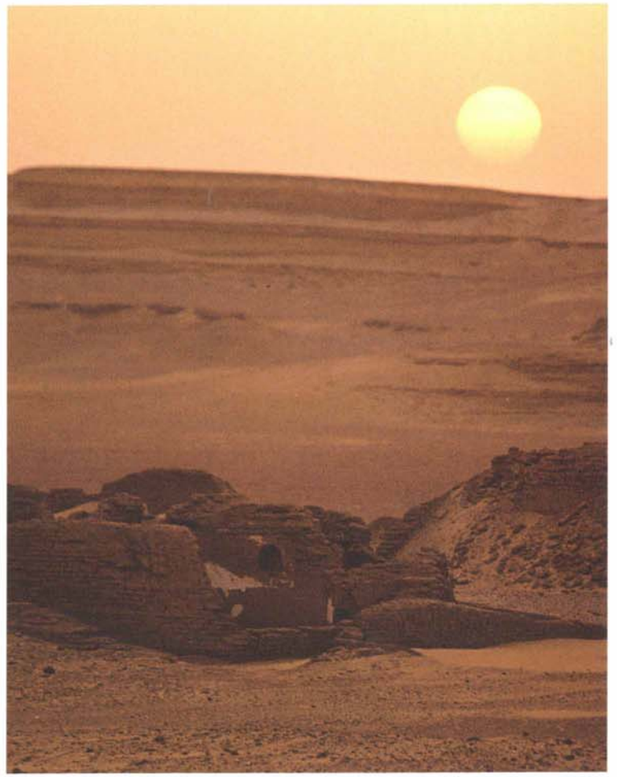

Saudi Aramco **world**

September/October 2006

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world

Ibn Khaldun
and the Rise and Fall of Empires

Saudi Aramco world

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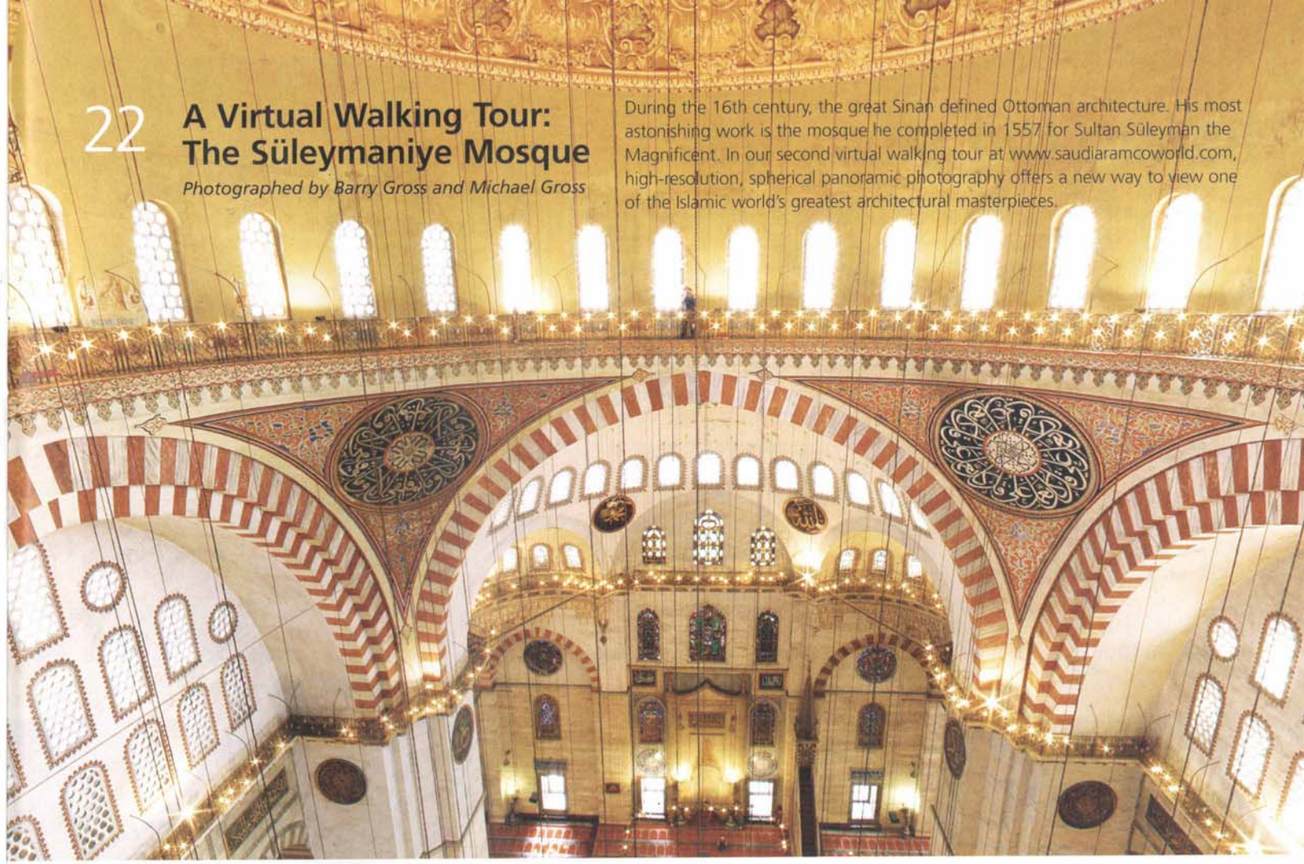
Cover:

On a peace mission to King Pedro I of Castile in 1364, Ibn Khaldun visited Seville, the city where his ancestors had settled in the eighth century. He may have gazed up at the ceilings of the Real Alcázar and admired the splendid workmanship of the Muslim craftsmen in the style known today as *mudejar*. The lion and castle, emblems of Castile and Léon, were symbols of the ruling houses of Spain. Photo by Dick Doughty / *Saudi Aramco World* / PADIA.

Back Cover:

Ruins and artifacts from nearly every period of human life can be found in and around Dakhleh, from Paleolithic tools as old as 400,000 years to comparatively recent Roman remains. During Pharaonic times, the oasis appears to have served as a depot for caravan trade with kingdoms to the west. Photo by Michael Nelson.



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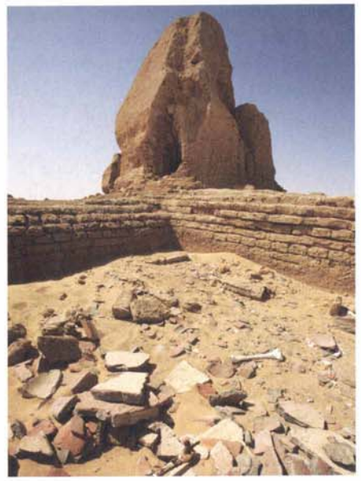
Before the Mummies:
The Desert Origins of the Pharaohs

Written by Graham Chandler Photographed by Michael Nelson

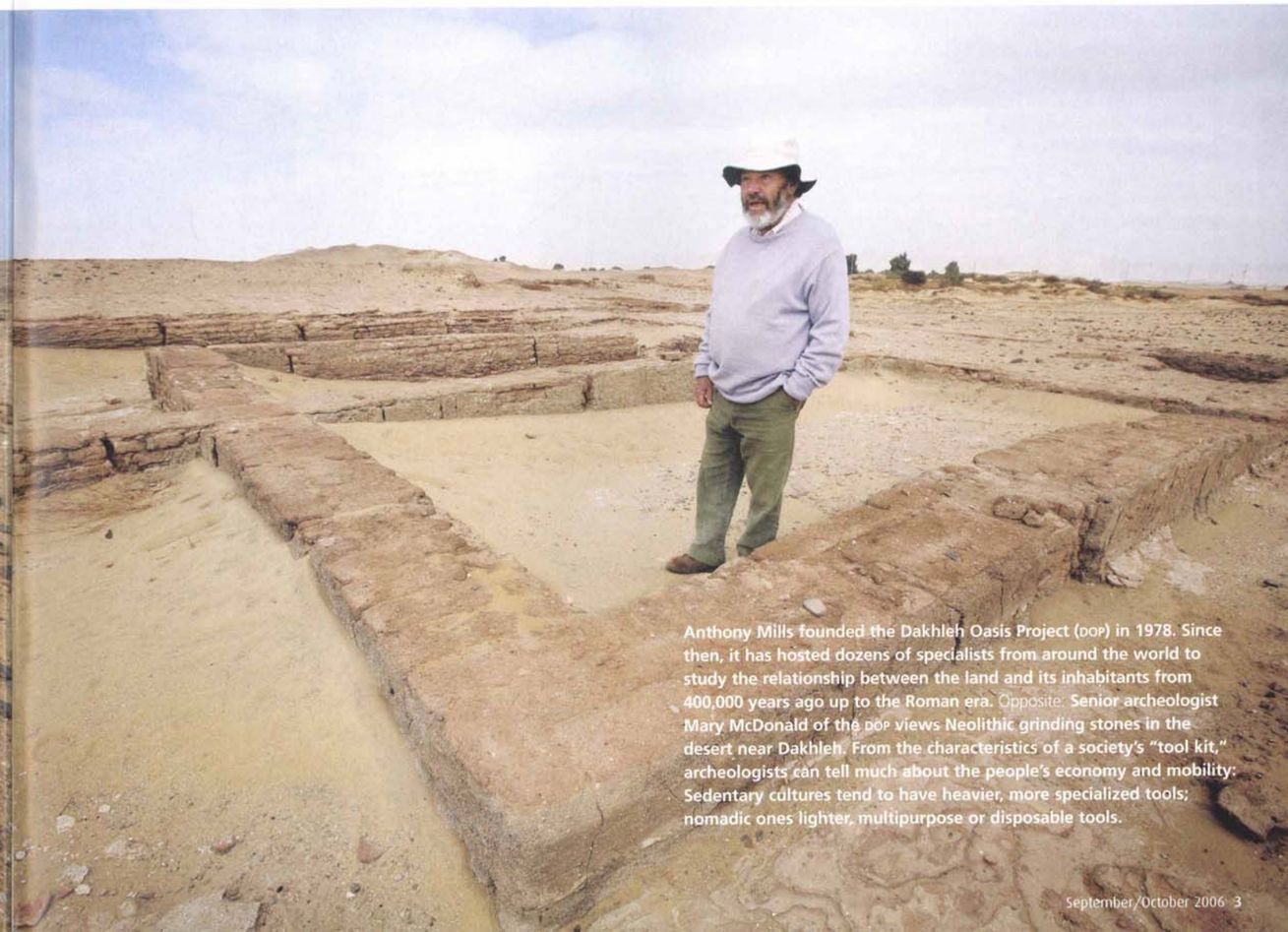
The Western Desert of Egypt, near the Dakhleh Oasis, appears to be one of the most uninhabitable places on the planet. Any search for signs of life on this Martian surface seems pointless. But as we crest a ridge of sand, with chunks of ironstone clinking underfoot, archeologist Mary McDonald is about to show me something that puts paid to that notion: evidence that she has found not only the beginnings of settled life in North Africa, but almost certainly the beginnings of the longest-lasting civilization the world has ever known—the Pharaonic, or Dynastic, civilization of the Nile Valley, heretofore thought to have derived from elsewhere in the Middle East.



At the ruins of an Old Kingdom pyramid at Amheida, one of the numerous archeological sites around Dakhleh, archeologists will sift ancient debris to determine which fragments and artifacts will be analyzed.

McDonald, a petite and sprightly Canadian with gray streaks in her long black hair, wears a broad smile underneath her straw hat and a Foreign Legion-style bandana. Her delight comes from telling me about the scene that now lies before us: hundreds of round, oval and rectangular spaces the size of camping tents, defined by flat stones stuck on their edges in the sand, many with flagstone floors about 30 centimeters (12") below ground level. They're clustered in what may have been a village the size of three football fields. "Many hundreds of people lived here," she beams. "It's the largest Neolithic site in Africa."

The question of where the great Pharaonic civilization came from and how it arose has never really been answered, not by the ancient Greeks nor by the first European explorers and archeologists, who explored and plundered it in the 19th century. Until just a few decades ago, the received wisdom was that a "superior culture" must have invaded Egypt, or migrated there, from the Levant or Mesopotamia—regions that had civilizations a thousand years earlier. But for more than 200 years, precious few archeologists had the inclination to explore this question of origins: Most were more dazzled by the mummies, temples and tombs.



Anthony Mills founded the Dakhleh Oasis Project (DOP) in 1978. Since then, it has hosted dozens of specialists from around the world to study the relationship between the land and its inhabitants from 400,000 years ago up to the Roman era. Opposite: **Senior archeologist Mary McDonald of the DOP views Neolithic grinding stones in the desert near Dakhleh. From the characteristics of a society's "tool kit," archeologists can tell much about the people's economy and mobility: Sedentary cultures tend to have heavier, more specialized tools; nomadic ones lighter, multipurpose or disposable tools.**

It was just a few decades ago that Anthony Mills sat spellbound at a lecture by the late Egyptian archeologist Ahmed Fakhry at Toronto's Royal Ontario Museum, where Mills was serving as an assistant curator. Mills was also a keen archeologist fresh off the Nubian salvage campaign of the 1960's and 1970's, and he was casting about for a long-term project. After the lecture, Mills managed to corner the famous Egyptian, who had accompanied the first world tour of King Tut's treasures. Fakhry, it turned out, had done some preliminary archeological exploration in the Western Desert around Dakhleh, and he suggested to Mills that Dakhleh might be just what he was looking for. "It stuck in the back of my mind for a long time," says the affable Mills.

The modern-day Dakhleh Oasis lies 800 kilometers (500 mi) by desert road southwest of Cairo, and it is the largest of the five major oases of the Western Desert. Lying about the same latitude as Luxor, its 80- by 25-kilometer area (50 by 15 mi) boasts 75,000 inhabitants who produce wheat, mangoes, oranges and dates. Fodder-laden donkey carts, their turbaned drivers occasionally chatting on their cell phones, are a fine contrast to the cacophony of downtown Cairo.

Mills and his colleague Geoffrey Simpson journeyed to this cornucopia in 1977, after obtaining permission to look at an Old Kingdom site there. After they had walked for a few weeks on the desert surface, it quickly struck them that Fakhry was right. Their trained eyes recognized fragments from every period of human existence, from the Old Stone Age right through to Roman and Ottoman times. "It didn't take long to realize that a nice big-area approach was in order," says Mills.

Back in Canada, they recruited several researchers. Many, like zoologist C. S. "Rufus" Churcher and anthropologist

It was the late Ahmed Fakhry who suggested to Mills that King Tut's roots might have been in the desert, not in Mesopotamia.

Maxine Kleindienst from the University of Toronto, are now, along with McDonald, senior researchers who have been back every year—this year marked the 27th season of the Dakhleh Oasis Project (DOP) that Mills started in 1978.

Today the DOP is not just archeology, but a long-term regional study of the interaction between environmental

In the compound that houses the DOP, local workers wash artifacts. Below: Rock art appears near a circle of ruined stone huts that likely date from the early Neolithic. Opposite: Mainly known for its wheat, mangoes, oranges and dates, Dakhleh is the largest of Egypt's five "Islands of the Blessed," oases deep inside the Western Desert, which is part of the Sahara.

change and human activity in the oasis from 400,000 years ago to the third century of our era. To assemble the whole picture, the project has attracted geologists, geomorphologists, botanists, zoologists and more from countries as diverse as Australia, Canada, the US, Germany, Poland and Switzerland. They make their temporary home at the DOP's villa just a few kilometers from Dakhleh's capital, Mut, on the road to Sheikh Wali. A pleasant mud-brick compound housing labs, offices and rooms for 35 researchers, the villa sits on a hill called Ain el-Gindi. The DOP has produced over 300 academic papers and 15 books, not to mention a dozen or so graduate degrees. "Our ultimate aim is to write a synthesis of the complete record of man's adaptation here," says Mills.

That record apparently starts in the 400-meter-high (1300') limestone-capped escarpment that dominates the entire oasis to the north. It is on these cliffs that Kleindienst and McDonald have found crude stone hand axes—a tool made by humans in the Paleolithic period at least 400,000 years ago. "I say 'at least' because the tufas [calcareous deposits laid down during wet climatic periods] can't be dated past that," says Kleindienst, who's now retired from the University of Toronto's Department of Anthropology. But the same formations told her there was a supply of artesian water then that supported human habitation right up till the appearance of modern humans some 20,000 years ago. Then, it appears, the climate dried up, game disappeared and plants died out, forcing people to abandon the Dakhleh area for the next 10,000 years. Then, about 10,000 years ago, they came back when the water returned, starting a sequence of human cultures that, as McDonald is discovering, played a major role in the birth of the spectacular Pharaonic civilization.

For the first five years, DOP researchers spent countless hours just scouring the desert topography around Dakhleh, meticulously recording fragments of bone, stone tool chips and pottery sherds. McDonald, for her part, would start before sunrise each morning and walk into the rising sun to catch the glint of fine-grained chert fragments that would tell her the story of the gradual rise of sedentism in the area—indications that people were growing less mobile, a trait that could have profound implications for the emerging debate about the start of settled village life. (Sedentism, or sedentarism, is the term archeologists use to describe the process of settling down.)

In the mixture of surface artifacts, she could gradually distinguish a number of distinct cultures based on their "tool kits." The earliest appeared to be one of a highly mobile people, which she dubbed "Masara," after a nearby village of that name. Their portable, possibly disposable, small stone

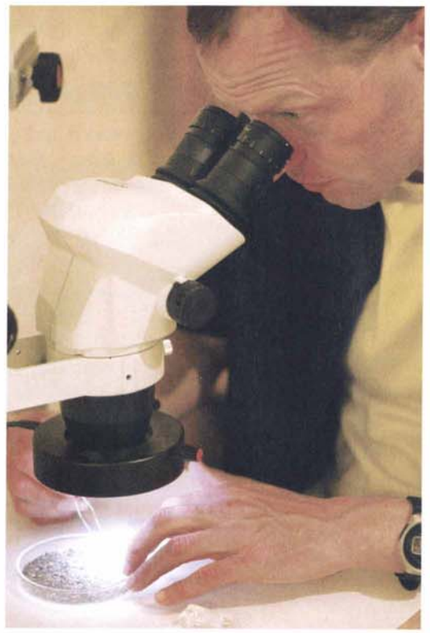
blades were the archeological markers of small bands of hunter-gatherers ever on the go, following game and harvesting wild plants in seasonal rounds. The Masara seem to have appeared on the scene around 9500 years ago, and they wandered the desert for a few millennia before even temporarily settling.

Archeologists infer just how mobile groups are from their "tool kits." As people start living a more settled life, they develop new technologies. Instead of manufacturing recyclable and multiple-use tools that are easily carried, more sedentary peoples make larger and more specialized tools: Think of the difference between a multi-function pocketknife and a workshop's tool rack.

With this notion in mind, McDonald noted a gradual change in the Masara tool kit, which became larger and more varied over about 1200 years. She suspected this meant the Masara were probably moving less and less around the savannah, as it was then. But she had little to go on but the more cumbersome tool set.

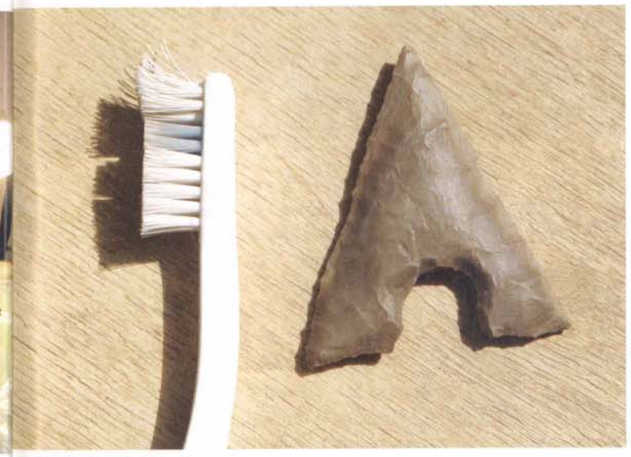
Then, in 1990, one of her students, Greg Mumford, stumbled upon some 17 stone circles on one of his desert forays. McDonald was delighted. This grouping of stones contained Masara tool types, and she knew immediately what that meant: The Masara were settling down for at least part of the year. The proof was more than the semi-permanent huts these circles implied. Attached to some of the circles were storage bins, and inside were grinding stones. Arrowheads and stone scrapers were found, along with bones of wild game. The circles were dated to 8800 years ago, during a short dry interval. McDonald hypothesizes that the Masara were "dusted out" of the desert and came to spend more time at the oasis. The remains implied they didn't live here year-round because "their [shelters'] upper structures would have been too flimsy." But she was all smiles. Here she had defined the first evidence of the Neolithic era in North Africa: These are the first known purpose-built stone structures on the continent.

But staying in one place part of the year doesn't always mean the Neolithic Revolution is coming. Examples abound of peoples staying put for most of their lifetimes: The lush northwest coast of North America had enough fish and game to sustain four seasons' living, and yet no Neolithic Revolution ever happened there. Nor did it happen in the Nile Valley of 7000 or 8000 years ago, as researcher Michael Hoffman discovered in his excavations at the site of Hieronkopolis. McDonald needed more. She needed evidence of some further progress past mere sedentism, such as animal or plant domestication.



Top: **In the DOP lab, McDonald categorizes some of the project's thousands of artifacts.** Left: **Examining trace plant remains, archeobotanist Johannes Walter matches samples to lists of known wild and domesticated species.** Above: **Also a senior researcher at the DOP, anthropologist Maxine Kleindienst has discovered crude stone hand axes in Dakhleh that date to 400,000 years ago.**

Meticulous examination of the Masara hut circles had yielded bone and seed remains, but Churcher, the project



Left: **Plant remains are sorted prior to examination.** Below: **Neolithic artifacts made from materials that include carnelian (left), azmonite (right) and stone (upper and lower).** Bottom: **A well-preserved Neolithic arrowhead.**

zoologist with a long background in Africa, admits that pronouncing a species wild or domestic just from bone remains is problematic. "But this assemblage was clearly wild animals that were never domesticated—hartebeest, gazelle, birds, hare and the occasional tortoise or toad," he says.

Nor was pottery, another sign of sedentism, ever found at the Masara circles. And charred plant remains proved to be from wild grasses and portulac, a moisture-loving herb still eaten here today, that were likely harvested and ground up with the grinding stones.

The key Neolithic marker was yet to come.

It came for McDonald in the same momentous year, 1990. "I was at dinner and Lech Krzyzaniak [who was studying rock art there] told me about this mysterious large stone ring he had spotted on an aerial photograph," she says, her scarf flapping about her face. Krzyzaniak had checked it out and on the same outing had found a new collection of hut circles, the ones that now lie before us in the drifting sand. "I had some work I wanted to finish up on my Masara hut circles first," she recalls, but "they frog-marched me over there the next morning."

McDonald was blown away—this time not by the incessant wind but by instant recognition of the importance of the find. Walking today among these enigmatic circles, she bends over and picks up a tiny trapezoidal piece of ostrich eggshell the size of a cornflake with a neat, countersunk hole drilled through the middle. "There was enough stuff that just jumped out at me," she says with an even broader grin.

This "stuff" was of a culture much more advanced than the Masara. In her initial years of scouting the desert, McDonald had identified and defined a separate culture she had placed later than the Masara. She hadn't yet named it, but she knew it was quite separate from the Masara, and, importantly, it was more advanced technologically. The unnamed culture had pottery, fine leaf-shaped arrowheads, pleasing smooth stone tranchets for scraping, toggles of fine sandstone—what these were used for she hasn't yet figured out—and elaborate jewelry-like marine shell bangles and beads of carnelian. When she saw this site, she knew the culture needed a name. "This site is Bashendi," she says, reaching for a sandstone grinder that fits neatly into her palm.

The Greatest Revolution

Evidence of settled life, or sedentism, is very important to prehistoric archeologists. It's the first signal of the Neolithic Revolution, which is probably the most significant and momentous of all changes in the record of humankind. After several hundred thousand years of living in small nomadic groups, in relative symbiosis with the animals they hunted, lifestyles changed radically. First occurring around 10,000 years ago in the Levant, settled life led to changes in diet; the domestication of animals and crop plants; pottery; materialism; complex social organizations; increased territoriality and organized warfare; monumental architecture; and, eventually, writing. In short, all of the world's civilizations started with the critical decision to stay put.

Pointing out the smooth side, she says the Bashendi would have used these to grind local wild millet and sorghum. We trudge through the hard-packed sand with its wind-formed ripples to a circle she has excavated. "See how the walls on the north side are heavier, more reinforced," she says. It implies the huts were occupied during the winter months of north wind. Most of the structures are round or oval and three to five meters across (10–16') but about a third of them are rectangular. Some have flagstone floors, and McDonald points out a crumbly material that may have been used to chink walls against the chilly wind. "Let's go over the next couple of ridges. There's something else I want to show you," she says.

The first material evidence of the connection between the desert and the pharaohs came from the several dozen "Bashendi" settlement ruins, spotted in 1990 and analyzed over the past decade. At this animal enclosure, McDonald found evidence of goats and cattle some 6500 years old; in others, she found tools and jewelry that resembled artifacts from sites almost due east along the Nile. Opposite, upper: **Archeologist Colin Hope gives a lecture on pottery to young archeologists visiting the DOP.** Opposite: **Artifact cases stacked shoulder high at the DOP.**

For the Bashendi, the Neolithic Revolution was an adaptation to the drying of their savannah into today's desert. When they moved east to the Nile Valley, they brought cattle and agriculture.

Over the second ridge lies the large circle that Krzyzaniak first spotted. It's half the size of a football field, slightly oblong. McDonald walks around it, pointing out "entrances" in the two-meter-thick (6'6") walls that stand up to a meter high. What are your thoughts about what it was used for, I ask. "Local barn dance?" she quips mischievously. Then, seriously, "More likely an animal enclosure of some kind." She points out that one of the entrances has a built-in enclosure like a hut circle: shelter for a herdsman, perhaps?

Though it seemed a logical conclusion, she has found precious little evidence of what the large structure was really used for. "We found no post holes," she says, "which you'd need if a structure this size were covered over." She's hoping to obtain some chemical or mineral studies that might tell her of animal-dung residues. But some proof comes from Churcher's analysis of the teeth and bones collected from the first Bashendi site we visited. "The Bashendi had goats and cattle," he told me earlier in his lab. "Whether they're wild or domestic, though, we can't really tell at this point. It can take up to a thousand years for the physical traits of domestication to show up in the record. But their teeth were well worn, and they were frequently older animals." He went on to explain that this usually points to domestication—older animals wouldn't normally be hunted. And it would indicate the animals weren't kept for their meat, but more likely for blood and milk, the reasons the modern Masai to the south keep cattle.

McDonald agrees the Bashendi were cattle-herding pastoralists. It would make sense as a way to adapt to a changing climate, something that's been observed in other parts of Africa. She has also seen a close correlation between changes in the ancient climate and the way Dakhleh's people adapted. Studies have shown that around 6500 years ago the Monsoonal Belt started moving south, letting the desert encroach and forcing residents to adopt pastoralism to survive. A secure source of animal products would be needed as wild fauna became stressed or drifted south. Cattle, already native to North Africa, were the easiest to domesticate. As the Bashendi began to dominate the water holes of the oases, wild animals would have been crowded out, forcing the Bashendi to rely still further on their cattle herds.

The Neolithic Revolution of the Western Desert was under way.

When McDonald was working late into the night pulling together her Bashendi artifacts and defining the culture's distinguishing features, Mills had observed over her shoulder more than once that many of the objects seemed to have parallels in artifacts excavated decades earlier in the Nile Valley. Distinctive side-blow tools (so called because the tool is made by striking the side of a stone material instead of the usually more efficient top), labrets (probably for lip decoration), hollow-based arrowheads and jewelry such as marine-shell bracelets and beads of amazonite and carnelian were similar to some dug up at sites like Badari and Mostagedda, near the present Nile-side city of Asyut—the closest point on the Nile to Dakhleh. This piqued McDonald's interest.

Back at the University of Calgary, she looked up the excavation records of Sir Flinders Petrie, the "Father of Egyptian Archeology" of the late 1800's and early 1900's. Petrie had earned his title well with his meticulous, systematic excavation recording that's still used today as a model for students of archeology. His findings around the site of Badari came to define the "Badarian," which was the first phase of the Predynastic period—forerunner to the well-known greatness of the Dynastic era.

While McDonald wasn't the first archeologist to sense a connection between Dakhleh and the Nile Valley, never before had such solid evidence been available as a Neolithic village with domestication of an animal species. She delved more deeply and in 1989 presented a well-received paper at a Toronto conference. After the 1990 season, with the hut circle and domestication discoveries, it was surely possible that the Bashendi of the Western Desert were part of the Neolithic Revolution in the Nile Valley.

It remained to date those Bashendi items that also occurred in the Nile Valley. McDonald chose some ostrich eggshell excavated from the Bashendi circles. The dates that came back from the radiocarbon lab confirmed her hypotheses: Nearly all of the shared artifacts showed up in Dakhleh 500 to 2000 years before they appeared in the Nile Valley. And with evidence for Bashendi cattle domestication long before it appeared in the Valley—there is no firm evidence for cattle domestication in the Nile Valley before 6000 years ago—the connection was all the more solid.

But what would prompt the Bashendi to pull up stakes and migrate from the oasis to the Nile Valley? McDonald says it was climate change, and evidence uncovered by the DOP corroborates it. Until 6500 years ago, the area around the oasis, including the village of hut circles where we stand, was teeming with giraffe, hippopotamus, hartebeest and gazelle amid lush greenery. But around that time, drought turned to full-fledged climate change, and by 6000 years ago

the rainfall had dropped to about what it is today: less than one millimeter a year. Game drifted south, and humans were forced to respond or perish. The number of Neolithic sites in the Western Desert dropped dramatically. As people fled south or gathered around the few remaining oasis water sources, Dakhleh's capacity would have been overstretched.

With communications with the peoples of the Nile Valley already established, McDonald theorizes, the Bashendi would have migrated there, bringing with them their domesticated cattle and distinctive technologies and artifacts.

The oldest center of Dakhleh is the city of Mut, where artifacts date from Roman times, above, back to pharaonic times, right. Opposite: **Although Dakhleh is today one of Egypt's most modern agricultural regions, around its older parts, animal-drawn carts are still used, harking back to the first domestications of animals more than six millennia ago.**

The same climate change also dramatically altered the flow and regular flooding of the Nile itself, changing and most likely stressing the relatively comfortable lives of the Nile-side dwellers described by Hoffman's Hieronkopolis excavations. Traditional hunting and fishing would no longer support them—particularly with the added stress of the influx of new Bashendi peoples from the west. Together with other cultures from the east of the river, an unprecedented pooling and melding of cultures began to take place that would give rise to the Predynastic cultures.

While the rise of the Egyptian state can't be traced to a single point of origin, the presence of a large number of people in one area and attempts at coping with fluctuations in food resources often leads to the emergence of strong chiefs, notes Fekri Hassan, Petrie Professor of Archaeology at University College London. Further enlargement of both agricultural and animal production then progresses to a hierarchy of chiefs, and from that, he continues, to the first political units. Skirmishes with nearby Libyans and Asiatics would have led to a reason for people to give the chiefs military power, and for the growth of iconography to underscore a system of dominance. Hassan believes that about 500 years passed between the arrival of the Bashendi and the first emergence of chiefs. "Their mystique was sustained by the obscurity of government as it became more distant from the people and by potent religious and power symbols," he writes. Along with control of agricultural production, he theorizes, it "set the stage for the political transformation of a society that culminated in the rise of kings and pharaohs."

Most archeologists now agree that the Pharaonic civilization, which began some 1500 years after the Bashendi migrations, is entirely indigenous.

Most archeologists now agree that the Neolithic Revolution of the Nile Valley was homegrown, with important, even decisive inputs from the Western Desert, and that it grew in complexity to become the Old and New Kingdoms. "Mary's work has been an outstanding contribution to our understanding of the origins of Egyptian civilization," says Hassan, who was among her early supporters. "Her work confirmed that one of the main strands in the early civilization of the Nile Valley was the contribution from the inhabitants of the Sahara."

According to discoveries so far, it was another 1500 years before the civilization that grew out of the Neolithic Revolution on the Nile would make significant ventures back west to Dakhleh again. Not too far from where we stand, a rock inscription was found a few years ago by a German expedition. It tells of a mission dispatched by Cheops and his son to search for minerals for the kingdom.

Reports must have come back positive. Dakhleh looked promising enough to justify the establishment of a permanent Old Kingdom settlement there. Mills and his wife, Lesley, also an archeologist, are now excavating a Fifth Dynasty site nearby

at Ain el-Gazzareen that dates to about 2300 BC, and which is thought to be the oldest in the region. "Long-distance traffic was going on long before then," says Mills. He thinks Ain el-Gazzareen was likely the westernmost settlement of the Dynastic period, and that it may have served as a Pharaonic "last outpost" before trading caravans headed west and north to places like Libya. Mills has found ample evidence of a large bread-making industry—thousands of broken bread molds, as well as huge quantities of animal bone. Along with water, bread and dried meat would have provisioned any convoy.

That would have been critical in such unforgiving terrain. Sand in our eyes, we take one last look around before returning to our Land Rover, well pleased with having trodden in the earliest footsteps of what would become perhaps the world's most captivating civilization.

Archeologist and free-lance writer **Graham Chandler** lives in Calgary. He can be reached at graham chandler@shaw.ca.

Michael Nelson (masrmike@gmail.com) is the Middle East regional photo manager for the European Pressphoto Agency (EPA) in Cairo.

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http://scotthaddow.com/egypt/dakhleh.htm

www.arts.monash.edu.au/archaeology/excavations/dakhleh/index.html

For Further Reading

Island of the Blessed: The Secrets of Egypt's Everlasting Oasis. Harry Thurston. 2003, Doubleday Canada, 0-385-25969-7, hb.

Secrets of the Sands: The Revelations of Egypt's Everlasting Oasis. Harry Thurston. 2004, Arcade Publishing, 1-55970-703-8, $27.95 hb.

WORLD'S OLDEST BOOK?

It was on January 20, 1988, while excavating a third-century Roman house at Kellis, part of the Dakhleh Oasis Project, that student volunteer Jessica Hallet excitedly called out to her supervisor to come and look at a piece of wood with writing on it. Colin Hope, director of the Centre for Archaeology and Ancient History at Australia's Monash University, wandered over to delicately brush sand from it. What emerged from that ancient kitchen were two wooden-paged books. One contained three speeches by the Greek orator Isocrates; however, it was the other book, underneath that one, that has garnered more attention.

The second book, dubbed the Kellis Agricultural Account Book, is a revealing record written by the manager of an agricultural estate of all the comings and goings of the business of the estate over three years. Its 1784 entries list payables and receivables, including annual obligations to the landlord, the mistress of the house and the field workers. Income items include crops like wheat, barley, chickens, figs, olive oil, honey and wine. Outgoing payments included "to Syrion, for wage," "to Father Psennouphis, for wedding gifts," "transport charge," and notes indicated how each payment was made, whether in cash or produce or both. It's an extremely important written record that can be compared to archeological remains found at the site.

The three years of the Kellis book were either 361 to 364 or 376 to 379, just before the site was abandoned. Wooden books were popular at the time, though papyrus ones were about to come into common use. A private letter, written in Greek and found in the house next door, contained an order: "Send a well-proportioned and nicely executed 10-page notebook for your brother Ision." The addressee didn't have to go far. A room adjacent to where the book was found revealed a bookmaker's workshop containing acacia-wood mallets, three cut wooden pages, a block marked for cutting and a tool box which allowed Hope to reconstruct the process of making the book.

Hope agrees that calling it "the world's oldest book" is a matter of definition. "It's certainly the oldest as *we* know a book," he says, "with a front and back cover, a pagination system and individual pages bound at the spine."

Made from a single block of acacia wood, the book's eight pages measure 33 by 11 centimeters (13" by 4"). Each page is coated with gum arabic to provide a writing surface. They're held together by tightly spun linen strings threaded through pairs of holes drilled at the top and bottom. Should the binding ever have broken, re-ordering the pages would have presented no problem: Notches along the spine line up to a perfect V when the pages are in the correct order.

The book is now safely housed in the Kharga Archeological Museum in Egypt's Kharga Oasis, near Dakhleh, where crops similar to the ones named in it are grown, and similar payments continue to be made.

For Further Reading

"The Kellis Agricultural Account Book." Roger S. Bagnall. *DOP Monograph 7*. 1997, Oxford Books.

NATURAL REMEDIES OF ARABIA

Written by Robert W. Lebling and Donna Pepperdine
Photographed by Donna Pepperdine

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These remedies have been provided by families in Saudi Arabia, Bahrain, Yemen, Oman and the United Arab Emirates, and represent past and present use of natural substances in folk healing. References to "provinces" (e.g., Eastern Province, Central Province) are to the provinces of Saudi Arabia.

The information presented is for educational purposes only and should not be relied upon for the treatment of illnesses or other physical conditions.

Whether you are in Doha, Dubai, Manama, Salalah, Jiddah or an obscure country village, when you step into an herbal medicine shop or wander through the traditional *suqs* (markets), you will find vendors of herbs, spices, bark, twigs, rocks and salt intended for culinary, cosmetic or medicinal purposes.

As you gaze at the piles of twisted bark or the varied combinations of dried flowers, you may wonder: What are these products? Where do they come from? How are they used locally?

These fascinating items whisper tales of the ancient trade routes, for many still come to Arabia from India, China, Indonesia, Egypt, Syria and other exotic locations, and are distributed across the Peninsula through existing commercial networks. Others are harvested locally, some under harsh desert conditions, and have their own fascinating stories to tell.

The people of the Arabian Peninsula have, for centuries, combined goods obtained by trade and barter with a prudent use of local plants and have developed a rich heritage of folk medicine.

Many of the natural remedies presented here are the result of a questionnaire distributed throughout the Arabian Peninsula in early 2002. The questionnaire, printed in both Arabic and English, asked families to explain how they, as well as their mothers and grandmothers, use various herbs, spices and other substances in natural healing. It also requested specific remedies for conditions such as headache, colds and coughs, sore throats, hair loss, general fatigue, childbirth and so on. We present their generous responses, which have helped to unlock many of the mysteries of local medicinal herb shops and reveal unique insights into the natural remedies of Arabia.

ALUM

Arabic: *Shabba, Shabb;* Other English: Potassium Alum, Potash Alum

First-time visitors to Middle Eastern markets may be puzzled to see piles of stones displayed prominently among the herbs and spices. One of them is alum, a crystal-white mineral often imported from China. Alum is a compound of several metals, including aluminum. It is an astringent, widely used in the Middle East to control bleeding and to clean and heal wounds. *Shabba* powder is mixed with henna for skin decoration, and when applied to the underarms, it acts as a deodorant. Alum is not ingested, nor is it used in cooking.

Did you know?

- In ancient Babylon, physicians used alum in a mouthwash, as a styptic, as a pessary for menorrhagia, as a nasal douche, and as a treatment for itchy scabs, gonorrhea and purulent ophthalmia. Greek and then Arab medical authorities continued these practices, and went on to use alum for the treatment of leprosy, bad gums, pustules and ear trouble.
- The alums are valuable in paper manufacturing, textile dyeing, fireproofing, water purification, and in medicine as astringents, styptics and emetics.
- The Alum Mountain, in Bulahdelah, Australia, is the only known above-ground outcrop of alum stone (alunite) in the world.

- Using shabba deodorant stones is considered safe and will not cause high levels of aluminum in your system. This is because potassium alum molecules have a negative ionic charge, and the aluminum is unable to pass through cell walls.
- Bauxite, the ore from which alum is drawn, can be purified and converted directly into alum.

ANISE: LINDA LEBLING

ANISE

Arabic: *Anisun, Yansun, Yansoon*
Pimpinella anisum
Umbelliferae/Apiaceae (Parsley Family)

From cookies to colds, this tiny, aromatic, gray-brown seed—often called aniseed—serves families across the Arabian Peninsula. Saudi merchants import much of their aniseed from Syria and India. Anise also grows in Egypt, Cyprus, Crete and on the Eastern Mediterranean coast.

How to use: 1) For tea, simmer one teaspoon of aniseed in a cup of water for about 10 minutes. Strain and drink; 2) Grind seeds to powder for use in baking; 3) Chew the seeds to freshen the mouth and aid digestion.

In the kitchen: Licorice-flavored aniseed provides subtle flavor to cookies and other sweets.

Remedies across Arabia: Anise is a popular folk medicine, with a long tradition in Islamic pharmacology. It is used to treat general abdominal pain, colic, indigestion, menstrual cramping, coughs and headaches. It is also believed to clean the urinary system and prevent inflammations. Anise has aromatic, diaphoretic, relaxant, stimulant, tonic, carminative and stomachic properties.

Did you know?

- Anise is sometimes confused with fennel *(Foeniculum vulgare)*, particularly the Iranian varieties, which are quite similar in appearance and flavor.
- An oil distilled from anise is what gives licorice candy its flavor.
- Anise is a key ingredient of *supari*, the digestive spice mix served after a curry meal.

ARAK

Arabic: *Arak, Rak;* Other English: Toothbrush Tree, Mustard Tree, Saltbush
Salvadora persica L.; Salvadoraceae

Have you ever wondered how people cleaned their teeth before the invention of the toothbrush? One answer is the *miswak*! A miswak (plural: *masawik*) is a fibrous stick prepared from the root of the arak tree. It has antiseptic and astringent properties which help clean and protect the teeth and gums. A high-quality miswak has a strong, pungent smell. It is pale yellow or cream in color. It is moist and flexible.

The Prophet Mohammad, founder of Islam, recommended the miswak to his followers. He used it to sweeten his breath during fasting and advised its use prior to prayer. This practice is still popular in Arabia today.

The arak is a short evergreen tree that grows in sandy and arid areas of the Middle East and Africa. Sheep and goats like to nibble its leaves.

How to use: Soak the root in water for a few hours to soften the natural fibers. Then scrape off five to 10 millimeters (¼–½") of bark from the tip and gently chew until fibers have separated and the root becomes brush-like. Clean the teeth by rubbing the miswak up and down and sideways as you would a conventional plastic toothbrush. When the fibers become overused, simply cut off the tip of the miswak, scrape off more bark and continue to use as before. To retain freshness, keep miswak in the refrigerator or soak in water.

Did you know?

- Arak roots contain triclosan, an effective antibacterial used in modern toothpastes. Other ingredients include fluoride, vitamin C, alkaloids and small amounts of tannins and flavenoids.
- A herbal toothpaste with pure miswak extract (made by a hygiene-products company in India) is currently marketed in Saudi Arabia and other countries of the region.
- Other natural toothbrush

sources, when arak is not available, include the peelo tree, the olive tree, the bitam tree, the walnut tree, the neem tree or any bitter tree that is not harmful or poisonous in any way!

ASAFETIDA

Arabic: Haltíta, Hiltít; Other English: Asafoetida, Giant Fennel, Devil's Dung, Stinking Gum, Food of the Gods
Ferula assa-foetida or F. asafoetida; Umbelliferae/Apiaceae (Parsley Family)

When the doorbell rang, Khalid knew that his grandmother had arrived with her infamous family remedy: the foul-smelling gum resin of the asafetida plant. His mind raced to find an excuse, any excuse, to avoid taking it. He felt uncertain that the effort required to swallow the bitter substance was worth the cure. Yet he knew his grandmother would be firm. Her words still echoed to him from times of past sickness: "You know, Khalid, asafetida has been used for ages as an effective medicine in the Arab world. It works mainly to improve the digestive system, but it's also used as a pain-reliever, a cough medicine and a blood thinner. We'll use it to treat your upset stomach." Khalid had no choice but to agree—and he soon felt better. In Saudi Arabia today, families still turn to asafetida as a "last-resort" treatment for coughs, colds, fevers and stomach discomfort. It is not the most popular home remedy; parents must coach their children to hold their nose and swallow quickly in order to tolerate the strong smell and bitter taste.

How to use: 1) Melt in hot water and drink; 2) Grind or crush the lump resin into powder or melt it in liquid and use sparingly as a cooking spice.

In the kitchen: Despite its sulfurous smell, asafetida, when cooked, imparts a surprisingly pleasant flavor to many foods. In Indian cuisine, it is a substitute for onion or garlic. Use in small amounts. The powdered form is milder than the resin, because it is normally blended with rice flour. The resin should be fried in hot oil before using. A pea-sized quantity is enough to flavor a large pot of lentils or vegetables. Store asafetida in an air-tight container.

Remedies across Arabia: Asafetida is available in Middle Eastern herb shops and can be purchased in lump resin or powdered form.

Did you know?

- Alexander the Great is credited with carrying asafetida west in the fourth century BC, following his expeditions into the Persian Empire (modern Afghanistan).
- The famous ancient Roman gourmet Apicius (first century) used asafetida in over half of his recipes.
- The British explorer Charles Doughty, who traveled throughout Arabia in the mid-19th century, called asafetida "a drug which the Arabs have in sovereign estimation."
- Asafetida is native to Iran and western Afghanistan.
- Modern herbalists regard asafetida as a sedative, antispasmodic and circulatory agent. It is also known to relieve intestinal and stomach upsets.
- Asafetida is much used in the Ayurvedic tradition and is also popular in Indian vegetarian cooking.
- Al-Kindi, an Islamic scholar of the ninth century, used asafetida to counter phlegm and treat sore throat, tooth pain, rheumatism and nervous conditions, and also as an aphrodisiac.
- Asafetida gets its name from the Persian *aza*, for mastic or resin, and the Latin *foetidus*, for stinking.

BANANA

Arabic: Mauz
Musa sapientum; Musaceae (Banana Family)

The banana plant is the world's largest herb. It is often mistaken for a tree, but does not have a woody trunk or boughs. It springs from an underground rhizome to form a false trunk three to six meters (10–20') high and is crowned with a rosette of 10–20 beautiful, oblong banana leaves.

History credits Arab traders with giving the banana its popular name. Although there are several hundred varieties which differ in taste, color, form and size, Arab traders noted that bananas growing in Africa and Asia were small, about the size of a man's finger, and so called them *banan*, which means "fingertips" in Arabic. "Banana" is the singular form.

Bananas are rich in potassium, riboflavin, niacin and dietary fiber. They also contain vitamins A and C and some calcium and iron. Bananas are a quick source of energy.

How to use: In banana-producing countries, vegetables and spices are sometimes wrapped in banana leaves and then steamed. Banana leaves are used as serving plates, as tablecloths and as barriers between a wood fire and a pot. They are even used for thatching roofs and making rope.

In the kitchen: Bananas can be eaten fresh or dried. The dried fruit can be ground into a nutritious banana flour. A very old and traditional breakfast in Makkah is omelet with banana. *Masoub*, also featuring the banana, is currently a popular Hijazi breakfast dish. *Kanafa* with banana is a delicious dessert.

Remedies across Arabia: For diarrhea, use cornstarch and water; yogurt; tea leaves; mashed potatoes; bananas.

Did you know?

- Hundreds of banana varieties thrive in the tropics. Bananas grow in Egypt, Yemen, Oman and other Arab countries. In the Nile River, near Luxor, Egypt, local boats sail to Gazirat al-Mauz ("Banana Island"), where visitors can sample fruits from a large banana orchard.
- The banana has been cultivated in India for at least 4000 years. Bananas are widely used in Indian folk medicine for the treatment of diabetes mellitus.

BLACK SEED

Arabic: Habba Souda, Habbat al-Barakah; Other English: Fennel Flower, Black Cumin
Nigella sativa; Ranunculaceae (Buttercup Family)

Native to the Mediterranean and grown throughout the Middle East and parts of Asia, *Nigella sativa* is cultivated for its seeds, which are known as the "seeds of blessing." For the Arabs, black seed is not only a food but also a valued traditional medicine that has long been used to treat such ailments as asthma, flatulence, polio, kidney stones, abdominal pain and so on. It has served as an important health and beauty aid for thousands of years.

According to tradition, the Prophet Muhammad described black seed as a cure for every disease except death. The great physician Ibn Sina (980–1037), better known as Avicenna, stated that black seed works as an expectorant, stimulates the body's energy and helps overcome fatigue and dispiritedness.

How to use: 1) Eat black seeds plain; 2) Eat a teaspoon of black seed mixed with honey; 3) Boil black seed with water. Strain and drink; 4) Heat black seed and warm milk until it just begins to boil. Remove from heat. Cool, then drink; 5) Grind black seed and swallow it with water or milk; 6) Sprinkle on bread and pastries; 7) Burn black seed with *bukhoor* (incense) for a pleasant scent.

In the kitchen: Black seed is aromatic with a slight peppery flavor. It is one of the distinct flavors of Arab pastries. It is often sprinkled on breads and cheese. It is heated with milk for flavor. It is eaten ground with honey or with cakes and pastries.

Remedies across Arabia: In Arabia, black seed remains a traditional remedy for asthma, coughs, stomach aches, abdominal pain, colic, general fatigue, rheumatism, mouth and larynx diseases, skin diseases and cancer. It is also believed to strengthen a mother after childbirth; stimulate menstruation, urination and liver functions; aid digestion; dissolve kidney stones; and increase intelligence. Black seed is used to beautify skin, nourish hair and stimulate hair growth.

Did you know?

- Black seed was found in Tutankhamen's tomb. This suggests that black seed had an important role in ancient Egypt, since it was customary to place in tombs items needed for the afterlife.
- In the Old Testament, the prophet Isaiah contrasts *Nigella* (black cumin) with wheat. (See Isaiah 28: 25, 27.)

CARAWAY

Arabic: Karawya, Karawiya
Carum carvi; Umbelliferae/Apiaceae (Parsley Family)

Some botanists say that caraway is the world's oldest known herb. It is mentioned in the Bible and other ancient texts, and has been found in European archeological excavations dating back 8000 years. In the spice markets of Arabia, caraway can be found alongside her sister spices of anise (*yansoon*), fennel (*shamr*) and cumin (*kamun*). You need only ask for *karawiya* (from which we get the English word *caraway*) to take some home. Caraway is grown throughout Europe, the Mediterranean area, North Africa, Asia and North America.

Did you know?

- Caraway seed is the spice which gives rye bread its characteristic flavor.
- Caraway is important in Tunisian cuisine and is sometimes an ingredient of *harissa*, a fiery North African condiment made from dried hot peppers.
- Caraway leaves may be used as a herb in salads and as a garnish, while its seeds may be used as a spice in breads, cheese spreads, pastas and vegetable and fruit dishes.
- Dioscorides, a Greek physician in the first century, recommended oil of caraway be rubbed into skin to improve a pale girl's complexion.
- Caraway is a biennial. It grows as a small green plant the first year and then up to 60 centimeters (2') tall the second year, producing small white and apple-green flowers and fruit. The fruit, commonly called seeds, can be separated from the plant when ripe and then dried in the sun.
- Most experts believe the word *caraway* comes originally from the Greek word *karon*, which means cumin! Caraway and cumin seeds are very similar in appearance. Arabic borrowed the word as *karawiya*, which medieval Latin transformed into *carui* or *carvi* (as in *Carum carvi*).

CARDAMOM

Arabic: Hal, Hail; Other English: Cardamom, Lesser Cardamom, Small Cardamom, Malabar Cardamom
Elettaria cardamomum; Zingiberaceae (Ginger Family)

Imagine an ancient trade caravan moving slowly up the Frankincense Trail in western Arabia toward the Mediterranean. The spices and aromatics burdening the camels could be from Yemen, East Africa, India or distant China. Although anticipating lucrative exchanges with merchants of the Mediterranean, caravaners also stop in villages along the way where both villagers and Bedouins are eager to barter. Exchanging goat meat, fresh produce or woven baskets, the local tradesmen obtain the cardamom necessary to flavor traditional Arabic coffee.

Native to India and Sri Lanka, cardamom is a well-loved spice in the Arabian Peninsula. Arab coffee is heavily flavored with it. In fact, cardamom is a valuable ingredient in Middle Eastern cuisine: in beverages, sweets, pastries and main dishes.

How to use: 1) Bruise cardamom pods until partially open; remove cardamom seeds from their pods; gently bruise seeds or dry-fry over gentle heat to release their flavor; or 2) Grind seeds into powder.

In the kitchen: Cardamom is a vital ingredient in Arabian coffee making. Its flavor can be added to the beverage by grinding cardamom pods and adding the powdered cardamom to already brewed coffee. Cloves, saffron, sugar, *nakhwa* (See page 19.) or rose water are also sometimes added for flavor. "Sweet coffee," which doesn't contain any coffee at all, is a traditional drink from the Hijaz. It is a wonderful, warm beverage with a pleasant cardamom flavor. It is served on special occasions such as graduation day, which is the day students receive their grade cards.

Remedies across Arabia: A member of the ginger family, cardamom is a carminative and a stimulant. It warms the body and helps relieve indigestion and gas.

Did you know?

- Cardamom is one of the most expensive spices in the world. This is because each individual fruit pod containing the desired seed spice must be harvested from its flower stalk by hand. Flower stalks must be carefully examined and re-examined as the fruit pods develop at different rates. Harvested while still green and firm, the pods are then dried and sold.
- About 1000 years ago, the Vikings discovered cardamom in their explorations and conquests around the Mediterranean. They introduced this spice to Scandinavia, where it is still used extensively in baking spiced cakes and breads.
- Cardamom was one of the most popular Oriental spices in ancient Roman cuisine.
- Ground cardamom can soften a plastic spoon left in it for several days.

CAMOMILE

Arabic: Babunaj, Babunij; Other English: Chamomile German Chamomile: Matricaria recutita, Matricaria chamomilla Saudi Chamomile: Matricaria aurea; Asteraceae (Aster Family)

One thing every Bedouin, villager and city dweller can tell you is that camomile tea is relaxing and aids digestion. Along with this fact comes the widespread belief that the best *babunaj* comes from the north. As a result, packaged herbal teas from Syria and Jordan are popular supermarket items. These medicinal teas feature camomile but may also contain coriander, black seed, anise, rose, lemon balm, hibiscus, thyme or sage.

How to use: Use the flower heads to brew a medicinal tea.

In the kitchen: Many families keep camomile readily available. To make camomile tea, boil water and then pour one cup of the water over four teaspoons of dried flowers. Infuse for five to 10 minutes and then strain. Add honey for a sweeter taste and drink the tea warm.

Remedies across Arabia: Camomile is a valued nervine, carminative and general tonic. Camomile tea is well-known for settling the stomach and aiding digestion after a meal. It is also relaxing and can help promote sleep

Did you know?

- In 1656, John Parkinson wrote, "Camomill is put to divers and sundry uses, both for pleasure and profit, both for the sick and the sound, in bathing to comfort and strengthen the sound and to ease pains in the diseased."
- Al-Kindi used camomile in a strong dressing for the spleen and in an application to relax the liver and stomach.
- Camomile tea is used in the Levant to strengthen a mother after childbirth.
- Camomile is used in perfumes, soaps, bath oils, skin-care products and in shampoos to add luster to blonde hair.
- With a reputation as a mild bleach, camomile has been used to lighten blonde hair by pouring two cups of boiling water over a handful of camomile flowers and infusing for 30 minutes. After shampooing the hair, rinse several times with this camomile infusion while it is still warm. It is a very pleasant hair rinse.

CUCUMBER

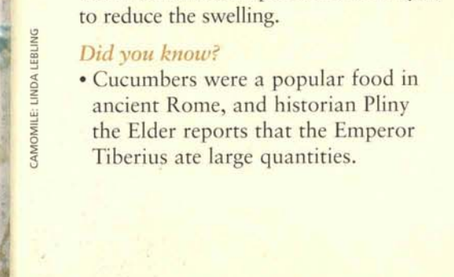
Arabic: Khiyar Cucumis sativus; Cucurbitaceae (Gourd Family)

Cucumbers are produced on small farms throughout the Arabian Peninsula and sold in local fruit and vegetable markets. Cucumbers have long been known in eastern and western traditional medicine as one of the best natural diuretics. The effect is in the seeds, which are rich in sulfur, silicon and potassium.

Cucumbers originated in Asia, probably in India, and spread into Europe about 3000 years ago. Today Indian medicine prescribes cucumber juice for an array of ailments, including constipation, stomach disorders, urinary problems, rheumatism and even cholera.

How to use: 1) Slice or finely chop the cucumber to add to salads; 2) Slice, grate or mash the cucumber for use in skin-care applications.

In the kitchen: Middle Eastern cuisine would not be the same without the cucumber. Traditional salads, such as *fattoush* and *tabbouleh*, call for this fruit



posing as a vegetable, as does the popular yogurt and cucumber salad, which complements and cools rice and meat dishes. Sliced cucumbers and tomatoes, drizzled with lemon juice and garnished with fresh mint and parsley, form the renowned cucumber and tomato salad. Arranged decoratively on a serving plate, it is a simple yet healthy choice.

Remedies across Arabia: Suparna Trikha, one of India's leading natural beauty experts, advised that the juice made from cucumber skin can be a soothing lotion and skin cleanser. She also suggested grating cucumber and massaging the pulp into the skin and leaving it to dry. Splashing fresh water and gently wiping the face after 10 minutes or so is a good way to slow the advance of wrinkles. Additionally, cucumber slices are put on swollen eyes, to reduce the swelling.

Did you know?

- Cucumbers were a popular food in ancient Rome, and historian Pliny the Elder reports that the Emperor Tiberius ate large quantities.
- The cucumber is a fruit because it contains the seeds to reproduce. Botanically speaking, a fruit is the mature ovary of a plant, such as a cucumber, apple, melon or tomato.
- Cucumbers, along with squash, melons and pumpkins, belong to the group of vegetables known as cucurbits, or vine crops.

FRANKINCENSE

Arabic: Luban; Other English: Olibanum, Oil of Lebanon Boswellia sacra or B. carteri or B. thurifera; Burseraceae (Frankincense and Myrrh Family)

Frankincense is crystallized tree sap—a hardened gum or resin exuded by a small tree that grows in the coastal regions of the southern Arabian Peninsula and nearby coastal East Africa. In ancient times, frankincense was a precious commodity, sometimes more valuable than gold. Merchants brought this treasure to the great civilization centers of Europe and Western Asia by sea and by a land trail through Yemen and up the Arabian Red Sea coast to the Levant. In Saudi Arabia and other Gulf countries, frankincense is used as incense today, though not in religious ceremonies.

How to use: 1) Chew as a gum. This is a popular use as frankincense has a mild, pleasant taste and helps to eliminate bad breath. 2) Suck on a granule to relieve nausea; 3) Soak frankincense granules in water and drink the strained liquid; 4) Burn as incense for a pleasant scent or waft on clothing.

Did you know?

- Frankincense comes in five main colors: white, pale lemon, pale amber, pale green and dark amber. The color of the gum resin is influenced by its harvest time. A whiter gum is collected closer to autumn, whereas a darker color is harvested closer to spring.
- Although the frankincense gathering season lasts from May through mid-September, the product is available year-round in traditional local markets of the Middle East.
- Due to unique climatic conditions, the best frankincense is produced by trees growing in the mountainous Dhofar region of Oman. In addition to Oman, frankincense today is grown in Yemen, Ethiopia, Somalia and India.
- In the days of the pharaohs, frankincense trees were imported into Egypt, where they were grown for the gum, which was burned in religious rituals.
- Tenth-century Persian physician Ibn Sina (known to the West as Avicenna) recommended using frankincense in treatments for tumors, ulcers, vomiting, dysentery and fever.
- Frankincense today remains an ingredient in various incense mixtures burned in rituals of the Roman Catholic and Orthodox churches.
- Western herbalists regard frankincense essential oil as an anti-inflammatory, antiseptic and astringent, and say it is useful as a uterine tonic during pregnancy and labor.
- Charred frankincense has been used to make kohl, the black powder traditionally used by women in the Middle East to paint their eyelids.

GARLIC

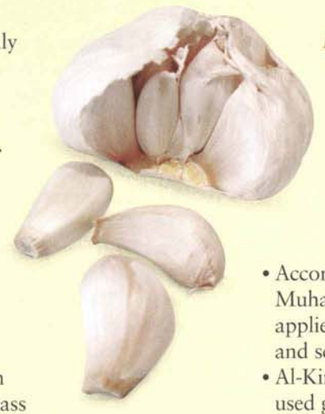
Arabic: Thum, Thoom Allium sativum; Alliaceae (Onion Family)

Botanist David Hooper, in his survey of useful plants in Iran and Iraq in the 1930's, observed that garlic was the potherb *par excellence* of the East—not only was it used in a dizzying array of culinary dishes, but it also aided digestion and was a gastric stimulant. If anything, Hooper's comment was an understatement. We now know garlic has a wealth of other medicinal properties to complement its enduring value as a cooking herb.

Garlic, a bulbous perennial, probably originated in Central Asia, the only place where it grows wild. (There are other plants in other lands referred to as "wild garlic"; they are part of the *Allium* genus but are not true garlic, *A. sativum*. Garlic has edible flowers

CAMOMILE: LINDA LEBLING

but it is primarily grown for its bulbs, each of which contains 12 to 20 cloves. Garlic has been cultivated by humans from time immemorial. Hundreds of varieties have spread out from Asia to encompass the globe.



How to use: 1) Crush, chop or use garlic cloves whole to flavor dishes; 2) Bake, roast or grill a bulb of garlic. When softened, squeeze out the pulp from the individual cloves to eat; 3) Mash the softened pulp of baked garlic to form a smooth paste and use it in soups, sauces and dips. Alternatively, grind fresh garlic to a paste with a mortar and pestle.

In the kitchen: Garlic is a much appreciated ingredient in both *hummus bi tahina* (chickpea and sesame puree) and *baba ghannouj* (eggplant and sesame puree), two popular dips with Arab bread.

When frying, use enough olive oil or butter to coat the pan and stir often. Garlic burns quickly if cooked over high heat.

Store garlic in a cool, dark pantry. Garlic stored in the refrigerator quickly dries out and rots.

Remedies across Arabia:

- Use garlic for ant bites. (Northern Province)
- Use a clove of garlic to relieve the pain of a bee sting. (United Arab Emirates)
- Use an ointment made of ground garlic on a wound even if it hurts, since this prevents gangrene. Also, you can clean wounds by mixing ground garlic in warm water and washing the wound with it to kill the microbes. (Eastern Province)
- Rub a raw garlic clove on the spot where a scorpion stings you, and it will heal. (Eastern Province)
- My grandmother used garlic to kill warts and prevent them from reappearing. (Bahrain)

Did you know?

- The Greek historian Herodotus, during a tour of Egypt, reported seeing an inscription on the Great Pyramid at Giza that recorded the quantities of radishes, onions and garlic consumed by the laborers who constructed it.
- According to tradition, the Prophet Muhammad recommended garlic, applied topically, to remedy viper bites and scorpion stings.
- Al-Kindi, the medieval Arab physician, used garlic in a drug for treating earaches and other diseases of the ear.
- Despite garlic's known antibiotic activity, and despite Internet rumors to the contrary, there have been no scientific studies showing garlic has any effect against anthrax.

MYRRH

Arabic: Murr, Murrah
Commiphora myrrha or C. molmol or Balsamodendron myrrha; Burseraceae (Frankincense and Myrrh Family)

Myrrh is collected from the stems of bushy shrubs found growing in southern Arabia and Somalia. A granular secretion exits the stem through natural fissures, or cuts, as a pale yellow liquid. It then hardens to a reddish-brown mass. It can be found in different sizes in the marketplace, most pieces being the size of large marbles or walnuts.

The word *myrrh* means "bitter" in Arabic. Myrrh is one of the best antiseptics known, an astringent and a stimulant.

How to use: 1) Soak myrrh granules in water for two to three days and then drink the strained liquid; 2) Swallow small granules like pills; 3) Burn as incense.

Remedies across Arabia:

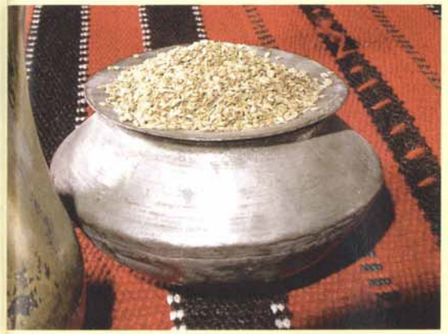
- Although it doesn't taste very good because it is so bitter, myrrh is used to alleviate inflammation in the body.
- Myrrh water is an excellent mouthwash and is helpful for mouth sores or blisters, sore throats, bronchial congestion and other conditions requiring an antiseptic astringent.
- For burns, soak myrrh in a small amount of water. It is put on burns to reduce scars and to help in quickly healing wounds and to remove warts. (Southern Province)
- In the past, myrrh oil was wiped on a new baby's navel. (Bahrain)
- Myrrh is very good to have if you have external cuts. It makes them get better quickly. (Central Province)
- We use myrrh for so many uses, for example to treat sores, appendicitis pain after operation, boils, stomach aches and the colon. Soak myrrh stones in water. Then place the water on the area of pain for boils, or drink it. (Central Province)
- Myrrh is used to help healing of wounds, minor burns and wounds of simple surgical operations. (Southern Province)

Did you know?

- Ancient Egyptians wore unguent cones saturated with myrrh, marjoram, sweet flag or lotus. They put the cones on their heads in the morning, and as the day grew hot, the cones would slowly melt, running down the body, keeping the skin moist and repelling insects throughout the day.
- Myrrh is an oil referenced throughout the Old and New Testaments. The Arabian people used it for many skin conditions, such as wrinkled, chapped and cracked skin. It has one of the highest levels of sesquiterpenes, a class of compounds that has direct effects on the hypothalamus, pituitary and amygdala, the seat of our emotions. Myrrh is widely used today in oral hygiene products.
- The Muslim physician al-Razi (Rhazes), perhaps the greatest of all medieval clinicians, used myrrh to treat ailments of the kidneys and bladder, to dissipate swellings in the stomach and for colic.
- In Egypt today, traditional medicine practitioners use myrrh as a stimulant, expectorant, antispasmodic, emmenagogue, antiputrescent and astringent. It is also used to treat dental caries and inflamed gums.
- Myrrh is a fixative, meaning it increases the longevity of the aroma of any fragrance it is combined with but doesn't dominate or overpower that fragrance.
- Scientific tests have shown myrrh to possess significant antibacterial and anti-inflammatory properties.

NAKHWA

Arabic: Nakhwa, Nankha or Nanakhwah; Hindi: Ajwain or Ajowan; Other English: Bishop's-Weed
Trachyspermum ammi, Carum ajowan, Carum copticum, Ammi copticum
Umbelliferae/Apiaceae (Carrot/Celery/Parsley Family)



MYRRH: FALEH AL-KHASHRAM; NAKHWA: STEPHEN L. BRUNDAGE; PETROLEUM: BOB LAPSLEY

Used as medicine by the ancient Greeks and Arabs, nakhwa is still considered a natural remedy. You can buy the aromatic seeds as well as a distillate.

How to use: 1) Release the aroma of the seeds before use by rubbing between your fingertips, crushing with a mortar and pestle or gently stirring while warming in a frying pan; 2) Use seeds whole or grind them into powder form.

In the kitchen: Nakhwa is sometimes added to traditional Arab coffee. In addition to providing a unique flavor, it is believed to soften the impact of coffee on the stomach and reduce the effects of caffeine. In fact, some people across Arabia drink nakhwa as a substitute for Arab coffee to totally eliminate negative coffee effects.

Did you know?

- Like black seed (*Nigella sativa*), nakhwa is a popular ingredient in many herbal medicinal blends.
- The ancient Sumerians described nakhwa as a "plant of the mountain."
- Nakhwa is grown in Pakistan, Afghanistan, Iran, India and Egypt.
- Though more commonly cultivated today in Asia, nakhwa is actually of African origin, and some Arabs call it "Ethiopian cumin" (*al-kammun al-habashi*).
- Al-Kindi (ca. 800–870) used nakhwa in a preparation for hemorrhoids.
- Nakhwa seeds yield 40 to 55 percent thymol, a valuable crystalline phenol extracted for medicinal purposes. In the West, thymol is used in some cough medicines.

PETROLEUM

Arabic: Naft, Batrul

Although few people are aware of it today, petroleum was once considered an effective natural remedy not only in the Middle East but in many parts of the world. Oil upwellings and gas vents were known anciently in present-day Kuwait, Iraq, Iran, Azerbaijan, Turkmenistan and Uzbekistan. Natural deposits of thickened petroleum (also called "bitumen") seeped from openings on land or floated to the surface of lakes. It was easy to gather and was used as a building material, waterproofing material, lubricant, adhesive, medicine, fuel, illuminant and fumigant, and even as a weapon.

How to use: The All-Encompassing Dictionary (Al-Qamus al-Muhit), written in Makkah in the 15th century by Abu Tahir al-Fayruzabadi, a scholar of Persian descent, reveals that oil was commonly sold as medicine and as a fuel for lighting, and that it was used as an incendiary in a type of military flame thrower.

In the kitchen: Petrolatum—a neutral, odorless, tasteless unguent distilled from petroleum and then purified—is sometimes used in bakery products as a release agent. Petrolatum meets modern US Food and Drug Administration requirements for medicinal, cosmetic-formula and animal-feed use, and is also approved for direct contact with food.

Remedies across Arabia: Descriptions of petroleum's healing powers date from 2000 years ago, although its traditional medicinal use is probably much older. Oil-and-water baths were supposed to strengthen the body. Ointments of bitumen and other chemicals were often applied to sores or broken bones. Other petroleum preparations acted as antidotes to poison, fumigants, disinfectants or laxatives.

The Book of the Powers of Remedies, a medical text prepared by Masarjawah, a prominent physician living in Basra, Iraq, during the seventh century, described the benefits of ingesting oil for fighting disease and infection. Masarjawah wrote: "Warm naphtha, especially water-white naphtha, when ingested in small doses, is excellent for suppressing cough, for asthma, bladder discomfort and arthritis."

The All-Encompassing Dictionary states, "The best grade of naphtha is the water-white. It is a good solvent, a diluent and an expectorant. Taken internally, it relieves cramps and aches of the belly, and, when applied topically, it can soothe the skin rashes and infections."

Vicks VapoRub, a nasal decongestant, cough suppressant and topical analgesic, contains petrolatum, and other salves, suppositories and cosmetic products also benefit from the consistency contributed by petrolatums.

Did you know?

- Akkadian clay tablets from about 2200 BC referred to crude oil as *naptu*, from which derives the root of the Arabic *naft*.
- William Rockefeller, father of John D. Rockefeller, sold bottles of raw petroleum to country folk as a cure for cancer.
- Petroleum is used today in homeopathic medicine to treat motion sickness, eczema and other skin problems, nausea and diarrhea.

POMEGRANATE

Arabic: Rumman
Punica granatum; Lythraceae/ Punicaceae

While native to Iran and its neighboring countries, the pomegranate was cultivated in ancient times all around the Mediterranean and throughout the Arabian Peninsula. It is a deciduous tree or large shrub that produces excellent fruit under semiarid conditions.

How to use: 1) Eat the fleshy seeds to enjoy a delicious, slightly tart flavor; 2) Dry the seeds and use in cooking; 3) Extract the juice from the seeds for a refreshing drink or as a flavoring agent in cooking; 4) Dry the outer peelings and crush them for culinary, cosmetic or medicinal purposes. 5) Boil pomegranate peelings in water, then strain and drink the liquid; if more concentrated, the liquid can be used as a dye for clothes; 6) Dry the peelings, then grind and mix with henna to make it darker and provide skin nourishment.

In the kitchen: Pomegranate seeds have a sweet-sour taste. Crushed or whole, they often garnish salads, couscous, hummus and other Middle Eastern dishes. Dried pomegranate seeds and pomegranate syrup are also popular in cooking. Pomegranate juice is a refreshing drink on hot summer days. Pomegranate juice stains indelibly, so it's wise to wear protective clothing when cooking with it.

Remedies across Arabia: Powdered pomegranate peelings are used on burns and to treat infection on external cuts and wounds. Soaked pomegranate peelings are used for sore throats, stomach aches and indigestion. To treat indigestion, pomegranate peelings are dried, then boiled, and the water drunk. Rose water can be added for flavor. Pomegranate soaked in boiled water is used with honey for heart trouble.

Did you know?

- Pomegranate seeds are rich in vitamin C and are a good source of dietary fiber.
- Commercially produced pomegranate syrup is called grenadine.
- The Romans called the pomegranate fruit *punicum*, the Latin name for Carthage, because they believed that the best pomegranates came from there.
- The Spanish name for the pomegranate is *granada*, and its fruit appears on Granada's city seal.
- Pomegranate is believed to be the inspiration for the hand-tossed explosive called a grenade. When a pomegranate is dropped on a hard surface, it bursts and seeds are tossed everywhere. The military borrowed the modern French name for the fruit, *grenade*.

SAFFRON

Arabic: Za'faran, Za'fran
Crocus sativus; Iridaceae (Iris Family)

Saffron refers to the dried, red stigmas collected from the flowers of *Crocus sativus*. Its high price is better understood when we learn that some 75,000 flowers are required to make one pound of dried saffron. Commercial

producers of saffron today include Spain, Iran and India. Native to the Middle East, saffron was introduced to Europe by the Muslim Arabs and Berbers of northwest Africa, who conquered most of Spain in the eighth century. From Spain, known as al-Andalus to the Arabs, saffron was carried to Italy and France, where it became popular. Although not completely new to the British Isles, saffron was brought back to England by the crusaders of the 13th century. Historically, saffron has been used for medicine, perfume, dye and as a cooking spice.

How to use: The stigmas produce a bright yellow or orange color when added to water. If a recipe requires ground saffron, one can crush or grind it to a powder. Be sure it is evenly distributed when added to the recipe. Sifting the ground saffron with the dry ingredients is one way to insure a good mix.

If using whole saffron threads, soak them for about 10 minutes in a warm liquid required by the recipe, such as milk, water or broth. The color and flavor of the stigmas will be released into the liquid. A pinch of saffron to a cup of liquid yields enough color and flavor for about half a kilo (1 lb) of rice. A little saffron goes a long way.

In the kitchen: Saffron can add taste and color to breads, chicken and rice dishes.

Did you know?

- Comparing the beauty of his beloved to a garden, Solomon (The Song of Solomon 4:14 in the Old Testament) lists saffron, cinnamon, frankincense and myrrh as some of the plants cultivated in this metaphor. We sense the magnitude of his admiration because these plant products commanded very high prices in ancient markets.
- Today, saffron remains the most expensive spice in the entire world.
- Scholars studying frescoes at Thera, a Greek island in the Aegean, believe the wall paintings (dating from 1500 or 1600 BC) depict a goddess presiding over the manufacture and use of a drug from the saffron flower. This suggests that saffron has been used as a medicine for at least 3500 years.

POMEGRANATE: STEPHEN L. BRUNDAGE; SAFFRON: LINDA LEBLING; WALNUT BARK: STEPHEN L. BRUNDAGE

THYME

Arabic: Za'tar, Sa'tar, Hasha'
Thymus vulgaris; Lamiaceae (Mint Family)

When dining in the Middle East, it is customary to dip bread in olive oil and then in *za'tar* for a delicious taste. Although *za'tar* is the word for *thyme* in the Arabic language, it is also a term which describes a Middle Eastern spice blend of powdered dried thyme, sumac and sesame seeds. Each region makes za'tar a little differently.

How to use: 1) Use fresh green thyme leaves when called for in recipes; 2) Use dried thyme leaves as part of the aromatic spice blend called za'tar; 3) Sprinkle za'tar (fresh thyme or the spice blend) on meatballs or vegetables; 4) Use the za'tar spice blend with olive oil as a dip for bread.

In the kitchen: Flat breads with toppings of melted cheese and za'tar, *labna* and za'tar, or za'tar alone are unspeakably delicious. Store za'tar in an airtight container away from direct light.

Remedies across Arabia: A general remedy for colds, flu, fevers, coughs and bronchitis is to take four to five cups of thyme tea a day. Thyme is antiseptic, antispasmodic and antifungal. It is also an expectorant and vermifuge (worm expeller).

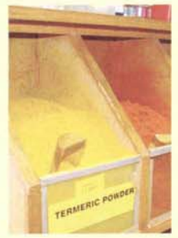
Did you know?

- Five millennia ago, the Sumerians used thyme as an antiseptic.
- The ancient Egyptians employed thyme as an ingredient in the mummification process.
- The Arab philosopher-scientist al-Kindi (800–870) used thyme in a medicine to treat a bacterial infection or rash called St. Anthony's Fire (erysipelas).
- The Islamic physician al-Razi (865–925) regarded thyme as an appetite enhancer, stomach purifier and treatment for flatulence.
- Thyme is widely grown commercially for its leaves and essential oils.
- Thyme is one of a small number of herbs that have more flavor dried than fresh. Others are rosemary and oregano.

TURMERIC

Arabic: Kurkum
Curcuma longa, C. domestica; Zingiberaceae (Ginger Family)

Often called "Indian saffron," turmeric rhizome was one of the ancient trade products brought by sea from India. Today turmeric is widely used as a spice, cosmetic and dyestuff, and remains part of traditional medicine from Egypt to Iran.



How to use: 1) Slice, grate, chop or grind turmeric to a paste with other ingredients. Then use it as you would fresh ginger root; 2) Grind dried turmeric into powder; 3) Use whole pieces of dried turmeric in pickling.

In the kitchen: Slicing a piece of turmeric rhizome reveals the deep yellow color used to brighten curry powders and a variety of foods. When coloring rice dishes, it is also sometimes a substitute for saffron. But it is easier to buy ready-ground turmeric than to grind it yourself. Wear rubber gloves when handling fresh turmeric to avoid staining your hands.

Did you know?

- In Indian cuisine, turmeric is an ingredient of virtually all curry powders.
- Because turmeric is an edible coloring, the food industry uses it to color mustard, butter, cheese and liqueurs.
- Turmeric is used to dye cotton and silk.
- Al-Kindi used turmeric in a medicine for throat and mouth pustules, and in a dentifrice to strengthen the gums.
- The US Patent and Trademark Office in 2001 rejected six attempts to patent the medicinal properties of turmeric. The office said turmeric is a centuries-old Indian discovery and cannot be patented.

WALNUT BARK

Arabic: Deerum
Juglans spp.; Juglandaceae (Walnut Family)

A container filled with thin bark strips folded up and tied into bundles is another curiosity at a traditional market. Although not widely used nowadays, it is a reminder of the traditional self-reliance and ingenuity of peoples of the Arabian Peninsula during times of more limited resources.

How to use: 1) Chew the end of the bark until soft; 2) Rub the bark vigorously on lips for a natural dark brown lipstick; 3) Use the bark as a toothbrush to clean teeth and gums.

Remedies across Arabia: The bark of the walnut tree is astringent and cleansing. It strengthens the gums and acts as an anti-inflammatory. It has been used to treat gum disease.

Did you know?

- Pliny reported that walnut trees were introduced into Italy from Persia, and Varro, who was born in 116 BC, mentioned that walnut trees were growing in Italy during his lifetime.
- Walnut bark is a traditional source of yellow-brown dye.

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THE SÜLEYMANIYE MOSQUE

PHOTOGRAPHED BY BARRY GROSS AND MICHAEL GROSS

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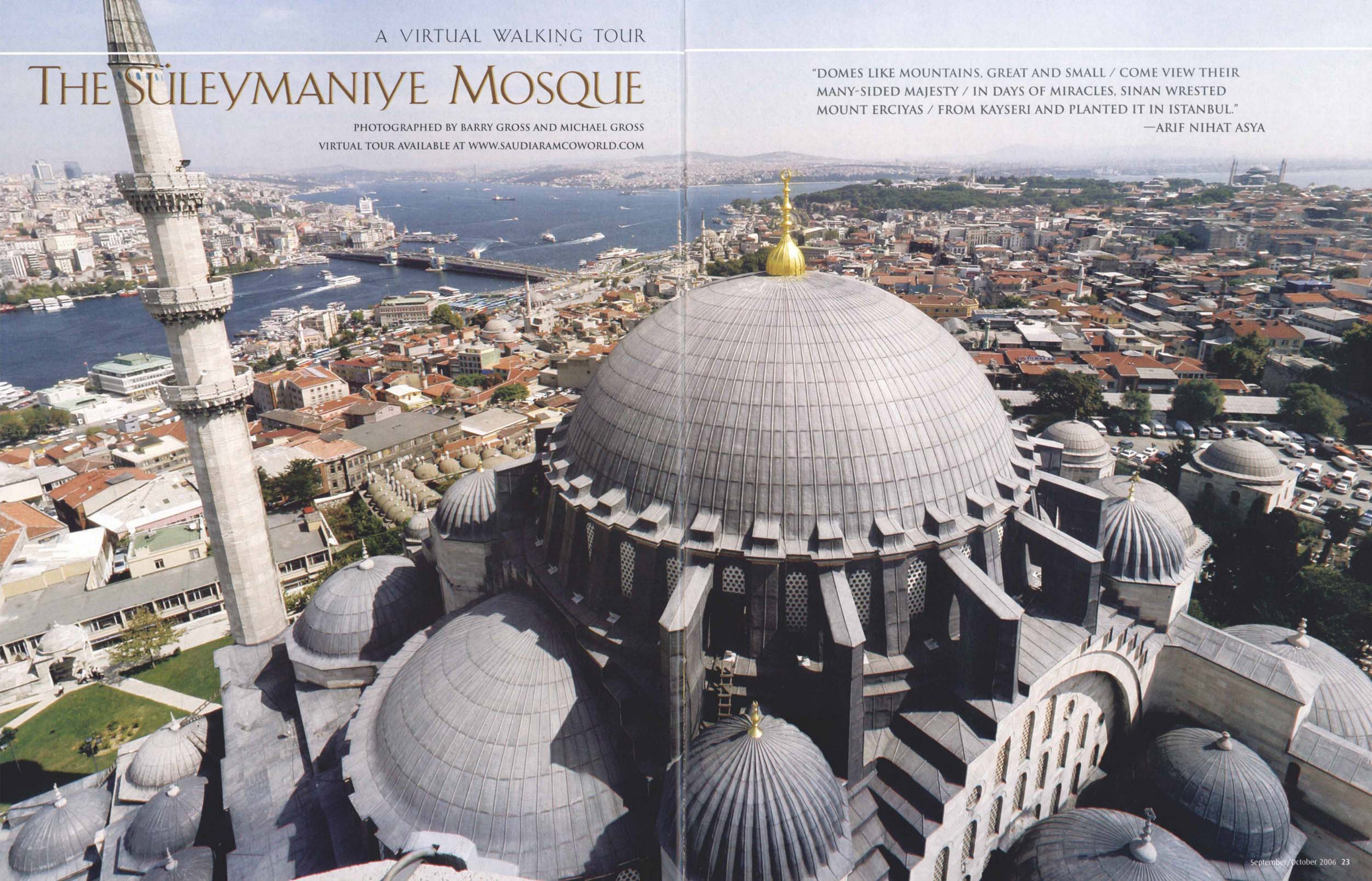
—ARIF NIHAT ASYA



VISIT WWW.SAUDIARAMCOWORLD.COM TO FIND SPHERICAL PANORAMIC PHOTOGRAPHS THAT EXPLORE ISTANBUL'S MOST FAMOUS MOSQUE.

From 1538 to 1588, Mimar Sinan ("Architect Sinan"—the name by which he is known in Turkey) served as chief architect to the Ottoman court. He completed his largest and most famous mosque in 1557 for sultan Süleyman I "The Magnificent." Like the nearby Byzantine Hagia Sophia, the Süleymaniye Mosque is comprised of a huge central dome that rises from four piers; around it, smaller arches and domes echo it and, when pierced with windows, cast light from each side. This creates a great openness while at the same time emphasizing height. The overall effect is one of proportional balance on an awe-inspiring scale, of spatial unity and—as befits a house of God—spiritual tranquility.

Saudi Aramco World is pleased to offer its second "virtual walking tour" using spherical panoramic photographs that place you in the center of an image, allowing you to "look around" much as you would if you were standing in the mosque. Like our first "virtual walking tour" featuring the Alhambra (in the July/August 2006 issue), this one has been made possible by a partnership with the Department of Art at Williams College, which commissioned the photographers to digitally document more than 120 masterpiece buildings in the US and Europe. We hope you will enjoy "visiting" the Süleymaniye Mosque. If you have comments about our virtual tour, we invite you to write to us through the Web site at www.saudiaramcoworld.com/about.us/feedback.htm.

—The Editors

Barry Gross (bagross@gmail.com) and **Michael Gross** (mbgross@gmail.com) have produced virtual-reality projects for Williams College, the Williams College Museum of Art, the University of Virginia, the University of Southern California at Los Angeles and *Saudi Aramco World*. This year they were visiting fellows at the University of Virginia, where they coordinated the writing of a guide for digital panoramic photography of cultural-heritage sites. Barry lives in Boston; Michael lives in Portland, Oregon.

Special Thanks

E.J. Johnson, Ph.D., Class of 1955 Memorial Professor of Art, Williams College

Andrew W. Keating, Williams College Class of 2002

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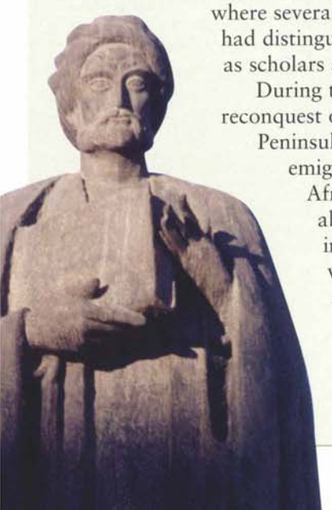
Ottoman art (Topkapı) M/A 87; J/F 95
Sultan Süleyman J/A 87
Modern Istanbul J/A 90

Written by Caroline Stone

Ibn Khaldun and the Rise and Fall of Empires

ABU ZAYD 'ABD AL-RAHMAN IBN MUHAMMAD IBN KHALDUN AL-HADHRAMI, 14TH-CENTURY ARAB HISTORIOGRAPHER AND HISTORIAN, WAS A BRILLIANT SCHOLAR AND THINKER NOW VIEWED AS A FOUNDER OF MODERN HISTORIOGRAPHY, SOCIOLOGY AND ECONOMICS. LIVING IN ONE OF HUMANKIND'S MOST TURBULENT CENTURIES, HE OBSERVED AT FIRST HAND—OR EVEN PARTICIPATED IN—SUCH DECISIVE EVENTS AS THE BIRTH OF NEW STATES, THE DEATH THROES OF AL-ANDALUS AND THE ADVANCE OF THE CHRISTIAN RECONQUEST, THE HUNDRED YEARS' WAR, THE EXPANSION OF THE OTTOMAN EMPIRE, THE DECLINE OF BYZANTIUM AND THE GREAT EPIDEMIC OF THE BLACK DEATH. ALBERT HOURANI DESCRIBED IBN KHALDUN'S WORLD AS "FULL OF REMINDERS OF THE FRAGILITY OF HUMAN EFFORT"; OUT OF HIS EXPERIENCES, ARNOLD TOYNBEE WROTE, "HE CONCEIVED AND CREATED A PHILOSOPHY OF HISTORY THAT WAS UNDOUBTEDLY THE GREATEST WORK EVER CREATED BY A MAN OF INTELLIGENCE...." SO GROUNDBREAKING WERE HIS IDEAS, AND SO FAR AHEAD OF HIS TIME, THAT A MAJOR EXHIBITION NOW TAKES HIS WRITINGS AS A LENS THROUGH WHICH TO VIEW NOT ONLY HIS OWN TIME BUT THE RELATIONS BETWEEN EUROPE AND THE ARAB WORLD IN OUR OWN TIME AS WELL. —THE EDITORS



Ibn Khaldun was born in Tunis in 1332 to a family who had emigrated there following the Christian conquest of Seville nearly a century earlier. At that time, North Africa was in a state of political turbulence under the rule of the Morocco-based Marinid dynasty. To the east in Turkey, the Ottomans were beginning their rise to a half-millennium of empire, and still further east, the future conqueror Timur was born around the same time as Ibn Khaldun. The Black Death was stalking west from Central Asia toward the Mediterranean. Left: A modern statue of Ibn Khaldun stands in the center of his native city.

HIS LIFE

Ibn Khaldun's ancestors were from the Hadhramawt, now southeastern Yemen, and he relates that, in the eighth century, one Khaldun ibn 'Uthman was with the Yemeni divisions that helped the Muslims colonize the Iberian Peninsula. Khaldun ibn 'Uthman settled first at Carmona and then in Seville, where several of the family had distinguished careers as scholars and officials. During the Christian reconquest of the Iberian Peninsula, the family emigrated to North Africa, probably about 1248, eventually settling in Tunis. There Ibn Khaldun was born on May 7, 1332. He received an excellent classical education, but when he was 17, the plague, or Black Death, reached the city. His parents and several of his

BIBLIOTECA NACIONAL DE MADRID; OPPOSITE, TOP: BRAUN AND HOGENBERG, *CIVITATES ORBIS TERRARUM* / BRIDGEMAN ART LIBRARY; LEFT: HELENE ROGERS / ALAMY

Scientific knowledge passed from the classical to the Muslim world and back again to the West through Spain and Byzantium. This transmission, which in part inspired the Renaissance, is beautifully exemplified in this 14th-century frontispiece to the Greek translation of the *Zad al-Musafir* by Ahmad ibn al-Jazzar (died 961). The work was a compilation of medical knowledge from Aristotle onward and was one of the leading reference books in medieval Europe. Ibn al-Jazzar appears at the bottom right; on the left is his translator, Constantine de Regio (also known as Constantine the African). The upper scene may show St. John of Damascus with that city in the background.

The Great Plague, or Black Death, swept from Central Asia to Europe, killing an estimated one-third of the population wherever it spread. It reached Tunis in 1348 when Ibn Khaldun was 17; its victims included his parents and several of his teachers. These losses, together with the ensuing social and economic chaos, deeply affected him.

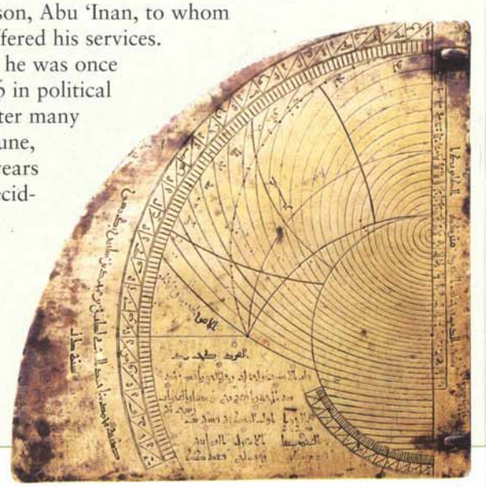
teachers died. The terrible epidemic that struck the Middle East, North Africa and Europe in 1347–1348, killing at least one-third of the population, had a traumatic effect on the survivors. Its impact showed in every aspect of life: art, literature, social structures and intellectual life. It was clearly one of the experiences that shaped Ibn Khaldun's perception of the world.

ALTHOUGH IBN KHALDUN REPEATEDLY EXPRESSED THE WISH TO DEVOTE HIS LIFE TO SCHOLARSHIP, THE POLITICAL WORLD CLEARLY FASCINATED HIM. OVER AND OVER HE SUCCUMBED TO ITS TEMPTATIONS.

Tunis was not only ravaged by the Black Death, but had also been reduced to political chaos by its occupation between 1340 and 1350 by the Marinids, the Berber dynasty that ruled Morocco. At 20, Ibn Khaldun set out for Fez, the Marinid capital, the liveliest court in North Africa. On the strength of his education, he was offered a secretarial position, but left before long. Although some historians regard his departure as disloyal, it is more likely he was fleeing the general political disintegration.

This was to be a pattern in Ibn Khaldun's life. He was constantly tempted to become involved in murky political intrigues which, combined with the extreme instability of most of the ruling dynasties, meant that he had little choice but frequent changes of master. These experiences, like those of the Black Death, were instrumental in shaping his outlook.

After a number of moves, he found himself back in Fez, where the previous Marinid ruler had been supplanted by his son, Abu 'Inan, to whom Ibn Khaldun offered his services. Soon, however, he was once again caught up in political turmoil, and after many changes of fortune, including two years in prison, he decided to withdraw to Granada in 1362. The roots of this decision went back several years.



In 1359, the ruler of Granada, Muhammad ibn al-Ahmar, had been forced to flee to Fez together with his vizier, Ibn al-Khatib, one of the most famous scholars of the age. There they had met Ibn Khaldun. A warm friendship had developed, so that when, in turn, Ibn Khaldun had to escape from similarly dangerous politics, he was received in Granada with honors. Two years later, in 1364, Ibn Khaldun was sent by Ibn al-Ahmar to Seville on a peace mission to King Pedro I of Castile, known as "Pedro the Cruel." In his *Autobiography (Ta'rif)*, Ibn Khaldun describes how Pedro offered to return his family estates and properties to him, and how he refused the offer. This contact with a Christian power was another watershed experience. He reflected not only on his own family's past, but also on the changing fate of kingdoms—and above all on the historical and theological implications of the reassertion of Christian power in Iberia after more than five centuries of Muslim hegemony.

Later, personal clashes with Ibn al-Khatib, probably fueled by a mixture of jealousy and court intrigue, drove Ibn Khaldun back to the turmoils of North Africa. He had repeatedly expressed the wish to devote his life to scholarship, but the political world clearly fascinated him. Over and over he succumbed to its temptations; in any case, so well-known a figure was unlikely to be left in peace to study.

In spite of their differences, Ibn Khaldun continued to correspond with Ibn al-Khatib, and several of these letters are cited in his *Autobiography*. He also tried to save his friend when, largely as a result of court intrigue, Ibn al-Khatib was brought to trial, accused of heresy for contradicting the *'ulama*, the religious authorities, by insisting that the plague was a communicable disease. His situation can be compared with that of Galileo nearly three centuries later, but with a less happy outcome: Ibn al-Khatib was strangled in prison at Fez in the late spring of 1375.

Ibn Khaldun was much affected by his friend's death, not only personally, but also because of the political and religious implications of such an execution. Not long afterward, he withdrew to the Castle of Ibn Salamah, not far from Oran in Algeria. There, for the first time, he could really dedicate himself to study and reflect on what he had learned from books, as well as on his often bitter experience of the violent and turbulent world of his day.

THE BLACK DEATH

"Civilization both in the East and the West was visited by a destructive plague which devastated nations and caused populations to vanish. It swallowed up many of the good things of civilization and wiped them out. It overtook the dynasties at the time of their senility, when they had reached the limit of their duration. It lessened their power and curtailed their influence. It weakened their authority. Their situation approached the point of annihilation and dissolution. Civilization decreased with the decrease of mankind. Cities and buildings were laid waste, roads and way-signs were obliterated, settlements and mansions became empty, dynasties and tribes grew weak. The entire inhabited world changed. The East, it seems, was similarly visited, though in accordance with and in proportion to [the East's more affluent] civilization. It was as if the voice of existence in the world had called out for oblivion and restriction, and the world responded to its call."

—tr. Rosenthal

The fruit of this period of calm was the *Muqaddimah* or *Introduction* to his *Kitab al-'Ibar* (*The Book of Admonitions* or *Book of Precepts*, also often referred to as the *Universal History*.) Although these are really one work, they are often considered separately, for the *Muqaddimah* contains Ibn Khaldun's most original and controversial perceptions, while the *Kitab al-'Ibar* is a conventional narrative history. Ibn Khaldun continued to rewrite and revise his great work in the light of new information or experience for the rest of his life.

He spent the years from 1375 to 1379 at the Castle of Ibn Salamah, but at last felt the need for intellectual companionship—and for proper libraries in which to continue his research.

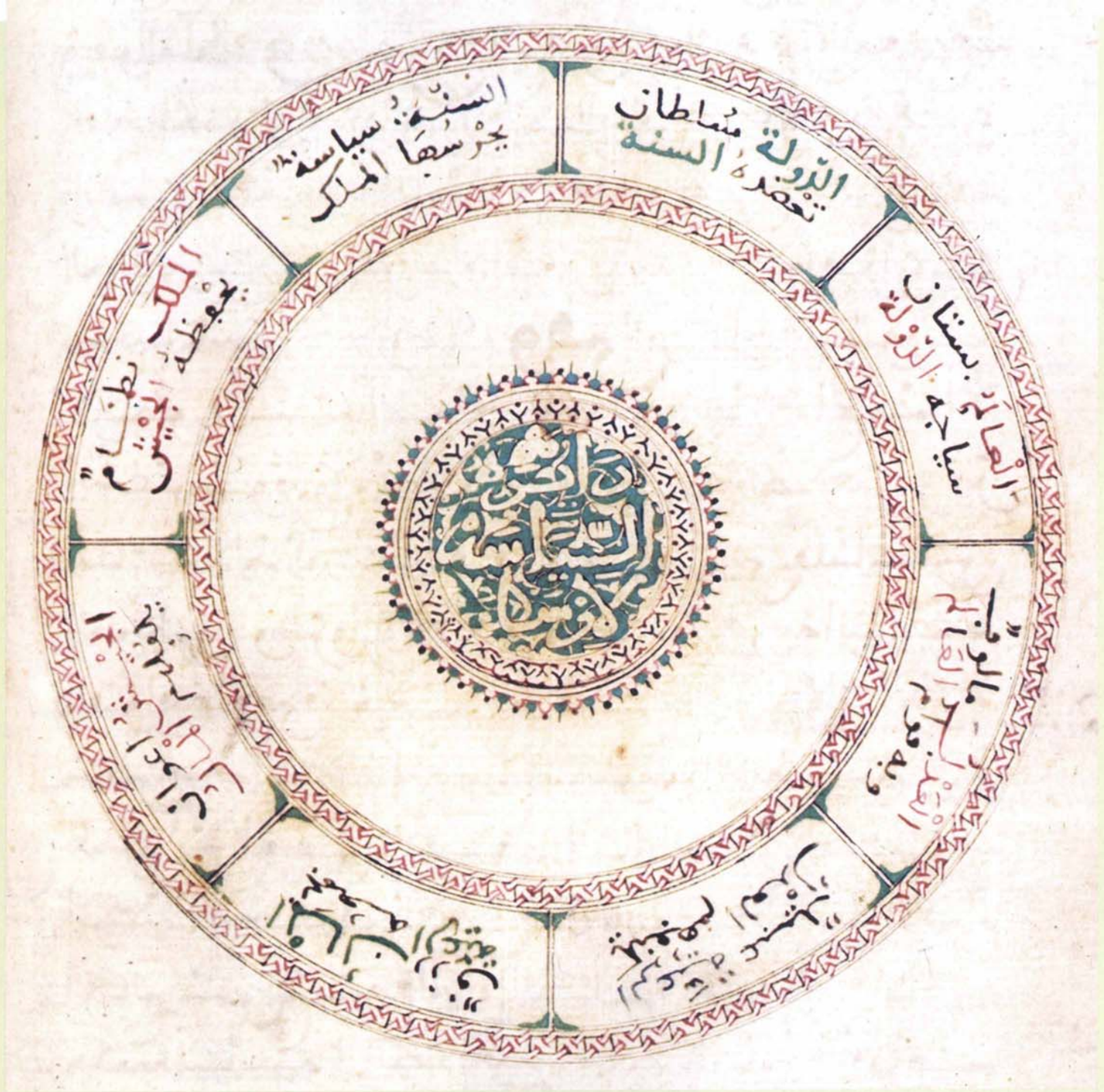
At the age of 47, Ibn Khaldun returned again to Tunis, where "my ancestors lived and where there still exist their houses, their remains and their tombs." He planned to travel no more and to settle down as a teacher and scholar, eschewing all political involvement.

That was not so easy. Some considered his rationalist teachings subversive, and the imam of al-Zaytunah Mosque in Tunis, with whom he had been on terms of rivalry since his student days, became jealous. To make matters yet more difficult, the sultan insisted that Ibn Khaldun remain in Tunis and complete his book there, since a ruler's status was greatly enhanced by attracting learned men to his court.

The situation finally became so tense and so difficult that in 1382 Ibn Khaldun

ROYAL MUSEUM OF ART AND HISTORY, BRUSSELS / EL LEGADO ANDALUSÍ; OPPOSITE, TOP: GILLES LE MUSIT / ROYAL LIBRARY OF BELGIUM; LOWER: DAVID COLLECTION, COPENHAGEN / EL LEGADO ANDALUSÍ

Right: **This helmet bears the name of the Mamluk sultan Ibn Qala'un, who ruled from Cairo a century before Barquq, the sultan who appointed and dismissed Ibn Khaldun as chief justice on several occasions.** Opposite: **A brass astrolabe-quadrant made by Muhammad ibn Ahmad al-Mizzi, a 13th-century scholar living in Damascus. Al-Mizzi was the author of a number of astronomical writings, of which seven have survived.**



"The Circle of Aristotle's Politics" depicted in Ibn Khaldun's *Muqaddimah* sums up the principles of medieval statecraft. The eight panels read: "The world is a garden fenced by the state; the state is power supported by law (*sunna*); law is the policy which guides the ruler; the ruler is order protected by the army; the army are supporters sustained by money; money is sustenance produced by subjects; subjects are servants protected by justice; justice is ingrained, the support of the world." (Translation by Paul Lunde.)

BRITISH LIBRARY; OPPOSITE: DICK DOUGHTY (2)

asked permission to leave to perform the *hajj*, the pilgrimage to Makkah—the one reason for withdrawal that could never be denied in the Islamic world. In October he set out for Egypt. He was immensely impressed by Cairo, which exceeded all his expectations. There, the Mamluk sultan Barquq received him with enthusiasm and gave him the important position of *qadi*, or justice, of the Maliki school of Islamic law.

This, however, proved to be no sinecure. In his *Autobiography*, Ibn Khaldun describes how his efforts to combat corruption and ignorance, together with the jealousy aroused by the appointment of a foreigner to a top job, meant that once again he found himself in a hornets' nest. It was something of a relief when the sultan dismissed him in favor of the former *qadi*. In fact, before the end of his life, Ibn Khaldun was to be appointed and dismissed no fewer than six times.

Ibn Khaldun was married and had children; he had a sister who died young—her tombstone survives—and his brother Yahya ibn Khaldun was also a very distinguished historian. However, we know very little about his personal life: It was not the Muslim, and in particular not the Arab, custom to include personal details in one's writings. We do know, however, that at about this time, Ibn Khaldun's family and household, which was essentially being held hostage at Tunis for his return, were given permission to join him in Cairo. This was at the personal request of Barquq, whose letter is quoted in the *Autobiography*. But the boat carrying his family went down in a tempest off Alexandria, and no one survived.

Three years passed. Ibn Khaldun dedicated himself to teaching and then at last set out to perform the *hajj* in 1387 with the Egyptian caravan. Ibn Khaldun says little of his pilgrimage, but he mentions that at Yanbu' he received a letter from his old friend, Ibn Zamrak, many of whose poems are inscribed on interior walls of the Alhambra. Ibn Zamrak, then the confidential secretary of the ruler of Granada, asked among other things for books from Egypt. It is one more example of how Ibn Khaldun maintained his intellectual contacts all across the Arabic-speaking world.

On his return to Cairo, Ibn Khaldun held various teaching posts, but from 1399 the cycle of political appointments and dismissals began again. The scholar had already witnessed at first hand the political upheavals caused by the various Berber dynasties in North Africa, as well as the success of the Christian powers in reducing the Muslim kingdoms in the Iberian Peninsula. Now he was about to witness another example of the rise and fall of empires, this time with an epicenter farther to the east than he had ever traveled.

In 1400, Ibn Khaldun was compelled by Barquq's successor, Sultan al-Nasir, to travel to Damascus, where he took part in the negotiations with the Central Asian conqueror Timur, the Turco-Mongol ruler known in the West as Tamerlane. The aim was to persuade Timur to spare Damascus. Ibn Khaldun describes his conversations with Timur in some of the most interesting pages of his *Autobiography*.

THE CONTENTS OF THE MUQADDIMAH

1. *Human society, its kinds and geographical distribution.*
2. *Nomadic societies, tribes and "savage peoples."*
3. *States, the spiritual and temporal powers, and political ranks.*
4. *Sedentary societies, cities and provinces.*
5. *Crafts, means of livelihood and economic activity.*
6. *Learning and the ways in which it is acquired.*

—tr. Issawi

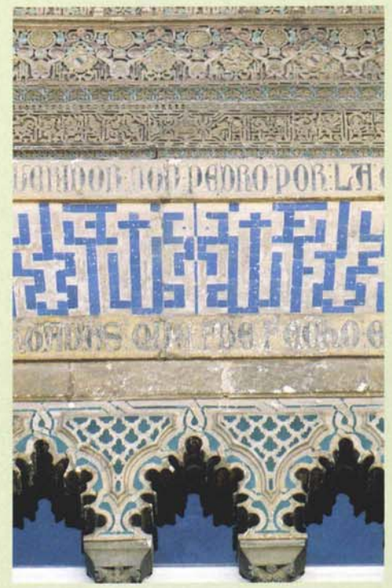
In the end, however, the Egyptian diplomatic delegation was unsuccessful. Timur did sack Damascus and from there went on to take Baghdad, with great loss of life. The following year, Timur defeated the Ottomans at Ankara, taking their Sultan Beyazit prisoner. These events are described by the Spanish traveler Ruy Gonzáles de Clavijo, who went out to Samarkand in 1403 as ambassador to Timur.

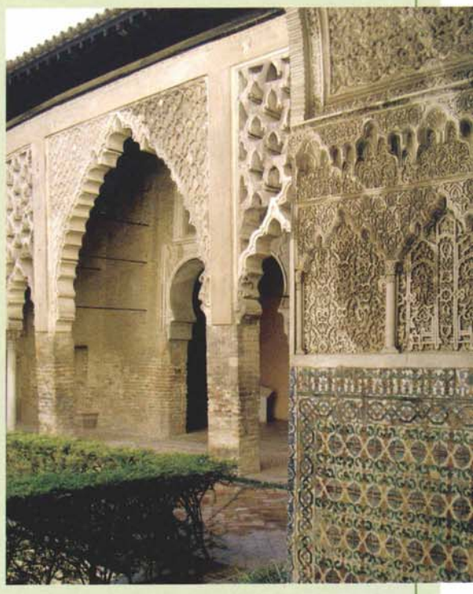
Ibn Khaldun's *Autobiography* continues for no more than a page or two after his return from Damascus, and he mentions only his appointments and dismissals. Although he never returned to Tunis, he continued to think of himself as a westerner, wearing until the last the dark *burnous* that is still the national dress of North Africa. He continued to revise and correct his great work until his death in Cairo on March 16, 1406—600 years ago this past spring.

HIS WORK

Ibn Khaldun's most important work was *Kitab al-'Ibar*,

In 1364, Ibn Khaldun journeyed to Seville, seat of the Christian monarch Pedro I, king of Castile, whose magnificent Real Alcázar ("Royal Palace") was then close to completion. Left: Pedro's name is inscribed on the façade of his palace above tilework by Muslim *mudejar* artisans: an inscription in stylized "mirrored Kufic," which is reflected on either side of the centerline of this image. Right: the delicately carved arches of the Patio del Yeso (Patio of the Stuccoes).





REMBRANDT HARMENSZ. VAN RIJN / LOUVRE / BRIDGEMAN ART LIBRARY

In 1400, at the age of 67 or 68, Ibn Khaldun was compelled by the Mamluk sultan al-Nasir to travel to Damascus in an effort to convince the Turco-Mongol conqueror Timur to spare the city. But the talks failed, and Damascus was mercilessly attacked.

THE NEW SCIENCE

"This science then, like all other sciences, whether based on authority or on reasoning, appears to be independent and has its own subject, viz. human society, and its own problems, viz. the social phenomena and the transformations that succeed each other in the nature of society.... It seems to be a new science which has sprung up spontaneously, for I do not recollect having read anything about it by any previous writers. This may be because they did not grasp its importance, which I doubt, or it may be that they studied the subject exhaustively, but that their works were not transmitted to us. For the sciences are numerous, and the thinkers belonging to the different nations are many, and what has perished of the ancient sciences exceeds by far what has reached us."

—tr. Issawi

and of that the most significant section was the *Muqaddimah*. Such "introductions" were a recognized literary form at the time, and it is thus not surprising that the *Muqaddimah* is both long—three volumes in the standard translation—and the repository of its author's most original thoughts. *Kitab al-'Ibar,* which follows, is much more conventional in both content and organization, although it is one of the most important surviving sources for the history of medieval North Africa, the Berbers and, to a lesser extent, Muslim Spain.

In the early 19th century, western scholars, already admirers of such Muslim thinkers as the philosopher Ibn Rushd, whom they knew as Averroes, became aware of the *Muqaddimah*, probably through the Ottoman Turks. They were struck by its originality—all the more so because it was written at a time when political and religious authority were exerting increasing pressure against independent thought, resulting in a decline of original scholarship. In this context, Ibn Khaldun's interest in a whole range of subjects that today would be classified as sociology and economic theory, and his wish to create a new discipline to accommodate them, came as a particular surprise to scholars in both the Arab world and the West.

Many of the subjects that Ibn Khaldun discusses are not, however, new preoccupations. They had also concerned both Greek thinkers and earlier Arab writers, such as al-Farabi and Mas'udi, to whom Ibn Khaldun refers frequently. The question of how much access Ibn Khaldun had to Greek sources in translation is still being debated, and in particular whether he had read Plato's *Republic*. But Ibn Khaldun's originality lies not in the fact he was conscious of these problems, but in his awareness of the complexity of their interrelationships and the need to study social cause and effect in a rigorous way.

It is in this way that Ibn Khaldun took his place in a chain of intellectual development. Although his work was not followed up by succeeding generations, and indeed met with some disapproval and even censure, the great Egyptian historian al-Maqrizi perhaps chose his career as a result of his acquaintance with Ibn Khaldun, and he developed some of Ibn Khaldun's ideas. It was, however, the Ottoman Turks who took the most interest in his theories concerning the rise and fall of empires, since many of the points he discusses appeared to apply to their own political situation.

OVERCROWDING AND URBAN PLANNING

"The commonest cause of epidemics is the pollution of the air resulting from a denser population which fills it with corruption and dense moisture.... That is why we mentioned, elsewhere, the wisdom of leaving open empty spaces in built-up areas, in order that the winds may circulate, carrying away all the corruption produced in the air by animals and bringing in its place fresh, clean air. And this is why the death rate is highest in populous cities, such as Cairo in the East and Fez in the West."

—tr. Issawi

In the *Muqaddimah*, Ibn Khaldun's central theme is why nations rise to power and what causes their decline. He divides his argument into six sections or fields. (See box, page 33.) At the beginning, he considers both source material and methodology; he analyzes the problems of writing history and notes the fallacies which most frequently lead historians astray. His comments are still relevant today.

Another aspect of Ibn Khaldun's originality is his stress on studying the realities of human society and attempting to draw conclusions based on observation, rather than trying to reconcile observation with preconceived ideas. It is interesting that at the time Ibn Khaldun was writing, the humanist movement was well under way in Europe, and it shared many of the same preoccupations as Ibn Khaldun, in particular the great importance of the interaction between people and their physical and social environment.

One of Ibn Khaldun's basic subjects is still being debated, and it is of the greatest relevance in the increasingly multicultural societies of today: What is social solidarity, and how does a society achieve it and maintain it? He argues that no society can achieve anything—conquer an empire or even survive—unless there is internal consensus about its aims. He does not argue in favor of democracy in any recognizable form (which suggests he may not have had intimate knowledge of the Greek political theorists), and he assumes the need for strong leadership, but it is clear that, to him, a successful society as a whole must be in agreement as to its ultimate goals.

IBN KHALDUN HOPED THAT THE VIGOR AND SOLIDARITY OF TIMUR'S HORDES WOULD REUNITE THE MUSLIM WORLD, BUT HE WAS QUICKLY DISILLUSIONED.

He points out that solidarity—he uses the word *'asabiyah*—is strongest in tribal societies because they are based on blood kinship and because, without solidarity, survival in a harsh environment is impossible. If this

During the six-month exhibition commemorating Ibn Khaldun and taking place on the 600th anniversary of his death, the façade of Pedro I's Palace is illuminated with projections of images that recall the life and culture of the historian's times.

solidarity is joined to the other most powerful social bond, religion, then the combination tends to be irresistible.

Ibn Khaldun perceives history as a cycle in which rough, nomadic peoples, with high degrees of internal bonding and little material culture to lose, invade and take resources from sedentary and essentially urban civilizations. These urban civilizations have high levels of wealth and culture but are self-indulgent and lack both "martial spirit" and the concomitant social solidarity. This is because those qualities have become unnecessary for survival in an urban environment, and also because it is almost impossible for the large number of different groups that compose a multicultural city to attain the same level of solidarity as a tribe linked by blood, shared custom and survival experiences. Thus the nomads conquer the cities and go on to be seduced by the pleasures of civilization and in their turn lose their solidarity and come under attack by the next group of rough and vigorous outsiders—and the cycle begins again.

Ibn Khaldun's reflections derive, of course, from his experiences in a radically unstable time. He had seen Arab civilization overrun in some parts of the world and seriously undermined in others: in North Africa by the Berbers, in Spain by the Franks and in the heartlands of the caliphate by Timur and his Turco-Mongol hordes. He was well aware that the Arab empire had been founded by Bedouin who were, in terms of material culture, much less sophisticated than the peoples of the lands they conquered, but whose *'asabiyah* was far more powerful and who were inspired by the new faith of Islam. He was deeply saddened to watch what he saw as a cycle of conquest, decay and reconquest repeated at the expense of his own civilization.

As Ibn Khaldun developed his themes through the *Muqaddimah*, he presented many other innovative theories relating to education, economics, taxation, the role of the city versus the country, the bureaucracy versus the military and what influences affect the development of both individuals and cultures. It is in these themes that we find echoes of al-Mas'udi's *Kitab al-Tanbih wa al-Ishraf*, where he considers the factors that shape a nation's laws: the nature of authority and the relationship between spiritual and temporal powers, to name only two.

It is worth remembering that, besides having witnessed a particularly turbulent period of history, Ibn Khaldun also had much practical experience of politics on both national and international levels. Furthermore, his various terms of duty as a *qadi* in Cairo gave him, as he claimed, insight into the problems of battling corruption and ignorance in a cosmopolitan environment, mindful of the "moral decadence" he believed to be one of the great threats to civilization. His conclusions were, as he tells us in his *Autobiography*, based on practical knowledge and direct observation, as well as academic theory.

It would be hard for any book to live up to the standard set by the *Muqaddimah*, and indeed *Kitab al-'Ibar* does not. Although it is an invaluable source for the history of the Muslim West, it is less remarkable in other fields, and Ibn Khaldun did not share al-Mas'udi's lively and unbiased interest in the non-Muslim world. Other blank spots are all the more surprising in that Ibn Khaldun was living in Cairo with access to excellent libraries and bookshops.

On the other hand, there were occasions when he made great efforts to establish facts accurately. It must have required courage to ask Timur himself to correct the passages in the *'Ibar* that referred to him! Timur was of great interest to Ibn Khaldun, who hoped the conqueror might be the one to provide the social solidarity needed for a renaissance of the Muslim and, especially, the Arab worlds—but it was a short-lived hope.

Ibn Khaldun wrote a number of other books on purely academic subjects, as well as early works which have vanished. His *Autobiography*, although lacking personal details, contains extremely interesting information about the world in which he lived and, of course, about his meetings with Pedro and Timur.

Ibn Khaldun's strength was thus not as a historian in the traditional sense of a compiler of chronicles. He was the creator of a new discipline, *'umran*, or social science, which treated human civilization and social facts as an interconnected whole and would help to change the way history was perceived, as well as written.

THE PERNICIOUS EFFECTS OF DOMINATION

"A harsh and violent upbringing, whether of pupils, slaves or servants, has as its consequence that violence dominates the soul and prevents the development of the personality. Energy gives way to indolence, and wickedness, deceit, cunning and trickery are developed by fear of physical violence. These tendencies soon become ingrained habits, corrupting the human quality which men acquire through social intercourse and which consists of manliness and the ability to defend oneself and one's household. Such men become dependent on others for protection; their souls even become too lazy to acquire virtue or moral beauty. They become ingrown. ...This is what has happened to every nation which has been dominated by others and harshly treated." —tr. Issawi

EL LEGADO ANDALUSI (3)

Above: **This small statue, lent by the Correr Museum of Venice, represents Antonio Venier, Doge of the Venetian Republic from 1382 to 1400, in the century after Marco Polo. He was responsible for reviving Venice's economy after the Black Death and negotiating with the Mamluks to make the city Egypt's most important trading partner; at this period Ibn Khaldun was resident in Cairo. The statue is displayed in the Real Alcázar's Hall of the Ambassadors, where Ibn Khaldun may have been received by Pedro I.** Right: **The exhibition was officially opened on May 19 by Queen Sofía and King Juan Carlos I (center left and right), who still use the Real Alcázar as their residence in Seville and for ceremonial occasions. Joining them was Amre Moussa, secretary general of the League of Arab States (left) and Mohamed El Fatah Naciri, head of the League's mission in Madrid, as well as leaders from Algeria, Egypt, Morocco, Qatar and Tunisia.**

THE EXHIBITION

Ibn Khaldun: The Mediterranean in the 14th Century: The Rise and Fall of Empires

The exhibition marking the 600th anniversary of the death of Ibn Khaldun could not be held in a more evocative place than Seville's Real Alcázar (Royal Palace). Not only is it a most beautiful backdrop, but it is a building that Ibn Khaldun himself knew. He walked through the same rooms where the exhibition is being held today, and he stood in the great Audience Chamber when he met Pedro I "The Cruel" on his peace mission from the sultan of Granada in 1364.

That is, of course, if the rooms were complete, for in 1364 the palace was partly under construction by the Christian king "in the Moorish manner," decorated with Arabic calligraphy by Muslim craftsmen in the style called *mudejar*. For Ibn Khaldun it must have been a strange experience to revisit the city where his ancestors had held high office and to walk through older areas of the palace, such as the Patio del Yeso (Patio of the Stuccoes), which they would have known.

Opened by King Juan Carlos and Queen Sofía of Spain and attended by royalty and dignitaries from many countries, the commemorative exhibition is dedicated to the world of Ibn Khaldun, placing him in the context of his age and doing much to explain his particular preoccupation with the rise and fall of empires.

Apart from manuscripts, some in his own hand, and his sister's tombstone, little survives that is directly connected with Ibn Khaldun, although the writings of his friend Ibn al-Khatib are represented. Nevertheless, from around all the Mediterranean, a dozen or more countries have contributed items to build up the picture of the material world he would have known: plates such as those he might have used, mosque lamps, a traveler's writing box, a set of nesting glasses, some beautiful examples of Granada silk and more.

In one section of his *Autobiography*, Ibn Khaldun wrote at length about the gifts he arranged to be sent to certain rulers on various occasions. These were an essential part of the diplomatic exchanges of the day, and fine silks played an important role. He also described his hunt for suitable presents to give Timur: He chose a one-volume copy of the *Qur'an* with an iron clasp, a pretty prayer rug, a copy of a famous poem (*al-Burdah*) and four boxes of his favorite Egyptian sweets—which he tells us were immediately opened and handed round. Similar items are on display.

The world of Ibn Khaldun is also brought alive by photographs or architectural details of buildings he would have known, from the street on which he is believed to have lived in Tunis to the Castle of Ibn Salamah, now in ruins, where he retired for four years of relative peace to write his great work. The *madrasah*s, where he taught all across North Africa and in Cairo, are represented too—including, of course, al-Azhar, the great center of Islamic learning still functioning today.

The Christian world is also present to remind the visitor of what was going on in Europe in terms of art and intellectual achievement during the period Ibn Khaldun was writing. There are objects from China and Central Asia too, for besides the struggles for power among the Berber dynasties in North Africa and the Christian attempt to drive the Muslim colonizers from Spain, the great threat to civilization as Ibn Khaldun saw it was in fact posed by Timur. Hence the Central Asian steppe was an important part of the world picture from which his theories of the rise and fall of empires was formed.

Taking advantage of Seville's warm summer nights, the exhibition stays open until midnight. This enables visitors to wander through the courtyards of the palace, watch the moon reflect in the ornamental pools and inhale the scent of jasmine—a plant introduced by the Arabs and which Ibn Khaldun would have known.

In the evenings, a play about Ibn Khaldun is performed in the gardens, and across the façade of the palace there is a striking play of projected images: knights in armor, Mamluk horsemen, depictions of Dante and Timur, calligraphy in both Arabic and Latin, maps and landscapes taken from illuminated manuscripts.

One of the most remarkable achievements of this exhibition is its fine catalogue, coordinated under the auspices of the Granada-based El Legado Andalusí and the José Manuel Lara Foundations. It is in two volumes, with one dedicated specifically to the exhibition and the other a compilation of articles on aspects of Ibn Khaldun and his world written by scholars from a wide range of universities. (Fittingly, Ibn Khaldun's home city of Tunis is particularly well represented.) It is, in fact, an anthology of the most up-to-date scholarship on Ibn Khaldun and his world.

Particularly interesting is the analysis of his manuscripts by Jumaâ Cheikha of the University of Tunis, who shows that the oft-repeated statement that Ibn Khaldun was not valued in the Muslim world is untrue: 195 surviving copies of his various books may not seem like much in the light of modern print runs, but by medieval standards it indicated success. Many works by more recent authors have come down to us in not more than a single copy.

As an homage to Ibn Khaldun, and one that would surely have given him pleasure, the organizers and especially Jerónimo Páez López, founder of El Legado Andalusí, have gone to immense trouble to ensure that places associated with Ibn Khaldun are all represented and different aspects of his world covered. It is very much to be hoped that the plans for the exhibition to travel to a number of different locations will come to fruition. ⊕

Copies of medical treatises and other works of science and history dating to Ibn Khaldun's time are tangible reminders that—despite the turbulence of the 14th century—it was also a time of advances in knowledge and of fruitful cross-cultural exchange.

Above: **A small bowl from Persia, made of painted and glazed ceramic, dates from the 14th century.** Top: **Detail from the personal standard of the Marinid sultan Abu al-Hasan 'Ali, taken at the Battle of Salado in 1340. The invading army was defeated by the allied forces of Castile, led by Pedro I's father, and Portugal.**

BOWL: CALOUSTE GULBENKIAN MUSEUM, LISBON / EL LEGADO ANDALUSÍ; STANDARD: TOLEDO PRIMATE CATHEDRAL / EL LEGADO ANDALUSÍ; OPPOSITE: EL LEGADO ANDALUSÍ

TAXES

"In the early stages of the state, taxes are light in their incidence, but fetch in a large revenue; in the later stages the incidence of taxation increases while the aggregate revenue falls off. ...Now where taxes and imposts are light, private individuals are encouraged to actively engage in business; enterprise develops, because businessmen feel it worth their while, in view of the small share of their profits which they have to give up in the form of taxation. And as business prospers the number of taxes increases and the total yield of taxation grows. However, governments become progressively more extravagant and start to raise taxes. These increases [in taxes and sales taxes] grow with the spread of luxurious habits in the state, and the consequent growth in needs and public expenditure, until taxation burdens the subjects and deprives them of their gains. People get accustomed to this high level of taxation, because the increases have come about gradually, without anyone's being aware of exactly who it was who raised the rates of the old taxes or imposed the new ones. But the effects on business of this rise in taxation make themselves felt. For businessmen are soon discouraged by the comparison of their profits with the burden of their taxes, and between their output and their net profits. Consequently production falls off, and with it the yield of taxation. The rulers may, mistakenly, try to remedy this decrease in the yield of taxation by raising the rate of taxes; hence taxes and imposts reach a level which leaves no profit to businessmen, owing to high costs of production, heavy burden of taxation and inadequate net profits. This process of higher tax rates and lower yields (caused by the government's belief that higher rates result in higher returns) may go on until production begins to decline owing to the despair of businessmen, and to affect the population. The main injury of this process is felt by the state, just as the main benefit of better business conditions is enjoyed by it. From this you must understand that the most important factor making for business prosperity is to lighten as much as possible the burden of taxation on businessmen, in order to encourage enterprise by giving assurance of greater profits.

—tr. Issawi

AT QAL'AT IBN SALAMAH

I had taken refuge at Qal'at ibn Salamah... and was staying in the castle belonging to Abu Bakr ibn 'Arif, a well-built and most welcoming place. I had been there for a long time...working on the composition of the Kitab al-'Ibar *to the exclusion of all else. I had already finished drafting it, from the* Introduction *to the history of the Arabs, Berbers and the Zanatah, when I felt the need to consult books and archives such as are only to be found in large towns, in order to check and correct the numerous citations that I had set down from memory. Then I fell ill.... Because of all this, I felt a great wish to be reconciled with the Sultan Abu al-'Abbas and to go back to Tunis, the land of my forefathers, whose houses and tombs are still standing and where traces of them are still to be found."*

—tr. Abdessalam Cheddadi/Caroline Stone

Where not otherwise credited, translations from the Muqaddimah *are from Charles Issawi's* An Arab Philosophy of History: Selections from the *Prolegomena* of Ibn Khaldun of Tunis (1332–1406) *(revised edition 1987, Darwin Press, ISBN 0-87850-056-1) or from Franz Rosenthal's three-volume translation,* The Muqaddimah *(second edition 1967, Princeton University).*

Caroline Stone divides her time between Cambridge and Seville. She is working with Paul Lunde on a translation of selections from *The Meadows of Gold* for Penguin Classics as well as a volume on the journeys of Ibn Fadlan and other Arab travelers to the north, to appear in 2007.

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Mudejar style: J/F 93

For Further Reading:
A two-volume catalog for the exhibition is available in both Spanish and English (€75 plus shipping) through www.legadoandalusi.es / Virtual Bookshop or by email to info@legadoandalusi.es. An abridged catalog can be downloaded free from www.legadoandalusi.es.

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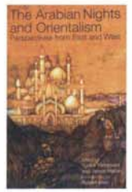
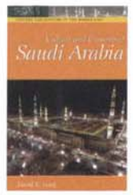


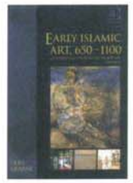
The Arabian Nights and Orientalism: Perspectives from East and West. Yuriko Yamanaka and Tetsuo Nishio. 2006, I.B. Tauris, 1-85043-768-8, £42.50 hb.

The *Arabian Nights* tales have long fascinated the West, but what about their impact on the East—on, say, Japan? Japanese perspectives on the subject are well represented in this book, which brings together a wealth of scholarship on *The Thousand and One Nights* from an international conference at Osaka's National Museum of Ethnology. The scene is set aptly in the preface by Middle East historian Robert Irwin, who shows how the *Arabian Nights* fits into the "Orientalist" mindset, as defined by Edward Said and others. But Irwin suggests that applying Orientalist theory to Orientals like the Japanese may not be quite so easy as applying it to the British or French. Fitting the *Arabian Nights* into that framework may be even more problematic. As Tetsuo Nishio points out in an article on Orientalism from a Japanese perspective, "Japan accepted the *Arabian Nights* as a constituent part of *European* civilization." Europe's "Orient" was the Middle East. Japan's "Orient," or object of control, was China. Japanese illustrations in *Arabian Nights* translations published in the late 19th century sometimes show the Arab characters dressed like Victorian Europeans. The Japanese found the *Nights* tales extremely compelling as stories, but the tales did not exercise the same hold on them that they did on Europeans—because Japan was not linked to the Middle East by economics, history and geopolitics. This collection also explores other topics of equal interest. Yuriko Yamanaka traces the origins of an Alexander the Great story in the *Nights* to a historical event that took place when the world conqueror reached India. The direct source for this story in the *Nights* appears to be a version related originally in Persian in Ghazali's *Nasihat al-Muluk* (*Book of Counsel for Kings*). Since the *Arabian Nights* has long been regarded as a collection of "popular" or lower-class stories spun by storytellers in the cities of the medieval Middle East, Yamanaka suggests that the gap between popular and elite literature in those days may not have been as wide as commonly thought. —ROBERT W. LEBLING



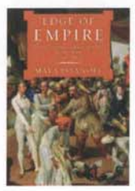
Culture and Customs of Saudi Arabia. David E. Long. 2005, Greenwood Press, 0-313-32021-7, $49.95 hb.

Thoughtfully developed by a former US Foreign Service officer with extensive experience in the Arab world, this handy little book is a fine introduction to Saudi Arabia for students, visiting businesspersons, expatriate workers or the pioneer tourists the Kingdom is gradually attracting. Even longtime foreign residents of Saudi Arabia may find it a useful way to fill in gaps in their knowledge and confirm their suspicions about aspects of Saudi custom and culture. The author truly knows his subject matter. He does not sugarcoat: He takes on topics like terrorism and disaffected Saudi youth. But he writes to explain differences, rather than criticize them. He offers fascinating insights on the extended family, gender roles, the disorientation of young people and the complex interplay of tradition and modernization in today's Saudi Arabia. He explains the various roles of Islam in Saudi life, as a religion, as a social system and as a political driver. He explains traditional dress, cuisine, rites of passage, holidays and other aspects of culture. No human activity is totally immune to change, and Long shows how these Saudi traditions have been modified over time. He deals with purely modern aspects of Saudi life, such as communications and the media, while not forgetting their development from ancient ways and from a powerful oral communication tradition. The chapter on Saudi artistic expression is very helpful and quite refreshing. There are sections of course on literature and poetry, but also on the performing arts, the plastic arts, jewelry design and architecture. This book was written by someone who clearly cares about Saudi Arabia and its journey of national development. The author makes it clear to his readers that for those who look beyond the stereotypes of the western media, there is a rich and vibrant culture and an evolving society worthy of attention and respect. —ROBERT W. LEBLING



Early Islamic Art 650–1100: Constructing the Study of Islamic Art, Volume I. Oleg Grabar. 2005, Ashgate Variorum, 0-86078-921-7, £70 hb.

This is the first of four volumes bringing together the stellar achievements of one of the world's leading Islamic art historians. Grabar is professor emeritus at the Institute for Advanced Study in Princeton and spent a decade (1980–1990) at Harvard as Aga Khan professor of Islamic art and architecture. His long and eventful career has included a lot of fieldwork in the Arab world—"dirt archeology," as he calls it—in Syria, Iraq and other lands, because he believes in the importance of experiencing the physical spaces in which events of history took place. The experience of these spaces, both man-made and natural, helps define the people who transformed the area and created within it a new culture. Grabar works diligently to fill in the gaps in Islamic archeology, a field in which circumstances have left a lot of research unpublished. He calls attention to little-known but reliable written sources, such as al-Azraqi's ninth-century historical account of the construction of sacred buildings in Makkah. He explores the mysteries of the remote Umayyad palaces of Syria, and finds they were built in part to take advantage of an older agricultural base that no longer exists in those desert regions. He studies the interactions of Byzantine and early Islamic art, and finds that each benefited in significant ways from the presence of the other. He puzzles over the survival of the magnificent Islamic art of Spain. Discussing Spanish *mudejar* art (Muslim-inspired art in a non-Muslim setting), Grabar theorizes about why "this preservation of allegedly Muslim forms took place while Islam itself and those who professed it were persecuted." This volume is packed with nuggets for the curious. The author is conscious of the fact that scholarship can sometimes be ponderous, and tries to share with us, when he can, the excitement of discovery in the field. —ROBERT W. LEBLING



Edge of Empire: Lives, Culture, and Conquest in the East 1750–1850. Maya Jasanoff. 2005, Knopf, 1-4000-4167-8, $27.95 hb.

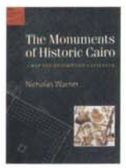
The author examines the biographies of European collectors overseas of Egyptian and Indian art, manuscripts and cultural objects in the imperial era as an analogue to the formation of the British Empire itself. In doing so, she captures the paradoxical nature of such collections, ripped from their soil and given new meanings in western museums, libraries and private homes, yet still reflecting the politically and culturally conflicted personalities of their original owners. That some collectors were not native British—such as the Italian Giambattista Belzoni in Egypt and the Frenchman Claude Martin in India—underscores the complex interplay of national identities within the larger confrontations of "East" and "West." That others were non-aristocratic Englishmen, such as the self-made millionaire Robert Clive and the salaried consul Henry Salt, shows how a politely veiled booty-taking was tightly linked to social climbing and political reward. —LOUIS WERNER

The Glory of Cairo: An Illustrated History. André Raymond, ed. 2002, American University in Cairo Press, 977-424-729-9, $60.00 / £35.95 hb.

Bookstore shelves groan under the combined weight of narrative histories and gift books of paintings, drawings and photographs of Cairo. Until this volume, however, none fully married a detailed history with a comprehensive visual record. From prehistory to the present, Raymond offers chapters by uniquely qualified specialists covering the ancient cities and temple complexes; Babylon-in-Egypt, the Roman and Byzantine garrison town; the Arab conquest; the founding of Fustat and the development of Fatimid al-Qahira; Ayyubids, Mamluks and Ottomans; and the emergence of modern Cairo in the 19th and 20th centuries. Together they chart how the cultures of Asia, Europe and Africa all left imprints visible today in the city's unrivaled artistic heritage. This is perhaps best expressed in architecture, where pharaonic stelae, sarcophagi, obelisk fragments and pyramid stones find new life in the lintels, sills and foundations of mosques, city walls and minarets; where ancient Egyptian and Roman columns appear in mosques and churches, and where the applied arts of metalwork, dressed stone and carved wood seem to speak a common visual root language. All of the city's major monuments—the mosques, *madrasas*, mausoleums, caravanserais, palaces, churches, city gates and more—are covered, as are the decorative arts that gilded and refined the architecture: glass making, Coptic and Islamic textiles, illuminated manuscripts, wood carving and metalwork. To Raymond's credit, the book gives due weight to the city's oft-overlooked Belle Époque architecture, with its art deco, art nouveau, secessionist and neo-pharaonic styles, from Khedive Isma'il's "Paris on the Nile"—which produced the boulevards, parks, botanical gardens and opera house—to Heliopolis, one of the world's first suburbs and avatar of today's sprawling satellite cities. Superbly and amply illustrated, *The Glory of Cairo* is a fitting tribute to the city that Ibn Khaldun in 1383 titled "metropolis of the world." —KYLE PAKKA

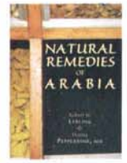
Hammams. Pascal Meunier. 2005, Dakota Editions, 2-84640-148-9, €30 pb.

In a bygone era, one of the centers of any urban Arab neighborhood was the public *hammam*, or bath. Today, few remain. Meunier, a Paris-based photographer who specializes in the cultures of North Africa and the Middle East, spent patient days gaining the trust of employees and patrons of *hammams* from Istanbul to Damascus, Cairo, Tripoli and Tunis. The result is a lushly beautiful (and respectful) photo essay backed by narrative history, in French, of this venerable, faded-glory institution.



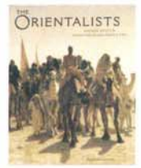
The Monuments of Historic Cairo: A Map and Descriptive Catalogue. Nicholas Warner. 2005, American University in Cairo Press, 977-424-841-4, $59.50 hb.

Anyone who has attempted to navigate the streets of Cairo, whether on foot or by car, knows the value—and limitations—of a good street map. Now imagine the task of mapping not just the current city, but the streets and monuments that have vanished over the course of the last thousand years, and you will then have an inkling of the feat wrought by Nicholas Warner. As the first volume in the American Research Center in Egypt's Conservation Series, it thus marks the first time that the city's registered monuments have been mapped reliably within their present-day urban context. Comprising 31 hand-drawn maps, originally drawn at 1:500 and reproduced at 1:1250, and a full descriptive catalog, the work surveys an area of roughly six square kilometers of the densest concentration of Tulunid, Fatimid, Ayyubid, Mamluk and Ottoman buildings in Cairo, some 650 buildings spanning more than a millennium. The catalog describes each one, including its conservation history, and the entire package is masterfully, even poetically organized. Warner says he chose to draw all of the maps by hand to "create a permanent and tangible product born of pen and ink, scalpel, and sweat." That he has done so in a way that shows both what remains and what has been lost (370 caravanserais; 86 baths, etc.) makes this an astonishing achievement that is likely to endure as a classic reference. —KYLE PAKKA



Natural Remedies of Arabia. Robert W. Lebling and Donna Pepperdine. 2006, Al-Turath/Stacey International, 1-905299-02-8, £27.50 hb.

In the unforgettably fragrant heart of nearly every traditional Arab marketplace (*suq*) are the vendors of herbs, oils, spices, flowers, barks, salts, rocks and twigs sold for medicinal, culinary and cosmetic purposes. Coming from both local and faraway sources, they have uses based on centuries of folk knowledge, a rich heritage of natural medicine that is largely unwritten in English. Pepperdine is a master herbalist and Lebling has extensive experience with the history and anthropology of the region; both have lived in the Middle East for more than a decade. With support from Saudi friends and colleagues, they distributed a questionnaire to families throughout the Arabian Peninsula in addition to interviewing specialists. The resulting compendium references more than 80 items, many known in the West, but not all: Cardamom, hibiscus, lavender and ginger are there, and so is smooth sow-thistle, spurge, corn poppy—and even petroleum (it can help with, among other things, motion sickness). Of more general interest will be the recipe section, which offers several dozen favorite Arabian dishes prepared simply and authentically.



The Orientalists: Western Artists in Arabia, the Sahara, Persia and India. Kristian Davies. 2005, Laynfaroh, 0-9759783-0-6, $70 hb.

Kristian Davies dedicated five years to selecting more than 70 works from more than 40 institutions and reproducing them in this beautiful volume. It is anomalous that our mental images of North Africa, the Near East and parts of Asia have been formed by westerners, due largely to the lack of representational traditions in Islam and Judaism.

If readers were expecting to see only familiar images from French and British artists, they will be pleasantly surprised to discover a number of Americans, as well as Russians, Germans and even Hungarians and Czechs, wonderfully represented. We are fortunate that these dedicated individuals were trained to the highest standards of the academy so that their depictions of civilizations that even then were in transition could be captured in such meticulous detail before the age of photography. —CHARLES SWEENEY

A Quest in the Middle East: Gertrude Bell and the Making of Modern Iraq. Liora Lukitz. 2006, I.B. Tauris, 1-85043-415-8, £24.50 hb.

Said a British officer at the center of the action in the Middle East during and after World War I: "It would have been better for our country and perhaps the world if Doughty, Lawrence and Gertrude Bell had not been such admirable and persuasive writers." Explorer Charles Doughty almost single-handedly created the romance of the desert and Bedouin life that so captivated the 19th-century British public. His writing strongly influenced both T. E. Lawrence and Gertrude Bell, who in turn helped shape the British mandates that set the turbulent course of the modern Middle East. Lawrence's story has been told many times and in many versions; Bell's is less well-known. She was a remarkably talented and driven woman. Thanks to family wealth and influence, she was able to bypass many of the roadblocks women normally faced in turn-of-the-century Britain. She obtained a first-class education at Oxford and distinguished herself as a mountain climber and athlete. Her first love was archeology, and she soon established an international reputation through her travels, excavations and writings. Bell's high energy level and utter fearlessness gained her access to places few women ever saw. Once on a visit to Ha'il, as a guest of a princely regent, feeling herself trapped and unable to travel onwards, she stormed into the regent's *majlis* tent and by force of her personality secured the safe passage she sought. Her knowledge of Arab society and the languages and customs of the region brought her to the attention of the Arab Bureau in Cairo, the central office for British political intelligence in the region. She spent most of her service time in Mesopotamia (modern Iraq) and, after the war, served as a key advisor to the new Iraqi king, Faisal, in the first years of his ill-fated rule. Sadly, she fell victim to dark depression in this period and died of an overdose of sleeping pills (some say morphine) in 1926. This book benefits from access to Bell's unpublished papers and documents the evolution of her impassioned love affair with the Arab world—as well as several of her more intriguing personal liaisons. The impression we are left with is that Gertrude

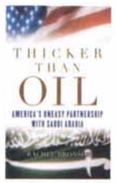
Bell was a much more compelling and interesting person than many of us suspected. —ROBERT W. LEBLING

Sea of Faith: Islam and Christianity in the Medieval Mediterranean World. Stephen O'Shea. 2006, Walker & Company, 0-8027-1498-6, $26.95 hb.

Stephen O'Shea is a journalist with a gift for the apt description and the felicitous phrase. He takes as his subject the interaction between Christianity and Islam throughout the Mediterranean basin from the seventh to the 16th century, by which time the boundaries between Christian and Islamic lands had been fixed. Mr. O'Shea has walked through each of the cities and the battlegrounds he describes, and he depicts them with immediacy. He depicts seven pivotal battles, and he describes three cities where both faiths long lived side by side in harmony—Toledo, Palermo and Constantinople. The main players are depicted in three dimensions, and intra-faith differences and rivalries are fairly presented with such an eloquence and authority that the reader is left wishing to consult Mr. O'Shea's books on other topics. —CHARLES SWEENEY

Spell. Nathalie Handal. 2005, Interlink Books, 1-56656-559-6, $15 CD.

One of New York's most gifted young poets (*Lives of Rain*, 2005, Interlink) has teamed with multi-instrumentalist Will Soliman to join literature and music in a spare, intense performance of understated emotional power that will surprise, delight and stun. Drawing from published and new poetry, Handal explores themes that resonate with identities, departures, losses and closely guarded aspirations, all coming out of her Palestinian/American/Hispanic tossed salad of experiences. Her voice is in complete command of her words, alternately forceful, tender, silky or indignant at injustice, slipping amid English, French, Arabic and Spanish just enough to keep the listener slightly off balance, not quite comfortable—for this is not a poetry of comfort—and as rhythmic as Soliman's atmospheric, often restrained accompaniments. Together they produce an art that transcends the artists themselves, calling up recollections of Gil Scott-Heron's iconic musical poetry of African-American life in the 1960's and 1970's and John Trudell's white-hot poems, backed by Lakota song, from Native American experience of the 1980's. If there is one regret about Handal and Soliman's unique work, however, it is that it may not receive the wide recognition it deserves.



Thicker Than Oil: America's Uneasy Partnership with Saudi Arabia. Rachel Bronson. 2006, Oxford University Press, 0-19-516743-0, $28 hb.

Focusing on the roots and future of this bilateral political relationship, the author quickly dispels the most common fallacy of superficial analysts: oversimplification of the US-Saudi relationship as an "oil alliance." Each country, she explains, has pursued over the past 70 years "a much more nuanced set of policies than is usually acknowledged," shaped as much by mutual Cold War political calculations as by economic self-interest. Prescriptively, she argues that the best framework for future policies will be one that strengthens "pragmatists" on both sides: The US should support the efforts of the royal family (to which she attributes a resilience often underestimated by western analysts) toward preserving domestic security and spreading religious tolerance, and then buckle down to working "seriously" for Israeli-Palestinian peace. (The book was printed early in the year.) For Saudi Arabia's part, she recommends moving toward a global religious role analogous to its energy role: that of a stabilizer. It's the best book on US-Saudi political relations this year.

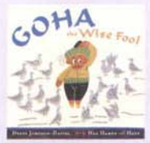
Trickster Travels: A Sixteenth-Century Muslim Between Worlds. Natalie Zemon Davis. 2006, Hill and Wang, 0-8090-9434-7, $30 hb.

Al-Hasan al-Wazzan, known to the West as Leo Africanus and author of the first fact-based geography of Africa in a European language, is the subject of this speculative biography by Natalie Zemon Davis, whose previous book *The Return of Martin Guerre* similarly examined the life of another man of mystery from the 16th century. Granada-born, Fez-raised and widely traveled as an ambassador for a Wattasid sultan, Leo was captured by Christian pirates and handed over to Vatican authorities. In Rome, he became attached to a circle of scholars whose aim, in the words of one of them, was to further "the dignity of Arab letters among Christians." This extraordinary intellectual circle, presided over by Pope Leo X, patron of Michelangelo, consisted of a Jewish translator of al-Ghazali, a Maronite translator of Syriac texts and a Catholic cardinal who commissioned a translation of the Qur'an into Latin and was himself Leo's student of Arabic. Davis pieces together Leo's life from scanty evidence, such as his reading records from the Vatican library, and makes much use of the conditional tense, but credibly posits his life as a symbol of Mediterranean cultural commonalities at a time when the western relationship with Islam was dominated by fear of the Ottoman Empire. —LOUIS WERNER

For Young Readers

Dahman: The Mystery of the Champion Arabian Horse. Elizabeth and Sarah Spalding. 2005, Saudi Aramco. (www.aramcoexpats.com)

Two nine-year-old girls, a Saudi named Sara and an American named Elizabeth, meet at the stable in Dhahran, Saudi Arabia where they love to ride. When one of the stable's best jumpers becomes mysteriously ill, the girls team up to find out why, and they forge a friendship while they play real-life detectives, to the gratitude and delight of the jumper's owner. The author/illustrators of this children's book are 16-year-old American twins who based their story on their own riding adventures while growing up in Dhahran. To appeal to readers of both English and Arabic, they wrote in both languages and chose to lay it out as an Arabic book—from right to left. The result is entertaining and a genuine multicultural experience. —KAY HARDY CAMPBELL



Goha: The Wise Fool. Denys Johnson-Davies. Illustrated by Hany El Saed Ahmed and Hag Hamdy Mohamed Fattouh. 2005, Philomel Books, 0-399-24222-8, $16.99 hb.

Throughout the Middle East, tales of the little man and his faithful donkey are among the oldest, most widespread and best-loved folk stories, but this is the first time any collection has been published using illustrations by … tentmakers. Two renowned craftsmen from Cairo's "Street of the Tentmakers"—who usually sew colorful swaths for weddings and festivals—have provided astonishingly expressive, delightful depictions to accompany 15 popular tales. Johnson-Davies, a leading translator into English of Arabic literature, renders the prose in language that can be read at any age, and that makes fine bedtime reading for parents and young children. This is surely one of the most creatively illustrated books of the year, and an excellent addition to a multicultural elementary school or family bookshelf.

The Legend of the Wandering King. Laura Gallego García. Dan Bellm, trans. 2005, Arthur A. Levine Books, 0-43958556-2, $16.95 hb.

This compact young-adult novel (ages 11+) is historical fiction set in the pre-Islamic Arabian Peninsula. García's protagonist, Walid, is based on Imru' al-Qays ibn Hujr, a king of the tribal confederation known as Kindah and a leading poet of his time. His quest to avenge his father's assassination earned him the title of "the wandering king," but García ascribes to her Walid a darker motive for sojourns far and wide, the better to set up a plot in which redemption and wisdom are the goals. When Walid loses three successive poetry contests to a rival named Hammad, Walid uses his own royal status to condemn Hammad to a seemingly impossible task: the weaving of a carpet that contains all of history. But as we are in not only pre-Islamic Arabia but also the realm of magical fiction, Hammad succeeds, and the carpet becomes the most powerful magical object in the world, for indeed in its patterns the viewer can discern both past and future. The carpet, however, is stolen, and, overcome with remorse at his ill treatment of Hammad, Walid sets out to recover it. The fable-like adventures that follow, as he successively encounters Hammad's sons, and the basic (if at times strained) realism of the novel's settings, both help keep the magic-carpet motif from being a plot-killing cliché. (At least it doesn't fly.) Walid's journey teaches him about identity, choice and fate—themes that will resonate well with young readers.

SuggestionsforListening

WRITTEN BY CHRIS NICKSON

Ali Farka Touré. Savana. World Circuit

When the great Malian guitarist Ali Farka Touré died earlier this year, it was a sad loss to music. He was the first of the desert bluesmen, connecting the musical dots between West Africa and the American South. This posthumous album, subtly executed, is a mesmerizing web of melodies that snake and curl. Spare, not a note wasted, the instruments are mostly traditional, with a strong emphasis on the plucked *n'goni* and the *njarka* fiddle. There's profound depth to this music that makes it as satisfying as ice water in summer.

Chicago Classical Oriental Ensemble. The Songs of Sheikh Sayyed Darweesh: "Soul Of A People"

Darweesh—who called himself "Egypt's Verdi"—was a prolific composer even though his career only lasted seven years. Made up of young immigrants from all over the Arab world, the Chicago Classical Oriental Ensemble group makes the strings swoon and swirl in full justice to Darweesh. The biggest star is singer Youssef Kassab, whose voice captures the complex emotional range of the poetry, darting from anguish to joy. It makes you wonder why Darweesh's work isn't better known.

Khaleel Muhammad. Dhikr of Life. Meem

It's a lovely idea, making music that imparts values of Islam in a pop format that's accessible to a young audience raised on western music. In the hands of Khaleel Muhammad, it becomes positively silky. His second album is largely a cappella, and lush layers of vocals bring to mind both R&B and boy bands, with only percussion behind the voices. With production that's slick but never anonymous, it's heartfelt and classy, the type of album that can be background but also satisfies closer, repeated listening.

Maurice El Médioni Meets Roberto Rodriguez. Descarga Oriental. Piranha

It's certainly an unusual equation: Algeria's greatest pianist + a Latin band = …. Well, as this loose-limbed *descarga*, or jam session, gets moving, the sum is satisfyingly beyond either of the parts. To be fair, it's Médioni who adapts his style to the band's, but his magic peeks through when he plays the keyboard with a fluidity that belies his 77 years. His particular "oriental piano" style, built on jazz, turns out to mix perfectly with the Cuban sound led by drummer Rodriguez.

The Rough Guide to the Music of Iran. World Music Network

Iran's musical roots mix folk and ethnic with a stately classical tradition and, more recently, rock, from the sultry intimacy of Hossein Alizadeh and Djivan Gasparyan to the inspired improvisations of Kayhan Kolhor and Ali Akbar Moradi. What's interesting is that so many contemporary musicians—even rock bands like Barad and O-Hum—hark all the way back to the graceful poetry of Runi and Hafez for their lyrics. The links with history are very much alive. One of the disc's highlights is the bard Haj Ghorban Soleimani, whose piece draws the ear back to long-ago times. Similarly, the traditional "Lullaby" from Jahlé is softly gorgeous. The final position belongs, aptly, to the glorious Masters of Persian Music, a kind of supergroup who play and sing in breathtaking fashion.

Tengir-Too. Music of Central Asia, Vol. 1: Mountain Music of Kyrgyzstan. Smithsonian Folkways

Folk music played by a virtuoso ensemble can sometimes seem as if it's divorced from its roots. Yet this set (both a CD and a DVD) from the nomadic cultures of Kyrgyzstan comes full of passion, brilliantly performed by top-notch professionals. Using fiddles, string instruments, jaw harps and voices, it all imparts a sense of joyful glee, both entertaining and educational.

Smadj. Take It and Drive. Rasa

Smadj (who is also a member of the excellent *'ud* duo DuOud) delights in mixing his 'ud with sounds generated out of his laptop computer. His new album indeed drives—all over the globe, with guests from India, Africa and beyond. It's adventurous, with the music far from traditional song forms—more like transmissions from the imagination. Beyond that, four solo cuts highlight his fretboard technique, although he's not a virtuoso in the traditional sense. Rather, his is a genius of fragments and ideas that inspire thrilling journeys.

Le Trio Joubran. Randana. Randana

To have a trio of *'uds* as a group is a fascinating idea. That becomes doubly so when they're played by three brothers, in this case the Joubrans from Palestine. Their mostly original compositions show a great delicacy and maturity, with strong fraternal communication in the easy interweaving of instrumental lines that support and complement each other. But the true gem here is a version of the great Mohamed Abdel Wahab's "Ahwak,"with singing by Samir Joubran. It's performed with furious passion, but also with reverence that does justice to the lovely melody, and marks Le Trio Joubran as musicians to watch for the future.

Zade. Beautiful World. Sawa

Jordanian pianist Zade has been finding an American audience over the last 12 months, and on this disc he realizes the grand sweep of his sound. There's a full orchestra, a singer and plenty of melody. For those with a love of New Age/easy listening, he's a delight. The Middle Eastern touches are surprisingly subtle—most obviously in the rattling percussion—making this music light and accessible, carefully designed to cross borders and cultures with a minimum of baggage. It may be best to think of him as an internationalist, aware of his roots and influenced by them, but facing the larger world.

Ten for the Road: A Playlist for Hot (and Cool) Drivetime Downloads

Udi Hrant Kenkulian / Setarban Taksim (Emusic): Start off easy with an *'ud* with brilliant sweep from the man who gave Turkey its 'ud identity.

Hamza El Din / Mwashah (Real Networks Harmony): A great way to remember the late, groundbreaking *'ud* player who helped bring the instrument to the West.

Samba Sunda / Kaligata Goragarago (Calabash): Bandung's update of Indonesia's venerable gamelan style isn't rock 'n roll—it's better.

Salamat / Salamat (Calabash): Raucous, happy, teeming over—like a Cairo wedding in your headphones. Sit still to this and someone better call the medics.

Rachid Taha / Ya Rayah (MSN Music): Rocking up a classic, this is the definitive version that helped make his name.

Rokia Traoré / Manian (Calabash): She's no longer Mali's hidden secret, but if they could put sunshine on disc, it would be her.

Sussan Deyhim / Bade Saba (Emusic): A Tehran-to-New York iconoclast, she's an artist who makes every note flower.

Burhan Oçal / Büyülü Dans (Calabash): There's very little Oçal won't attempt in percussion, and he always succeeds. Enjoy now because next month he'll be on to something else.

Salif Keita / Moriba (MSN Music): He's not called "The Golden Voice" for nothing. He's enjoying a renaissance now he's rooted himself again.

Hossein Alizadeh and Djivan Gasparyan / Mama (Emusic): Wind it down when Persia meets Armenia to make fruit as sweet as fresh apricots.

Chris Nickson (cnicks@tiscali.co.uk) 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).

ClassroomGuide

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

Many photographs include people. Photographers must decide how to present the people in interesting ways. "Before the Mummies" has several photos with people in them, so you can examine and compare the different samples. All three photos on page 6, for example, include people, but they do so in different ways, and so have different effects.

Start with the top photo. What's the first thing you notice about it? Why do you think the photographer took the photo this way? What is the person in the photo doing? Where in the frame is she located? Why do you think the photographer "put" her there? How would the message of the photo be different if the person in it were more in the center, or at the front of the frame?

Compare that photo with the one to the lower right. It, too, includes a person looking at what's on a table. Where in the frame is the person located? How does the position differ from the position of the person in the first picture? How does the placement define the photo's subject?

Finally, look at the photo on the lower left, which also includes a person at work. Where is the person in this photo? What is he doing? Where is he in the frame? How does this photo differ from the other two? What makes the "arrangement" of the people and objects in this photo work so well?

Now try it yourself. Use a disposable or digital camera—or you can simply hold up an empty picture frame and imagine you're taking a photo. Work in groups of three. Have two people try different ways of photographing the third person. Try the kinds of photos you've examined in *Saudi Aramco World*. What do you like and dislike about each? Try other kinds of photos. Look at the other photos that accompany "Before the Mummies" to get some ideas. Switch roles with your teammates, so everyone gets a chance to pose and everyone gets a chance to take pictures. When you're done, write an informal paper describing your experience and what you've learned.

Class Activities

Theme: Research

This issue of *Saudi Aramco World* includes two articles that show how scholars go about their work. This is something that, as a student, you probably haven't seen much. You might have read about early humans, for example, but not about how anthropologists learned what they know about early humans. Similarly, you might have read about world history, but not about how the historians learned how to write what you read. The following activities give you a chance to get behind the scenes.

Scholars begin to learn about their subjects by posing questions, then looking for answers. In the following activities, you'll trace the work of scholars who have explored the origins of ancient Nile Valley civilization, and you'll also look at a long-ago scholar who "invented" a new area of study.

How have scholars learned about the origins of the ancient Nile Valley civilization?

Read "Before the Mummies." Use the following guidelines to help you understand the nature of the research the article describes.

The Question: Let's start at the beginning—of Anthony Mills's and Mary McDonald's research and of our own exploration into how research is conducted. What's at the beginning? The question! Sometimes you ask a question because you don't understand something. Other times you ask because you're curious. Scholars ask questions for the same reasons, but what makes their questions different is that they are often rooted in a lot more information than the average person has: everything they have read, everything they have learned from other people asking similar questions—in short, "the knowledge of their field." (For example, archeology and, specifically, the archeology of ancient Egypt.) What was the question Mills and McDonald asked about the Nile Valley civilization? Why hadn't other archeologists seriously pursued the question before? Write the question at the top of a sheet of paper. You'll want to hold it in mind as you continue.

The Evidence: "Before the Mummies" describes a lot of evidence that Mills, McDonald and their colleagues discovered. To help you think about it clearly, make a T chart. (You might want to work in a group on this activity.) In the left-hand column, list each piece of evidence the article identifies. In the right-hand column, explain what researchers believed it was evidence of. Then, with your group, discuss what made researchers interpret the evidence the way they did.

Here's an example: *Evidence:* Researchers found stone hand axes. Interpretation: They believed the axes were evidence of humans living in the area during the Paleolithic period. *What led them to interpret it that way:* They used prior knowledge about the tools of the Paleolithic period to decide that's what their findings meant. Continue in this fashion for all the evidence discussed in "Before the Mummies."

The Conclusions: Look back at the question you started with. Then study your chart. According to the article, how did scholars answer their question? What conclusions did they draw based on the evidence and their interpretations of it?

The Next Steps: Scholars finish projects, but their conclusions are rarely complete because their findings always raise more questions. It's useful for you, as a student, to develop the skill of asking, "What's next?" Research continues in the Western Desert—as it has for the past 27 years! What other questions are those scholars pursuing? What else are they hoping to find out?

Which academic discipline did Ibn Khaldun "father"? How did he do it?

Continue your exploration into how scholars do research by reading "Ibn Khaldun and the Rise and Fall of Empires." Use the following activities to help you understand Ibn Khaldun's work and his contributions.

The Context: "Ibn Khaldun took his place in a chain of intellectual development," the article reports on page 35. That "chain" is a very important idea: Scholars build on work others have done before them, and their work, in turn, becomes a link that makes the chain longer, that makes it possible for others to make another link. With your group, write a few sentences that explain Ibn Khaldun's "place in a chain of intellectual development." Discuss why it might be useful for you to think about Ibn Khaldun in that context.

The Research: Since you've explored research components in "Before the Mummies," these activities are fairly brief. Completing them should reinforce what you've already done. Go through the article and highlight the topics Ibn Khaldun explored and the questions he asked. In another color, highlight the evidence he gathered and his observations. And in a third color, highlight the answers he came to. With your group, list the conclusions Ibn Khaldun reached and, as you did in the previous activities, discuss how he reached them.

The Contributions: Think again about how scholars are part of a process of intellectual development. What contributions did Ibn Khaldun make? What objects might you use to show those contributions to people who visit the exhibition about him?

What does the research described in the two articles have in common?

Both Ibn Khaldun and the archeologists studying the Western Desert of Egypt look at how societies form and develop. Having read both articles, what do you notice the two bodies of scholarship have in common? Hint: Think about nomads, settlements and farming, and their relationships with others.

Theme: Cycles

The dictionary says a cycle is "a course or series of events or operations that recur regularly and usually lead back to the starting point." Think about the cycles in your life. A year, for example, is one kind of cycle, defined by the movements of the earth and moon. A school year is another cycle. It starts in August or September, and goes until the spring or early summer. As a class, brainstorm different cycles you're aware of. List them on chart paper. Then identify each as either natural or human-made.

What cycles occur in nature?

Read "Before the Mummies." What climate cycles does it describe? Make a visual representation of the cycles, and as you do, think of the visual as something that could accompany the article to help *Saudi Aramco World*'s readers better see and understand the climate cycles the article describes. Write a headline and a caption for your visual. For models, look at a newspaper like *USA Today* or *The Wall Street Journal*, or a news magazine like *Time* or *Newsweek*. Display the different visuals around the classroom. Discuss how they're similar to and different from each other.

What were some of the effects of the climate cycles described in "Before the Mummies"?

A graphic organizer can help you think about effects, too. Make a web. At the center, put "Climate Cycles." Then make a branch for each of the following: People, Animals, Plants, Land and Water. Fill in how the climate cycles affected each of them. You'll want to do this with other students, so you can get each other thinking. When you've filled in as many effects as you can, think about the overall effects of climate cycles. What generalizations can you make? What conclusions can you draw?

What cycles are human-made? What causes them? What effects do they have?

"Ibn Khaldun and the Rise and Fall of Empires" describes the social and political cycles Ibn Khaldun observed. Make a circular flow chart that shows what Ibn Khaldun identified as the cycle through which societies developed. In "Before the Mummies," scholars may not know what caused the climate changes you read about. But they can often identify causes of human-made cycles. Discuss: What factors contributed to creating the cycles Ibn Khaldun wrote about? What were some of the effects of the social and political cycles?

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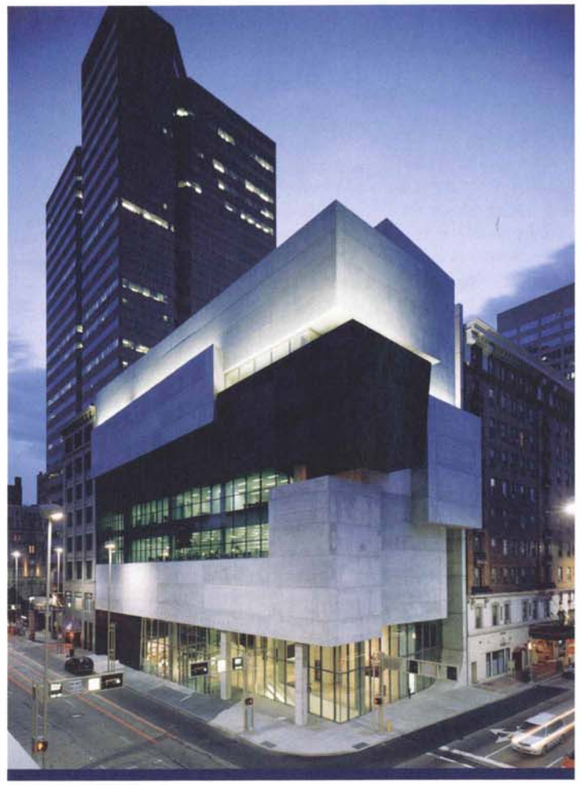
Events&Exhibitions



Rosenthal Center for Contemporary Art, Cincinnati, 1997–2003.

Zaha Hadid first received international recognition for her striking images and designs, though the structures they represented were regarded as unbuildable. In 2004, however, she received architecture's highest award, the Pritzker Prize, and her buildings are now going up all over the world. This 30-year retrospective exhibition presents paintings, sketches, architectural drawings, urban plans, models, animations, furniture and design objects, organized chronologically to give an overview of her career, and also discusses Hadid's thematic approaches, some of which, such as fields, folds, ribbons and clusters, have become important points of departure in discussions of contemporary architecture. Guggenheim Museum, **New York**, through October 25.

<<< Last Call

Bridging People / Bridging Cultures is an exhibition of documentary photographs by Kevin Bubriski, whose work from the Middle East, Africa and Asia has appeared in *Saudi Aramco World*. His large- and medium-format images most often focus on people and the cultural significance of landscapes, structures and events. Hallmark Museum of Contemporary Photography, **Turners Falls, Massachusetts**, through September 24.

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. 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. Cities and dates currently scheduled include: **Asilomar, California**, September 28–30; **Albany, New York**, October 6; **Finger Lakes, New York**, October 10; **Long Island, New York**, October 16; **Cairo, Egypt**, November; **Westchester, New York**, December 8; **Paterson, New Jersey**, December 14–15.

Ibn Khaldun. The Mediterranean in the 14th Century: The Rise and Fall of Empires focuses on one of history's most decisive centuries, looking through the eyes of Ibn Khaldun, the great Muslim sociologist, political scientist and philosopher of history who died six centuries ago this year. The exhibition reviews political, economic and social relations between East and West and between Europe and the Arab North African world in the 14th century, as well as the artistic legacy that marked this period. Ibn Khaldun, born in Tunisia, had Andalusian ancestors. He visited Andalusia, living in the Nasrid court of Mohammed V, and served as ambassador to King Pedro I "The Cruel" in Seville, whom he met in the Real Alcázar Palace. As a scholar, he was concerned with the logic of empires and by their rise and fall, and he made considerable contributions to scholarship on the formation of states; he is considered the first modern historian. The exhibition includes more than 100 other beautiful and evocative artifacts from Spain and abroad. Real Alcázar Palace, **Seville**, through September 30.

Muqarnas: Intersections of Contemporary Islamic Architecture looks at the changing spaces in which Muslims gather and practice their faith, through the paintings of artist Lubna Agha and the works of architect Sharif Senbel. From Yellowknife to Charlottetown, Muslims across Canada have found new spaces for spiritual contemplation. Varying from traditionally styled mosques to storefronts, these spaces highlight the spatial transitions of contemporary Muslim life in the West. Niagara Artists' Centre, **St. Catharines, Ontario, Canada**, through September 30.

Lions, Dragons and Other Beasts: Aquamanilia of the Middle Ages, Vessels for Church and Table displays both a large collection of the zoomorphic vessels themselves and additional objects, including Byzantine and Islamic examples, that suggest sources and models. Stylistic and technical relationships are explored with other medieval examples in such other media as textile and ceramic. Bard Graduate Center for Studies in the Decorative Arts, **New York**, through October 15.

Sovereign Threads: A History of Palestinian Embroidery highlights magnificent embroidery and colorful dresses—many of them bridal dresses—from the late 19th and early 20th century in the Munayyer Collection, including costumes from Ramallah, Jerusalem, Bethlehem and Galilee. Complementing the dresses is contemporary embroidery work using traditional motifs and created through INAASH by Palestinian women in refugee camps in Lebanon. Embroidery patterns, some traceable back to pre-Islamic and pre-Christian times, were incorporated into the rich designs and brilliant colors that identify the specific village or town in Palestine where the dress was made. The collection, one of the most extensive in America, is presented by the Palestinian Heritage Foundation. Craft and Folk Art Museum, **Los Angeles**, through October 15.

Large Mirrorwork Panels commissioned by the museum from Monir Shahroudy Farmanfarmaian are on display at the Victoria & Albert Museum, **London**, through October 15.

<<< Ongoing

Mohammed Ali: Aerosolarabic fuses graffiti and calligraphy, showing unexpected parallels and contrasts between the millennial premier art form of the Muslim world and contemporary "tagging," now an intricate artistic discipline in its own right. Gallery 28, **Birmingham [UK]**, through October 29.

Cairo: Building and Planning for the Day After Tomorrow presents five projects by urban planners and architects for city revitalization and new housing programs, complemented by the photography of Randa Shaath. The exhibition shows developments in the city center as well as on the periphery, as Cairo comes to terms with its population growth, technical and economic progress, and such changes as the relocation of the Cairo Museum from downtown to Giza. IFA Gallery, **Stuttgart, Germany**, through October 29.

artconneXions in South-East Asia, Australia, New Zealand is a photographic exhibition based on a novel form of cooperation. Artists and curators from different countries collaborated *in situ*. Nine curators chose artists who worked in Singapore, Sydney, Manila, Melbourne, Auckland, Jakarta, Bangkok, Hanoi and Kuala Lumpur. Eighteen artists met in different groupings and explored unfamiliar cities in Southeast Asia. The resulting "artconneXions" show views from what is still today an entrepôt for both wares and ideas as well as a meeting point for peoples of various cultures. The old Arab sea-trade route between Europe and the Far East, centuries of European colonial rule, political developments of the 20th century and globalization have all influenced the region. IFA Gallery, **Berlin**, through October 29.

Beyond the Palace Walls: Islamic Art From the State Hermitage Museum presents more than 170 works from the eighth to 19th centuries, many never before exhibited outside Russia, from one of the world's greatest collections. On display are textiles, glass, metalwork, jewelry and embroidery. Royal Museum, **Edinburgh**, through November 5.

ROLAND HALBE, COURTESY ZAHA HADID ARCHITECTS, LONDON

<<< Ongoing

Woven Gold: Metal Threads in Textile Art provides an insight into the decorative forms, luster effects, techniques and materials used in the manufacture of textiles made with gold and silver thread. Such weavings, luxury goods of the first order since time immemorial, were always reserved for the highest dignitaries. The exhibition shows late-antique gold weavings, medieval gold cloth from China and Central Asia, gold-brocaded Renaissance velvets and richly adorned gold and silver embroideries of the Baroque. Many different techniques were developed to integrate hard, shiny metal into flexible fabrics. One of the oldest was to wind extremely thin strips of gold foil round the textile thread. Late-antique and early Islamic art provide impressive examples of this method. In the Middle East strips of gilded leather were often preferred for decorating fabrics, while in China gold-coated paper was also used. In the 16th and 17th centuries Persia and the Ottoman Empire were important centers of silk weaving. Persian silks of supreme artistic significance made during the Safavid dynasty (1501–1722) came to influence all Islamic textile art of the age. They combined playful ease and elegance of pattern with finely balanced color compositions. In contrast, Ottoman fabrics of this period stand out above all for their strong colors and majestic patterns. The ground of these fabrics was often woven completely with gold thread. Abegg-Stiftung, **Riggisberg, Switzerland**, through November 12.

The Emperor's Terrapin was carved around 1600 and found on the grounds of the fort at Allahabad in northern India in 1803. It is associated with Crown Prince Selim, later to be the Emperor Jahangir, son of the great Mughal emperor Akbar. "Turtles are marvelous sculptural pieces," said Sir David Attenborough, "and as such clearly inspired the Mughal artist working with a spectacular jade boulder." **Sunderland [UK]** Museum and Winter Gardens, through November 15; New Walk Museum and Gallery, **Leicester, UK**, November 18 through January 14; Burrell Collection, **Glasgow, UK**, January 18 through March 25.

Beasts of the Nile explores the important role that animals of all shapes and sizes played in ancient Egypt, exhibiting mummies, bronzes, textiles, pottery and wooden sculptures and including 20 remarkable objects from the British Museum. **Swansea [UK]** Museum, through November 21.

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. Field Museum, **Chicago**, through January 1; Franklin Institute, **Philadelphia**, from February 3.

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** Museum, through October 1.

Modern Indian Works on Paper includes more than 50 works in watercolor, acrylics, pen-and-ink, pencil and gouache 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 Ghulammohamed Sheikh to Krishna Reddy, Francis Newton Souza and Shymal Dutta Ray. 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**, through October 8.

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 before been on public display and many that have until now 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**, through October 8; **Portland [Oregon]** Art Museum, November 5 through March 4.

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, emphasizing the artistic transfer and historical aspects of the meeting. 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. Reiss-Engelhorn Museums, **Mannheim, Germany**, through November 5.

To the Holy Land: Pilgrimage Sites From Jerusalem to Makka and Madinah: Photographs From the 19th Century features the work of Jakob August Lorent of Mannheim and such other photographers as Mohammed Sadiq Bey, Christiaan Snouck Hurgronje, Félix Bonfils and al-Sayyid Abd al-Ghaffar in replicating what travelers and pilgrims of the 19th century would have seen. Lorent's images are unique original albumin prints of Jerusalem, and the exhibition includes a two-meter photographic panorama of the city. Reiss-Engelhorn Museums, **Mannheim, Germany**, through November 5.

Hatshepsut: From Queen to Pharaoh is the first exhibition to highlight the glorious and controversial reign of this female pharaoh in the 15th century BC. Her ambitious pursuit of this Egyptian throne and her mysterious disappearance after 20 years of rule have fueled debate among Egyptologists for more than a century. Hatshepsut's reign was a period of immense artistic creativity, yet under her stepson and successor, Thutmose III, the pharaoh-queen's monuments were systematically destroyed and all memory of her rule was erased. The exhibition reconstructs her rise and fall through the spectacular monuments and art of her court—royal statuary, temple relief sculptures, ceremonial objects, jewelry and other treasures from Egypt's golden age. Kimbell Art Museum, **Fort Worth, Texas**, through December 31.

<<< September

Petra: Lost City of Stone 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**, through January 2.

Myths of Bengal explores the region's rich oral tradition, focusing on Bengal's diverse myths and stories through Bengali artifacts, including beautifully painted scrolls. British Museum, **London**, through January 7.

Hatshepsut: From Queen to Pharaoh is the title of a lecture by Catharine Roehrig, curator of the exhibition of that name at New York's Metropolitan Museum. $5, 6 p.m. University of Pennsylvania Museum, **Philadelphia**, September 15.

The Sassanid Persians: Splendor of a Forgotten Empire. The Sassanian Dynasty ruled Persia for 400 years, from the second century until the Arab conquest in 642. Its founder was Ardashir, a prince of Fars, who overthrew the Parthian Empire and built one of the great powers of antiquity. Its rivals were Rome and Byzantium in the West; in the East it was in touch with the mobile kingdoms of Central Asia and maintained relations with China. Sassanid art is dominated by the image of the glorious ruler, carved into mountainsides, engraved on precious stones, depicted in the bottom of golden drinking cups and shown as the center of banqueting, hunting and ceremonial scenes and as guarantor of the unity of the vast empire. The Sassanian court was one of legendary splendor, and it supported a remarkable flowering of the decorative arts. The exhibition presents more than 200 works of art—silver-gilt plates, gold cups, fine glass, precious textiles, cameos and other carved stones, arms and coins—from museums in the United States, Europe and Iran, that testify to the diversity and iconographic variety of a culture where Hellenistic influences combined with older Iranian traditions. Musée Cernuschi, **Paris**, September 15 through December 30.

Liminal Spaces: Photographs of Morocco by Rose-Lynn Fisher. Los Angeles-based photographer, digital artist and mixed-media painter Fisher traveled in Morocco and observed a way of life infused with faith and humor, where the thinnest of membranes seemed at once to separate and to unite the realms of the visible and the invisible. This exhibition features 48 black-and-white photographs that explore the theme of the "liminal," the sensory threshold that exists in social interactions, physical spaces, and desert and urban settings. Images of gateways, shrines, cemeteries, wells,

Continued from previous page

mosques and synagogues invite viewers to consider the notion of "in-betweenness" in physical as well as metaphysical contexts. Actions such as preparing for the Sabbath, embarking on pilgrimages, Muslims reminiscing about their former Jewish neighbors or visiting a place whose purpose has been redefined mark transitions between the mundane and the sacred, and the past and the present. UCLA Fowler Museum of Cultural History, **Los Angeles,** September 17 through January 14.

Early Bronze Age Society in the Land of Magan Between Desert and Sea (Oman, Third Millennium BCE) is the title of a lecture by Serge Cleuziou of the Centre National de la Recherche Scientifique in Paris. 6 p.m. University of Pennsylvania Museum, **Philadelphia,** September 26.

<<< October

Venice and the East examines the relationship between Venice and the Islamic world over a thousand-year period, focusing on artistic and cultural ideas that originated in the Near East and were channeled, absorbed and elaborated in Venice, the European city-state that exercised economic and commercial hegemony over the Mediterranean. The underlying theme of the exhibition will focus on the reasons why a large number of Venetian paintings, drawings, printed books and especially decorative artworks were influenced by and drew inspiration from the Islamic world and from its art. "Orientalism" in Venice was based on direct contact with the Islamic world, which brought forth new technological, artistic and intellectual information. These Venetian objects will be studied vis-à-vis works of Islamic art, providing an immediate, comparative visual reference. A continuous thread throughout the exhibition deals with the works of Islamic art that entered Venetian collections in historical times and explores the nature of the artistic relationship between Venice and the Mamluks in Egypt, the Ottomans in Turkey and the Safavids in Iran. Institut de Monde Arabe, **Paris,** October 3 through February 18.

Shadow of the Silk Road is the title of a talk by travel writer and novelist Colin Thubron describing his journey along the great trade route from China to the Mediterranean. Pre-registration 215-573-8280. 5 p.m. University of Pennsylvania Museum, **Philadelphia,** October 4.

The Neolithic and Chalcolithic in Armennia is the topic of an archeological lecture by Christine Chataigner at 10 a.m. at the Institute of Art and Archaeology, 3 rue Michelet, **Paris** 75006, October 5.

Resistance to Persian Invasion: New Evidence From Egypt Regarding Events in the Fourth Century BCE is the topic of a lecture by Dr. Ronald Redford. $5, 6:30 p.m. University of Pennsylvania Museum, **Philadelphia,** October 6.

Images from the End Game: The Photographs of Alexander Iyas, the Tsar's Consul to Persia, From 1901–1914. Alexander Ivanovitch Iyas, officer in the Tsar's Lithuanian Regiment, arrived in Persia in 1901, in the small town of Turbat-i Haydari near the Afghan border. He was armed with several cameras, including the remarkable Kodak Panoram, which took 150° wide-angle images. As head of the Sanitary Cordon, Iyas's mission was to ensure that bubonic plague would not be carried into Russia by trading caravans coming from British India—but the British were convinced he was there to gather intelligence. In 1912 he was transferred to Soujbulak, a Kurdish town south of Lake Urmie near Persia's western border with Turkey. Throughout his years in Persia he documented the places, people and events he encountered with some remarkable photographs, providing us today with a rare Russian point of view of the Great Game—the rivalry between Britain and Russia for the domination of Central Asia. A unique and hitherto unknown group of images has been uncovered for a region and a time for which no other comprehensive collection exists. Brunei Gallery, SOAS, **London,** October 10 through December 9.

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. Huntington Library, **San Marino, California,** October 14 through January 3; **Princeton [New Jersey]** University Art Museum, opens January 27.

Art of Being Tuareg: Sahara Nomads in a Modern World. The elegance and beauty of the Tuareg peoples—their dress and ornament, their large white riding camels, their refined song, speech and dance—have all been rhapsodically described by travelers in Niger, Mali and Nigeria. This exhibition explores the history and culture of the Tuareg through their silver jewelry, clothing, leather purses, bags and saddles, and other highly decorated items. UCLA Fowler Museum of Cultural History, **Los Angeles,** October 15 through February 25.

A Future for the Past: Petrie's Palestinian Collection highlights the extraordinary finds made by the archéologist Sir Flinders Petrie, who spent many years working in the area around modern Gaza in the 1920's and 1930's.The sites he dug include major towns and trading centers which flourished over 5000 years ago. Petrie found beautiful pottery and jewelry and a huge variety of tools. This is the first time that many of these unique artifacts have been on public display. The exhibition draws on the letters, notebooks and photographs kept by Petrie and his colleagues that help recreate what daily life was like for the European archeologists and for the Palestinian men, women and children who worked on these excavations in the 1930's. Visitors can see into a "dig house," explore a trench and sit inside a Bedouin tent to watch a short film about life on the dig. Special interactive areas allow visitors to explore what archeology can—and cannot—tell us. Brunei Gallery, SOAS, **London,** October 17 through December 9.

Reviving Arab–American History is the theme of the first Arab–American History Conference, devoted to the importance of collecting and preserving information and artifacts relating to the history of Arab immigrants to the United States from 1880 onward, and disseminating information about the role of Arab–Americans and their achievements, contributions and commitment to the US. ⓘ 323-466-9500, 818-507-0333. Radisson Midtown, **Los Angeles,** October 21.

Cultural Connections of the Red Sea is the third conference on the Red Sea sponsored by the Society for Arabian Studies; it focuses on both ancient and historic connections: maritime networks, including seafaring, harbors and navigation; ecological connections, including human–environment interactions in the region; sacred spaces and landscapes, including religious traditions and pilgrimage; architecture; and identity, defined as visual and oral interactions including ethnographic perceptions, literature, craft traditions and ethno-musicology. ⓘ societyforarabianstudies.org. British Museum, **London,** October 27–28.

Pieces of a Puzzle: Classical Persian Carpet Fragments features 16th- and 17th-century fragments made in the Iranian province of Khorasan. Carpets from this time and place are known for their exquisite drawing, their superior wool and dyes, their broad palette featuring distinctive color combinations and their distinctive knotting variations—and for the fact that they are often fragmentary. The exhibition includes fragments from two of the earliest known Khorasan carpets, and reassembles pieces of one of them into their original configuration, giving visitors a sense of the scale and grandeur of the complete piece and allowing them to share in the process of research and discovery. Textile Museum, **Washington, D.C.**, through January 7.

Fragment of a so-called "Portuguese" carpet made in Khorasan (today's Iran or Afghanistan) about 1600.

TEXTILE MUSEUM

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. Michigan Avenue Galleries, **Chicago** Cultural Center, October 28 through December 31; Johnson Museum of Art, Cornell University, **Ithaca, New York,** January through March.

<<<November

Kalba, Sharjah, UAE is the topic of an archeological lecture by Carl Phillips at 10 a.m. at the Institute of Art and Archaeology, 3 rue Michelet, **Paris** 75006, November 2.

Ninth Annual Adobe Alliance Eco-Workshop offers the opportunity to learn to build an adobe vault by hand under the instruction of master craftsmen and -women. The intensive, hands-on course is limited to 20 people and will also include the construction of an adobe wall with keyed corners and the use of a waterproof earthen plaster enhanced with cactus juice. Vaults and domes built in exquisite equilibrium without supporting wooden forms are the least expensive and most climate-adapted adobe roofs; the techniques taught here are from Nubia by way of Egyptian architect Hasan Fathy. Course fee $300 until October 15; scholarships available. ⓘ swan@adobealliance.org. **Presidio, Texas,** November 3–5.

Amarna: Ancient Egypt's Place in the Sun tells the story of the rise and fall of a unique royal city, Akhetaten (modern Tell el-Amarna), which had been founded by the Pharaoh Akhenaten, probable father of Tutankhamun. The city hardly outlived its founder, however, because Tutankhamun, once enthroned, repudiated Akhenaten's belief in a single deity and reversed Egypt's official embrace of this heresy. The exhibition includes elegant statues of Tutankhamun, a monumental wall relief proclaiming the universal power of the sun-disk (Akhenaten's deity), jewelry and other objects owned by the royal family, and materials from Amarna craft workshops—even amulets of censored gods and goddesses. The more than 100 artifacts shed light on the role of Akhenaten in a generation of religious change and the part young Tutankhamun played in the eradication of that change. University of Pennsylvania Museum, **Philadelphia,** November 12 through October 2007.

Middle East Museum Management Seminar will bring together speakers from around the world to raise awareness of the importance of museums and to create links among professionals in the region. ⓘ karimeh.saiepour@britishcouncil.org.bh. British Council, **Manama, Bahrain,** November 13–14.

The Assyrians: Ancient Splendour in Northern Iraq is the theme of a study day sponsored by the British School of Archaeology in Iraq and Birkbeck College. Lecture topics include "The Nimrud Tombs," "King Ashurbanipal and His Library" and "The Assyrian Military." Course fee £35. ⓘ archaeology@fce.bbk.ac.uk. Room B34, Birkbeck College, **London,** November 18.

Louis Comfort Tiffany and Laurelton Hall: An Artist's Country Estate is an opportunity to examine some 250 outstanding works by one of America's finest designers through the home, furnishings and garden he created for himself. The exhibition includes a Steinway piano whose case was designed by Tiffany in 1887 and inspired by ivory-inlaid woodwork from Damascus; Laurelton's central Fountain Court, an homage to the Alhambra; and art objects Tiffany collected from the Islamic world. Metropolitan Museum of Art, **New York,** November 21 through May 20.

<<<December

Discovering Tutankhamun: The Photographs of Harry Burton celebrates one of the best-publicized episodes in the history of archeology: the discovery and exploration of the tomb of the Egyptian pharaoh Tutankhamun in 1922. Taken by the renowned archeological photographer Harry Burton, who had been "lent" by the Metropolitan Museum to Howard Carter, the photographs document every stage in the process of excavation. From the rock-cut steps leading down to the entrance passage to the first view of the contents of the tomb and the removal of the objects, Burton's images capture thousands of beautifully made and decorated objects found in the tomb. Metropolitan Museum of Art, **New York,** December 19 through April 29.

<<< January

Tell Shiukh Fawqani is the topic of an archeological lecture by Lus Bachelot at 10 a.m. at the Institute of Art and Archaeology, 3 rue Michelet, **Paris** 75006, January 11.

<<< February

RED explores the use and meaning of this potent color in textiles across time and place. From the pre-Columbian high Andes to the 21st-century streets of New York, red textiles are a compelling symbol, representing passion, power, status and human emotion itself. Before the invention of synthetic dyes, achieving this highly evocative color in textiles was no easy task. The difficulty of its production heightened the importance and allure of red cloth, which became a prestige commodity in many societies. The textiles on view illustrate the complex usage of red —not only to denote prestige, but also to celebrate love and beauty, to protect against evil, to promote good fortune and to mark such life cycle passages as marriage and death. The earliest textile in the exhibition is more than 2000 years old; others include an ancient Peruvian tunic border fragment, a Turkish velvet panel, a Chinese rank badge, a Navajo rug, a couture ball gown, an AIDS Awareness ribbon and a series of photographs depicting the use of red textiles in contemporary life. Textile Museum, **Washington, D.C.**, opens February 2.

The Coming of the Neolithic in Central Asia is the topic of an archeological lecture by Frédérique Brunet at 10 a.m. at the Institute of Art and Archaeology, 3 rue Michelet, **Paris** 75006, February 15.

<<< March

The Gulf Art Fair will showcase contemporary works of art from more than 50 galleries worldwide. Madinat Arena and Jumeirah Beach, **Dubai, UAE,** March 6–9.

<<<Permanent

The Jameel Gallery of Islamic Art, renovated thanks to the Abdul Latif Jameel Group, houses 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 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.**

Arts of the Islamic World Gallery at Doris Duke's estate, Shangri-La, houses her magnificent collection of tiles, textiles, paintings, jewelry and furniture and other objects reflecting both the secular and religious life of Islam in countries around the world. ⓘ 866-385-3849. **Honolulu** Academy of Arts.

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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