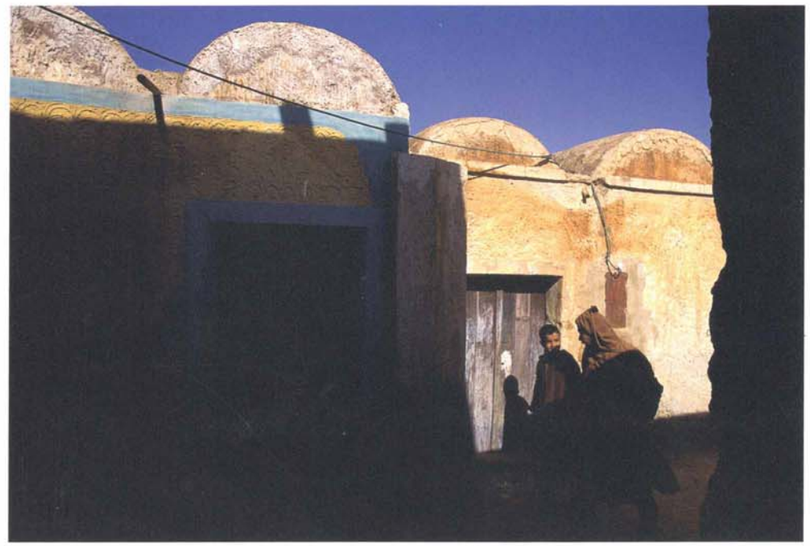

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VOLCANIC ARABIA

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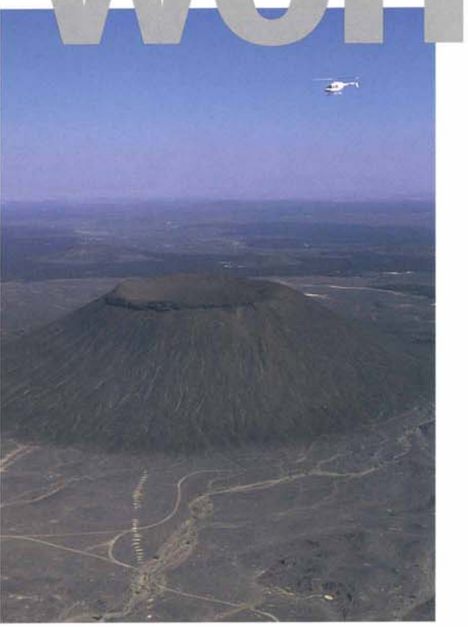

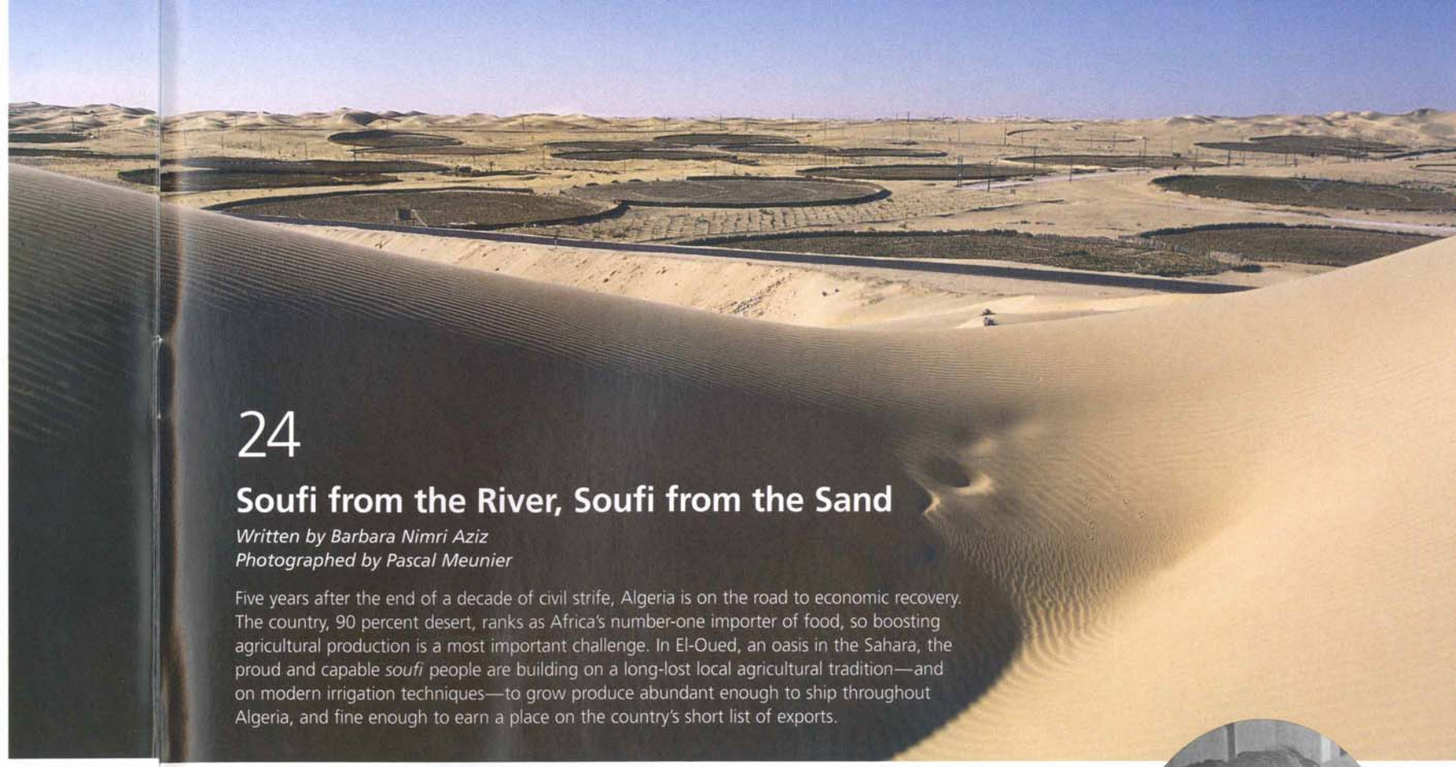

Cover:

In west-central Saudi Arabia, a *harrah*, or lava flow, shows the rough surface that indicates it cooled relatively quickly after it spilled onto the surface sand, possibly in historical times. Lava flows in western Saudi Arabia cover an area larger than the US state of Missouri, and volcanologists have recently identified a rift in the Earth's crust separate from, inland from and much younger than the well-known Red Sea Rift. Photo by Peter Harrigan.

Back Cover:

A man and a boy walk down a street in the old city of El-Oued, Algeria, which has become a burgeoning center of truck farming, thanks to one of the world's largest underground water reserves—and the determination of its people. Photo by Pascal Meunier.

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VOLCANIC ARABIA

Written and photographed by Peter Harrigan

It started with tremors.

Citizens, pilgrims and visiting traders in Madinah all felt them. The new moon had announced the start of Jumada al-Akhira, the sixth month of the year 654 of the Muslim, or *hijri*, calendar—AD 1256 of the Gregorian calendar. Over the next four days, the tremors became more frequent and more intense. On the morning of the fifth day, a Friday, at least 18 shocks occurred, and as people prepared for mid-day congregational prayers at the Prophet's Mosque, a strong earthquake rocked Madinah, spreading alarm throughout the city and in outlying villages.

The earthquake was caused by basaltic magma, welling up through cracks in the 40-kilometer thick (25 mi) crust of the Arabian Peninsula. It was quickly followed by fiery volcanic eruptions that lasted nearly two months and spewed lava and ash from a massive fissure southeast of Madinah, throwing up six cones of cinders. The lava flowed for 23 kilometers (15 mi) and threatened to inundate Madinah itself.

Arab writers chronicled these events, and although a few accounts survive (see "The Madinah Eruption," page 5), they were soon eclipsed by more catastrophic happenings: Later that year, fire destroyed the Prophet's Mosque; in Baghdad, the Tigris flooded, and the

Spilling northward for some 15 miles atop still older lava flows, the eruption of AD 1256 threatened the city of Madinah.

See additional photographs at www.saudiaramcoworld.com.

next year, the Mongols sacked the city, bringing the Abbasid Caliphate itself to a shocking end.

More than five centuries later, in 1815, the Swiss explorer and orientalist Johann Ludwig Burckhardt reached Madinah and noted that the eruption had disappeared from local memory:

The Harrat Rahat between Madinah and Makkah is twice as large as the nation of Lebanon, and the combined area of the harraat of Saudi Arabia is larger than the us state of Missouri.

"During my stay, I remember to have once made the observation to my cicerone, in going with him to Jebel Ohod, that the country appeared as if all burnt by fire; but I received an unmeaning reply; no hint or observation afterwards in the town which could lead me to suppose that I was near so interesting a phenomenon of nature." It was not until his arrival in Cairo that Burckhardt discovered a written account referring to the eruption.

With the exception of Charles Doughty's description (see "'A Titanic Desolation,'" p. 8), European references to volcanic Arabia are few and far between. Even since the founding of Saudi Arabia in 1932, the focus on oil in the sedimentary Eastern Province and the stereotype of sand-and-gravel deserts have left largely neglected the volcanic aspects of the Arabian Peninsula. It was not until recent years that the scientific and economic significance of this geology began to be recognized and understood.

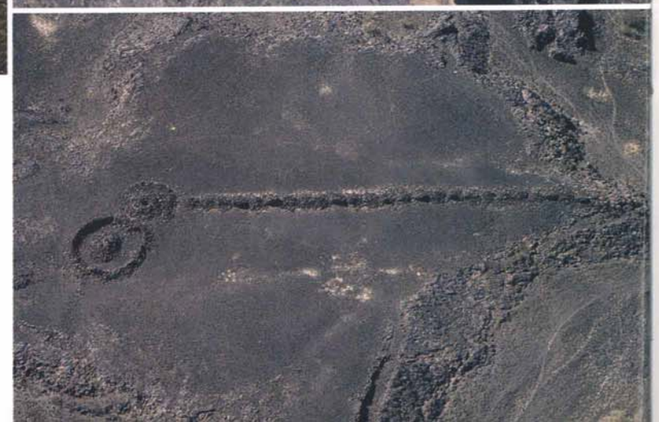
Western Saudi Arabia is in fact covered not only with sand, but also with vast fields of lava. In Arabic, these lava fields are known as *harraat*. (The singular is *harrah*; before a name, it is *harrat*.) Some dozen named harraat in Saudi Arabia together form one of Earth's largest alkali basalt regions, covering some 180,000 square kilometers (nearly 70,000 sq mi), an area greater than the state of Missouri.

Mohammed-Rashad Moufti holds Saudi Arabia's first—and so far only—doctoral degree in volcanology. He has devoted 20 years to studying and promoting awareness of the lava field near Madinah, which is known as Harrat Rahat.

"The eruption that threatened the Holy City happened very recently in geological time, and it overlaid previous lava flows. It's known as the historic lava flow because we have recorded accounts. Volcanism first occurred on this part of the harrah two million years ago and has remained active," explains Moufti to a group of German and Saudi visitors who stand on the fissure site. They have come as guests of the Saudi Geological Survey (SGS), which has mapped the volcanic features and pioneered geo-tours to the volcanic fields.

Moufti explains that Harrat Rahat is twice the area of Lebanon. Its pond of 2000 cubic kilometers (480 cu mi) of basalt lava stretches 310 kilometers (190 mi) from the southern outskirts of Madinah to the suburbs of Jiddah, where there are other flows that date back 10 million years. The main body of the flow measures 75 kilometers (46 mi) east to west, and lava tongues run a further 75 kilometers westward where molten basalt flowed along *wadis*, or valleys, broke through the 1500-meter-high (nearly 5000') mountains of the Red Sea escarpment and fanned out in dendritic tentacles across the Peninsula's coastal plain.

Satellite and aerial photographs reveal the extent of this single harrah and the variety of volcanic features strewn across its desolate, often trackless landscape of variegated flows.



Above: **The harrah near Madinah has been active for more than two million years, explains Mohammed-Rashad Moufti, a consultant to the Saudi Geological Survey (SGS).** Above right: **This small dam was broken by an earthquake along one of the several faults that run through the harraat.** Right: **A Neolithic relic that hunters may have used to guide prey across the harrah and into a corral.**

Satellite images from nearly 500 kilometers' (300 mi) altitude reveal the different colors of magma extruded in past epochs: Jet-black indicates the most recent flows, while rust-red indicates surface exposure and erosion over millions of years. White areas—with one remarkable exception—reveal by-product features known as *qi'aan* (singular: *qa'*)—flat expanses of silt and salt and other residue laid down after lava flows blocked watercourses to form seasonal lakes. Other sand and silt areas, deposited in craters, appear as white dots and speckles from a satellite or, from lower altitudes, as more artful shapes set within often perfectly circular crater rims. A dark crater floor lacking silt or sand may be the result of more recent, even historic, volcanic activity.

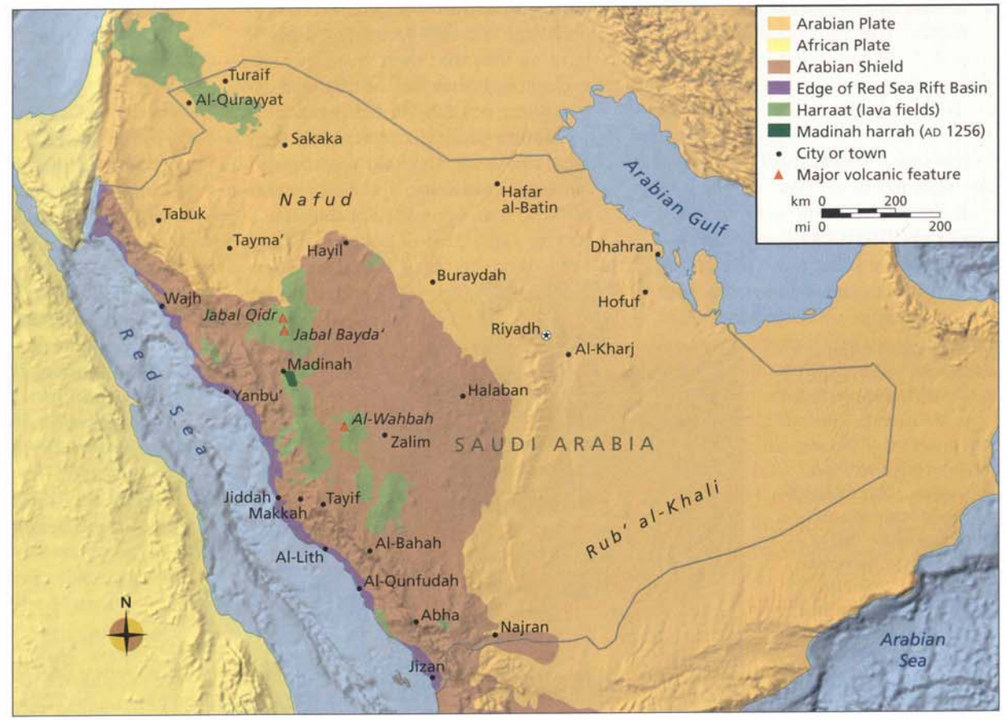
Spread across the harraat is a host of textbook geological features: scoria (cinder), spatter and tuff cones; smooth and ropy pahoehoe, sharp and broken a'a and pyroclastic flows; shield volcanoes; fumaroles; trachyte and comendite domes; eroded feeder necks; craters; fissures; vesiculated lapilli and other forms of basalt bombs; whaleback lava flows; maar craters and one stratovolcano. Some, like the maar craters—circular landforms created by explosive ash eruptions—are huge: A massive steam explosion, generated by the meeting of molten basaltic magma with subterranean water, created the spectacular maar crater of al-Wahbah on the western margins of Harrat Kashib. Some of the most distinctive volcanic scenery and geology in all of Arabia is on Harrat Khaybar, where the circular white cones of Jabal Bayda' and Jabal Abyad look from the air like snow-capped mountains. (Both names mean "white," one in the feminine form, the other in the masculine.)

Thamer al-Khiary is a former geological engineer with the SGS who now, with the support of the agency, leads private tours into the volcanic

The Madinah Eruption

After the evening prayer, according to one account quoted by Johann Ludwig Burck hardt, "a fire burst out in the direction of al-Hijaz; it resembled a vast city with a turreted and battlemented fort, in which men appeared drawing the flame about, as it were, whilst it roared, burned and melted like a sea everything that came in its way. Presently a red and bluish stream, bursting from it, ran close to al-Madinah, and at the same time the city was fanned by a cooling zephyr from the same direction."

The eruption lasted for 52 days. At its fiery zenith those further afield also witnessed strange sights, with reports of the light of the eruption visible in Makkah and Tayma', six days' journey from Madinah. Historians relate that the depth of the lava flow was a long spear's length, around three meters (10'), and that it flowed like a red-blue boiling river, carrying in its way gravels, stones and trees, with thundering noises. Al-Qastalani asserts that the fire was so fierce that no one could approach within two arrow flights, and that at night "the brilliant light of the volcano made the face of the country as bright as day; and the interior of the *harim* (the sacred area of the city) was as if the sun shone upon it." The governor and citizens prayed for the safety of the city, and as the lava inexorably approached, many, including women and children, wept and prayed around the Prophet's tomb. Then, the lava current turned north, and the city was spared.



MAPPING SPECIALISTS

areas. "It's a thrill to take visitors over an apparently flat landscape and see their faces when they climb a gentle slope that breaks unexpectedly into a vast explosion crater beneath, or lead families up a scoria cone to discover at the summit a perfect rim and crater below. Our greatest thrill is to spend the night in a crater and see the inner walls sparkle with minerals in the moonlight," says al-Khiary. At 31, wearing a polo shirt with desert-motif logo, trekking shoes and slacks and wraparound sunglasses, he looks every bit the adventure-tour guide. "What's remarkable is that so many people have no idea that these features exist, even though they live nearby and drive past some of them on the highway."

Moufti recalls hiking into remote areas of Harrat Rahat 20 years ago with his visiting professor. "Like other geologists, he was astonished at the complexity and extent of volcanic Arabia. I remember climbing a volcanic cone, my professor wearing a battered hat and smoking a pipe. When we reached the rim and looked down to the flat crater floor, there was a Bedouin girl grazing livestock there. I don't know who was the most surprised!"

Such idyllic scenes belie a charged, daunting and even threatened environment, for Madinah's was not the only eruption in historic times in Arabia. In the 1970's, the search for non-petroleum mineral resources became an impetus for surveys of harraat. The current president of the SGS, Mohammed Assad Tawfiq, was then chief geologist of the Directorate General of Mineral Resources (DGMR). Tawfiq remembered stories of the harraat from his school days in Madinah, and he deployed his team to the lava fields as part of a mapping initiative that involved hundreds of international geologists and a fleet of helicopters and other aircraft.

His studies of the Madinah eruption revealed evidence of magma mixing with simultaneous extrusions of three types of basaltic lava, which demonstrated the complexity of the harrah's subterranean "plumbing" systems. The findings, published in 1987, threw intriguing light on the relationship of tectonic forces to the harraat, for the control mechanisms at work, it turned out, are not—as most people assumed—directly related to the continental rift valleys of the Red Sea.

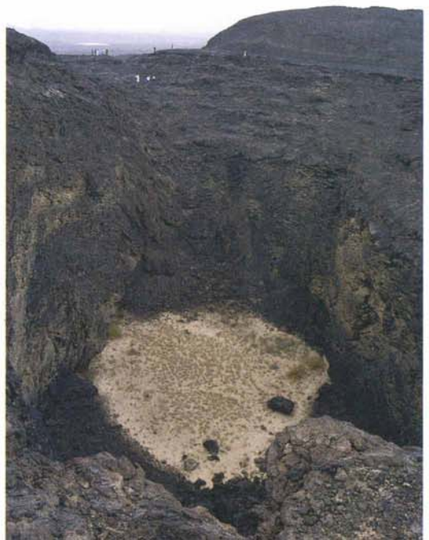
The most recent eruptions on the Arabian Peninsula occurred in 1937, on a harrah near the town of Dhamar, in the north of Yemen. Before that, in 1846 an eruption took place on the volcanic Red Sea island of Saddle in the Zubair Islands, 90 kilometers (55 mi) northwest of the Yemeni port of Hodaida. Casting farther back—into the Neolithic period on the Arabian Peninsula—there is evidence of eruptions and lava flows that date to roughly 4500 BC. On Harrat Khaybar, satellite imagery has revealed at least seven post-Neolithic eruption sites and eight historic eruptions, the most spectacular from Jabal Qidr. That daunting black basaltic cone rises 322 meters (more than 1000') above a 1700-meter-high (5525') central platform; its sides sweep symmetrically up to 30-degree slopes that top out at a red-oxidized crater 400 meters (1300') in diameter. A field of ash roughly a meter (39") thick fans out more than 20 kilometers (12 mi) eastward from the crater, revealing that westerly winds predominated during the eruption. (Vague historic reports point to the likelihood that Jabal Qidr erupted as recently as about 1800, but such is the remoteness of the region, the paucity of records and the uncertainty regarding previously used local names that there is no definitive account.)

In the same area, a historic pahoehoe lava flow partially buries kite-shaped Neolithic stone fences that were probably constructed as animal traps. There is also abundant archeological evidence of Neolithic communities over the harraat of Rahat and Khaybar, where thousands of tumuli and stone fences, keyhole-shaped, kite-shaped and circular, cover extensive

Above: A scoria (cinder) cone in the Hayil region rises from the desert floor. Right: Maher Idris, assistant president of the SGS, holds loose volcanic cinders. Along with the monitoring of "geohazards"—earthquakes are riskier than volcanos, he points out—the job of the SGS is to "effectively balance exploitation with the need for geo-conservation." Opposite, lower: A crater inside a large scoria cone.

During the past 4500 years, there have been 13 major eruptions in the Arabian Peninsula—on average, one every 346 years. The most recent was in 1937.

Above: Al-Wahbah crater, nearly two kilometers (1.2 mi) wide, is a maar crater, formed not by volcanic eruption but by the collision of rising volcanic material with an underground body of water, resulting in a colossal release of steam—an event geologists call a phreatic explosion.



"A Titanic Desolation"

When it comes to English descriptions of the volcanic features of the Arabian Peninsula, none are more evocative than those of Charles Montague Doughty, whose finely observed account of his 22-month journey through central and northwestern Arabia, *Travels in Arabia Deserta*, was first published in 1888.

Setting out in November 1876, Doughty skirted and criss-crossed the harraat of Kura, al-'Uwayrid, Khaybar, Ithnayn and Rahat, and in doing so became one of the few Europeans to have ventured onto them. "In the train of the Harras we see a spectacle of the old volcanic violence that tormented this border of the Arabian peninsula," wrote Doughty. "I have followed these Harras almost to Makkah; that is through nearly seven degrees of latitude."

Doughty came well-equipped, for he had studied geology at Cambridge, and he was fascinated with the emerging earth sciences of the day. In 1872 he had stood before the eruption of Vesuvius at perilously close quarters. Aptly, he places this description of the Italian eruption in the midst of his account of traversing the cinder-cone and lava wilderness of Harrat al-'Uwayrid.

It was in Harrat al-'Uwayrid that Doughty spent the summer of 1877 living with the Moahib Bedouin, and his account of his sojourn with them on the elemental lava fields in "high tempered air" is among the most memorable passages in the book: "This Titanic desolation, seeming in our eyes as if it could not bear life, is good Beduin ground and heritage of the bold Moahib *Abu Shamah*," he wrote. "In this difficult volcanic country, their small cattle can be seldom robbed; and milk of the flocks is in less scarcity among them, which is the health and wealth of the poor nomads."

Travel across the harraat, "more often a vast bed and banks of rusty and basaltic bluish blocks," was a formidable task: "Because of this cumber of stones and sharp cutting lavas, the Harra country is hard to pass, out of the paths, for any other than Harra-bred camels. The heavy poised stones sliding and toppling to the tread, the herdsmen's feet are oftentimes sorely bruised; of which, and because the stones are as glowing coals in the summer sun, the Beduin hinds in the Harra commonly sit all day upon the croups of their browsing camels."

In addition to mapping and describing topographic and geological formations, Doughty observed Bedouin life and natural features and their relationship with the volcanic landscape. He described sulphurous warm springs issuing from basalt near Khaybar and herds of gazelle "robust and nearly of the colour of basalt," unlike the lighter-colored varieties of the desert plains.

"We removed again, and when we encamped, I looked round from a rising ground, and numbered forty crater hills within our horizon; I went out to visit the nighest of them. To go a mile's way is weariness, over the sharp lava field and beds of wild vulcanic blocks and stones. I passed in haste, before any friendly person could recall me; so I came to a cone and crater of the smallest here seen, 300 feet in height, of erupted matter, pumice and light rusty cinders, with many sharp ledges of lava. The hill-side was guttered down by the few yearly showers in long ages. I climbed and entered the crater. Within were sharp walls of slaggy lava, the further part broken down—that was before the bore of out-flowing lavas—and encrusted by the fiery blast of the eruption. Upon the flanks of that hill, I found a block of red granite, cast up from the head of some Plutonic vein, in the deep of the mountain."

Travels in Arabia Deserta, however, failed to impress England's scientific establishment. The chairman of the Royal Geographical Society, Sir Henry Rawlinson, dismissed Doughty as competent with neither pen nor hammer. But *The Times* of London (April 6, 1888) was more generous: "Mr. Doughty's contribution to the geology of Arabia and its wonderful volcanic remains is in itself of great value."

Today, his 600,000-word tome is a classic. The National Geographical Society lists it as one of the 100 great adventure books of all time, and scholarly journals still cite his observations.

CHARLES M. DOUGHTY, *TRAVELS IN ARABIA DESERTA* (BONI & LIVERIGHT, 1921)

SAUDI GEOLOGICAL SURVEY

areas. By counting the number of vents and eruptions that have occurred on northern Harrat Rahat, volcanologists estimate that, during the past 4500 years, there have been 13 major eruptions—one every 346 years, on average.

Farther still into the past, on Harrat al-Birk, south of Jiddah on the Tihama plain near the Red Sea, lava covers gravel terraces in which archeologists have found Acheulian stone tools that date the eruption back some half-million years to Lower Paleolithic times. Much older than this, the earliest harraat of all date as early as 13 million years ago, isotopic dating suggests.

The ash crater of Jabal Bayda' ("White Mountain") contrasts so starkly with the surrounding landscape that from a distance it has been mistaken for a snow-capped peak. It has a smaller but taller neighbor, Jabal Abyad (not shown), that is also bright white.

Given the Peninsula's violent geological history, Maher Idris, assistant president of the Saudi Geological Survey, is responsible for identifying "geohazards." Earthquakes, not volcanoes, are the most significant geohazard in Saudi Arabia, Idris explains. Until recently, seismic monitoring was carried out by several governmental bodies, but in 2004 all monitoring was consolidated under the SGS.

"There is a long history in Arabia of volcanoes and earthquakes, but no real comprehensive record of activity, so we have really just started," says Idris. Although most seismic monitoring stations are located on the Arabian Shield, the country will soon be operating nearly 150 stations and pooling data and expertise with Yemen and Egypt.

Idris explains that, apart from submarine activity below the Red Sea, there are also active rifting regions in the northwest of the Peninsula, around the city of Tabuk and the Gulf of Aqaba, and in the southwest near the border with Yemen. (The Aqaba earthquake of 1995, which caused widespread destruction, measured 7.3 on the Richter scale).

"The Madinah area has a volcanic history, with hundreds of related shallow shocks occurring daily, ranging from magnitude one to three, and occasionally four, on the Richter scale," he says. "We have established a network of seismic monitoring stations around the

city," and the SGS runs educational programs for communities and trains civil-defense teams in preparedness for both earthquakes and volcanic eruptions.

Opportunities interest Idris as much as hazards, and while talking of the harraat regions he's also keen on geo-conservation, scientific investigations and the economic development of natural-resource prospects. "This is a world-class geological stage for Saudi and foreign visitors and scientists, and we want them to come and see these treasures," he says, adding that identification of geo-sites parallels an international geo-parks program, sponsored by the United Nations Educational, Scientific and Cultural Organization, in which the SGS participates.

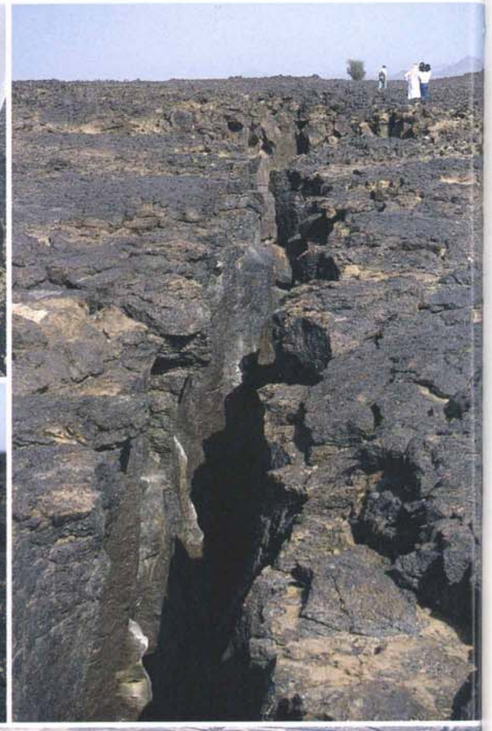
"We've already identified seven sites in the Madinah area," says Idris. "The local people are often surprised and amazed to realize the complexity and nature of the volcanic features they live so near. We have over 400 vents and craters in the Madinah area and more than 2000 scoria cones on our harraat."

Scoria cones, made of porous, cinder-like lava, now attract not only visitors and scientists, but also investors eying the abundant, easily extractable lightweight aggregate. It turns out that the cones' pyroclastic material, aside from being easily accessible on the surface, has excellent thermal and acoustic insulating properties, making it well-suited for the manufacture of lightweight blocks for construction of high-rise and—ironically—earthquake-proof buildings. Volcanic materials also provide ingredients for high-quality basaltic "wool," lightweight cement and bricks. The SGS estimates the commercial value of the aggregate on just one scoria cone might exceed $250 million over 30 years.

The cinders have consumer uses as well: Glowing a pleasant red at 1000 degrees centigrade, volcanic cinders are ideal for lining gas barbecues. As firewood becomes more scarce in the region, kebab restaurants and grills increasingly turn to volcanic stone placed over gas fires. (Curiously, because most people are unaware of the almost unlimited local availability of this material, the stone most commonly used in Saudi Arabian grills is imported from Iceland—giving rise to a local saw equivalent to "carrying coals to Newcastle.")

Medium-sized granules of lava, with good porosity and water-retaining properties, also provide useful horticultural material ideal for arid regions. The SGS office and laboratory complex in Jiddah has healthy trees bedded in cinders that retain water. Yet this knowledge, too, is new: Most Saudi garden suppliers still import the material from Italy.

Idris notes also that while the SGS coordinates exploration for mining, it also monitors undesirable environmental side effects. Open excavation of one scoria cone facing the highway linking Makkah and Madinah has already left an unsightly scar; elsewhere, illegal mining and quarrying are creating other eyesores. "Our challenge is to effectively balance exploitation with the need for geo-conservation," says Idris.



SAUDI GEOLOGICAL SURVEY

Top: **Mapping the harraat was "one of the last great challenges left on earth," says volcanologist and SGS advisor John Roobol. "This was total geology." Here, he shows a basalt "bomb" that was ejected during an eruption.** Above: **This and other lava-tube openings may have counterparts on Mars that could shelter future explorers and give insight into Martian geology.** Above right: **Fissures make walking on harraat difficult and hazardous.** Right: **On the outskirts of Madinah, Ottoman forces guarding the holy city dug defensive positions into the rim of this scoria cone.**

Exploitation of resources on the harraat stems from the surveys of the 1970's. With technical assistance from the United States Geological Survey (USGS) and the French Bureau de Recherches Géologiques et Minières, the early focus was on the country's high-value mineral prospects—particularly gold, silver, zinc and lead.

John Roobol is a volcanologist and an advisor to the SGS who has worked in Saudi Arabia since those days, and he has helped survey and map many harraat regions. "This initial phase of extensive geological mapping brought together one of the largest-ever assemblies of geologists in one territory, involving specialists from France, Japan, Germany, Great Britain, Austria, Canada and the United States," he says. "This was one of the last great challenges left: a pristine chunk of planet Earth with superb exposure, unknown and unmapped. It was a real opportunity and privilege to be part of the effort: This was total geology."

The harraat mapping project, under Mohammed Tawfiq of the DGMR, lasted from 1983 to 1991, and for it Roobol and US volcanologist Victor Camp flew hundreds of helicopter hours, surveying from the air and landing on otherwise inaccessible lava fields to take samples. They also made photo-geologic interpretations of aerial photographs and satellite imagery. The result was a series of detailed (1:250,000) geological maps and explanatory notes, as well as papers in the international scientific literature covering three of the largest Cenozoic lava fields: Harrat Rahat, Harrat Kashib and the coalesced harraat of Khaybar, Ithnayn and Kura.

"The mapping of the harraat was a surprising success," recalls Roobol. "Until then they were largely places where no one wanted to go, and at the international level people simply did not know there were such extensive lava fields here. We attended a conference in New Zealand and scientists were surprised. They asked what these poorly known lava fields were doing there, as they were not expected according to new plate-tectonic theories."

As a result of their detailed harraat field work, Roobol and Camp discovered previously unknown continental rifting

The Green Gems of Volcanic Arabia

Embedded within the vast volumes of basaltic lava ejected onto the Arabian harraat are minerals known as xenoliths and crystals called xenocrysts. Derived from the Greek *xen-*, "foreign," these terms identify beautiful gemstones, called peridot, that have risen quickly from the magma chambers in the upper mantle during eruptions.

Peridot is the gem variety of the green mineral olivine, and it is now mined on Saudi Arabia's eastern lava fields, the first commercial extraction of a gemstone from the harraat. The harraat peridots are of high quality, unlike those found buried in soil, whose outside layers become bleached over time.

A much older source of peridot was the small, uninhabited Egyptian Red Sea island of Zabarjad, which provides the Arabic name for the gem. The island lies just 50 kilometers (30 mi) west of the trough that runs down the center of the Red Sea, and it is part of an uplifted fragment of the Pan-African plate into which magmas have invaded. Faceted peridots found in Alexandria and in the ruins of ancient Greece are thought to have come from Zabarjad, which may have been mined for as long as 3500 years. The island has also been called Serpent Isle, due to legendary venomous snakes that were said to attack miners. Mining of peridot continued on Zabarjad until some 60 years ago.

Ranging from a light yellow-green to the intense bright green of new grass to olive, peridot was called "evening emerald" by the Romans, since its characteristic green color remained visible by lamplight. The color is uniquely attractive in arid Saudi Arabia, where green is a much-loved color. (The field of the Saudi Arabian national flag, too, is green.) Because of the way light passes through it, the volcanic gem has a velvety, "sleepy" appearance and a rich, lustrous glow. Saudi gem dealers are hoping that pilgrims to the Holy Cities will find artfully cut and polished peridots an alluring keepsake or a fitting gift.

A "splatter cone," formed by airborne, gooey lava, rises not far from a scoria cone in the Hayil region.

activity. Postulating a 600-kilometer-long (370-mi) vent system they called the Makkah–Madinah–Nufud volcanic line, underlain by a common "plumbing" system of active mantle upwelling, "we found a north-south trending axis of uplift," says Roobol—a ridge along the harrah with lavas typical of those in zones of continental rifting. "We discovered that a new fracture with crustal rifting is developing along this axis. It's entirely different from the Red Sea fault, which is far older: It occurred between 20 and 30 million years ago. This is a much more recent feature: It's a new fracture developed over the last 10 million years, and it is operating independently from the Red Sea rift."

Thus the harraat plateau basalts, on the eastern fringe of the Arabian plate, form a volcanic zone distinct from the north-northwest trough of the Red Sea, where active sea-floor spreading continues to form new oceanic crust at fingernail growth rates.

Other features below the harraat surfaces are also just beginning to reveal their secrets. In 2002, SGS surveys located lava tubes—long sinuous tunnels "in the basaltic flows. One, called the Hibashi lava tube, now provides the US National Aeronautics and Space Administration (NASA) with a model for the exploration of Mars and offers earth scientists a new window into Earth's past.

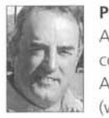
Mars, too, has lava tubes under the broad basalt plains that may serve as future landing sites, and the lava-tube caverns could prove valuable both for exploration and as possible shelters. "We have become very interested in the Saudi tubes as analogues for Martian lava tubes," says Penelope Boston of New Mexico Tech, who is conducting Mars studies for NASA. "We suggested that extraterrestrial caves in general would be both very interesting scientific targets for future missions and also excellent future habitat for human expeditions and bases. The (Saudi) lava tubes have been especially interesting because we can see those features on Mars and the Moon."

"We have become very interested in the Saudi [lava] tubes as analogues for Martian lava tubes," says one US researcher.

From a terrestrial viewpoint, Paolo Forti, former president of the International Union of Speleology (IUS), declared the cavern of the Hibashi lava tube, which is perhaps a million years old, to be among the world's top 10 volcanic caves for rare minerals. In addition, the 580 meters (1900') of passages contain lava stalactites and stalagmites, a floor of silt built up since its formation, bio-stalactites (likely from bat urine) and bones and desiccated scat of wild and domestic animals—many, according to Forti, "perfectly preserved." These, he says, can "help us to accurately reconstruct the climates of the past to help better understanding of present-day changes."

From the days when Neolithic peoples harvested black volcanic glass to nap into razor-sharp tools, volcanic Arabia has only begun to reveal its history and its treasures. Today, while machinery clatters at the sides of scoria cones to excavate building materials, and NASA uses lava tubes to model Martian probes, geologists from a new Saudi generation continue to chip away, striving to better understand the Arabian Peninsula's least-known major geological phenomena. Their efforts reply to the rhetorical question asked by Robert Coleman, a former USGS geologist who studied the rifting systems of the Red Sea and western Arabia: "Is it any wonder that earth scientists from all over the world continue to study one of nature's great experiments?"

A farm, a highway and business centers cut into the edges of the harrah near Madinah. While in 1256 the molten lava encroached upon the city, today it is the city that is beginning to flow over parts of the harrah.



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A Tangerine in Delhi

Written by *Tim Mackintosh-Smith* Photographed by *Shahidul Alam*

Ibn Battuta's *Rihla*, or *Travels*, is many things—among them a work of geography and ethnography, a pilgrim guide and a gossip column. It is also about as close as travel literature gets to being an epic. Ibn Battuta's backdrop is the world, his protagonist himself. Like the hero of legend, he seems unstoppable: sweating across Arabia, freezing in Anatolia, swaying over the steppe. He pauses to cram in some lectures in Damascus, collects a wad of certificates, and off he goes again. He gets stuck with a hospitable Turkman sultan and longs to escape. Only in Makkah does he spend any length of time, but Makkah itself is in motion, its population turning over with the seasons of pilgrimage, the revolving hub of Islam with only that one still point, the Ka'bah. Restless, rootless, footloose, Ibn Battuta might have said, like the poet Abu Tammam, "My homes are the backs of high-bred camels"—and he could have added, for that matter, a lowlier assortment of nags, wagons and coasting vessels. No traveler ever had itchier feet.

And then, in 1334, in narrative midstream, the itch suddenly subsides. The place is Delhi, and it is here that Ibn Battuta will spend the next seven years. "There are certain world-wanderers," observed the Indian poet-historian 'Isami not long after, "who ramble the earth, neither fixing their hearts on any country nor settling for even a month in any city. But when they arrive in the land of Hindustan, they abandon their wanderings and at last settle down."

Quwwat al-Islam Mosque

"The stone was cold to the touch and burnished by seven centuries of backsides. It was at that moment that I realized one of them must surely have been that of Ibn Battuta."

That might be a description of Ibn Battuta—and since 'Isami may have heard of Ibn Battuta, or even met him, there is every possibility that that is what it is.

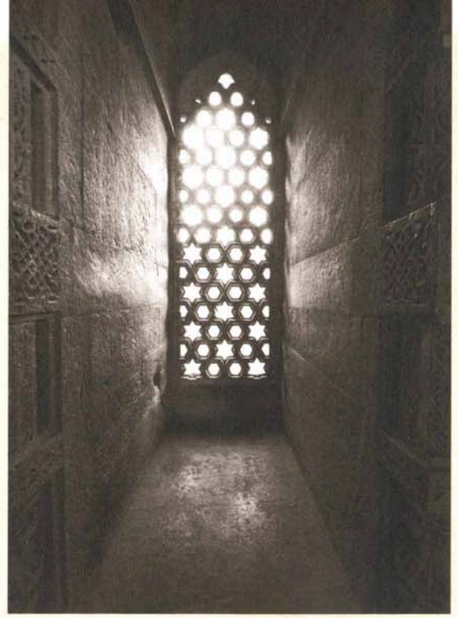
For those seven years—a fifth of Ibn Battuta's book and a quarter of his traveling life—his panoptic lens zoomed in on Delhi. The road movie, the big-screen epic with its fast-forward blur of places and faces, became a microscope slide. The change of focus is unexpected, but its object is less so.

Once past his original goal of Makkah, Ibn Battuta appeared to abandon destinations in favor of destiny. But the long looping route from his native Tangier, with its digressions to East Africa, Constantinople and the Volga, had always led toward Delhi. Way back in the Nile Delta in 1326, near the beginning of his book and his travels, Ibn Battuta dreamed of flying to Makkah and then Yemen on the wing of a huge bird: "Finally it made a long flight to the east, alighted in some dark and greenish country, and left me there." His host that night, a famous religious scholar named Abu 'Abd Allah al-Murshidi, interpreted the dream. The dark and greenish country, he told Ibn Battuta, was India, and "you will stay there for a long time," he said.

As the contents page of his book—for that is in effect what it is—Ibn Battuta's dream itinerary is vague. But as his journey unfolds, he tantalizes with hints of what that "long time" might hold: stories, heard on the road, about the wealth of the Delhi Sultanate—of one visitor literally showered with gold, of another given his weight in gold, of a third given the run of the treasury and collapsing in a heap of moneybags. By the time he arrives in India, Ibn Battuta has sold us a whole subcontinent of possibilities.

"In the name of God, the Compassionate, the Merciful.... On the day of the new moon of the holy month of Muharram, the first day of the year 734 [about September 12, 1333], we came to the river of Sind." Poised on the bank of the Indus and on the threshold of the new lunar year, Ibn Battuta had reached not just a temporal boundary but a literary and geographical one too. With that invocation begins Ibn Battuta's second *sifr*, or book (not *safar*, "journey," as his English translator, H. A. R. Gibb, read the word, although you might say that for a travel writer the distinction is theoretical). And on the far side of the Indus began al-Hind, India.

But first Ibn Battuta keeps the reader in suspense. He swans around on the Indus and dawdles for two months in the riverside city of Multan, waiting for permission to proceed. For several pages he explores Indian botany, and he sidetracks into the practice of suttee, the self-immolation of widows. After a paragraph's excitement about a skirmish with rebels, he travels cursorily to the capital then, diligently, around its sights. Then, in what may be the longest digression in travel literature—well over a hundred pages in the English translation and as many years of history—he ambles through the annals of the Delhi Sultanate, paying particular attention to the lurid psychological landscape of its present ruler, Muhammad ibn Tughluq. And then, just when he seems to be hopelessly lost in his own appendices, Ibn Battuta reappears with a triumphant chapter heading: "Our entry into the sultan's presence and the gifts and offices which he conferred on us."



Quwwat al-Islam Mosque

"Built by Sultan 'Ala' al-Din in 1311...it is a delicious building...with four portals and pierced stone screens that admit the breeze and dapple the interior with shadows."

Sultan Muhammad ibn Tughluq was nothing if not welcoming. "There is in my kingdom nothing greater than this city of mine," he told Ibn Battuta once the introductions were over, "and I give it to you." The second phrase was presumably not to be taken literally, but when he offered the traveler the post of Maliki judge of Delhi and an annual salary of 12,000 dinars, the sultan wasn't joking. For a 30-year-old newcomer from distant Morocco, of worthy but undistinguished background, Muhammad's legendary xenophilia had suddenly become fact.

Politically, the appointment looks like a sultan's whim. In fact, it was part of a deliberate policy of ethnic engineering. The Delhi Sultans were Turkic soldiers, ex-nomads and Muslims ruling a settled and largely Hindu population. Muhammad's father and predecessor had gained power in 1320 by quashing an attempted coup d'état by native Indian converts to Islam. Muhammad, who witnessed the bloody insurrection, arrived on the throne suspicious of homegrown Muslims. The result was

Ibn Battuta

Ibn Battuta was born in 1304 in the Moroccan town of Tangier (hence his surname "al-Tanji"—"the Tangerine") into a family of *qadis*, Islamic judges. His full name was no less than Shams al-Din Abu 'Abd Allah Muhammad ibn 'Abd Allah ibn Muhammad ibn Ibrahim ibn Muhammad ibn Ibrahim ibn Yusuf ibn Battuta al-Lawati al-Tanji. He trained as a jurist of the Maliki school of Sunni Islam and, in 1325, he set off to make the pilgrimage to Makkah.

Makkah was both magnet and centrifuge, and the pilgrimage gave him a thirst for far-flung travel. In this he was not alone: Almost wherever he went—in Anatolia, East Africa, Central Asia, China, up the Volga, down the Niger, even in the tiny Indian Ocean sultanate of the Maldives—he either met or heard of other Arab travelers. What makes him unique is that he went to all of these places (and more), and then, 29 years after leaving home, went back and, with the help of a young scholar named Ibn Juzayy, wrote about them. He died in Morocco in 1368 or 1369, in the provincial obscurity from which he came.

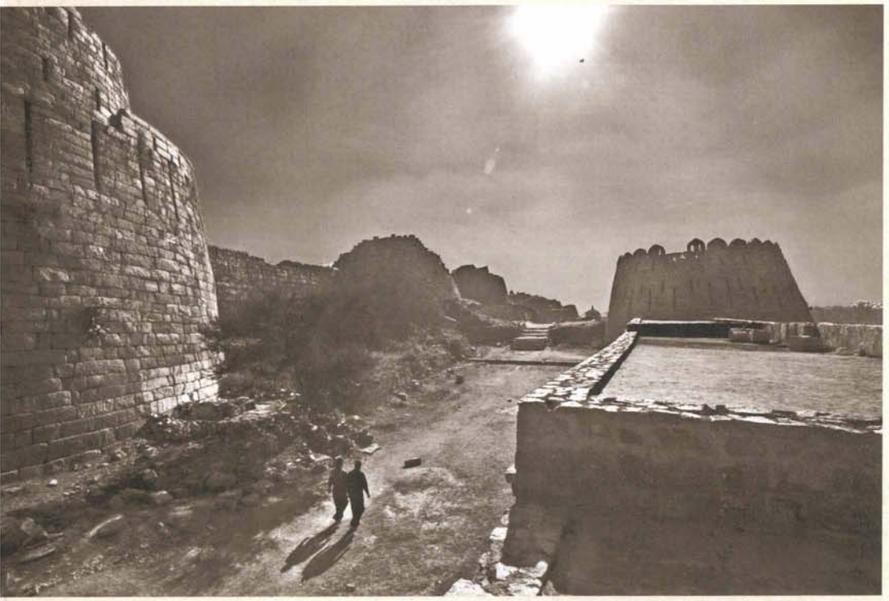
At the time of his death, his *Rihla*—vast, polyhedral and, to the literary establishment, unpolished—never quite fit into the "classic" pigeonhole. Later generations, however, saw the book for what it is: the masterwork, in scale, scope and substance, of the entire rihla genre, the greatest travel book ever written.

a recruitment drive in which he sought foreign officers, particularly Arabs, for his administration and army. Some, like Ibn Battuta, came on spec. Others were head-hunted: Later, in the port of Calicut, Ibn Battuta saw a ship of the sultan's about to set sail for the Gulf, "to enlist as many Arabs as possible...because of his affection for them."

Today the brawn- and brain-drain carries Indian laborers and software experts west to the Arabian Peninsula and beyond, but in the 14th century the human current flowed in the opposite direction. Like Ibn Battuta, the new arrivals were handsomely rewarded, and those travelers' tales of gold were not exaggerated. In the words of 'Isami, Arabs and other foreigners crowded into Delhi "like moths around a candle." Like moths, not a few got burned.

Ibn Battuta, however, was drawn to India by more than the gleam of money. He was already a keen collector of the curious, and India, ever since *The Wonders of India* and al-Mas'udi's *Meadows of Gold* had appeared in the 10th century, was a byword for the extraordinary. To the future author of *A Gift to Those Who Contemplate the Wonders of Cities and the Marvels of Traveling* (to give Ibn Battuta's *Travels* its full title), what country could be more wonderful than India, what metropolis more marvelous than Delhi?

The *Rihla* is often seen as an afterthought to the travels themselves, but I suspect that, even before his arrival in Delhi, Ibn Battuta had begun to see himself as an author: As far back as Bukhara in Central Asia, he had let slip that he was recording observations in a notebook. (It was lost to pirates off Sri Lanka.) As a rihla writer from the Arab West, he was following in the illustrious footsteps of Andalusians like Ibn Jubayr and fellow Moroccans like al-'Abdari, but as a rihla writer in India, Ibn Battuta would be a pioneer, for almost as remarkable as India itself was the dearth of knowledge about it in Arab lands. There were travelers' tales, and there were accounts from four centuries before, but there was as yet little that was new in the way of written descriptions. On sumptuous Delhi, there was almost nothing at all. Thus, when Ibn Battuta's *Travels* appeared back in Morocco more than 20 years later, one section was debated more hotly than any other: the account of the wealth of Delhi and its sultan. This dispute made Ibn Battuta notorious, and it is what first made his name. Even if it had not been meant literally, Muhammad ibn Tughluq's gift of his city to Ibn Battuta lasted far longer than did that 12,000-dinar salary.



Tughluqabad

"Tughluqabad, however, was destined to be one of the most elephantine white elephants in all the history of urban planning.... From the tactical point of view...[it lay] on the wrong side of old Delhi."

Two-thirds of a millennium later, I went to see the sultan's gift for myself, looking for survivals from Ibn Battuta's Delhi. Some, like the Qutb Manar, I could hardly miss: It is still one of the biggest minarets in the world. Others needed searching for. At least one—the cave-hermitage where Ibn Battuta lay low when, inevitably, he fell foul of Sultan Muhammad—called for serious detective work.

The Rajdhani Express was nearing the end of its 17-hour journey from Bombay. The sun was well up, but struggling against the atmosphere: I could look straight at it as it hung, high and bleary. Perhaps the window was tinted. I went to look from the open door of the carriage: The tint was in the sky itself, a turbid pall blanketing one of the world's more polluted cities. Things had changed since the time of Ibn Battuta when, 'Isami said, angels swept the streets of Delhi with their wings.

Although, like Ibn Battuta, I was heading into the almost-unknown, I knew from my reading that other things had changed too. Not least, Delhi has spent the last 700 years in a state of geographical flux. Ibn Battuta listed four separate cities: the original Dihli or Dehli ("Delhi" is in fact a 19th-century slip of the pen that took root), the adjoining cities of Siri and Jahanpanah, and Tughluqabad, situated to the east. Most recently, an expanding population—currently at least 14 million and rising fast—has not only filled in the gaps between these disparate urban areas, but also overlaid the remnants of the older ones. Searching for Battutian Delhi would be like piecing together a chapter from a history that has been disbound, flung about, then buried among the pages of later books.

It was a surprise, then, when a familiar name appeared over a suburban station platform: TUGLAKABAD. "The third city [of Delhi]," wrote Ibn Battuta, "is called Tughluqabad, after its founder, the Sultan Tughluq, the father of the sultan of India to whose court we came. The reason he built it here was that one day, as he stood before [his predecessor on the throne], he said to him, 'O Master of the World, it were fitting that a city should be built here.' The sultan replied to him sardonically, 'When you are sultan, build it.'" A few years later, in 1320, he did.

As far as Battutian sites went, Tughluqabad fell into the category of those you could hardly miss. From my seat in the back of an autorickshaw the following day, a gigantic wall bulging with fat-bottomed bastions hove into view. An architectural heavy brigade, it marched along a road in the semi-rural outskirts of the modern conurbation. Half a dozen bastions on, a gate appeared. I climbed up to it and entered an area of confusing and fire-blackened ruins. Among them rose a high eminence, the perfect vantage point over Tughluq's city.

From the top, the plan became clearer: I was standing on a citadel that dominated the main part of Tughluqabad, a rectangle of walls and towers stretching perhaps half a mile to the northwest. Clearly visible at the near end of this rectangle were the remains of a large complex of buildings, Tughluq's palace. Then I realized that the rectangle was only part of the city and that further walls continued far into the distance, forming a huge trapezium that all but disappeared in the haze. Within them a few fragments of other buildings were visible, but for the most part this vast area was totally, eerily empty. After what I had seen of the rest of Delhi, a city teeming with traffic and people, the desolation was unnerving.

Down below in the ruins of the palace, I ran into an official from the Archaeological Survey of India. He was pegging out trenches for an excavation. I pulled Ibn Battuta's *Rihla* out of my bag and together we read his description of Tughluq's gilded mansion and his treasury: "It is said that he constructed a cistern and poured into it so much gold that it became a single block," Ibn Battuta wrote—but future fortune-seekers were to be disappointed, for "all these treasures were spent by his son Muhammad when he became sultan." (Archeologists, though, are unlikely to be disappointed, for the palace complex has never been systematically excavated.)

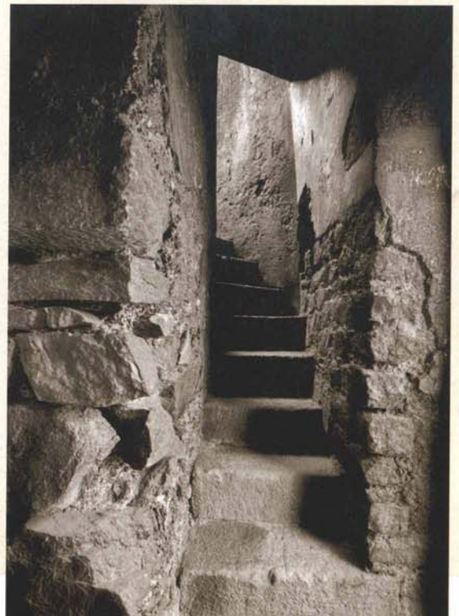
The eminence on which I had been standing, the surveyor told me, was called the Vijay Mandal, "the Abode of Victory," from the name of a pavilion which once stood on its summit. From here, Tughluq would review his troops. This must have been a favorite pastime of the old sultan, for Ibn Battuta saw an inscription of Tughluq's in which he boasted, "'I fought the Tatars 29 times and drove them in defeat.'" (Tughluq's Tatars were the Chagatay Mongols of Central Asia, and they posed a very real threat: At the beginning of the 14th century, fielding 100,000 men, they raided right up to the city walls. This explained a lot about the look of his fortress city.)

Tughluqabad, however, was abandoned almost as soon as it was completed. Legend tells that the reason was a curse by the renowned Sufi of Delhi, Nizam al-Din. Tughluq had requisitioned some masons who were working for Nizam al-Din and the latter, piqued, pronounced that the new city would remain forever deserted except for a few Gujars, a caste of nomadic herders. Whatever the truth of the story, the early 17th-century Englishman William Finch noted that "the carkasse of old Dely" was indeed "inhabited only by Googers." It remains today the hollow shell of a dead megalopolis, preserved by the Archaeological Survey.

Like his city, Tughluq also lasted only a short time. He became sultan in 1320 and died at the end of 1324 or the beginning of 1325. The historians disagree over the ultimate cause of his death. Ibn Battuta, quoting an eyewitness, wrote that it occurred when a wooden pavilion collapsed on top of him, and that this collapse was deliberately triggered by elephants on the orders of Tughluq's son and heir, Muhammad. In his verse history, 'Isami agreed. However, a contemporary Indian annalist, Barani, says equivocally that "a calamity occurred, like a thunderbolt from heaven," and likewise, the historian Mahdi Husain, passing sentence 600 years after the event, absolved Muhammad of parricide. I later asked the current doyen of Indian Islamic history, Professor Irfan Habib, for his verdict. He smiled inscrutably. "My old professor used to say, 'When you've run out of

Vijay Mandal ("Abode of Victory")

"The truth [about Sultan Muhammad ibn Tughluq] is neither black, white, nor even some intermediate gray but, as the Indian playwright Girish Karnad suggested, a glaring checkerboard of contrasts."



themes, you can always write on the question "Did Muhammad ibn Tughluq kill his father?"'"

Probably people were whispering the same question before Tughluq's corpse was even cold. No obscurity, however, surrounds its final resting-place. The dead sultan, said Ibn Battuta's informant, "was carried by night to the mausoleum which he had built for himself outside Tughluqabad."

To follow that nocturnal cortege, I left the main gate of the city and walked along a slender causeway of stone which joined the mausoleum to the main fortifications. Inside this mortuary-fortress sat Tughluq's tomb chamber, a massive, square-based block of dark-red sandstone. The walls sloped inward, giving it the shape of a truncated pyramid, or, put less architecturally, of one those giant "ONE TON" weights that drop out of the sky in cartoons. And that was the impression it gave: crushing solidity. The only light relief came from some frilly white trefoils lining the door arches—a strange touch of delicacy—and from a brilliant green parakeet that flitted across the façade.

Ibn Battuta does not mention the curse on Tughluqabad, but he does drop hints as to why Sultan Muhammad should have ditched his father's brand new city and built his own—the fourth city of Delhi, called Jahanpanah, "The Refuge of the World." It is clear from the *Travels* that, despite royal moves, the old mother-city of Delhi proper was still home to most of the population, Ibn Battuta included. Jahanpanah was, he says, "set aside for the residence of the sultan." Tughluqabad had probably been intended to play the same role, not so much a city as a fortified royal suburb. Similarly, 20 years before Tughluq's reign, Sultan 'Ala' al-Din had moved out of old Delhi after repelling a coup, and he later built Siri, the second city on Ibn Battuta's list. Prudent rulers, it seemed, kept a wary distance from old Delhi, a metropolis of plots and revolutions throughout the Sultanate's history.

That same history, however, had seen wave after wave of raiders from the northwest, and the sultan had to be on hand in the event of another Mongol blitzkrieg. From the tactical point of view, Tughluqabad, which lay 6.5 kilometers (4 mi) to the east, on the wrong side of old Delhi, was a monstrous blunder. Muhammad tried to make something of it and began work on a wall which, at nearly 28 kilometers (17 mi) in length, would have united Tughluqabad with the rest of the conurbation. "But after building part of it," Ibn Battuta wrote, "he gave up the rest because of the enormous expense." The isolation of Tughluqabad was just too splendid.

That isolation has preserved Tughluqabad to the present day. Jahanpanah, directly to the north of the original Delhi, has in contrast been almost entirely swamped by recent building. Yet something of Muhammad's palace has survived there, a mass of ruins brooding over a piece of wasteland. Elsewhere, it might have had a visitors' center complete with interactive video displays: It is, after all, the main monument to the most fascinating man ever to have ruled the country. But in India, with its embarrassment of archeological riches, the authorities put their limited resources into prettier and tourist-friendlier sites. Here, I was far from the world of ticket offices, eager guides and the Taj Mahal. My only guide was Ibn Battuta.

Luckily, he left a detailed account. Sultan Muhammad's palace had three gates, each furnished with a flurry of officials presided over by marshals in caps of gold plumed with peacock feathers. The first gate was also home to the executioners. The second led into a large *mashwar*, or audience chamber.

Qutb Manar

"Ibn Battuta wrote: 'In the court of the Quwwat al-Islam mosque is a minaret which has no peer in the lands of Islam. It is built of red stone, ornamentally carved.'"

"The third door," continued Ibn Battuta, "opens into the immense and vast hall called Hazar Ustun, which means [in Persian] 'a thousand pillars.' The pillars are of painted wood and support a wooden roof, most exquisitely carved.... It is in this hall that the sultan sits for public audience."

The plain Arabic of Ibn Battuta's account was harder to translate on the ground. The ruins of the palace were a three-dimensional puzzle, all ramps and courts and vaulting, and as far as I knew no one had solved it with any degree of certainty. I decided to work backward, starting from the Thousand-Column Hall. Of this, only a few column-bases are now visible, square blocks of stone with round sockets into which the wooden pillars would have fitted. Excavations some 70 years ago established that this was Muhammad's famous Hazar Ustun, and that it was indeed immense and vast—some 97 by 66 meters (310' by 210'). Due south of this lay a rectangular room with stone columns supporting a vault—perhaps the mashwar, the outer audience chamber that Ibn Battuta placed between the second and third gates. This room opened in turn onto a terrace: Could this terrace have been the "large platform" the traveler mentioned, on which the chief marshal sat? Possibly. But then, where were the gates?

To confuse matters further, there *was* a gate to the north of the Thousand-Column Hall, a monumental structure heavily buttressed with sloping piers. Now collapsed at its eastern and western ends, it must originally have been a full 13 bays long. The area between this and the Hall is now occupied by a number of later tombs, but it could, I thought, be another candidate for the site of Ibn Battuta's mashwar and the third gate. Silently, I chided the traveler for not providing compass points. With these, the puzzle might have been solved.

Then again, what was the grand octagonal structure to the west of the Thousand-Column Hall? I went back to Ibn Battuta's text and found that he mentioned a *dihliz*, a vestibule, between the first and second gates. "Along two of its sides there are platforms, on which sit those troops whose turn it is to guard the gates." And there, serendipitously, was a terrace raised on vaults and running around two sides of the domed building. I began to feel I was getting somewhere.

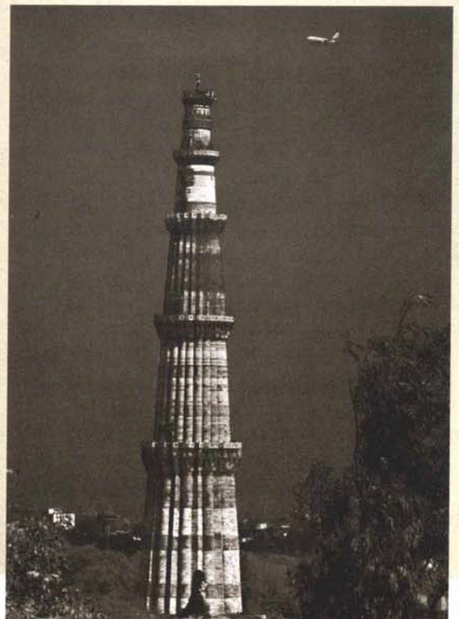
Beyond my putative vestibule some boys were playing cricket, and beyond the cricketers were a few courses of a gateway pierced by a double entrance. My sense of serendipity increased. Play stopped and the boys came over to chat. They knew little about the ruins, but one of them mentioned that their cricket pitch was called the Gate of Khuni Hathi, or "Bloody Elephant Gate." Suddenly phrases from Ibn Battuta jostled into my mind: "His gate is never without some poor man enriched or some living man executed.... Outside the first gate sit the executioners.... The elephants were brought and the rebels were thrown down in front of them, and they started cutting them in pieces with blades attached to their tusks."

One final element of the complex—an apt word in both its meanings—remained. An octagonal flat-roofed turret rose above the vaulted room to the south of the Thousand-Column Hall. Of all Muhammad's palace, this was the best-preserved part, and the loftiest; it also had a name, the Vijay Mandal, the same as that of the pavilion which had once overlooked Tughluq's citadel. (Despite their penchant for moving, the Delhi Sultans were less original when it came to design. At least two earlier rulers had built Thousand-Column Halls, and there may have been other Vijay Mandals, too.) I climbed up and looked down from the roof. Seen from above, the palatial puzzle now made some sort of sense. But it was impossible to conjure up the original atmosphere of this palace, once the engine-room of Muhammad's empire. In its present state, it reminded me of a verse quoted in the *Rihla*. Ibn Battuta and a Delhiite friend, originally from Granada, were visiting the old Red Palace of Sultan Jalal al-Din, abandoned on his death some 40 years before. They had climbed to the top of the building and were looking down on it when the Granadan recited:

As for the sultans, ask the dust of them—
Those mighty heads are now but empty skulls.

Qutb Manar

"From a distance, it resembles a work of nature—the trunk, perhaps, of a giant redwood tree. As you approach, the details come into focus: alternating sharp and rounded ribs, balconies melting into geometrical stalactites, thick bands of calligraphy like the embroidery on the sleeves of a caliphal robe."



Even though it nearly killed him, as we shall see, Ibn Battuta was lucky to have known that mightiest of all the heads that ruled India. Muhammad ibn Tughluq was, according to the Indian scholar and dramatist Girish Karnad in the introduction to his 1964 play *Tuqhlaq*, "certainly the most brilliant individual to ascend the throne of Delhi, and also one of the biggest failures." Some have gone to extremes to sum him up. 'Isami painted him deepest black when he likened him to Dahhak, the Persian tyrant of legend who had a snake growing from each shoulder and lived on human brains. More recently, Mahdi Husain, presenting him as a gentle philosopher, all but whitewashed him.

The truth is neither black, white, nor even some intermediate gray but, as Karnad suggested, a glaring checkerboard of contrasts. Muhammad ibn

Tughluq was an accomplished calligrapher and poet, a scholar who had memorized the Qur'an and *Kitab al-Hidayah*, one of the main books of the Hanafi school of thought—and he was the merciless persecutor of any scholar who disagreed with him. He unified much of the Indian subcontinent and, for a time, his authority was recognized as far away as Mogadishu in East Africa—yet in 1341, en route to the coast, Ibn Battuta would find himself under attack by Hindu rebels a mere 130 kilometers (80 mi) from Delhi. The *Travels* devotes a whole long section to Muhammad's incredible generosity—literally incredible to Ibn Battuta's later critics in Morocco, who refused to believe that any monarch would distribute gold coins by catapult, a claim that was nonetheless later validated by Indian sources. This section is followed by another on Muhammad's no less incredible cruelties, of which being chopped into pieces by elephants was one of the more humane.

Of the sultan's dark deeds, the most fascinating to Ibn Battuta was his short-lived relocation of his capital from Delhi to Dawlatabad, more than 1100 kilometers (700 mi) to the south, in 1327. As the Moroccan tells the story, the reason was a whispering campaign by the population of Delhi that accused Muhammad of tyranny. "So he decided to lay Delhi in ruins, and commanded the inhabitants to move out of the city and go to Dawlatabad.... Delhi was left desolate and disintegrating."

Things are probably not that simple, for most historians now agree that only the courtly and administrative classes were relocated and, indeed, the capital officially returned to Delhi soon after Ibn Battuta's arrival there. Soon, distant portions of the empire succumbed to rebellions—22 of them under Muhammad's rule—and the sultan spent all the latter part of his reign fighting secessionist officers.

Yet exaggerated or not, Ibn Battuta's secondhand account of Muhammad ibn Tughluq's evacuation of Delhi ends with a singularly chilling image of the ruler: "The sultan mounted one night to the roof of his palace and looked out over Delhi, where there was neither fire nor smoke nor lamp, and said, 'Now my mind is tranquil and my feelings are appeased.'" As I stood on top of the ruins myself, I couldn't help thinking that, if there were any truth to the anecdote, it must have been here that the sultan had also stood, on the summit of this Vijay Mandal, his Abode of Victory.

Sultan Muhammad died in 1351 while campaigning near the mouth of the Indus. It is said that his last words were in extemporized rhyming couplets, according to which he departed "hunched and sunken, like the hornèd moon." Whether the story of the poetical death is true or not, it certainly should be: To die in verse, on campaign, would have been characteristically brilliant.

Today, below the turret, Delhi is getting its own back on the sultan who once abandoned it. The octopus city now throttles his palace, and its citizens use the Thousand-Column Hall as a public lavatory. And as I looked down to the Bloody Elephant Gate, one of the cricketing boys hit a majestic six over my putative vestibule.

Palam Gate

"He tells us a lot about the city...but little about his own day-to-day life.... Tantalizingly, he gives us only one glimpse of the house where he lived in the original city of Delhi: 'a mansion near Palam Gate.' Palam Gate has disappeared.... All I could say with certainty was that, appropriately for a traveler, it must have stood somewhere near the bus station."

I needed an antidote to the melancholy of Muhammad's palace. And there it was, rising through the haze on the southern horizon.

Describing the Qutb Manar, Ibn Battuta wrote: "In the court of the Quwwat al-Islam ['Might of Islam'] Mosque is that minaret which has no peer in the lands of Islam. It is built of red stone, ornamentally carved.... A person in whom I have confidence told me that when it was built he saw an elephant carrying stones to the top."

Though it reached more than 75 meters (240') in height, it was equally the minaret's "great bulk and breadth"

—the base is 14 meters (45') across—that impressed Ibn Battuta. For me, though, the Qutb Manar was remarkable less for its dimensions than for its decoration. "Ornamentally carved" was an understatement: It has one of the most exciting surfaces in Indo-Muslim architecture. From a distance, it resembles a work of nature—the trunk, perhaps, of a giant redwood tree. As you approach, the details come into focus: alternating sharp and rounded ribs, balconies melting into geometrical stalactites, thick bands of calligraphy like the embroidery on the sleeves of a caliphal robe.

The Qutb Manar, like Tughluqabad, was a monument you could hardly miss, and few visitors to Delhi have. Near it, I discovered another Battutian memorial that was rather more private. I had taken shelter from the midday sun in the 'Ala'i Gate, the southern entrance of the mosque, built by Sultan 'Ala' al-Din in 1311. It is a delicious building, particolored in red sandstone and white marble, and refreshingly cool, an airy cuboid with four portals and pierced stone screens that admit the breeze and dapple the interior with shadows. I wrote up my notes sitting on a broad sandstone bench that runs around the inside of the gateway. The stone was cold to the touch and burnished by seven centuries of backsides. I realized one of them must surely have been Ibn Battuta's.

The traveler's account of Delhi focuses, not surprisingly, on what he assumed his readers would find interesting. He tells us a lot about the city—its history, its personalities, his own experiences with Sultan Muhammad—but little about his own day-to-day life there. (Of his working life there was in fact little to tell: His post as judge was, by his own admission, a sinecure.)

Tantalizingly, he gives us only one glimpse of the house where he lived in the original city of Delhi, describing it as "a mansion near Palam Gate." Palam Gate has disappeared but, assuming it had faced the village of the same name, it would have stood on the southwestern side of the city, not far from the Qutb Manar. Ibn Battuta must have prayed often in this mosque, and its southern entrance—the 'Ala'i Gate—would have been the most direct way in for him. And it is not a wild guess to suppose that, from time to time, on a hot day after noon prayers, he too would have sat on this same stone bench.

I was curious to know more about where Ibn Battuta had lived, and though I could hardly expect to find his mansion, I could still try to visit his neighborhood. The task would have been easier if Ibn Battuta had left us a full postal address; instead, all I had was that bare "near Palam Gate." Following the ghost of the city wall along a highway that thundered with trucks, I came to the beginning of the old road to Palam. The area where the gate must have stood is now a large and very busy bus station. Between this and a neighboring bazaar was an area of old Islamic cemeteries: I remembered that, in his only other reference to Palam Gate, Ibn Battuta described the burial of his daughter there, outside the walls. I cut back from the bus station toward the Qutb Manar, and I found myself in a jumble of small brick houses. They were recent, but the lanes winding between them were paved with much older dressed stone. Clearly, nothing short of a full-scale excavation would get me any nearer to Ibn Battuta's house. All I could say with certainty was that, appropriately for a traveler, it must have stood somewhere near the bus station.

Over the next few weeks I visited other sites where the Battutian resonances were louder. The tomb of Nizam al-Din, the famous Sufi who "cursed" Tughluqabad, is still among the city's most important monuments, as it was in the Moroccan's time. The huge Hawz Shamsi, a reservoir contemporary with the Qutb Manar, still contains water; however, it has shrunk in size, and the central island pavilion Ibn Battuta described is now almost aground off the southern bank. The other great reservoir, the Hawz Khass, is now dry, but its wooded fringes—a jungle, almost, within the urban jungle—are a reminder of what Delhi looked like before the late 20th century, when the city turned hungrily on its own open spaces. In Ibn Battuta's time musicians lived along its banks, and their settlement was known as Tarababad, "Music City." Now a sign on the gate warns, "Playing of musical instruments, gramophones or broadcast receivers, including transistors, within the Archaeological Area is prohibited."

There was one final spot to search for. It was associated with one of the most nerve-wracking periods of Ibn Battuta's career, nine days when his life hung in the balance between the Thousand-Column Hall and the gate of execution. If it still existed—and I doubted it—it would be a truly minimal monument.

For several years, Ibn Battuta had hovered on the sidelines of Sultan Muhammad's court, observing his fellow courtiers, those moths fluttering around the fatal flame. Now and then

Palam Gate

"Between this and a neighboring bazaar was an area of old Islamic cemeteries: I remembered that, in his only other reference to Palam Gate, Ibn Battuta described the burial of his daughter there, outside the walls."

one would cut it too fine, and fall. Eventually, his own turn came. He was accused of associating with a dissident *shaykh*, or religious scholar, who had gone underground—literally—in a subterranean house outside the city. Ibn Battuta, never one to miss a curiosity, had gone to inspect the cave dwelling. He was promptly arrested and kept under guard in the sultan's audience chamber. "When the sultan takes this action with anyone," he remembered, "it rarely happens that that person escapes.... I fasted five days on end, reciting the Qur'an from cover to cover each day and tasting nothing but water. After those five days I broke my fast, and then continued to fast for another four days on end, and I was released after the execution of the shaykh, praise be to God Most High." Thoroughly unnerved by the experience, Ibn Battuta turned his back on the world, swapped clothes with a beggar and became the disciple of an ascetic called Kamal al-Din 'Abd Allah al-Ghari.

Ibn Battuta explained that al-Ghari, "the Caveman," earned his surname from his place of residence, a *ghar*, or cave. Ibn Battuta seems personally not to have lived in the cave, but he must have visited it often, since he spent the next five months in the ascetic's company, fasting, praying and meditating. It was the ultimate gesture of rejection: He had exchanged his judge's robe for a pauper's shirt, and a master who lived in a Thousand-Column Hall for one who lived in a hole.

Frankly, my chances of finding the cave were slim. Ibn Battuta had left another annoyingly vague address: "Outside Delhi, near the hospice of Shaykh Nizam al-Din." The problem was that over the centuries the landscape of Delhi had been continually eroded, and the sort of rocky outcrops where one might find caves had been quarried away long ago. I wasn't surprised when I explored the district around the tomb of Nizam al-Din and failed to find any promising bumps in the ground. Moreover, while in the 14th century this area had lain some

Hauz Khass

"The other great reservoir, the Hauz Khass, is now dry, but its wooded fringes—a jungle, almost, contained within an urban jungle—are a reminder of what Delhi looked like before the late 20th century."

two miles to the northwest of the city, it now stood almost at the center of the Delhi conurbation, and it was covered with housing.

There was, of course, a chance that the cave had not been a natural one but a man-made hole in the ground. In Gordon Hearn's 1906 book, *The Seven Cities of Delhi*, I had found a reference to "a tiny cell, only three feet wide, and almost filled up with soil," which had been the abode of another 14th-century Delhi ascetic. I visited the site several times and tramped around, nose to the ground, but the last hundred years had obliterated all traces of the troglodyte's burrow.

Disappointed, I gave up on the Caveman's cave. Ibn Battuta's five months with the ascetic had ended when Sultan Muhammad rehabilitated him in 1341 and appointed him to an embassy to China. His subsequent journey through India to the coast was packed with descriptions and adventures, and I wanted to move on and revisit them, too. Like Ibn Battuta, I had been stationary for too long.

Before I set out, I happened to mention my fruitless search to a historian of Delhi. Surprisingly, he offered me a new clue. "You may be looking in the wrong place," he said. "Go and try around the *khanqah* [hospice] of Nizam al-Din, outside the mausoleum of Humayun."

It was the first I had heard of it. I had assumed that the hospice of Nizam al-Din referred to by Ibn Battuta was the large complex of buildings founded by the famous Sufi, in which he was buried. But the khanqah, the historian explained, was an entirely different place—a sort of pied-à-terre where Nizam al-Din would escape from the crowds of visitors to fast and pray. Could this khanqah (a Persian term) be the same place as Ibn Battuta's pure Arabic *zawiyah*, which also means "hospice"? Conceivably: In Ibn Battuta's time, *zawiyah* had the additional sense, in fact its original meaning, of "a corner"—in other words, a cell into which one retreats. (The word evolved to refer to a mosque used as a "headquarters" by a Sufi group.)

I had no difficulty finding the 16th-century mausoleum of Humayun, the second Mughal emperor. It lies about half a mile east of the tomb-complex of Nizam al-Din, a palace of death soaring over a garden. To the west there was a car park filled with tourist buses; on the south, an affluent-looking suburb. This was followed at the east by a warren of tiny houses, compact as a nest of mud-wasps. Rounding the northeast corner, I passed a large Sikh temple and then spotted a green flag. A sign over a gate announced the Khanqah of Nizam al-Din.

It was a complete contrast to the ethereal grandeur of Humayun's tomb: just a diminutive mosque and a few graves in a small garden hard by the Mughal mausoleum wall. It was also an island of silence in a noisy city: Something remained here from the time when this had been a place of retreat. I found the old imam sitting in an archway. I showed him Ibn Battuta's passage on Nizam al-Din's ascetic neighbor, the Caveman, "the outstanding and unique personality of his age." He smiled and shook his head. The name meant nothing.

For the next three hours, I quartered the neighborhood: the mud-wasp village, a domed and ruinous Mughal tomb in its center, the railway line to the east, the enclosure of the Sikh temple. There were no signs of a cave. No one had heard of the Caveman.

It was now the end of the afternoon, and only one last place remained unexplored—a piece of wasteland to the north of the khanqah, sandwiched between a "Police Transmitter Station: Restricted Area" and the Delhi State Scouts and Guides Training Centre. Beyond this lay a clump of trees.

I made for the little wood. I was surprised to find that it contained another domed tomb, neglected, pigeon-filled and Mughal. Further into the tangle of trees, I discovered more decaying tombs. And then in the heart of the wood, as the light was beginning to go, I came across a little knoll of compacted dust a bit more than six meters (20') high. On top of this was a masonry platform surmounted by three simple graves, all whitewashed. The strange thing about it was that, unlike the other tombs, this place was cared for. The whitewash was fresh.

I had only just stumbled across the platform when a young man appeared from among the trees. I walked over to him, greeted him and asked—by now it had begun to seem a pointless question—if he knew of the Caveman. He didn't. This place, he said, was the khanqah of Dada Pir. His own name was Muhammad Mustaqim, and he was the guardian of the khanqah.

"Dada Pir" is not so much a name as a title that attaches itself, with time, to half-forgotten religious personalities, and it means something like "holy old man." I wondered how old, and I asked Muhammad when Dada Pir had lived. "A long time! Before seventy hundred years," he replied.

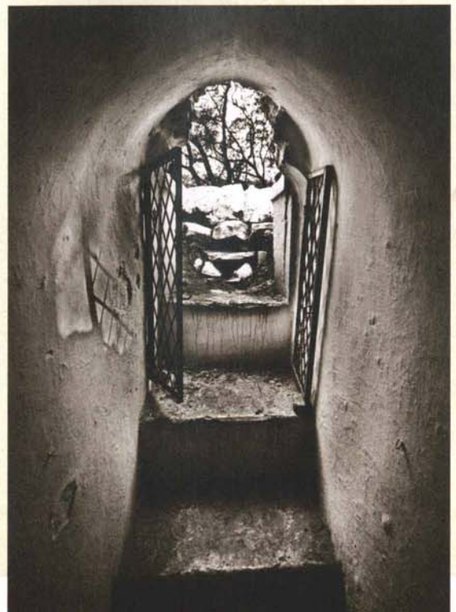
I wrote "70" in my notebook. "Like this?"

He added a zero: the first glimmer of hope all afternoon. Seven hundred years at least took us back beyond the Mughal period.

Almost immediately, the glimmer became a ray. On the top step of the three that led up to the platform, I spotted a frieze of repeating shield shapes: It was a motif I had noticed on buildings of Ibn Battuta's period. And that, I felt, was as far as I would get.

Khanqah of Dada Pir

"There was one final spot to search for. It was associated with one of the most nerve-wracking periods of Ibn Battuta's career, nine days when his life hung in the balance between the Thousand-Column Hall and the gate of execution.... Frankly, my chances of finding the cave were slim."



We walked around the platform in silence. I was beginning to wish we had more language in common: I wanted to find out more about the mysterious Dada Pir. And then I saw something that made me stop. Six steep steps descended under the platform, into the hillock on which it stood. I followed them down and found myself in a short whitewashed passage. It was a dead end.

I climbed up again. "What is this?" I pointed down into the blocked passage.

Muhammad Mustaqim smiled. "Dada Pir original house. The door now close."

As I walked back through a sunset din of birds, I felt that, hidden in the wood and in the anonymity of Dada Pir, I had perhaps found al-Ghari, the Caveman, and the setting of five spiritually charged months of Ibn Battuta's life. As a monument to the traveler's time in Delhi, that blank dead end was, paradoxically, greater than Tughluqabad or the Qutb Manar.

Of course, it was all only a possibility. But perhaps that was why I was here: not so much to see sights, as to look for possibilities. I left Delhi with a whole subcontinent of them before me.

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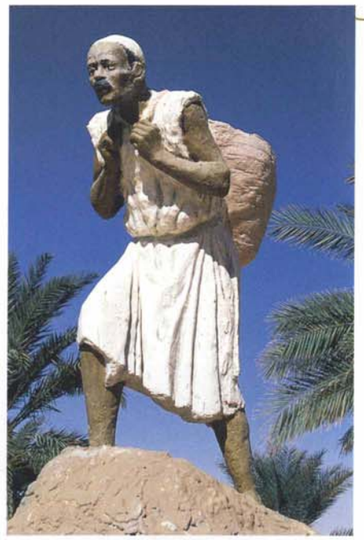
The rihla literary genre: J/A 00
Qutb Manar: M/A 02

Soufi from the River, Soufi from the Sand

Written by Barbara Nimri Aziz Photographed by Pascal Meunier

Who else but we built our domes?
Who but we preened these poems?
To whom else do sand dunes yield
A land aglow with golden jewel?
Come,
See a rare pride.
Come,
See how this sand breathes sand;
How these brown arms
Render harsh earth so supple;
How these brown arms
Lift away trouble.
Come.
See, from sun's hot rays of El-Souf
light enters any dark crevice.

—Bubakar Murad
(translation: Rachida Mohammedi)



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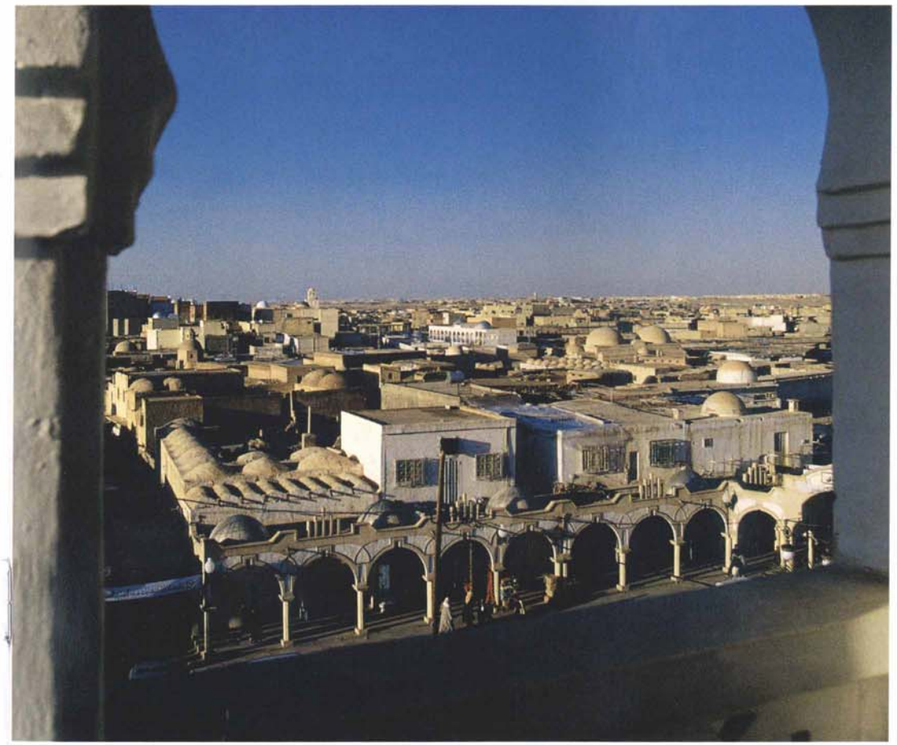
At the entrance of a private experimental farm near the city of El-Oued stands a modest statue of an early settler of this oasis: the *rammaal*. He is neither a camel trader nor a herdsman, although El-Oued has been home to both. *Rimal* means "sand" in Arabic, and the rammaal is the humble farmer and sand porter whose muscle and plodding determination made El-Oued's early date palms grow. Far removed from today's mechanized farming, this figure, weighed down by the sack of sand on his back, is an evocative regional symbol.

Far to the north of El-Oued, Algeria's hills and plains overlook the Mediterranean, from Tlemcen on the western border with Morocco to Annaba bordering Tunisia in the east. Covered by rich loam and fed by seasonal rains, they are Algeria's most productive agricultural regions, but they comprise only a sliver of a country more than three times the size of Texas. After Sudan, Algeria is the second-largest country in Africa.

Almost 90 percent of Algeria's area lies south of the Atlas Mountains, where the land ranges from arid stony plains to shifting seas of desert sand. In many of these arid regions, however, the potential for agricultural productivity exists: They overlie one of world's largest underground water sources, the Continental Intercalaire. This 600,000-square-kilometer (231,600 sq mi) confined aquifer spreads beneath much of Algeria, Tunisia and Libya; it is second in size only to the Ogallala aquifer of the central United States.

For decades, the full agricultural potential of Algeria's inland expanses has been overlooked in favor of hydrocarbon exploration, and gas and oil



Above: **Oasis capital of one of Algeria's 48 provinces, El-Oued, population 110,000, was called "the city of a thousand domes" by early 20th-century traveler Isabelle Eberhart.** Top: **Modern travelers are treated to this design inside the *qubbah* (dome) of El-Oued's airport terminal.** Opposite: **The statue of the *rammaal*, the sand porter, at the entrance to Daouia Farm symbolizes the hard labor that was required to grow crops in this desert beginning in the late 14th century.**

today account for some 60 percent of the Algerian government's revenues and one-third of Algeria's gross domestic product. Much of central and southern Algeria, populated by barely three million of the country's estimated 32 million people, has remained hardly more than a scattering of oases.

But that is changing. Rural development is receiving increasing official support as the Algerian government recognizes that arid-region production not only helps move Algeria toward food independence, but also helps check the expansion of the desert and stanch the flow of young people from rural to urban areas of the country. Regional developers now commonly refer to the value of agricultural programs in El-Oued and other arid regions.

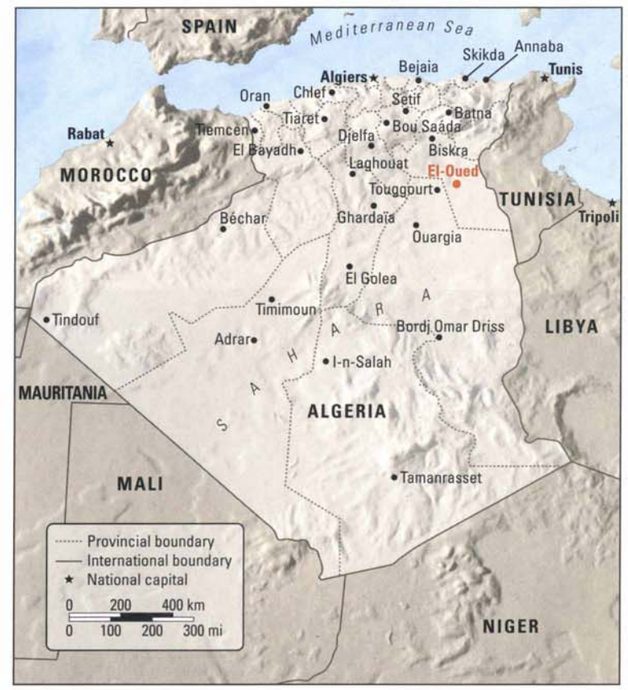
El-Oued is an obvious place for the expansion of agriculture. "There is abundant water. The climate is excellent, and we have a capable, ready population," asserts Hocine Benyahia, a hydrologist with El-Oued province's Department of Agriculture. Benyahia passes over the fertility of the sandy soil, citing its proven agricultural value in similar conditions elsewhere in the

world. "Forget about the sand. The issue here is how to manage the water."

The first accessible level of water, closest to the surface, he explains, was a shallow supply, and it was exhausted in this region by 1960. The next-deepest level, at 200 to 500 meters (640–1600') is too salty for agriculture. The third, below 500 meters, "is pure, and because it is hot, it rises to the surface from its own pressure. It is our main water source nowadays."

On an average workday, Benyahia is often out in the fields, working with other experts to build water-drainage networks, including planting eucalyptus trees that naturally drain salty, water-logged soil, laying grids of pipe and installing pumps, and selecting irrigation techniques suited to local conditions. With his contagious energy and enthusiasm in the face of challenge, he may well be the rammaal's modern, well-educated descendant.

Above: **Newly planted date palms receive just enough water through drip irrigation.** Right: **This abandoned village lies within one of El-Oued's dozens of *aghwaat*, crater-like depressions first dug by the sand porters to allow tree roots to tap a now-depleted upper water table. Today, this is one of the few aghwaat whose trees survive.** Opposite: **Today, new fields are cleared the modern way—by machine—and water is pumped from as deep as 500 meters (1600') below ground, from the world's second-largest confined aquifer.** Top: **Carved-gypsum decoration inside a qubbah at Daouia Farm.**



Soufi Identity in El-Oued

The majority of the 627,000 people (2004) in the province of El-Oued, although ethnically Arab, call themselves *Soufi* (plural: *Souafa*). It is a name whose origins reflect the province's age-old struggle with sand and water.

El-Oued historian Ali Ghenabzia, who works with folkloric sources in the absence of any written history of early El-Oued, explains that *soufi* does not derive from the mystical religious sects commonly associated with Islam, but rather from the land itself. It may, he says, come from *e-sif*, a Berber term for river, which led to the Arabic term *wadi al-esouf* or *oued el-souf*, meaning "the valley of the river." Geologists say a watercourse once flowed through the region, and the town's name in classical Arabic is al-Wadi ("the valley"), referring to that watercourse, Wadi Sawf. On the other hand, Ghenabzia says, "the desert dwellers of today trace their name to *safi*, a sand of powdery consistency, or from *souf*, a blade, referring to the sharp-edged crest of a sand dune."

For centuries, more than other regions of the country, the Soufi of El-Oued remained true to their Arab origin. Arabic has always been the common language of the Soufi, even during decades when French was the enforced language across most of Algeria. In the late 19th century, El-Oued's Association of Muslim Scholars founded six schools that taught students from around the country, in Arabic, throughout the remainder of the French occupation. After independence in 1962, when the country urgently needed Arabic-language teachers, as many as 400 graduates from those El-Oued schools were sent throughout the country to reintroduce the national language.

Of themselves, Souafa say they are a people who embrace their environmental extremes and social isolation to advantage. In fact, they credit those conditions with enriching their culture.

Of the desert, Azzedine Zoubedi quotes a local proverb: *fi il'lala, harah'eer, fi il'na'har t'alal*—"at night, a thick blanket, in daytime, a tender shade." In Soufi homes, courtyards are designed with a shallow pit, called a *hawsh*, in the center—the local equivalent of the central fountain common to the courtyard houses of other Arab lands. Here, guests are received and the family gathers in the evening. On hot nights, some sleep in the cool hawsh. In between houses, even in the era of the automobile, lanes are often rivers of loose, powdery sand. A favorite family picnic spot is likely to be one of the high, sharp-crested dunes beyond the village or town. As so often happens, the same elements that make hardships for people have also their softer, domestic side.

El-Oued's most renowned singer-poet, Abdellah Menaï, is nationally recognized by young and old with affection. As one admirer in the capital put it, "his words are pure Arabic." Comments another: "He speaks with the people's voice." Menaï, who lived in France and worked in Algiers during the 1970's, says of his own work, "I could not accept the 'Algiers style' with its mix of languages. I left my friends in the capital to return to the desert and listen to our local poets, especially Soufi women. They have given me much. All of us are imbued with the lullabies our mothers sang to us. I keep those words and rhythms in my music."

Today, in towns across El-Oued province, Soufi poets gather regularly to share their work. Their poetry may not be widely acknowledged in Algeria's highbrow centers, where classical Arabic and French prevail, but in a time when urban cultures are ever more dominant, Soufi poetry is holding its own.

"Theirs are the lines that move people," notes anthropologist Ahmed Zegheb. Also a linguist and lecturer in Arabic literature at El-Oued University, Zegheb sends his students into the community to collect poetry and other materials from folk sources. "We can also discover the anthropology of our ancestors through Soufi poems proverbs, riddles and jokes."

Top: **Qubbah decoration in El-Oued includes mosaics such as this one at Daouia Farm, whose grounds appear at** left. **Founded in 1985 by Djilali Mehri** (below, left), **the experimental farm has become a local leader in agricultural research, with produce** (below) **marketed locally and abroad.** Opposite: **Women sort dates at Daouia Farm.** Opposite, lower: **Limem Menana,** left, **is Daouia's foreman, and manager Azzedine Zoubeidi,** right, **takes particular pride in the farm's olives.**

At the end of the 14th century, an Arab immigrant called Sidi Mastour came to El-Oued from the eastern Sahara, bringing with him what would become El-Oued's first commercial date-palm seedlings. His belief that they could flourish in El-Oued proved correct, and he eventually made eastern Algeria the leading producer of dates in North Africa.

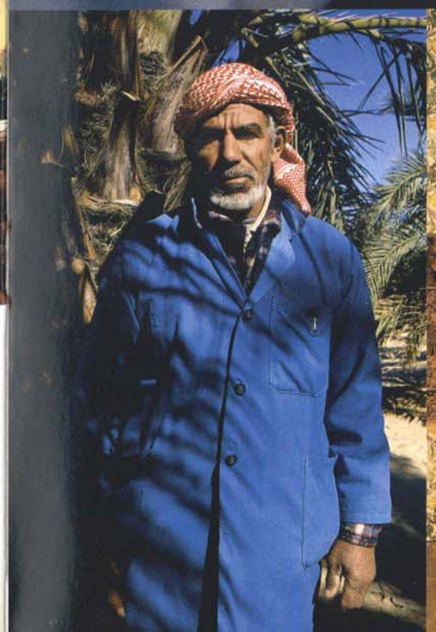
To reach the water table, then some 15 meters (48') below the surface, Mastour and his companions excavated crater-like, sunken farms, called *aghwaat* (singular is *ghawt)*, into which the date palms were planted. Each ghawt required carrying up and away countless tons of sand—first to dig the ghawt, and then to continually haul away sand that blew into it. A single ghawt held 50 to 300 trees, and a large one could sustain three or four families. So it was that thousands of families thrived in El-Oued on the strong backs of the rammaals, despite inhospitable winds, heat and isolation, and the oasis grew into the capital of a province to which it gave its name.

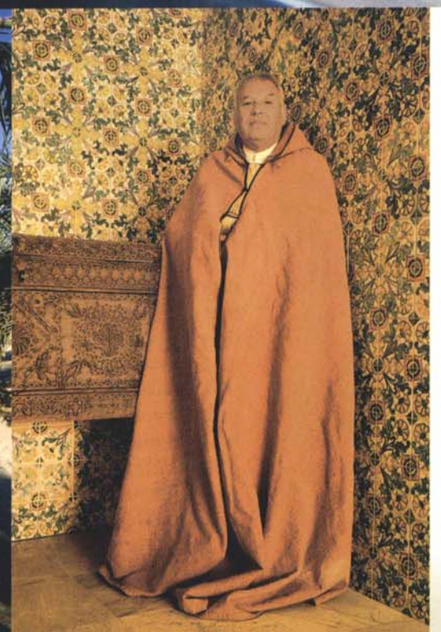
Today, the remnants of hundreds of aghwaat speckle the landscape. Tufts of green palm fronds protrude from some, but none are productive any longer. Unbeknownst to the farmers, the sand in which they planted contained salts that the irrigation water mobilized, and by the second half of the 20th century their palms had perished. The ghawt system had to be abandoned.

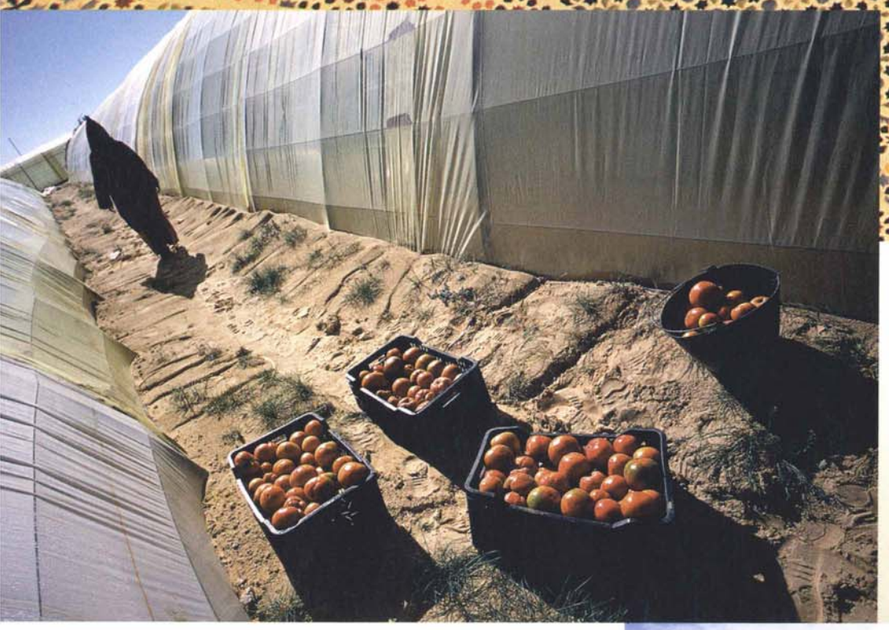
Just as Sidi Mastour and his tribe, 500 years ago, managed the sand by hauling it away, controlling the sand here remains essential if today's new agricultural initiatives are to succeed. From behind the dunes emanates the ever-present grinding of bulldozers as they shift rolling sands into flat, arable plots, bordered by palm-frond fences and rows of hardy shrubs. These leveled fields can be fed by water drawn from the aquifer far below.

These techniques are opening up new possibilities as date-palm cultivation, still expanding, is augmented by new crops of potatoes, pears, pomegranates, peanuts and—most recently—olives. Agriculturalist Adel Guedouda explains that, in general, trees stimulate humidity, and, specifically, olive trees are a good natural water pump.

Daouia Farm, founded by Djilali Mehri, a native son of El-Oued who was successful in international commerce before turning to agriculture,







From left: **Greenhouse tomatoes, garlic, potatoes, carrots and new date palms—cultivation of these and other crops is rebounding throughout the region after Algeria's decade of conflict. In addition to jobs, former El-Oued governor Omar Hattab says candidly, a goal of government support for agriculture is "to restore credibility and respect for the Algerian government."** Top: **Decoration of the dome over Daouia Farm's reception lounge.**

sets the pace for local innovation. Neither a farmer nor the son of a farmer, Mehri simply believed that his homeland could produce anything, and he foresaw the possibilities offered by the then-new technologies of hybrid seedlings and drip irrigation. Beginning in 1985 with 54 hectares (133 acres), and now farming a dense expanse of 700 hectares (1730 ac), Daouia produces pears, pomegranates and pistachios, all marketed nationwide and gradually entering the European market. He planted date palms, eucalyptus for its value in water management, and, in 1990, he introduced olive-growing to El-Oued, his most promising innovation.

To reach the olive groves, visitors pass first through the vaulted hall, its *qubbah*, or cupola, decorated with intricate carved-gypsum designs, where the farm hosts seminars at which international experts, local farmers and students gather to discuss new concepts and methods. Through lanes lined with flowers, they enter the orchard of 5940 olive trees. Daouia's manager, Azzedine Zoubeidi, notes that each tree produces an average of 80 kilos (200 lb) of fruit annually, "far more than established farms elsewhere, including in Italy, Spain and northern Algeria." The press at the farm extracts the oil "within hours" of the harvest, and this timing, he maintains, yields oil whose 0.5 percent acidity is lower than the 0.8 percent international standard for "extra virgin" olive oil.

While Daouia Farm appears to be a dramatic testimony to what can be accomplished on this land, some officials say its value as an example is limited. They point out the extraordinary investment the farm has required, indicating that it is more experimental than profitable. But this view is complicated by the checkered history of agriculture in the country.

In 1962, after Algeria's liberation from 132 years of French rule, the new government turned its attention more toward the cities and coastal regions than the interior. By the 1980's, the widespread failure of inappropriate agricultural models had led to a decline in farming, and the country became increasingly dependent on food imports. Even today, despite advances, Algeria is one of the largest per-capita food importers in Africa.

Then, in 1991, strife broke out in what Algerians now call the "red decade," a reference to a near–civil war that left the entire country, and particularly its rural areas, isolated and unable to advance. Basic infrastructure fell into disrepair. Industrial production collapsed, except for scaled-down oil and gas production, which also suffered from the low world prices of that decade. As a result, produce could not reach markets, and Algeria's import-dependence rose further. Villages in the interior were depopulated as people fled for safety to the crowded coastal cities and to Europe. Desertification was left unchecked.

In 2000, newly elected President Abdul Aziz Bouteflika launched serious, peaceful efforts to put an end to the rebellion, and even before security was completely reestablished, Algiers launched an ambitious five-year development plan that allocated billions from gas and oil revenues to reconstruction. The agricultural sector received $2 billion, and in a second five-year plan, begun in 2005, it is slated to receive $4 billion. From 2005 to 2010, the southern and central provinces

will receive a significant portion of the allocation.

Mohammed Lahouati is director of the ministry's development program in arid zones. "In Biskara to the north [of El-Oued], we have to drill down 800 meters (2600') to reach water, drawing on the same aquifer as El-Oued," he says. El-Oued, "for all its sand, has abundant easily accessible water. Considering the extreme conditions of El-Oued's environment, extra effort is needed from the farmers themselves. We are very satisfied with progress there."

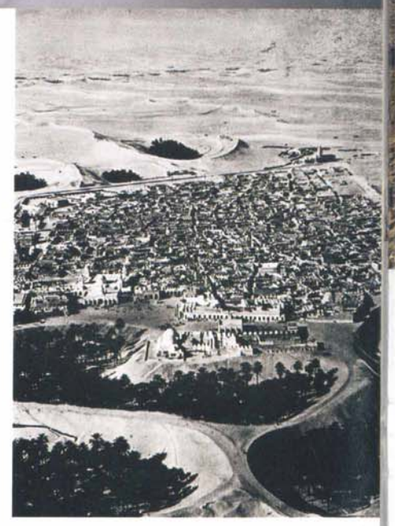
That extra effort in El-Oued seems to have come not just from modern-day rammaals in the field, but also from public servants. Widely credited for the region's recent strides is Omar Hattab, who governed the province from 2002 until last year.

"Our development is now founded on reality," Hattab says. At the same time, he is convinced "we can grow anything here."

He oversaw the development of 10,000 new arable hectares (24,700 acres) and the creation of a green belt that now rings the provincial capital. Unemployment, he adds, has begun to drop, reversing a sharp post-1991 increase, "and the province is now exporting potatoes to the northern cities."

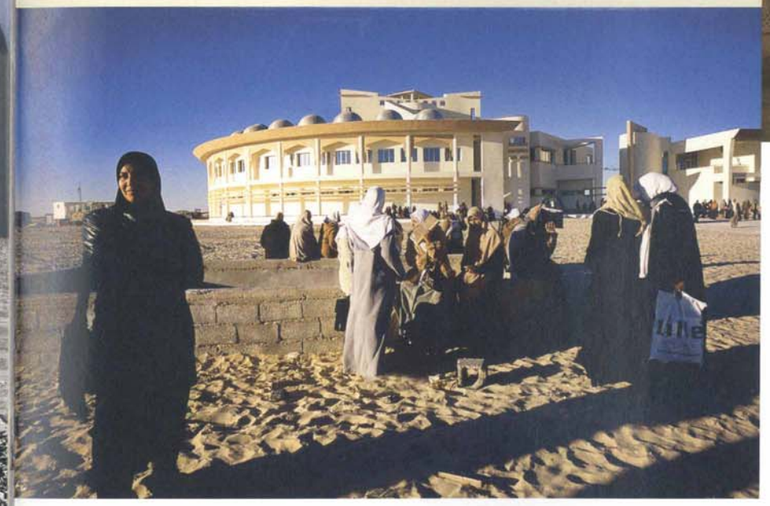
Hattab also supported a national homesteading initiative designed to pull young, educated people, frustrated by the lack of the white-collar jobs they trained for, into farming. "They receive special support to take up farming," he explains. "If they succeed within five years, they assume 100 percent ownership of their homestead." Young men, trained in agricultural technology, work with experts brought from outside the province.

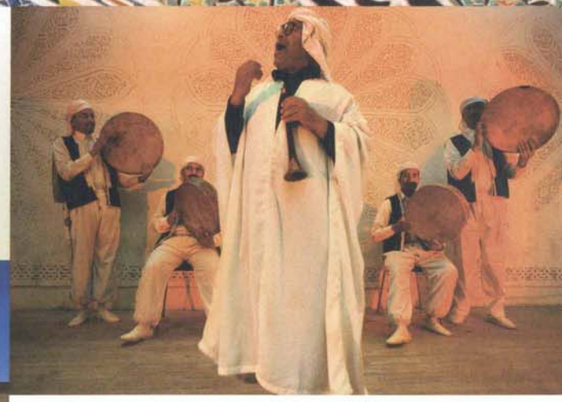
Hattab's other innovations include anti-desertification installations, as well as support for the adaptation of traditional architecture to modernize the market center and embellish new government buildings with traditional Soufi designs. The city's new administrative center, airport, university residences and museum, and the sports center now under construction, all incorporate those art forms. El-Oued architect Bendiaff Messaoud, who specializes in traditional materials and designs, says, "My projects incorporate our qubbah, the distinctive cupola, a vaulted roof with the ceiling decorated by local carvings just like the ones our ancestors had in their humble homes." Early 20th-century adventurer Isabelle Eberhart described El-Oued as "a city of a thousand domes," and today she would see double that number.



Most ambitiously of all, Hattab put government support behind an olive-cultivation project not unlike that at Douia Farm, but more ambitious: Launched in 2003, it calls for one million olive trees to be planted by 2010; today, the first 35,000 are in the ground.

To poet Rachida Mohammedi, her native El-Oued is where she finds "strength in the confrontation of the softness of the sand and the moody fury of the wind." Opposite: **El-Oued architect Bendiaff Messaoud blends traditional and modern in many of the city's newest buildings, including one** (below) **at the city's university.** Opposite, lower: **An aerial view of El-Oued from the early 1950's shows three aghwaat in the foreground, and others behind the town.** Right: **El-Oued singer Abdellah Menaï serves up "pure Arabic" to his audiences.** Top: **The qubbah in the museum at Guemar, a city near El-Oued.**





Viewed from the sands of El-Oued oasis, the country's plans and projects constitute a very ambitious task, but not one particularly daunting to a people accustomed to harsh winds and the rammaal's sand-laden, uphill labors. Nadhir Haddana, director of a youth center in El-Oued, says that, in his opinion, "people have begun to feel change is really here, with new opportunities for anyone willing to work. El-Oued, which we feel was neglected for decades, is getting proper attention."

The speed of agricultural development, and the largely free hand Algiers has given energetic officials such as Hattab, sends a message that the government is using its oil and gas revenues for the nation. As a result, the country is recording its first real growth since 1991, estimated for 2005 at a very high seven percent. Although the country is still dependent on food imports, Algeria's balance of trade for the first eight months of 2005 ran a surplus of $13.8 million.

Late last year, President Bouteflika launched a $60-billion, five-year program he sold as "Algeria's own Marshall Plan, to maintain strong economic growth, create jobs and rebuild damaged infrastructure." Around the same time, he also announced that the nation's foreign debt, largely incurred during the 1990's, would fall from $21 billion to $10 billion by 2010.

Anthropologist and journalist **Barbara Nimri Aziz** has made several visits to Algeria in recent years. Former director of the Radius of Arab American Writers (RAWI), she produces the weekly program "Tahrir" (www.radiotahrir.org) on Pacifica-WBAI Radio from New York. Photographer **Pascal Meunier** (pascalmeunierphoto@yahoo.com) lives in Paris. He specializes in photographs of Africa and the Islamic world, and is represented by the Cosmos and Arabian Eye photo agencies.

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Dates from Algeria: J/A 04
Algerian music: M/A 00
Algerian film: J/F 92

CALLING HELEN THOMAS

Written and photographed by David Chambers

How many Arab–American journalists are there in the United States? The National Arab American Journalists Association reached almost 150 members in its first three years, according to its founder, nationally syndicated columnist Ray Hanania. About half of them work in mainstream, non-Arab–American media. In comparison, the national Society of Professional Journalists (SPJ) has some 9000 members.

If pressed to name a single Arab–American journalist, most people could probably only reply, "Helen Thomas."

Now a senior columnist, Thomas has been a White House reporter since President John F. Kennedy's day. She was the first woman officer of the National Press Club, first woman president of the White House Correspondents' Association, first woman member of the Gridiron Club and, for decades, entitled to ask the first or second question during presidential press conferences. In 2000, the SPJ created an annual Lifetime Achievement Award—and named it after Thomas.

For Arab–American journalists, she set the bar high. The trouble is, how many Helen Thomases can there be in the future? Where is the next Helen Thomas coming from?

Let's meet three rising Arab–American journalists and see.

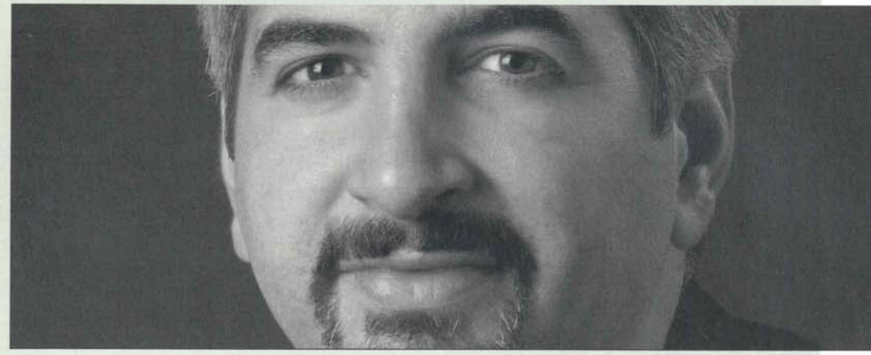
United Press International correspondent Helen Thomas interviewing US President-elect John F. Kennedy at Georgetown University Hospital in 1960.

BETTMAN / CORBIS; OPPOSITE: COURTESY ANTHONY SHADID

THE CORRESPONDENT

For **Anthony Shadid** (pronounced sha-**deed**), there was never any question about becoming a foreign correspondent in the Middle East—the only question was how. Having written for the high-school newspaper in hometown Oklahoma City, he tried his hand at radio in college. But "I had to be up at 4:00 a.m. to write for the morning show, and I just couldn't do the hours," he says. "I got fired after three or four days."

A summer with the Associated Press (AP) took him back to print, where he stayed after graduation in 1990. There, following in the footsteps of Nora Boustany of *The Washington Post*, Roy Mottahedeh and his book *The Mantle of the Prophet*, and Polish journalist Ryszard Kapuscinki, Shadid discovered his mission: to marry literature with journalism working as a correspondent in the Middle East. As a second-generation Lebanese–American, he did not grow up speaking Arabic. He studied it in college, and to gain fluency he won a fellowship to the American University in Cairo. Later, from 1995 to 1999 he worked at the AP's Cairo bureau in a time of tumultuous news stories: unrest in Upper Egypt, the US missile attack on Sudan, the embassy bombings in East Africa. His reporting led to his first book, *Legacy of the Prophet* (Westview, 2001), which he calls "my attempt to understand Islam."



Dissatisfied after the AP moved him to Los Angeles, he left for *The Boston Globe*'s Washington bureau, where shortly after September 11 he was assigned to cover the State Department and the Middle East. Reporting the Palestinian "second intifada" from the West Bank in March 2002, one story took him to Palestinian doctors trapped in the Ramallah Hospital by Israeli soldiers.

"I was very excited to write the story, which seemed a microcosm of the entire conflict," he recalls. Notebook in hand, his flak jacket taped with the letters "TV" in red, he glanced about the street in time to see a soldier take aim—at him.

> "With enormous stamina, years of experience and linguistic talents, he does what the best journalists always do—he reports constantly. His curiosity is never satisfied."
> —*David Hoffman, Assistant Managing Editor, Foreign Desk,* The Washington Post

The soldier "fired once, straight at my head.... I was so lucky to be alive."

Recovery took some six weeks. The wound, near his spine, still gives him trouble. But it hardly slowed down his career. In fact, it wasn't long until Shadid was covering Baghdad. There, he fell into discussions with *The Washington Post*, and as the US prepared to invade, Shadid joined that paper as its Islamic affairs correspondent, and his byline began appearing in the capital daily.

How do you cover a war-torn country? Same as anywhere else, he says. "You have to admit how little you know, first thing. It is hard for some reporters to question assumptions: To me, that's my first thing to tackle. Always question. Always be modest about what you know. And always listen."

Post mentors Philip Bennett and David Hoffman liked his work enough to allow him the freedom to pursue in-depth topics for weeks, even months.

Speaking Arabic and being an Arab–American set him apart. Because he worked without a translator, Iraqis trusted him quickly, and he was able to roam almost at will, honing his style at high speed on highly charged material.

Shadid has nearly a dozen reporting awards to his name, capped by a 2004 Pulitzer Prize. At 37, he is the *Post*'s top Middle East correspondent, based in Beirut, on the lookout for news angles that show the shared humanity among countries and cultures.

THE CRITIC

Lorraine Ali says she always wanted to be a writer, and that she always loved music. But not just any music: As an un-Valley Girl, she grew up on punk bands like X, Social Distortion, The Adolescents and Black Flag. So she wrote about them—and she did it well enough to break into *LA Weekly* in the early 1990's and expand to GQ, *The Los Angeles Times, Mademoiselle* and *Rolling Stone*.

Recognition came in 1996, when she won "best national feature story" at the Music Journalism Awards, and in 1997 when she was named music journalist of the year. By 2000, she had joined *Newsweek*, and in 2004 became a senior writer.

Week after week, she writes about the big names, from U2 and the Rolling Stones to Mariah Carey, Britney Spears and Eminem—as well as about theater, television, film and even circuses. As one of few women in music journalism, she says she tries to avoid statistics and jargon and write "much more about the feeling and the music itself, the album, being with the artist."

MTV? She prefers the written word: "You can get more across,... more nuances, more breathing, more bits and pieces that mean different things for different people."

Ali says her Arab–American heritage injected itself into her writing after her father's death in 1989. Although she had read immigrant stories by Amy Tan and even Diana Abu-Jaber's *Arabian Jazz*, her only encounter with her father's native Iraq occurred in her early teens on a one-time visit to Baghdad. Self-ignorance, she says, compounded growing political frustration. After the 1995 Oklahoma City bombing, she says, "I was so angry that Arabs got blamed... and about how Arabs are portrayed."

She began to refer to herself as a "secret Arab," and at *Newsweek*, her early work was full of personal declarations. Speaking through another Arab woman whom she quoted, she said: "My goal is to learn about where I came from, then educate people as to who I am. God willing, I think we could change things."

Her increasing awareness also led her to new subject matter. In a seminal 2001 article, "West Bank HardCore," she used Palestinian rap and hip-hop music to help understand life under occupation. The tunes, she observed, are but a new, raw language of young poets, today's Samih Al-Qasims and Mahmud Darwishes. "Hip-hop is also a way for them to connect with Palestinian culture, using rhymes to describe the conditions endured by their Arab countrymen."

Last year, the rock critic kept rocking for *Newsweek* by spicing her mainstream cultural reporting with a critique of Fox TV's series *24*, a review of two Palestinian films, a major article on Islam in America and a cover story on Muslim women. Arab–American identity had come to mean a different viewpoint: "I am able to look at Arab culture and American Muslim culture. It's not foreign to me. I know it. It's in my blood."

She has also, she admits, matured. "I used to blow up [over prejudiced articles]. Now, I think, 'What can you do to present a more balanced view?' And then I go find that opportunity."

What's next? Daily life and its secrets, she says. "Whenever I do an everyday story, it's always about how interesting people's everyday life is, what they've been through. It never ceases to amaze me. It's all there, but it's all secret, right inside them."

"She has an amazing gift for capturing people's humanity, bringing her subjects to life in all their complexity. Her coverage of the issues facing Arab-Americans has opened a window on a community that has long been overlooked by the mainstream media. And on top of all this, she's funny, smart, and a great storyteller."
—*David Jefferson, West Coast Editor,* Newsweek

COURTESY ANGELA WELLS; OPPOSITE: COURTESY NBC

THE WITNESS

Hoda Kotb is a correspondent on *Dateline* NBC. She is host of *Your Total Health*. She appears on NBC News.

She grew up in Morgantown, West Virginia, where being Egyptian–American, she says, had its ups and downs. It started on the first day at school each year, she recalls, when the teacher would come to her name and say, "And this next name is, well—a typo, I think!" But she also remembers kids asking her, "'Have you ever seen the pyramids?' And of course we had, every summer."

Each evening, her father, who taught at West Virginia University, would grill the family on the day's news at the dinner table. "'What's happening with the Egyptians and Israelis today?'" he would ask. "We had to learn."

At Virginia Tech University, Hoda studied political science and, drawn to the immediacy of television, broadcast journalism.

In 1986, she started anchoring, moving from Greenville, Mississippi to Moline, Illinois to Ft. Myers, Florida, then up to WWL-TV, the CBS affiliate in New Orleans. There, reporters helped decide what they covered, and for Kotb, that meant a story in Egypt. "I have a great aunt, Mufida Abdulrahman, one of the first women lawyers in Egypt. I interviewed her on the steps of the courthouse, bouncing down the stairs in her beret, people calling out to her. She was like a rock star, yet so well respected," she recalls of her series. "Suddenly, I knew where I came from."

In 1998, NBC hired her and moved her to New York. From there, she has covered many global stories. Arriving in Baghdad, she says, "I did not see 10,000 Saddam Husseins: I saw people who looked like my uncles and aunts. Others saw Iraqis as possible enemies: I saw them as family."

"Hoda Kotb is a spectacularly tenacious, intelligent, and caring correspondent. More than anything, what distinguishes Hoda is the way she connects with those she reports on. Her fascination with, and compassion for, her subjects virtually bursts through the television screen."
—*Julie Cohen, Producer,* Dateline NBC

Covering the aftermath of the 2004 tsunami, she recalls: "What blew me away about the tsunami was its magnitude. I remember being in the Thai countryside, sitting on a pile of, well, stuff. An old woman saw me and handed me an orange. She had nothing, and she handed *me* an orange."

She won a 2002 Edward R. Murrow Award, a 2003 Gracie Award and a 2004 Headliner Award, but much of her success she credits to her heritage. "When you have a connection with a place, you see it through different eyes. The Arab world is a second home for me. Sometimes, when you have lived in a place, you talk about it much more knowledgeably."

GETTING INTO THE GAME

George Hishmeh, head of the Washington Association of Arab Journalists, believes it is vital that Arab–Americans be part of the American press, just as every other hyphenated ethnic group has been, because they have special knowledge to contribute and special experiences to draw on. "This is how to get the story straight; this is how to educate American people on the issues there," he says.

Good news, Helen Thomas: There are more like you out there, most of them barely entering their prime years, many still in school.

For her own part, Helen Thomas says that, while she's glad to see Americans of Arab descent winning journalism prizes, she would prefer simply to see more bylines with Arab names.

So she has one instruction for newcomers: "Get into the game!" she says.

THE JACK G. SHAHEEN MASS COMMUNICATIONS SCHOLARSHIP

In the mid-1990's, **Jack Shaheen** was worried that Arab–Americans remained "the invisible Americans." Author of the classic *The TV Arab* and of *Reel Bad Arabs*, a comprehensive survey of Arab stereotyping in Hollywood, he is professor emeritus of mass communication at the University of Southern Illinois.

"As Americans of Arab heritage, regrettably, we do not shape our images—but others do," he says. As a result, "there is an increased awareness by Arab–Americans and American Muslims that they can't sit back, but must help shape those images themselves."

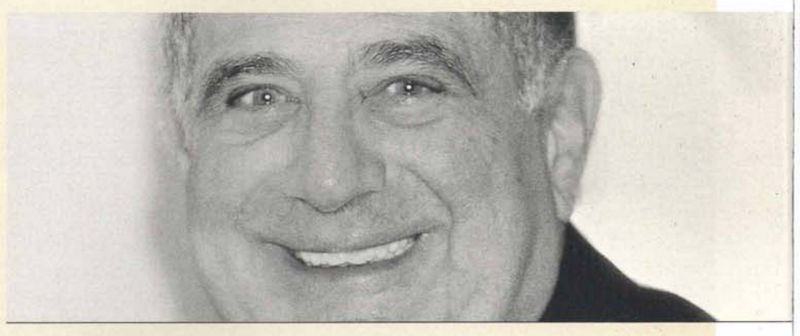
Shaheen knew that this takes, as Helen Thomas put it, "getting into the game." Still, many Arab–Americans encourage their children to join "classic professions like lawyers or doctors."

Then Shaheen's wife, Bernice, suggested a program of $1000 scholarships for young Arab–Americans to encourage them to get into journalism. Thus was born the Jack G. Shaheen Mass Communications Scholarship, now in its ninth year and, to date, funded solely by the Shaheens; it is administered by the Research Fund of the American-Arab Anti Discrimination Committee (ADC).

Each winner, Shaheen promises, "will be a boon to whoever employs them."

Here is a sampling of just three of those promising scholars.

> "Jack Shaheen has long been a voice of clarity and sanity. While media images routinely set us apart, we always face the challenge of remembering our common humanity."
> —*Norman Solomon, author of* The Habits of Highly Deceptive Media



KERA ABRAHAM

Reporter, Eugene Weekly, *Eugene, Oregon*

With a bachelor's from University of California Berkeley and a master's degree from University of Oregon, joined *Eugene Weekly* in 2004 as investigative and environmental reporter. Covers issues from logging and pollution to national politics and civil liberties. Wrote chapter on Arab Oregonians in *Oregon Mosaic*, forthcoming this fall from Oregon State University, alongside author Diana Abu-Jaber and former state governor Vic Atiyeh. Expanding into blogosphere through SierraClub.org, Truthout.org and other "alternative" media. Looks forward to first gig at a big-city paper. Take on Arab–Americans in US press? "Arab–Americans—particularly assimilated third- and fourth-generation citizens such as myself—are a largely invisible demographic in the United States. Although we are everywhere, working as teachers, doctors, politicians and business owners, we seldom wear our heritage on our sleeves. Now, as American media turn a spotlight on the Middle East, it is time for Arab–Americans to speak up as neighbors and citizens, so as to dispel the notion of Arabs as shadowy 'others.'"

UPPER: COURTESY JACK SHAHEEN; LOWER: COURTESY JAMES BATEMAN

EYAD ZAHRA

Producer, Rumanni Filmworks of Sherman Oaks, California

Currently contracted to develop segments of *Salaam MTV*, soon to air on the Show-Time Arabia channel. Short film *Distance from the Sun* played at some 20 film festivals across the US, including screening by the Directors Guild of America. Looks forward to directing his first feature-length film. His take on Arab–Americans in the US press? "The only thing holding us back is ourselves. I think it's our generation that finally realizes this. We know that as long as we give 110 percent, we can succeed in anything we set out to do."

LEILA FADEL

Staff Writer, Fort Worth Star-Telegram

Recently back from her second tour of Baghdad with Knight-Ridder; her stories were picked up all over the US. Now on the public safety and crime beat, but wants to return to the Middle East for longer-term assignments. Her take on Arab–Americans in the US press? "Often Arab–Americans are drawn to careers such as engineering, entrepreneurship and medicine. They keep their heads down, make an honorable living and silently live in America.... My goal is to find the missing voices, the ones I heard on the streets of Beirut and Saudi Arabia but which were often missing in American media.... Great journalism is the ability to capture moments in time, weave them together, and tell the story of all people without condescension, without judgment and without an agenda."

UPPER: COURTESY EYAD ZAHRA; LOWER: COURTESY STEWART F. HOUSE / *FORT WORTH STAR-TELEGRAM*; CHAMBERS: COURTESY KLEX KRASSOVSKY

WINNERS OF THE JACK G. SHAHEEN MASS COMMUNICATIONS SCHOLARSHIP 1998–2005

2005
Stephanie Abraham
Lail Al-Arian
Emann Allebban
Tarik Elseewi
Heidi Saman
Stephanie Teegagy

2004
Jehan Agha
Leila Fadel
Joslyn Massad
Zaynah Moussa

2003
Kera Abraham
Mary Ann Azevedo
Omar Tesdell
Eyad Zahra

2002
Dina Ibrahim

2001
Rania Chryssis
Nasri Zacharia

2000
Nadine Cheaib

1999
Abdullah Al Maaini

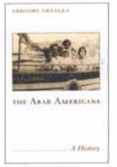
1998
Annemarie Jacir

David Chambers is a strategic management consultant specializing in media and entertainment in the Middle East. He has served on the White House Arts and Entertainment Task Force and now serves on the community advisory board of the John F. Kennedy Center for the Performing Arts (millenniumstage.blogspot.com). Photo courtesy Alex Krassovsky.

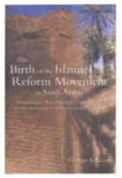
Jack Shaheen Scholarships:
www.adc.org/index.php?id=2641

SuggestionsforReading

Readers of *Saudi Aramco World* who want to range more widely or delve more deeply than a bimonthly magazine can do will find interesting material, most of it recently published, in this list. Without endorsing the views of any of the authors, the editors encourage varied and omnivorous reading as a path to greater understanding. The books listed here are available online, in libraries, from bookstores—we urge our readers to patronize independent bookstores—or from their respective publishers; International Standard Book Numbers (ISBN) are given to facilitate ordering. Please do not order books from *Saudi Aramco World*. The full-text electronic archive of "Suggestions for Reading" from 1993 to the present can be found on the magazine's Web site at www.saudiaramcoworld.com

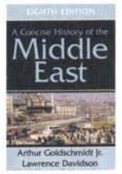


The Arab Americans: A History. Gregory Orfalea. 2006, Olive Branch Press, 1-56656-597-9, $25 pb.
Combining the research of a historian with the storytelling of a poet and novelist, this insider's history updates and fills out Orfalea's 1988 book *Before the Flames: A Quest for the History of Arab Americans*. Orfalea's search for Arab–American history began with his own family's past and a personal quest for identity; the journey took him from Los Angeles to his family's ancestral village in Syria, and then on to nearly 30 Arab–American communities across the US. His archival research and interviews with more than 150 Arab–Americans—from taxi drivers and shopkeepers to White House correspondent Helen Thomas—personalize his subjects. He also offers one of the most detailed accounts to date of the history of Arab–American political organizations.



The Birth of the Islamic Reform Movement in Saudi Arabia: Muhammad b. 'Abd al-Wahhab (1703/4–1792) and the Beginnings of Unitarian Empire in Arabia. George S. Rentz. William Facey, ed. and intro. 2004, Arabian Publishing, 0-9544792-2-X, £25 hb.
Rentz's 1947 Ph.D. dissertation, long used by scholars, is here published for the first time. Its subject is the 18th-century beginnings of the first Saudi state, forged in an alliance between the House of Sa'ud and Muhammad ibn 'Abd al-Wahhab. At its greatest extent, in the early 1800's, that state controlled most of the Arabian Peninsula, and it was infused with a sense of purpose that came from 'Abd al-Wahhab's teachings. Rentz was an Arabist who worked for Aramco—predecessor of today's Saudi Aramco—for 17 years beginning in 1947; in examining a subject then well out of the academic mainstream, he relied principally on the writings of local authorities contemporary with 'Abd al-Wahhab. His work sheds light on the movement commonly—and incorrectly—called Wahhabi, which embodies a return to the unitary principles of Islam; its members referred to themselves as *muwahiddun*, or Unitarians—"those who affirm the unity of God." Rentz's thesis, now of great interest outside the academy, is published virtually unchanged, but includes several maps not in the original that help navigate the text.

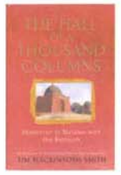
The Caliph's House: A Year in Casablanca. Tahir Shah. 2006, Bantam, 0-533-80399-9, $22, £15 hb.
This is much more than a mere extension of the *Year in Provence* franchise: It is the tale of a rich cultural journey viewed through the window of a decrepit mansion where Shah, a British travel writer of Afghan extraction, moves his young family. Shah is drawn to Morocco by his father's and grandfather's history there and by a romantic wish to escape the secure "island mentality" of England—but he and his wife and young children get much more than they'd bargained for. Therein lies the beauty of the book. An outsider with a gift for words but little money, and a dreamer forced to interact with the community around *Dar al-Khalifa* (the Caliph's House), Shah wholeheartedly captures the spirit of the place and time, incorporating a varied cast of characters—including baffling craftsmen, a gangster neighbor and even jinn (invisible spirits)—that threatens to unravel the entire project, and with whom Shah deals with a combination of innocence, guile and resignation.



A Concise History of the Middle East. 8th ed. Arthur Goldschmidt Jr. and Lawrence Davidson. 2005, Westview Press, 0-8133-4275-9, $45 pb.
This introductory textbook for college students studying the Middle East does its job well, and it is also a useful gateway for non-students who want to understand the region behind the news. At 559 pages, it grows larger with each edition, but retains its clarity and its concise, highly readable style. Goldschmidt and Davidson survey the full sweep of Middle Eastern history from early Byzantine times to April 2005, and describe the birth and growth of Islamic civilization with balance and realism. They caution readers against drawing unjustified conclusions about the present day from past events, pointing out, for example, that the Prophet Muhammad's disputes with Jewish tribes "did not poison later Muslim–Jewish relations nor did Muhammad's policies cause what we now call the Arab–Israeli conflict." The book features cogent profiles of diverse key figures in the region's history, from the Prophet's wife 'Aisha to the science-oriented caliph Ma'mun to Egyptian nationalist Ahmed Urabi to al-Qaida leader Osama bin Laden. The book's most recent chapters read more like press accounts, with a minimum of historical analysis and perspective, and the authors try to remedy this by introducing occasional "mini-debates" in these later chapters, each scholar presenting a different viewpoint on an issue. The technique is distracting, perhaps confusing, for newcomers to the region's history. One of the work's greatest strengths is its detailed bibliographic essay, which recommends a treasure-house of excellent reading material on the major topics in every chapter. —ROBERT W. LEBLING

Forgotten Empire: The World of Ancient Persia. J. E. Curtis and N. Tallis, eds. 2005, University of California, 0-520-24731-0, $49.95 hb.
Curtis, keeper of the Ancient Near Eastern Department at the British Museum, produced this book in conjunction with the museum's important and comprehensive exhibition on the Achemenids. It opens a window on the wealth and splendor of Persian society—its rich palaces, exquisite craftsmanship and sophisticated learning. Showcasing the unprecedented loan of unique artifacts from the National Museum in Tehran, most of which has never been seen outside Iran, the book demonstrates why the sculpture, glazed panels, gold vessels and jewelry of the Achemenids rank among the finest ever produced.

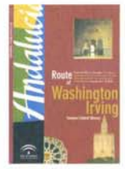
Genghis Khan: Life, Death and Resurrection. John Man. 2004, Bantam, 0-593-05044-4, £20 hb; 0-553-81498-2, £7.99/$14.21 pb. 2005, St. Martin's, 0-312-31444-2, $29.95 hb.
Genghis Khan is one of history's pivotal figures: a leader of genius and the founder of a land empire twice the size of Rome's. His unexplained death in 1227 was kept secret until his heirs had secured the realm, and his grave site and its supposed treasures remain undiscovered. To today's Muslims, Europeans and Russians, he is a mass murderer; the Chinese revere him as the founder of a dynasty, and Mongols view him as the father of their nation. (The literal truth of that designation is coming to light in the course of genetic studies across most of Asia.) Man, a historian and traveler with books on the Gobi Desert and Attila to his credit, retells the story of Genghis's rise and reign in gripping style, with details well supported by sources, and he enriches it greatly by adding accounts of his own travels in Mongolia and Inner Mongolia, and insights he has gained from them. Colorful, instructive and a very good read.

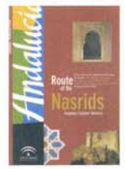


The Hall of a Thousand Columns: Hindustan to Malabar with Ibn Battutah. Tim Mackintosh-Smith. Illustrated by Martin Yeoman. 2005, John Murray, 0-7195-6225-2, £20 hb.
After his acclaimed earlier book, *Travels With a Tangerine*, the author again sets out in the footsteps of the 14th century's most famous traveler to see what's left of the Delhi of Ibn Battuta and his patron and nemesis, Sultan Muhammad ibn Tughluq. Mackintosh-Smith, who combines literary talent with sheer delight in the exegesis of classical Arabic texts to make himself one of the best historical travel writers of his generation, shows us that seven centuries ago is not nearly so distant a time as we might assume. As he travels with "IB" (as he refers to Ibn Battuta), Mackintosh-Smith dances deftly between past and present with humor and insight that make the book a journey of discovery whether or not you have ever read much about Ibn Battuta. As a guide for the armchair traveler, Mackintosh-Smith is a delight. (Part of the book is excerpted in "A Tangerine in Delhi," pages 14–23.)

The Hejaz Railway. James Nicholson. 2005, Stacey International, 1-900988-81-X, £25 hb.
Without T. E. Lawrence, few in the West would ever have heard of the Hejaz Railway. And without the railway, there might never have been a "Lawrence of Arabia." The saga of the rail line from Damascus to Madinah—built by the Ottoman Turks to carry pilgrims to the Holy Places and targeted by Arab raiders during the First World War—is well told in this attractive and informative coffee-table opus. The photographs, old and new, are wonderful, and themselves justify the book, but Nicholson also tells a riveting story about how the railway was built, how it served the needs of pilgrims and other travelers from the Levant, and how it became a strategic target of Arab forces and their British allies, helping to hasten the fall of the Ottomans in the Great War. Each of the major attacks on the railroad is described in compelling detail, and the book answers just about any question that might come to mind about it. Why wasn't the rail line extended to Makkah as originally planned? Did the railway continue to operate after the war? What about efforts to start it up again? An appendix describes the recent renovation of the Madinah station and the plans to restore other major stations on the line. We hope this book will add to the momentum to complete these projects, and preserve what remains for posterity. —ROBERT W. LEBLING

Nazar: Photographs from the Arab World. 2004, Aperture/Noorderlicht, 1-931788-85-5, $40 hb.
In this catalog to the 2004 Noorderlicht Photofestival of the Netherlands, it is not immediately apparent that both the exhibit and this book are divided usefully into two parts: "Arab Eyes" and "Western Eyes." Each comprises a handful of photographs by each of some 30 photographers: The former shows images made in the Arab world through the lenses of artists with ethnic ties to Arab lands and cultures, and the latter shows Arab world themes through the lenses of visiting westerners. (There is also a section "Looking Back" that offers a brief background on the history of photography in the Arab world—a subject worthy of its own show, in a different time and place.) The curatorial questions *Nazar* addresses are several: Are there distinctly "insider" ways of seeing the Arab world that expand understandings both inside it and abroad? If so—no matter how tenuously or indistinctly they may assert themselves—what might they have in common with ways of seeing employed, consciously and unconsciously, by western photographers, whose images have so long dominated the stories told of the regions? Then, more broadly, there is an implicit declaration here, too, in the overwhelming, electric diversity of styles and subject matters, and the skillful crafting of the image: These are parts of the world (not, simplistically, *a part* of the world) that are socially and historically dynamic, beyond preconceptions, oversimplifications, ideologies and religions—parts of the world more than capable of telling a story on their own terms. *Nazar*, which means "seeing, insight or reflection" in Arabic, is thus mostly a dramatic message about the growing photographic sophistication in Arab lands and among Arab-identified residents of the West: The work of the Arab photographers, which is presented here first, is of no less complexity or apparent artistic maturity than the works of the westerners, and in fact the two major divisions blend with an ease that, historically, is arguably new within the last decade. In this way, *Nazar* represents not only a landmark exhibition of a timely transnational survey, but is also a catalyst for further dialogue and growth within the artistic communities it represents, and among all those who have the privilege to view this enormously thoughtful, exciting body of work.





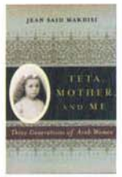
Route of Washington Irving: From Seville to Granada. 1999, Turismo Andaluz, 84-8176-351-9, €10, pb.
Route of the Nasrids: From Navas de Tolosa to Jaén and Granada. 2001, Turismo Andaluz, 84-8176-409-4, €10, pb.
Order online from the "Virtual Bookshop" at www.legadoandalusi.com, under the heading "Guías."
While there is no shortage of smart guidebooks to the beauty and history of southern Spain, called Al-Andalus in the eight centuries of Arab rule and today the country's most populous province, these are both better than average and worth the small extra effort required to obtain them. They trace the two most popular of the six historic *Rutas de Al-Andalus* that have over the last decade become one of Spain's most successful cultural-tourism concepts. The summaries of the historic roles of the many towns along each route make the books worthy references for either suitcase or library shelf, and they will delight both passport and armchair travelers.

A Silver Legend: The Story of the Maria Theresa Thaler. Clara Semple. 2005, Barzan Publishing, 0-9549701-0-1, £19.95 hb.
First struck in 1741, the silver coin bearing the portrait of Maria Theresa, the 24-year-old Habsburg empress, is regarded by many historians to have been the first truly international currency, winning favor throughout Europe, North Africa, the Levant and the Arabian Peninsula for more than 200 years and crossing the Atlantic as the rhyming root for today's "dollar." So respected was the thaler for its consistent silver content that it came in some places to be ascribed amuletic qualities; it was also melted to make jewelry, notably in the southern Arabian Peninsula. "One of the wonders of numismatics," one journal called the thaler, and its story is here clearly researched and beautifully illustrated with dozens of photographs, maps and historic drawings that together offer a wide window into the economic and cultural histories of the regions where it circulated. The author, who has lived and traveled much in the Middle East, was originally interested in the jewelry in which thalers were used as ornamental pendants, and this led her to the colorful, complex story of the coin itself. Her scholarship and clear narrative will likely make this the definitive study of the famous coin, a multifaceted tale that reminds us how tightly interwoven are the histories of European, African and Arab lands, and how sometimes the most compelling histories are brought to life by the most common objects.

Simone Swan: Adobe Building. Dennis Dollens. 2005, Lumen, 0-930829-58-1, $17 pb.
Like an organism sitting and breathing in the Chihuahuan desert, the Swan House of Presidio, Texas is a building of organic beauty and hybrid cultural intelligence that promotes traditional adobe building while introducing compatible forms, notably the Nubian vault and dome. Swan studied with the great Egyptian architect Hassan Fathy in his Cairo studio and, after his death in 1989, adopted his mission of helping to house the world's poor. This is the first book to discuss Swan's architecture while also chronicling one of her annual workshops. Dollens suggests that by analyzing historic adobe biologically we may be able to find substitutes for current, often ultimately toxic building materials, creating new "biomimetic" materials suitable for "green architecture." William Menking, editor of *The Architect's Newspaper*, commented: "Only at the risk of its own irrelevance will the architecture profession ignore the lessons in Dollen's book on Swan's practical yet elegant and modern adobe solutions to housing."

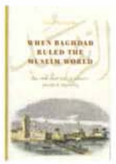
The State of the Middle East. Dan Smith. 2006, University of California and Myriad Editions, 0-520-24867-8, $50 hb, 0-520-24868-6, $19.95 pb.
This innovative and information-packed volume combines clear analytical text with full-color maps and graphics to provide a comprehensive and accessible

guide to the region today. Smith highlights key issues and maps their global implications to explain how the Middle East came to be as it is today, and why it is, and will likely remain, a focal point of international relations.

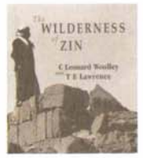


Teta, Mother, and Me: Three Generations of Arab Women. Jean Said Makdisi. 2006, Norton, 0-393-06156-6, $25.95, hb.
Enchanting, evocative and lovingly rendered, Jean Said Makdisi's memoir is a portrait of a family at a political crossroads. Growing up between Palestine and Egypt, between the hard realities of exile and a genteel life of piano and ballet lessons, Makdisi, author of *Beirut Fragments* (1999), draws on her eclectic experience and on family artifacts and friends' recollections to convey not only a sense of living history, but the peripatetic and surprising moods of her time. By including such charms as her parents' sweet, joshing marriage (her father referred to her mother as "Minister of the Interior") and the youthful naughtiness and dignity of her accomplished brother Edward (he hated anyone to call him "Eddie"), Makdisi achieves that rare balance of the worldview encapsulated in a private narrative. And this is a narrative like none other: an intimate perspective on the lives of Arab women. As Makdisi states, "I saw the world as through a screen of moving female figures." This elegant book will profoundly enrich the way many readers view the Arab world. —DIANA ABU-JABER

This is Palestine. George Baramki Azar. 2005, www.georgeazar.com and www.interlinkbooks.com, $15 CD-ROM
To anyone who has grown up on the conflict-driven imagery of the Palestinian–Israeli conflict, this multimedia CD can only be described as therapeutic. Using more than 600 photos, and complementing digitally the book *Palestine: A Guide* (reviewed in our September/October 2005 issue), it offers several sequences of more than a hundred photos set to music, as well as photo essays on cities, towns, refugee camps and historic monuments. Azar's Palestine is photographed from the simple, humane assumption that it is just as full of beauty and cultural riches as any other land, and that this can be shown without diminishing the seriousness of the challenges that Palestinians face. Azar's eye is intimate, shooting from his point of view as a Palestinian–American. The beauty and emotional power of his images compensate for some of the disk's technical difficulties: For example, there is no table of contents on the liner notes, and some of the slide shows carry on for some time after the soundtrack ends. Nonetheless, this CD will prove useful to teachers seeking diverse examples of cultural (self-)representation. For the rest of us, it is a reminder that, in Palestine too, there is beauty to sustain souls that pause to notice it.



When Baghdad Ruled the Muslim World: The Rise and Fall of Islam's Greatest Dynasty. Hugh Kennedy. 2005, Da Capo Press, 0-306-81435-8, $26 hb.
The author, a professor of Middle Eastern history, brings the early Abbasid dynasty alive for newcomers to the field by focusing on colorful personalities and including the juiciest gossip about the caliphs, their families, their courtiers and their foes. The book relies on testimony from the greatest Arab historians and belletrists of the Middle Ages to demonstrate that caliphs like Mansur, Mahdi and Harun al-Rashid lived in "interesting times": Only one lived to see his fifties. Nonetheless, the Sunni Abbasids presided over the Golden Age of Islamic civilization. Mansur founded his capital at Baghdad, and his successors continued the project, transforming what had once been a riverside village into the focal point of world civilization. This book, among its wealth of unexpected details, shows us the growth of the region's first secular civil service, including the renowned viziers and the powerful, intriguing family of court advisers known as the Barmakids. Science, arts, literature and philosophy flourished, often under the patronage of the caliphs. The Abbasids held secular power until the 930's, then continued to serve as figurehead leaders for three centuries more, until the city of Baghdad was leveled and the family scattered by invading Mongols in 1258. But Kennedy's interest is in the early, powerful caliphs—their intrigues, aspirations, fears and dreams. Given the dryness of many histories of the period, this approach is a refreshing change. —ROBERT W. LEBLING



The Wilderness of Zin. C. Leonard Woolley and T. E. Lawrence. Revised Edition. Jonathan Tubb, pref.; T. Sam N. Moorhead, intro. 2003, Stacey International, 1-900988-29-1, £25 hb.
Before Lawrence was promoted to legendary status and Woolley discovered the royal treasures at Ur, the two Englishmen were young archeologists working for the British Museum at a dig on the upper Euphrates. They were recruited by the Palestine Exploration Fund (PEF) to conduct an archeological survey of southern Palestine. This desolate area extends from northeast Sinai to Wadi Araba, the valley running south from the Dead Sea to the port of Aqaba. It was called the Negeb desert then, the Negev today. The authors' description of the area is probably Lawrence's: "The wearing monotony of senseless rounded hills and unmeaning valleys makes this southern desert of Syria one of the most inhospitable of all deserts—one which, since the [Muslim] invasion, has been the unenvied resort of defeated tribes too weak to face the strenuous life of the greater deserts." The survey provided cover for a secret British military mapping expedition, preparing for the impending war with Germany—and with the Ottoman Turks, who ruled Palestine. While British soldiers charted the desert, Woolley and Lawrence did serious archeology: Woolley concentrated on northern sites; Lawrence headed for Aqaba. This report details their findings—mostly ruins and inscriptions from Byzantine times—plus a few mysteries for good measure, like "the long and puzzling walls" of perfectly preserved dry stone "which…appear to start and go on and end aimlessly" along hill-slopes and whose purpose was unknown even to local Bedouins. The report, illustrated with maps, figures and photos, was first published in 1915 and reprinted in 1936 after Lawrence's death. This revised edition adds a wealth of new material, including details of the military mission from the PEF archives, and fascinating newspaper reviews of the 1936 edition. —ROBERT W. LEBLING

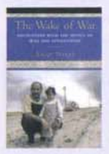
Dancing in the No-Fly Zone: A Woman's Journey Through Iraq. Hadani Ditmars. 2006, Interlink Books, 1-56656-634-7, $16.95 pb.

Night Draws Near: Iraq's People in the Shadow of America's War. Anthony Shadid. 2005, Henry Holt, 0-805076-02-6, $26, hb.

Two Birthdays in Baghdad: Finding the Heart of Iraq. Anna Prouse. Elizabeth Griffith, trans. 2005, Compass Press, 0-929590-20-1, $17 pb.

Unembedded: Four Independent Photojournalists on the War in Iraq. Ghaith Abdul-Ahad, Kael Alford, Thorne Anderson, Rita Leistner. Philip Jones Griffiths, foreword. 2005, Chelsea Green, 1-931498-98-9, $29.95 pb.

The Wake of War: Encounters with the People of Iraq and Afghanistan. Anne Nivat. Jane Marie Todd, trans. 2005, Beacon Press, 0-807002-40-2, $25.95 pb.



All of these books address the question: What is daily life like for the "ordinary people" of Iraq? (And for Nivat, Afghanistan, too.) Each uses first-person accounts and approaches its subject humanely, sympathetically and apolitically. Best known is Shadid's *Night Draws Near* (see the profile of Shadid, page 35) in which the author goes behind the scenes of his daily reporting for *The Washington Post* to listen and converse far more intimately than his translator-bound colleagues can do. "He takes the ground view and gives his witnesses the particularity they deserve," noted reviewer Tom Nissley. Unlike Shadid, Ditmars and Nivat traveled as uncredentialed writer/reporters. Both of their accounts are lively, courageous, diverse and personal. Prouse, who is from Italy and worked as both a front-line military emergency medical technician and a journalist, comes closest to taking sides, but it's a point of view she doesn't overplay, and the focus remains on her often harrowing front-line experiences. Also on front lines were the four photographers whose collaboration *Unembedded* is, perhaps not surprisingly, the most visceral of these books. *Unembedded* is war photography at its most unflinching, made even more powerful by the contrast of other images of the daily life that carries on, as best it can, around the war's bloody edges, and the spare, thoughtful candor of the photographers themselves in their brief essays.

SuggestionsforListening

REVIEWED BY CHRIS NICKSON

Mariem Hassan. Deseos. Nubenegra
On her fourth CD, Hassan takes the blues home to where they began: in the Western Sahara. Her superb voice, ululating and raw, is intensely powerful over a spare backdrop of hypnotic guitars and percussion. The result is starkly beautiful, crystallizing everything she's done before. Like desert-rockers Tinariwen, who achieved plenty of success last year, Hassan started playing music in the refugee camps of Algeria. Her newest songs find the balance of craft and inspiration—you can feel both sweat and heartache in this music.

Les Boukakes. Bledi. Mosaic Music
Cultures have long come together in Montpelier, and sometimes the result has been good music, as this Arab–French–Corsican rock band proves on their fourth release. Rock they do, as in "L'Alawi" or the traditional "Sidi H'bibi" (the latter inspired by the explosive version from '80s pioneers Mano Negra). There's punk attitude alongside their guitar riffage, and plenty of driving percussion propels the songs and testifies to their Maghrebi heart. Their funk is desert dry and it crackles over powerful cross-rhythms. Although singer Bachir Mokhtar is charismatic, they're at their best when they let loose, emotions burning—and from the evidence here, the fuse is deliciously short.

Cheikh Lô. Lamp Fall. World Circuit
It's been six years since Senegal's Cheikh Lô released a record, but he's finally back with his third release, this time often connecting the musical and slave-trade dots between West Africa and Brazil, most obviously on the thundering, hypnotically drummed "Sénégal-Brésil." His sound is as eclectic as ever, from the insistent Afrobeat of "Sante Yalla" to the Cuban flavor of "Yougayu M'bedd" or the reggae skank of "Bamba Mô Woor." It's an album that takes its chances, never settling stylistically, but that becomes one of its virtues. Each track becomes a trip into the unexpected, yet it never sacrifices melody for surprise.

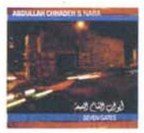
Milagro Acustico. Poeti Arabi di Sicilia. CNI
This is a gem of a record, one of the best of 2005. For the eight centuries of Arab rule in southern Spain, Arab culture permeated the Mediterranean, notably in Sicily. On this disc, the Italian world-music ensemble that also produced an album based on *The Ruhaiyyat of Omar Khayyam* sets words by the island's medieval Arab poets to often lushly beautiful music that draws both acoustically and electronically from all corners of the Middle Sea. "Alcantara," for example, breathes with North African modes, while "Schiadi d'Amuti" sizzles with the *duende* of flamenco. But it's the voices that shine brightest, richly sensual, smooth, occasionally ethereal, springing out of their frames. Even if you don't understand a word, the feelings come through.

Djelimady Tounkara. Solon Kôno. Marabi
The leader of Mali's legendary Super Rail Band is one of the world's most accomplished and revered guitarists, and on his second solo outing he shows just why he's so lauded. From the assured flamenco tones that open "Fanta Bourama" to the lovely groove of "Sarankégni," his acoustic and electric instruments produce liquid streams of notes that both excite and soothe. Backed by a young and outstanding band, he frequently pushes himself on pieces inspired by the Malinke and Mandingo tradition, but he always makes everything sound effortless—the mark of a true virtuoso.

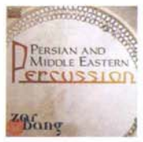
Orchestra Arabo-Andalusa di Tangeri. Incontro a Tangeri. Sheherazade
Morocco has remained the center of Arab–Andalusian music, and this orchestra—a full aggregation supplemented by three singers—explores the gamut of the classical styles, harking back to when Islam, Judaism, and Christianity were culturally intertwined throughout the region. It's a breathtaking classical record, spread across two discs, with intricate melodies and rhythms played in a stately but passionate fashion. Its gorgeous arrangements sweep you up and carry you along with formal, decorated elegance. For those who love classical Arab music, this is on the must-have list.

Souad Massi. Honeysuckle (Mesk Elil). Wrasse
With much critical acclaim, and now with a BBC Radio 3 World Music Award under her belt, acoustic-guitar vocalist Souad Massi is one of the brightest new stars of North African music. On her third disc, she detours from the 60's singer-songwriter pop of her last album to reflect on the idea of roots and home. Some of it's a little glossy, like "I Won't Forget My Roots," a duet with honey-voiced Daby Touré, but most tracks show depth of emotion and maturity, in both writing and performance, marking her as an artist who's going to be around—quietly glittering—for the long haul.

The Chehade Brothers. A Bridge Over the Mediterranean. Elef
Born in Jerusalem but now living and working in Beirut, Rami and Farid Chehade work with an ensemble of 19 musicians to create a sound that's grounded in the Middle East, but which reaches out across the Mediterranean. You can hear strains of flamenco and tarantella in their sound, while the rippling bouzouki offers a connection to Greece and even the Balkans, thanks to Michel Elefteriades. Lead singer Rami is not only blessed with a wonderfully lyrical voice that inhabits the songs, both fast and slow, but he's also a gifted *'ud* player, coaxing subtle textures and fills from his strings for impressive and affecting results.



Abdullah Chhadeh & Nara. Seven Gates. ABYC
The seven gates of the title belong to Chhadeh's native Damascus, and his lyrical musical evocations bring each one to life, with the bustle of people and the electric crackle of city life. He's a virtuoso *qanun* (hammered dulcimer) player, an agile improviser with a fertile imagination, while Nara mixes western and Middle Eastern instruments to create foils and springboards for his flights of fancy. There's a tranquil, meditative quality to pieces like "Keif" and "Asaf," a perfect complement to the more frantic "Bab-Toma" that sees the musicians weave dizzyingly intricate patterns. It's not always an easy listen, but amply repays the effort.



Zarbang. Persian and Middle Eastern Percussion. ARC Music
Percussion albums can weary their listeners with their undiluted plethora of rhythms. Not so on this live recording. Virtuoso drumming abounds, but it remains a delight throughout, propelled by imagination—and plenty of melody. All masters of their craft, Zarbang's rhythmic power is never intimidating or dull, even on lengthy workouts like "Zarbi-e-Raast." They're not a traditional group, but you can feel the fire of hundreds of years behind them. There are gentle rains and thunder, making this a percussion album for people who think they don't like them.

Chris Nickson is a journalist and broadcaster who covers world music. He's the author of *The NPR Curious Listener's Guide to World Music* (Perigee Books).

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

Analyzing Visual Images

One of the first things photographers learn about taking pictures is that it's often visually appealing to take a picture that has a "frame" within it. That's why you'll sometimes see a photographic scene shot through an archway. The archway serves as a frame for the scene, much as you might put a picture frame on a photograph you treasure. Framing helps tell your eye where to look, and the *kind* of framing helps set a mood.

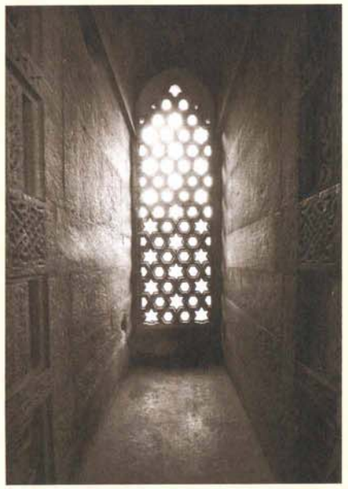
Take a look at some "framed" pictures that accompany "A Tangerine in Delhi." Start with the photos on pages 15 (at right) and 17. What element of each picture provides the frame? What is contained within the frame? How does each photo make you feel? Why do you think you feel that way?

Now look at the photo on 16. Compare it to the two photos you just looked at. How is this photo framed? How does it differ from the other two? Does it make you feel different than the other two photos?

Photographers can also do the opposite of framing a photo. They can take a photo so that your eye focuses on something because it stands out against an open background. The photos on pages 18 (far right) and 19 fall into that category. What is pictured in each photo? Why do you think the photographer chose to record each the way he did?

Now try it yourself. With a partner, or in teams, try taking two pictures of the same view, one through a frame (such as a doorway), the other without the frame. Compare the two. Which do you like better? Why? Then try taking some pictures like the last two you looked at. What kind of objects do you see that you can photograph against an open background? What effects do the photos have on you?

Sum up what you've learned in these exercises by writing an explanation of the two different kinds of pictures. Include what you like and/or dislike about each.



Class Activities

Theme: Underground

"There's more here than meets the eye." That statement is true in lots of situations. For these activities, let's focus on what goes on beneath the surface of the Earth. Read three stories in this issue: "Volcanic Arabia," "Soufi from the River, Soufi from the Sand" and "A Tangerine in Delhi." Then think about the underground by completing these activities.

What goes on beneath the surface of the Earth? How can people tell?
To get you started thinking about what's underground, think about the ground you walk on. What do you suppose is really under there? What on the Earth's surface provides clues? Make a drawing, starting at the surface and working your way down. You might try a few different kinds of places, such as a garden and a paved road. Think about both what's naturally underground and also what people have put there, such as water pipes.

Now turn your attention to "Volcanic Arabia." Highlight the physical features the article describes. Underline the parts of the article that explain what was going on beneath the Earth's surface that led to the creation of each of the features. Based on what you've identified, write a one- or two-sentence statement that answers the following questions: "How does what happens beneath the Earth's surface affect what's visible on the Earth? How does what happens beneath the Earth's surface affect people?"

"Soufi from the River, Soufi from the Sand" also describes what's underground. Using a photocopy of the map on page 26, highlight what's on the Earth's surface south of the Atlas Mountains in Algeria. In a different color, highlight what's beneath the surface. With your partner, discuss the differences. Can you think of other examples in which what's on the surface is very different from what's beneath?

How do people use and manage underground resources?
Beneath Saudi Arabia's volcanic lands and Algeria's deserts lie resources that people might find useful. Divide the class in half, assigning each half one of those regions to work on. Write down your region's resources at the top of a piece of chart paper.

Class Activities (cont.)

Beneath it, make two other lists. In the first, name the uses to which each resource or combination of resources might be put. In the other list, identify potential problems with the resource, including how people will get access to it, and how they ensure that it doesn't get used up.

Speaking of Saudi Arabia, Maher Idris says, "Our challenge is to effectively balance exploitation with the need for geo-conservation." Discuss what he means. Then think about similar statements that have been made at different times in history. For example, in the United States since the late 1800's, many conservationists would have said something similar. They want to use resources thoughtfully, neither destroying the natural environment nor using up the resources. Sometimes they are opposed by preservationists, who since the same time have had a different point of view: They have wanted to keep as much of the natural environment undisturbed, intact. Famous preservationists include John Muir, who helped found The Sierra Club. What do you think? Do you live in a place where people have debated whether to use something underground or to preserve the land above it? Do some research about this debate. You might start with a history textbook, then do an Internet search. As a class, prepare a debate on the issue.

How does "underground" serve as a metaphor?
You might have heard the phrase "gone underground." It refers to something that disappears. For example, in 1918, there was a time between two outbreaks of influenza (flu) when it seemed the virus was gone, but it wasn't: It had just "gone underground." In other words, it was hidden. Then it "resurfaced," and the second flu outbreak was more severe than the first. There are many other "underground" metaphors. Choose one of the following: a) the underworld in Greek mythology; b) the French "underground" during World War II that resisted the Nazi occupation; c) the Underground Railroad of the early 19th century that helped escaping slaves reach northern US cities. Do some research about the situation or group you chose. In what ways is "underground" a useful way to think about it, and how might it not be? Discuss your findings and thoughts with other students who chose the same topic you did. Then present to the rest of the class what you've come up with.

Sometimes a skilled writer can use a metaphor such as "underground" literally at the same time as he uses it metaphorically. "A Tangerine in Delhi," for example, describes on page 22 "a…religious scholar who had gone underground—literally—in a subterranean house outside the city." It appears that the *shaykh* was hiding from the sultan. The same article reports that when Ibn Battuta fell out of favor with the sultan, he, too, sought refuge underground by living for a short time with another religious scholar, this one called al-Ghari, "the Caveman." Carefully read that section of the article, as well as writer Tim Mackintosh-Smith's search for the cave. Describe the cave's physical space. How was the cave also a metaphor? (Hint: Look at the confusion about the meaning of the Arabic word *zawiyah*.)

Theme: Movement

People move. Their movement can be of many different kinds. Some of it is routine—going to school in the morning and coming home in the afternoon. Some of it is more disruptive—moving to a new city or traveling to a foreign country. In the following activities, you'll explore both the movement of people, and the movement of the planet.

Why do people move?
"A Tangerine in Delhi" chronicles the travels of writer Tim Mackintosh-Smith as he follows the trail of 14th-century writer-traveler Ibn Battuta. Start with Ibn Battuta. Based on what you've read about him, why do you think he traveled? Divide the class into pairs. Have one person in each pair take the role of a journalist, while the other takes the role of Ibn Battuta. Have journalists meet together first, and come up with questions to ask the world traveler. While the journalists prepare, the Ibn Battutas should prepare, too. Step into your role by writing a brief statement, in the first person, explaining why you traveled so much, and what the travels meant to you. Sit down with your journalist partner and conduct the interview. When you're done, jot down some of the most interesting things that came out of it. Share them with other pairs. To extend this exercise, learn more about Ibn Battuta using the resources at the bottom of page 23.

Now think about Tim Mackintosh-Smith. Why was *he* traveling in India? What was *he* looking for? How did he decide where to go, particularly since he didn't go to well-known tourist destinations?

Now think about yourself. Whose footsteps might you like to follow? Think about an explorer, an immigrant (maybe a relative of yours), an astronaut or any other traveler who interests you, and imagine that you are going to go on a trip to retrace a journey they once made. Write an itinerary for your trip: Where will you go, and how will you get there? With whom would you want to meet in order to learn about your traveler? This will take some research. If you're trailing a historic figure, you'll need to do some book or Internet research. If you're trailing a relative, you'll probably want to talk to that relative. Or, if the relative lived in the past, talk to family members who might have known him or her, or know stories about the travels. When you write your itinerary, number your destinations, and write an explanation of why you're going to each place and what you hope to find there.

"Soufi from the River, Soufi from the Sand" mentions people who move for very different reasons than Ibn Battuta. The people who are hoping to turn this part of the desert of Algeria into farmland give three reasons for doing so. Write them down. What movement of people are they trying to slow down? Think about current events and history. As a class, come up with other examples of human migration. For each, discuss why the people moved. Were they fleeing something—drought, persecution, famine? Or were they attracted to something better in the new place? Is there somewhere you would like to move? What attracts you about that idea?

How does the Earth move? What happens when it moves?
"Volcanic Arabia" describes situations when the Earth's crust moves. What caused the 1256 earthquake? What continental rifting activity have geologists recently discovered? What is causing the rifting?

What evidence do the Earth's movements leave in their wake? Use both "Volcanic Arabia" and the photographs that accompany it to identify evidence of the Earth's movement. Make a poster to present different evidence of the movements of the Earth's crust.

Julie Weiss is an education consultant based in Lowell, Massachusetts; she holds a Ph.D. in American studies. Her company, Unlimited Horizons, develops curricula in social studies, media literacy, and English as a second language, and produces textbook materials.

Events&Exhibitions

Gentile Bellini and the East explores the convergence of influence and cultures in the Mediterranean during the Renaissance and highlights Bellini's role as a conveyer of cultures between East and West. Bellini, an important Venetian artist, traveled to Constantinople in 1479 to work at the court of Mehmet II, the Ottoman conqueror of Constantinople. The sultan had been at war with Italy, but requested an artist's services as soon as a peace was signed with Venice; the artist was to paint Mehmet's portrait and help decorate the new Topkapı Palace. The exhibition centers on Bellini's portrait of Mehmet II and on his *A Seated Scribe*, but also includes all the works Bellini created in Turkey, as well as other Byzantine and Islamic artifacts. Isabella Stewart Gardner Museum, **Boston,** through March 26; National Gallery, **London,** April 12 through June 25.

Bellini's *A Seated Scribe* was drawn with pen and brown ink on paper, with added watercolor and gold, in about 1480. It measures 18.2 x 14 cm (5x7").

ISABELLA STEWART GARDNER MUSEUM

<< Ongoing

Teaching About the Arab World and Islam is the theme of teacher workshops conducted by Arab World and Islamic Resources and School Services (AWAIR) of Berkeley, California and sponsored by Georgetown University's Alwaleed Center for Muslim–Christian Understanding. The program is fully funded and workshops may be requested by any school, district, office of education or university.

ⓘ www.awaironline.org or 510-704-0517. Sites and dates currently scheduled include: **Malden, Massachusetts**, March 15; **Olean, New York**, March 17; **Milton, Massachusetts**, March 20; **Rhode Island Public Schools**, March 21; **Sharon, Massachusetts**, March 22; **Brookline, Massachusetts**, March 23; **Cambridge, Massachusetts**, March 24; **Palmer, Alaska**, March 25; **Salt Lake City**, April 8; **San Jose, California**, April 18; **Lincroft, New York**, April 20; **Las Vegas**, May 18–20; **Honolulu**, July 10–13.

Egyptian Landscapes: Fifty Years of Tapestry Weaving at the Ramses Wissa Wassef Art Centre, Harrania presents an opportunity to see tapestries from one of the world's greatest schools of weaving, founded in 1952 with an educational philosophy aimed at encouraging creativity in village children. The masterpiece results, full of vivid depictions of Egypt's flora, fauna and people, have been widely hailed in international art circles for their beauty, humanity and significance for all forms of art, for they were created by weavers who have had no formal art training. Additionally, the project has brought prosperity, education, better health, self-respect, satisfaction and better status for women to all of the villagers involved. The exhibition features works from the Center's permanent collection as well as new pieces and retrospectives of two of the weavers, charting their work from childhood. Two other weavers will be working at their looms in the gallery during the exhibition. ⓘ www.wissa-wassef-arts.com. Brunei Gallery, SOAS, **London**, through March 17.

Rural Africa: Communities on the Move displays 40 color photographs that show the diversity and vitality of village life in Africa, taken by Josep A. Gari of the United Nations Food and Agriculture Organization. The exhibition is built around four themes: "People, Land and Pride," "Village Life: Roles and Reliance," "Evolving Together" and "Rural Youth: Learning to Live." It portrays societies that, despite their enormous constraints, are vigorously engaged in improving their situations and adapting to the future. Brunei Gallery, SOAS, **London**, through March 18.

Common Ground: Aspects of Contemporary Muslim Experience highlights diversity within Islam in both the UK and the Middle East, exploring identity and belonging through photography and video art. **Abu Dhabi** Cultural Center, through March 18; King Fahd Cultural Center, **Riyadh**, April 17–30.

The European Fine Art Fair includes nearly 218 eminent dealers from 15 countries who have been invited to exhibit—several specializing in Egyptian, Middle Eastern and Indian art. Each piece offered for sale is scrutinized for authenticity, quality and condition by members of a team of over 140 international experts covering all specialties. **Maastricht, The Netherlands**, through March 19.

The Golden Age of Arab Science. The coming of Islam and its subsequent territorial expansion, especially after the establishment of the Abbasid Caliphate in Baghdad, brought about an intellectual flowering that led to remarkable advances in all branches of science. From Andalusia to the borders of China, Arabic became the language of scholarship. Going beyond their translations of their Greek, Iranian and Indian predecessors, Arabic-speaking scientists carried the torch of knowledge to new heights and into new disciplines. Scholars worked in such fields as philosophy, mathematics, astronomy, optics, medicine, pharmacology, chemistry and alchemy, grammar, geology and engineering. The exhibition presents Arab achievements in all these sciences and closes with examples of their application in practical forms. Institut du Monde Arabe, **Paris**, through March 19.

Viewing Text, Reading Image: Examining a 16th-Century Manuscript offers a unique opportunity to examine the museum's 1584 copy of Nizami's *Khamsa (Five Tales)*, a 12th- to 13th-century quintet of long narrative poems—among the most copied and illustrated works of Persian literature—that is both a collection of beloved stories and an ethical and moral commentary. The exhibition considers the process of producing such a work, from the modular layout of the text pages to the design of the painting sequences, and finally the felicities, as well as slips, of the copyist's pen. The full impact of the original *Khamsa* is further explored through accompanying translation of the text and explanation of the images. University of Pennsylvania Museum, **Philadelphia**, through March 26.

Threads of Tradition: Palestinian Bridal Costumes highlights magnificent embroidery and colorful dresses from the late 19th and early 20th century in the Munayyer Collection. Other objets d'art, such as brass oil lamps, inlaid wooden tables and tapestries, complement the dresses. Embroidery patterns, some dating back to pre-Islamic and pre-Christian times, became incorporated into the rich designs and brilliant colors that identify the specific village or town where the dress was made. The collection, one of the most extensive in America, is presented by the Palestinian Heritage Foundation. Antiochian Heritage Museum, **Ligonier, Pennsylvania**, through March.

Palace and Mosque: Islamic Art from the Victoria and Albert Museum includes over 100 of the V&A's finest masterpieces. The exhibition highlights recurrent themes in the development of Islamic art from the eighth to the 19th century: the key role of Arabic script and calligraphy; the poetic background of much secular iconography; variation in the use of images in different regions and periods; the development of mathematics and science in the service of religion and in the creation of elaborate geometric designs; the central role of Islam; dynastic patronage in courtly art; artistic interaction with other cultures; and the prestige of Islamic art in medieval and early modern Europe. Millennium Galleries, **Sheffield, England**, through April 16.

<< Ongoing

Persian Visions: Contemporary Photography From Iran presents more than 80 images that provide a revealing view of Iranian life and experience. The 20 artists featured are among Iran's most celebrated and include Esmail Abbasi (references to Persian literature), Bahman Jalali, Shariyar Tavakoli (family histories), Mehran Mohajer, Shoukoufeh Alidousti (self-portraits and family photographs) and Ebrahim Kahdem-Bayatvin. Some have lived abroad and returned to view their homeland from a changed perspective. Anti-exotic and specific, these images make up the first survey of contemporary Iranian photography to be presented in the United States. **Honolulu** Academy of the Arts, through April 16.

Lawrence of Arabia: Man and Legend underscores a number of changes in current views of Lawrence and attempts to take a middle path through the widely varying interpretations of his biography, portraying him "as neither saint nor charlatan." Imperial War Museum, **London**, through April 17.

Tutankhamun and the Golden Age of the Pharaohs includes 130 works from the Egyptian National Museum and presents a selection of 50 spectacular objects excavated from the tomb of Tutankhamun, including one of the canopic coffinettes, inlaid with gold and precious stones, that contained his mummified internal organs. Additional pieces in the exhibition derive from the tombs of royalty and high officials of the 18th Dynasty, primarily from the Valley of the Kings. These additional works place the unique finds from the tomb of Tutankhamun into context and illustrate the wealth and development of Egyptian burial practice during the New Kingdom. The exhibition, more than twice the size of the 1979 "King Tut" exhibition, marks the first time treasures of Tutankhamun have visited America in 26 years. **Fort Lauderdale** Museum of Art, through April 23; Field Museum, **Chicago**, May 26 through January 1, 2007.

Treasures from Olana: Landscapes by Frederic Edwin Church features 18 of the artist's own paintings that he displayed in his carefully devised interiors at Olana. The majority are landscape oil sketches, which illustrate the artist's favorite domestic landscapes and his journeys not only to the Middle East, but also to South America and Europe. During a period of debate regarding the artistic merit of an oil sketch versus a finished painting, Church boldly exhibited these *plein-air* oil sketches as finished works of art alongside his precisely rendered "Great Pictures"—a testament to his belief in the quality of these smaller works. This is the first time they have been displayed together outside Olana. National Academy Museum, **New York**, through April 30; **Portland [Maine]** Museum of Art, May 20 through September 10.

To Discover Beauty: The Art of Kahlil Gibran. Best known for his literary works, including *The Prophet* and *Foam*, Gibran was also an accomplished visual artist whose work expresses a religious and philosophical outlook that has often been compared to that of William Blake. The exhibition features Gibran's oils, watercolors and drawings, as well as his illustrations for his own books. ⓘ 313-624-0200. Arab American National Museum, **Dearborn, Michigan**, through April 30.

Lost Nubia: Photographs of Egypt and Sudan 1905–07 features photographs of the first University of Chicago Epigraphic Expedition. The images, most taken from the original glass-plate negatives, document Egyptian and Nubian temples, scenes of the scientific team at work and ethnographic scenes of a now-vanished lifestyle. Catalog. ⓘ www.oi-uchicago.edu. Oriental Institute Museum, **Chicago**, through May 7.

The Art of Medicine in Ancient Egypt. The causes of illnesses were little understood in ancient Egypt, and their prevention and cure were major concerns for most Egyptians—concerns that inform much of ancient Egyptian art. This exhibition highlights objects from the museum's collection that address illness, allowing visitors to appreciate them in new ways. Included will be the rarely seen Edwin Smith Papyrus, one of the world's oldest scientific documents. Metropolitan Museum of Art, **New York**, through May 7.

Tiraz: Early Islamic Textiles comprises nine rarely seen fabric fragments, one bearing the name of Caliph Marwan II. Created between the seventh and 13th centuries, *tiraz* are a type of textile popular in the early and medieval Islamic periods. Although the term comes from the Persian word for "embroidery," it came to signify the luxurious and expensive textiles produced as gifts of honor and symbols of power in public and royal factories throughout the Islamic world. Particularly through the 10th century, examples of tiraz from North Africa showed continuity with the artistic forms of the Greco-Roman period, and when Egypt came under Muslim control, North African craftsmen incorporated aspects of that symbolic vocabulary into Arab artistic forms. Thus some early Islamic textiles in this exhibition demonstrate combinations of such late antique and Coptic motifs as human and animal figures. **Brooklyn** Museum, **New York**, through June 4.

Egypt Through Other Eyes: The Popularization of Egypt. During the 19th century, publications on Egypt multiplied as advances in printing technology allowed the production of larger and cheaper editions of travel literature and history books, as well as newspapers and periodicals. Scholarly publications had an increasing impact on popular culture in Europe and America, especially on architecture, fashion and literature. The exhibition chronicles western interest in ancient Egypt through images from the museum's library, one of the world's most comprehensive Egyptological research collections, and covers the generation of explorers and scholars who were inspired by *Description de l'Égypte*. **Brooklyn** Museum, **New York**, through June.

Saladin and the Crusaders. Sultan Saladin, considered the epitome of religious tolerance, and his opponent King Richard Lionheart, the ideal of knightly virtue, are the focus of this exhibition, which takes the visitor into the encounters and confrontations of the Middle East at the time of the Crusades. The meeting of European and eastern cultures was of great importance in European history, and this exhibition shows that it included peaceful relations and cultural exchange as well as armed conflict. The exhibition views events in the Crusader States between 1099 and 1291 from both eastern and western perspectives and is the first to juxtapose Christian and Muslim cultural artifacts. At its Oldenburg venue, it emphasizes the role of the Near East as a mediator of knowledge; at Mannheim, the artistic transfer and historical aspects of the meeting. Focusing on regional history, the State Museum at Halle demonstrates the effects of the Crusades on central Germany. The various exhibits include jewelry, weapons, coins, astronomical instruments and sculptures, reliquaries and the Magic Ring of Paussnitz, and are supplemented by models, paintings, photographs and large-scale installations. 600-page catalog, €28. State Museum for Nature and Mankind, **Oldenburg, Germany**, through July 2; Reiss-Engelhorn Museums, **Mannheim, Germany**, July 23 through November 5.

The Tablet and the Pen: Drawings from the Islamic World uses 28 examples from Turkey, Iran and India to explore the development of drawing as an independent artistic medium; as part of the process of design for paintings, textiles and metalwork; and as a catalyst for artistic experimentation. It emphasizes aspects of technique and illuminates the historical circumstances that affected the development of the medium and the increased demand for single-sheet drawings in the 16th and 17th centuries. Sackler Museum, **Cambridge, Massachusetts**, through July 23.

The Royal Tombs of Ur: Ancient Treasures From Modern Iraq. Ur was one of the most powerful city-states in ancient Mesopotamia. By 2600 BC, the city may have had 40,000 residents. It traded its surplus grain, wool and manufactured textiles with Egypt, Anatolia, Iran, the Persian Gulf region and South and Central Asia—then the entire known world. It was during this period of prosperity that the kings and queens of Ur were laid to rest in the magnificent tombs Sir Leonard Woolley uncovered between 1922 and 1934. The Royal Cemetery of Ur proved to be the most amazing archeological find of the period; it included the tomb of Lady Puabi, identified by a seal bearing her name that was found on her body. Miraculously untouched by looters, her tomb was filled with beads and gold jewelry, and she wore an elaborate gold headdress; an ornate diadem of gold and lapis lazuli lay near her head. Many more artifacts, now world-famous, were found in the larger cemetery, including extravagant jewelry of gold, lapis lazuli and carnelian; cups of gold and silver; bowls of alabaster; extraordinary objects of art and culture; and several of the world's earliest known musical instruments, such as a gold and lapis bull-headed lyre. More than 400 artifacts from the excavations are on display. **Houston** Museum of Natural Science, through August 13.

Tut Unwrapped explores the life of ancient Egypt's King Tutankhamun and reveals what has been learned by analyzing his mummified remains. From archeologist Howard Carter's examination of the mummy in the 1920's to x-rays made in 1968 and 1978 and CT-scans taken of the body in 2005, some questions have been answered, but many more are raised. **Houston** Museum of Natural Science, through August 13.

Persian Steel: The Tanavoli Collection presents more than 300 intricately designed steel items—tools, household implements and ceremonial objects—that carry the visitor back to the Safavid and Qajjar periods in Persia, where steel was an integral part of economic, social and religious life, and every tool and instrument, be it never so humble, was a work of art meant to be cherished. The objects were collected over the past 30 years by Iranian sculptor Parviz Tanavoli, who admired their superb workmanship and their makers' keen attention to form. **Vancouver** Museum, through September 4.

Nomads in the Art Gallery: Encounters with Modernity from Bayer to Sol LeWitt juxtaposes magnificent Anatolian kilims from the Norbert Prammer collection with 20th-century artworks from the Lentos Museum's holdings to present a multifaceted view of design in its fundamental forms. Paintings, drawings, objects and photographs meet kilims that date from the 17th century to the early 19th century. ⓘ +43-732-7070-3602; www.lentos.at. Lentos Kunstmuseum **Linz, Austria**, through September 10.

The Fabric of Life: Ikat Textiles of Indonesia. Renowned for the richness and variety of their textiles, the peoples of Indonesia have the most complex and esthetically sophisticated fabrics of all of the Pacific islands. Their lives are interwoven with textiles, beginning in earliest infancy and continuing until the wrapping of the funerary shroud. This exhibition examines the variety of form, function and imagery of a single important and technically intricate Indonesian tradition known as *ikat*. A number of distinctive regional traditions are included. The imagery ranges from boldly geometric compositions to figural patterns woven with astonishing artistic and technical virtuosity. Metropolitan Museum of Art, **New York**, through September 24.

No Place for a Lady explores aspects of the history of women's travel, from the difficulties of transportation to visiting harems and climbing the Pyramids. Featuring artifacts related to travel complemented by others reflecting the many cultures women travelers encountered, the exhibition focuses on women from the 18th century to the 1930's, including Lady Mary Wortley Montagu, Lady Hester Stanhope, Ida Pfeiffer, Jane Dieulafoy, Isabella Bird

and Gertrude Bell. **Vancouver [B.C.]** Museum, through October 1.

Mummies: Death and the Afterlife in Ancient Egypt features 140 objects—including 14 mummies and/or coffins, the largest collection ever to leave the British Museum—and illustrates the fascinating story of how Egyptians prepared and sent the dead into the afterlife. It covers embalming, coffins, sarcophagi, *shabti* figures, magic and ritual, amulets and papyri, and displays furnishings created specifically for an individual's coffin, such as spectacular gold jewelry and a wooden boat to transport the dead into the underworld. Bowers Museum, **Santa Ana, California**, through April 15, 2007.

March >>

Edward Said: Debating the Legacy of a Public Intellectual is a symposium that will consider how the coming century might best engage with the works of Said, who died in 2003. Speakers will first illuminate Said's attempt to revive and inflect the critical methods of Goethe's ideal of a "world literature" with the pluralistic humanism that has influenced postcolonial theory, comparative literature and diaspora studies. Speakers will also discuss Said's relationship to the politics, historiography and aesthetics of imperialism, decolonization and anti-colonial resistance. ⓘ Debjani.Ganguly@anu.edu.au. Australian National University, **Canberra**, March 15 and 16.

Tamil Nadu and Kerala: Day by Day is an exhibition of photographs by Jean-Marie Caron. 3 p.m. to 7 p.m. Les Comptoires de l'Inde, 60 rue Vignoles, **Paris**, March 17 through April 4.

The Heartland Seminars on Arab Music & Dance offer a weeklong residential program focusing on classical Arab music and dance. The music portion of the seminar (March 19–23) is for both beginners and intermediate players; the weekend dance segment (March 17–19) is for experienced dancers. The seminars feature internationally recognized academics and performers who will offer individualized instruction, ensembles, lectures and workshops. Instruction plus meals and lodging (double occupancy) costs $549 for the music seminar and $439 for the dance seminar, or $950 for both. ⓘ www.heartlandseminar.com. Lake Lawn, **Delavan, Wisconsin**, March 17–23.

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Harpies, Mermaids, and Tulips: Embroidery of the Greek Islands and Epirus Region includes some 70 textiles created between the 17th and 19th centuries for bridal trousseaux and domestic use, and explores the great diversity of design, structure and function that developed in a geographically small area. Epirus—under Ottoman rule for almost five centuries—and the islands of the Aegean and Ionian Seas were located at a crossroads of trade among western Asia, the Black Sea and Europe, and the region was exposed to and assimilated artistic influences of the Venetians and the Ottomans, the two principal cultures vying for dominance—and influencing each other—in the early modern period. Catalog $35. Gallery talk and tour: March 18, 11 a.m. Textile Museum, **Washington, D.C.**, March 17 through September 3.

Traditions of Settlement in Bahrain, 1602–1932. Nelida Fuccaro, author of *City and State in the Persian Gulf: Bahrain, 1798–1957*, lectures at 5:30 p.m. Khalili Lecture Theatre, SOAS, **London**, March 22.

Understanding Indian Culture: Social Chronicles is the title of a book by Dr. Brigitte Tison. She will discuss the topic and sign her book. 5 p.m. Donation €.5. Les Comptoires de l'Inde, 60 rue Vignoles, **Paris**, March 24.

Hatshepsut: From Queen to Pharaoh. The great female pharaoh of Egypt's 18th Dynasty ruled for two decades, first as regent for, then as co-ruler with, her nephew Thutmose III. During her reign at the beginning of the New Kingdom, trade relations were reestablished with western Asia and extended to the Land of Punt far to the south, as well as to the Aegean Islands in the north. The prosperity of this time was reflected in its art, which is marked by innovations in sculpture, decorative arts and such architectural marvels as Hatshepsut's mortuary temple at Deir al-Bahri. Items from the Museum's own collection are supplemented by loans from American and European museums, and from Cairo. Metropolitan Museum of Art, **New York**, March 28 through July 9.

Penn Museum Lectures:
- "Women in Ancient Egypt," Jennifer Wegner, March 28
- "A Career in Deep Sea Exploration," Robert Ballard, April 11
- "The Wall Paintings of Thera," Andreas Vlachopoulos, April 18
- "Royal Tombs of the Eurasian Steppe," Hermann Parzinger, Olena Fialko, Olexander Symoneko and Erdenebaatar, April 19

All at 6 p.m. University of **Pennsylvania** Museum of Archaeology and Anthropology, **Philadelphia.**

The Road to Byzantium: Luxury Arts of Antiquity challenges the conventional idea that the art of the newly Christian Byzantine Empire, usually represented by icon painting, completely rejected the styles and themes of classical Greece and Rome. By presenting objects of luxury from this period, rather than icons, the exhibition demonstrates the remarkable continuity of the classical traditions, especially in precious metalwork, jewelry and ivory. More than 160 objects from the State Hermitage Museum in St. Petersburg, such as finely decorated silver and gold, cameos and Athenian red-figure vases, along with objects from the British Museum and the Victoria and Albert Museum, tell the story of the development of art over a thousand-year period from sixth-century Greece to the Middle Ages. Somerset House, **London**, March 30 through September 3.

April >>

Teachers' Institutes on Understanding and Teaching About Islam include classes on Islamic faith, practice, history and culture taught by university professors from the US and abroad. Participants will become more familiar with teaching resources, as well as techniques for integrating them into the social studies, religion or world-history curriculum. There is no charge to educators who attend this program: Participants pay only for their travel to New Mexico. Dar al Islam provides books and supplementary teaching materials, on-site room and board, and transportation to and from the Albuquerque Airport. ⓘ www.daralislam.org; kdalavi@valornet.com; 505-685-4515, x 24. Application deadline is April 3. **Abiquiu, New Mexico**, July 5–16.

The Discovery of the Royal Tombs of Ur enlightened the modern world about the sophisticated society of the Sumerian civilization in Mesopotamia. Dr. Richard Zettler, curator of the exhibition "The Royal Tombs of Ur: Ancient Treasures From Modern Iraq," will recount the discovery and the excavation of the sites and explain how the findings have led to a greater understanding of one of the world's first great cities. **Houston** Museum of Natural Science, April 4.

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. Canadian Museum of Civilization, **Ottawa, Canada**, April 10 through January 2, 2007.

The Eighth American Conference on Oriental Rugs (ACOR-8) includes 20,000 square feet of exhibits, hands-on workshops, focus sessions, demonstrations and educational programs, as well as a Dealers' Row. Park Plaza Hotel, **Boston**, April 20–23.

The Mosque in the West: An International Symposium will address how Islam and mosques are perceived and represented in the West; how the mosque is changing both Muslim and wider society in the West; and how sacred space, in its urban, architectural, aesthetic and built forms, is produced, represented and perceived. Architects Rasem Badran, Charles Correa, David Donnellon, Zaha Hadid, Gulzar Haider and Greg Kribs and professors Ihsan Bagby, Diana Eck, Yvonne Haddad and Aminah McCloud will participate. Sponsored by the Aga Khan Program for Islamic Architecture at MIT. ⓘ 617-258-5597. Building 56-114, **Massachusetts** Institute of Technology, **Cambridge**, April 21–22.

Encountering the Other: Religious Tolerance and Hospitality is a symposium focused on dialogue among the three Abrahamic faith traditions—Judaism, Christianity and Islam—on what role religion can play in shaping a response to religious others. ⓘ sarahmacmillen@gmail.com. University of **Notre Dame [Indiana]**, April 24.

On the Origin of Cities in Mesopotamia: Excavations at Tell Brak, Northeastern Syria. It has long been thought that the first Mesopotamian cities were those of Sumer in today's southern Iraq, but recent excavations in northern Mesopotamia have shown that large, differentiated urban centers were developing in a different, northern cultural tradition by 3500 BC. Geoff Emberling of the University of Chicago surveys a city of the mid-fourth millennium BC that contained a large temple, a feasting hall, hoarded jewelry attesting to wealth and widespread trade contacts and a specialized ceramic production area. Southern Methodist University, **Dallas**, April 26.

May >>

African Mud Cloth: The Bogolanfini Art Tradition of Gneli Traore of Mali exhibits some 40 textiles made between 1966 and 2000, mostly by Gneli Traore (died 2002) and her children. An accompanying catalog shows changes in both techniques of making *bogolanfini* mud cloth and in its designs and patterns, and explains their symbolism. African Art Museum of the SMA Fathers, **Tenafly, New Jersey**, May 7 through September 4.

Mountains, Monasteries and Minarets is an exhibition of Caroline Lees' recent paintings of Russia, Oman, Egypt, Yemen, Morocco and London. Rafael Valls, Ltd., **London**, May 9–25.

Woven Jewels From the Black Tents: Baluchi, Aimaq, and Related Tribal Weavings of Iran, Afghanistan, and Pakistan. The women of the nomadic and settled Baluchi tribes have long produced distinctively beautiful weaving, largely for their own use, that include kilims and pile rugs, pile and flat-woven bags and animal trappings. Baluchi weaving tends to be rich but somber in color, and the rugs are known for their velvety pile and the silky sheen of the wool, the result of minerals in the soil of Baluchi pasturelands. The exhibition presents the whole range of Baluchi and related weavings, including some "war rugs" produced during the late 20th century in Afghanistan. Georgia Museum of Art, **Athens**, May 20 through July 30.

Arabia's History in the Nineteenth Century: A List of Petty Wars and Internecine Broils. Social anthropologist Paul Dresch lectures following the annual general meeting of the Society for Arabian Studies. 5:30 p.m. Khalili Lecture Theatre, SOAS, **London**, May 24.

June >>

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-Bahri. 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. Frist Center for the Visual Arts, **Nashville**, June 8 through October 8.

Textile & Tribal Art: The HALI Fair presents rugs, other textiles and ethnographic art for sale by some 75 international dealers. Their offerings are divided into three areas: traditional (rugs, kilims, textiles, embroideries and tapestries from Africa, the Middle East, the Caucasus and the Americas), tribal (ceremonial and decorative works from Africa, Australasia, Oceania and the Americas) and the "Design Zone" (contemporary ceramics and weaving that use traditional skills). National Hall, Olympia, **London**, June 8–18.

July >>

Facing East: Portraiture Across Asia explores how portraits expressed cultural identities in Asia and the Ancient Near East over millennia. Paintings and sculptures of Egyptian pharaohs, Chinese empresses, Japanese actors, Indian rajas and a host of other subjects reveal how the identities, importance and power of historical subjects were diversely constructed, understood and represented. The exhibition raises questions not only about how portraits are used, valued and understood in Asian cultures, but also about their employment in works of art. Sackler Gallery, **Washington, D.C.**, July 1 through September 4.

Indian Jewelry at the Time of the Grand Moghuls: The Al-Sabah Collection, National Museum of Kuwait is a landmark exhibition of more than 300 spectacular examples of Mughal and other related jeweled objects. The grand imperial vision, refinement and opulence for which the Mughal rulers of India (1526–1858) were renowned found ultimate expression in their jeweled arts. Among the highlights of the exhibition are a historically important spinel inscribed with the titles of multiple imperial owners from several Islamic dynasties; splendid ornaments for personal adornment, such as a cameo pendant carved with a portrait of the emperor Shah Jahan; a gem-encrusted dagger; brilliantly enameled courtly objects; and jade and rock-crystal bowls set with precious stones. In addition to jewelry and gems, the exhibition includes magnificent works of hardstone inlay, delicate sculptural forms in hardstones, ornate hammered relief in precious metals (primarily gold) and "Oriental damascene" (gold-embellished steel). Enamels from the Mughal period—characterized by a tremendous range of brilliant colors, distinctive motifs, and decorative effects—are also on view. Musée du Louvre, **Paris**, July 5 through September 4.

The Jameel Gallery of Islamic Art, renovated thanks to a gift from the Abdul Latif Jameel Group, opens to house treasures from the V&A's collection of 10,000 Islamic objects from the Middle East, including the famous Ardabil Carpet from 16th-century Iran and an exquisite rock-crystal ewer from 11th-century Egypt. The displays will explain how Islamic art developed from the great days of the Islamic caliphate in the eighth and ninth centuries. Other objects include ivories from Spain, metalwork from Egypt, Iznik ceramics from Ottoman Turkey and oil paintings from 19th-century Iran. The collections highlight the fruitful interchange between the Islamic world and its neighbors in Europe and Asia. Victoria & Albert Museum, **London**, July 20.

August >>

Modern Indian Works on Paper includes 50 works produced since 1947 by a broad range of Indian artists, from members of the groundbreaking Progressive Artists Group to other first- and second-generation modernists, and from M. F. Husain and Anish Kapoor to Krishna Reddy, Francis Newton Souza and Arunanshyw Chowdhury. At times drawing on their own deep cultural heritage, at others looking forward with novel techniques, these artists have extended modernism beyond the western world. **Georgia** Museum of Art, **Athens**, August 12 through October 8.

Permanent >>

Egypt Reborn: Art for Eternity is an installation of over 1200 Egyptian artifacts that makes available masterpieces of every period of ancient Egyptian history, including some of the most important in the world. The exhibition ranges from the Predynastic Period (ca. 4400 BC) to the 18th Dynasty reign of Amunhotep III (ca. 1353 BC), including such treasures as an exquisite chlorite head of a Middle Kingdom princess, an early stone deity from 2650 BC, a relief from the tomb of a man named Akhty-hotep, and a highly abstract female terracotta statuette created more than 5000 years ago. Additional exhibits illustrate themes in Egyptian culture, including women's roles, permanence and change, temples and tombs, technology and materials, art and communication, and Egypt and its relationship to the rest of Africa. Brooklyn Museum, **New York**.

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**.

Information is correct at press time, but please reconfirm dates and times before traveling. Most institutions listed have further information available on the World Wide Web, and our Web site, saudiaramcoworld.com, contains more extensive listings. Readers are welcome to submit information for possible inclusion in this listing.

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