery of natural leavenings and sourdoughs probably didn't take long. Without leavening, flatbreads cook better if they're made very thin, but with the help of a leavening they can be made anywhere from one to five centimeters (½-2") thick.

Many flatbreads are made and eaten today just as they were several thousand years ago; they are among the world's oldest prepared foods. Traditional breads such as Persian *sangak*, Armenian *lavash* and Bedouin *fatir* have survived because they represent workable, healthful, and tasty solutions to the problem of how to turn hard grain into edible food. The variety of wheat or barley may have changed, but the method of preparation is still very much the same.

The earliest method of cooking flatbreads probably involved spreading a dough or a batter over a very hot rock, then peeling the bread off the rock when it had finished cooking—a method still used by the Bedouin in parts of Jordan, as well as by the Hopi in the southwestern United States.

One step past cooking batter on a hot stone is cooking a flattened piece of dough on a heated griddle, a quick and fuel-efficient method still widely used. There are many variants on the griddle-on-a-fire theme: In northern India and in Pakistan, *chapatti* and *roti* are quickly rolled out and cooked on a *tava*, a flat metal plate, placed over a fire. Kurds, Bedouin, Qashqai, and many other groups, both nomadic and settled, bake flatbreads on a *sajj*, a round metal griddle shaped like a shallow dome and very portable. Its convex shape allows larger-diameter flatbreads to cook over a relatively small fire.

Another low-tech nomadic flatbread technique, probably of ancient origin, is used by Bedouin of the Sinai and in southern Tunisia and Algeria; they bake unleavened flatbreads by burying them in the hot sand and embers beneath a fire. They need no utensils, not even a sajj, to make this ideal desert-travel food.

Oven-baked flatbreads most likely came into existence fairly early. Instead of cooking the bread on a rock or griddle which had been heated in or over a fire, the bread could be baked in a "room" made of rock or clay which had been preheated with fire. Simple wood-fired ovens made of locally available materials are still the most practical flatbread-baking tool for many people. In some, the bread is laid on the preheated oven floor, while in *tandoor*-style ovens, bread is baked up on the oven's inner walls, above the fire.

A tandoor may be a clay-lined hole in the ground, such as the *taboona* of Tunisia and the *tanoor* of the Kurds, or a large free-standing dome of bricks and clay, or even a small portable ceramic cylinder like the Moroccan *kanoon*. Whatever the design, the tandoor baking technique is the same: A fire is built in the bottom to preheat the oven, then dough is moistened, and pressed or slapped onto the hot oven walls to bake.

LEFT INSET: BRYNN BRUIJN; RIGHT INSET: ERGUN ÇAĞATAY

FOR THE PAST EIGHT YEARS WE have been traveling in search of flatbreads, working on a cookbook. We've been listening to stories, learning recipes, adapting old recipes in our kitchen in Toronto, talking with anthropologists and ethnoarcheologists, scouring old cookbooks, and eating and baking stack after stack of flatbreads. We even planted a wheat crop in our front yard. (It failed.) Our search has taken us to many corners of the Islamic world, from Yemen and Morocco to western China, from Syria, Turkey and Azerbaijan to Pakistan and Malaysia.

Our flatbread project began with a bicycle trip. In the summer of 1986 we set out to ride our mountain bikes from the old oasis town of Kashgar, in China's Xinjiang Province, up through the Pamir and Karakoram Mountains to the Hunza Valley of northern Pakistan (See *Aramco World*, January-February 1983, July-August 1988). The rough dirt road that we were following, misleadingly named the Karakoram Highway, had just been completed after 17 years of work and considerable loss of life. It was built along part of one of the old Silk Roads, up through the rugged region where four of the world's highest mountain ranges converge: the Pamir, Karakoram, Kun Lun, and Hindu Kush.

In one month on our bicycles we would encounter a heavy snowfall in July, a frightening sand storm, yaks and camels grazing the same pastures, a 4900-meter (16,000') mountain pass, rock slides, a 300-meter (1000') sand dune adjacent to an enormous glacier, yurts, nomads, eight different local languages, incredible evening skies—and a world of delicious flatbreads!

Kashgar, to begin with, was a flatbread paradise. For sale on every street corner and in every tiny eatery there was a choice of three different types. For the Uighur people who live in Kashgar and the other oases that rim the Taklamakan Desert, flatbreads are a part of every meal. The breads are leavened rounds 15 to 20 centimeters across (6-8"), with a puffed rim and a center that's been stamped flat before baking and often sprinkled lightly with cumin seed or salt. They are baked in large vertical tandoor ovens. Each round is laid on a baker's pillow—a padded, convex cloth-surfaced wooden disk—then slapped onto the preheated inside wall of the oven. It bakes for only a few minutes, then is lifted out,

A FLATBREAD GLOSSARY

aysh baladi: Term for common "country bread" in Egypt.

bannock: Originally a Scottish flatbread, usually of oatmeal and lard, baked on a "girdle," or iron plate, suspended over an open fire. The name was brought to northern Canada by early explorers and traders of Scottish origin, so it has become the name of the common flat soda bread made in northern Canada; berries or bits of fish or game may be cooked into the bread.

chapatti: Hindi word for common unleavened flatbread made of finely ground, whole-wheat durum flour, called *atta* flour, and cooked in a dry skillet. Found throughout northern India, Nepal and Pakistan's Punjab.

chorek: Nan-type, tandoor-baked flatbread in Turkmenistan.

durtlik: Turkoman word for a bread-stamp, usually studded with nails and with a wooden handle; used to stamp the central area of flatbread before baking. The result is a chewy, flat center and a soft, risen rim. The pattern of the stamp sometimes identifies the baker.

fatir: An unleavened Bedouin bread, traditionally made from barley flour, though now wheat flour is more available and more widely used. Baked on a sajj.

flatbrød: A crisp, thin, cracker-like bread from Norway, traditionally round and baked on a *takke*, a large iron griddle. Often made of a blend of oat, barley, and rye flours. Modern industrial versions, which generally include wheat flour, are usually long, narrow rectangles.

injera: Ethiopian soured-batter bread, traditionally made from teff flour and cooked on a large clay griddle 35 to 45 centimeters (14-18") across, like a Mexican *comal*. Ethiopian communities abroad commonly use wheat flour, sometimes blended with barley flour, to make their injera, and cook it in an electric skillet. The bread is used as an eating surface, like a medieval European trencher, as well as an eating implement, to wrap and pick up bites of food.

kimochdun: Festive bread from Hunza in northern Pakistan; a leavened wheat-flour flatbread often containing milk and almonds.

khubz makouk: "Mountain bread": A thin large bread from the mountains of Lebanon; baked on a sajj. Very like lavash and the Indian bread *roti rumeli*.

khubz: Also pronounced "khubbiz" or "khoubs"; means "bread" in Arabic.

k'sra: The common word for "bread" in Morocco.

(*continued on next spread* ►)

This farmer's armful of oats and wheat may be made into the flatbread that he and his family will eat tomorrow. Inset, left: A woman turns her face away from flying chaff as she winnows millet in Rajasthan, India.

HINA N EGYPT TURKEY SYRIA AZERBAIJAN TUNISIA MOROCCO **AFGHANISTAN CHINA PAKISTAN UZBEKISTAN TAJ**

MAIN PHOTO: HAROLD SEQUEIRA

chewy, golden, and sustaining. In the dry desert air, the breads dry out quickly, but as is the custom all across Central Asia, they are immediately brought back to life when dunked or broken into big bowls of steaming-hot black tea.

Leaving Kashgar, riding across the desert and heading up into the sparsely populated mountain region near the border, the only food that we knew we could count on finding was what we could carry on our bicycles. We'd brought with us a month's supply of freeze-dried, precooked brown rice. We also had dried chilis, hot mustard powder and garlic flakes to vary the rice, but ours was at best a simple diet.

Five or six days into our ride, having left the desert behind, we began meeting the Tajik and Kyrgyz people who call the Pamir Mountains home (See *Aramco World*, July-August 1995). To survive in this mountainous, arid landscape, most people keep small herds of goats and sheep, together with yaks and camels, and live nomadically or semi-nomadically. The animals supply milk that is turned into yogurt and cheese; their meat and wool are traded for wheat—wheat to make flatbreads.

"How many breads do you eat in one day?" we asked a Tajik man, as we sat with his family, drinking tea.

"One person, one day, one kilo," was the reply.

As we got higher up into the mountains, and human habitation became ever sparser, we came upon several groups of tandoor ovens standing all alone in the landscape. Surrounded by a ring of rocks used to anchor a family's yurt, these "hearths" are used seasonally when the herds are brought up to graze in the high mountain grasslands. A yurt is put up around the tandoor, a fire is made to heat the oven, bread is put in to bake, and the family is once again "home."

Whenever a nomad group saw us passing, they would invite us in for tea, yogurt and flatbreads. We'd sit with the extended family around the hearth, talking in gestures and rudimentary Mandarin. When it was time to go, our hosts would hand us a stack of breads for the road. At night we would sit outside our own tent, dunking bread into hot tea and wondering if Marco Polo had eaten similar flatbreads when he passed this way, seven centuries ago.

The gift of food, of bread, is something special; like the smell of baking, flatbread came to mean hearth and home to us, and generous hospitality. In Northern Pakistan we feasted on roti with a Wahki family in the village of Khaibar, and on *kimochdun* in a small lodge in Passu. In Karimabad we ate, and learned how to make, Hunza's

lahmajun: Also *lahmajeen, lahma bi ajun;* "bread with meat": Flatbread topped with minced lamb, chopped onions and spices found in many varieties throughout the eastern Mediterranean and West Asia.

millet: A grain used for bread-making in northern India; the birdseed variety commonly found in North America is not suitable for bread.

nan: Also pronounced "naan," "non," "nane"; means "bread" in much of Central Asia. Most often a tandoor-baked leavened flatbread with a flattened stamped center, or lines of ripples. Sometimes flavored with a sprinkling of nigella, or cumin, or salt. May contain milk or yogurt or lamb-fat.

nane casoki: Unleavened Kurdish flatbread made from bulgur and grated onions.

nigella: The small black polyhedral seed of *Nigella sativa*, used as flavoring for bread from India to Central Asia to Algeria. Also known as *kalonji* in Hindi, and (incorrectly) as black onion seed.

peel: A long-handled, usually wooden, paddle used by bakers in many parts of the world to transfer breads in and out of hot ovens. Probably from the French word *pelle*, meaning "spade."

pitti: Flatbread from Hunza, traditionally baked in a skillet or clay dish with hot coals under it and piled on top, Dutch-oven style. Usually made from sprouted wheat.

roti: The word for bread in Pakistan, parts of northern India, and the Caribbean. Usually refers to chapatti-style bread cooked in a hot skillet in a little oil.

sajj: Known in Kurdish as *selle*; a dome-shaped metal cooking surface placed over a fire and used for baking large, thin flatbreads. Used by Kurds, Qashqai, Bedouin and Armenians, and in parts of Syria, Turkey, Jordan, Lebanon and Palestine.

sangak: A very old flatbread from Persia, usually 45 centimeters long (18"), or more. Baked on pebbles in an oven, giving it a rough-textured surface.

sorghum: A grain related to millet. Widely grown in agriculturally marginal areas, from China to Yemen to Turkmenistan, because it can survive with little water and in extreme heat.

tamees: A leavened wheat flatbread from Bukhara, about one centimeter thick, that has become naturalized in Saudi Arabia in the last hundred years.

tandoor: Also known as "tanoor," "tandir," and so on; an oven common throughout Central Asia and also in northern India, the Caucasus, and North Africa; usually barrel-shaped or domed, with a top or side opening. Fire is built in the bottom; modern tandoors are heated from the bottom with a gas flame. Breads are baked on the oven's inside walls.

teff: A very small millet-like grain grown in the highlands of Ethiopia that produces a grayish-brown flour. Now also being cultivated in the western United States. Used to make injera.

remarkable *pitti* bread, made with sprouted wheat berries and eaten with apricot preserves. "Flatbread immersion" is how we think of our travels now in retrospect. European-style loaf breads have never had the same appeal since.

FLATBREADS HAVE NO RESPECT for political boundaries. Now embarked on the flatbread trail, Naomi traveled to Uzbekistan, Tajikistan, and Turkmenistan, three Central Asian republics that were at the time still parts of the Soviet Union. The *chai khana*s, or tea shops, in old Samarkand, just like those in Kashgar, were pleasantly busy throughout the day as unhurried pairs and trios of men sat on wooden cots, sipping from great bowls of tea and chewing thoughtfully on pieces of flatbread torn from the stack beside them.

Like the Uighur breads we knew from Kashgar, the *nan* she found for sale in the markets of Samarkand and Tashkent were tandoor-baked. Some were 20 centimeters (8") across with a soft rim, the center stamped flat with a nail-studded stamp called a *nan par* or *chekich*; these were home-baked, tender with yogurt or lamb-fat, and brought to the market in wooden wheelbarrows by the women who'd made them. The women stood in rows in the market, heads kerchiefed, handing stacks of bread to eager customers. Other nan, bakery breads, were more elaborately decorated. Some were sprinkled with savory nigella seed; others had a dusting of sesame or poppy seeds. Everyone, it seemed, had their favorite style and felt free to invent new and subtle variations on the nan theme.

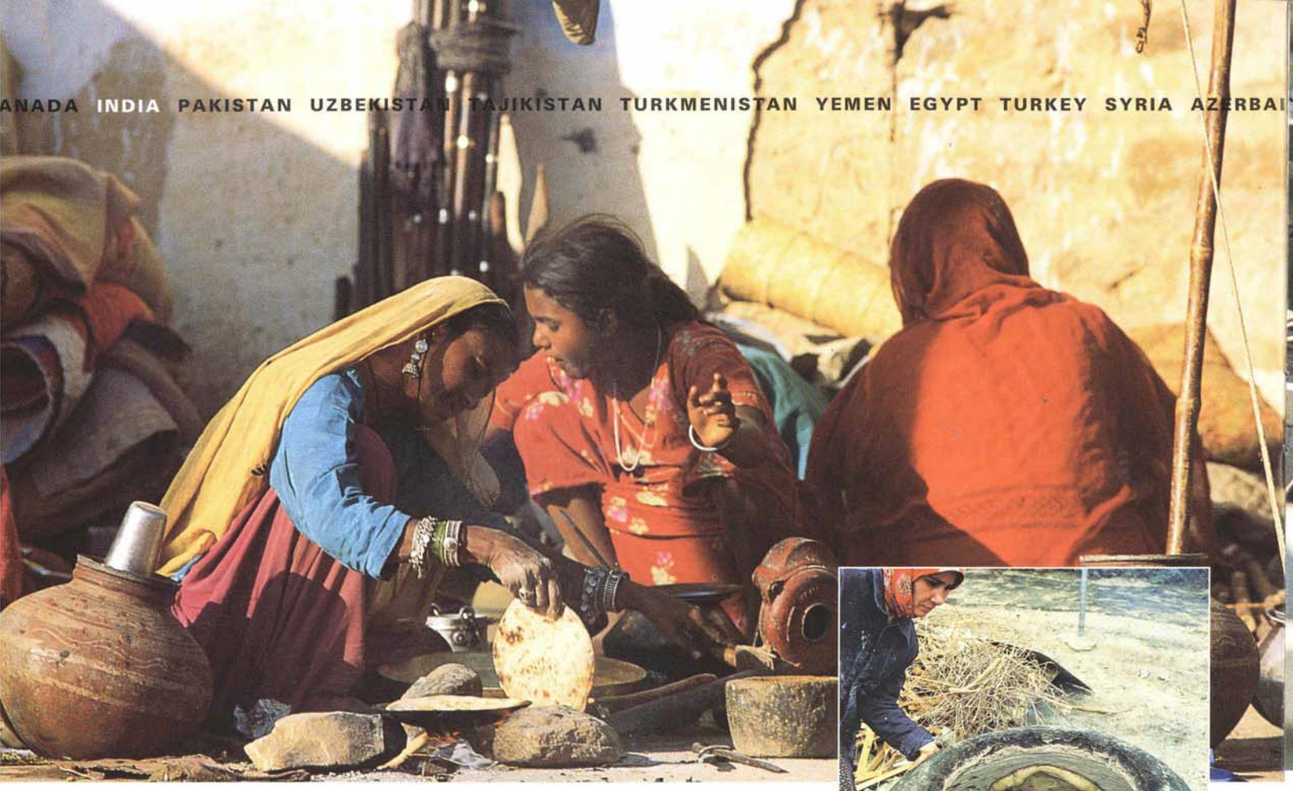
In Turkmenistan, where nan is more commonly called *chorek*, the breads are more than 30 centimeters (12") across, made from soured dough, and often topped with a sprinkling of chopped lamb-fat to help keep them fresh. These big tandoor-baked breads occasionally have milk in the dough, giving the bread a tender crumb, and are stamped at the center with the end of a dowel or with a bread stamp, similar to the Uzbek one, known as a *durtlik* in Turkoman.

The tradition of very thin, large flatbreads, like the lavash of Armenia and Iran, is alive and well in Turkmenistan, where lavash-style breads are folded over a mixture of herbs and greens and called *cheburek*. In neighboring Tajikistan, thin homemade flatbreads called *chaputti* are still made in some villages, though they have become hard to find in the city.

In our travels in Central Asia we became accustomed to the ease with which home and professional bakers baked their breads in tandoor ovens. Yet in Ashkabad, near the edge of the oasis, Naomi caught a glimpse of just how difficult tandoor baking could be. A young Turkoman woman was heating her oven outside the family home; she got a big blaze going, shooting flames out the opening at the top of the oven, then let it die down. Her mother-in-law brought out the breads—large rolled-out chorek—and stamped the center of each with a durtlik. The young woman slapped the rounds against the heated oven wall, looking anxious. And she was right: She hadn't preheated the oven sufficiently, and in a few minutes the breads began to sag on the oven wall. The mother-

MAIN PHOTO: ERGUN ÇAĞATAY; LEFT AND RIGHT INSETS: BRYNN BRUUN

Assembling lunch in the Osh market, a woman hands a loaf of flatbread bought from another vendor to a shish-kebab seller to fold around a skewerful of grilled meat. *"Chorek"* reads the Cyrillic-letter sign in a bread shop in Baku (left inset); trays overflowing with flatbreads are sufficient advertisment in Tashkent (center). A buyer in Samarkand (right inset) walks home with a stack of loaves.



A hand-cranked mechanical mill to grind the wheat, a jar of water for the dough, and a metal skillet over a small fire are the tools three Rajasthani women need to bake *chapattis* for their families. Inset: Her hand on the oven's outside wall confirms the tale the sagging *chorek* inside tells a Turkmen daughter-in-law: not enough preheating! Opposite page: Flatbreads and tea make much of a meal for three friends at a *chai khana* in Samarkand. In central Tunisia (left inset), careful hands brush sand and ash from a loaf baked beneath the campfire. Pounding parboiled wheat with wooden mallets (center inset), Kurds make *bulgur* in eastern Turkey. A Moroccan Berber woman (right inset) bakes sourdough flatbread on a bed of pebbles in an adobe oven.

in-law stalked back into the house in disapproval; the young woman bowed her head, hiding tears.

FOR MOST PEOPLE WHO EAT flatbreads every day, they are a staff of life. For a villager in northern Pakistan, a town-dweller in Uzbekistan, a Tajik herder in the Pamirs, a day without flatbreads is unthinkable. Flatbreads are a part of every meal, day after day, year after year. While this might sound monotonous to anyone who has grown up shopping in giant supermarkets and choosing daily from a vast array of different foods, to the many people who have grown up depending on them, flatbreads have a meaning and an importance in their lives that has nothing to do with monotony.

The more time we spent around people for whom flatbreads are the staff of life, the more we began to understand the unique relationship these people have to the food they eat. We began to appreciate finer distinctions between different kinds of breads and flours and methods of preparation. Behind every bread we tasted, we came to realize, there were at least half a dozen others we would never taste, and probably never even be told about. And we realized that, unlike the culture in which we grew up, in flatbread cultures most people have a very clear idea of where the food they eat each day comes from, of how it is grown or raised, how it is prepared and cooked. Many times, when we asked people how to make a certain local bread, they couldn't believe that we didn't already know. How could anyone *not* know how to make nan, or roti, or pitti!

SO ONWARD WE WENT, FROM Central Asia to West Asia; to Yemen, Egypt, and Syria; to the Kurdish areas of eastern Turkey, to Azerbaijan, and to Tunisia and Morocco. Sometimes we were looking for a specific bread or breads that we had read about or been told about, but most often we'd simply arrive, find the cheapest accommodation possible, and start sniffing around.

Luckily there is no snob factor to flatbreads, no element of haute cuisine or expensive restaurants—just the opposite. On my first morning in Cairo a taxi driver stopped me on the street, asking where I was going. When I told him that I was heading to the Khan el-Khalili *suq*, looking for flatbreads, he suggested that that might be a waste of time. For the next five days, morning till night, we ended up tracking down breads together: to the Nile delta for cornbreads made in beehive-shaped mud ovens; to El Fayyum to see an old-style oven and grain mill; to a Cairo suburb to photograph a beautiful old bakery turning out *aysh baladi* by the thousands. We searched and searched for a flatbread said to be baked by the heat of the sun, but never found it: "Farther south," we were always told. And yet another bread eluded us in Egypt, one baked beneath the desert sand—a bread which Naomi would learn to make in Tunisia a few years later.

Flying into Yemen, I sat next to a man who gave me a list of six different breads to look for while in his country—and he was being modest. From the sorghum breads in the highlands, to the paper-thin breads served in fish restaurants, to the *injera*-like *lahooh* made in the Tihama region along the Red Sea coast, the flatbreads of Yemen, like the country's incredible architecture, were a mirror of each local environment. Just as in Central Asia, fresh, delicious breads would arrive in the market by the wheelbarrowful, coming from villages where sorghum grew two meters tall on ancient stone terraces. Also for sale were small ready-made clay tandoor ovens.

One autumn day in a small shop in Diyarbakır, in southeastern Turkey, I sat with three Kurdish men as they told me in great detail about every flatbread they had ever eaten, which was a great many. Almost all could be divided into two categories: *nane tandore* were breads baked in a tandoor oven, and *nane selle* were breads cooked on top of a sajj—called a *selle* in Kurdish—over an open fire. The tandoor ovens, unlike those in Central Asia, were made of red clay and built into the ground rather than on top of it.

The three men described breads stuffed with cheese and cooked on the selle, breads baked paper thin and left to dry out, breads made from barley, breads covered heavily in sesame seeds, breads and more breads. At one point they launched into a description of a flatbread they called *nane casoki*: "There is a bread we make from *bulgur* [cracked wheat]; we mix it with finely chopped onion. It is so good. It's the best!" They all agreed, but they needn't have told me so: The look in their eyes had said it all.

In a mountain oasis village in southern Morocco, Madame Mamane, a Berber widow with grown children, taught us how to bake flatbread on hot pebbles. A dome-shaped oven made of bricks and clay stood in the courtyard of her house. Through the opening at the front we could see a thick layer of pebbles on a raised part of the oven floor. Beside the stones a wood fire burned fiercely. Madame Mamane used a wet peel to lay flattened circles of very moist dough on the bed of hot pebbles. When each round was done to a golden sheen, she gave it a sharp slap to dislodge any stones, then added it to the stack of finished breads.

The breads were made from a blend of wheat and barley flour milled from grain grown in the oasis. They were full of flavor, soft, dense, and wonderfully bumpy and irregular. We ate them with yogurt and sweet, hot mint tea. With us were our two children, Dominic and Tashi, then aged four and one. They ate a little bread, but they were far more interested in the village children with whom they'd been playing while we'd been helping with the bread. So they kept on playing, and we kept on eating and baking. All the while the late afternoon light cast a warm glow across the courtyard—another wonderful day on the flatbread trail.

Jeffrey Alford and Naomi Duguid are the authors of Flatbreads and Flavors, *published this year by William Morrow. They operate the Asia Access photo agency.*

MAIN PHOTO: BRYNN BRUUN

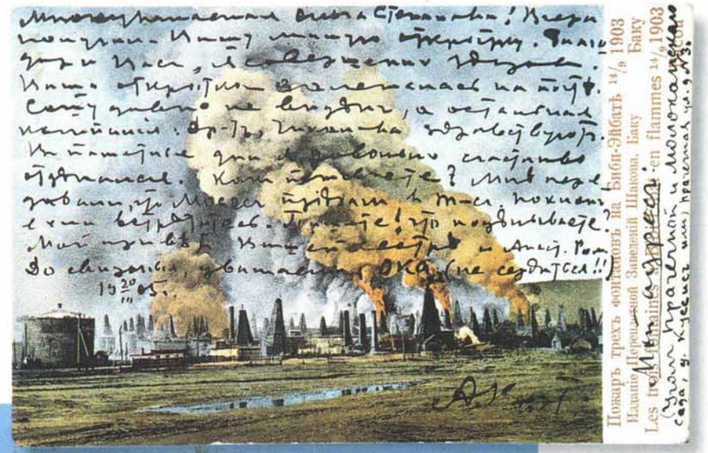
The Land of the Naphtha Fountain

WRITTEN BY ZAYN BILKADI ILLUSTRATED BY BOB LAPSLEY

Ancient Oil Industries

Part 3

Previous spread: Before pipelines were developed in this century, oil reached the cities of the Levant, Persia and Central Asia from the western shore of the Caspian Sea by camel caravan, horse-drawn *arba*, and ship. By the time this postcard, right, was mailed from Baku in 1903, the region supplied half the world's oil, and it was here that the Nobel Brothers Petroleum Company modernized refining principles that had been developed a millennium earlier in the Arab world.



Пожаръ трехъ фонтановъ на Биби-Эйбатъ 14/9 1903
Incendie Des trois fontaines à Bibi-Eibath 14/9 1903
Les trois fontaines Bibi-Eibath en flammes 14/9 1903
Баку

Near the edge of the Caspian Sea's best natural harbor stands the walled inner city of Baku, site of the 14th- and 15th-century palace complex of the Shirvan Shahs, who ruled a territory that is now part of central Azerbaijan.

Since the collapse of the Soviet Union in 1991, the undeveloped or underdeveloped oil resources of the new nations that were formerly Soviet republics have been much in the news. But that news is in fact very old. The existence of rich oil resources in the region from the western slopes of the Caspian Sea basin to the mountains of Afghanistan has been known for millennia.

The ancient Greeks and Romans could not help but notice on their travels the spectacular "eternal fires" that dotted the landscape all the way from Baku, in present-day Azerbaijan, to Persia and Turkmenia. Legend has it that one of the servants of Alexander the Great accidently struck oil while trying to pitch a tent for his master in Turkmenia. According to the Roman historian Pliny the Elder, Alexander the Great observed burning natural oil wells in Bactria, which comprised today's northern Afghanistan and parts of Uzbekistan and Tajikistan (See *Aramco World*, May-June 1994).

The land from northwestern Iran to Azerbaijan was known in ancient times as Media, where the most numerous "eternal fires," or burning oil seeps, probably inspired Zoroastrianism, the religion of the Persians that dates from roughly 600 BC. "The Pillars of Fire" near Baku became a center of worship and pilgrimage. The title of Zoroastrian priests was *athravan*, or "keeper of the fire." Even the word *Azerbaijan* itself is rooted in the ancient Persian *aderbadagan*, "garden of fire."

Neither Romans nor Persians, however, left us records of the trade in oil that must have existed in the region in ancient times. Such records were only written centuries later by the Arabs, who conquered the Caucasus within only 26 years of the death of the Prophet Muhammad in 632 and who, by 751, had become masters of Bukhara, Samarkand, Tashkent and Kashgar. The newly Muslim lands then included all the world's known, major oil-producing regions outside China. Sargis Tmogveli, a Georgian scholar, quotes on that high point of caliphal power:

> Thou art master of Eran and T'huran;
> From China to Qirwan,
> All is thine and under thy command.

In the Caucasus, the city of Tiflis—now Tblisi, the capital of Georgia—grew into a center of trade between the Muslim state and northern Europe. Gold and silver coins have been found in the city that date to the ninth century and were minted in Baghdad, Muhammadiyyah (in Armenia), Kufa, Basra, Aran and Balkh, as well as in Africa and India. In addition, according to the Arab geographer al-Maqdisi, Georgia had become an important exporter of naphtha and bitumen to Baghdad. Beyond that, the region was also strategically important to the caliphate: It was a buffer province facing northern Byzantium.

As the Abbasid Caliphate weakened after the destruction of Baghdad in 813 by troops armed with incendiary grenades (See *Aramco World*, January-February 1995), a secessionist movement coalesced on the empire's northwestern fringes.

In 843, the Arab amir of Georgia, Ishaq ibn Isma'il, withheld his annual payment of tribute to Baghdad, and declared his independence from the caliph. To quell the rebellion, Caliph al-Mutawakkil dispatched a punitive expedition led by a Turk named Bugha al-Kabir al-Sharabi. From northern Iraq, Bugha crossed Armenia and marched directly on Tiflis, which by then had a population of approximately 50,000. On his arrival on a hill overlooking the city, Bugha was apparently surprised to find that the houses were built of wood—unlike most cities of the Middle East. Taking a soldier's advantage of his observation, he warned Tiflis to surrender or risk a fire the like of which "exists only in hell." When the rebels refused, Bugha ordered his *naffatun*, or naphtha troops, to burn the city.

So complete was the resulting destruction that it had political effects, ending the city's chances of becoming the capital of an Islamic state in the Caucasus. At such a distance from Baghdad, the Abbasids chose not to rebuild the city extensively, and as a result their influence in the region waned.

The traveling merchant from the Venetian Republic, Marco Polo, was the only writer of that early era to leave us a description of where the oil fields of Georgia might have been. On his way back from China around 1291 he traveled north from Mosul, in Iraq, into Armenia, to a port city on the Black Sea. Speaking of one of the wonders he encountered there he wrote,

> To the north [of Armenia] lies Georgia, near the confines of which there is a fountain of oil which discharges so great a quantity as to furnish loads for many camels. The use made of it is not for the purpose of food, but as an unguent for the cure of cutaneous distempers in men and cattle, as well as other complaints, and it is also good for burning. In the surrounding country no other [oil] is used in their lamps, and people come from distant parts to procure it.

Bugha, centuries earlier, may have been one of those who stopped by this gusher to supply himself with naphtha for his incendiary campaign against Tiflis. Even today, Georgia has an important oil field that fits Marco's description perfectly: The Patara-Mirzaani field, almost across the border from Azerbaijan and not very far from the present border with Armenia. Its wells were in fact drilled near ancient oil "fountains," which leads us to think that one of them may well be the one that Marco Polo—and al-Maqdisi—were referring to.

Nevertheless, scholars in the past have often misinterpreted Marco Polo's words as a reference to the gusher of Baku, whose volume and notoriety outstripped any other in ancient times. In fact, if there was as an oil-boom town in the Middle Ages, Baku, today the capital of the Republic of Azerbaijan, was it. Built on the Apsheron Peninsula on the Caspian Sea, and set against the fertile slopes of the Caucasus Mountains to the west, Baku, with its forests and lush, flowering gardens, should have been a haven for poets and romantics. But since the time of Alexander the Great, the city has been known for its fiery wells and coveted for its abundant oil.

As early as 642, the Arabs made an attempt on Azerbaijan under the command of al-Mughira ibn Shu'ba, who served Caliph 'Umar as governor of Kufa. The region remained under loose Arab rule until the end of the ninth century, with allegiance first to the central government of the Umayyad Dynasty in Damascus and then to the Abbasids in Baghdad. To help him fund the construction of Baghdad, the new capital of the Muslim world, Caliph al-Mansur imposed a special "naphtha tax" on Baku; the middle of the eighth century thus marked the first appearance of a state tax on petroleum—a levy with which we are all still familiar today.

Baku's oil and the extraordinary sight of its "eternal fires" caught the eyes of many Arab geographers, chief among them al-Mas'udi, born in

The governments of both the former Soviet Union and Azerbaijan have preserved the palace complex, which Baku residents call simply "Shirvan Shah," as a tourist site and museum.

AZERBAIJAN INTERNATIONAL (3)

Baghdad in the 10th century. No one in his time or before had written more about oil than he did. He invented the word *atam* to describe a burning well, and he observed oil wells in Sicily, Oman, the Hadramawt in today's Yemen, Iraq, Persia, Turkmenistan, Tashkent, India and on the island of Sumatra. In Baku, however, al-Mas'udi was so astonished by the amount of oil produced that he called the region *bilad al-naffata*, "the land of the naphtha fountain." He spent much time exploring and measuring the Caspian Sea as well as studying the people who lived on its shores. Baku, he wrote,

> is a naphtha fountain in the Kingdom of Shirwan, beyond the Golden Hordes, from which white naphtha is obtained. There are also burning wells whereby fire emerges from the ground. Across from the naphtha fountain of Baku are islands which contain such firewells. These are visible at night from considerable distances.

In the Middle Ages, Baku probably counted only 10,000 to 15,000 inhabitants, most of whom, in one way or another, made their living from the extraction of oil or oil shale and the transport of oil by ship, cart or barrel-laden camel. Because of its excellent harbor, Baku served as the principal export center for both oil and oil shale from Central Asia to the markets of Persia, the Middle East and perhaps, via the Volga River, even parts of Europe. Al-Mas'udi gives a hint of this tanker traffic:

> On the shores of the Caspian Sea are [towns]...busy with shipping to and from the city of Amol and the mouth of the Volga River. All of [them] trade heavily with Baku, which is especially famous for the shipping of the mineral white naphtha.

Some two centuries later, another geographer, Yaqut al-Hamawi, recorded the financial value of Baku's resource. In *The Book of All Lands*, he noted that Baku had two great oil fields, one produced oil "the color of mercury" and the other a darker grade. He recorded the value of the output from the two fields as 2000 silver dirhams a day—equivalent to roughly 800 grams (28 ounces) of gold, or four million dollars a year at today's prices. Such an enormous sum was enough to qualify Baku as one of the wealthiest cities in the Muslim realm.

To the east, across the Caspian from Baku, lay the vast expanse of Central Asia to Tashkent, known as Shash to the Muslims of the Middle Ages. Conquered by the Arab Ziyad ibn Salih in 751, Tashkent became the largest and most important city on Islam's eastern flank, a distinction that it retains even today as the capital of the Uzbek Republic, with a population of more than 1.5 million. To the Arabs, Tashkent was famed for its fruits and gardens, watered by the Chirchik River, a tributary of the great Syr Darya. South of the city, however, lay a mountain called Asbara—now Isfara—that was renowned for its many oil fountains and vast reserves of shale. "In this area," wrote the scholar al-Qazwini in the 13th century,

> there is a mountain whose rocks are black and burn like charcoal. They are sold by the load at a price of one or two loads per dirham. When this rock burns, it produces an intensely white ash useful in whitening clothes.

East of the southern end of the Caspian, where travelers and historians had long noted burning oil seeps in the landscape, the army of Alexander the Great passed through Bactria. Alexander, who routinely sent interesting natural specimens and objects back to his tutor, Aristotle, is likely to have had samples collected, like many before him.

To the early Muslims, Central Asia—and especially the eastern mountains of today's Tajikistan—was also the source of an extraordinary soft rock that could be torn apart into fibers, much like certain kinds of cheese. For centuries before the arrival of the Arabs, the Central Asians had woven these fibers into blankets and scarves that they called "salamander skins," after a widespread legend, originally perhaps from northern China, about a snow-white dragon, called a salamander, that lived high in the mountains and could endure fire without the slightest harm. The Persian king Yezdjerid I is said to have had a handkerchief cut from the skin of this mythical animal; he dazzled friends and foes alike by throwing it into the fire until it glowed red, and then retrieving it not only unburned but clean and without stains.

In the days of Harun al-Rashid, at the height of Abbasid power, the Arabs fashioned this coveted asbestos into fireproof uniforms and padding for the naphtha troops and their horses. They called the substance *hajar al-fatila* or "wick-stone" because, as one writer from Damascus put it, "it is made into indestructible wicks for lanterns, for although the oil burns off, the wicks themselves remain intact."

The Fire Temple near Baku channeled a natural gas seepage into four stone chimney-like pipes to provide Zoroastrian pilgrims with an awe-inspiring place of worship. The original temple was destroyed in 625 by the Roman emperor Heraclius, and the date of the present structure is uncertain, although Sanskrit inscriptions provide evidence that Parsees from India, co-religionists of Zoroastrians, may have assisted in its construction.

Central Asia, and soon Baku and most of the Middle East, fell to the Mongol invasions of the 12th century. Although in 1509, following a period of renaissance in Persia, Baku became a Persian possession called the Baku Khanate, the influence of Russia began to grow in the region after the Mongol devastations.

This too was not entirely new. Al-Mas'udi had written of the frequent wars between the Muslims of the Caspian and the tribes of the Volga, whom he called "the Rus." In one early 10th-century account, these Rus—who were very likely the Scandinavian Vikings who founded Moscow—sailed down the Volga and, striking a deal with the Khazar tribes at the mouth of the river, entered the Caspian Sea for the first time. At once their 500-ship navy commenced devastating raids on the Muslim coastal towns.

In the early 1920's, the newly formed USSR chose the famous gushers of Baku for its first stamp on a petroleum theme, which featured both Cyrillic and Arabic script.

The Muslims, wrote al-Mas'udi, were taken by surprise: They had never been attacked from the sea before. The governor of Azerbaijan, Ali ibn Haitham, gathered an army to pursue the enemy to the uninhabited islands that faced Baku—the ones with the "pillars of fire." After a protracted war at sea and on land, the Rus were forced to retreat to the mouth of the Volga, where the remnants of their forces were destroyed. "The Rus," wrote al-Mas'udi, "never ventured onto the Caspian again."

It was Peter the Great who, in the 18th century, appears to have been the first European monarch to interest himself in oil, and to foresee the enormous economic potential of petroleum. In 1723, he gave orders to Matushkin, one of his generals, to take Baku. Peter wrote, "Of white naphtha send one thousand poods [16,000 kilos or 36,000 pounds], or as much as possible, and find there a refining master."

What is interesting about this request is not so much the size of the shipment but that, first, the czar used the Arabic term "white naphtha," and second that he needed a refining master to accompany the petroleum—an indication that Russia had no refining masters of its own, and needed the technology of Muslim Caucasia. That this interest on the part of the czar is documented more than 135 years before the first oil well in the Western world was drilled is further evidence of the critical importance of Baku in the transfer of oil technology from East to West.

In 1735, the year Empress Anna of Russia restored Baku to Persian rule, an obscure British scientist named Lerche visited the oil fields and recorded his observations. Much of what he described coincided with what the Arabs had reported more than eight centuries earlier. The Englishman toured two large oil fields. The first, about 14 kilometers (nine miles) north of town, was known as the "Balakhani-Sabunchi-Romany" field, named after the three partners who operated it. About five kilometers (three miles) south of town was a slightly smaller field called Bibi-Eybat. About the former, Lerche wrote that it yielded a crude oil that, when distilled, turned into a bright yellow oil "resembling a spirit," which "readily ignited." He counted 52 productive wells in this field alone, which, he said were a great source of wealth for the ruling khan, who owned the wells but leased them to private contractors for a high fee.

Such lease-back arrangements were not new. Cleopatra VII had leased the Dead Sea oil fisheries back to the Nabataeans in 36 BC (See *Aramco World*, July-August 1994), and in Baku itself, in an exhausted petroleum pit, a stone bearing an Arabic inscription has been found that states that the pit had been worked in the year 1597, and gives the name of the operator who leased it.

Lerche described how the collected oil was first stored in deep, stone-lined ponds and then carted to Baku in large leather bags. "The oil", he said, "is used in all houses as fuel, which is why all houses are blackened by the dense smoke." Most residents purchased crude oil for lighting, he wrote, while others made use of it in their trades: Leather workers especially prized it in the oiling of horse saddles and trappings; cart makers could not do without it as a lubricant, since their alternative was the far more costly whale oil; herbalists used it in the treatment of rheumatism, skin diseases and kidney stones; and veterinarians made it into a dip to combat parasites and skin diseases in cattle and other farm animals.

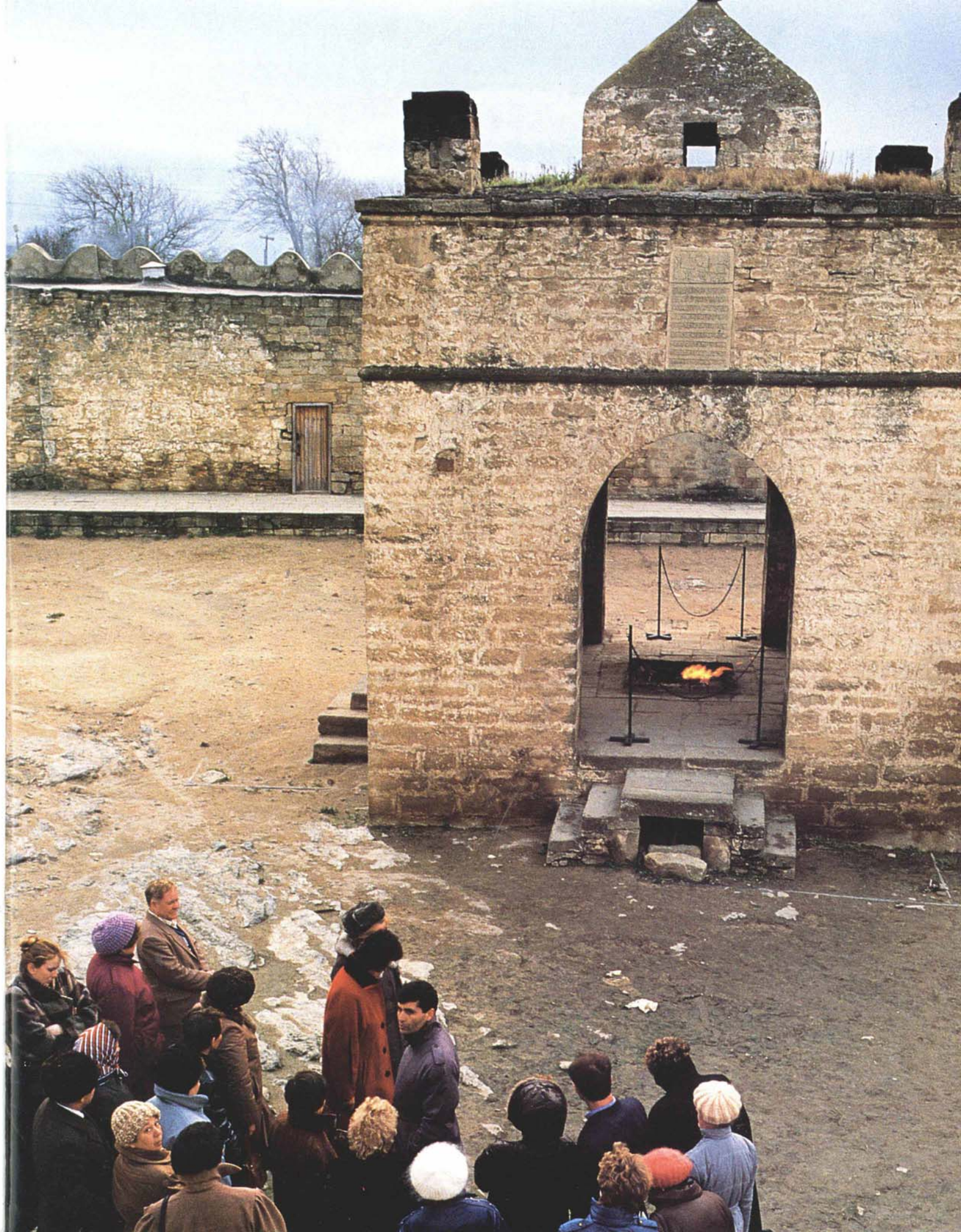
Lerche estimated the combined output of the two fields he visited to be in the neighborhood of 3500 tons annually—on the order of 80 or 90 barrels a day. This is modest production by today's standards, but more than half of it was surplus to Baku's own needs, and thus exportable. It was shipped southward by sea or by camel caravan to Persia, or on special Volga River barges to the northern side of the Caucasus Mountains.

By 1813, however, Persia's hold on Baku had begun to weaken again. After a period of antagonism with Russia, Persia consented to the so-called Gulistan Treaty, under which the Baku Khanate was officially ceded back to the czar, and only Russia was permitted a navy on the Caspian. Inside the khanate, however, Muslim opposition to Russia continued unabated; it came to a head in 1834 when Shaykh Shamil, a local spiritual leader, took to the mountains with his supporters and fought the Russians fiercely for 25 years.

But Russia could not contemplate losing Baku: The first oil well in North America was drilled in 1858, and it became clear to the czar that Baku was Russia's best hope for countering a potential North American monopoly on oil. Shamil was captured and killed, and by 1864 the last local rebellions were crushed.

This freed Russia's military forces to further consolidate the czar's power in the oil-rich regions east and south of the Caspian—where Peter the Great had made his presence felt a century and a half before—all the way to Tajikistan. By 1873 the Uzbek Khanate of Kokand, including the Turkmen nomads and the cities of Kiva and Bukhara, were subdued. By 1884 all of Tajikistan was taken. That completed Russia's conquest of the Central Asian portion of what was to become the Soviet Union, whose purposes the oil of the Caucasus and Central Asia would serve until the present decade.

Dr. Zayn Bilkadi was born in Tunisia and studied at the American University of Beirut, the University of Rochester and the University of California at Berkeley. He is a senior research specialist at 3M Corporation, and holder of nine patents. Previous installments of this series appeared in Aramco World*'s issues of July-August 1994 and January-February 1995.*



Now a tourist site 25 kilometers (16 miles) outside modern Baku, the Fire Temple (opposite) still taps the same natural gas seep that has fed it for centuries.

HUGO VARGAS/PETROLEUM PHILATELIC SOCIETY; OPPOSITE: BRYNN BRUUN

Family Affairs:

Weddings in Egypt

And the King gave the signal for the beginning of the wedding festivities and bade decorate the city. The kettle-drums beat and the tables were spread with meats of all kinds and there came performers who paraded their tricks...and dancing-men of wondrous movements...and it was a clamorous festival and a right merry.

Alf Layla wa Layla

(*The Thousand and One Nights*, TRANSLATED BY RICHARD BURTON)

Turning away from one life and preparing to enter another, a bejeweled bride makes ready for her family's wedding ceremonies rooted in the traditions of Upper Egypt.

WRITTEN BY PATTI JONES MORGAN
PHOTOGRAPHED BY CHERYL HATCH

Weddings in Egypt are always exuberant family affairs. Whether the couple is of modest means or wealthy, city- or country-bred, Egyptian wedding parties are resplendent with enough food, music, performance and ceremony to create what is always a spectacular and "right merry" social event. For most people, time-honored customs and symbols are essential to the celebration.

The casual visitor to downtown Cairo can often see the most public part of a wedding late on a Thursday evening. A garlanded automobile, escorted by a honking entourage of cars driven by family and friends, weaves through the city streets, perhaps with a stop on a Nile bridge for photographs, and finally arrives outside the family home or reception hall.

The couple is met with exultant rhythms from trumpets, drums and tambourines. The beat of traditional wedding songs—sometimes at very high volume—is punctuated by joyful, trilling ululations from the women, the famous *zaghareet*. *Al-farah*, the wedding celebration, is on.

A crowd of family and friends of all ages envelops the couple for *al-zaffah*, the slow procession, accompanied by music, into the reception room. In Upper Egypt, some rural families still retain the old tradition in which a couple's new furniture is paraded through the village on horse- or donkey-drawn carts en route to the couple's new home. In all places, though, the processions, dancing, noise and merriment ensure that everyone knows that there will be a new family in the community.

But many other aspects of weddings in Egypt are less obvious. Typically, the participation of family and friends is an obligation: A wedding invitation is virtually a command. "It is a commitment," says Mohammed Taha, a Cairene. "Other duties must be put aside, and put aside willingly. It is not just financial support, gifts and food: It is a sharing. I will not go and complain that I'm tired and wish I were sleeping, or that I have shopping to do. No! If you are there it is with every cell in your body, and everybody feels that spirit."

Until modern times, and especially among rural and nomadic peoples, wedding celebrations were often lengthy affairs. Now, though preparations can consume much of the weeks before, most celebrations last only several days. During the preparation period the new home is readied, relatives are received, food is prepared and gifts are given.

For some families...

laylat al-hinna,

the henna party,
is still an
important custom.

Her palms and fingertips hennaed, a bride-to-be has her feet banded with the dyestuff by her female friends and relatives.

For some families—especially those whose roots are in Upper Egypt—*laylat al-hinna*, the henna party, is still an important custom. On the evening before the wedding, the bride is joined by her sisters, cousins and close friends—all female. Powdered henna is mixed with water or tea into a paste and, with a toothpick, a syringe or even stencils, is applied to her feet and hands in elaborate designs. Henna is believed to be good for the skin, but the beautiful patterns, often so dense as to look like brick-red crocheted gloves or socks, are intended to bring good luck in the bride's new life. The henna paste can be removed once it dries, but the henna stain remains for weeks; it is thus city couples, who find its appearance inappropriate to office or school settings, who tend to abandon this tradition.

But for Samir, a 29-year-old clerk in an industrial company, and his bride Sanaa, 20, the customs of her family's home town of Aswan meant that both had *laylat al-hinna* parties the night before their wedding. Sanaa's sister and girlfriends set five large candles in the bowl of henna paste in accordance with the old saying *"khamsa wa khumaysah,"* which translates and expands roughly to "five fingers poked in the evil [envying] eye." Late in the evening the women walked in procession around Sanaa's apartment building, carrying the henna with the candles. Only then did they decorate her hands and feet.

Samir's mother insisted that he and his friends use henna, too. In *pro forma* obedience to this wish, Samir lightly touched henna to his hands and feet at his pre-wedding celebration, held with male relatives and friends.

Averting the "evil" or envying eye is important at any time when something new or beautiful or desirable might evoke envy in someone's heart. If a healthy baby, a happy home, or even a new printing press needs protection against the bad luck that envy can bring, a happy and beautiful bride is especially vulnerable. The tradition of showering a couple with gold coins during *al-zaffah* serves the purpose of drawing guests' eyes away from the bride—even though play money, rose petals and chocolate "coins" made of gold foil are most commonly used for this purpose today.

One groom's mother explained her concern that envy and other forms of ill will can result in inexplicable bad luck. "At a wedding you may feel that too many people were commenting, admiring her dress, for example. Then, suddenly, for no reason at all, you find her dress catches on a nail and tears. Or a big bouquet of flowers falls on her dress and spoils it. You immediately get that feeling, 'Ah, someone has been looking at it too long.' This is the envy!" she laughs.

Samir and Sanaa's wedding also reflected a conservative style by offering separate celebrations for men and women before the arrival of *al-zaffah*. As evening fell, a portion of the narrow alley between the apartment buildings was closed off with colorful, red-patterned tenting (See *Aramco World*, November-December 1986) and strung with colored light bulbs. Musicians sat along one side and male guests filtered in to sit in the small wooden chairs that lined the enclosure. A member of the wedding party poured tiny cups of coffee, prepared down the street over an open fire. While the musicians filled the night with traditional Middle Eastern strains, the men took turns dancing.

Later, Arabian horses dressed in studded saddles and silver bridles arrived to highlight the men's evening. The horses are trained as foals to "dance" by lifting their forelegs in high, prancing steps and swinging their hindquarters in time to the music, all based on foot-commands of their riders. Disciplined in their deft steps and movements, the magnificent mares drew nervous gasps and laughs whenever their riders—deliberately, for fun—brought them a little too close to the guests. In between acts and songs, the call of a tip collector ensured small donations of appreciation from the guests.

Near the enclosure, women in colorful ankle-length dresses, some wearing Bedouin-style mask veils decked with coins, eagerly awaited the couple's arrival. A feast was being prepared in a neighbor's kitchen, where more than a dozen women cooked meter-wide pots of meat, rice, macaroni, and eggplant over propane burners. Salad, fried pastries (*balah al-sham*) and honey-drenched *kunafah* completed the wedding meal. Outside, a crowd of excited children from the surrounding buildings ran about; some mischievously tossed pebbles at the men's enclosure in an effort to get the guests' attention.

Less than an hour before midnight, the women announced the couple's arrival with high-pitched ululation. Music swelled as bride and groom slowly made their way to the *kushah*, the flower-decked stage set with two chairs from which the pair would greet their guests. Here, customarily, the new bride accepts *nuqtah*, a gift of money that is slipped discreetly into a purse she carries with her. The bride's single girlfriends—not averse to this moment of visibility to potential suitors—may also pinch her knee for good luck in their own hopes to be the next to marry.

Sanaa's family had also brought to her new home a year's supply of clothes: This would, according to tradition, keep her from burdening her new family. For Sanaa, the wardrobe included some 20 home dresses, 10 outside dresses, six robes, 10 nightdresses and eight bolts of cloth. And in accordance with a tradition called *hallat al-ittifaq*, or the cooking-pot agreement, Sanaa's family had prepared four stuffed pigeons for the couple's wedding-night meal.

Al-farah,

the wedding
celebration, is on.

Above and upper left, the bride and groom dance, and are danced for, at their wedding party. For some, lavish wedding parties have become a status symbol, and can cost as much as $30,000. Above right, the wedding document was signed and witnessed earlier in the legally binding ceremony.

Sanaa explained that the next morning, she would wear a cheerful red robe, and family members would visit later, bringing cookies, peanuts, sugar, vegetables and other foods, all symbolic provisions for her new home. The food gifts are called *aashyan*, which derives from the verb "to live." On the seventh day of marriage, there would be a second visit with more supplies, customarily cheese, butter, and bread.

Sanaa was educated through the sixth grade and, coming from a conservative rural family, she has lived out certain Islamic social norms which are common throughout the country. Like most Egyptian women—including those who are college-educated or working in city offices—Sanaa had not spent any time alone with a marriageable man before her engagement. "This would be against our religion and our traditions," said a Cairene lady who teaches foreigners about Egyptian culture. "But [young men and women] can be together in groups at a club or a sports event."

Custom still favors arranged marriages. The process usually begins when the prospective groom asks his mother to look for a suitable young woman to be his wife. Arrangements are then made with that woman's family to make an appointment to meet her father or guardian for the formal proposal. Should this meeting lead to initial acceptance, the suitor than reveals his finances, the sum he will spend on the dowry and the nature of the jewelry he will give his bride-to-be. If the two families agree, they seal their understanding by reading together *al-Fatihah*, the first chapter of the Qur'an, and setting an engagement date.

With the agreement secured, traditionally the man must build, buy or at least rent a house or—in the city—an apartment; electrical appliances are also his responsibility. The bride-to-be and her family customarily buy the furniture and other household items.

An engagement party is a festive warm-up for the wedding itself, and here some couples exchange rings that they will wear on their right hands until the wedding, when each will switch the ring to the left hand. The ensuing engagement period allows not only the couple but also the families to find out as much as they can about one another; it's important that both families share the same social class and have similar educational and cultural backgrounds. "It's not simply a matter of the couple themselves wanting to be together," said an Egyptian mother. "After all, we don't just add one person to our family. We add another whole family—parents, sisters, brothers. We have very strong ties. It is a family thing."

...the traditional wedding beat of drums...sounded as al-zaffah

began its slow progress toward the reception room.

The marriage document, signed after the engagement, legalizes the marriage. In it, the groom details his financial commitments, and it is here that the bride's family must declare in writing whether she is marrying for the first time, or has been married before. A false statement in this matter is grounds for immediate divorce, if the groom wishes. The document is signed by the groom, the bride, her father or guardian and two witnesses, customarily in a mosque or a family member's home, under the aegis of a *shaykh*, or religious leader.

Though her personal consent to the marriage is essential, the bride's father customarily stands in for his daughter at this ceremony. "It is a way for her to show her appreciation and respect for her father," said another mother. "She can never, out of her love for him, deprive him of that privilege."

Following Egyptian tradition, the groom and the bride's father clasp hands and press their thumbs together. The *shaykh* covers their hands with a clean, white handkerchief. Reviewing the document, and reading a passage from the Qur'an, he confirms the commitment of the parties. Then the handkerchief is removed by the *shaykh*—or it may be whisked away by a single man for good luck in his own marriage plans.

Legally, the couple are now husband and wife, but traditionally they do not live together until after the wedding party for family and friends. Depending on their circumstances—especially the ability of the husband to find a house or flat—this may be the same evening or more than a year in the future. So after a small party to celebrate the contract, the new husband and wife may go out for the evening, each returning to the respective family home afterward.

Muslim and Christian families in Egypt share similar values when it comes to marriage. Among Egypt's Christian Copts, family approval is equally essential for marriage, and the efforts and financial help of many are necessary to launch a couple into married life.

In a tradition common to both East and West (above), bride and groom symbolically feed each other at al-farah. *A generous buffet dinner feeds the guests (below left). Below right, bride and groom are blessed at a Coptic wedding.*

For Emad, an aircraft-maintenance engineer, and Ghada, both Copts, a four-year engagement had hardly prepared them for her father's initial denial of his permission to marry. Emad had been offered a job overseas, and the couple had decided that they would marry, he would leave and, when he was financially able, Emad would send for Ghada to join him. Ghada's father disapproved of the plan, however, and stated his preference that Emad do what husbands are supposed to do: Find a home and set it up before the wedding. Dismayed, the couple prayed and fasted for three days, hoping that Ghada's father might change his mind. He did.

Thus the wedding preparations had to be accomplished in only 10 days—an unusually brief time, especially in Egypt. But the frantic pace seemed only to add to the festivity as the family organized workparties to make several hundred bonbonnières. These small dishes, filled with Jordan almonds set around a chocolate truffle, are often given to wedding guests at both Christian and Muslim weddings; each is wrapped in cellophane or white tulle tied with a ribbon or a pink satin rose.

Emad and Ghada's wedding began with an hour-long evening ceremony in a church decked with greenery. Family members distributed the bonbonnières and women ululated the joy of the occasion. Afterward, the couple celebrated with family and friends at a garden reception, secure in their families' love and support as they began their married life together.

Weddings based on more urban traditions still follow many of the same patterns. Osama, a medical-school graduate, and his fiancée Heba signed their marriage document while he was serving in the military, and they waited six months for their wedding party, which they held in an officers' club. Marrying after sunset in accordance with local custom, and on Thursday, the day that precedes the weekend in Egypt, they were greeted by a band of musicians as they stepped from their flower-garlanded, rented Mercedes. Osama, in a suit, and Heba, in a fairy-tale white dress, veil and train sewn by her mother-in-law, were escorted by young candle-bearing bridesmaids. Inside the lobby, the traditional wedding beat of drums and the women's zagharreet sounded as *al-zaffah* began its slow progress toward the reception room.

Inside, locked in a throng of well-wishers, bride and groom were serenaded. Relatives and friends—men in business suits, women in long-sleeved soft-hued dresses with elegant *tarhah* scarves—strained to get a close look. Delighted guests tossed confetti and tiny, gold-foil chocolate coins, which were quickly scooped up by the children. A video camera, now a fixture of many upper-class Cairene weddings, beamed its hot light into the bride's *kohl*-darkened eyes and the groom's nervously perspiring face.

After reaching the flower-decked *kushah* and toasting each other in fruit punch, the couple was entertained by an evening of song and dance. Later they took to the dance floor in a romantic cloud of special-effects smoke. Male guests encircled them, singing and dancing, while the bride's mother made the rounds to greet each guest as all enjoyed a lavish buffet dinner.

Whether Muslim or Christian, whether in a decorated city alley, a lavishly appointed Cairo hotel or a neighborhood garden, whether the music is Western, traditional Egyptian or that of a Nubian band, Egyptian weddings are celebrated with an intensity that stems from the veneration of family bonds. And, as for couples everywhere, they brim with hope for happy endings.

Free-lance journalist Patti Jones Morgan lives in Kopervik, Norway. She wishes to thank Sonia Youssef and Jamal Barghouti in Cairo and Hoda Tawadrous in Houston for their help with this article.

The Empire of the Sultans: *Ottoman Art from the Khalili Collection* comprises 250 objects arranged thematically to examine the influence of the sultans who wielded both sword and pen. Two exhibits at the Musée d'Art et d'Histoire complement this single-venue exhibition. Musée Rath, **Geneva,** through September 24.

Paintings From Shiraz. Twenty paintings and eight bound manuscripts highlight the arts of the book from in the southern Iranian city of Shiraz, home to some of Iran's most famous poets, from the 14th through the 16th centuries. Sackler Gallery, Smithsonian Institution, **Washington, D.C.,** through September 24.

Rivalry and Power: *Arts of the Book in the 14th Century* explores the interchange of calligraphic and manuscript traditions between the rival dynasties of the Mongols, who ruled what is now Iraq and Iran, and the Mamluks, who ruled Egypt and what is now Syria. Sackler Gallery, **Washington, D.C.,** September 24 through May 27.

Excursions Along the Nile: *The Photographic Discovery of Egypt* illustrates with 90 prints how early photographers dramatized human and natural wonders as well as the people and villages of Egypt. The **Baltimore [Maryland]** Museum of Art, through October 1.

AbdelRazzak Sahli, one of Tunisia's best-known avant-garde artists, shows recent paintings from October 2 through 13; this is followed by *Icons of the Nile*, monoprints by Chant Avedissian, a leading Egyptian contemporary artist, from October 16 through 31. Leighton House Museum, **London**.

Teaching About the Arab World and Islam is the theme of teacher workshops cosponsored by the Middle East Policy Council in Washington, D.C. and conducted by AWAIR, Arab World And Islamic Resources and School Services of Berkeley, California. Upcoming workshops include: **Waverly, Iowa**, October 7; **Brattleboro, Vermont**, October 19; **Worcester, Massachusetts**, November 4; **Chicago**, November 9; **Dallas**, November 15; and **State College, Pennsylvania**, December 1. For details, call (202) 296-6767 or (510) 704-0517.

The Spirit of West African Textiles surveys the art as it has been developed by diverse cultural groups and applied in masks, costumes, fabrics and jackets. **Pensacola [Florida]** Museum of Art, through October 10.

Voyages and Visions: *Nineteenth-Century European Images of the Middle East from the Victoria and Albert Museum* displays watercolors and drawings from the Searight Collection of the V&A that depict the rise of European interest in the Middle East. Ripley Center, Smithsonian Institution, **Washington, D.C.,** October 10 through January 7.

Egyptian Folk Jewelry and Related Folklore displays silver anklets, bangles and necklaces of rural Egypt along with costumes and research on folkloric ceremonies. Hythe Gallery, **Kingston, Tasmania, Australia**, October 14 through November 11.

EVENTS & EXHIBITIONS

Tizerzay, or fibulae, are an essential part of Berber women's dress; this pair, in a private collection, is from Morocco.

Africa: *Art of a Continent* marks the first comprehensive exhibition of African art in Britain. The 700-piece exhibit is designed as a journey through seven broadly defined regions of the continent. In each, the interconnections and historical and geographical contexts of cultural achievements are explored in addition to the works of art themselves. Displays range from a stone tool found at Olduvai Gorge and dated 1.6 million years BP, through works from the Middle Ages, into our own century; media range from dung to gold; all reflect the vast history of the birthplace of humanity. The show also features the high civilizations of ancient Nubia, Mali, Nigeria, Benin, Southern Africa and elsewhere. As the centerpiece exhibition of **africa95**, it is accompanied through December by events in galleries, museums, performing arts centers and community centers throughout Great Britain, as well as by special television and radio programming. The Royal Academy of Arts, **London**, from October 4 through January 21.

An Ancient Egyptian Bestiary: *Animals in Egyptian Art*. 150 pieces of animal representation in sculpture, relief, painting and the decorative arts. Metropolitan Museum of Art, **New York**, through October 15.

Art from the Forge: *Tuareg Metalwork*. Metal jewelry, ceremonial armor and furnishings reflect the sentiments of Tuareg nobility and the deft hands of Tuareg craftsmen. National Museum of African Art, **Washington, D.C.,** through October 22.

Signs, Traces and Calligraphy displays a broad range of contemporary North- and West-African calligraphic art from the traditional to the avant-garde. Concourse Gallery, Barbican Art Centre, **London**, through October 30.

Pages of Perfection: *Islamic Paintings and Calligraphy from the Russian Academy of Sciences, St. Petersburg*. Nearly 200 pieces from this unrivaled collection cover every geographical area of the Muslim world from the 7th to the 19th century. Metropolitan Museum of Art, **New York**, through December 10.

Mysterious Voids at the Heart of Historic Textiles: *A Search for Meaning* explores the ways geographically diverse designs share a theme of undecorated space at the center and how this feature may reflect cultural concepts of space. Textile Museum, **Washington, D.C.,** through January 7.

Paintings of Courtly India includes more than 40 works of art created from the 16th to 19th centuries in 20 regional schools. The **Minneapolis [Minnesota]** Institute of Arts, through February 18.

The Ancient Nubian City of Kerma, 2500-1500 bc. Capital of the kingdom known to ancient Egyptians as Kush, Kerma is the oldest African city outside Egypt to be excavated, and diverse objects reveal its wealth and artistic traditions. National Museum of African Art, **Washington, D.C.**, through 1998.

The Hellenistic World: *Art and Culture* is a new permanent gallery devoted to the far-reaching effects of Greek culture following the death of Alexander in 323 BC. British Museum, **London**.

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.

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