Saudi Aramco World

January/February 2005

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A City Adorned

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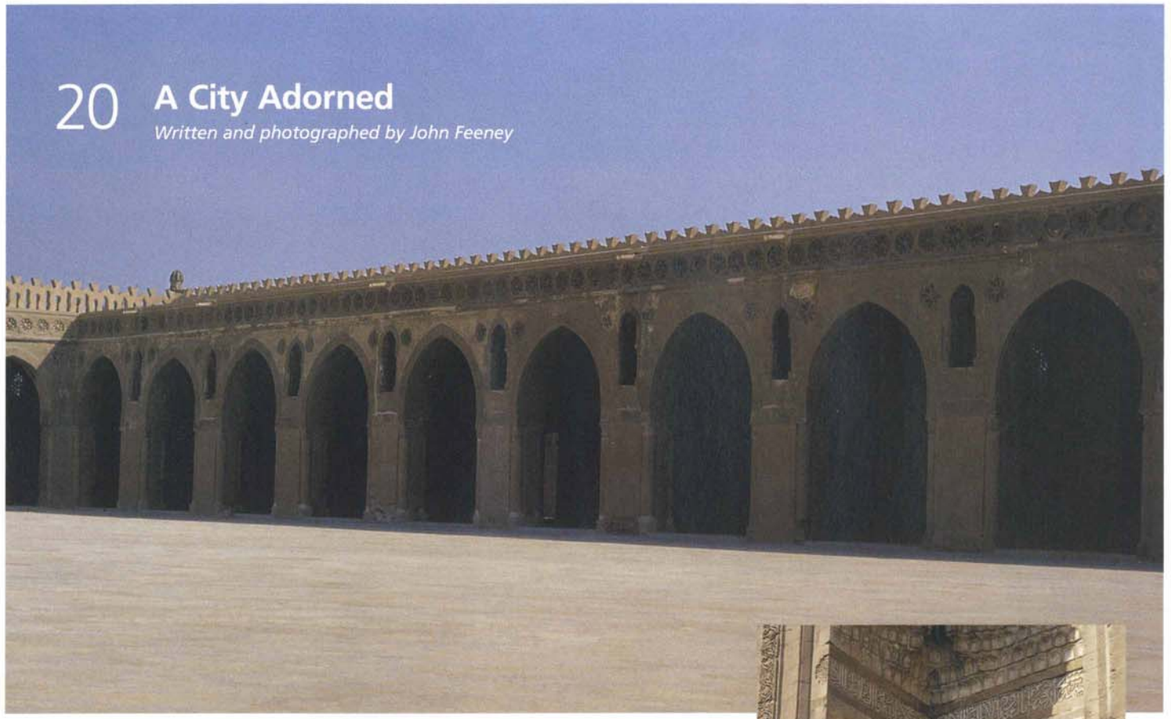
Published Bimonthly
Vol. 56, No. 1

Cover:

The early 15th-century craftsmen who adorned the two domes that shelter the *khanqah*, or hostel, and religious school of Faraj ibn Barquq in Cairo spaced their herringbone pattern to perfectly match the surface that, though it appears hemispherical, is actually composed of four distinct curves from drum to point. The domes of Ibn Barquq are the largest and earliest Mamluk stone domes in Cairo, with a diameter of over 14 meters. Photo by John Feeney.

Back Cover:

Scanning windswept snow for a corsac fox, a golden eagle catches the cold sunlight of the Altai hunting season, which runs from early November to February. Photo by Philipp Engelhorn.



At one end of old Cairo lies the mosque of Ibn Tulun, as vast and horizontal in its design as the desert that once surrounded it. Not far away, in the cosmopolitan center of the medieval city, rises the mosque of Sultan Hasan, as grandly soaring as a Gothic cathedral. Built more than 500 years apart, they mark the resplendent beginning and the magnificent end of a half-millennium of construction that adorned the city with architectural treasures.

Publisher
Aramco Services Company
9009 West Loop South
Houston, Texas 77096, USA

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ISSN
1530-5821

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Circulation
Edna Catchings

Design and Production
Herring Design

Printed in the USA
Wetmore & Company

Address editorial correspondence to:
The Editor
Saudi Aramco World
Post Office Box 2106
Houston, Texas
77252-2106 USA

Saudi Aramco, the oil company born as an international enterprise more than seventy years ago, distributes *Saudi Aramco World* to increase cross-cultural understanding. The magazine's goal is to broaden knowledge of the cultures, history and geography of the Arab and Muslim worlds and their connections with the West. *Saudi Aramco World* is distributed without charge, upon request, to a limited number of interested readers.

Printed on recycled paper

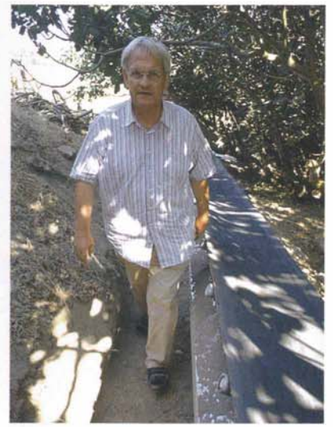
www.aramcoservices.com

Written by Graham Chandler Photographed by Ergun Çağatay

The 150-year search for the setting of Homer's epic ILIAD*—somewhere in the region of northwestern Asia Minor called the Troad—has been a story of scholarly sparring and controversy.*

IN SEARCH OF THE REAL TROY

The road west to the mound called Hısarlık takes sweeping bends past fields of corn and purple-flowered cotton. It has two or three gradual hills, but the chief obstacles are the odd tour bus or tractor-load of tomatoes. It is, by and large, a smooth and untroubled approach to a world-famous archeological site. Not so the scholastic approach—a road of zigzag switchbacks through fields of criticism and intrigue, littered with sharp shards of controversy: The obstacles here are implications in journal articles, tendentious newspaper interviews and downright insults.



Opposite, upper: **The complexity of Troy's layers come to life: The diagram links to the small signs that identify archeological levels on the partially excavated hill.** Lower: **The Dardanelles Strait, which connects the Aegean Sea with the Marmara Sea and, through the Bosporus, to the Black Sea, begins just north of Hısarlık, the modern name for the area of ancient Troy.** Right: **Manfred Korfmann of Tübingen University has directed the Troia Project for 16 years, longer than any other archeologist. "Troy was a small site, compared to Babylon or Uruk, but places on the periphery can be very important because they give access to another area, as Hong Kong does to China," he says.**

We arrive on a glorious August morning just as the orange ball of the sun lights the treetops and the replica of the larger-than-life wooden horse. The air is quiet except for the distant putt-putt of an irrigation pump. It is believed by many that this is the place the blind poet Homer called Troy, where he set his tale of the abduction of the beautiful Helen by Paris, the son of King Priam of Troy; of the arrival of a force of 1000 Greek ships under the command of King Agamemnon; and of the consequences that followed 3200 years ago.

Is this where it happened? At only 200 by 150 meters (650' x 490'), the mound seems small to first-time tourists, many of whom hope to see the massive walled city

depicted in the recent movie. There are walls—dozens of them—but to the untrained eye they are a confusing jumble of cut stones at all angles and levels. After all, there are over 4000 years of human history here, stacked in nine levels and 47 sublevels, and dating from Bronze Age 3000 BC through the classical Greek and Roman period to the Byzantine era—in all, 15 different fortifications. And every new arrival tore down existing structures for building stone. Throw in the odd earthquake, the occasional fire and a number of sieges, and the site becomes an excavator's nightmare.

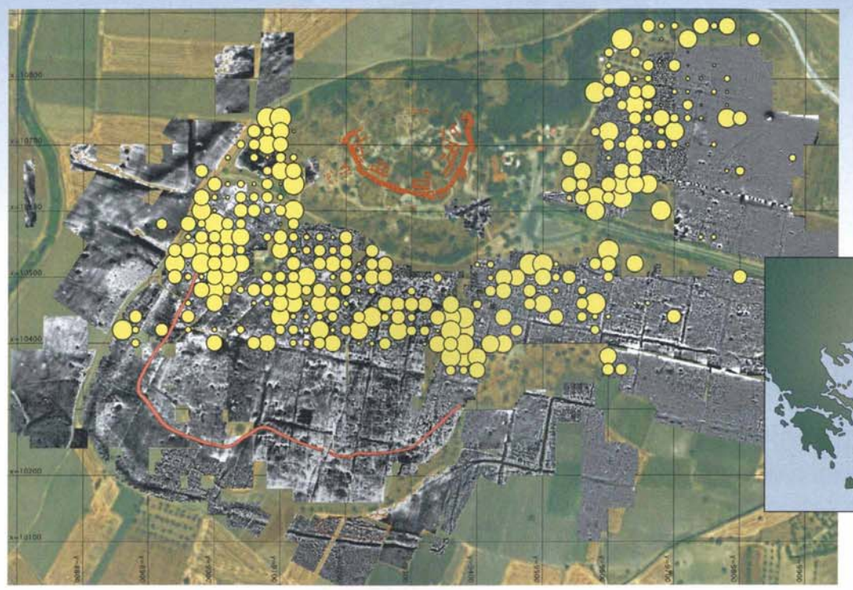
The westerly breeze keeps the mosquitoes at bay but does nothing to clear the haze to the north, where plodding freighters and tankers enter the Dardanelles Strait six kilometers (3½ mi) away bound for Istanbul and Black Sea ports. Westerly? This is indeed unusual, for it was the prevailing northeasterly winds that were the reason for this site's existence during the years of the purported Trojan War. Techniques for sailing into the wind then lay a millennium in the future, so hundreds of ships waited for weeks at a time in nearby Beşik Bay for a westerly, or unloaded their cargo for a costly overland trip into the Anatolian heartland and beyond. Either way, Troy was in the right place to exact a price. At least, so believes Manfred Korfmann.

Several mounds in Hısarlık have beckoned archeologists, and this one, called Keltepe (Bald Hill), drew Heinrich Schliemann in 1868. It turned out to be some 30 kilometers (20 mi) from today's site. Shards still turn up regularly in plowed fields throughout the region.

Korfmann, an intense 62-year-old archeologist from Tübingen University, has directed the Troia Project here since its inception 16 years ago. Very much in charge, he greets us after giving his morning orders to workers in German-accented Turkish. He views Troy as a crossroads of Bronze Age commerce. "Troy provided access from the Aegean through to the Black Sea, gave access to the Danube, the rivers of the Pontic steppe and the Caucasus, and to important stone and metal sources," he says, adjusting his ascot tie as we climb into his pickup for a tour of the excavations.

Trade and commerce hasn't always concerned researchers here—it was more a quest for the truth behind the myth. An adventurer named Robert Wood kicked it off when he walked the bandit-ridden Troad in 1742 and claimed it matched Homer's description. His controversial book ignited debate. Skeptics said Troy never existed, but others were smitten: In 1810 Lord Byron rode at anchor for days in Beşik Bay, fantasizing, before hiking the famous battle plain. But, everyone wondered, where was the city of Troy?

From Hısarlık, we can see several other mounds. Debate raged as to which of them might be the real Troy; by the late 1800's, Pinarbaşı, a few kilometers to the south, was a favored candidate. But there was a dissenter—one Frank Calvert, arguably the discoverer of the real Troy. The Calvert family had lived in the area for generations and Frank had played on and hiked over these mounds as long as he could remember. After a team of German archeologists dug

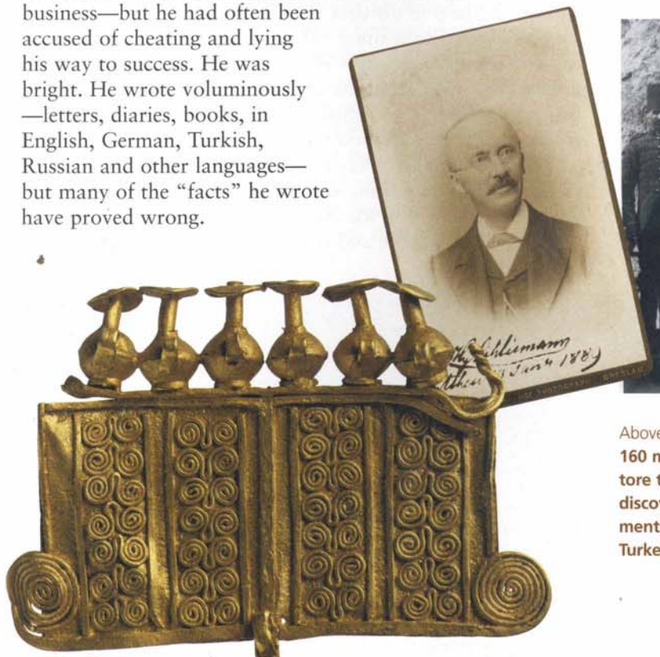


On one of the Troia Project's maps of the excavations, the size of the yellow circles indicates relative concentrations of Bronze Age surface finds. The known defensive walls of the city are in red.

Pinarbaşı and came up empty-handed, Calvert bought the northern half of Hısarlık from a local farmer and dug a few trial trenches of his own. The hints of potsherds and walls were tantalizing, but mounting a large-scale dig required cash.

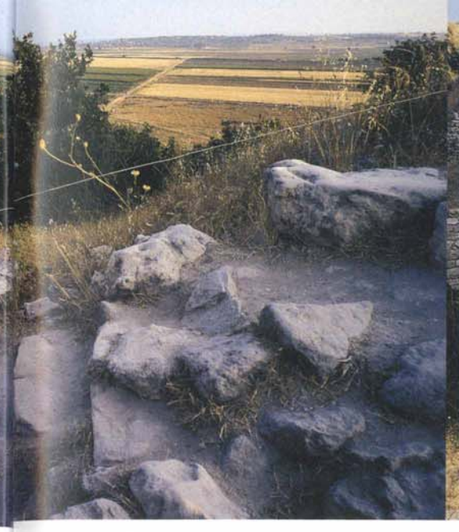
One day 136 years ago, a wealthy middle-aged German entrepreneur, who claimed to have been obsessed with Troy since he was a boy, first set foot on Hısarlık and saw Calvert's trenches. Probably the most controversial excavator of all time, Heinrich Schliemann was to be called "the father of Anatolian archeology" and would soon change the face of Hısarlık more than anyone since the Romans. His fortunes had been made in various fields of business—but he had often been accused of cheating and lying his way to success. He was bright. He wrote voluminously—letters, diaries, books, in English, German, Turkish, Russian and other languages—but many of the "facts" he wrote have proved wrong.

When he met Frank Calvert, each man thought this would be the match-up of the century. Calvert saw cash in the man with the finely tailored suit. Schliemann saw Calvert as the man who'd lead him to world glory as the discoverer of fabled Troy. But the pushy Schliemann was overanxious: Without official permission, he began digging on the southern half of Hısarlık. "Knowing in advance that the two Turkish owners would refuse to give me permission, I did not ask them," he later wrote. And when he finally obtained his *firman*, or excavation permit, from the Turkish government, he blandly ignored stipulations that one-half of



Above: **Heinrich Schliemann's aggressive digging with a team of up to 160 men—some appear in the group photo—earned him infamy. He tore through the Homeric levels to earlier ones and there, he claims, discovered the "Treasure of Priam"—more than 9000 small gold ornaments that he publicized only after he had smuggled the hoard out of Turkey.** Left: **Among them was this gold hairpin with a decorated head.**

MAP: TROIA PROJECT; GOLD: MONDADORI ELECTA; SCHLIEMANN (2): GENNADIUS LIBRARY



any finds go to the state and that existing structures not be demolished.

Demolish he did. We're looking to the north through a cut 40 meters wide (130') that runs straight through the mound. Dubbed the "Schliemann trench," it's 17 meters (55') deep and still used in undergraduate archeology courses as a prime example of how *not* to excavate. In 1871, in his haste to get to what he thought would be the levels representing Homeric Troy, Schliemann hauled out hundreds of tons of earth, ordering his 160 laborers to raze everything in their way. Little did he know that he had torn right through the Homeric levels he sought—the Late Bronze Age, around 1200 BC—as well as through a thousand-year earlier period before hitting bedrock.

Calvert was appalled—so much that he refused Schliemann permission to dig on his half of the mound. Schliemann called Calvert a "foul fiend," but pressed on. Then he claimed that on May 31, 1873, he had made one of the most famous and controversial finds in the history of archeology—the "Treasure of Priam." It included fabulous gold: diadems, a headband, 60 earrings and 8750 small ornaments found stashed inside a silver vase. To keep it a secret, he ordered his laborers to take an extended early break and, as he wrote in his diary,

CALVERT NOTED THAT SCHLIEMANN HAD UNCOVERED NOTHING DATED ANYWHERE CLOSE TO WHAT WAS THOUGHT TO BE HOMER'S TROY, THE PERIOD BETWEEN 1800 AND 700 BC.

himself "cut out the Treasure with a large knife.... It would have been impossible for me to have removed the Treasure without the help of my dear wife," he added, "who stood by me ready to pack the things which I cut out in her shawl and to carry them away." (It was later shown that his wife had in fact been away from the site that day.) And Schliemann spirited the treasure to Athens, where he jubilantly announced to the world he had found the palace of King Priam.

The treasure didn't stay in Athens long. Schliemann rushed his find to Berlin, where it stayed until the final days of World War II. Russian troops moved in and hastily loaded it onto a train, and the treasure remained hidden from the world until 1994. Now most of the stunning artifacts are on display at Moscow's Pushkin Museum of Fine Arts, and ownership is claimed by Turkey, Germany and a few of Frank Calvert's heirs.

Korfmann has been investigating this mound longer than anyone, so I ask his opinion of Schliemann. He pauses, one foot on the pickup's running board. "I wouldn't want to be his personal friend," he says. "But people are unfair—he obviously wasn't a treasure hunter: He was already very rich." In sifting through Schliemann's old trenches and spoil heaps, he says, "we haven't found any mistakes. We have found nothing that Schliemann missed."

David Traill, professor of classics at the University of California, shares Korfmann's distaste for Schliemann, but is less positive about his accuracy. "With an individual like Schliemann, we always need to be on our guard," he told me in an earlier interview. "I believe he was a psychopath.... There was a slightly inhuman aspect to him." Traill says he has come to know Schliemann as well as anyone can today, spending a decade poring over his papers and diaries and writing an exhaustive analysis in 1995 (*Schliemann of Troy: Treasure and Deceit*, John Murray Publishers). "To psychopaths there's no difference between lying and telling the truth," he says. "Most people now accept the fact that Schliemann's archeological reports are tainted with untruths."

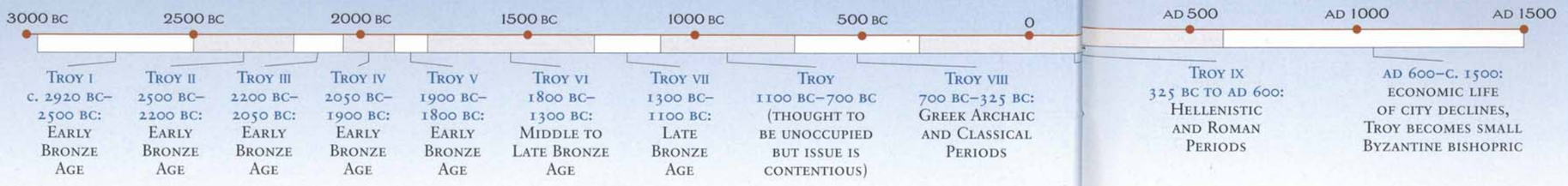
Above, far left: **The southern gate of the Bronze Age citadel was probably the largest and most heavily ornamented.** Center: **Descending stairs from the citadel, there is a view toward the shore. Archeologists believe that silt from the Scamander River has pushed the shoreline far from where it lay in Bronze Age times.** Above: **The "Treasure of Priam" was found just to the left of this ramp, according to Schliemann; the ramp predates 2000 BC.**

Academics need truths—and they need them as soon as possible after they're excavated. Ironically, timely publication of results was one of Schliemann's strong points. By 1875, he had published his three years of controversial digging; summing them up, he wrote, "It is not to be expected that science would gain anything more from further excavations."

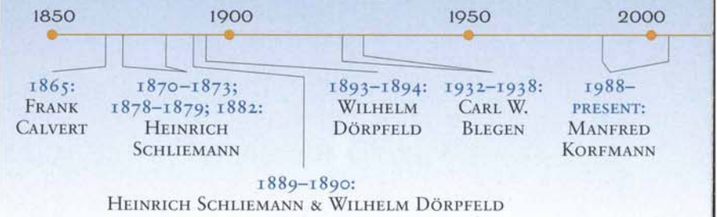
That, however, was far from the truth. Using analogies from Near Eastern archeology, Calvert had meanwhile been doing his homework. He noted that Schliemann had uncovered nothing dated anywhere close to what was thought to be Homer's Troy, the period between 1800 and 700 BC. Schliemann's famous treasure clearly had nothing to do with the legend.

Stung, Schliemann hired a bright young researcher named Wilhelm Dörpfeld. Soon both were accused of misleading the public, so they mounted another excavation campaign in 1889. The following year they discovered Mycenean pottery

Timeline of Troy



Archeological Excavation Record



Opposite, upper: **As the crew excavates in loose earth, a conveyor belt carries the material to screens that catch included artifacts.** Lower: **A Troia Project magnetometer—a tool frequently used in archeology—notes tiny differences in the Earth's magnetic field that can provide clues to what lies beneath the surface.** Below: **Shards of metal and earthenware, potentially informative about settlement boundaries and lifestyles, await examination.**

at Troy VI levels—confirming that the site indeed contained Late Bronze Age remains, but forcing Schliemann to admit that his golden trove was not Priam's Treasure but instead dated from a thousand years earlier. He planned another excavation, but died in 1890. Dörpfeld continued digging and found the remains of a great conflagration and destruction at the top of the Troy VI level. He was convinced that Level VI was Homeric Troy.

But stratigraphic sequencing was still in its infancy at the end of the 19th century, so precise dating was impossible. Excavations were abandoned until 1932, when a professor from the University of Cincinnati named Carl Blegen turned his attention to Troy. Fresh from a series of excavations on the Greek mainland, he came armed with the latest techniques and an intimate knowledge of Mycenean stratigraphy. Creating a landmark in professional archeology at the time, his team systematically reevaluated all levels in the years 1932 to 1938; curiosity was of course greatest about Troy VI.

Blegen was convinced the destruction at Troy VI was not the result of war, but of a huge earthquake. So he excitedly focused on Troy VIIA as the level of the famed siege. (He found that Schliemann had erroneously separated the two levels, which actually represented the same culture. Nonetheless, Schliemann's numbering has stuck.) After the earthquake, Blegen said, the citizens rather shoddily rebuilt the place, constructing small, gloomy houses and extensive storage. To him, the hovels represented a siege mentality: laying in stores and hunkering down, waiting for an attack. And, he figured, the attack did come: He found charred wood and rubble, human skeletons trapped indoors and covered in debris, skulls crushed by stones—and one bronze arrowhead. He even matched the dates with his studies on the Mycenean mainland, showing that the invading city-states would have been at their richest at the time and best able to mount the attack. "It is settlement VIIA, then, that must be recognized as the actual Troy," he wrote. "It can no longer be doubted."

But doubted it certainly was. Critics immediately blasted Blegen's "evidence," pointing out that storage jars do not necessarily imply a siege mentality, and that one arrowhead does not make a war. They also challenged his pottery dating. After Blegen's last dig, Troy lay unexcavated for another 50 years, and the controversy smoldered.

Part of the controversy over both Schliemann's and Blegen's ideas was that, until the 1930's, there was scant knowledge of adjacent Anatolian civilizations; there were no written references to Troy from the Late Bronze Age. It was then that Swiss scholar Emil Forrer deciphered newly discovered writings from the Hittite Empire to the east, finding two place-names—Wilusa and Taruisa—that sounded convincingly like the Hittite way of writing "Wilios" (the Greek name for the site was "Ilion") and "Troia" (Troy). He also found a treaty, from the early 13th century BC, between the Hittite king Muwatalli and a king of "Wilusa" named Alaksandu. The king's name, Forrer added, recalls the name of the Trojan prince Alexander—called Paris in Homer's *Iliad*.

Critics pooh-poohed, conceding that a place named Wilusa may have existed, but where was it on the map? For decades the question remained unanswered. Then, in the mid-1980's, new pieces of text were discovered: a letter from Hittite king Manapa-Tarhunda that narrowed Troy's location to the Troad. It also became clear from other Hittite texts that Wilusa was attacked repeatedly by "Ahhiyawans," thought to have been Mycenean Greeks, in the 13th century BC.

"That's when a Trojan War should fit in," says Korfmann, bouncing over dusty potholes, "if such a war actually took place. All this ended about 1190 or 1180 BC," he says with a sweep of his arm, "with a catastrophe, evidenced by fires and casualties." He says the 13th century was evidently the most critical time for Troy and a time of intense

THERE WERE NO WRITTEN REFERENCES TO TROY FROM THE LATE BRONZE AGE, AND UNTIL THE 1930'S THERE WAS SCANT KNOWLEDGE OF ADJACENT ANATOLIAN CIVILIZATIONS.

Above: **The odeon of Troy, built as a performance venue during the Roman period, is still used for social and cultural events.** Lower: **The path to the citadel's eastern gate led to a surprise courtyard in which visitors could be questioned—or enemies dispatched.**

pressures: The archeologists found vulnerable gates walled up; they found *pithoi*, large storage vessels, everywhere; and, tellingly, they found piles of sling stones that the Trojans had left behind. "Only a victorious invading army would behave in this way," Korfmann says. "Had Troy, or Wilusa, been successfully defended, piles of this sort would have been removed shortly after the catastrophe." This kind of implication ensures that the Late Bronze Age still gets the attention here. Korfmann steps off the truck and we clamber up a sequence of dusty wooden planks to where a Polish researcher is at work defining that critical time period between layers VI and VIIa.

What were the combatants fighting over? "Troy was a small site, compared to Babylon or Uruk, but places on the periphery can be very important because they give access to another area, an entrance to a new world," says Korfmann, "as Hong Kong does to China. It was the path to China's riches." As if to drive home his point, a Turkish F-16 screams overhead, signifying this is still the Gibraltar of the Black Sea.

Others don't agree. "Korfmann's assumption that Troy was a major trading center during the Late Bronze Age is totally unfounded," says Frank Kolb, professor of ancient history at Tübingen University. "Not one single object from the Black Sea region has been found at Troy or its alleged harbor, and vice versa." Moreover, he says, there's no evidence of sea traffic through the Dardanelles and Bosporus during the Bronze Age, either. Kolb cites the fact that "not one single Mycenaean potsherd has been found in the Black Sea region and north of the mountain range which marks the border between modern Greece and Bulgaria."

Korfmann is still out to prove Kolb wrong. We drive to the south slope of Hısarlık where two archeologists search cotton fields for surface finds and a scientist walks a survey line carrying a magnetometer on a PVC-pipe frame. These researchers are looking for a lower city of artisans and merchants somewhere below the citadel. Such a discovery would prove that Troy was a sizeable and strategically located city of the Bronze Age. "It wouldn't have made any sense for this powerful citadel, the seat of the rulers, to have existed without any people who had built it and who continued to provision the ruling class," says Korfmann. Ever since Schliemann's time, this sloping plateau was known to conceal remains of Hellenistic and Roman cities, and suspected of concealing a Bronze Age one. No one had seriously looked at it, though: All attention and funding had been focused on the more dramatic citadel.

Korfmann and his team noted that the builders of Roman cities always dug to bedrock for their foundations and in the process brought many Bronze Age shards to the surface. So over the next few years, they initiated a series of test excavations and surface collections that would help reveal the extent of a lower city. As well, they used the magnetometer, which can reveal underground walls and features by measuring minute aberrations in the Earth's magnetic field. It revealed mostly the shallower Greek and Roman features, but, plugging the data into their computer one day, they saw a 120-meter-long (390') structure that seemed to wrap around the southern perimeter. Could it be the defensive wall of a lower city?

Excitedly the crews began excavating at the spot. But as they went deeper, it soon became clear the feature was not a wall but a deep ditch cut into the bedrock, dated by its fill to Troy VI. Korfmann's team called it a defense against invading chariots and battering rams. And just a few meters inside it, another, shallower, ditch suggested an inner fence or palisade, probably of wood.

Using these clues, the archeologists drew up an impressive computer-generated map of a Bronze Age lower city. It presented a settled area of 270,000 square meters (67 acres) stretching 400 meters (1300') south from the citadel and housing 5000 to 10,000 people, depending on how they may have crowded themselves into the buildings. A model derived from the data featured an entire city protected by a heavy fortification wall and a defensive ditch. Displayed at a public exhibition in Stuttgart in 2001, it immediately raised a few eyebrows.

"Pure fantasy. An archeological Disneyland," says Kolb. "This model was presented as a 'reconstruction,' although for more than 95 percent of its buildings there exists no archeological evidence." And he says such a small ditch couldn't have been defensive—it could have been jumped by a good foot-soldier. Furthermore, no ditch has been revealed on the flat eastern approach to the citadel, the easiest to attack using chariots and thus the place where a defensive ditch would have been most useful. "I think that the ditch sections served as water channels and water reservoirs for agricultural and perhaps industrial purposes," he says. "In any case it is a scandal that Korfmann has not mentioned that Blegen had already discovered the ditch, but rather proclaimed it as his own sensational discovery."

It is not in Homer's *Iliad* that the tale of the Trojan Horse appears, but only in Virgil's *Aeneid*, which was written much later, in 19 BC. A replica of the famous hollow horse now stands at the entrance of the old city for the amusement of tourists.

A duel was on. Tübingen convened a conference of academics to debate the model. Journalists and a crowd of a thousand showed up and tempers continued to flare. The Korfmann camp conceded disparities but later published their conclusions: "We think that the criticisms of Professor Korfmann are unjustified."

"A very one-sided account," was Kolb's reaction, who with colleague Dieter Hertel of the University of Cologne (who worked on the Troy excavation from 1989 to 1991) published their retort later in the same journal in 2003. Kolb and Hertel say that Hısarlık is regarded as the likely site of the Trojan War simply because it's the only thoroughly investigated prehistoric site on the western coast of Asia Minor. Kolb has an alternative in mind: The oral tradition about the Trojan War may have originated on the Greek mainland, since place-names like Troia and Ilios already existed. "An Egyptian document of the 14th century BC mentions a Wirios on the Peloponnese Islands, or on Crete," he says. "This means that Greek immigrants to northwestern Asia Minor may have brought with them the oral tradition of a Trojan War.... From then on, the topography of this region may have been integrated into [the tradition]."

The sun burns high in the sky now and we're overrun by videocam-toting tourists who appear little interested in the possibility that the Trojan War happened somewhere else. These fields of cotton and corn may never yield enough to still the arguments, but "mythology needs a place to settle on," says Korfmann. "The myth of Troy is fixed to this mound."

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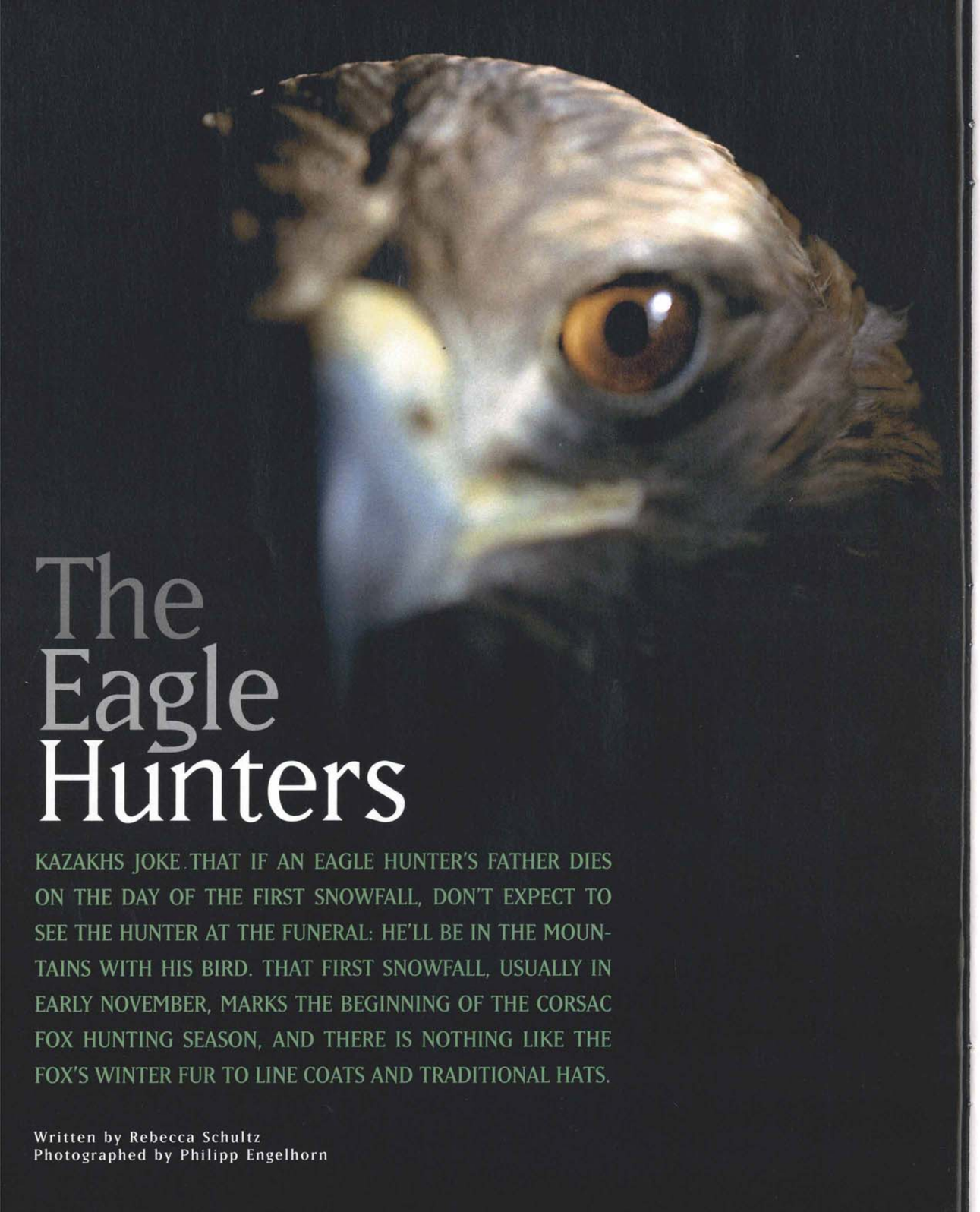
Hittites: S/O 94 Early Anatolian civilizations: M/J 95



The Eagle Hunters

KAZAKHS JOKE THAT IF AN EAGLE HUNTER'S FATHER DIES ON THE DAY OF THE FIRST SNOWFALL, DON'T EXPECT TO SEE THE HUNTER AT THE FUNERAL: HE'LL BE IN THE MOUNTAINS WITH HIS BIRD. THAT FIRST SNOWFALL, USUALLY IN EARLY NOVEMBER, MARKS THE BEGINNING OF THE CORSAC FOX HUNTING SEASON, AND THERE IS NOTHING LIKE THE FOX'S WINTER FUR TO LINE COATS AND TRADITIONAL HATS.

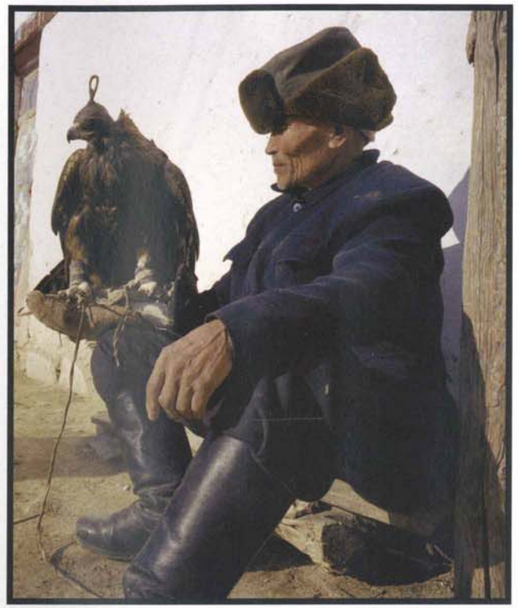
Written by Rebecca Schultz
Photographed by Philipp Engelhorn

HUNTING WITH AN EAGLE IS AN ART, SAYS ONE HUNTER, "CERTAINLY NOT FOR ECONOMIC GAIN."

Until a decade ago, falconers around the globe lamented that Central Asian countries barred them from contact with the founding fathers of their sport. The political curtain has now been drawn aside, but nonetheless, so chilly are the winters and so remote the hunters' homes that few people witness eagle hunting in its original context. Last winter, photographer Philipp Engelhorn and I donned all the polar fleeces we could muster and headed out to China's Xinjiang Province. Despite our background research, we did not imagine we'd face temperatures as low as -40°, or roads covered with more than a meter (3') of snow and navigable only by horse-drawn sleigh.

At the northernmost point of Xinjiang is Friendship Peak, the summit where the borders of Russia, Kazakhstan, Mongolia and China all meet, dividing the scattered populations of Kazakh people, who for millennia ranged freely with their herds. Today, an estimated 11 million Kazakhs are divided among these four countries and Uzbekistan to the west. Eight million live in Kazakhstan, and the largest population after that is the 1.4 million in Xinjiang Province. Most of Xinjiang's Kazakhs owe their Chinese citizenship to Russian agrarian reforms of the early 20th century, which they evaded by fleeing eastward into what was then not clearly defined as Chinese territory.

Scholars at the Peregrine Fund's Archives of American Falconry in Boise, Idaho believe that the practice of hunting with birds of prey originated among nomadic tribes in Central Asia around 6000 years ago. Among the scarce records are Hittite pottery shards that suggest that falconry was a custom of royalty on the Anatolian Peninsula as early as 4000 years ago. Tang Dynasty paintings depict falconry as having come into China from the north only in the seventh century of our era. In the 12th century, Genghis Khan's bodyguards were allegedly selected from an elite regiment of falconers, and his grandson Qubilay Khan hosted extravagant falconing expeditions that were described by Marco Polo. Though falconry was well known to both Europeans and Arabs from very early times, both groups adopted it as a sport only after the 13th century, after the Mongolian invasions and the Crusades.



Aske, 85, is one of the most renowned hunters in the Altai region. He holds a newly caught, hooded eagle to whose legs he has attached *iakbo* (jesses). Training it will take about three weeks. If it proves a good hunter, Aske will keep it—but for no more than 10 seasons before releasing it to the wild.

For Kazakhs, hunting with eagles is one of the highest expressions of their cultural heritage. Though rabbits, marmots and owls are hunted too, it's the corsac fox, with its reddish, highly insulating fur, that is the most prized quarry. A fox pelt can fetch 200 Chinese yuan ($24) on the black market, but the idea of such commerce is regarded by most hunters as laughable at best, or an insult. With an eagle's meals amounting to half a kilo (17 oz) of washed meat a day, in addition to all of the demanding preparation of the necessary dietary supplements, hunting with an eagle "is certainly not for economic gain," as one hunter asserted with pride. Instead, it is an art, a sport of refinement that involves a great deal of time and the use of sophisticated tools and techniques that have been passed on from father to son for millennia. It requires a combination of strength and gentleness and a reverence for the natural world—and, above all else, what Kazakhs regard as a valiant spirit that exemplifies ideals of honor and manhood. Even in cities today, young men boast of the accomplishments of Aske, the region's most celebrated eagler: "Seventy foxes a season!" we were told by more than one aficionado.

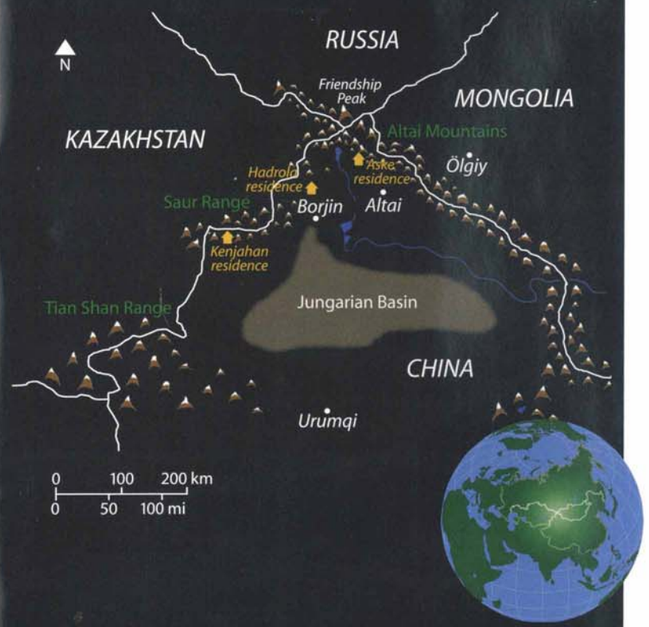
Aske, who like many in the region goes by a single name, lives in the Jungarian Basin south of the Altai Mountains. At 85, he carries the title *batur*, or warrior-hero, earned for his exploits fighting alongside the Soviets at Stalingrad in 1942 and 1943. We arrived in his village after one day in a jeep—more shoveling than driving—and a second day traveling by horse and sleigh.

Hours later, the old batur came riding home. A wooden crutch attached to his saddle supported his right arm; on that arm perched a golden eagle, blinded by a fitted leather hood. Under his left arm was a second eagle, hooded too and wrapped in a blanket. He had caught the second one while out hunting that afternoon. Spotting it flying over the hills, he had laid out a net baited with fresh rabbit meat and waited for it to come feed and entangle itself.

Two months had passed since he had invited us to visit during the hunting season, but our presence earned only a

The Golden Eagle

Golden eagles (*Aquila chrysaetos*) live throughout the northern hemisphere, inhabiting open and semi-open habitats including tundra, shrublands, grasslands, woodland, brush land and coniferous forests from sea level to 3600 meters' (11,700') elevation. Most are found in mountainous areas, but they also nest in wetland, river bottoms and estuaries. With a height from head to tail of up to a meter (39"), a wingspan of two meters or slightly more (80") and an average weight of three to seven kilograms (7–15 lb), they are one of the world's largest predatory birds. They can dive at speeds up to 280 kph (175 mph). Members of the "booted eagle" family, their legs are feathered down to the talons. They are non-migratory, monogamous and live an estimated 35 years in the wild. Their diet is composed primarily of small mammals, including rabbits, hares, marmots and young deer. Their endangered status varies by region. Conservation efforts have been focused on Central Europe, where extensive hunting in the 19th century has confined the remaining population to the Alps.



MAP: PHILIPP ENGLEHORN

Far left: **Many eagle hunters earn their livelihoods by herding and ranching. This compound lies near China's border with Kazakhstan, between the Jungarian Basin and the Saur Range, the northernmost peaks of the Tian Shan Mountains.** Opposite: **In the remote and snowy territory of the eagle hunters, a horse-drawn sleigh is often the best way to get around.**

nod of acknowledgment as he hastily brushed by us with his new bird and beckoned us into his adobe home.

Inside, pelts hung like trophies on the carpeted walls. Aske wasted no time evaluating his new bird. He stood it on his gloved forearm and rolled his forearm back and forth to test the bird's balance. He felt its upper legs for muscle mass and stretched out each of its talons over the glove. Then he slipped off the leather hood and poised his hand in front of the eagle's beak, nimbly dodging pecks before snapping the beak shut. He slipped the hood back over the eagle's head and finally turned to us with his assessment.

"It's a fine eagle. In three weeks it will be ready to hunt. It's scared now, but once it's used to human voices, it will get feistier." He counted the tail feathers and inspected the white specks on its wings to estimate the eagle's age. "It's six, a good age." The Kazakh language has a specific term for each of the first seven years of an eagle's life. Although they may live past 30, eagles caught in their first seven years are thought to make particularly loyal partners. Females, as the larger and stronger of the sexes, are preferred. But a bird's potential depends also on its individual temperament. One hunter told us he might catch 10 to 15 eagles before finding one that would be worth training.

Aske, together with his new eagle, spent that evening watching a television program on sub-Saharan wildlife, the dubbed Kazakh soundtrack blasting to compensate for Aske's deaf right ear. The eagle perched on his arm throughout as he mechanically went through the training routine of hooding and unhooding it, rolling his forearm back and forth, back and forth.

For all his hospitality, it turned out that Aske guarded his secrets more closely than we—or perhaps he himself—had expected. One morning, Philipp and I found him consulting a few dozen corn kernels that he had rolled like dice onto a table. Was this a Kazakh folk tradition or just one man's idiosyncrasy? Aske analyzed the design, and then he looked up to relate what it meant. "Tomorrow I must leave the village. You should stay here a day or two and then be on your way." I pressed him to take us hunting before he left: We had come so far to witness his skill! He replied by pointing to our western hiking boots and then slapping the shaft of his own stout, knee-high, black leather boots, imported from Kazakhstan. He shook his head: He feared the government would hold him responsible for our frost-bitten limbs.

It was in fact astonishingly cold outside as we set out to find another hunter. On sleighs we zigzagged across the region from settlement to settlement through blizzards so

dense that sky and earth were indistinguishable. We navigated by word of mouth, interviewing hunters and watching them parade their birds, determined to find an eagle hunter whose expertise would match Aske's. We sat around hearths and listened to men tell their tales. For many of them, though, these tales seemed to be all they had: Overgrazing of the rangelands, due to increased herd sizes, has diminished wildlife populations in recent decades. The corsac fox is waning, especially in the prairies of the Jungarian Basin, and though it is not endangered (see "The Corsac Fox," page 18), it is increasingly scarce. Eagles that a decade ago would have had a busy hunting season now sit idle in a corner of the hunter's house.

Above: **A hunter adjusts the cuff of one of the jesses (*iakbo*) so that it will fit the eagle's leg without chafing.** Below: **Each autumn, a hunter sets aside a day to slaughter the meat that will feed the eagle through the winter season. It often includes mutton, beef and, on occasion, horse. The meat is hung and dried in a clean, unheated room.**

In the middle of the Jungarian Basin, in a village of 30 or so houses, we found Hadrola, a veterinarian and a family man. His eagle is kept busy despite the scarcity of foxes. "The neighbors laugh at me," he confessed. "They say, 'He goes out with his eagle all day and comes home with nothing.' Well, let me tell you, I don't care if I catch a fox or not! I *have* to take my eagle out every day, even if it's only for an hour. The wilderness, the sky, the snow and the eagle flying above—for me, it's like traveling. It's like a holiday!"

Hadrola's eagle is treated more like a pampered child than a pet. In the morning he feeds it water through a reed straw from his own mouth. At night he massages the bird's plumage as it dozes off in the vestibule. With the bird sound asleep and a grandson bouncing on his knee, the 45-year-old narrated foxhunts from his boyhood, when he went out with his uncle. Today, deprived so often of the object of the sport, Hadrola and those like him pay more attention to its esthetics.

The Chinese government's policies on eagle hunting are a matter of constant discussion and, for the hunters, annoyance. On the one hand, the tradition is officially hailed as a "minority nationality custom"; the prefectural government thus coordinates official eagle-hunting festivals, and state-owned television airs documentaries of Kazakhs in traditional garb atop picturesque peaks with their birds on their arms. On the other hand, hunting with eagles, or by any other means, has been officially outlawed since the 1980's. On the one hand again, the ban was not enforced. On the other hand again, with the recent rise of pressure to develop the region for ecotourism, wildlife preservation has acquired a new urgency, and since about 1999, enforcement has begun: Hunters have been fined, furs have been confiscated, and eagles forcibly released to the wild. Along the newly completed summer-tourist roads, we arrived at many a hunter's door only to find that authorities from the Bureau of Forest Resources had recently been there, demanding to watch the eagle set free.

The conservation concerns are real. Under Chinese dominion, the population of Xinjiang Province has increased fourfold since 1949, and livestock numbers have risen proportionately. The strain on ecologically fragile rangelands has sent the corsac fox into decline. The bigger picture, however, may not be so grave. The species is naturally prone to dramatic population fluctuations, and the International Union for the Conservation of Nature and Natural Resources (IUCN) ranks the corsac fox in the category of "least concern" on the 2004 Red List of Threatened Species. The golden eagle, however, which is found throughout the northern hemisphere, is generally regarded as endangered in China, Mongolia and Kazakhstan.

Hunters argue that such environmental awareness is in fact an integral part of their sport. Kazakhs across the Altai region close the hunting season on their own on the 20th of February, a date chosen to allow female foxes to gestate and raise their kits in peace. As for the golden eagles, custom mandates that, after 10 seasons in captivity, an eagle must be released to breed in the wild. The eaglers see themselves as part of the steppe's ecological equilibrium.

HUNTERS ARGUE THAT ENVIRONMENTAL AWARENESS IS INTEGRAL TO THE SPORT.

Policies of neighboring Kazakhstan and the Kazakh-populated Bayan-Ölgiy Province of Mongolia have been quicker to recognize this. Those governments have encouraged hunters to

The Trappings of a Hunter

1. TOMAGA: The hood that blinds the eagle, this is the most emblematic trapping. Depriving the eagle of its keenest sense is the basis of its domestication, and a tomaga is put on an eagle as soon as it is caught. The tomaga is constructed by pattern from a single piece of cowhide and modified to fit the head of each individual bird, so it does not leak light and cannot be shaken off.

2. TORR: A hand-knotted twine net used to catch eagles, baited with fresh meat in the dead of winter. With an eagle entangled in the net, the hunter can easily subdue it.

3. BIALEYE: This is the protective cowhide mitten that a hunter wears on his right hand and forearm whenever he's handling the eagle.

4. IAKBO: These are the jesses, the leather straps attached to the eagle's legs. They are padded with felt to reduce chafing and worn at all times. In flight, they dangle from the legs. The iakbo attach through metal rings to a leash to allow a quick release during the hunt. When the eagle is sitting on his forearm, the hunter clamps the iakbo under his thumb to prevent the bird from moving.

5. JIMDORBA: A stash of rabbit or marmot meat is kept on hand in this special purse worn by the hunter. Meat has to be readily accessible because it is used to control the bird and lure it quickly away from the quarry to prevent damage to the pelt.

IRON TRAPS: A hunter's sons are often in charge of monitoring the traps laid for rabbits, marmots and rodents in the immediate vicinity of a hunter's home. These traps supply the meat required daily to maintain a strong and well-trained eagle. "If all we wanted was to catch a fox, we'd just use a trap—traps don't fuss so much," one hunter joked.

6. BALDACH: The crutch, mounted against the side of the saddle, that props up the hunter's forearm as he carries his eagle. Pursuing a fox can take a hunter away from home for days, and he will rely on the hospitality of other hunters in the region for food and shelter. But with a bird perched on his arm, a hunter would not get far without the baldach.

7. TOGHORR: When inside or outside the house, the eagle spends its time perched on this three-legged stool, to which the jesses are tied.

8. SAPDIAK: In every hunter's kitchen is this almond-shaped wooden bowl used specifically for hand-feeding an eagle. During the hunting season, an eagle is fed less, to encourage voracity and keep it in shape. Preparing a meal is a laborious process: The hunter must cut the meat into strips and soak them in the sapdiak to wash out the blood. Bloody meat allegedly makes an eagle lethargic, intractable and harder to lure off a fresh kill.

9. HOYA: Once a week at mealtime, a hunter force-feeds the eagle this digestive enhancer, typically made from the down of cattails wound together with thread into a 10-centimeter (4") pellet. It substitutes for the bits of fur that an eagle would consume in the wild, and it absorbs harmful fat from the digestive track. The next day the eagle coughs up the hoya as it would a casting in the wild.

10. TOMACH: The single most telltale sign that someone has an eagle hunter in the family is the tomach, the fox-fur hat worn as a symbol of status by men over 60 years old. These elders joke that young men are just too thick-haired and hot-headed to endure the insulating fur of the tomach—try it, they say, and you'll suffer headaches!

Above: **"When you let the eagle go, she won't fly away," says one eagler. "She moves with you, overhead in the sky." Although the eagle can spot foxes from great distances against the snow, the fox's reddish-sandy coat allows it to elude the eagle when there is no snow cover.** Left: **At the moment of the strike, the eagle's wide-open talons clench, penetrating the fox's heart and killing it instantly. Typically, the eagle will then half-fold its wings over its prey, a behavior called "mantling." The hunter immediately distracts the eagle with a bit of meat.**

The Corsac Fox

Corsac foxes (*Vulpes corsac*) are found across the steppe and semiarid regions of inner Asia from Iran and Kazakhstan in the west to China and Mongolia in the east. Weighing up to 4 kilograms (10 lb), an individual's body and tail together often measure about a meter (39") in length. Corsacs are more social than most fox species, and live in pairs or small packs. They have no attachment to territory, however, and den temporarily in caves and the burrows of rabbits and marmots, which they enlarge. Corsac foxes appear to depend on the distribution of ground squirrels and marmots for both food and shelter. They feed on smaller mammals, reptiles and birds. Though farming and livestock husbandry have significantly reduced their range, the IUCN's 2004 Red List of Threatened Species ranks *Vulpes corsac* in the category of "least concern." "Corsac populations fluctuate significantly," the IUCN writes. "Population decreases are dramatic, caused by catastrophic climatic events, and numbers can drop tenfold within the space of a single year. On the other hand, in favorable years numbers can increase by the same margin and more within a three to four year period."

set up tourist agencies that offer eagle-hunting outings to foreign visitors, and already there are dozens in Mongolia alone. In 2000, the United Nations began funding a three-year environmental education program in Kazakhstan aimed at preserving both hunting and eagle populations with a museum and sanctuary.

In areas still more remote, far off even the most lightly beaten tracks, there are pockets where things still operate fairly traditionally. In one such area, some 90 kilometers (50 mi) from the Kazakhstan border, lies the house of Kenjahan, an isolated outpost in the northernmost Saur Range of the Tian Shan mountains.

Outside Kenjahan's front door, two wolves circle the posts to which they are chained. A small solar panel dangles off the south side of the roof. A police officer has led us here: A friend of a friend we'd met at a wedding, he was so enthusiastic about our project that he insisted on driving us himself to meet this regional champion, a trip of four hours by four-wheel-drive across the icy, roadless mountains.

In 1962, Kenjahan told us, he began hunting bears and wolves to protect the nearby coal-mining commune. Now 63, he spoke nostalgically of the days when his hunting statistics were broadcast over Xinjiang radio in the name of the socialist cause. No man we had met commanded his eagle with the precision of this occupational hunter—not even Aske.

"If four men place their four eagles on a mountaintop and go down to the valley to call them, then each eagle will fly to the arm of its master. An eagle knows its master," he said. His certainly did: He set the eagle on the mountainside, and it skimmed over the surface up to the crest, where it caught the wind and floated a hundred meters above us. When Kenjahan wanted the bird to come down, he held out a piece of rabbit meat and called "Ay! Ay!" The eagle promptly tucked its wings for a direct descent to its master's arm.

Man and eagle moved in unison, and on our hunting day with him we found again the luck that for weeks had seemed to run against us. A fox came darting out from a rock crevice. In a single gesture, Kenjahan unhooded the bird, swung out his arm and sent the eagle into the air. Responding immediately, it swooped down the incline toward the red blur and thrust out its taloned feet. One locked onto the fox's neck, the other its lower back, and the eagle's momentum dragged it a few meters over the snow before touching down. Kenjahan followed full speed down the hill and arrived just as the eagle was mantling its kill under its wings. Kenjahan held out a piece of meat and the bird's attention shifted. It moved off the quarry and onto its master's arm with a seemingly happy hop that contrasted with the ruthlessly efficient predation we just had witnessed. Kenjahan looked up at our awestruck expressions and laughed heartily.

Above: **A hunter's entire family is often well-outfitted with coats and vests lined with corsac-fox fur.** Below: **Deep-fried dough and butter tea have sustained many an eagle hunter through a cold winter on the steppe.**

In one afternoon, this man had shown us what we'd spent a month looking for. And now, with his three sons riding behind him, the fox swinging from his saddle and the hovering eagle overhead his shadow in the sky, Kenjahan rode confidently toward home. A proverb we'd heard many times had never seemed so finely embodied as in that moment: "Fine horses and fierce eagles are the wings of the Kazakhs."

Aske and Kenjahan may be from different generations, but to young men today they are both from a waning breed of Kazakhs whose pride, independence and stoicism generated an air of nobility so rich that the material poverty of their circumstances seemed to vanish. There were small-time sport hunters who regarded the tradition as a poor man's luxury, and then there were men like these, the living chronicles of a nomadic heritage. "Eagle hunting has been in my family for hundreds of years," Kenjahan said. But the inverse seemed no less true: The spirits of his ancestors live on through the eagle.

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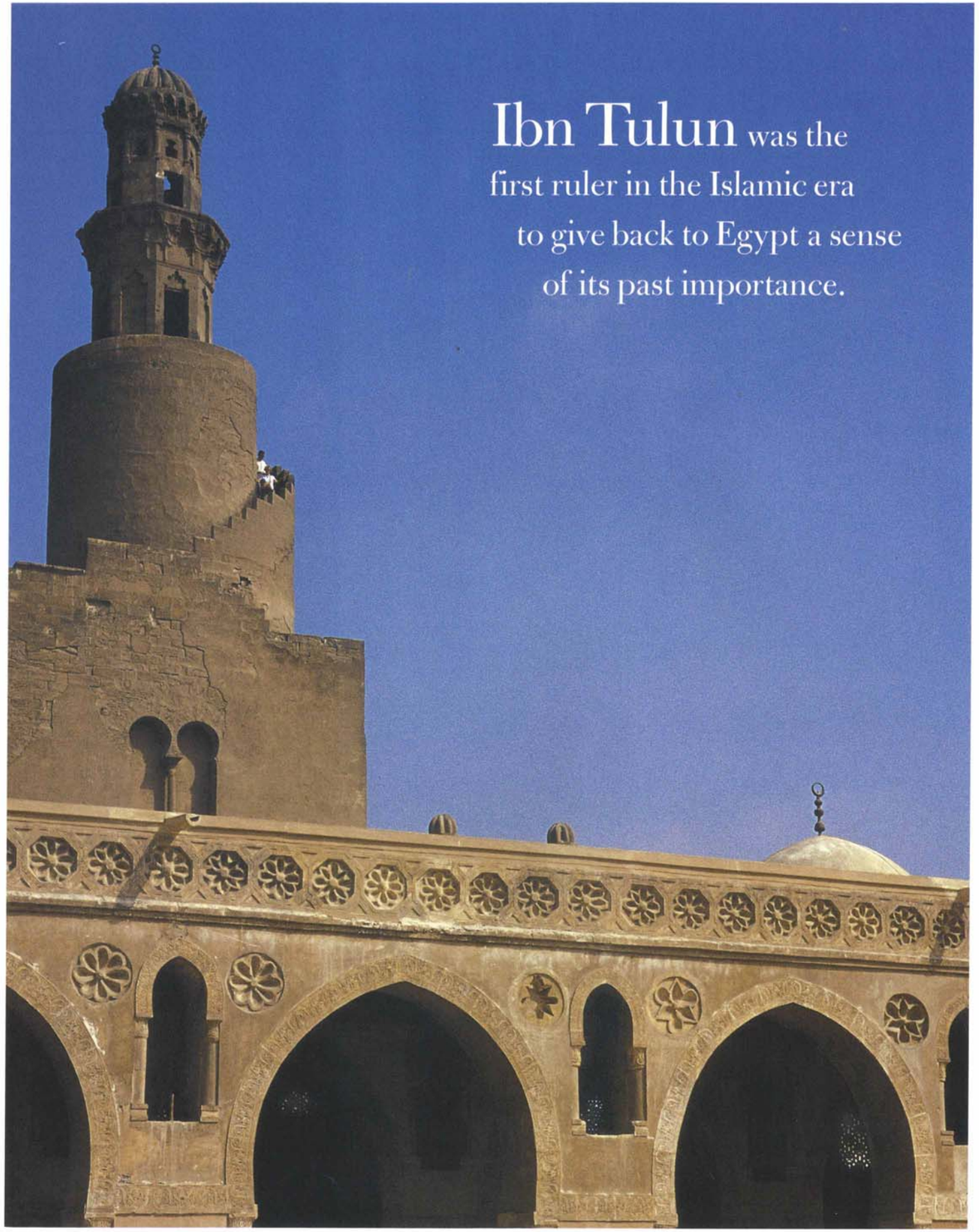
A City Adorned

WRITTEN AND PHOTOGRAPHED BY JOHN FEENEY

From the late ninth century well into the 15th, mosques built as prestige projects were the most spectacular buildings in Cairo. Locals, pilgrims on their way to Makkah and even Christian pilgrims were all entranced when visiting the great Cairo mosques.

Entering through immensely tall bronze doors, many inlaid with silver and gold, visitors passed into silent, imposing courtyards, then entered darkened sanctuaries lit by dozens of softly glowing glass lamps. Suspended from high ceilings on chains invisible in the darkness, the enameled and gilded lamps would have appeared to float in space, providing a soft, even light conducive to prayer, meditation and awe.



Ibn Tulun was the first ruler in the Islamic era to give back to Egypt a sense of its past importance.

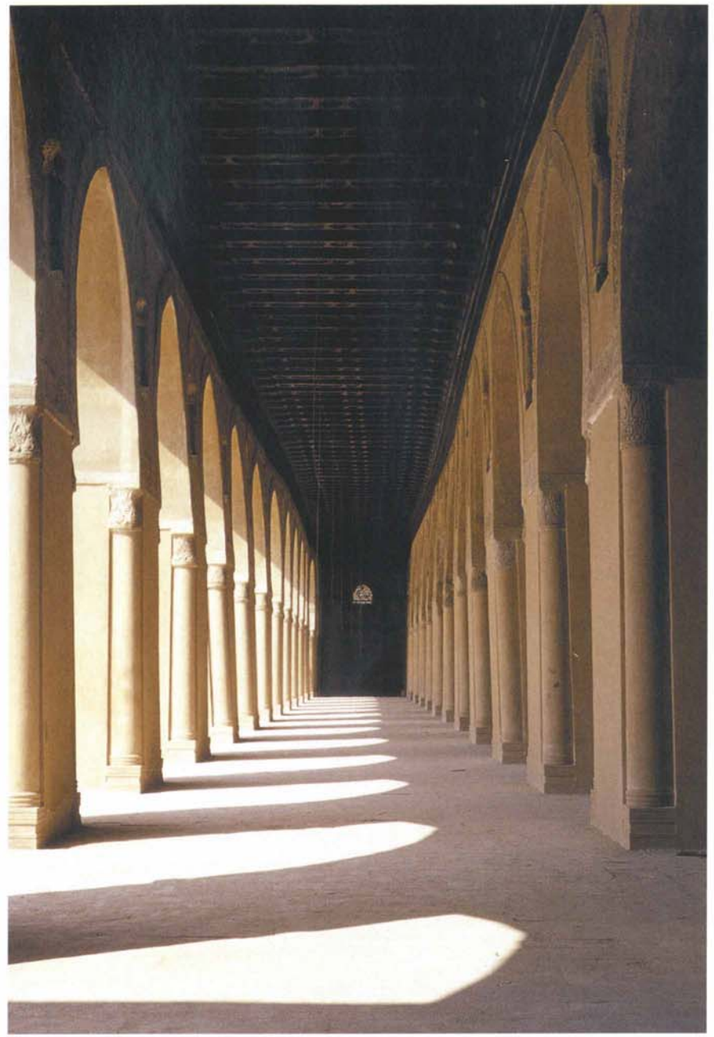
Whether luxurious or humble, all of Cairo's medieval mosques served as places of meeting and of worship. But some did more. In the early Islamic city, a congregational mosque, or *masjid jami'*, endowed by its founders and well-kept by a staff of sextons, was designed to accommodate all the local inhabitants for Friday prayers. Open to all, this large building also became the locus of public education, and here all the sciences of the day were taught. The congregational mosque also played an important social role, for it sheltered the homeless and served as a meeting place for the discussion of matters affecting the community.

In Egypt, the first congregational mosque was built about AD 641 by the conqueror 'Amr ibn al-'As in his new town of Fustat, now at the southern end of modern Cairo. The second is today the earliest mosque still standing; it was finished in 879 by Ahmad ibn Tulun for the palace-city of al-Qata'i'.

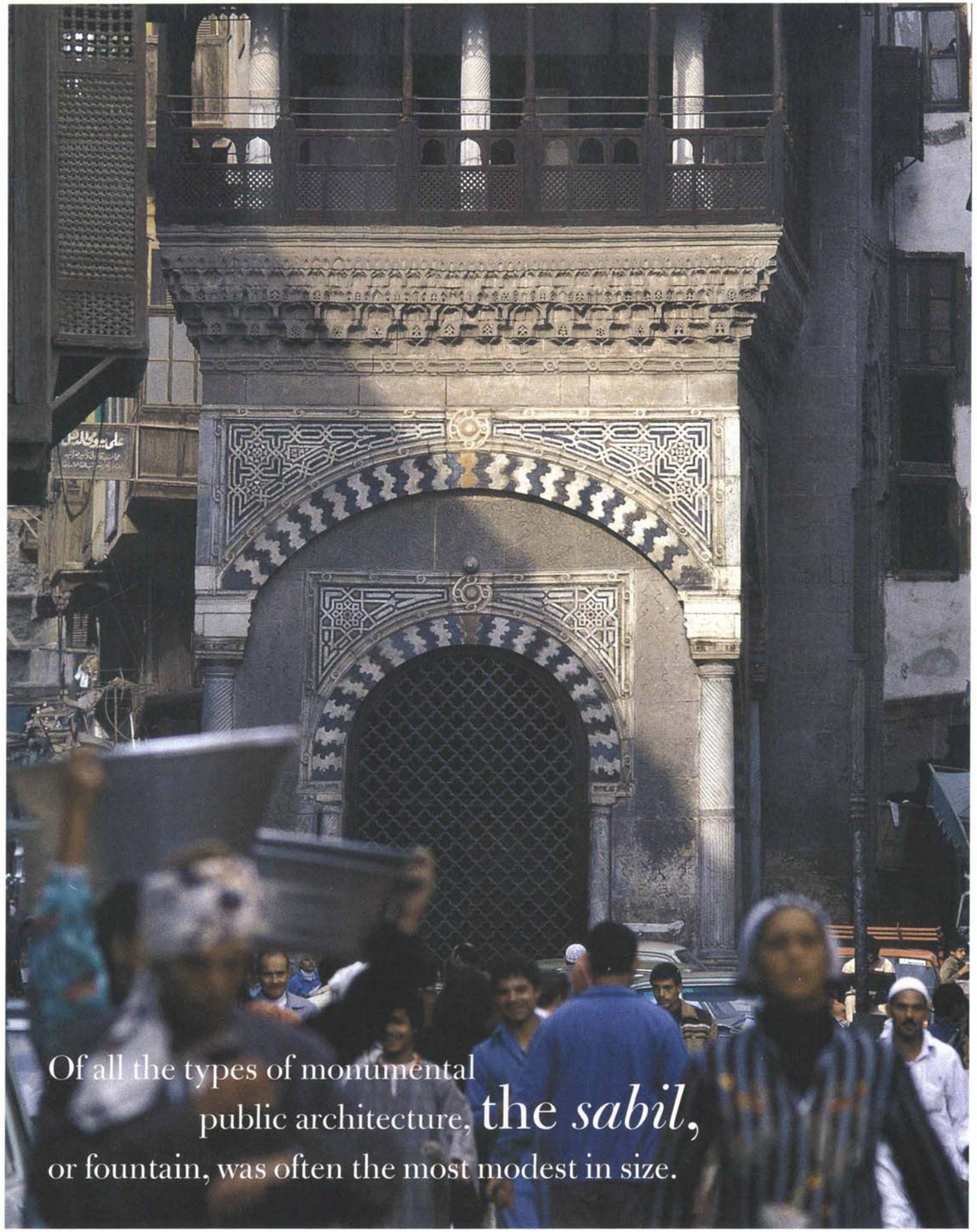
Originally from the Central Asian caravan entrepôt of Bukhara, Ahmad ibn Tulun's father rose in the service of the Abbasid caliphs of Baghdad. Ibn Tulun was educated in Tarsus, in Anatolia, and then appointed in 868 by the caliph to govern his Egyptian domains. Two years later this ambitious young man set himself up as an independent ruler intent on rivaling the regional power of his former Abbasid master.

In doing so, Ibn Tulun was the first ruler of the Islamic era to give Egypt a sense of its past importance. Just beyond the old capital of Fustat, al-Qata'i' became renowned as one of the wonders of the age. Set amid splendid gardens were palaces, barracks, a hospital, a huge *maydan* (public square)—where Ibn Tulun and his men played polo—and the mosque, of unprecedented proportions. To finance his grand project, it is said Ibn Tulun used wealth from a sudden discovery of treasure—probably a cache of Pharaonic gold.

Set on a rocky spur, the mosque was built of fired brick and modeled on the great mosques Ibn Tulun had known in the caliph's palace-city of Samarra, now in Iraq. A person coming to pray across the rock-strewn desert from nearby Fustat entered through two enormous parallel outer walls. The space between them is called the *ziada*, and was designed to keep out the heat, dust and noise of the profane exterior world. Here the teaching of theology, medicine, astrology and grammar took place. This was also where ablutions were performed before entering into the mosque proper to pray. Set into the walls were 128 finely carved, stucco-grilled windows,



Inside the mosque of Ibn Tulun, 220 piers of fired brick brace arches in two courses around three of the mosque's interior walls; the fourth wall indicates the *qibla*, or the direction of prayer, and to create a large covered prayer space there, the builders used five courses of piers. Both the brick piers and the minaret (opposite and previous spread) **recall the styles of Ibn Tulun's native Samarra, now in Iraq. The mosque also demonstrates one of the first comprehensive applications of the pointed arch, some 250 years before its use became common in Europe.**



Of all the types of monumental public architecture, the *sabil*, or fountain, was often the most modest in size.

which filtered the sunlight through delicate tracery.

Once inside, the visitor was shaded in long aisles formed by a forest of 220 gigantic brick piers topped by pointed, slightly horseshoe-shaped arches, all decorated in the style of Samarra. (Two hundred years hence, such arches would appear for the first time in Europe's Gothic cathedrals and, later, in the Arab structures of Andalusia.)

Beyond the shaded arcades was a vast, silent, sunlit courtyard. In its center stood an elaborate fountain where visitors refreshed themselves and where, on hot summer days, they could partake of sweet lemon drinks. To ensure that plenty of fresh water was available for the mosque and all of al-Qata'i', Ibn Tulun built an aqueduct, also out of mud brick, stretching far across the desert to a spring at Basatin. The mosque was a haven for mind, body and spirit.

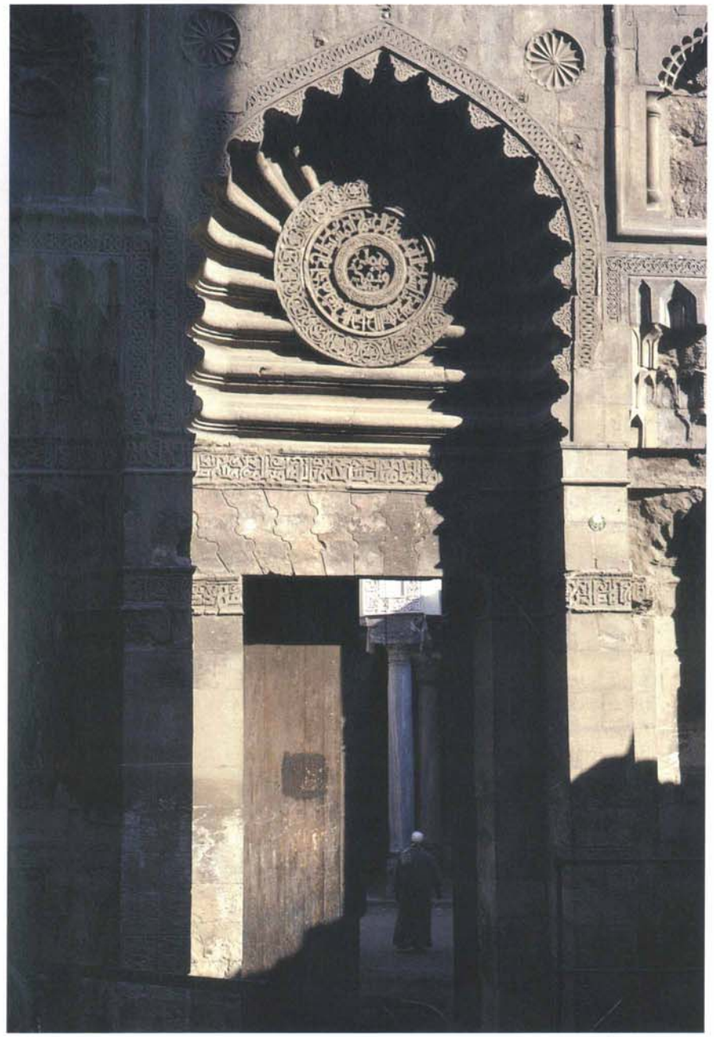
Beyond the courtyard, attached to the inner of the courtyard's double walls, was a minaret with a spiral staircase on the outside—again in imitation of Samarra.

Over the centuries, additions and restorations by others bore witness to the importance of Ibn Tulun's mosque. The Fatimids added a magnificent commemorative stele with boldly floral Kufic inscriptions. The Mamluks redecorated the interior of the *mihrab*, or prayer niche, and the *mimbar* (pulpit) they added is thought by many to be the most beautiful in the city. They reconstructed the minaret, and they rebuilt in stone the wooden central fountain that had been destroyed by fire at the end of Ibn Tulun's rule.

Ibn Tulun's dynasty collapsed in AD 886, and al-Qata'i' was razed. All that remained was the mosque. Over the next 1100 years, it withstood fire, flood and earthquake, and it is now surrounded by the city named by Ibn Tulun's successors *al-Qahira*, "the vanquisher"—Cairo.

The first mosque built by the Fatimids in al-Qahira was al-Azhar, "the most resplendent" or "the most blooming," founded in AD 972. It quickly took precedence over all other mosques, and for more than a thousand years, students have gathered around its columns seeking knowledge from famous scholars, making it one of the oldest universities in the world.

With their conquest of Egypt, the Fatimids also claimed the Islamic caliphate, and other large mosques were built: That of al-Hakim, outside the walls of al-Qahira, was nearly as



Above: **The Al-Aqmar mosque, with its intricately carved entrance, was built in 1125 as a private worship space for the caliph and his entourage.** Opposite: **The high architectural styles developed in Cairo under Mamluk rule endured beyond the dynasty's fall in the early 16th century: As late as 1744, the prolific architectural patron 'Abd al-Rahman Katkhuda used signature Mamluk black-and-white stone *ablaq* patterns in this public fountain, or *sabil*.**

large as Ibn Tulun's, and the stylistic resemblance can be seen. In addition to these feats of grandeur, smaller, exquisitely built prayer places were springing up everywhere, such as the mosque of al-Aqmar, whose name means "moonlit." It was intended as a palace chapel for the private use of the caliph and his entourage, and as a culminating point for grand Fatimid processions.

Following the fall of the Fatimid dynasty with Salah al-Din's (Saladin's) conquest of Egypt in 1171, there came with the new ruler a new religious institution, the *madrasa*, which was equivalent to a private college. This Salah al-Din introduced to reeducate the population in the four schools of Sunni jurisprudence—Shafi'i, Maliki, Hanafi and Hanbali, named after the religious leaders who founded them. Whereas the mosques were open to all, the madrasas received only limited numbers of students. Gone now were the vast enclosures built to hold all the inhabitants of the city. The layout of the madrasa was centered around a much smaller courtyard, which was often surrounded on four sides by deep alcoves (*iwans*), one for each of the schools of jurisprudence.

About this time another institution, the *khankah*, was also introduced by Salah al-Din. First founded within the city walls, khankahs—meeting places of religious brotherhoods—soon flourished in the remoteness of the surrounding deserts, where the nobility had plenty of space to build lavishly.

At first madrasas and khankahs, even when provided with minarets, were not places of public worship. But by the Mamluk era, which began in 1250, they gradually came to be fused with the congregational mosques. Within the city, large madrasa-mosque complexes were built, complete with lodgings, lecture rooms, libraries, schools for orphans and practical services such as flour mills or a cistern with a waterwheel (*sakia*) to convey running water to the surrounding district.

The largest and most luxurious of these complexes was that of Sultan Hasan.

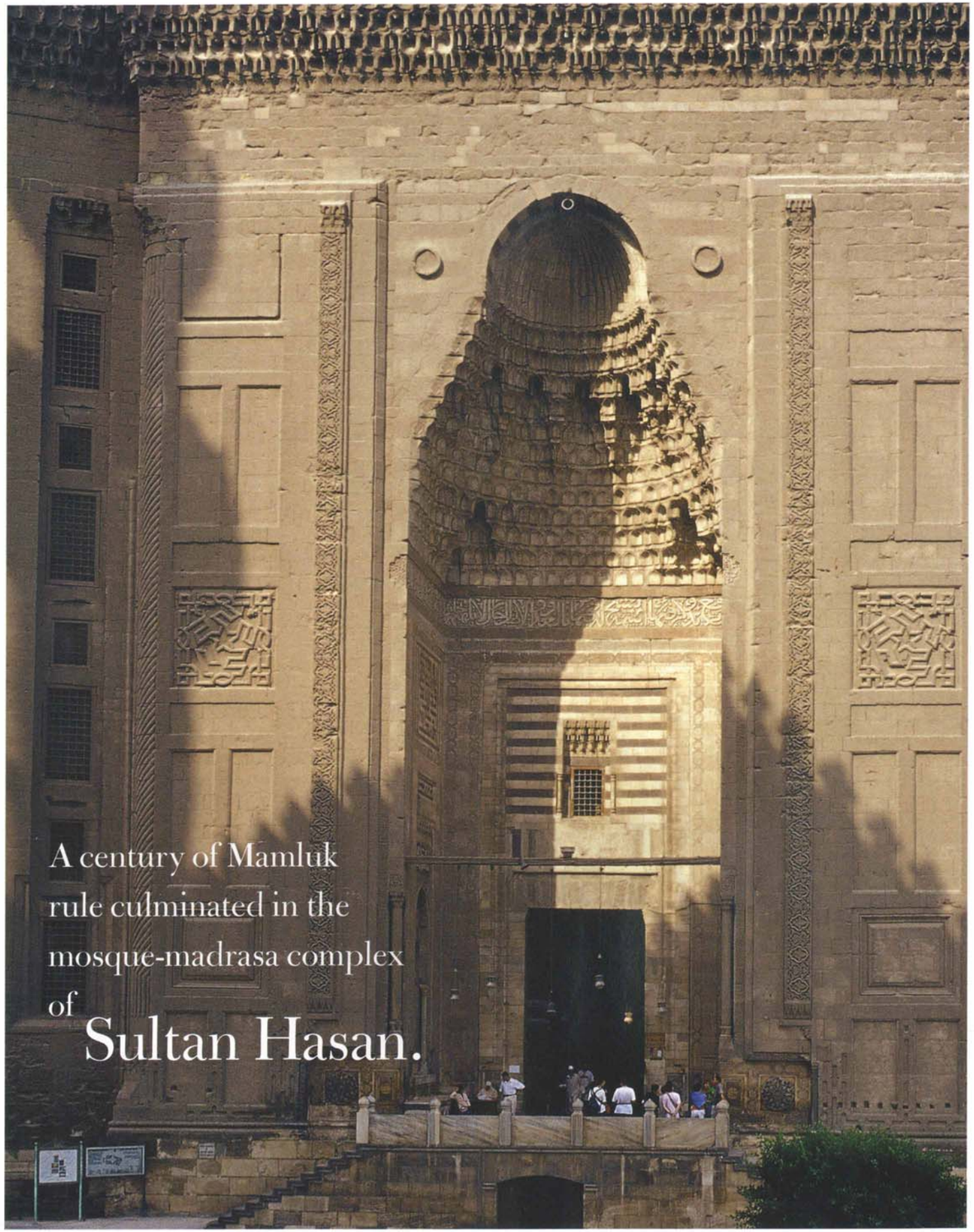
The interior of one of the two domes of the *khankah*, or religious hostel, of Sultan Farag ibn Barquq echoes the herringbone pattern that fully covers its exterior. (See front cover.) **In addition to worship space, the khankah included kitchens, living quarters, baths, bakeries, grain mills and markets.**

Five hundred years passed between Ibn Tulun's construction of his mosque in the desert and the time when Sultan Hasan ibn Qala'un set out to build at the foot of Salah al-Din's 12th-century citadel. Sultan Hasan's grandfather, Mansur Qala'un, had already set the pace for building great mosques in 1284 with his madrasa and hospital in the heart of Cairo. Sultan Hasan's father, Nasir Muhammad, who reigned for nearly 50 years, built an even vaster edifice within the walls of the citadel, capable of holding 5000 worshipers. It was during Nasir Muhammad's long reign that it became the fashion for even minor nobility to build ever more splendid mosques, palaces and public drinking fountains (*sabils*).

Though he was born into an age of architectural splendor, Sultan Hasan's years were strewn with intrigue and disaster. He only reached the throne after succeeding his seven brothers, each of whom briefly occupied it before being either murdered or deposed. First elected at the age of 11, then at 16 overthrown by one of his brothers and committed to the citadel's infamous dungeon, he languished for three years before being released and made sultan again in 1354.

Sultan Hasan's restoration coincided with a disaster: Bubonic plague, "the black death," arrived in Cairo in the autumn of 1348. Within two years, 200,000 died in Cairo alone, and large parts of the city, the historian Maqrizi tells us, were depopulated.

Sultan Hasan, however, survived, and just as Ibn Tulun, in his day, had came into sudden wealth and used it to build grandly, Sultan Hasan, too, found himself suddenly in possession of enormous wealth from the estates of plague victims. He decided to use part of the money to build another great mosque. He is said to have asked for "something impressive," as indeed he



A century of Mamluk rule culminated in the mosque-madrasa complex of Sultan Hasan.

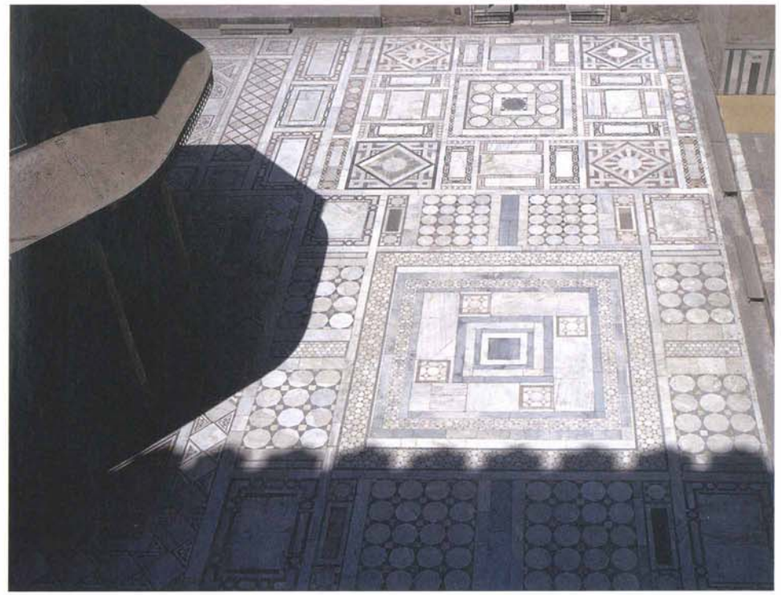
might well do if he were to stand a chance of surpassing his father's and his grandfather's colossal accomplishments.

Plans were developed for a vast mosque-madrasa complex with dormitories and accommodation for 500 teachers and students. A khankah which was to have been built in a second stage was never completed. Compared to Ibn Tulun's sprawling and essentially horizontal desert grandeur of fired brick five hundred years before, Sultan Hasan's madrasa-mosque was built out of huge blocks of stone in soaring vertical splendor.

Of unprecedented scale in the Islamic world, Sultan Hasan's mosque became the culmination of all the architectural power developed throughout a century of Mamluk rule. An impressive flight of steps leads to an entrance portal of tremendous height, its peak decorated with a *muqarna*s ceiling of stalactites. A narrow, lofty, gradually ascending passageway follows, which emerges suddenly out of darkness into the blinding sunlight of a courtyard paved in patterned marble. The Egyptian architect Hasan Fathy described the experience: "Immediately, your eyes are drawn upward into the blue sky. And as you lower your head, 'peace' with Allah's blessing of contentment descends upon you."

And as you lower your head, your gaze spreads across the patterned mosaic-paved courtyard, unprecedented in the city. Soaring up from this expanse, four enormous vaulted *iwan*s, or halls, shelter the four schools of Sunni Islamic teaching. The eastern iwan is the mosque's sanctuary and the only one where the decoration begun by the Sultan was completed, with a splendid Kufic inscription, marble paneling on the *qibla* wall (the one indicating the direction of Makkah) and a dazzling, multi-colored marble mihrab. In Sultan Hasan's day a multitude of the famous Mamluk enameled glass lamps, suspended on fine chains, glowed in the immensity of the mosque's interior space.

The mosque was meant to have four high minarets, though today there are only two: One collapsed, killing some 400 orphans; the fourth was never built. In the sultan's time, the mosque's call to prayer was announced by a chorus of 60 muezzins working in two shifts who intoned from the door of the mosque, the courtyard, inside the sanctuary, from the roof and from the high balconies of what were then the city's two tallest minarets. Unlike the bare mosque of today, in the 14th-century mosque rich carpets lay across the



Top: **The complex of Sultan Hasan is entered through a narrow, high-ceilinged passageway decorated with carved panels and lit by lamps that today are electrified replicas of the originals.** Below: **The courtyard is paved in elaborately patterned marble marquetry.** Opposite: **Contemporary with many European Gothic cathedrals, the façade of the complex leads inside to four *iwans*, or arched rooms, each 30 meters (96') high, the tallest in Cairo.**

Inside the mosque-madrasa complex of Sultan Hasan, doors in the courtyard walls lead to the four quarters of the madrasa (Islamic school), one for each of the four schools of thought of Sunni legal practice. Each had teaching rooms and residential quarters. They are no longer in use.

marble floors, while huge brass candlesticks illuminated the open pages of immense royal Qur'ans resting on carved wooden lecterns inlaid with ivory and mother-of-pearl. Nearby were silver water bowls and censers.

Alas, in 1361, just before the completion of his mosque, Sultan Hasan lost his throne, and possibly his head, in another palace coup. No one is quite sure what happened. Some say he escaped; others say he was tortured and that he died in the citadel's dungeon. We know for certain he does not rest in the rich mausoleum he built for himself at the back of the mosque's sanctuary.

The three Qala'uns—grandfather, father and son—gave to Cairo three most impressive mosques. Of them, Sultan Hasan's is undoubtedly the most splendid. Nothing has ever surpassed it since. Six centuries after its completion, in the early 19th century, the architect Louis Sullivan was influenced by it in his design of New York's first skyscrapers. In the late 1970's, the United Nations Educational, Scientific and Cultural Organization (UNESCO) decreed Sultan Hasan's great mosque a World Heritage Site. Sultan Hasan did, at least, get his heart's desire: "Something impressive."

Since the 1960s, **John Feeney** (NH.Phua@xtra.co.nz) has been one of *Saudi Aramco World*'s most frequent contributors, and the architecture of Islamic Cairo remains one of his favorite subjects. See inside back cover for details of the **John Feeney Retrospective:** *40 Years of Photographing Egypt*, showing at Cairo's Sony Gallery from March 7 through April 21.

Related articles from past issues can be found on our website, www.saudiaramcoworld.com. Click on "indexes," then on the cover of the issue indicated below.

Al-Azhar: S/O 73
Domes: J/F 78
Minarets: N/D 75
Muqarnas: M/J 00
Sabils: M/J 87

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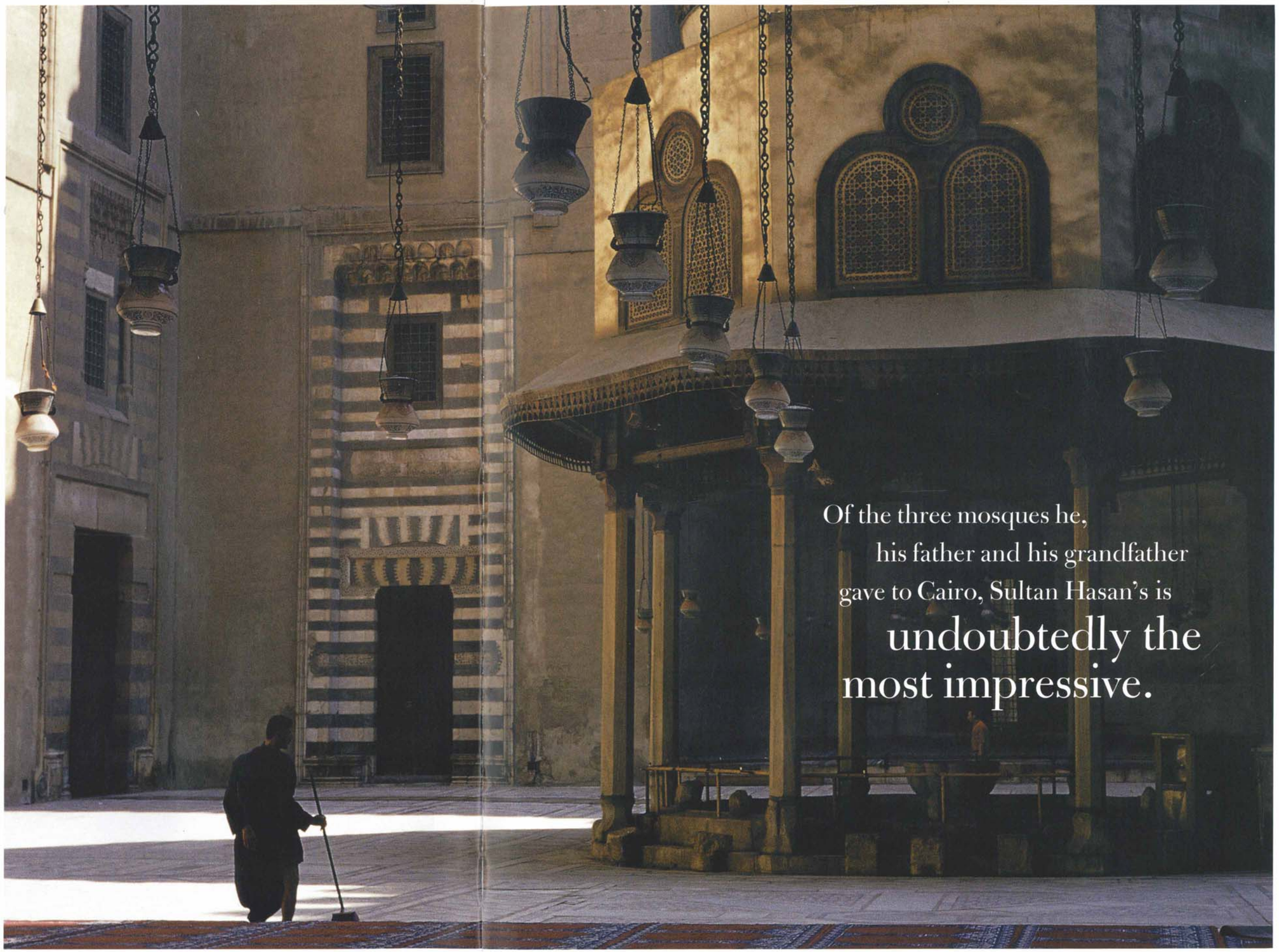


Of the three mosques he, his father and his grandfather gave to Cairo, Sultan Hasan's is undoubtedly the most impressive.

ANNUAL INDEX 2004

SUBJECTS

DANA SMILLIE

TITLES

CONTRIBUTORS

NORMAN MACDONALD

INSTITUTIONS

Reader's Guide

WRITTEN BY JULIE WEISS

For students: We hope this two-page guide will help sharpen your reading skills and deepen your understanding of this issue's articles.
For teachers: We encourage reproduction and adaptation of these ideas, freely and without further permission from *Saudi Aramco World*, by teachers at any level, whether working in a classroom or through home study.

—THE EDITORS

Class Activities

The activities in this section are designed to engage students with the material in *Saudi Aramco World* while encouraging them to connect it to the larger themes they explore in their other studies. This month's activities revolve around two basic concepts: **Storytelling** and **Boundaries.**

Theme: Storytelling

Stories are everywhere. You come across them every day—read them in the newspaper or a magazine, or watch them in a movie or TV show. These activities focus on a story in this edition of *Saudi Aramco World* about a particularly interesting mystery—the search for Troy. In the activities that follow, you'll have a chance to think about what makes a good story, and to put one together yourself.

What makes a good story?
In this activity, you will be a scriptwriter for a movie. Start by reading "In Search of the Real Troy." Make a list of as many events—things that happened—as you can. Then think about the order, or sequence, in which the author revealed information and described events. How did the author choose to organize the stories? What came first? Write an outline of the story as it's been written. Keep the outline in mind as you proceed.

Read the questions in bold type that follow. They are key questions that writers ask. List them on a separate sheet of paper. Think about one of your favorite movies. Ask the same questions about that movie. (Or watch one, by yourself or as a class, so you can see how they apply.)

What story do you want to tell?
There are lots of ways to tell a story. For example, you could tell the story of the excavation of Troy by focusing on the life and work of Heinrich Schliemann, or the current excavations of Manfred Korfmann. Or you could present a chronology of all the archeologists' efforts for the past 150 years.

Who is/are the main character/s?
Describe your main character or characters. What are they like? Write a paragraph profile. Include what you know about the person's background, what he or she looked like, what type of temperament s/he had, what others thought of him/her. Think of this description as similar to the sketch a painter might make before actually putting brush to canvas.

What are the characters' wishes?
What motivates your character or characters? Any lead character in a story must have a goal. What is it? Why is achieving that goal important to him/her/them? In other words, why would someone be willing to go to great lengths to achieve the goal? What do they want?

Where does your story take place?
Where is the action in your story? At what time in history does it happen? What's the place like? Why is the story set in this particular place? Are the characters created, in any sense, by the place and time they live in? What exists in the place that affects the characters—making something possible or perhaps making something difficult or impossible?

What obstacles do your characters face?
A good story involves motivated characters facing obstacles that could prevent them from achieving their goal. For a movie plot to move forward, characters must face repeated roadblocks. What obstacles do your characters face? Are they physical, financial, legal and/or personal? Some of these obstacles may be stated in the articles, and others may be implied. Think carefully.

How will you tell the story?
Now that you've got what looks like all the pieces, outline your movie. Choose a beginning and an end point. Write a description of the plot. You don't need to go into great detail, but a reader should be able to get the general idea of what your movie will be about and what will make it fascinating.

What visual images will accompany your story?
A storyboard is a series of drawings that show what a scene will look like. Storyboards for movies, as you might imagine, are quite long. But get a sense of how a storyboard works by making a storyboard for one scene you would like to see in your movie. Under each picture, write a short statement that summarizes that segment of your film. Remember these are rough sketches so very simple drawings are fine.

Theme: Boundaries

Boundaries separate one place from another. It may be easiest to think about how borders separate one country from another. But national boundaries are only one type among many. In the following activities, you can explore different types of boundaries and different ways of thinking about them.

What boundaries exist in nature?
Long before people created boundaries, they had to deal with natural barriers. Read "The Eagle Hunters." Although the Kazakh people now live in several countries, they remain quite isolated in wild parts of those countries. What physical and climatic barriers separate the Kazakhs from others? How Rebecca Schultz and Philipp Engelhorn managed to cross those barriers makes up a large part of their story. How were they able to traverse nature's obstacles?

What other physical barriers exist? Think about where you live: Does a steep hill define the edge of your neighborhood? Does a stream separate one side of town from another? Make a map of your neighborhood or town that includes the physical boundaries you've identified. Now add human-made boundaries to your map. Put in the following features: the town line, the boundary of your school district,

Class Activities (cont'd.)

one-way streets, stop signs and traffic lights, highways, railroad crossings and the like. Compare the physical and the human-made boundaries. How do they overlap? In other words, see if, in your town, people have drawn boundaries that emphasize natural boundaries.

Pull the camera back for a bigger picture. On a national map, highlight the physical features that define boundaries in your state or province. For example, the Mississippi River creates a border between Illinois and Missouri. On a world map, highlight the geographic features that create boundaries between nations. The Pyrenees Mountains, for example, create a border between Spain and France. Then mark natural boundaries between continents. Again, do you see overlap between geographic boundaries and human-made boundaries? Write one or two sentences that describe any relationship you see between the two.

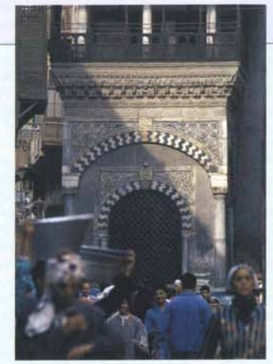
Climate creates barriers, too, as "The Eagle Hunters" describes so vividly. Get a world climate map from an encyclopedia or geography book. Make a transparency with climate zones and overlay it onto your world map. As you did with physical boundaries, look for connections between climatic and human-made boundaries. As a class, discuss the relationships between natural and human-made boundaries. What generalizations can you make?

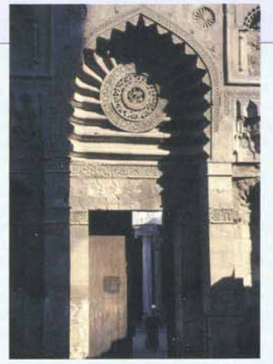
How else do people make use of natural boundaries?
People have long used natural boundaries for their own ends. Choose one of the following examples to research: Siberia, Elba, or Alcatraz. What physical features define the place you're studying? Find out, if you can, when the decision was made to use these physically bounded locations as prisons. Who decided? What led to the decision? Share your findings with the class. On your own, write a one-page history explaining how and when people decided to make prisons out of physically isolated places.

Why do people create boundaries between countries?
While many Kazakhs live in the same area they have lived in for millennia, they now find themselves in several different countries. "The Eagle Hunters" begins by explaining how the Kazakh population is distributed among them. What political factors does the article identify as causes of the Kazakh dispersion across national boundaries? Do some historical research to find out how the boundaries in that part of Asia have changed over the past 100 years. How have the changing boundaries affected other ethnic groups living in the area? Compare these experiences with any similar experiences that you or your family may have had recently or a few generations ago.

How and why do people override natural boundaries? Is doing so always for the best?
Many Kazakhs have long been isolated from national governments, but "The Eagle Hunters" reports that increasingly people are able to overcome the Kazakhs' natural isolation. Roads now pierce the boundaries that once isolated them. Rebecca Schultz writes, "Along the newly completed summer tourist roads, we arrived at many a hunter's door only to find authorities from the Bureau of Forest Resources had recently done the same, demanding to watch the eagle set free." With the roads has come government authority. Is the presence of government conservationists positive or negative? As a class, debate the issue.

Analyzing Visual Images





We spend a lot of our time looking at visual images—on television and computer screens, in newspapers and magazines, in art galleries and on billboards. Most of us enjoy them without thinking too much about them. It's a good idea, though, to be able to look at visual images with a critical eye—to know what draws you in, how it does so, and what you get from it.

"A City Adorned" presents beautiful photographs of Cairo's mosques. Among the photos are three in which doorways are prominent (pages 24, 25 and 28). Different visual approaches to three different doorways provide information about the buildings where the doorways are, as well as a way to think about how photographers create different effects from similar subjects.

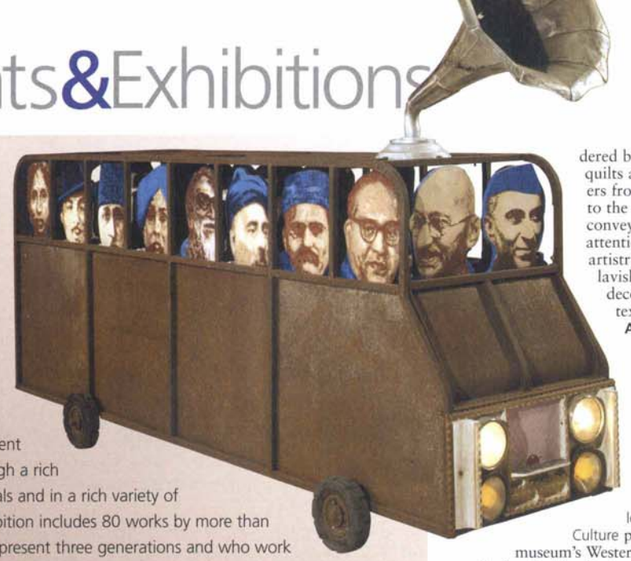
All of the photographs include people. What do you learn about the doorways and the buildings because the people are present? What kind of "feel" does the people's presence give the photos? What would happen if the people were not there?

Photographers capture images that include light and shadow. The light and shadow exist at the time the photographer is shooting, but s/he can use them or emphasize them to create certain effects. For example, about one third of the photo on page 25 is in shadow. Why didn't the photographer simply crop (cut) the photo so that it included only the lighter parts? In addition, the lower right-hand corner includes an angular shadow. What effects do the shadows create? Think about it by looking at the part of the photo that's in sunlight. Why did the photographer choose to take a photo with that part of the doorway in bright light?

Now look at light and shadow in the other two photos. If you squint your eyes, you will see that the lines between light and shadow create distinct shapes in each picture. What are they? Look closely at the shadows in the photo on page 28. What do you think is making them? Describe how they support the photograph.

Julie Weiss is an education consultant based in Lowell, Massachusetts. She holds a Ph.D. in American studies and develops curricula and assessments in social studies, media literacy and English as a Second Language.

Events&Exhibitions



Edge of Desire: Recent Art in India offers a decade-long perspective on contemporary visual practices in India, presenting works dating from 1993 to the present that speak through a rich variety of materials and in a rich variety of idioms. The exhibition includes 80 works by more than 30 artists who represent three generations and who work in sculpture, painting, drawing, installation, video and interactive media. Drawing on important public and private collections, the exhibition provides opportunities to explore cross-cultural influences in the art of a country generously supplied with cultural diversity and juxtaposition, and to examine the coexistence of urban fine art, *adavasi* art, Bollywood imagery and popular culture. Queens Museum of Art, **New York**, February 27 through June 12, and Asia Society, **New York**, March 1 through May 29.

"Freedom Bus" or "A View from the 6th Standard, 2001–2004" by Nataraj Sharma, who lives and works in Baroda, Gujarat. The bus is nearly eight feet long.

<< Ongoing

Iranian Film Festival 2005 features recent films by established directors Bahran Beyzaie and Abolfazl Jalili and newcomer Mania Akbari. Persian with English subtitles.

- "Here, A Shining Light": January 16, 2:00 p.m.
- "Killing Mad Dogs": January 21, 7:00 p.m.; January 23, 2:00 p.m.
- "20 Fingers": January 28, 7:00 p.m.; January 30, 2:00 p.m.
- "The First Letter": February 4, 7:00 p.m.; February 6, 2:00 p.m.

Freer Gallery, **Washington, D.C.**

The Quest for Immortality: Treasures of Ancient Egypt dramatically illustrates the ancient Egyptian concept of the afterlife through 143 magnificent objects and a life-sized reconstruction of the burial chamber of the New Kingdom pharaoh Thutmose III (1490–1436 BC). This exhibition includes objects that have never been on public display and many that have never been seen outside Egypt, selected from the Egyptian Museum in Cairo, the Luxor Museum of Ancient Art and the site of Deir el-Bahari. Ranging in date from the New Kingdom (1550–1069 BC) through the Late Period (664–332 BC), the works of art include luxurious objects that furnished tombs, including jewelry, painted reliefs, implements used in religious rituals, a sarcophagus richly painted with scenes of the afterlife and an ancient painted model of the royal barge that carried the pharaohs along the Nile. **Denver** Museum of Nature and Science, through January 23.

A Written Cosmos: Arabic Calligraphy and Literature Throughout the Centuries documents the development of Arabic calligraphy with rare historical manuscripts from famous collections, covering the period from the early Abbasid parchment manuscripts of the ninth century to Mamluk works of art from Egypt and Syria. Another part of the exhibition shows developments in contemporary Arabic calligraphy, exhibiting a range from traditional styles to free and abstract interpretations of Arabic script. Museum für Angewandte Kunst, **Frankfurt**, through January 30.

Luxury Textiles East and West: Opulent Interiors demonstrates the critical role textiles have played, historically and culturally, in aesthetically enhancing living spaces from the United States to Europe and China. The textiles in this exhibition are grouped into sections representing floor coverings, furniture and bed covers, wall hangings, cushions and curtains. Examples range from a 15th-century Flemish *millefleurs* tapestry to a five-color, 17th-century Mughal velvet tent panel. Embroidered bed hangings, quilts and bed covers from the 16th to the 19th century convey how much attention and artistry have been lavished on such decorative textiles. **Los Angeles** County Museum of Art, through January 30.

Beirut to Baghdad: Communities, Collecting and Culture places the museum's Western Asian collection in historical and cultural context, viewing it from a local and Middle Eastern perspective. Memories and associations of young and old members of Sydney's local Arab-Australian community add a personal aspect and a community voice to the interpretation of the costumes, textiles, ceramics, metalware, tiles, coins and antiquities on display. The exhibition will give the visitor an insight into decorative objects from Syria, Lebanon, Palestine, Jordan and Iraq as well as an opportunity to share the views of local Arabic community members. It will also reflect on traditional museum practices of collecting by examining the European notion of "orientalism," or how the West fantasizes about the East. Powerhouse Museum, **Sydney, Australia**, through January 30.

Arts of Mughal India presents some 30 works of art, including brilliantly colored, intricately detailed manuscript paintings and luxury objects in jade and lacquered wood, that offer a glimpse into the conceptually creative and technically innovative tradition of Mughal painting. In the early 16th century, the conquest of northern India by Babur ushered in Mughal rule, which lasted until 1858. With the help of Persian painters, who migrated to India at the invitation of the second Mughal ruler, Humayun, early Mughal painting synthesized the refinement of Persian painting and the dynamism of Hindu compositions with western naturalism. The third Mughal ruler, Akbar, encouraged the extensive production of illustrated Hindu and Muslim epics, historical narratives and portraiture. Jahangir (1605–1627) was more interested in highly finished individual compositions and portrait studies, drawing on both Persian pictorial ideals and European naturalism. Under his successor, Shah Jahan, Mughal fascination with portraiture reached its zenith, transforming figures into iconic images of power and grandeur assembled in lavishly produced royal albums. Sackler Gallery, Smithsonian Institution, **Washington, D.C.**, through February 6.

Bright Flowers: Textiles and Ceramics of Central Asia exhibits *suzanis*, *palyaks* and other textiles, glazed ceramics, costumes and jewelry, some dating back to the 10th century, from museum collections in Uzbekistan, Tajikistan and Kazakhstan, much of it seen for the first time outside those countries. Central Asian traditional crafts reflect inspiration from Islamic ornament and design, from ancient beliefs and from nature.Catalog. Powerhouse Museum, **Sydney, Australia**, through February 6.

Floral Perspectives in Carpet Design examines the ubiquity of floral motifs from three perspectives—spiritual, cultural and artistic—as rendered in the designs of 17th- to 19th-century Indian, Chinese, Central Asian, Persian and Turkish carpets. The exhibition explores the variety of floral motifs and how these motifs speak to the transfer of ideas from culture to culture. Textile Museum, **Washington, D.C.**, through February 6.

Palace and Mosque: Islamic Art from the Victoria and Albert Museum. The exhibition's themes start with "The Written Word," featuring calligraphy from the 10th to 18th century. "Courts and Courtiers" introduces art made for the secular realm of the Ottoman and Safavid ruling elites. "Mosques, Shrines, and Churches" will examine works created for religious establishments, including a 20-foot high pulpit (*mimbar*) made for a mosque in Cairo in the 15th century. The section also includes works produced by Muslim artists for Christian churches, reflecting the religious tolerance that has characterized Islamic culture from its beginnings in the seventh century. "Artistic Exchange," the final section, includes works of Islamic, European and Chinese manufacture. As the textiles and ivories demonstrate, the wealth of interaction between the Islamic Middle East and Europe was such that some works of art cannot be easily assigned to one culture. A book, *Palace and Mosque: Islamic Art from the Middle East*, accompanies the exhibition. National Gallery of Art, **Washington, D.C.**, through February 6.

Vanished Kingdoms: The Wulsin Photographs of Tibet, China and Mongolia 1921–1925 presents images of colored lantern slides made by Janet Wulsin when she accompanied her anthropologist husband to western China, Inner Mongolia and Tibet. Wulsin took the photographs, which were later painstakingly hand-colored by artisans in Beijing, who used their knowledge of local customs, colors and scenery to develop—but also interpret—the images. **Houston** Museum of Natural Science, through February 13.

Yurt Tutmuş Dot is an approach to one of the basic needs of human existence: shelter. Canan Dağdelen, a ceramist of Turkish origin and graduate of the University for Applied Art in Vienna, places the need for a *yurt*, or home, in the context of the larger concepts of "homeland" and "feeling at home," using cultural forms from Turkey and the material forms of her medium. Museum für Angewandte Kunst, Vienna, through February 20.

<< Ongoing

Heavenly Harmonies: Art and Music in India presents 25 paintings and sculptures from the 15th to the 19th centuries illustrating the widespread integration of music and dance into Indian daily life, religion and court ceremonial. The works include several examples of *ragamala* paintings, an art form created for the courts of central India combining music, the poetry that inspired it and painting. These images unique to India correspond and give visual form to the raga modes and emotions characteristic of Indian melodic movements. National Gallery of Canada, **Ottawa**, through February 20.

A Garden of Shawls: The Buta and Its Seeds. The natural grace of the gardens of Mughal India was reflected in the patterns of trees, vines and flowers that decorated textiles of the period. Kashmir shawls express this taste for fluid softness, flower-bright color and rhythmic design. One of the most recognizable design motifs in Kashmir shawls is the flame-shaped cluster with a bent tip, known as the *buta*, *boteh* or paisley motif. The exhibition includes spectacular variations of the *buta* in both Asian and western shawls, and explores the landscape of its design in history. Accompanying the shawls in the exhibition are complementary textiles of several different materials, techniques and periods, beginning with fragments found in Egypt and going back more than a thousand years. Textile Museum, **Washington, D.C.**, through March 6.

Queen of Sheba: Legend and Reality explores the present-day legend of the Queen of Sheba, as portrayed in cultures around the world, and also examines the factual background, looking into the archeological evidence from the ancient kingdom of Saba in today's Yemen. The Queen of Sheba has always been an intriguing figure, famed for her beauty and wealth, though much about her true identity remains unknown. This exhibition of antiquities, coins, prints, drawings and modern ephemera, organized by the British Museum and presenting both an ancient and modern perspective, allows visitors to explore her multifaceted story. Bowers Museum of Cultural Art, **Santa Ana, California**, through March 13.

Mummy: The Inside Story uses cutting-edge computer graphics and the latest scientific and medical research to allow visitors to view a "virtual unwrapping" and autopsy of the 2800-year-old mummy of Nesperunnub, priest of Karnak in Egypt. Visitors sit in a state-of-the-art immersive theater where, wearing 3-D glasses, they can scrutinize the mummy's body and objects inside the wrappings. British Museum, **London**, through March 27.

The Sky in a Carpet presents some 60 rugs from the "classical" period between the 15th and 19th centuries, woven in Mamluk Egypt, Ottoman Turkey or Safavid Persia, as well as some Caucasian, Turkmen and Moroccan pieces. Whether court rugs, tribal rugs or village rugs, all show strong and incisive designs, fully developed as if they had "fallen from the sky." Institut du Monde Arabe, **Paris**, through March 31.

Pharaoh was far more than a sovereign: He was also god, priest-king, victorious warrior and uxorious family man. Guarantor of the equilibrium of the world, all power in his immense realm, unified around 3300 BC, was his. This major exhibition traces the major stages of Egypt's history through the monuments they left behind, beginning with a gallery of pharaonic portraits. Some 200 objects, mostly from the brilliant New Empire period (ca. 1550–1069 BC), illuminate different aspects of the rulers' personalities. Institut du Monde Arabe, **Paris**, through April 10.

Arab Americans in Arizona: Stories, Traditions, Experiences explores the migrations of Arabic-speaking people to Arizona since the latter part of the 19th century, using musical instruments, calligraphy, jewelry, metalwork and historical items to document their experiences and their economic and cultural contributions. The exhibition explains the diversity of Arab-Americans' communities, their religious beliefs, social customs, dress, language, music, family structure and traditions of hospitality, and how such elements have influenced their assimilation into American society. **Mesa [Arizona]** Southwest Museum, through April 17.

Iraq and China: Ceramics, Trade And Innovation focuses on revolutionary changes that took place in Iraqi ceramics during the ninth century as the humble character of Islamic pottery responded to a wave of luxury Chinese goods imported by Arab and Persian merchants. During this period, Iraq became a center for Islamic ceramic production as new technologies transformed common earthenware into a vehicle for complex multicolored designs. Following the disintegration of the Abbasid Empire after the 10th century, migrating Iraqi potters transmitted these techniques to Egypt and Iran, whence they traveled to Europe, giving rise to the great "majolica" tradition in medieval Spain and Renaissance Italy. In China, 14th-century experiments with cobalt blue from the Islamic world led to Yuan and Ming blue-and-white, which in turn influenced such European production as Delft, Royal Copenhagen and English blue-and-white. Sackler Gallery, **Washington, D.C.**, through April 24.

Masterpieces of Islamic Art from the Metropolitan Museum adds some 30 works from what is considered America's finest collection of Islamic art to the Louvre's own large and very impressive collection. The objects displayed cover a period from the ninth century to the zenith of Islamic culture reached by the great empires of the modern era. The most spectacular is a large enameled and gilded glass bowl produced in Syria in the 13th century. Other exquisite works come from 10th- and 11th-century Egypt, medieval Iran, 14th-century Granada and 16th-century India. Musée du Louvre, **Paris**, through April.

Tutankhamen—The Golden Beyond: Treasures from the Valley of the Kings is a worldwide exhibition of some 120 artifacts from the tomb of Tutankhamen and other royal tombs of the 18th Dynasty (15th and 14th centuries BC), many shown for the first time outside the Egyptian Museum in Cairo. Kunst- und Ausstellungshalle, **Bonn, Germany**, through May 1.

Digging Up a Story: The House of Claudius Tiberianus is an innovative interdisciplinary exhibition that combines archeological artifacts and translated papyri from a single house in Kiranis, in Roman Egypt, to show what life was like there for a man and his family almost 2000 years ago. The papyri include letters from Claudius Tiberianus's son, who was on active duty with the Roman army in Alexandria, asking for money and supplies, asking for parental blessings to marry and complaining about lack of promotion. The artifacts, such as faïence bowls, help to place Tiberianus's household within the socioeconomic spectrum of Graeco-Roman society of the time. Kelsey Museum of Archaeology, **Ann Arbor, Michigan**, through May 2.

Treasures from the Royal Tombs of Ur features more than 200 Sumerian treasures that reveal traditions of royal life and death, excavated in the 1920's by Sir Leonard Woolley. They include the famous statuette of a goat nibbling the leaves of a tree, jewelry, a comb, a wooden lyre decorated with a gold-and-lapis bull's head, games, furniture, seals and vessels of gold, silver and alabaster, many found in the intact tomb of a woman—a queen or high priestess—named Pu-abi who died between 2600 and 2500 BC. Catalog $75/$50. University of Pennsylvania Museum of Archeology and Anthropology, **Philadelphia**, through May 28.

Mirrors of the East explores the impact of the East on Europe, especially Spain, between the mid-19th and the 20th century by examining three episodes: "The Legacy of the Moorish Queen" discusses the rediscovery of the world of al-Andalus and Islam; "The Garden of the Rising Sun" explores the contacts with the Philippines and the presence of China and Japan in European fashions; and "Mirages of Paradise" examines the supposed sensuous, dream-like "Oriental" world that was one of the most important influences on the modernist and Art Deco periods. Centre de Documentació i Museu Tèxtil, **Terrassa, Barcelona**, through May.

Beyond East and West: Seven Transnational Artists displays recent work by seven important contemporary artists who come from the region stretching from Egypt to Pakistan, but who have lived much of their lives in Europe or the United States. They draw on their experiences of displacement and their knowledge of multiple cultures to offer alternative visions of the contemporary world and the possibility of new kinds of intercultural understanding. Williams College Museum of Art, **Williamstown, Massachusetts**, through May 15.

Art of the Ancient Mediterranean World: Ancient Egypt, Greece and Rome shows 204 works that span a period from predynastic Egypt—6000 years ago—to the Roman late imperial period about AD 350. Egyptian, Greek and Roman civilizations developed neither in sequence nor in parallel, but changed in a complicated and interactive manner, and this exhibition demonstrates how they influenced one another throughout their histories through travel and trade on the Mediterranean Sea. Drawing on evidence from history, archeology, folklore, geography, religion and culture, the exhibition traces the rise and fall of power-seekers, the unchanging daily needs of ordinary people and, above all, their creative energy. BYU Museum of Art, **Provo, Utah**, through June 4.

Art of the Written Word in the Middle East. Throughout the Middle East, the written word is an emblem of the highest learning, the deepest thought and the greatest beauty, and is often incorporated in works of fine art. This exhibition explores different forms of the beauty of writing through manuscript pages of religious, scientific and legal texts; poetry and prose; and inscribed tiles, ceramics and metalwork. University of **Michigan** Museum of Art, **Ann Arbor**, through June 5.

Luxury and Luminosity: Visual Culture and the Ming Court includes 48 objects—not all of them blue-and-white, and not all porcelain—that demonstrate the dynasty's connections with other cultures and the artistic influence it exchanged with them. Ming artists' use of turquoise and cobalt blue probably derived from ceramics imported from the Islamic world. A tankard in the exhibition is shaped to emulate Iranian models, and Ming porcelain was exported in enormous quantities to Egypt, Turkey and other parts of the Muslim world. Freer Gallery, **Washington, D.C.**, through June 26.

Carved for Immortality. In ancient Egypt, brightly painted carved wooden figures of the deceased were placed in special chambers or niches in tombs to represent the person at different stages of his or her life. In some cases, additional carvings represented family members and servants. Because the wood used was often soft sycamore fig (*Ficus sycamorus*)—appropriate in that twin sycamores were believed to stand at the eastern gate of heaven, from which the sun god Re emerged each morning—relatively few of these statues have survived from ancient times. Walters Art Museum, **Baltimore**, through June 26.

Sephardic Horizons uses paintings, graphics and artifacts from the museum's collections to tell the story of Sephardic Jews' creative coexistence with surrounding Christian and Muslim cultures during centuries of spiritual, intellectual and material flowering on the Iberian Peninsula. Magnes Museum, **Berkeley, California**, through July 15.

Events&Exhibitions

Continued from previous page

<< January

Twilight of the Nabateaeans: New Discoveries Revealing Their Survival is the topic of a lecture by archeologist Dino Politis. 6:00 p.m. British Museum, **London**, January 19.

Emily Jacir is a Palestinian-born artist who divides her time between New York and Ramallah. She uses photography, drawing, video, text and found objects to put a human face on the intractable geopolitical issues that torment the Middle East. Ulrich Museum of Art, **Wichita [Kansas]** State University, January 20 through March 6.

Current Archeological Research presents Edgar Pusch speaking on "Qantir–Piramesses, Capital and Residence of Ramses the Great." 12:30 p.m., Musée du Louvre, **Paris**, January 20.

The Winter Antiques Show includes London dealer Rupert Wace, displaying 52 works from Greece, Rome, Egypt, the Near East and early medieval Europe, notably Egyptian mummy masks in wood and cartonnage, a Mesopotamian duck-shaped hardstone weight from the second millennium BC and a carved Sabaean alabaster head from the first century BC. Seventh Regiment Armory, **New York**, January 21 through 30.

Teaching About the Arab World and Islam is the theme of teacher workshops co-sponsored by the Middle East Policy Council in Washington, D.C., and conducted by Arab World and Islamic Resources and School Services (AWAIR) of Berkeley, California. The program is fully funded and workshops may be requested by any school, district, office of education or university. ⓘ awair@igc.org, www.mepc.org or awaironline.org; 510-704-0517. Sites and dates include: **Mississippi** Gulf Coast College, **Gulfport**, January 21–22; **New Orleans**, January 24–28; **Kennesaw, Georgia**, February 11–12; **Cincinnati**, February 16–17; **Houston**, February 18–19; **Denver**, February 25–26; **White Plains**, March 19; **Dubuque**, March 21; **Worthington, Ohio**, April 7; **Salt Lake City**, April 9; **Milwaukee**, April 16; **Las Vegas**, April 29–30; **Anchorage**, June 17, 20–21.

Turks: A Journey of a Thousand Years, 600–1600 explores the art and culture of the Turks from inner Asia to the Bosporus over a thousand-year period. The successive empires they created stretched from China to the Mediterranean and gave rise to splendid architectural monuments as well as an incomparable artistic heritage, including the extraordinary array of paintings, manuscripts, calligraphy, textiles, ceramics, glass, woodwork and metalwork on display at the Royal Academy, **London**, January 22 through April 12.

Beyond the Bag: Textiles as Containers explores the ways different cultures create textiles to be used as containers, whether for specific purposes—like the Iranian salt bags on display—for general utility or to convey festivity, gender or status. Unlike clay or glass containers, textile containers adapt to their contents and collapse to take up minimal space when not in use. Exhibited containers come from Mexico, Central Asia and Iran. Textile Museum, **Washington, D.C.**, January 29 through June 5.

Chicago Palestine Film Festival 2005 calls for films by Palestinian filmmakers and films about Palestine for consideration for their fourth annual film festival. Selection criteria include artistry, technical skill and content, but not the maker's nationality. ⓘ www.palestinefilmfest.com. Submission deadline is January 31.

<< February

Strings Across Asia is a concert exploration of the variety of musical styles developed for the ancient Asian fiddle as it spread across the continent from the ninth to the 13th century. Performing are Ali Jihad Racy, master of several Arab *rababs* and professor of ethnomusicology at UCLA; Betti Xiang, virtuoso of traditional and contemporary music on the Chinese *erhu*; and Dmitry Ayurov, lead horse-head fiddle (*morin huur*) player in the Buryat Symphony. They are joined by Yang Wei (a member of Yo-Yo Ma's Silk Road Ensemble), *pi-pa*; Souhai Kaspar, *darabukka*; and Kermen Kalyaeva, Mongolian hammered dulcimer (*yoochin*). 7:30 p.m. Sackler Gallery, **Washington, D.C.**, February 11.

Edinburgh International Festival of Middle Eastern Spirituality and Peace brings together artists, scholars, grassroots spiritual activists and speakers from all spiritual traditions. Activities include music, dance, lectures, walks, workshops, religious services, food, films, exhibitions and celebrations. ⓘ www.eial.org. **Edinburgh, Scotland**, February 14 through March 6.

Aşk ve Cile A Concert on the Theme of Love draws on Turkish classical and folk music and focuses on love ranging from the sacred to the secular. 8:00 p.m. New England Conservatory Johnson Hall, **Boston**, February 14.

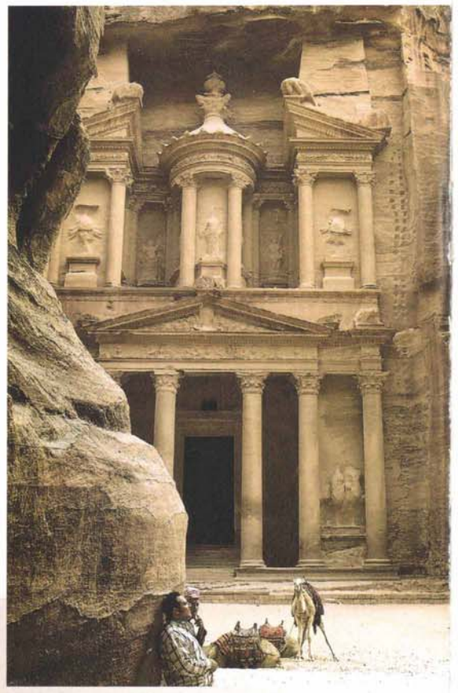
The Art of Rice: Spirit and Sustenance in Asia draws on a rich variety of objects of art and material culture from a dozen Asian countries to explore the significance of rice for the region's people, highlighting the cultural underpinnings and influences of the world's most important food crop. First domesticated 8000 years ago in the Yangtze River valley, rice now exists in 120,000 varieties and feeds one-third of humankind. It is so fundamental to daily life that it has become intimately entwined with individual identity, social organization and artistic expression. Catalog. **Honolulu [Hawaii]** Academy of Arts, February 17 through April 24.

Gold! Natural Treasure, Cultural Obsession traces the human fascination with gold through history and across diverse cultures—from ancient Greece, Rome and Egypt to the New World and the Spanish Conquest. Visitors will see native gold specimens and hoards of gold bullion and coins from around the world and will learn how gold is found, mined, refined and turned into fascinatingly beautiful objects, such as the stunning Indian wedding sari on display. The large-format film "Gold Fever!" shown in conjunction with the exhibition further explores the cultural, economic and historical significance of this natural treasure. **Houston** Museum of Natural Science, February 18 through August 7.

St. Petersburg Quartet, joined by composer, pianist and MacArthur Fellow Bright Sheng, explores the migration of musical ideas from the Middle East to China via Central Asia and the Silk Road. 7:30 p.m. Sackler Gallery, **Washington, D.C.**, February 19.

Asian Games: The Art of Contest uses the paraphernalia of games as well as paintings, prints and decorative arts that depict people playing games to explore the role of games as social and cultural activities in the diverse societies of pre-modern Asia. It also highlights the paramount importance of Asia as a source of many games—chess, backgammon, pachisi, Ludo, Snakes and Ladders, card games and such sports as polo and field hockey—now played in the West. Sackler Gallery, **Washington, D.C.**, February 26 through May 15.

Islamic Art From the Madina Collection presents some 200 works from what was widely regarded as one of the most significant private collections of Islamic art, donated to the Museum in 2002. Assembled by Dr. Maan Madina during his career teaching Arabic and Islamic studies at Columbia University, and comprising more than 700 objects, the collection is especially rich in ceramics, glass, wood, stone, textiles and metalwork from Egypt, Syria, Iraq, Turkey and Iran, as well as calligraphy. In addition, the collection includes objects that have long been lost to the field; some were exhibited in America as early as 1876 and in Europe as early as 1910. For example, a spectacular pair of large glazed ceramic ewers—the only known examples from Timurid Iran—were shown at the famous Islamic exhibition at Munich in 1910. **Los Angeles** County Museum of Art, from February 1.



CALVIN COLLEGE / BERT DEVRIES

Petra: Lost City of Stone, a traveling exhibition, features extraordinary art and artifacts from the red sandstone cliff city in southern Jordan. Petra was a major crossroads of international trade routes from the first century BC to the second century of our era, when it was governed by the Nabataeans, who were renowned for their skills in trade, agriculture, engineering and architectural stone carving. The exhibition presents some 200 objects, including stone sculptures and reliefs, ceramics, metalwork and ancient inscriptions, and a selection of 19th-century artworks documenting the European rediscovery of Petra. An ancillary exhibition of color photographs by Washington photojournalist Vivian Ronay documents the lives of the Bedoul, a Bedouin tribe inhabiting the environs of Petra. **Cincinnati [Ohio]** Art Museum, through January 30; Calvin College, **Grand Rapids, Minnesota**, April 4 through August 15.

The façade of the so-called "Treasury" at Petra, carved into the rock by a culture whose architecture, engineering and artistry with stone created a spectacular city.

SAUDI ARAMCO WORLD
(ISSN 1530-5821)
is published bimonthly by
Aramco Services Company
9009 West Loop South
Houston, Texas 77096-1799, USA

POSTMASTER: Send address changes to
Saudi Aramco World
Box 2106
Houston, Texas 77252-2106

<< March

European Fine Art Fair includes dealers exhibiting oriental rugs and other textiles, ceramics, art and antiquities from India, Egypt and elsewhere in the Middle East. Exhibition and Congress Center, **Maastricht, Netherlands**, March 4–13.

John Feeney Retrospective: 40 Years of Photographing Egypt surveys the career of the New Zealand-born photographer and filmmaker who came to Egypt in 1963 and whose keen eye and love for the country's culture made him one of this magazine's most prolific free-lance writers and photographers. The exhibit shows images of Nasser's funeral, the final Nile flood, the multicolored pavilions of Tentmakers' Street, the gathering of jasmine blossoms, the search for desert truffles, shadow-puppet plays, traditional public baths and—some of Feeney's best-loved images—the domes of Cairo's old city. Sony Gallery, **Cairo**, March 7 through April 21.

The Art of Medicine in Ancient Egypt. The causes of illness were little understood in ancient Egypt, and the prevention and cure of illness were of great concern to most Egyptians—a concern that informs much of ancient Egyptian art. This exhibition presents objects that address this concern, including the rarely seen Edwin Smith Papyrus, one of the world's oldest scientific documents. The 15-foot surgical papyrus deals with both the practical and the magical treatment of wounds. Metropolitan Museum of Art, **New York**, March 15 through July 17.

The Pre-Islamic Archaeology of the Red Sea Coastal Plain of Yemen is the title of a lecture by archeological journalist Nadia Durrani, whose dissertation in 2000 covered the Yemeni Tihamah. 5:30 p.m. School of Oriental and African Studies, **London**, March 17.

Anadolu Rock/Pop explores the absorption of Turkish folk music into the Anadolu Rock/Pop style in the 1970's. 8:00 p.m. Tufts University Cohen Auditorium, **Medford, Massachusetts**, March 18.

Textiles for This World and Beyond: Treasures from Insular Southeast Asia explores the important role that textiles in Indonesia and Malaysia play in daily society, their part in many old beliefs and customs still followed today and their use in ceremonies to maintain harmonious relationships with the deceased or the gods. On display are more than 60 Southeast Asian textiles dating from the 19th to the early 20th century, many never before exhibited. Catalog. Textile Museum, **Washington, D.C.**, April 1 through September 18.

<< April

Ali Ufki'nin Mezmurları: The Psalms of Ali Ufki. Ufki was a 17th-century Polish Christian who converted to Islam and became an Ottoman court musician. In this concert, his settings of the psalms into Ottoman classical style will receive a rare performance. Harvard University Fogg Museum, **Cambridge, Massachusetts**, April 6.

10,000 Years of Art and Culture From Jordan: Faces of the East presents archeological evidence of the various cultures of the region from the Early Neolithic (eighth millennium BC) to the early years of Islam in the eighth century of our era—a time span during which fundamental developments in the history of civilization took place, as well as events that shaped western culture. Archeological discoveries of the last 15 years have considerably changed our view of the region's history, and now more than 700 superb objects, lent by Jordanian museums, illuminate the great eras and the turning points of important cultures, including a display of the world's earliest sculptured human figures from 'Ain Ghazal and objects from the legendary Nabataean city of Petra. Kunst- und Ausstellungshalle, **Bonn, Germany**, April 29 through August 21.

<< May

Osmanli'da Ermeni Bestekarlari: Armenian Composers of the Ottoman Empire will be performed by Armenian performers of Boston with the new generation of Turkish and American musicians. **Massachusetts** Institute of Technology Big Kresge Hall, **Cambridge**, May 20.

<< June

Tutankhamen—The Golden Beyond: Treasures from the Valley of the Kings is a world wide exhibition of some 120 artifacts from the tomb of Tutankhamen and other royal tombs of the 18th Dynasty (15th and 14th centuries BC), many shown for the first time outside the Egyptian Museum in Cairo. **Los Angeles** County Museum of Art, June 16 through November 15.

Genghis Khan and His Heirs: The World Empire of the Mongols presents archeological artifacts, old maps, manuscripts and miniatures that exemplify the cultural achievements of the Mongol Empire, founded 800 years ago. The apogee of a long series of states established by nomads in the steppes of Eurasia, Genghis Khan's empire stretched from the Pacific Ocean to Central Europe and was as efficiently administered as it had been brilliantly and brutally conquered. An effective bureaucracy, a postal system, the use of paper money and broad religious and cultural tolerance were at the foundations of the *Pax Mongolica*; under it, trade in goods and ideas between Europe and Central Asia blossomed until into the 16th century. Kunst- und Ausstellungshalle, **Bonn, Germany**, June 17 through September 25.

Matisse, His Art and His Textiles: The Fabric of Dreams presents some 45 paintings, drawings, prints and painted-paper cutouts that attest to Henri Matisse's lifelong interest in textiles, including works from the 1910's and 1920's demonstrating the influence on him of North African fabrics and screens. Metropolitan Museum of Art, **New York**, June 23 through September 25.

Caravan Kingdoms: Yemen and the Ancient Incense Trade emphasizes the rich interaction that resulted from overland and maritime contacts linking the southern Arabian Peninsula with the eastern Mediterranean, northeastern Africa, and south and southwest Asia. For some 1200 years from about 800 BC, the kingdoms of Qataban, Saba (biblical Sheba), and Himyar grew fabulously wealthy from their control of caravan routes and in particular from the international trade in frankincense and myrrh. Excavations have yielded spectacular examples of architecture; distinctive stone funerary sculpture; elaborate inscriptions on stone, bronze and wood; and sophisticated metalwork. Drawn from the collections of the Republic of Yemen, the American Foundation for the Study of Man, the British Museum and Dumbarton Oaks, this exhibition of approximately 200 objects explores the unique cultural traditions of these ancient kingdoms. Sackler Gallery, **Washington, D.C.**, June 25 through September 18.

<< July

The Earthenware of Antiquity: Egypt, the Near East, Greece continues the museum's investigation of artistic techniques, begun with the "Ivories" exhibition, with an examination of the arts of fired earthenware. Using objects from the museum's own collections, the exhibition describes different techniques of creation and the uses of the objects produced. Musée du Louvre, **Paris**, July 1 through September 26.

<<Permanent

The Saudi Aramco Exhibit relates the heritage of Arab-Islamic scientists and scholars of the past to the technology of today's petroleum exploration, production and transportation, set against the background of the natural history of Saudi Arabia. **Dhahran, Saudi Arabia**.

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