ARAMCO WORLD

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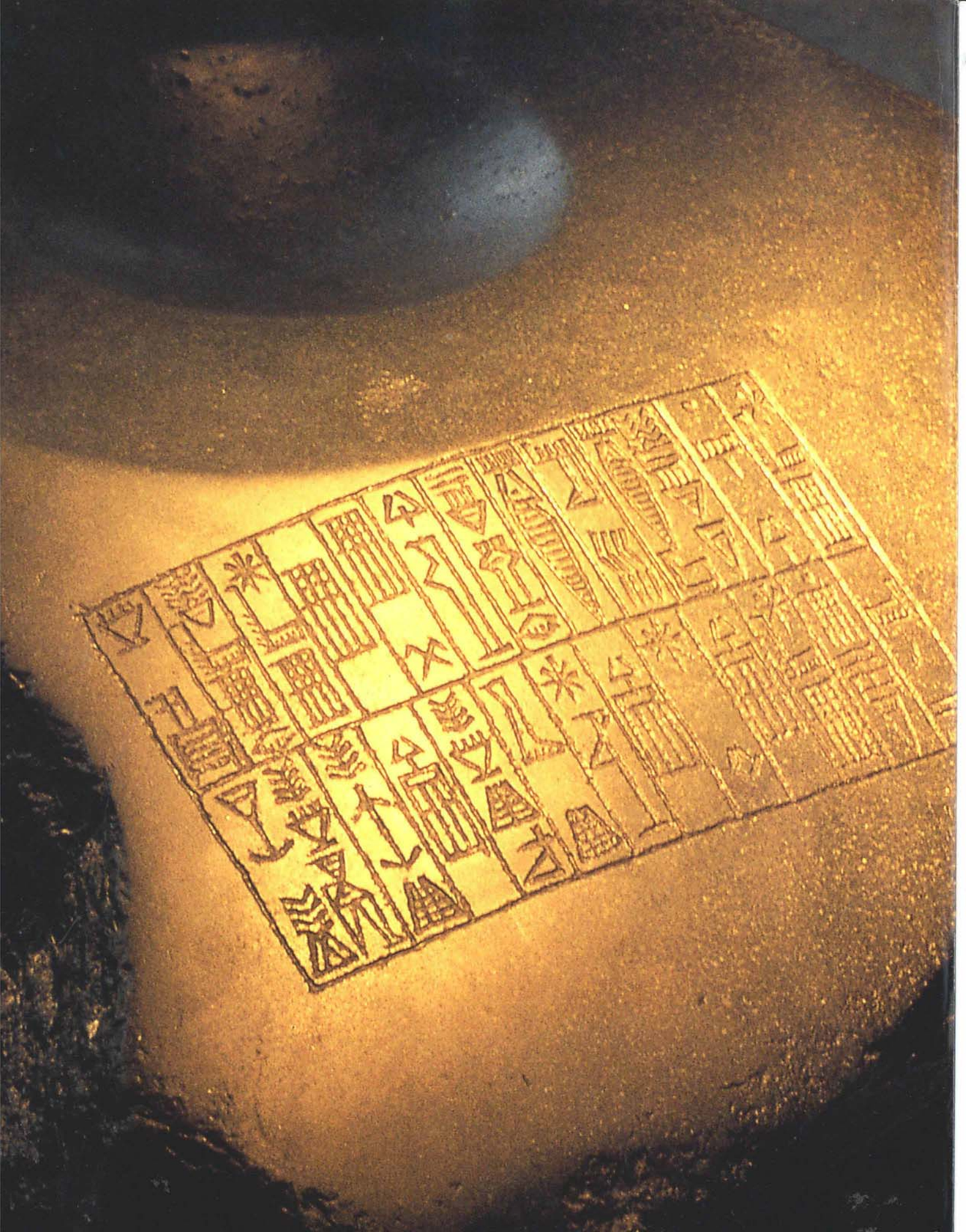
MARCH/APRIL 2000

SAUDI ARABIA'S DESERT CAVES



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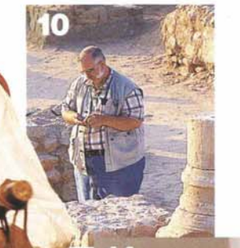

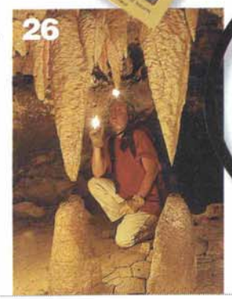

COVER:
Looking back toward the entrance, caver Christophe Delestre stands in Dahl Shawyah, the only one of Saudi Arabia's large caves known to be accessible without a rope-assisted descent. Like the other caves, it began to take shape during a pluvial period more than 8000 years ago, as great limestone deposits were gradually penetrated and partially dissolved by rainwater. Today, the limestone formation is an important aquifer, and some of the caves the water created in it contain mineral formations of remarkable delicacy and beauty. Photo by John Pint.

OPPOSITE:
This stone door socket from a Sumerian temple that was built in about 2200 BC supported the vertical hinge pin of a heavy door. It is inscribed with praise for the temple's royal builder—and curses on anyone who would obscure his name. Photo by Eric Haase.

BACK COVER:
"The lyrics come straight from your life," says Khaled, the "king of rai*." His international appeal powered the Algerian pop style to success in Europe and North America. Photo by Jack Vartoogian.*

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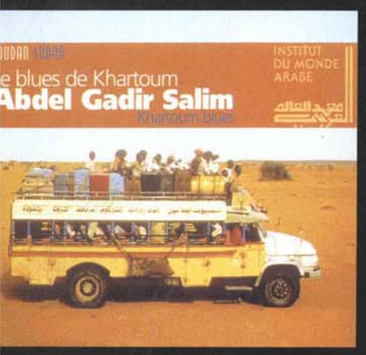
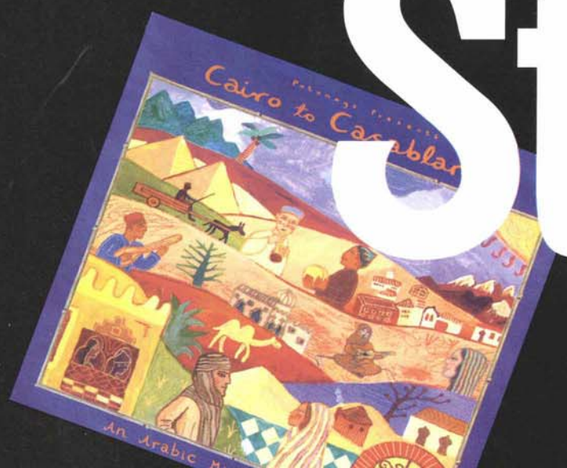
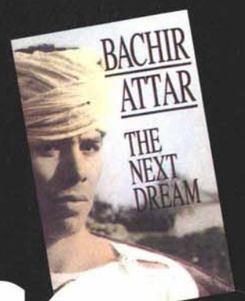
Saudi Aramco, the oil company born as a bold international enterprise more than half a century ago, distributes Aramco World *to increase cross-cultural understanding. The magazine's goal is to broaden knowledge of the culture of the Arab and Muslim worlds and the history, geography and economy of Saudi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

Arab Pop On The World Stage







Written by Louis Werner
Performance Photographs by Jack Vartoogian

You can hear the global village coming closer. The hybridized styles of "world beat" music, that loosely international fusion of rhythms or melodies from here with instruments or vocal styles from there, is audible everywhere. The resulting mixes are an ever-expanding aural banquet of unfamiliar ingredients, rich flavors and unexpected spices, and they are landing on western hit charts with more and more regularity.

Since the mid-1980's, world beat has gone from an exotic, marginal business to the big bucks of mainstream niche marketing. The recording industry added it as a Grammy Awards category in 1992, and music-store bins and web pages now fairly burst with new releases from all over, Afghanistan to Zimbabwe. Throughout the West, world-beat programs have become staples of public radio stations. "Afropop Worldwide," one of the shows with the largest audience, airs weekly on 120 stations in the United States and 15 in Europe.

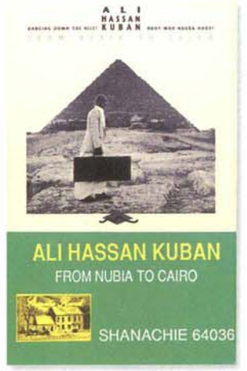
Richard Gehr of New York's *Village Voice* is one of the critics who think that within the world-beat genre—if it can be called that—Arab music is notably up-and-coming. In that sense, Arab music is the latest link in a chain of musical trends that since the 1950's have crossed borders and oceans to increasingly enthusiastic receptions among western listeners. It began with the jazzy cross-beats of Latin music brought to New York clubs largely by Puerto Ricans, who gave the post-World War II generation its first lesson in the modern sounds of the less-industrialized world. Latin music fed interest in the purer polyrhythms of Afro-Brazilian styles, especially bossa nova, which in turn stimulated attention, by the late 1960's, in West Africa. And many of the non-pentatonic chord changes of West Africa originated in the scales and pitch slides that came there in the Middle Ages with the Arabs.

That the West has largely neglected Arab popular music is not very surprising. Immigrant-based audiences have been small, in marketing terms, and there have been few producers interested in trying to bridge the cultural gap. It was simple, really: traditional Arab meters and modes can be difficult to grasp, even for well-trained western musicians. Today, however, listeners are more sophisticated and diverse, and the music itself is changing as well. In the United States, mainstream pop audiences have enthusiastically followed the lead of world-beat explorers such as Paul Simon (*Graceland*, 1986 and *Rhythm of the Saints*, 1990) and David Byrne (*Rei Momo*, 1989), and of collaborationists such as Ry Cooder.

Stanley Rashid, owner of Rashid Sales Co., a Brooklyn Arab-music distributorship founded by his father in 1934, says he sees steadily increasing demand from non-Arab listeners for pop music from the Arab world. "I'm constantly getting calls from night clubs all over the country asking for the latest 'Amr Diab album," he says, referring to the hot Egyptian singer. "Americans are at last realizing they can dance to this stuff."

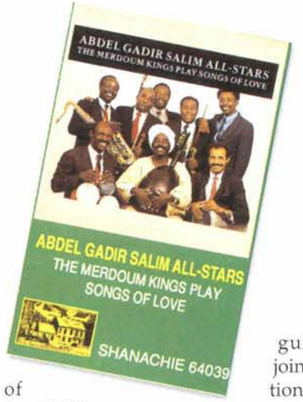
But Brian Cullman, a critic and producer who has worked on more than a dozen diverse world-beat albums, thinks Arab music is not about to hit the mainstream. "Hollywood seems to really like Middle Eastern music," he says. "Big-budget movies like *The Sheltering Sky* [1990] and *The Black Stallion* [1979] have used Arab-influenced sound tracks with great success, but it hasn't caught on with most listeners yet."

To explore Arab sounds in the world-beat scene, sampling can be simplified by keeping in mind four informal—but often blurred—categories: "Pop" is where often youth-oriented styles from throughout the Arab world blend traditional sounds with elements of tastes first established in the West; what might be called "crossover" is a fusion most commonly involving Arab musicians and western recording producers; "folk" is often a more localized sound, well-rooted in tradition, usually less heavily produced and made for listening rather than dancing, and finally one might call "arabesque" the inventions of western musicians who appropriate and reinterpret Arab styles and musicianship.



Arab music is the latest in a chain of musical trends that, since the 1950's, have crossed borders and oceans to increasingly enthusiastic receptions from western listeners.

Pop



Khaled added synthesizers and drum-machine tracks to already well-electrified rai styles. His childhood listening ranged from Egyptian, Spanish and French pop to the Beatles and James Brown.
Top right: *Dance beats and outspoken lyrics have been trademarks of electric-rai pioneers Cheba Fadela and Cheb Sahraoui since the late 1970's.*

Today, the most familiar Arab pop style in the West is *rai* (the word means "opinion," "point of view" or "way of seeing"), which by the late 1980's had grabbed young Maghrebian club-goers in much the same way rock-and-roll hooked teenagers in the 1950's. Although Algerian in its origins, *rai* spread quickly across the Arab world to North African immigrants in Europe and on to non-Arab audiences beyond. Its combination of up-tempo exuberance and gritty *verité* touched young audiences at their core. Says Khaled, an Algerian singer who has given the music its most electrifying shot, "In *rai*, you sing your true feelings. The lyrics come straight from your life, from your heart. It's about real life, not life as it's supposed to be." But it wasn't that that pulled the non–Arabic-speaking West to *rai*—it was the explosive dance beats that feel at home in clubs anywhere in the world.

The roots of *rai* actually predate its international popularity by nearly 50 years: It developed largely in sailor hangouts in the Algerian port of Oran. There, lyric singers like Chaikha Rimitti and Chaikh Hamada earned their honorifics (*shaykh* and *shaykha* mean, approximately, "leader") and melded Spanish, Egyptian, and Oran's own urban sounds with rural Algerian elements to create a genre with both commercial and artistic appeal. In the early 1970's, *rai* became more youth-oriented, and the singers began to be known as *cheba* and *cheb* ("kid"), which helped them cultivate a rebellious, generation-specific image.

Instrumentally, it was in the 1950's that electric guitars, trumpets, and organs joined the band, raising the traditional Algerian string orchestra's volume through the nightclub roof. Then western rock-and-roll arrived, and the Tlemcen-born brothers Rachid and Fethi Baba Ahmed, early veterans of western rock bands, galvanized *rai* with synthesizers, drum machines, and fresh lyrics that by the late 1970's had put the form on the road to global popularity.

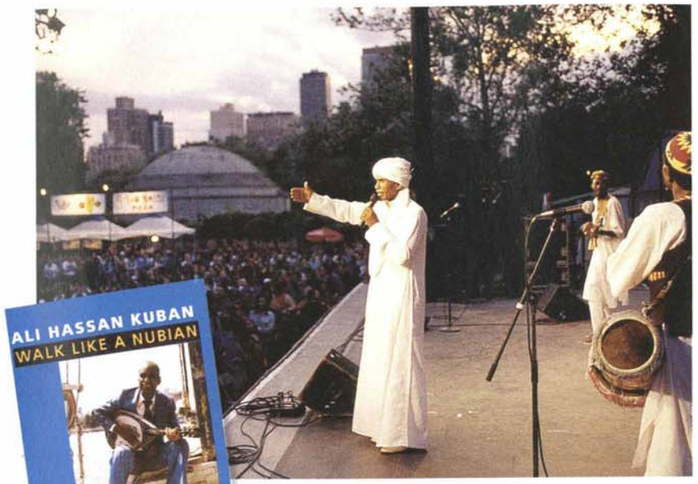
"Pop-*rai*," as the electric style is called, has since spawned its own stars. Oran-born Khaled, known as the "King of *Rai*," continues to rule *rai*'s roost. Since his first hit at age 16, Khaled has both charmed and challenged Arab audiences and trendy club-goers worldwide. In 1991 he teamed up with Los Angeles producer Don Was to bring out *Khaled*, an album full of the headlong happiness that is his signature style. On subsequent recordings, such as 1997's *Sahra* and this year's *Kenza*, named for his daughter, Khaled has delivered a lively mix of new songs and fresh treatments of traditional *rai* standards.

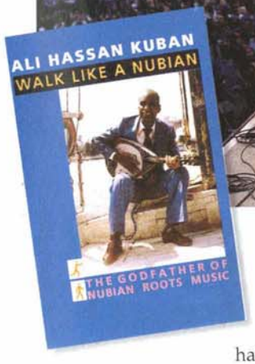
Saida-born Cheb Mami—known early in his career as the "Prince of Rai"—has taken the genre farthest from its North African roots. He has mixed *rai* and rap, made extensive use of special effects and vocal sampling, and recently came to the attention of mainstream pop in his duet with Sting, "Desert Rose."

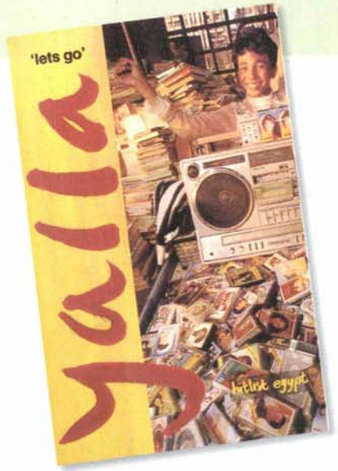
Rai continues to find favor with a new generation of artists and audience members. Faudel, a rising young star born in France but whose family hails from Tlemcen, exemplifies *rai*'s cross-cultural resiliency, and his winning personality and success on the European charts lead many observers to tap him as the future of *rai* on the continent. Still, the husky-voiced Cheba Zahouania and local Oran favorite Houari Benchenat, both of whom first came to prominence in the early 1980's, prove that veterans of the *rai* scene have considerable staying power, and that you need not be in your teens or 20's to sing up-to-the-minute lyrics.

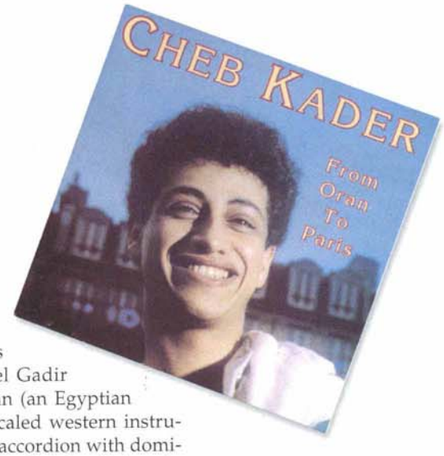
Although not strictly a *rai* artist, Rachid Taha is another Algerian singer with a strong presence in the world music record bins. The 1999 live recording *1,2,3 Soleils*, which grouped Taha with Khaled and Faudel, racked up tremendous sales in the Arab world and beyond, while his remake of "Ya Rayah," first recorded nearly a half-century ago by legendary Algiers artist Dahmane El Harrachi—who has exerted a considerable influence on Rachid Taha's vocal style—is heard regularly on radio and TV stations from Rabat to Riyadh.

A different pop style with an equally strong, easy appeal to westerners comes from Sudan and that Nubian heartland that reaches north into Egypt. Sudanese pop incorporates a myriad of styles from the Horn of Africa, from the lilting vocals of Swahili wedding music to the urgent work songs of Afar salt diggers, and it relies more on simple tribal dance rhythms than on the elaborate orchestrations of *rai*. Multiple handclap and drum beats underpin solo melodies that are often part of an earthy call and response in the chorus.









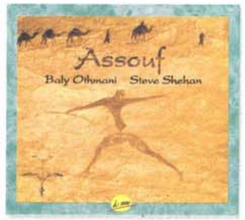
The result is a felicitous middle ground between the traditional and the contemporary. Band leaders Abdel Aziz Mubarek, Abdel Gadir Salim, and Ali Hassan Kuban (an Egyptian Nubian) nimbly mix Arab-scaled western instruments like violin, guitar and accordion with dominant lines on the traditional Arab *'ud* and densely layered percussion.

Unlike much of the sugary, teeny-bop pop of the post-Umm Kalthum era in Egypt, Sudanese music is neither overly electrified nor tricked-up with studio gimmicks. Singers enunciate their words in unhurried cadences. Lyrics are celebratory, nostalgic, and humorous. Bandleader Salim's breakthrough hit "Umri Ma Bansa" ("I'll Never Forget [Her]," released in the West in 1990) recounts an event of great local import: the first visit of a Bedford lorry to Kordofan Province. This Salim made into a metaphor for his beloved, ending with the double-entendre, "You drove me insane!"

One Egyptian to break at least partly out of the teenybopper mold is 'Amr Diab, torch-bearer of *al-jeel* ("the generation") music, an electrified, up-tempo style dating from the late 1970's and aimed at the country's new class of young, well-educated urbanites. Diab also works outside his tradition, having recorded with Khaled, a Spanish flamenco group, and Greek singer Angela Dimitriu. Says Stanley Rashid, "*Jeel* has very sophisticated tempos, and Diab knows how to show them off. My hunch is he will be the first Arab singer to make it big here."

Part tradition and part innovation, Ali Hassan Kuban's decades-long experimentations with horns, electric guitars, keyboards and diverse percussion often result in music that westerners find surprisingly delightful.

Crossover



Hassan Hakmoun's music has roots in Morocco, but his energy and flamboyant showmanship are all his own.

Some of the best Arab crossover music seems to be generated in North Africa, perhaps because of its proximity to Europe. One of the most innovative bands, called Aisha Kandisha's Jarring Effects, is from Morocco. Their latest album was recorded in Casablanca and remixed in New York by rock legend and world-beat guru Bill Laswell, a student of Arab music. Laswell's approach was to overlay the band's own tracks with a "techno" sound of electronically-altered *darabuka*, Arabic rap vocalizing, drum machines, and bass lines, resulting in a boundaryless trance. Since its start in 1987, all of the band's albums had been produced by Swiss-born Pat Jabbar el Shaheed, whose small Barbarity label puts out cutting-edge music from around the Middle East.

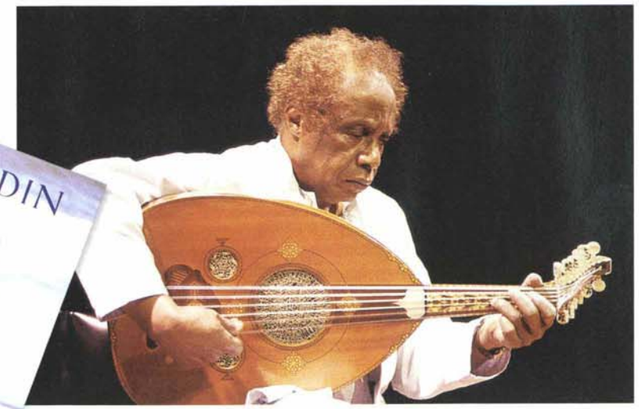
Other crossover artists of note include the Moroccan band Ahlam, which sings in a North African *al-jeel* mode; the Turkish rap group Asiatic Connection; and Sapho, a new-wave Moroccan chanteuse who has been promoted as a "technopop Umm Kalthum."

In the United States, it was studio pioneer Brian Eno who teamed up with David Byrne in 1981 to first put Arab music before the western art-music crowd. Their album was called *My Life in the Bush of Ghosts*. On two standout tracks, Eno overdubbed a Lebanese folk lyric lifted from the ethnomusicology series *Music from the World of Islam* with heavy percussion and bass guitar grooves. Two other tracks "sampled," or appropriated, recordings from other Arab countries, giving the album a feel of Anglo-Arab avant-garde. Today it is regarded as a seminal work in both the world-beat and trance/ambient/techno genres.

As a virtuoso traditionalist, Simon Shaheen may seem like an unlikely fusion experimentalist, but he too has collaborated with some of the more adventurous producers. (See *Aramco World*, May/June 1996.) On the 1993 Laswell-produced album *Hallucination Engine*, he composed two pieces for *'ud*, violin, *qanun* and Arab voice that were then modified electronically and looped with electric-bass lines. Though he now regards the album as only a partial success, Shaheen says that "it taught me that fusion can work, if only on a limited basis, when styles meet that are closer in spirit to one another, with more structure and vision behind the musicianship." He has gone on to simpler collaborations: a 1997 acoustic album called *Saltana*, in which his *'ud* played in conversation with an Indian guitar, and a project still in progress with a Brazilian percussionist, a Spanish guitarist, and a US flautist.

Hassan Hakmoun is a Gnaoua-tradition musician also schooled in the street sounds of Marrakech who has "crossed over" with some success. He came to New York on a government concert tour in 1987 and decided to stay, finding a Moroccan-restaurant niche playing *sintir*, a deep-voiced, three-stringed lute. His following soon included both world-music fans and dance aficionados, the latter thanks to his crowd-pleasing, twirling stage-leaps that can reach nearly head-height. In 1989 Hakmoun founded Zahar, an Arab funk-rock fusion band with heavily syncopated bass lines and wailing electric guitar feedback modulated by the lighter sounds of *sintir*, clattering *qarqareb* (iron castanets), and Arabic lyrics. *New York Times* music critic Peter Watrous called Hakmoun's style part rural and part urban, "mixing the past and present and creating the roar that all great dance and trance music aspires to."

Folk



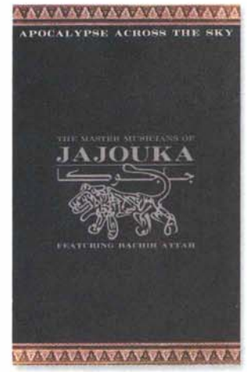
In the more conservative halls of folk music, the musicians are in fact no less inventive borrowers from other Arab and non-Arab traditions. Their often unhurried music, mostly free of recording-studio button-pushing, has proved enormously popular in the West.

One dedicated traditionalist is Hassan Erraji, a blind Moroccan multi-instrumentalist living in Belgium who records with European musicians on bass and drums. Erraji's unadorned playing on *'ud*, *qanun*, *ghaita*, *nay* and violin is tempered by his advanced conservatory training in western composition, while his pain-infused Arabic lyrics cry out to the ears of non-Arab listeners in the way that Leonard Cohen's and Edith Piaf's songs appeal across linguistic borders.

Only slightly more peripatetic is Nubian *'ud* master Hamza El Din (See *Aramco World*, July/August 1991), whose career has led him from the banks of the Nile to the Sea of Japan to his current home on San Francisco Bay. Along the way he has worked with a colorful crew, including American pianist William Mathieu, Jordanian percussionist Hani Naser, Nubian lyricist Mohi El Din Sherif and the Grateful Dead. He has composed for such modernists as theater director Peter Sellars, the Kronos Quartet, and the LINES Ballet. He also recorded several cross-cultural duet albums with Japanese folk musicians. Hamza's latest recording, *A Wish*, was inspired by word that a farming project on Lake Nasser will soon breathe new life into his abandoned boyhood village, and it seems to bring his music full-circle back home. But, ever the restless traditionalist, Hamza uses piano, cello, *nay*, and *'ud* despite the fact that "pure" Nubian music is based on only one instrument: the hand drum.

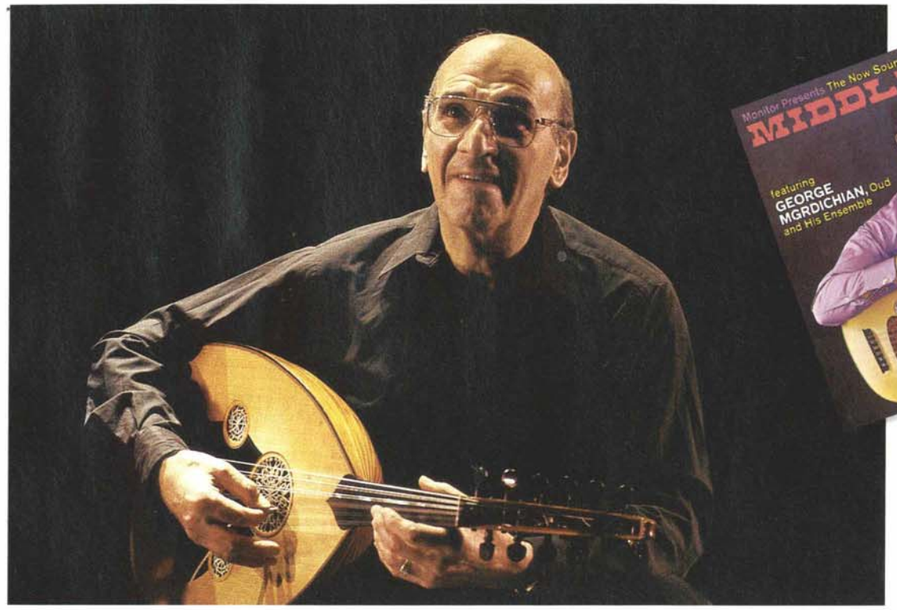
In Spain, Al Tall brings a more strictly historical approach. As Spaniards, the group's members are devoted to preserving and reviving their country's Andalusian arts, particularly the lyrical poem form known as the *muwashshah*. This is the convention that, in the Middle Ages, evolved into the French troubadour song and which today remains the sentimental basis for all popular love ballads. Says group leader Vincent Torrent, "We believe in the power of Mediterranean music as an alternative art form, and believe that a place must be made today for this mode of expression." To that end, Torrent invited the Muluk al-Hwa, singers from Marrakech's grand public square, the Djemaa el Fna, to collaborate on the 1994 tribute album *Xarq al-Andalus* dedicated to Valencia's 11th- and 12th-century poets Ibn al-Khafaja, Ibn Amira, Ibn Labana, and Ibn Zaqqaq. On the album, Moroccan *'ud*, Gnaouan *sintir*, Spanish guitar and flamenco handclapping, backed by electric bass and synthesizer, meld smoothly under the lyrics of texts sung alternately in chanted Arabic and *cante jondo* ("deep song") Catalan (See *Aramco World*, November/December 1994.)

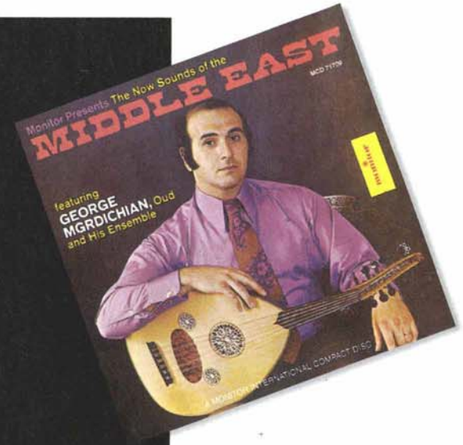
Also from Morocco, the musicians of Jajouka are an association of *ghaita* (double-reed flute) players and drummers living in the remote Jibala Hills in the Rif mountains above Tangier. Lionized by a stream of hipster expatriates and literati led by Paul Bowles (See *Aramco World*, July/August 1996), William Burroughs and Brian Jones of the Rolling Stones, they were recorded on location in a cave in the early 1970's by Bill Laswell's mobile recording studio; they later recorded with jazz avantgardist Ornette Coleman and accompanied the Rolling Stones on tour. Laswell's latest work with them, *Apocalypse Across the Sky* (1992) blended genres more than ever and matched group leader Bachir Attar on *ghaita*, *gimbri* (a skin-covered, banjo-like lute) and *lira* (cane flute) with Senegalese percussionist Aiyb Dieng and American rhythm-and-blues saxophonist Maceo Parker. The result is a mostly African hybrid that stirs Riffian, Wolof and African-American musical sensibilities into a surprisingly unified whole.



A traditionalist who has lived and played all over the world with almost every manner of musician, Hamza El Din was one of the first African musicians to gain popularity in the West in the 1960's.

Arabesque





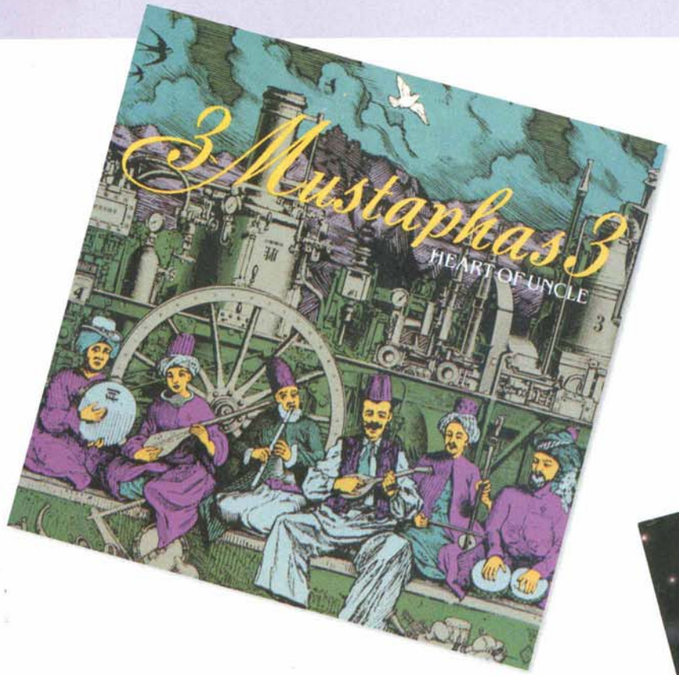
Armenian-American 'ud virtuoso George Mgrdichian got his start in the early 1960's in New York's jazz, bop and beat clubs, and he continues to be a popular performer at music halls and festivals.

Turning last to the "arabesque," that loosely Arab-styled sound played by westerners, a nagging question surfaces: What constitutes an "Arab sound" for western ears? When a musical tradition relies as much on invention and improvisation as Arab music does—as opposed to the notational exactitude of western classical traditions—how Arab can it be if it is not played by musicians born into the genre? At what point has someone from outside the tradition acquired *tarab*, a term meaning "musical rapture," approximately equivalent to "groove"?

One musician who has made a name in Arab music is Brooklyn-born Armenian-American George Mgrdichian, a post-beatnik *'ud* player who seems to have popped up everywhere on the New York scene, from the New York Philharmonic's guest soloist chair to Greenwich Village jazz sessions. Having adopted the defining instrument of Arab classical music that centuries ago gave Europe the idea of bowed and plucked strings, he has fashioned himself into a pioneering icon of cool exoticism, part virtuoso and part curiosity, a peculiar and popular straddler of East and West.

Once after a coffeehouse jam, Mgrdichian was approached by an appreciative Arab listener who asked him to produce a private, one-copy-only recording of a number of otherwise undistinguished Cairo nightclub songs in a jazz style. Mgrdichian agreed, and brought together the best New York-based Middle Eastern musicians he could muster, including Mohammad el-Akkad on *qanun*, Sudan Baronian on soprano saxophone (whose reedy sound echoes the Egyptian *nay*), and Jerusalem-born Hanna Mirhige on *darabuka* and tambourine. Mgrdichian's orchestral arrangements showcased the musicians' respective talents according to the strict rules of the Arab science of improvisation, known as *taqsim*, as well as the more free-form invention of jazz, resulting in a natural sound that nonetheless moved in new directions. Their patron was delighted with his recording but soon died of a heart attack, and the recording went unplayed until Mgrdichian reclaimed the copyright and released it commercially in 1990 as *One Man's Passion*—a title intended as a tribute to the anonymous patron.

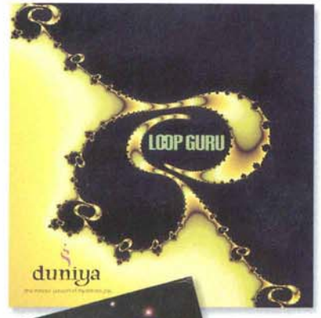
New Yorker Richard Horowitz is, like Mgrdichian, something of a middle-grounder, but leans more toward the avant-garde. He studied through the 1970's in Morocco under the finest *nay* players and percussionists, and although he returned to New York City's experimental music culture with a great respect for tribal timbres, he was determined to put them to creative uses within his own culture. The fruits of this marriage of North American recording technology and Horowitz's North African musical apprenticeship are apparent on his soundtracks for feature films that have included *The Sheltering Sky* (1990), for which he won a Golden Globe award. Although such electronically filtered compositions are generations removed from the traditional uses of the *nay*'s call and the *darabuka*'s echo, traditional undertones still echo in these mixing pots.

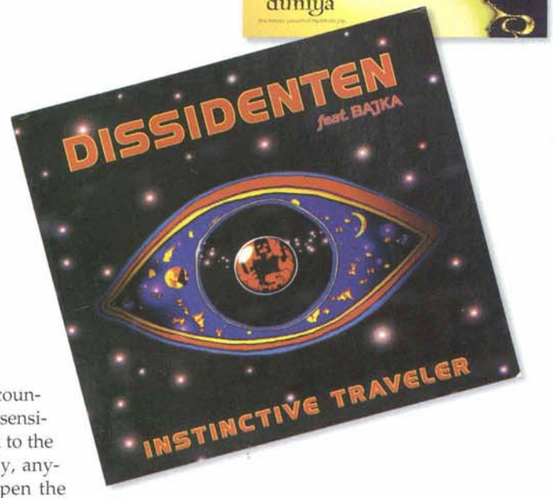


In a very different vein—a mock-whimsical, post-modern one—3 Mustaphas 3 is an eclectic British band whose appeal derives as much from posture as virtuosity. Each "Mustapha"—they appear on stage wearing fezzes—is in fact a dead-serious, non-Arab ethnomusicologist, and their idea of a perfect vacation is to spend a month learning maddeningly complex flute meters from Montenegrin goatherds. Their vast multi-instrumental talents range from the Egyptian *nay* and the Moroccan *bendir* to the Hawaiian guitar and the Cuban conga; they frequently utilize rare Balkan folk instruments in tandem with vocals of phonetically transcribed Arabic or Turkish.

In a more conventional rock mode, the Berlin band "Dissidenten," composed equally of expatriate Arabs and Germans, takes Middle Eastern string and reed instruments and amplifies them to clearly non-traditional volume, then mixes them with electric guitar, bass, and trap drums. Though at times the result can sound a bit more like parallel play than fusion, the band is one of the few in the field of rock to make Arab music part of its signature sound.

The music from all these diverse sources teaches a simple lesson: The Mediterranean and Arab worlds contain few, if any, closed musical borders. Whether it is a Lebanese love ballad or an Albanian dance step, each country's sounds and sensibilities owe much to the others'. Ultimately, anyone's keys can open the region's musical lock, and much of the world's popular music today reflects more the musicians' particular explorations than the traditions from which they come. Musical talent today quickly transcends musical heritage, and western audiences are at least intrigued, if not yet utterly enamored, with what was once largely unavailable and unappealing, branded as exotic and "Oriental." In the global listening booth, the Arab sound is being received "*al-'ud* and clear."





Louis Werner is a film maker who lives in New York. His favorite Arab pop style is almost extinct: the nightclub orchestras that once enlivened Cairo's Tawfiqiyya district. A taste of that sound was preserved in 1991 on "The Music of Mohamed Abdel Wahab," by Simon Shaheen on the Axiom label.

Resources:
www.allmusic.com
www.amazon.com
www.rashid.com

Musical talent today quickly transcends musical heritage. Western audiences are at least intrigued, if not yet utterly enamored, with what was once largely unavailable.

DIGGING OUT

AQABA'S ISLAMIC PAST

WRITTEN BY WILLIAM HARMS • PHOTOGRAPHED BY BILL LYONS

Modern Aqaba's *suq* spreads out in front of the city's post office, a series of shops selling wares and crafts from the Arab world and beyond. As traders here have done for centuries, these small businessmen offer goods of utility and luxury that reflect the city's role as an entrepot where land and sea routes cross.

Dresses and handbags hang outside the small shops while their keepers sit outside, greeting passersby. All the city seems to be out for an evening stroll. Though well after sunset and late in October, the weather is tropically warm—just right for luring tourists from within and beyond the Middle East to Jordan's only port on the northeastern arm of the Red Sea.

Also on the streets this evening is an archeologist whose face has become familiar to many of the shop owners: Donald Whitcomb, a researcher at the Oriental Institute of the University of Chicago. In 1986, Whitcomb located along Aqaba's beach the buried ruins of what has turned out to be one of the earliest planned Islamic cities: Ayla, founded in about 650 and forgotten since the 1500's. Successive excavations have revealed the extent and layout of the city, numerous buildings (including a congregational mosque of imposing proportions), evidence of trade connections that reached as far as China, and a hoard of 32 mostly Moroccan gold coins dating from the 10th and 11th centuries.

Whitcomb's excavations, overseen by Jordan's Department of Antiquities and funded by the United States Agency for International Development, the National Geographic Society and private donors, have sparked interest among archeologists throughout Jordan. "This is a very important project, not just for Jordan, but for our understanding of the whole early Islamic period," says Ghazi Bisheh, director general of the country's Department of Antiquities. "This site is vital to understanding town planning and urban development."

Unlike other archeological sites that are often fenced or guarded, Ayla is locally celebrated and visited. The area, set between the sea and several main streets, was largely undeveloped in modern times and has long served as a kind of informal park. That has made Ayla, now about 20 percent excavated, easier for Whitcomb and other archeologists to reach, and it has also made the dig a work-in-progress attraction, like a construction site. "Our discoveries take place with tourists watching," Whitcomb says.

The next morning, Whitcomb and Sawsan al-Fakhry, inspector of antiquities for Aqaba, take a small group of visitors on a tour. Al-Fakhry is a veteran archeologist who has spent several seasons at Ayla. She shows Whitcomb the new mortar she developed to make her restorations of newly excavated walls almost indistinguishable from the originals

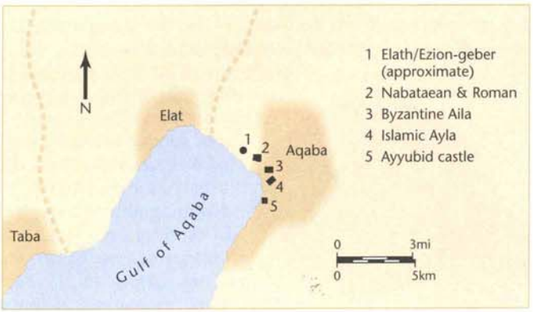
One such restoration is a 2.5-meter (8') gateway arch made of roughly cut limestone blocks that stands just inside a gate in the city wall. Although it was excavated intact, it was rebuilt because the arch blocks were in danger of collapse. Now, it gives a visitor a sense of what it would have been like to walk into Ayla shortly after its founding.

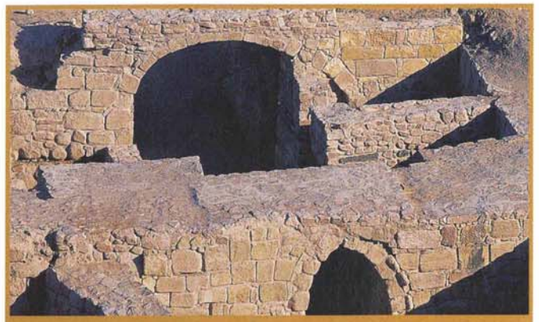
The arch leads into a street that is so narrow one can almost stand in the middle and touch the walls of buildings on both sides. Whitcomb explains that the streets were about three meters (10') across when the city was first built, but that over 400 years of use, successive layers of construction show that many buildings gradually expanded into the streets. "They would have accommodated the donkeys and the carts that made their way into the city carrying trade goods, and the visitors making the pilgrimage," Whitcomb says. "We aren't quite sure why that encroachment took place, but it could have been due to a decline in government authority in the 10th and 11th centuries," a time that, for the region as a whole, was "increasingly anarchic."

*Using observations made early in the century by T.E. Lawrence, Donald Whitcomb of the University of Chicago spent "a few days poking into empty lots and gardens" in 1986. His reward was the discovery of Ayla, one of the earliest Islamic cities. Jordanian antiquities inspector Sawsan al-Fakhry has led much restoration work on the site, including that of the Egyptian Gate, **opposite**, through which travelers from the west passed onto one of the city's four main streets.*

Measurements of the city walls show that Ayla measured 145 by 170 meters, or 2.5 hectares (475' x 560', 6 acres), roughly the size of the citadel of Amman, Jordan's capital, and of other *qusur*, here meaning "desert castles," of the early Islamic period. (See *Aramco World*, September/October 1990.) Towers stood along each wall, and each side had its gate, flanked by two more towers. The southwest wall of the city was probably immediately on the Gulf of Aqaba, and may have contained a series of chandlers' and other shops that served ships. The Muslims built their city along the lines of Roman and Byzantine models: Two perpendicular, axial streets intersected at a small square that may have been covered by a dome on columns—an Islamic adaptation of the classical tetrapylon. The rest of the city was laid out according to the grid that the two main streets established.

One of the most remarkable discoveries so far is the congregational mosque, whose style dates it to between the mid-eighth and mid-ninth century. It measures 50 by 20 meters (165' by 65'),





The Egyptian Gate was a double entrance. The narrower outer one, a pointed arch, opened onto a vestibule that may have housed small shops. The curved wall of one of its two flanking towers is visible in the foreground. ***Below:*** *A ceramic oil lamp, still sooty, is among the artifacts recovered at Ayla.*

and its outline, with its open courtyard and colonnade, is clearly visible in the northeastern portion of the city. Whitcomb believes that an earlier mosque is probably still to be found elsewhere, at a lower level yet to be excavated.

Like today's entrepreneurs and tourists, travelers who came to Ayla in the eighth through 11th centuries were part of a stream of religious and commercial visitors that linked the community to the larger world. They left objects, news or ideas that, like the Moroccan gold pieces, testify to the cosmopolitan nature of the city.

"In Aqaba," says Rami Khouri, an Amman journalist and author of several books on Jordanian antiquities, "you have patterns from the ancient and the modern worlds all in the same place. For example, the flight routes of Royal Jordanian Airlines today reflect the trade links that connected the Nabataean and early Islamic Arabs with many world civilizations in past centuries. Throughout time, communities have only flourished when they were connected with the rest of the world. That is one of the reasons why the discovery of Ayla is so fascinating."

Ayla's far-flung contacts long predate the Islamic city, something that becomes clear with a visit to Aqaba's 10-room historical museum south of Ayla, in a house that once sheltered Makkah-bound dignitaries amid the sprawling pilgrims' camping grounds. There, displays show that Islamic Ayla was actually the fourth of six settlement sites at this end of the Gulf of Aqaba, most of which have also been called "Ayla." Though its beginnings are hazy, most researchers agree that Ayla took its name from Elath, a city that first appears in accounts of the rule of Solomon at the beginning of the first millennium BC, and which was sometimes identified with Ezion-geber.

Exactly when the name changed is also uncertain, but at the beginning of the current era, the Greek geographer Strabo noted that Alexander had used "Aila" as a port in 324 BC. Not long after Alexander, in the third century BC, the Nabataeans, best known for their carved-rock architecture at Petra in Jordan and Madain Salih in Saudi Arabia, moved the city slightly to the south, and Nabataean shards from the first century of our era are today among the museum's earliest artifacts. Romans later occupied the Nabataean site, and still later the Byzantines built their city center some 250 meters (800') further south. Al-Fakhry points to an inscribed, cylindrical stone column, a Roman milestone from the early second century, when the city served as the southern terminus of the Via Nova Traiana, the trunk road that linked it with Bosra, Syria.

In the year nine of the Muslim calendar (AD 630), the army of the Prophet Muhammad arrived in Tabuk, some 200 kilometers (120 mi) southeast of Byzantine Aila. (Modern archeologists spell the name of the Roman and Byzantine cities with an *i* and that of the Islamic one with a *y*.) At that time, Islam was about to begin its vast, rapid diffusion out of the Arabian Peninsula. The leader of Aila—whom Islamic sources refer to variously as "bishop," "king," "ruler" and "chief"—traveled to the Prophet's camp and there arranged to pay *jizya*, or tribute, as a sign of Aila's peaceful submission. Some two decades later, under 'Uthman, the third caliph of Islam, Islamic Ayla was founded adjacent to the Byzantine town.

> "In Aqaba you have patterns from the ancient and the modern worlds all in the same place."

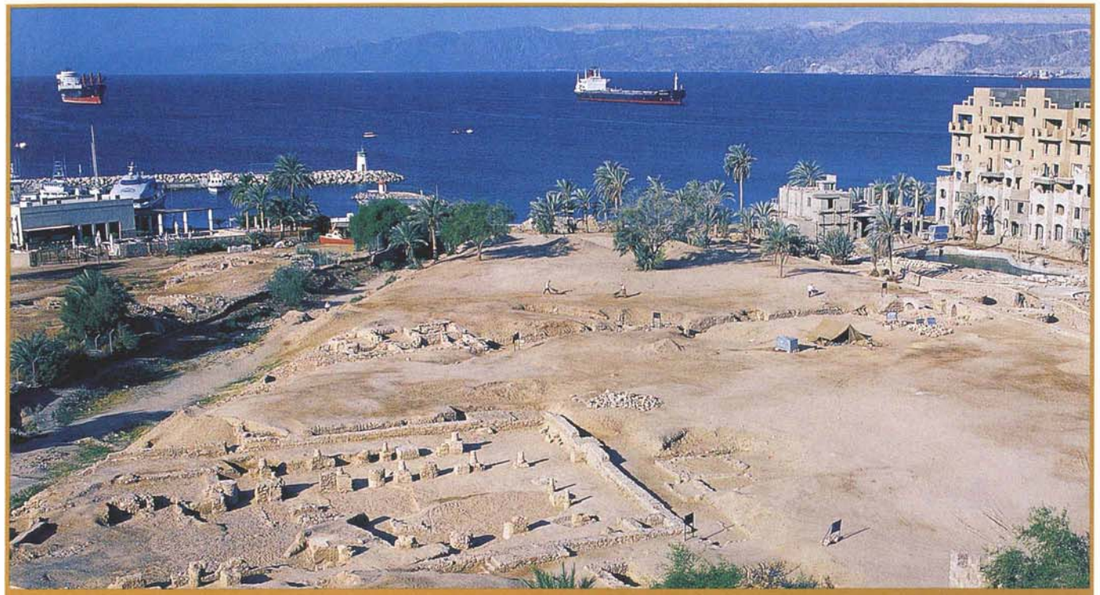
There may have been several reasons that the Muslims built a new city: Muslim rulers generally left non-Muslims relatively undisturbed, and often preferred to build alongside, rather than on top of, the communities of other faiths; there is also evidence that Byzantine Aila, where an archeological team from the University of North Carolina is digging, may have been discouragingly dilapidated by the mid-seventh century, though it remained extensively inhabited.

The Muslims quickly came to value their city not only for trade, but also because it lay along the routes that linked Makkah with both Egypt and Syria. This brought the additional prosperity that came as pilgrim traffic grew. It also meant that Ayla enjoyed the protection that Muslim rulers were obliged to extend to pilgrims traveling to and from the holy cities of Makkah and Madinah. Today, the pieces of blue porcelain from China, the ivory reliefs, the amphorae and several collections of commercial weights displayed in the museum hint at the extent of Ayla's prosperity, and its role in the cultural cross-pollination of that era.

"This is a very important city, not just for Jordan but for all the Islamic world," says al-Fakhry. "The mosque, for instance, is an example of very early Islamic architecture. The city itself helps us understand what an early Islamic city looked like. There are no other good examples of an entire city such as this anywhere.

"We want to keep this site open and available to everyone so they can experience what it must have been like," she adds.

Like most cities, however, Ayla had its decline, which appears in fact to have been cataclysmic. The wadi running through the southern portion of the city is some six to eight meters (20–26') deep, and it leads to the sea. It seems out of place



Viewed here from the fringe of Aqaba's modern commercial center, Islamic Ayla was roughly the same 2.5-hectare size as the citadel of Amman, Jordan's capital, but only about 20 percent of the area has been excavated. The remains of the city's congregational mosque appear in the foreground, left; behind them runs the deep, diagonal wadi that Whitcomb believes resulted from the same earthquake that caused Ayla to be abandoned in the late 11th century.

within the reconstructed walls. Whitcomb believes it may offer a clue to Ayla's demise. An earthquake is said to have killed all but 12 city residents in 1068, and those survivors happened to be aboard a fishing boat at the time. The ruined city was abandoned. Gradually, a new settlement arose some two kilometers (1¼ mi) south.

There, along what is modern Aqaba's King Hussein Street, stands the 12th-century Ayyubid castle, which Mamluks and Ottomans both later adapted. Today it lies between the town center and the industrial port, and the great pilgrim campgrounds lay on its inland side. In this Ayyubid period, the town began to be called Aqabat Ayla, or "Ayla Pass," a name that referred to the mountainous passes that connected the city with points inland. By the 14th century, the chronicle of Abu al-Fida noted that Islamic Ayla was largely a forgotten ruin, increasingly covered by sand. By the 16th century, the town name had been shortened to Al-'Aqaba, the name it retains today in Arabic, and the old city had disappeared.

Whitcomb says that it was a reference to Islamic-era shards in the writings of T.E. Lawrence that led him to his discovery. Lawrence had found the pieces "one kilometer north of the edge of the village," says Whitcomb, "and the problem then became determining the extent of the village in 1914. After a few days of poking into empty lots and gardens, a few shards began to turn up where Islamic Ayla was later found. Like most dreams, a little prior research helped serendipity in realizing this one."

Mahmoud al-Helalat, manager of tourism for Aqaba, explains that the discovery of Ayla has bolstered the historic appeal of his city. "It shows us a clear sequence of the development of Islamic culture," he says.

Between the visitor's center and the excavation site lies the Royal Jordanian Yacht Club, and on the north side of the Ayla site is a new, six-story hotel, designed in a style that is intended to make it a good neighbor, architecturally speaking, to Ayla. The relationship of the city's past to its future is an important concern also to Mohammad Balqar, vice president for technical affairs of the Aqaba Regional Authority, who has overseen the growth of Aqaba from 5000 people in the 1950's to more than 65,000 today.

"We have to be very careful in the way we utilize these sites," he says. "They are part of our heritage, part of what makes Aqaba unique." The archeological discoveries offer the city an opportunity to strengthen its identity, he adds. "For instance, by using stone instead of brick for the exterior walls of the new hotel, the developers are taking account of our heritage." In other places, Balqar says, "we want to use local granite instead of concrete, so that development of our city fits in with our environment."

As people have done during each of Aqaba's urban incarnations, modern residents are finding their future in making their city attractive to visitors.

William Harms (left) is a senior news writer at the University of Chicago. Bill Lyons is a free-lance photographer living in Amman.

The Art of Diplomacy

Written by Larry Luxner
Photographed by Eric Haase

When the presidents of Ecuador and Peru signed a historic peace accord in late 1998—ending 170 years of Amazon border hostilities—they had behind-the-scenes help from an accomplished diplomat of Arab descent who learned all about conflict resolution in the heat of the Lebanese civil war.

Ivonne Abdel-Baki, Ecuador's first female envoy to the United States, is also one of the few Arab women ever to have served as an ambassador to Washington. The 47-year-old diplomat, who has shortened her last name to A-Baki because "it's much easier for Americans to pronounce," arrived in the US capital in November 1998—just as Ecuador began sliding into its worst economic crisis of the 20th century.

"We have had so many problems, starting with El Niño," A-Baki says. "Low oil prices added to the problem, then came the financial crises in Asia, Brazil and Russia. At least the war with Peru is over, thank God."

That's something for which A-Baki can take at least partial credit.

Born in the sprawling port city of Guayaquil, A-Baki was the daughter of immigrants from the Lebanese mountain village of Btater. Like thousands of other Arabs who sought their fortune in South America, her family emigrated to Ecuador at a time when that country promised a wealth of economic opportunity.

In 1968, as a 16-year-old graduate of a Guayaquil *colegio*, A-Baki traveled to Lebanon for the first time to visit her mother's family. "I didn't know a word of Arabic when I went there," she says—but she stayed for 19 years, married, raised three children, began painting and studied Islamic art at the American University of Beirut. In between, she served as Ecuador's honorary consul-general to Lebanon. During most of those years, the country was embroiled in a heartbreaking civil war; it finally forced her to leave the Middle East permanently.

"My husband, Sami Abdel-Baki, was working with non-governmental organizations to help people, regardless of religion," she said. "When I left, it was because my two sons were finishing high school. I would have loved for them to enter American University, but things were getting too difficult."

A-Baki eventually enrolled at Harvard herself, where she established the Harvard Foundation for the Arts and continued to paint in her spare time. By the time she graduated in 1993, with a master's degree in public administration from the Kennedy School of Government, A-Baki had decided to dedicate her life to conflict resolution.

The gregarious ambassador—who in addition to native Spanish and Arabic learned in Lebanon also speaks fluent French, Italian, English and German—was determined to prevent Ecuador from following the path of death and destruction Lebanon had taken. In fact, she played a crucial role in bringing her country and its long-time adversary, Peru, to the negotiating table.

"Ever since I was a child, I was raised with the idea that Peru was our enemy. That's what they always told us in school," she says. "But as I grew older, I began questioning things."

Five years ago, while at Harvard, she and five other Ecuadorians began negotiating quietly with six Peruvian delegates, looking for a way to end a 19th-century territorial dispute that had already claimed thousands of lives and was costing both countries untold sums in lost revenue and lost investment in Ecuador's petroleum resources.

"Only two years ago, nobody would have been able to talk about peace with Peru," she explains. "Any president who had said he wanted a peace treaty with Peru would have been considered a traitor. There was no willingness to find a solution."

But thanks to the negotiations that began at Harvard, a solution was found, and on October 26, 1998 the then president of Ecuador, Jamil Mahuad—also of Lebanese descent—and his Peruvian counterpart, Alberto Fujimori, signed a peace treaty at an emotional ceremony in Brazil.

A-Baki says the fact that she's female has never held her back as a diplomat. "Everyone thinks that in Washington, it's tough to be a woman. But for me, I don't feel doors are closed. I feel very much part of the American system, and I'm comfortable here because I like what I do."

Her Arab background hasn't hurt, either. In February of last year, A-Baki hosted Yassir Arafat at her official residence when the Palestinian leader was in town. Their common Middle Eastern heritage and their families' long friendship aside, says A-Baki, Arafat was interested in knowing how Ecuador had made peace with Peru—a lesson he hoped to apply in his own part of the world.

A-Baki rarely has time to spend with her three children, now grown: 30-year-old Mohammed Manolo, a stockbroker with Merrill Lynch in New York; 28-year-old Harvard graduate Faisal Alejandro, who lives in Ecuador, and 24-year-old Tatiana, who, like her mother, is an accomplished artist.

In fact, one of Tatiana's paintings hangs in A-Baki's office, as do many of the ambassador's own works, including a chaotic 1994 masterpiece she titled "Bureaucracy" after the "vicious circle" she found in government offices in Latin America.

"My first identity is as an artist," says the diplomat, whose embassy sponsors more art exhibits and concerts than any other Latin American embassy in Washington. "Art opens the right and left sides of your brain. It helps you see the whole picture. Music, poetry, painting and dancing make you more human. In order to be in politics, you have to be human. And that's what art does for me."

A-Baki, who has three years left in her Washington assignment, is quick to answer when asked if she has any advice for young women considering a career in diplomacy. "You have to take risks and have a sense of humor," she says. "Some people take themselves too seriously. I don't." ⊕

Larry Luxner (left) is a free-lance journalist who specializes in Latin America. He is based in Bethesda, Maryland. His e-mail address is larry@luxner.com. Eric Haase is a free-lance photographer who lives in Rockville, Maryland.

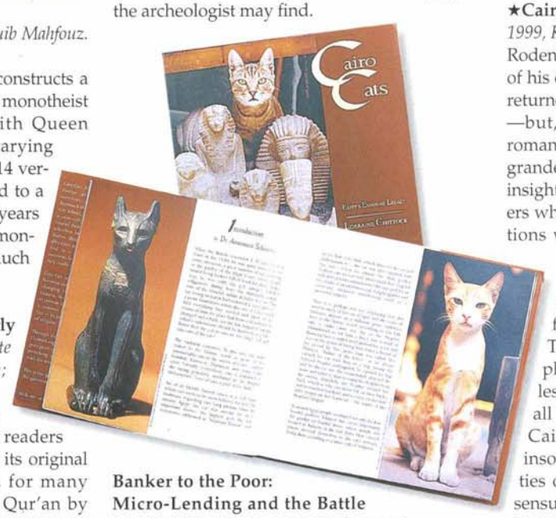
Suggestions for Reading

Aramco World readers who want to explore wider areas of the Arab and Muslim worlds will find interesting material, most of it recently published, in this annual list. Without endorsing the views of any of the authors, the editors encourage varied and omnivorous reading as a sure, if winding, path to greater understanding. The books listed here are available in libraries, from independent bookstores or from their respective publishers; International Standard Book Numbers (ISBN) are given to facilitate ordering. Please do not order books from *Aramco World*.

Akhenaten: Dweller in Truth. *Naguib Mahfouz. Anchor, 0-385-49909-4, $12 pb.*
The Nobel Prize–winner Mahfouz constructs a multiple biography of the "heretic" monotheist pharaoh and his brief reign with Queen Nefertiti, presenting the widely varying accounts of relatives and courtiers, 14 versions in all, as supposedly presented to a truth-seeking young nobleman 20 years after the ruler's death. Mahfouz demonstrates elegantly that history is as much a human construct as fiction.

★Approaching the Qur'an: The Early Revelations. *Michael Sells. 1999, White Cloud, 1-88399-130-7, $29.95 hb; 1-88399-126-9, $18.95 pb*
This unusually sensitive volume offers three significant services to readers unable to apprehend the Qur'an in its original Arabic. First, it recognizes that, for many Muslims, the transmission of the Qur'an by recitation is a tradition of great popularity and power. The author, a professor of religion at Haverford College in Pennsylvania, thus not only discusses the role of recitation and provides phonetic schemas to aid in understanding its structure, but has also included a CD recording to introduce the recitation styles. Second, he focuses on the relatively concise, early *suras*, which tend to be hymnic, prophetic and largely concerned with the human relationship to God, and which give non-Muslims a simplified point of entry to the spiritual foundations of the Qur'an. Finally, Sells offers new translations of these early *suras*, which together with his commentary will further assist non-Muslims to comprehend the spiritual depth of the Qur'an.

The Archaeology of Islam. *Timothy Insoll. 1999, Blackwell, 0-631-20114-9, £55/$62.95 hb, 0-631-20115-7, £16/$28.95 pb.*
Can archeologists draw conclusions about whole societies? The discipline of social archeology says they can, and Insoll proves it in the case of Islam. His goal is not only to demonstrate the richness and variety of the material culture of Muslim societies—he refers to a satisfactorily wide range of times and places in doing so—but also to interpret material culture and connect it convincingly to social characteristics. Islam itself structures his book, each chapter beginning with an epigraph from the Qur'an that sets the theme. Thus the obligation of prayer is made archeologically concrete in the structure of the mosque, the importance of privacy shapes the excavatable spaces of domestic structures, and dietary requirements affect the food remains and the building types the archeologist may find.



Banker to the Poor: Micro-Lending and the Battle Against World Poverty. *Muhammad Yunus. 1999, PublicAffairs, 1-891620-11-8, $24 hb.*
The simplicity and success of under-$100 lending turned Muhammad Yunus, founder of the Dhaka-based Grameen Bank, into a contemporary icon of humanitarian economics. He uses this autobiography, however, to step off the pedestal—not of his own construction—and tell his story in frank, conversational terms. "I never intended to become a moneylender. All I wanted to do was solve an immediate problem. Out of sheer frustration, I had questioned the most basic banking premise of collateral...." The question gave rise to Grameen Bank's conception of credit as a human right. Today, Grameen Bank is a multi-billion-dollar, multi-branched, international non-profit enterprise that has redefined the notion of development.

★Beads of Faith: The Sacred Name and the Heart's Celestial Garden—The Universal Use of the Rosary. *Gray Henry. 1999, Fons Vitae, 35 minutes VHS, 1-887752-32-3, $24.95.*
This is an inspired work of popular scholarship packed with insights. In what is essentially an illustrated lecture, Henry weaves connections at the deepest levels among what are commonly regarded as entirely distinct traditions: Prayer beads—*tasbih* in Arabic—are used not only in Islam, Christianity and Judaism but also in Buddhism and Hinduism. In each faith, although the ways the beads are used have varied, the metaphysical and spiritual goals that those forms have served are stunningly similar. The result is not only deeper appreciation of others' traditions, but also of one's own.

★Cairo: The City Victorious. *Max Rodenbeck. 1999, Knopf, 0-679-44651-6, $27.50 hb.*
Rodenbeck not only *knows* Cairo—he spent part of his childhood there, later studied Arabic and returned as a correspondent for *The Economist*—but, more importantly, he *loves* Cairo, not romantically but wholly, "in all her shambolic grandeur and operatic despair." His historical insight is substantial, and serious-minded readers who complain of his leaving off source citations will, in the next breath, praise his expansive bibliography. Anecdote, analysis and character are all sharp, rendered up to the reader in a kaleidoscopic fashion that is both erudite and populist. The approach suits Cairo well, for "other places may have been neater, quieter, and less prone to wrenching change, but they all lacked something. The easy warmth of Cairenes, perhaps, and their indomitable insouciance; the complexities and complicities of their relations; their casual mixing of sensuality with moral rigor, of razor wit with credulity."

Cairo: 1001 Years of Islamic Art and Architecture. *Caroline Williams and Gray Henry. 1999, Fons Vitae, 100 minutes VHS, 1-887752-23-4, $39.95.*
This four-part video works well on both a specific and a general level: On the one hand, it is an excellent survey of the Islamic dimension of Cairo's artistic heritage; on the other, it is—in the 20-minute second part—a superbly lucid introduction to the general principles that underlie all of the arts in Islam. The photography of the monuments is captivating, and the soundtrack gives the video the feel of a walking tour led by expert guides: Williams is the author of a previous book on Islamic architecture in Cairo, and Henry was a student of Islam for a decade at Cairo's renowned Al-Azhar University.

Cairo Cats: Egypt's Enduring Legacy. *Lorraine Chittock. 1999, Camel Caravan (www.cats.camels.com), 977-5762-01-4, $15.95 hb.*
In rambles through Cairo's nooks and crannies, mosques and markets, a cat-lover-cum-photographer captured city-savvy felines whose ubiquity in that city is, as all Cairenes know, both charming and maddening. This is a delightful gift book of photographs remarkable for their spontaneity and for Chittock's often whimsical sensitivities to body language and the cat's relationship to its surroundings. Each photograph is complemented by an apposite literary passage, and, with an opening historical essay by Annemarie Schimmel, they frame a lighthearted impression of the cat's lasting place in Egyptian culture.

Drinking the Sea at Gaza: Days and Nights in a Land Under Siege. *Amira Hass, trans. by Elana Wesley and Maxine Kaufman-Lacusta. 1999, Metropolitan Books, 0-8050-5739-0, $26 hb.*
As correspondent for *Ha'aretz* from 1993 to 1996, the author was the only Israeli Jew in permanent residence among the Palestinians of the Gaza Strip, then emerging from direct military occupation to its present semi-autonomous status. A daughter of Eastern European refugees who raised her "on the epics of resistance, on the struggles of a persecuted people," she writes that to her the move was "normal and logical, ...like any other journalist sent to cover a foreign country," but one that provoked outrage among friends, family and even readers who believed her life to be at risk. Her humane, well-reported, iconoclastic book is filled with the understandings that developed as contacts turned into friends, and she began to share deeply in a life that to most outsiders is defined largely by prejudice and stereotype. She has organized the book topically, using research, interviews and first-person narrative, and she is insightful, even intimate, at every turn, as perhaps only one can be whose own roots lie so close.

Eat Smart in Indonesia: How to Decipher the Menu, Know the Market Foods and Embark on a Tasting Adventure. *Joan and David Peterson. 1997, Gingko Press (Box 5346, Madison, Wisconsin 53705), 0-9641168-1-2, $13, pb.*
This little book is essential for travelers to a country where the food is riotously varied, delicious and, to most of us, utterly unfamiliar. It begins with a brief historical survey of the cuisine, citing the contributions of successive immigrant or colonial groups, then slices the other way, with sections on Indonesia's major culinary regions and their specialties and characteristics. Recipes, a listing of US sources for ingredients, then phrases in Indonesian all follow. Two alphabetical listings are the heart of the book: One is of menu items, with brief descriptions and notations; the other is of "foods and flavors" (and utensils, cooking methods and so on), in Indonesian, with English translations or explanations. The whole is thorough, information-packed and mouthwatering.

Gazbia Sirry: Lust for Color. *Mursi Saad El-Din, ed. 1998, American University in Cairo, 977-424-405-2, $39.50 hb.*
This is the first published retrospective of one of Egypt's most dynamic modern painters, who began her drawing and painting career as a student in the mid-1940's. Sirry's affinity for people from all walks of life is like a window into a collective Egyptian soul, brimming with conflicting emotions about teeming Cairo, expressed in stirring colors and endless motion, evoked by everything from children playing in streets to contemplation of the pyramids. Although she has exhibited frequently in Egypt and abroad, we hope this volume will bring the still wider recognition she well deserves.

God's Banquet: Food in Classical Arabic Literature. *Geert Jan van Gelder. 2000, Columbia University, 0-231-11948-8, $35.50/£22 hb.*
This innovative book illuminates both culinary and literary history. Van Gelder surveys the ways food appears in classical Arabic literature, including pre-Islamic poetry, the Qur'an, Islamic poetry and tales, the *Thousand and One Nights*, and popular genres such as the *adab* anthologies and satires. To show how food both forms and reveals aspects of Arab culture, he considers banquets and the prestige of prodigal hospitality; abstinence and piety versus satiety and sin; smorgasbords and rich literary diction; and food and parody. Focusing more on dishes than ingredients, the author is concerned with how food is depicted, as well as how literary texts are shaped by the theme of food. His command of the sources is magisterial, and he has a gift for unexpected conjunctions and deft phrasing that illuminate both literature and culture.

Grandfather's Tale. *Ulfat Idilbi, trans. by Peter Clark. 1998, Quartet, 0-7043-8100-1, £8.00/$12.95 pb.*
This is a modest, simply styled page-turner of a novel, in which the Syrian author lets a grandmother play Sheherazade to her imagined audience, always halting each "evening's story" on the brink of a compelling narrative development. The tale the grandmother tells is that of her own grandfather, Salih, who, as a boy in the early 19th century, had come from rugged Daghestan in the Caucasus to live with his father in Ottoman Damascus. When Salih's father takes him to Makkah for the pilgrimage, he reveals to Salih the bittersweet reason why Salih's mother will never join them in Damascus. Salih spends the remainder of the book in his quest to see her again, and thereby reconnect with his Daghestani roots. For the non-Muslim, this story freshly illuminates both 19th-century Islamic life and the experience of identity in a little-known part of the Islamic world.

Grape Leaves: A Century of Arab-American Poetry. *Gregory Orfalea and Sharif Elmusa, eds. 2000, Interlink Books, 1-56656-338-0, $17.95 pb.*
This is a welcome paperback re-publication of an introductory anthology of Arab-Americans' vibrant, often people-centered contributions to American literature. Presented are selections from 20 poets, from Ameen Rihani and Kahlil Gibran to the poet-editors themselves, Fawaz Turki and Naomi Shihab Nye.

Groot Arabisch Kookboek: De Keuken van 1001 Nacht. *Janny de Moor. 1998, Kosmos–Z&K, 90-215-3258-1, hb.*
If this is indeed the "first and only" book in Dutch about the whole geographical range of Arab cuisine, then the Dutch are lucky: It's an excellent introduction, written with sympathy, charm and an unintimidating manner of presenting the author's very considerable knowledge of the field. She is comfortable with the 4000-year history of Arab cuisine, and has traveled widely enough in the Arab world to be aware of how younger women, as busy as their western sisters, are modernizing as well as preserving the culinary traditions they have inherited. De Moor presents a wide range of recipes, interesting location photographs, and very useful introductory material that reveals warm and sensible attitudes about the unfamiliar.

The History of Islamic Theology: From Muhammad to the Present. *Tilman Nagel, trans. by Thomas Thornton. 2000, Markus Wiener, 1-55876-202-7, hb; 1-55876-203-5, pb.*
Nagel, professor of Islamic theology at Göttingen, writes from outside Islam and in the rationalist-historical tradition to explicate what Muslims have believed, using a style often found in western theological studies of Christianity that are based in history rather

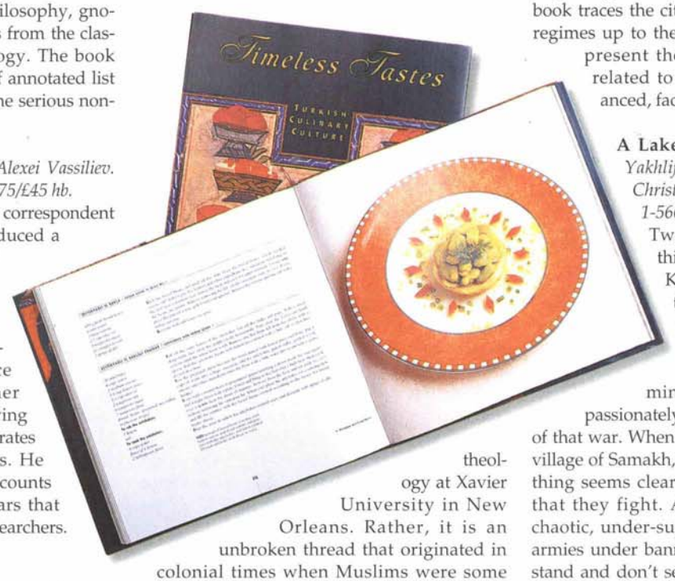
than faith. He has intentionally refrained "from rashly pointing out parallels or similarities between Islam and Christianity, because this tends to be misleading.... It is more important and helpful to recognize—and accept—the different nature of the other faith." He methodically examines the nature and meaning of the Qur'an; the nature of faith; concepts of salvation; the literary traditions of *hadith* and *kalam*; the role of rationalism in the major schools of Islamic thought; revelation, philosophy, gnosis, orthodoxy and, as he moves from the classical to the modern era, ideology. The book concludes with a relatively brief annotated list of further readings. Useful for the serious non-specialist reader.

The History of Saudi Arabia. *Alexei Vassiliev. 1998, Saqi Books, 0-86356-935-8, $75/£45 hb.*
Scholar, writer and Middle East correspondent for **Pravda**, the author has produced a thorough and detailed history of the Saudi state from its emergence in 1745 to the early 1990's. Its great virtue is the variety of sources used, including a pre-1797 primary source from al-Hasa along with other early Arab writers, whose varying political opinions Vassiliev calibrates to arrive at balanced accounts. He also, uniquely, draws on the accounts of Russian travelers and scholars that were not available to western researchers. An authoritative reference.

★The House of Wisdom. *Florence Parry Heide and Judith Heide Gilliland. 1999, DK Publishing, 0-7894-2562-9, $16.95 hb.*
This beautifully written, magically illustrated, deeply inspiring work of historical fiction, set in 10th-century Baghdad, is for children six and older. Ishaq is the son of a translator at the wonderfully named library, the *Bayt al-Hikma*, or "House of Wisdom" (which really existed). He is less interested in reading than in becoming one of the adventurers charged with scouring the world for manuscripts and books to bring to the library. When he is old enough, he does so, traveling far and wide. It is only after his return home that Ishaq understands the secret his father has long known, the reason for reading: To join the great conversation of humanity across continents and centuries. This is an excellent read-aloud book.

Islamic Art and Architecture. *Robert Hillenbrand. World of Art series. 1999, Thames and Hudson, 0-500-20305-9, $16.95 pb.*
At 280 pages of text and 270 illustrations, this is necessarily a mere overview of its vast subject, but it is masterfully compressed and proceeds briskly and chronologically from the Umayyads to the Ottomans, weaving a dense web of connections and influences that will send the reader exploring onward in more specialized works. Visuals are well chosen to illustrate multiple points, testifying to the author's detailed knowledge of the material. A most useful reference.

Islam in the African-American Experience. *Richard Brent Turner. 1997, Indiana University, 0-253-33238-9, $39.95 hb; 0-253-21104-2, $18.95 pb.*
African-American Islam is not a 20th-century development, argues the author, who teaches



theology at Xavier University in New Orleans. Rather, it is an unbroken thread that originated in colonial times when Muslims were some seven or eight percent of the men and women brought to the Americas as slaves. While this book valuably compiles the few, fragmentary antebellum sources that sketch these experiences, its largest contribution is its treatment of the little-known Ahmadiyya Mission, a 19th-century movement from Punjab which laid a foundation for the "multiracial" strand of African-American Islam, which co-exists today in "dynamic tension" with a "racial-separatist" strand. Designed as a college-level text, this book is a significant addition to the history of Islam in the Americas.

Jarigan: Muslim Epic Songs of Bangladesh. *Mary Frances Dunham. 1999, University Press, Dhaka, 984-05-1369-9,.TK550. (US dist.: House of Ananda, 212-481-9424, $40.)*
This substantial work, aimed at specialists but accessible to interested laypeople, details a type of bardic sung story-telling, its themes transposed from the Middle East, that still exists in South Asia among Muslims and non-Muslims alike. Dunham presents the context, the content, the form and the legacy of jarigan, and her personal delight in the art is clear. The book includes maps, illustrations, translations and a glossary, and comes with a cassette.

Jerusalem in History. *Kamil J. Asali, ed. 2000, Interlink, 1-56656-304-6, $18.95 pb.*
Jerusalem, sacred to three faiths, can also lay good claim to being the city whose history is most hotly contested. "Much of what is written about Jerusalem is intended primarily to reinforce the intensity of existing religious feeling and belief," writes University of Chicago professor Rashid Khalidi, who provides the introduction to this collection of nine disquisitions, each devoted to one chronological period and authored by a scholar of international repute. Beginning with the third millennium BC, the book traces the city's history under successive regimes up to the present day, and strives to present the events and personalities related to each of the faiths in a balanced, factual manner.

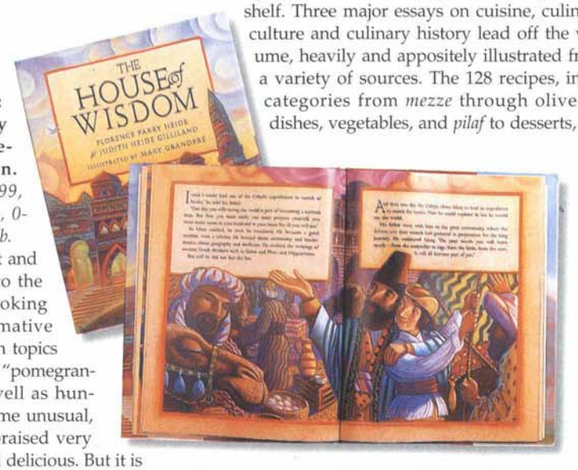
A Lake Beyond the Wind. *Yahya Yakhlif, trans. by May Jayyusi and Christopher Tingley. 1999, Interlink, 1-56656-301-1, $12.95 pb.*
Two caveats before picking up this solid, character-rich novel: Know the political outlines of the 1948 Mideast war, and remember that the author originally wrote for Arabic-speaking readers. That in mind, this a memorable, compassionately realistic, peasant's-eye view of that war. When history overtakes the simple village of Samakh, near Lake Tiberias, only one thing seems clear to its men: Duty demands that they fight. And so they join the often chaotic, under-supplied, under-trained Arab armies under banners they don't quite understand and don't seem to care too much about, for in their minds they are fighting, simply, "for Palestine." Radi, Najib, Ahmad Bey, Mansour and 'Abd al-Rahman "the Iraqi" are all unknown soldiers, men of the earth, full of pride and parochialism who rise, however fitfully, to courage. But these men meet not victory but the dark humiliation of defeat, and must watch as their homes and families are scattered to the winds in what Palestinians today call *al-nakhbah*, "the disaster."

★Levni and the Surname: The Story of an Eighteenth-Century Ottoman Festival. *Esin Atıl. 1999, APA Tasarım (dist. by University of Wisconsin Press), 975-6845-03-1, $75 hb.*
The "Tulip Period" was the second classical age of Ottoman art and culture, characterized by a spirited social life as well as by technological innovation and modernization. Its most representative work is the illustrated manuscript describing the festival celebrating the circumcision of four sons of Sultan Ahmed III in 1720. One of the finest Ottoman art historians of our time has turned her eye and her mind to this very beautiful and very informative cultural artifact, exploring through it the culture and history of the time and presenting them in a series of five essays, and a moneyed and cultured patron, Turkey's Koçbank, lavishly presents both the manuscript and its explication. All 137 of Levni's paintings are reproduced, and many additional details are added. It would be hard to match this book for both beauty and interest.

★The Map of Love. *Ahdaf Soueif. 1999, Bloomsbury, 0-7475-4367-4, £16.99 hb.*
This brilliant and moving novel was shortlisted for the 1999 Booker Prize in the UK but will only be published next fall in the US, as an Anchor paperback. It is the Anglo-Egyptian author's fourth novel, a mature, rich and complex work that is both political and romantic, both a double love story and a piece of colonial history, in which the beginning and the end of the 20th century reflect each other back and forth like facing mirrors. Soueif is an excellent writer, with a delicious command of the various flavors of English—Edwardian, Arab Anglophone and contemporary American; she is also so at ease with Egypt's colonial history that her inventions—her characters' letters, for example—seamlessly explicate and complement the facts, presenting the social assumptions and abrasions of colonizers and colonized in British Egypt—and in today's "globalized" Egypt as well.

People of the Wind. *Anthony Howarth. 1976, 1999, Milestone Film & Video, 110 minutes VHS, $39.95*
The annual migration of the Bakhtiari tribes across the mountains of southern Iran is the most grueling of any people's on earth: Half a million men, women and children, and twice as many animals, spend eight roadless weeks in transit to summer pastures—at one point passing over a 4700-meter (15,000') summit. In 1976 a film crew accompanied one of the tribes; their production, shot entirely on location, soon slipped into obscurity. It took Milestone nine years to secure rights, restore and re-release it as a breathtaking, spectacularly beautiful chronicle of human fortitude.

Recipes and Remembrances from an Eastern Mediterranean Kitchen: A Culinary Journey through Syria, Lebanon and Jordan. *Sonia Uvezian. 1999, University of Texas, 0-292-78535-6, $29.95 hb.*
This is an important and valuable addition to the Middle Eastern cooking shelf, full of informative short essays on such topics as "hospitality" and "pomegranate molasses" as well as hundreds of recipes, some unusual, that readers have praised very highly as usable and delicious. But it is the anecdotes, proverbs, quotations from old travel accounts and, above all, the author's commentary that account for the nostalgic charm that may be this book's greatest virtue, for Uvezian grew up in the polyglot, multicultural Beirut of the mid-20th century. Culinary historians will wish for more rigor in the historical section, but they too will appreciate her corrective Armenian historical awareness.

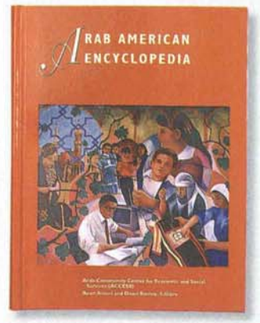


Sindbad: Tales from the Thousand and One Nights. *Retold and illustrated by Ludmila Zeman. 1999, Tundra Books, 0-88776-460-6, $17.95 hb.*
Adventures may come and go, especially in children's literature, but the white-knuckle tales of Sindbad have survived the demise of sailing voyages and the satellite mapping of formerly mysterious deserted isles. Using the intricately ornate, historically based illustration style that won her accolades for her *Gilgamesh* trilogy, the author/artist retells the fantastic tale of the redoubtable sailor with images that adults will appreciate no less than children five and older.

★The Story of Writing. *Andrew Robinson. 1995, Thames & Hudson, 0-500-28156-4, $19.95 pb.*
This is a brilliant piece of popularization, with all the information a non-specialist could possibly use, a generous 350 illustrations, and many more examples of characters, timelines, diagrams and other visual aids. The book covers far more than the development of "our" writing system; it is both more general ("How Writing Works") and more specific ("Clay Tokens"), and ranges from Egypt to Mesopotamia to China to the Western Hemisphere. It is accessible, informative and also fun to read—and closes with an unexpected chapter on the return to hieroglyphs in our own age.

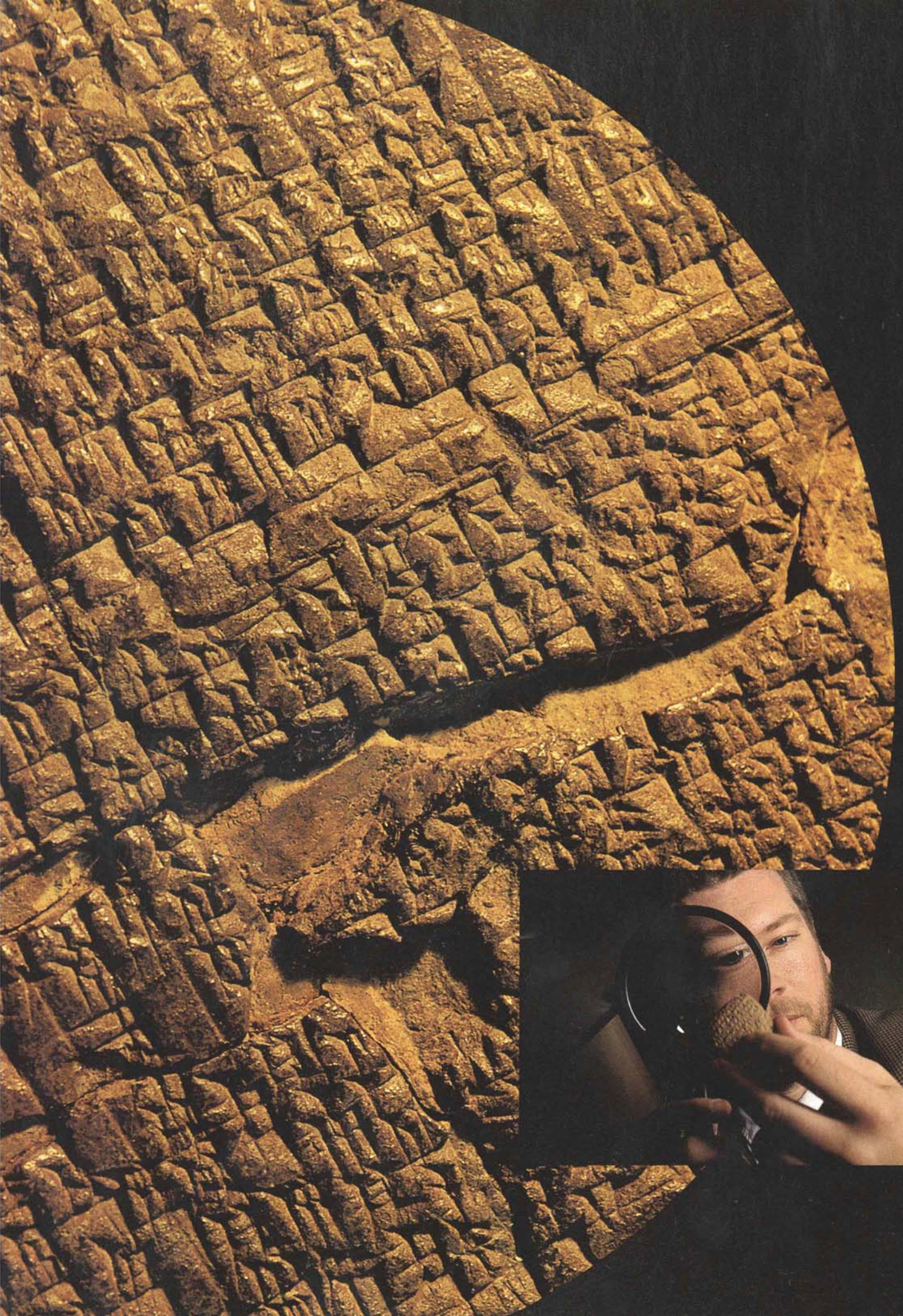
Timeless Tastes: Turkish Culinary Culture. *Semahat Arsel, project director; Ersu Pekin, Ayşe Sümer, eds. 1996, Vehbi Koç Foundation (Istanbul), 975-94957-1-6, hb.*
This is a serious and substantial work of Turkish culinary history, by Turks, too interesting and too handsomely produced to put on a shelf. Three major essays on cuisine, culinary culture and culinary history lead off the volume, heavily and appositely illustrated from a variety of sources. The 128 recipes, in 13 categories from *mezze* through olive-oil dishes, vegetables, and *pilaf* to desserts, are accompanied by beautiful photographs, and each category begins with a detailed essay. The book is hard to find, but is substantial and valuable enough to make the effort worthwhile.

COMPILED BY DICK DOUGHTY AND ROBERT ARNDT



Arab American Encyclopedia. *Anan Ameri and Dawn Ramey, eds. 2000, Arab Community Center for Economic and Social Services (ACCESS) and U•X•L, 0-7876-2952-9, $42.00 hb.*
This clearly written, well-organized volume belongs in all middle-school collections. It covers Arab-Americans' origins, immigration histories, languages, religions, identity and generational issues, civil rights, arts, media images and more, and includes timelines, pictures and sidebars. Equally valuable are its companion titles, the two-volume **Arab American Biography,** *by Loretta Hall and Bridget K. Hall, 0-7896-2953-7, $79.00 hb;* and **Arab American Voices,** *Loretta Hall, 0-7876-2956-1, $42.00 hb.* The former contains some 75 entries, multiply indexed, a chronology and a glossary. The latter is a compilation of 27 essays, speeches, poems and short fiction that illuminate the Arab-American experience for young readers—with marginal notes on vocabulary. All three titles are solid learning tools.

Amideast: 2000 Educational Resources on the Middle East/North Africa, Arab World for the Elementary Level. *1730 M St., Washington, D.C. 20036; tel. 202-776-9600; www.amideast.org.*
Arab World And Islamic Resources (AWAIR) Catalog 2000. *2137 Rose St., Suite 4, Berkeley CA 94709; tel. 510-704-0517; www.dnai.com/~gui/awairproductinfo.html.*
Amideast's catalog offers books, from a variety of publishers, on Islamic civilization, biography, contemporary culture, myths and folktales. AWAIR offers a parallel compendium, geared mostly to grades seven to 12. It also publishes three classic resources of its own: **The Arab World Studies Notebook,** with 90 readings surveying Arab and Islamic civilizations; **Doorways to Islamic Art,** which gives students the "how" and "why" of the arts of Islam; and **A Medieval Banquet in the Alhambra Palace,** which guides an entire school in a multidisciplinary program culminating in a real banquet.



SUMERIANS

ON THE INFORMATION SUPERHIGHWAY

"Here, look at this!" exclaims Sumerologist Åke Sjöberg at the University of Pennsylvania in Philadelphia. He plops into my hand a clay tablet from Nippur, a long-vanished city in what is now the southern part of Iraq. Flat on one side and slightly convex on the other, impressed front and back with rows of a wedge-shaped script called cuneiform, the tablet was obviously meant to be easily held—and read. It recounts what's probably the original Paradise story.

To the untutored eye, the writing looks much more like bird tracks than words. But for Sjöberg, translating it comes naturally. A Swede with a bubbling sense of humor and a life-long love of languages, he's co-editor of the Sumerian Dictionary project in the university's Museum of Archeology and Anthropology, a job he shares with Dr. Steve Tinney, curator of the museum's tablet collection.

Tinney is spearheading a unique effort to marry old and new by making the slowly growing, immensely detailed dictionary available on the information superhighway at http://ccat.sas.upenn.edu/psd. The Sumerians, a Mesopotamian people who created the technology of transferring ideas to clay tablets beginning some 5200 years ago, would no doubt be pleased: The World Wide Web is only the latest manifestation of the information-technology revolution that they began.

*Åke Sjöberg and Erle Leichty, **above**, founded the Sumerian Dictionary project in 1976. They expect that it will take at least until 2019 to complete the dictionary. Steve Tinney, **top**, is curator of the University of Pennsylvania's collection of some 30,000 cuneiform tablets. Most are commercial documents, some are letters, and a precious few are literary texts. Tinney holds the earliest known copy of the Gilgamesh epic, **opposite**, whose compact characters require "very trained eyes" to read—let alone decipher.*

WRITTEN BY ARTHUR CLARK PHOTOGRAPHED BY ERIC HAASE

This accounting tablet from the third millennium BC is among the oldest of the collection. To prevent fraud, contracts like the one ***below*** *were sealed in clay envelopes, with their terms and signatures repeated on the exterior. If one party claimed that the terms had been altered, the envelope could be opened in court to determine whether the terms inside matched those outside.*

Despite the dictionary project's new high-tech aspect, it remains the hands-on operation it has been for almost a quarter-century. In fact, what Tinney calls the "down and dirty" job of writing the dictionary is far beyond the capabilities of any computer translation program known or contemplated. It requires a select team of faculty and post-graduate scholars to tackle word after word in sentence after sentence, not only reading 150 years' worth of published translations of Sumerian inscriptions but re-reading the ancient tablets themselves in a campaign to glean every nuance from them. Like the making of any dictionary, it's a distinctly human effort that requires skill, imagination and time—and a vast, intensely specialized knowledge.

After 24 years of work, the project team has completed about one sixth of the 18-letter, romanized alphabet Sumerologists use to transliterate the language. An initial version of the dictionary should be done "within five to 10 years," Tinney estimates, and then the team will go on to publish "a completely exhaustive treatment." This represents a shift in strategy from the initial stages of the project, when the team fully completed one letter before moving on to the next.

The Tablet Room in the museum's Babylonian section lies at the heart of the project. Locked behind a wire-mesh door—adorned with a sign that warns "Do Not Feed the Assyriologists"—it contains some 30,000 clay tablets and fragments of tablets, tagged like exotic butterflies, tucked away in drawers or lying on tabletops. The tablets represent what most scholars believe is the world's oldest written language, probably predating Egyptian hieroglyphics by several hundred years. The collection is the second-largest in the United States, after that of Yale University, and it contains the world's biggest grouping of prize literary tablets.

Sjöberg started his own collection of Sumerian definitions in 1949. It resides on some 600,000 A7 (3x5") note cards, and it figures importantly in the project. Furthermore, outside experts, drawing on cuneiform tablet collections in the British Museum, the Museum of the Ancient Orient in Istanbul, the Iraq Museum, the Louvre and the Staatliche Museen in Berlin, as well as in major US institutions, are playing important parts in the effort to unlock the Sumerians' language.

Cuneiform script was created around 3200 BC in cities on the banks of the Tigris and Euphrates rivers, probably as a basic accounting tool, beginning with sketches of actual objects and number symbols tallying an owner's assets. Yet within 500 years, it was being used in literary texts and letters, and by 1800 BC there is evidence aplenty of stories, laments for lost cities, law codes, recipes and homework assignments—all written in cuneiform.

But scholars have long lacked a definitive reference tool with which to focus their work on the corpus of Sumerian tablets. Like Sjöberg, students in the past have had to spend years compiling their own specialized dictionaries before they could start—rather like a journeyman carpenter being required to craft his own tools before he can build his first house. "We're laying down the first base document of Sumerian definitions [to] free scholars to concentrate on the broader literary, historical and anthropological questions that humanists ask of all civilizations," explains Tinney.

The evolution of cuneiform from simple pictographs representing sheep, say, or sheaves of grain, to a script capable of sublime literary expression actually occurred lightning fast. "It happened in virtually a fraction of a second," says Dr. Erle Leichty, professor of Assyriology and the curator of Akkadian language and literature at the museum. Leichty started the dictionary project with Sjöberg in 1976. "From the very beginning, scribes created lexical texts. They didn't want to sit there and talk about sheep all the time."

The Sumerian language flourished for some 1500 years and, even after it was eclipsed, continued to be studied and written by scribes whose peoples—Akkadians, Babylonians, Persians—had adapted cuneiform script to express their own tongues. The last known cuneiform inscription was written some 1900 years ago, late in the first century of our era. Then the script was finally lost to memory, buried in the tells of vanished cities that dot Mesopotamia.

The art of reading cuneiform was not relearned until around 1850. (See *Aramco World*, January/February 1971.) And it wasn't until the 1870's—after numerous tablets bearing Sumerian inscriptions had been unearthed in Iraq—that the language was fully recognized by scholars, and the long-dead people that had spoken it began to regain their voices and tell their stories to modern ears.

The Sumerian Dictionary and the Tablet Room itself are playing vital roles in that process. Although not on public display, the museum's collection is wide open to scholars from around the globe, and a dozen or so visit in any given year to work. When I arrived, a post-doctoral researcher from Oxford University was completing a study of Sumerian mathematical tablets, and a professor from a university in Changchun, in northeast China, was starting a two-year assignment on the dictionary project.

The tablet resting in my hand dates to around 1800 BC and provides one of the earliest known accounts of the Garden of Eden. Sjöberg reads from it, describing Dilmun, a land—firmly identified as today's Bahrain, just off the east coast of Saudi Arabia—where "the lion makes no kill, the wolf snatches no lamb," and where no one grows old. Then Enki, the god of the abyss, or *abzu* in Sumerian, nibbles forbidden plants from the garden of the earth-goddess Ninhursaga and is severely punished for his deed.

"Physical contact with the tablets is quite important, even if they are already published," says Sjöberg. "Deciphering words is a hell of a problem. You have to have very trained eyes to read a tablet correctly, especially when it's a little destroyed on the surface. We couldn't do without the tablets themselves. When we take out the original sometimes we see completely new things."

The tale of Enki and Ninhursaga, of course, is similar to the Paradise stories in the Bible and the Qur'an. The stories of creation and the great flood also have precedents in Sumerian literature. The flood story, for example, figures in the tale of Gilgamesh, a hero who sets off on a journey to find life everlasting. After traveling to Dilmun to meet Ziusudra, the survivor of the flood, he gains immortality in the shape of a flowering plant, only to lose it—it is carried off by a chameleon—when he falls asleep. He returns home to Uruk a chastened man, eager to live his normal, mortal lifespan as fully as possible. (See *Aramco World*, July/August 1983, May/June 1996.)

Sjöberg says that the creature that steals Gilgamesh's immortality in the fable—*nesh gaggari* or "earth lion"—is traditionally translated as "snake," but its real meaning is "chameleon." *Edin*, meaning "a plain," is one of a handful of Sumerian words that have come into English, along with *absu*, "an offshore fresh-water spring," which became *abyss*, and *acre*, meaning arable land.

Much of the University of Pennsylvania's tablet collection comes from its work in Mesopotamia, starting with a dig in 1889—the first expedition to the region by an American institution. After a rocky start, and the death of one team member, expedition leader Hermann Hilprecht hit pay dirt: The initial site selected proved to be Nippur—a holy city of the Sumerians and Akkadians.

By 1900, Hilprecht had excavated some 60,000 tablets found in the city's library, finds which were shared with sponsoring authorities in Istanbul. Tablets from Nippur now also reside at the Friedrich-Schiller University in Jena, Germany—a gift of Hilprecht's wife. The tablets included "school lessons, multiplication tables, king lists, astronomical records, legal documents, hymns and epic tales," relates Brian Fagan in *Archaeology* magazine, and they illuminated aspects of Sumerian life and culture like a thousand little beams of light. The university began to publish translations of its discoveries as early as 1893 and took part in four digs in Nippur before going on to participate in one of the most famous Mesopotamian expeditions of all time—that of Sir Leonard Woolley at Ur in the 1920's. Fruits of that expedition, including the famous golden mask of a long-dead king, are highlights of the museum's public collection.

A number of the tablets from Nippur, some bearing thumbprints and even toothmarks, offer glimpses into schooldays gone by. Scribal schools—there was no other kind—"were limited to upper-class children, and they probably had to pay," explains Sjöberg. "We think the thumbprints were left when the teacher smoothed out the clay to erase a word a student wrote incorrectly." No one is certain why one tablet was bitten in half, but students' written complaints of harsh discipline are well known, and perhaps there is a connection. For those who graduated, the payoff was great in a society of which they were just about the only literate members. But the school examinations were apparently severe. "Do you know multiplication, reciprocals, coefficients, balancing of accounts, how to make all kinds of pay allotments, divide property and delimit shares of fields?" asks Sjöberg, quoting a bilingual Sumerian-Akkadian tablet that lists a math curriculum.

The dictionary project grew not only from Hilprecht's work, but also that of Samuel Noah Kramer, a renowned University of Pennsylvania Sumerologist who spent more than 50 years expanding the world's knowledge of the Sumerians. (See *Aramco World*, September/October 1979.) His books *History Begins With Sumer* and *The Sumerians* remain fascinating reference works for laymen and specialists alike, still in print long after their publication. "Be he philosopher or teacher, historian or poet, lawyer or reformer, statesman or politician, it is likely that modern man will find his prototype and counterpart in ancient Sumer," wrote Kramer. When he retired as curator of the tablet collection in 1968, Sjöberg took over, to be followed by Tinney in 1996.

Early on, Kramer laid down a strong argument for deciphering Sumerian. The literary texts, he wrote, "compare not too unfavorably with the ancient Greek and Hebrew masterpieces and, like them, mirror the spiritual and intellectual life of an ancient culture which would otherwise have remained largely unknown.... It is not too much to predict that the recovery and restoration of this ancient and long-forgotten literature will turn out to be a major contribution to our century to the humanities."

The dictionary, part of that contribution,

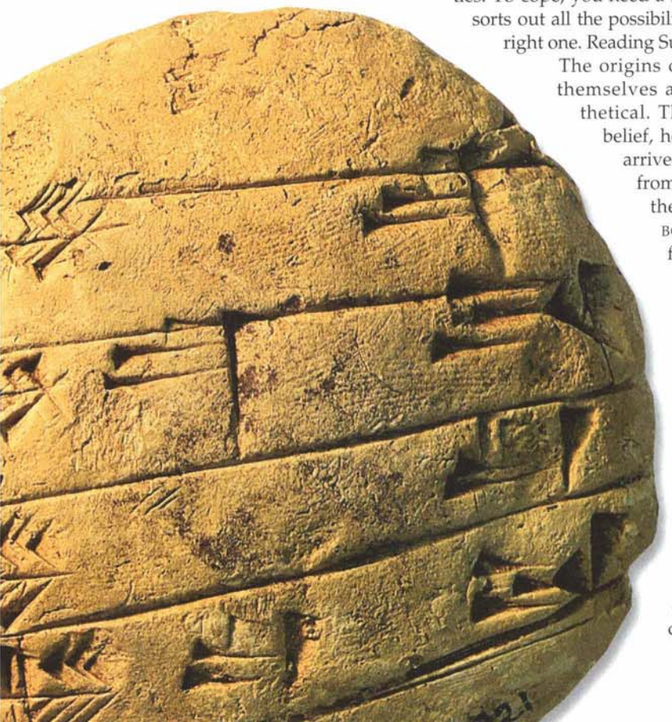
This tablet, restored from fragments, tells a story of the Garden of Eden that resembles those found in both the Qur'an and the Bible. In the Sumerian tale, Enki, god of the abyss, nibbles forbidden plants from the garden of the earth-goddess Ninhursaga in the idyllic land of Dilmun, identified as today's Bahrain.

*Stamps made of fired clay were used to mark bricks mass-produced for a specific project, such as a temple. Typically, such stamps imprinted the name of the ruler who sponsored the construction. Lentoid tablets, **below**, formed in their palms, served Sumerian students as they learned to write their "very difficult and obtuse language."*

is nothing if not comprehensive. It aims not only to define every Sumerian word but, like the Oxford English Dictionary, cite each word in every known context in which it has been used. Members of the team read tablets, review previously published information and prepare extensive entries for each word they're assigned. Then they discuss their drafts to reach a consensus. If they cannot agree, the editors make the call. Even after that, outside experts review the drafts. And—like the schoolmasters of five millennia ago—they sometimes leave their own modern-day "thumbprints" or "bites." "Sometimes they write very nasty notes back," says Sjöberg with a chuckle, "such as 'When I read your article, I got a heart attack and I had to call an ambulance,' or 'Boys, get out of your caves.'" Such criticism often amounts to no more than erudite kidding. But it's easy to see why conflicting judgments might arise, both inside and outside the Tablet Room. Sumerian is so complex it makes English look like child's play.

"Sumerian is a very difficult and obtuse language," says Tinney. "It has no relatives, living or dead. The script is not syllabic, let alone alphabetic—it's logographic, like Chinese."

"The language consists of a repetition of signs, 600 common ones and 2000 or so if you add the obscure ones. Handwritings differed and sign values changed over time, and a given sign might have eight or nine different meanings. There is no punctuation and no space between the words. There are strings of signs with hundreds of possibilities. To cope, you need a mind that rapidly sorts out all the possibilities and picks the right one. Reading Sumerian is an art."



The origins of the Sumerians themselves are purely hypothetical. There is a general belief, however, that they arrived in Mesopotamia from the mountains to the east about 3500 BC. And it's clear from archeological digs that they found already settled Semitic peoples there and prospered among them.

They certainly weren't laggards when it came to invention. Along with writing, the Sumerians invented the arch and wheeled vehicles. They used the sexagesimal system of numbers that is still reflected in our 60-minute hour and 360-degree circle. And they traded far and wide—indeed, the need to keep track of their accounts may well have sparked the development of the cuneiform script.

Writing probably developed as cities grew and commerce reached such a level of sophistication that record-keeping required more memory than the human mind could provide. "Writing just pops up at one point, with a number of other factors associated with large population," notes Tinney. Scribes found the raw materials for writing at their fingertips: Fine clay from the riverbanks served as the canvas upon which a sharpened reed from the marshes could draw. Hardened in the sun, clay tablets proved long-lasting; baked, they were virtually indestructible.

In fact, there are more cuneiform tablets extant today than medieval manuscripts, though the tablets are nearly 10 times older. Of the thousands of tablets recovered, just one percent have been read, notes Leichty, and there are "millions" more to be unearthed. The vast majority in the University of Pennsylvania Museum are dry commercial documents. "It's as if all the merchants in Philadelphia had saved a week's worth of receipts and dumped them here," says Leichty. But there are also timeless tales like those of Gilgamesh, and Enki and Ninhursaga, in the collection, along with mathematical, astronomical and agricultural tablets.

"The European concept that everything began with the Greeks is ridiculous," argues Leichty. "These people are our roots. They are the roots of everybody. By learning more about the Sumerians we can learn more about ourselves."

Even Dr. Wu Yuhong, the Chinese scholar seconded to the project, agrees. "All societies come from the ancient world. If we want to understand the modern civilizations, we should know how they developed," he says. "Mesopotamia influenced China as well as the West. In the first century, Buddhists entered China, bringing some of the Babylonian civilization in the form of stone lions. That's when we began to have temples decorated with statues."

The dictionary has already opened scholars' eyes. "You could write a skeletal description of much of Sumerian culture from this volume alone," writes Brian Fagan in his review of the letter B. "In a sense, this dictionary takes the place of a living informant...." He cites the word *bansur*, meaning tray or table, as an example. It meant the object, but also the meal served on it, and gold- and silver-inlaid tables were used in temples. "The owners of tables ate fattened oxen and sheep and washed their meals down with beer and honey mixed with dates. They enjoyed several kinds of bread, cheese and sweetmeats made with ghee [clarified butter]," he notes.

The Sumerian Dictionary project team, left to right: Erle Leichty, Åke Sjöberg (seated), Ann Guinan, Philip Jones, Kevin Danti, Atsuko Hattori and Steve Tinney. "By learning more about the Sumerians," says Leichty, "we can learn more about ourselves." Yet today, only about one percent of cuneiform tablets excavated have been read.

The third and latest volume of the letter A, published in mid-1999, defines key words whose sounds reverberate in many languages to the present day. These include *adda* for "father" and *ama* for "mother."

The project remains a labor of love for both its founders. "It's healthy to have this project going on. It's good for the students. It keeps things fertile," Leichty says. Sjöberg, 76, continues to come to his office five days a week despite retiring from most other university duties in 1996. Leichty, who's a decade younger, reckons he'll stay on the job at least through this year. Before retiring, he wants to be certain the work will continue.

If the past is any indication of the future, it will. The National Endowment for the Humanities, which kicked off the project with a grant in 1976, remains a key source of funding, with its investment to 2001 averaging $100,000 a year. The project also currently receives matching funding from the university, as well as important private donations.

In addition to the earlier-completed volume for the letter B, the dictionary team intends to have finished the fourth and final volume of the letter A by the end of the current two-year grant cycle in 2001. It will also have completed a draft of the letter L, and will have embarked on the letter H. That leaves 14 letters outstanding, making the projected schedule, which calls for wrapping up the project by 2019, seem very ambitious.

The team aims to make finished sections of the dictionary available on its web site, including regular updates of material already published, advance texts of articles in progress, and the bulk of the data on which the dictionary is based. Paradoxically, this may ensure that—electronically, at least—the project will never be completed, as more tablets are read by Sumerologists around the world, more discoveries are made by archeologists, and new material is incorporated. Indeed, there is a proposal to try to obtain an endowment that will allow the museum to support a resident scholar who will be charged full-time with keeping the dictionary up to date.

"I'd love to talk to the Sumerians," Leichty says. "They were a highly sophisticated society, and I'd like to understand them a bit better." He and many others—scholars and laymen alike—may have that chance, as the rest of the Pennsylvania Sumerian Dictionary gets ready to roll off the presses and down the information superhighway.

Arthur Clark (left), a longtime resident of Dhahran, Saudi Arabia, loves the written word. This story, one of many he's written for Aramco World, *allowed him to study how it began. Eric Haase is a free-lance photographer who lives in Rockville, Maryland.*

SAUDI ARABIA'S DESERT CAVES

WRITTEN BY JOHN PINT
PHOTOGRAPHED BY LARS BJURSTRÖM

OPPOSITE: JOHN PINT

More than 60 million years ago, a vast sea rolled where today Saudi Arabia's central deserts lie. In that sea, with each cycle of birth and death, the shells and bones of countless creatures slowly sank to the ocean floor. Over eons they solidified into limestone and dolomite, beds of rock which today make up the Arabian Peninsula's Umm er Radhuma formation, which stretches from Iraq and eastern Syria south to Oman. In those truly ancient times, the Peninsula was separating from Africa, moving eastward, pivoting counter-clockwise around a point somewhere between Amman and Beirut. The Great Rift Valley was forming all the way from Jordan to Mozambique, bringing the Red Sea into being, and the Peninsula as a whole developed a tilt toward the northeast.

Through subsequent epochs, there were both wet times and dry times. In the pluvial periods, rain would sometimes pick up enough carbon dioxide from the atmosphere to become slightly acidic. When runoff flowed into the cracks in the limestone and dolomite, this "acid rain" slowly ate away at the rock, leaving patches of eroded limestone called karst. Over time, cavities formed, and still more runoff from the surface filled them. Eventually, some of these cavities contained underground lakes and rivers. In the alternating dry periods—such as the one that began in the Peninsula some 18,000 years ago—only a little water percolated down, and the underground water levels slowly dropped, allowing some caverns to fill with air. In them, one mineral-laden drop at a time, stalactites and stalagmites formed. Today, some of those formations have been dated to more than 270,000 years ago, while others are geological youngsters only about 11,000 years old.

To the people of Saudi Arabia, the Umm er Radhuma region has been known for its water-holes. The vast body of rock, one of the seven major geological formations that make up the eastern portion of the Arabian Peninsula, holds water that percolated into it during the last pluvial period, some 18,000 to 30,000 years ago. Further to the east, thanks to the Peninsula's northeastward tilt, this fossil water actually gushes to the surface as springs, where it sustains a number of modern agricultural projects.

As a cave explorer, I was intrigued by this gradually falling water table in a karst region: Might some of the numerous sinkholes in the area (*dahl* in Arabic, plural *duhul*) lead to limestone caverns, perhaps even caverns of great size or beauty? In the early 1980's, I began my search in an area of about 500 square kilometers (200 sq mi) around Ma'aqala, a small town several hours' drive north of Riyadh. Here, the Umm er Radhuma limestone is especially well-exposed, and dotted with hundreds of natural vertical *dahls*—evidence of substantial karstification and, hence, caves. Biologist David Peters, my wife Susana and I spent eight days camped atop the hardpan, guided by a Ma'aqala old-timer named Sultan.

The initial results were discouraging. In the first holes we climbed down, we found the few horizontal passages filled with fine red sand, which had either blown or washed in. But one day I chanced on a small hole no wider than a dinner plate. As I leaned over it, to my surprise, my face was suddenly bathed in a rush of warm air so humid that it fogged my glasses. Its strength suggested extensive chambers, and we were soon busy chipping away at the rather soft, marly limestone about that unassuming little *dahl* until it looked as though we could fit through.

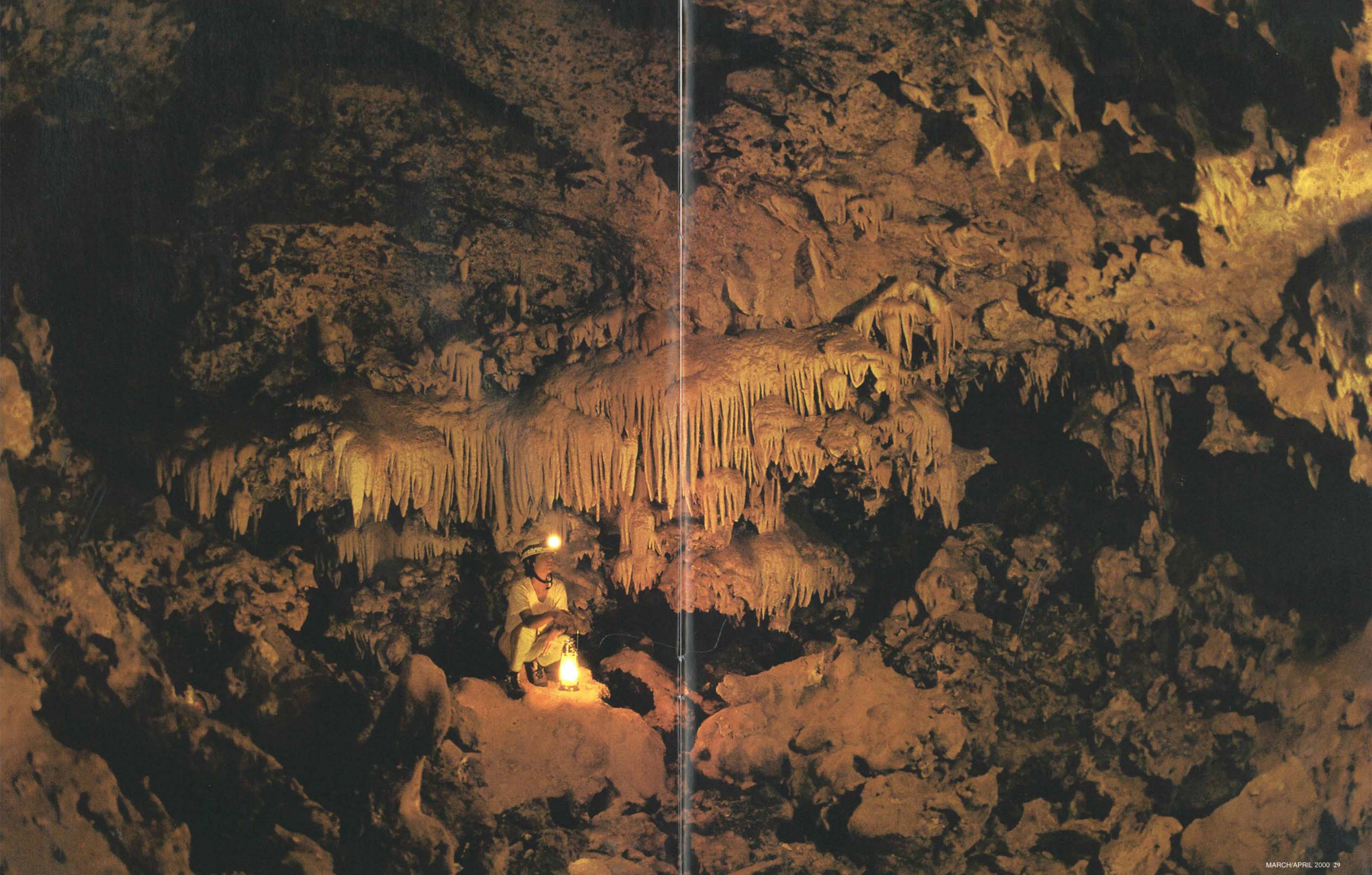
We did, but just barely. After squeezing through one shoulder at a time, and feeling about for the unseen rungs of our free-swinging cable ladder, we found ourselves in a bell-shaped room about nine meters (30') deep. To our delight, the floor was covered with only a little sand—perhaps thanks to the diminutive opening above. On one side of the room, a jumble of large rocks had long ago fallen from the ceiling. Through these, we felt the current of air, and so, on our bellies, we wriggled through an opening down into a low

Opposite: *Mike Gibson rappels into the maw of Abu al-Hol ("Father of Fear"), the fourth-deepest of Saudi Arabia's known caves.* ***Above:*** *Now you see him, now you don't. Interested spectators, and a partner to belay him, watch as a caver rigs for descent into a* dahl, *or sinkhole, in the limestone plateau near Ma'aqalla, then disappears from sight. Only a small percentage of such* dahls *lead to dry caves; some water-filled* dahls *have served for centuries as wells, known to Bedouins and desert travelers. Most are simply plugged by wind-blown sand.*

tunnel that branched off in two directions. As we cautiously made our way into chamber after chamber, we came upon majestic displays of stalactites and stalagmites, as well as a microcosm of tiny, sparkling mineral formations: delicate gypsum "flowers" and eccentric calcite helictites that twisted and turned in all directions in apparent defiance of gravity. We named the series of rooms Dahl Sultan, after our guide. It appeared to go on yet further, perhaps for kilometers, with no sign of a second entrance. Clearly, the Ma'aqala karst promised wonderful surprises: There were discoveries to be made beneath the surface of Saudi Arabia.

We returned frequently on weekends, and Bedouins and villagers who came to see what we were doing nearly always asked if we'd found any water. At Dahl Sultan and other holes in the area, our answer was always negative, but it was apparent that there had been water there in the past: Some caves had deep grooves in the entrance lip worn by bucket-hauling ropes, which indicated that the cave had dried out relatively recently. Further evidence of past water was the horizontal bands of color on the walls of some caves, left by the interaction of water and air.

Bedouins of the region often told us of their belief that the *dahls* were home to *jinn*, spirits best left alone by humans. I was reminded



of this belief when I squeezed down into one very tight hole 13 kilometers (8 mi) from Dahl Sultan. I was halfway down the cable ladder, swinging to and fro inside a large, almost round room, when I heard what sounded like a distant moan. I traced the disconcerting sound, crawling through a small opening on my hands and knees into a long, low tunnel with smooth, almost white, walls and a floor of soft red sand. The farther I made my way into it, the louder that strange wailing grew and the more beautiful the passage became, until it seemed that every bit of the ceiling was covered with delicate helictites of an ivory hue. It somehow looked like an upside-down stage crowded with hundreds of beautiful but unsynchronized ballerinas. In the last room was a sort of alcove, and in the wall above it a small hole about eight centimeters (3") in diameter through which air was blowing furiously—a natural whistle. (Later, we learned it only whistled when the pressure difference between the inside and outside air was sufficiently great.)

I poked my smallest flashlight through the hole and looked over it into a bizarrely decorated room that we now call "the closet of the jinn." It appeared that the cave continued, but there was no passage to the other side of the wall. I returned to the entrance room to report my find to my fellow cavers, but at the top of the cable ladder, I ran into a problem that constitutes one of the many hazards of caving. The ceiling of this room was nearly two meters (6') thick, and once I was inside the tight tube leading up through the ceiling, I was no longer able to raise my knee to take another step up the ladder. Try as I might, I couldn't advance! Fortunately, my plight was noticed by two Bedouin men who had been watching our day's expedition out of a mixture of curiosity and—now well-founded—concern. They reached down, grabbed the one arm that was above my head and pulled me out like a cork from a bottle.

Eventually, we managed to tunnel through the soft sand under the wall of the "closet of the jinn" to gain entrance, but we could go no farther. The strong airflow entering this last chamber was coming out of an opening too small for even a child to enter, and we could only dream of the wonderful passages that might lie beyond.

Because the Umm er Radhuma formation is tilted towards the east, its western edge appears on the surface as an escarpment running north and south along a line some 30 kilometers (19 mi) from the town of al-Majma'ah in central Saudi Arabia. One day I heard from a geologist that he had seen an unusually large and deep hole in this area, one that local people had told him might lead to an underground river that ran eastward some 300 kilometers (185 mi) all the way to Hofuf. Led by one of my English-language students, Abdulaziz Al-Agili, we packed for al-Majma'ah, where we were received by several town officials who said no one had ever found the bottom of their mysterious hole. Hospitably, they asked how we were fixed for provisions. We showed them our food box and our camp stove, which they insisted was inadequate, and they hastily assembled a too-generous package of meat, tomatoes and onions, along with a rectangular barbecue grill and several bags of charcoal. Luckily, it all fit atop our Land-Rover.

When we got there, the pit was impressive indeed. Leaning over the rampart that surrounded it, we could see a crater-like floor, in the middle of which was a nearly square hole that looked more menacing than inviting. We hitched a rope to our truck and made our way down to the edge. We lowered our longest rope—100 meters (328')—and I tried to see if it reached the sunlit bottom, but it was so far below that I couldn't make it out. Hoping for the best, I leaned back over the maw, attached only by my rack, a descending device that feeds the rope around six aluminum bars to provide just the right amount of friction required for the free rappel.

I slowly slid down into the shaft, which was about 12 meters (39') wide, still unable to see the bottom. After a short distance, the four walls around me opened out, and the hole I had dropped through became a tiny skylight at the top of a huge, single chamber with a rounded, dome-like ceiling. I guessed it was some 100 meters (328') across and the same distance high—the biggest cave room I had ever entered. I felt very small, and I still couldn't see the floor.

My rope reached to the bottom with scarcely a meter to spare. I landed at the crest of a great heap of dirt in the center of the room. All around me, rock doves soared in and out of the sunbeam down which I had seemingly descended. I could see their countless nests resting on what looked like shelves running all around the curved walls. I soon realized that each of these ledges was actually the top of a layer of earth that sooner or later would separate from the wall.

Amazingly, there was no sign of limestone, nor rock of any kind. It was like being in the hollow center of an onion made up of layer after layer of earth. I wondered what was holding up the roof. I felt none of the confidence one has when surrounded by the solid walls of a limestone cave.

I disconnected the rope and stared at the hole I had just come through, almost hypnotized by its tiny luminosity and the sound of the fluttering, chattering doves. Then I remembered how easily I could be hit by a stone falling from the surface, and I moved toward the wall, looking for side passages. I found none, but as I walked I did frighten numerous doves that had confidently built nests directly on the ground. At one end of the nearly circular room, I found mud, but there appeared to be no drain—nor any sign of an underground river to Hofuf.

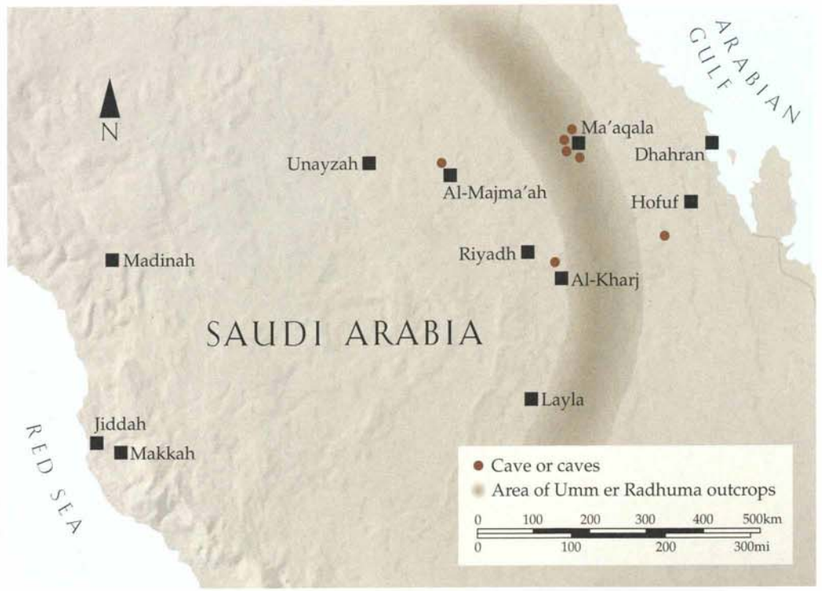
Suddenly, I heard a tiny peep far above me. My companion, Ron Kummerfeldt, a survival instructor from Kenya, had just begun his descent. Seeing him dangling there brought home the true dimensions of the cave. His rope looked like a silk strand, and Ron a spider dropping through a trapdoor in a dome bigger than any in a mosque or cathedral. I watched in awe.

Together we did little better than I had alone at finding any following passages. We did find bits of hedgehog remains, suggesting that owls might nest here, and the remains of a snake about as long as my arm, perfectly preserved right down to its teeth.

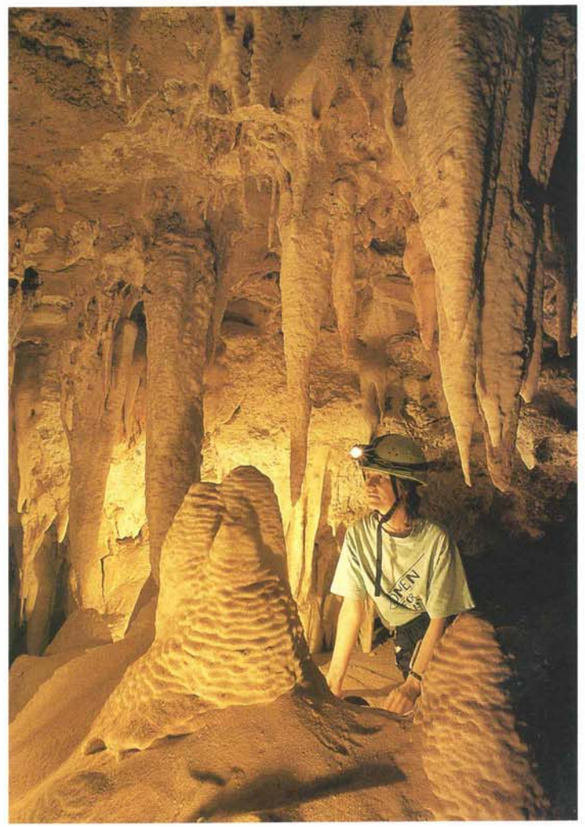
In the center of the room was just about enough debris to plug the hole in the roof, a reminder that another layer of earth could detach itself from the ceiling at any moment and end our exploration abruptly. The climb out was long and hot, and we each felt a surge of joy to be standing under the sky once more.

It was only after the climb that Al-Agili told us the local name for what was really as much a pit as it was a cave: *dharb al-najim*, "the place of the fallen star." No one was certain where the name came from. Since that conversation, geologists have told me there's no way a meteorite could have been involved in the formation of that hole, and that, more likely, a limestone deposit was dissolved below it, deep under the earth, causing a partial collapse. But there is a sense of mystery there, and there are moments still when I wonder whether something more interesting might not lie buried beneath the hill of rubble at the bottom of that hole.

RAIN, ACIDIFIED BY CARBON DIOXIDE IN THE ATMOSPHERE, ATE AWAY AT THE LIMESTONE OF THE UMM ER RADHUMA FORMATION. FISSURES AND WEAKNESSES IN THE ROCK BECAME CAVITIES, THEN CAVERNS, EVENTUALLY FORMING CAVES WITH UNDERGROUND STREAMS FED BY SINKHOLES.



Previous spread: *Accessible only through rough and narrow passages, Mossy Cave's ceilings "drip" with stalactites, which are deposits of crystallized limestone (calcite) left behind when mineral-bearing water percolates into the cave and drips from a ceiling crevice.* ***Below:*** *Stalactites form like icicles, but over a far longer time, and stalagmites may grow up from the cave floor to meet them if the dripping water's mineral content is high enough.*



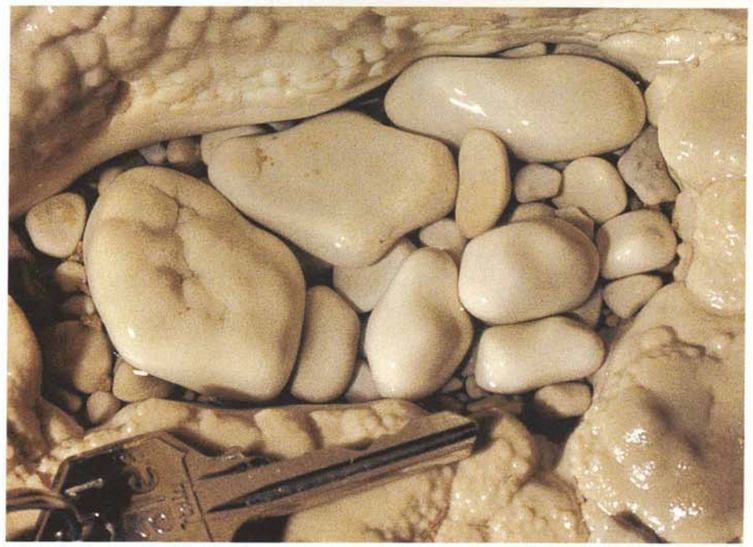
In the winter of 1986, scientists from Dhahran's King Fahd University of Petroleum and Minerals (KFUPM) and partners from the Austrian Academy of Sciences began a systematic study of the caves near Ma'aqala and the nearby community of Shawyah. Their 600-page study is a definitive scientific document, and their calculation that some 45 percent of the area's rainfall reaches the aquifer via the many *dahl*s is of great consequence for understanding the replenishment of the Umm er Radhuma's water resources.

One of the largest and most complex caves they discovered was a three-level system given the name UPM Cave; its largest chamber is known as Dabbagh Hall, in honor of Abdallah E. Al-Dabbagh, then director of the KFUPM Research Institute. From the high ceiling of the 45-by-80-meter (150' x 250') room hang several "live"—that is, growing—stalactites. Below them, small pools of

Caring for Caves

As communications and mobility improve, more human visitors will discover or visit more remote caves. Would-be explorers need to bear in mind that caves are far more delicate than they appear, and the caves of the Umm er Radhuma formation are, like all others, precious natural wonders that future generations deserve to be able to experience with the same awe that we feel today. Follow the rules of caving promoted by international speleological organizations: "Take nothing but pictures, leave nothing but footprints, kill nothing but time." Remember also that caving can be dangerous. Having the proper equipment and training can mean the difference between an exciting adventure and a tragedy. Information on safe caving and how to reach experienced cavers can now be found on many sites on the World Wide Web, including www.saudicaves.com.

Upper, left to right: *Cave deposits of calcite, or crystallized calcium carbonate (limestone), can assume almost vegetal shapes, and they are known collectively as speleothems. The most common are stalactites, icicle-like deposits made up of minute hexagonal crystals that can accumulate either in relative isolation or in dense "organ pipe" patches and curtains. Mineral flowers blossom from tiny weak points in limestone walls, and flowers of calcite can resemble lettuce, or coral; flowers of aragonite are cactus-like, thanks to the long, slivery shape of the aragonite crystal.* ***Lower, left to right:*** *Flowstone can resemble a stalactite, or take other forms. The crystals of gypsum, or calcium sulfate, link up in fibrous, parallel lines, and varying rates of internal water flow give these flowers graceful curves. Calcite crystals can grow to many sizes, depending upon the conditions of their formation. A blade-shaped flowstone's varied hues come from equally varied impurities in the crystal precipitate. Pure calcium carbonate would be white.* ***Below:*** *Pebbles, too, can become coated with calcite as mineralized water drips on them and turns them into glistening "cave pearls." They may be perfectly spherical, or irregular like these found in UPM Cave.*



* RIGHT AND OPPOSITE, TOP LEFT: JOHN PINT

water have created the rare conditions required for the development of "cave pearls," tiny pebbles that slowly receive coating after coating of crystalline calcite until, like their nacreous marine cousins, they become almost perfectly round. No less remarkable was a nearby pool of water that might have come out of a fairy tale. The splashing of single drops falling from the ceiling had created around the pool an ever-growing wall of delicate pastel colors that shimmers with countless tiny, sparkling crystals. These delicate formations may be unique in all of Saudi Arabia, and visitors must bear in mind that one misstep could destroy them.

One of the most unusual caves the KFUPM team found was B-7, which some local residents proposed calling Dahl Shawyah. While other caves in the area are hot and humid, Shawyah's deepest chambers, some 40 meters (130') down, are cool and dry; also unlike other caves, it is accessible through a wide, walk-in entrance. And many creatures have indeed walked in: Its dry chambers have preserved a huge quantity of bones carried in by centuries of predators, some of them bearing the tooth-marks of hyenas. Carbon dating put the oldest remains—which included bones of camels, horses, gerbils and gazelles—at about 1000 years old. On a recent visit of our own to B-7, we found that the hyena's den also held at least two human skulls, as well as a carefully folded blanket made of animal skin.

Dahl Shawyah also hosts the living: In its darkest and most remote reaches lives a small colony of shy, insect-eating trident bats (*Asellia tridens*). Owls and a baby fox have also been spotted inside the cave, as well as sparrows, finches, hoopoe larks and rock doves. The latter are so fond of nesting underground that a sudden rising of doves in the distance usually means there's a *dahl* nearby. In the occasional pools of water are often tiny fairy shrimp, whose eggs have been known to hatch after a 15-year wait for water to activate them. In the twilight zone, just inside the cave's entrance, one can sometimes find monitor lizards, spiny-tailed lizards known as *dhab*s, and camel spiders—large, hairy Solifugids that have the largest mandibles, in proportion to their body size, of any land creature.

its small entrance and a squeeze past tons of broken rock to enter spacious rooms filled with large, impressive decorations, many of which are still growing. There are curious formations such as "the chandelier," whose stalactites are entirely coated with a wax-like, translucent layer of calcite that ends not in points but in flat "duck bills," many of which are set at an angle of roughly 45 degrees. More than 500 meters (1650') of this cave have now been mapped, yet much of it remains to be explored.

Sometimes, luck plays the leading role in discovery: The entrance to Mossy Cave was found when someone took a shortcut back to where he thought he had lost a flashlight. But Friendly and Surprise caves were located through the methodical efforts of Lars Bjurström, who spent many a weekend checking hole after hole on the Al-Sulb plateau northwest of Ma'aqala.

The coming of the Internet and e-mail has changed the nature of cave exploration since we descended into our first *dahl*s. Cave explorers previously isolated from colleagues have been able to find each other and pool their knowledge. Dramatic evidence of the resulting synergy came at the end of last year when Qurian Al-Hajri, a Saudi Aramco driller, a Bedouin, discovered an enormous pit in a plain where cavers believed nothing of interest could possibly be found. But within days, news of the discovery was posted on the World Wide Web, and a digital photograph was under simultaneous scrutiny by speleologists kingdom-wide. Several of us organized an expedition to the remote spot, which happened to lie alongside the Ghawar oil field, the largest in the world.

Al-Hajri took us across 50 kilometers (31 mi) of perfectly flat, apparently featureless desert, straight to the edge of a great scar that suddenly appeared, its blackness a dramatic contrast to the shimmering white hardpan. In classic desert-navigator fashion, he accomplished this with neither a Global Positioning System receiver nor even a magnetic compass. ("They gave me a GPS receiver years ago," he explained, "but I put it away, because I need to keep a fine edge on my senses.")

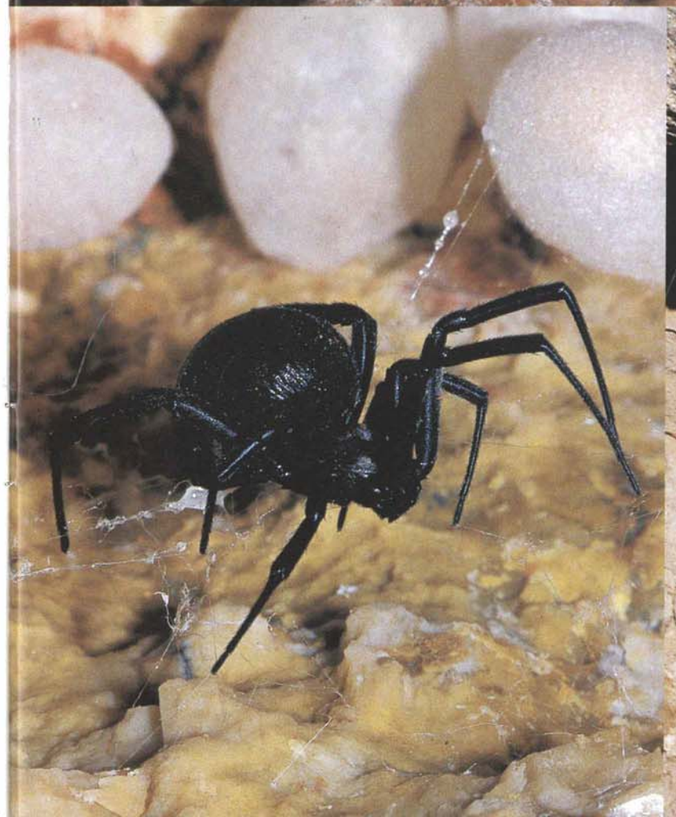
The hole measured some 20 by 30 meters (65 x 100'), and it appeared to be about 60 meters (200') deep. As we began rigging

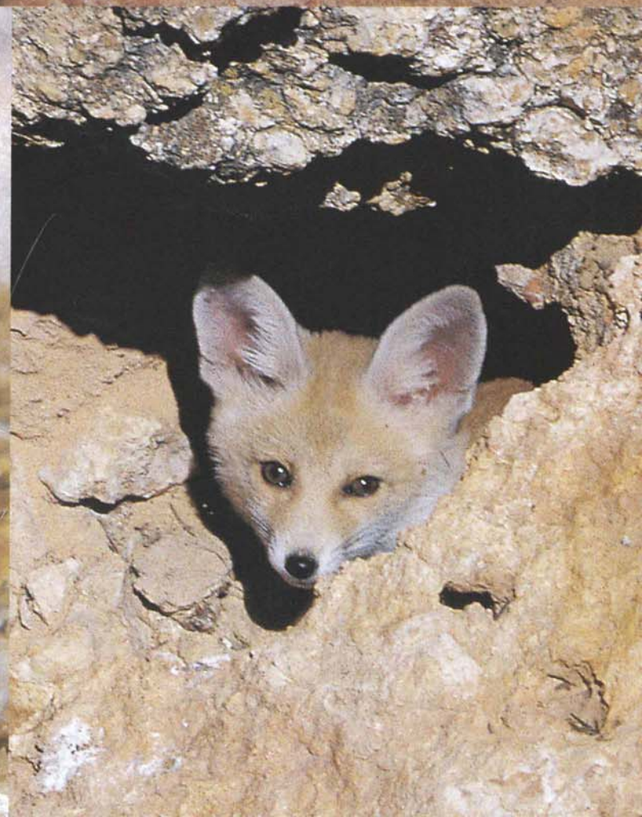
IN THE DRY CHAMBERS OF DAHL SHAWYAH LIE PRESERVED A LARGE QUANTITY OF BONES CARRIED IN BY CENTURIES OF PREDATORS. CARBON DATING PUT THE OLDEST REMAINS—WHICH INCLUDED BONES OF CAMELS, HORSES, GERBILS AND GAZELLES—AT ABOUT 1000 YEARS.

Since then, I have been part of several caving teams that discovered three significant new caves in the Ma'aqala karst zone, each a showcase of diverse underground beauty. Mossy Cave rewarded its first visitors only after we had wriggled through tiny spaces where fingers of rock caught at clothing, belts and straps, while high humidity left us soaked in sweat. Two of the most impressive features of this cave are an imposing set of stalactites resembling organ pipes and a sinuous stalagmite that looks like a cobra preparing to strike. Friendly Cave, as its name suggests, is not difficult to enter. It has a smooth red-sand floor and could easily be turned into a "show cave" because so many of its formations are located in one large room. Finally, Surprise Cave requires a slide through

for our first descent, a group of visitors appeared. They seemed delighted we had come from as far away as Jiddah to see this local curiosity, which they informed us was named Abu al-Hol. This is the name in Arabic of the Great Sphinx of Giza, and its literal

Opposite, top: *Dahl Shawyah's cool recesses are home to at least one species of leaf-nosed bat, the insect-eating trident bat* (Asellia tridens). ***Lower, right:*** *The outer parts of the cave provide good denning sites for red foxes, the same species* (Vulpes vulpes) *found in Europe, but climate-adapted with smaller body size and larger ears.* ***Lower, left:*** *Spiders find suitable spots to place their white egg cases near the entrances of most of Saudi Arabia's caves.*





meaning—"Father of Fear"—gave us pause enough to check our ropes very carefully.

Mike Gibson and I attached our longest ropes to one of the trucks and prepared a parallel rappel into the belly of Abu al-Hol. As we slowly leaned back, the taut rope began to slide through the bars of our racks, and then we were hanging free, with a dramatic view of the enormous room above which we were now suspended. Sunlight was pouring into it at this time of day, giving us an appreciation of depth unlike what I experienced in al-Majma'ah. Rock doves soared all around us as we glided down to the top a large hill of sand.

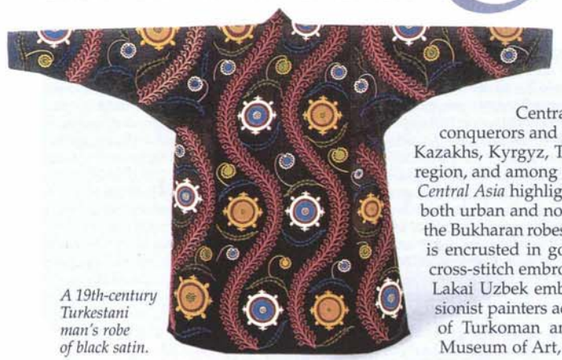
The bottom of the cave was actually about 70 meters (230') down, and the room was easily 100 meters (330') across. Much of it was filled with enormous chunks of rock that had fallen from the limestone ceiling. We began to check the perimeter wall for possible side passages and eventually discovered a narrow crack that led us to a long, tight, straight crawlway dotted with countless tiny footprints. It was a well-traveled road for some small creature. Ahead I could see that the passage opened into a large room, but the crawlway was too tight, and we had to leave without learning what the mysterious interior chamber would look like. A future expedition, however, may be able to excavate the sand floor of the crawlway and gain access.

Contemplation and awe supplant the thrills of discovery and risk in a chamber like "The Dome" in Dahl Shawyah. ***Previous spread:*** *One of the largest and most complex caves in the Ma'aqala area is UPM Cave, named after the King Fahd University of Petroleum and Minerals in Dhahran, whose researchers were part of the Saudi–Austrian team that discovered it.*

When we returned home, we posted pictures of the exploration of what we called Dahl Abu al-Hol on the Web. Almost as soon as they were up, reports began to reach us of similar impressive pits near Hafr al-Batin and Khamis Mushayt, areas speleologists have almost entirely ignored to date. The exploration of Saudi Arabia's underground wonders is clearly only in its infancy.

John Pint (left) is a member of the US National Speleological Society, and with his wife, Susana, has explored and written about caves in Mexico and Saudi Arabia. He lives in Jiddah, where he teaches English and operates www.saudicaves.com. Lars Bjurström has lived in Riyadh for two years, where he practices dentistry and pursues his love of wildlife photography and—more recently—caving.

Events & Exhibitions



A 19th-century Turkestani man's robe of black satin.

From before the beginning of the millennium to the 16th century, the far-reaching trade network known as the Silk Roads enriched the peoples and polities of Central Asia materially and intellectually. By the beginning of the 19th century, waves of conquerors and settlers had left a mixed and fairly stable population of Uzbeks, Tajiks, Turkomans, Kazakhs, Kyrgyz, Tartars, Russians and Jews. In Samarkand and Bukhara, in villages throughout the region, and among the nomadic population, the textile arts flourished. **A Bold Aesthetic:** *Textile Arts of Central Asia* highlights 60 outstanding examples of Silk Road apparel, decorative fabrics and jewelry in both urban and nomadic styles from the early 1800's to the early 1900's. Among the finest objects are the Bukharan robes that turned their wearers into living feasts of color, texture and intricate pattern: One is encrusted in gold embroidery using geometric designs; another is worked entirely in a minute cross-stitch embroidery, a specialty of the town of Shakhrisabz near Samarkand. Also notable are the Lakai Uzbek embroideries that show remarkable parallels to the motifs of Western abstract expressionist painters active half a century later, and the richly dyed, finely knotted pile carpets, here largely of Turkoman and Kyrgyz origins. Period photographs provide context. **Los Angeles** County Museum of Art, March 30 through July 31.

Understanding and Teaching About Islam is a pair of teachers' institutes covering Islamic faith, practice, history, art and culture. Instructors are university professors from the US and elsewhere. Format involves lecture, group study and personal study. There is no tuition charge. Application deadline March 15. Information: 505-685-4584, www.daraislam.org. Dar al-Islam, **Abiquiu, New Mexico**, July 9–22 and July 30–August 12.

Ottoman Calligraphies: *The Collection of the Sakıp Sabancı Museum, Istanbul* draws upon one of Turkey's leading private collections to display 70 exceptional examples of Ottoman-era calligraphy from the pens of such masters as Şeyh Hamdullah, Ahmed Karahisari, Hafiz Osman and Sami Efendi. The exhibition opens with information on the practical requirements of calligraphy—preparation of the paper, design of the page, manufacture of inks and paints—then presents examples of different calligraphic objects: copies of the Qur'an, albums, display pages, and *firmans*. Catalogue. Musée du Louvre, **Paris**, March 17 through May 29.

Teaching About the Arab World and Islam is the theme of teacher workshops co-sponsored by the Middle East Policy Council in Washington, D.C. and conducted by Arab World And Islamic Resources and School Services (AWAIR) of Berkeley, California. Information: 202-296-6767, 510-704-0517, awair@igc.apc.org. Sites and dates include: **Amherst, Massachusetts**, March 18; **Lenoir, North Carolina**, March 21; **Pleasant Hill, California**, March 31; **Casper, Wyoming**, April 4; **Raleigh, North Carolina**, June 12–13; **Louisville, Kentucky**, October 14.

Image: *Exploring My Diaspora Series —Bollywood Satirized/Dowry* features photography and photographic collage by Annu Palakunnathu Matthew based on Indian film billboards. Gallery 1101, University of Southern **Illinois** at **Carbondale**, through March 19.

Pharaohs of the Sun: *Akhenaten, Nefertiti, and Tutankhamen* focuses on the cultural flowering of the Amarna period—a brief two decades in the mid-14th century BC—that centered on the revolutionary pharaoh Akhenaten, sometimes called the first monotheist. His capital, Amarna, was a city of 20,000 to 30,000 people; with his wife, Nefertiti, he engineered a wholesale reorganization of Egyptian religion, art and politics. The exhibition presents more than 300 objects from 37 museums and private lenders. **Los Angeles** County Museum of Art, March 19 through June 4.

Hassan Fathy: *A Centennial Celebration.* The Rare Books and Special Collections Library of the American University in Cairo exhibits sketches, annotated volumes and memorabilia representing more than 60 years of the life and work of the famous Egyptian architect. In **Desert Architecture:** *Baris and Sidi Kreir*, the Sony Gallery at AUC presents previously unexhibited photographs of two of his most important projects; in a **Forum Discussion** on March 23, a group of Fathy's disciples, friends and colleagues will discuss the life and legacy of the man hailed as the leader of the appropriate technology movement. American University in **Cairo**, March 23 through July 27.

Mona Hatoum is a Lebanese-born Palestinian British sculptor who focuses on confrontational themes such as violence and oppression and the vulnerability and resilience of the human body. For this first large solo show in London, she has created large-scale works that reflect her interest in everyday objects, which she infuses with a sinister or even malevolent quality. Tate's Duveen Galleries, **London**, March 24 through July 9.

Exploring Muslim Cultures is a series of exhibits, university courses, forums, lectures and teacher workshops aimed primarily at helping non-Muslims learn about the diversity of the Islamic world and its interactions, past and present, with the West. Exhibits focus on Moroccan textiles (see below); a history of incense; world mosque architecture and Persian painting. Forums cover much ground, including cuisine, film, music, health care, history, geography and contemporary issues. All events are free. Information: 773-325-7863, www.depaul.edu/~islam. DePaul University, **Chicago**, March 31 through July 15.

Weaving Culture: *Textiles and Jewelry of Morocco* contains nearly 50 objects, including elaborate rugs from the Atlas Mountains, delicate embroidery, radiant gold brocades and gold and silver jewelry. Some techniques and patterns can be traced to the Berbers, sophisticated silk damask work back to medieval times; in general, technical mastery produced a variety of textile types and patterns that reflected—and can be read to reveal—the many levels of society. The exhibition is part of the university-wide "Exploring Muslim Cultures" project (see above). DePaul University Art Gallery, **Chicago**, March 31 through July 15.

Golden Pages: *Qur'ans and Prayer Books From the HE Shaik Ghasan I. Shaker Collection* includes Ottoman and Qajar manuscripts as well as others from China, Southeast Asia and West and East Africa, along with an instructive group of pieces displayed because of their bindings, marbling or other technical aspects. A copy of the Qur'an by the great Yaqut al-Musta'simi is also featured. Ashmolean Museum, **Oxford**, through April 2.

Crucifixion 2000: *In the Name of God.* Well-known Palestinian Muslim artist Leila al-Shawa explores the political and social aspects of the Christian theme. Ashmolean Museum, **Oxford**, April 4 through May 14.

Empire of the Sultans: *Ottoman Art from the Khalili Collection* explores the influence of the Ottoman sultans over affairs of state and religion with displays of calligraphy, copies of the Qur'an, manuscripts, arms and armor, metalwork, ceramics, textiles and scientific instruments from the Nasser D. Khalili Collection of Islamic Art. Catalogue. Society of the Four Arts, **Palm Beach, Florida**, through April 5.

New Cypriot Galleries return to public view 600 works from Cyprus—a tenth of the museum's remarkable Cesnola Collection—covering all major media and ranging in date from 2500 BC to AD 300. The exhibition emphasizes sculptures, bronzes and precious metals. Metropolitan Museum of Art, **New York**, opens April 5.

From Giza to Pompeii: *An Archaeological Odyssey* is a pair of lectures telling the stories of research at some of the leading sites around the Mediterranean, from Nubian royal cemeteries to the many sites of the Giza plateau, Bronze Age Greece, Assos and Pompeii. Information: www.mfa.org. Museum of Fine Arts, **Boston**, 7:00 p.m., April 6 and 13.

Paper: *Trivia and Treasure* focuses on the 1900-year history of paper and how it has influenced life and design through the ages. The paper-making process began its westward spread from China when the Arabs captured Chinese papermakers near Samarkand in the early eighth century; today paper is one of the most ubiquitous materials in the world. Goldstein Gallery, University of **Minnesota, St. Paul**, through April 8.

Miniature Paintings from India is a display of 50 16th- to 18th-century Mughal works from the museum's own collection, with an emphasis on those produced during the reign of Akbar at the end of the 16th century and those produced for the Dutch market in the 17th century. Information: www.rijksmusuem.nl. Rijksmuseum, **Amsterdam**, through April 11.

Islamic Week at Sotheby's has become an institution, and this year, though the crowds will be smaller and the schedule more diffuse than in some past years, the quality of the objects to be offered remains high. A group of Causasian rugs from Shirvan, Quba and Kazakh highlights a sale of rugs and carpets on April 12. Three illustrated pages from the great Shah Tahmasp *Shahnamah* (estimated to fetch up to $800,000 each),

(continued from previous page)

a manuscript of the *Diwan* of Hafiz made for the Mughal emperor Akbar, and four single lines from the monumental copy of the Qur'an made for Emperor Timur around 1400 are part of a sale of art objects on April 13. An unrecorded silver double dirham issued in Samarra in 856 by the Caliph al-Mutawakkil is among Islamic issues in a coin sale on May 25. Sotheby's, **London**, from April 12.

Paid in Burnt Silver: *Wealth and Power in the Viking Age* explores the concept of wealth that underlay Viking raiding and trading, looks at different ways of measuring wealth, and traces the development of a monetary economy in the light of social, political, economic and religious change. British Museum, **London**, April 12 through August 13.

Ebrû: *Contemporary Marbling by Feridun Özgören* presents a new form of a centuries-old art: marbled paper incorporating stenciled Turkish, Arabic or Persian calligraphy. Museum of Fine Arts, **Boston**, through April 12.

Agatha Christie and the East: *Criminology and Archeology* traces those two strands in the life of the "Queen of Crime," displaying diaries; hitherto unpublished photographs of Christie and her husband, archeologist Max Mallowan; more than 200 artifacts from his excavations in Iraq and Syria; and a compartment from the Orient Express. The exhibition emphasizes Christie's participation in the digs as restorer and photographer. Museum für Völkerkunde, **Vienna**, April 13 through September 17.

In the Shade of the Tree exhibits 35 photographs by Peter Sanders, who has been photographing Islamic cultures around the world for more than three decades. Information: +44-20-7898-4020, www.soas.ac.uk/Brunei/exhibitions.html. Brunei Gallery, **London**, April 13 through June 17; July 10 through September 16.

Cultural Portraits of India features 70 photographs made over a decade by Lindsay Hebberd, producer of educational photographic exhibits. Book of the same title, $75. Information: 626-449-2742, www.pacasiamuseum.org. Pacific Asia Museum, **Pasadena, California**, through April 16.

The Travels of Evliya Çelebi, written in 1640 by an otherwise unknown Istanbulu scholar, provides precious "inside" information, anecdote and myth about the Ottoman Empire of the 17th century. A reading, Musée du Louvre, **Paris**, 8:00 p.m., April 17.

The Nabob's Sweet Dream centers on a single object, now lost: a more than merely elaborate bed manufactured in 1883 for the ruler of Bahawalpur by Christofle silversmiths. The gold and silver bed featured four automatons in female form which fanned the occupant of the bed to the sound of a music box. Christofle, **Saint-Denis, France**, through April 21.

Treasures from the Royal Tombs of Ur presents 150 extraordinary objects revealing traditions of royal life and death, excavated in the 1920's by Sir Leonard Woolley. They include the famous "Ram in the Thicket"—a statuette of a goat nibbling the leaves of a tree—jewelry, a comb, a wooden lyre decorated with a gold-and-lapis bull's head, games, furniture, seals and vessels of gold, silver and alabaster, many found in the intact tomb of a woman—a queen or high priestess—named Pu-abi who died between 2600 and 2500 BC. That period was a high point of Sumerian culture. Catalogue $50/$35. **Cleveland [Ohio]** Museum of Art, through April 23.

The sleeve of a man's coat, made in Bukhara about 1900, shows embroidery with gold and silver metallic threads on cotton, velvet and silk. It is on display as part of ***A Bold Aesthetic:*** Textile Arts of Central Asia.

Earthly Beauty, Heavenly Art surveys Islamic art from the seventh to the 19th centuries. The nearly 300 treasures are organized by themes that carry through the design of each exhibit segment ("the mosque", "the palace" and more). Drawing upon loans from more than a dozen international collections and museums, the show is curated by Mikhail Piotrovski, director of Russia's State Hermitage Museum. Catalogue. Niewe Kerk, **Amsterdam**, through April 24.

Vikings: *The North Atlantic Saga* commemorates the millennial of the Viking landfall in North America, which marked the farthest reach of a westward expansion financed in part by wealth accumulated in trade with the East. The displays contain some 200 artifacts, many the results of recent archeology in Scandinavia. Smithsonian Institution, **Washington, D.C.**, April 29 through August 13.

Arab Cultures: *Young Worlds* features artistic and literary responses by British students of Arab and non-Arab backgrounds to calligraphy and artifacts of Islamic art. British Museum, **London**, through May 1.

Current Archeological Research. The lectures in this series, which runs through June, concern discoveries and scholarship in the Middle East and western Asia. Each is presented at noon by a speaker intimately involved in the work under discussion. Tell Shuera, May 3; Tashkent, May 5; Temple of Merenptah, May 11; Ja'lan, Oman, May 12; Kech Makran, Pakistan, June 28. Information: 33-1-4020-5317, www.louvre.fr. Musée du Louvre, **Paris**.

Moroccan Textiles: *Teresa Lanceta* is a two-part exhibition presenting, first, traditional Moroccan fabrics, rooted in Mediterranean and African sources and selected for their plasticity, originality and imagination and, second, works by a young Spanish textile artist whose output is entirely in harmony with the traditional textiles which inspire her. Museo Nacional Centro de Arte Reina Sofía, **Madrid**, through May 3.

Professor Glob and the Garden of Paradise surveys ground-breaking Danish archeological and ethnographical investigations of the 1950's and 1960's in Bahrain and presents 4500 years of the varied history of this past and present center of international trade in the Arabian Gulf. As the bronze-age commercial link among the civilizations of the Indus, Oman and Mesopotamia, Bahrain was the home of the rich and sophisticated Dilmun civilization (2500–1800 BC) and enjoyed another, less well-known florescence at the intersection of Hellenic and Parthian culture (300 BC–600) as Tylos. Sites from that period have yielded carved stelai, glass from as far away as Egypt, and jewelry of gold, precious stones and the famous Gulf pearls. Danish scholars made important contributions to present-day knowledge of Gulf civilizations. Moesgård Museum, **Århus, Denmark**, through May 6.

Ancient Faces: *Mummy Portraits from Roman Egypt.* During the first to third century in Egypt, painted panel portraits—so-called "Fayum portraits"—were often placed on the heads of mummies. Their direct, full gaze, realism and strong presence bring the inhabitants of Roman Egypt before us with compelling immediacy. Some 70 portraits, along with mummy coverings, masks, jewelry, funerary stelae and related works, are on display. Catalogue. Metropolitan Museum of Art, **New York**, through May 7.

Echoes of Eternity: *The Egyptian Mummy and the Afterlife* helps explain Egyptian beliefs about the life after death on which their civilization focused. The exhibition includes statues, jewelry and images of gods and goddesses, as well as CAT scans of a mummy on display. Nelson-Atkins Museum of Art, **Kansas City, Missouri**, through May 7.

The Enlightened Eye: *Gifts from John Goelet* includes Islamic artworks among the 40 years of donations to the Sackler Museum, **Cambridge, Massachusetts**, through May 7.

Gods and Heroes of Bronze Age Europe: *The Roots of Ulysses* brings to life one of the most important prehistoric epochs, whose traces are widely visible from England, across Central Europe and in the Middle East. The 237 objects on display, collected from more than 80 European museums, manifest the spread of the new technique of bronze metallurgy in the third millennium BC, the concurrent development of new levels of craftsmanship, and the great increase that resulted in long-distance trade in raw materials and luxury goods. Catalogue $75. **Athens**, National Archaeological Museum, through May 7.

The Golden Age of Chinese Archaeology: *Celebrated Discoveries from The People's Republic of China* focuses on discoveries made over the last 20 years, and includes some 200 objects in widely diverse media dating from Neolithic times to 960 of our era. 500-page catalog. Museum of Fine Arts, **Houston**, through May 7.

Imaging the Word: *New Selections of Calligraphy From the Islamic World* includes works on paper that date from the ninth to the 20th century, shown with inscribed textiles, coins, architectural fragments and other objects to highlight the spiritual and esthetic dimension of the art of writing. Sackler Gallery, **Washington, D.C.**, through May 7.

Porcelain Stories: *From China to Europe* explores the history of porcelain from its origins in China to its travels via the Silk Roads and other traders to independent European production. **Seattle** Art Museum, through May 7.

Exotica: *The Age of Portuguese Discoveries: Exotic Worlds and their Impact* brings the age of discovery to life, displaying 200 objects from Austrian, Portuguese and Spanish collections that once found their places in the "chambers of wonders" of European merchant houses and rulers. Ostrich eggs, *cocos-de-mer*, narwhale horns and similar oddities, often in precious settings, were collected along with exotica made of mother-of-pearl, ivory, and jade as objects of astonishment. Kunsthistorisches Museum, **Vienna**, through May 21.

Egyptian Art in the Age of the Pyramids. This large exhibition spans the third through the sixth dynasties, and is the first to focus on the art of the Old Kingdom (2650–2150 BC), the first truly great era of Egyptian art. More than 250 works, ranging from portraits, luxury vessels, reliefs and unpainted limestone heads to furniture, monumental sculpture and tools used in the building of the pyramids, have been assembled from more than 30 museums in the US and 10 other countries. Catalogue. Last venue: Royal Ontario Museum, **Toronto**, through May 22.

The Art and Tradition of the Zuloagas: *Spanish Damascene from the Khalili Collection* features some of the finest work of Plácido Zuloaga, a late 19th-century Spanish master of the art of damascening, the process of decorating iron, steel or bronze surfaces with gold or silver "onlays." The process took its name from Damascus, from where it spread to Italy and Spain, although it may have originated in China. Museo de Bellas Artes de **Bilbao, Spain**, May 25 through August 31.

The Eternal Image: *Egyptian Art from the British Museum* is the first loan ever of some 150 pieces that span 3000 years of Egyptian history, from a tiny royal portrait in ivory to the colossal granite statue of Seti II. Included also are rare wooden sculptures and papyrus paintings, neither of which survived the passage of years in great numbers. Information: 419-225-8000, http://www.toledomuseum.org/. **Toledo [Ohio]** Museum of Art, through May 27.

Antoin Sevruguin and the Persian Image offers an important pictorial record of the social history and visual culture of Iran, displaying 50 photographs grouped in themes: everyday life, ethnography, the royal court, antiquities, Western fantasy, religious architecture, and women. Sevruguin, considered one of the great 19th-century photographers and a visual interpreter between East and West, operated a successful commercial studio in Tehran from the late 1850's until 1934. Sackler Gallery, **Washington, D.C.**, through May 28.

Scythian Gold From the Steppes of Ukraine presents 165 of the finest gold objects from Scythian graves and burial mounds, many in the "animal style" associated with the Central Asian steppes, and many excavated since 1975 and thus never before exhibited in the United States. The Scythians were a nomadic people who originated in Central Asia in the early first millennium BC and flourished in what is now Ukraine from the fifth to the third century BC through trade with the Greek cities of the Black Sea coast. Their arms, horse trappings and other artifacts show Near Eastern and Greek influence, and the recently excavated items are causing a reevaluation of the interrelationships among the Aegean world, the Near East, and Central Asia as far east as Mongolia. The Walters Gallery, **Baltimore, Maryland**, through May 28.

Shahnama is the first exhibition to look at the historical figures who became legendary in the great Persian epic composed in 1010 by the poet Firdawsi. Coins, paintings, metalwork and ceramics are on display. Sackler Gallery, **Washington, D.C.**, June 4 through October 29.

Recent Acquisitions: *Islamic and Later Indian* is one of a year-long, multi-gallery series of exhibitions showcasing recent acquisitions and revealing a glimpse of the collecting practices of an important teaching and research museum. Sackler Museum, **Cambridge, Massachusetts**, June 8 through September 13.

The Dead Sea Scrolls will explore the historic context of the scrolls' discovery and their authorship more than 2000 years ago. Parts of 15 of the parchment scrolls are on display, along with 80 artifacts—a storage jar, coins and leather sandals—from the area where they were discovered in 1947. Field Museum, **Chicago**, through June 11.

Noble Dreams, Wicked Pleasures: Orientalism in America 1870–1930 From oil paintings and photographs to films and cigarette packages, some 90 objects illustrate the images and associations conjured up by the word "Orient" in the popular imagination of turn-of-the-century America. This exhibition will survey the character and evolution of American representations of the "Orient" during a formative phase in US history (1870–1930), when America was emerging on the world stage and mass culture was first coalescing. Painters represented include Jean-Leon Gérôme, Frederic Edwin Church, John Singer Sargent, and William Merrit Chase; decorative arts by Louis Comfort Tiffany and associated artists are also included, as are advertising and entertainment-industry objects such as candy boxes, sheet music, stereographs, and movie posters. Catalogue. Clark Art Institute, **Williamstown, Massachusetts**, June 11 through September 4.

Palace of Gold and Light: *Treasures from the Topkapı, Istanbul.* Showcasing the splendor of Turkey's rich history and cultural heritage, this exhibition features more than 200 works of art and artifacts from the Topkapı Palace collections. The heart of the Ottoman dynasty for 400 years, Topkapı houses an extraordinary range of objects, including silk and satin costumes, carpets from imperial looms, military trappings, calligraphic works, ceramics and porcelains. The exhibition is divided into thematic sections that focus on the palace as the center of dynastic power, military administration and religious leadership as well as a domestic residence. Corcoran Gallery of Art, **Washington, D.C.**, through June 15.

The Empire of Time: *Myths and Creations* draws from the museum's own collections to explore the legends of time, from primordial chaos to the great creation myths of antiquity and their evolution in eastern and western imagery, drawing connections among different early civilizations and with our own era as well. Musée du Louvre, **Paris**, through July 10.

Common Threads: *Samplers from Around the Globe* shows 65 masterpiece samplers from the museum's own collection that span 300 years and four continents. Samplers originated as pattern and stitch reference guides, and they have frequently been integral to the passing on of textile traditions, particularly among women. Museum of Fine Arts, **Boston**, through July 23.

Flowers of Silk and Gold: *Four Centuries of Ottoman Embroidery* offers a unique window onto urban Ottoman society, for embroideries played a role in most aspects of domestic and public life. A woman's trousseau was begun when she was born, and as soon as she could hold a needle she joined in embroidering napkins, towels, wrapping cloths, quilt covers, coverings for walls, floors and furniture, sashes, scarves and other items of clothing, which were used throughout her life. Men and women also embroidered commercial items, men specializing in heavier materials and producing tents, boots, saddles, quivers and cuirasses. Presented in their historical context, the more than 50 textiles displayed reveal changing social and economic aspects of Ottoman culture. A "virtual exhibition," including images, activities and lesson plans, is available at www.textilemuseum.org/fsg. The exhibition also marks the museum's 75th anniversary. Catalog $45/$30. Textile Museum, **Washington, D.C.**, through July 30.

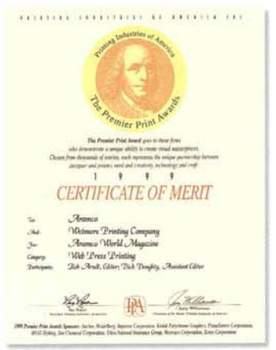
Life and Death Under the Pharaohs: *Egyptian Art from the National Museum of Antiquities in Leiden, The Netherlands* spans the history of pre-Islamic Egypt, from the earliest settlements to the Byzantine period. The treasures on display are one of the world's leading collections. Information: www.fernbank.edu/museum. Fernbank Museum of Natural History, **Atlanta**, through September 4.

Nuzi and the Hurrians: *Fragments From a Forgotten Past* opens a window on the little-known world of the Hurrians, displaying objects excavated at Nuzi, now Yorghan Tepe, in northeastern Iraq. Nuzi was only a provincial agricultural town, but yielded finds—including nearly 5000 cuneiform tablets—that illuminate everyday life in the 14th century BC. Very early glass, pottery and figurines, jewelry, tools and weapons are among the 150 objects on display, part of the largest Nuzi collection outside Iraq. So are texts of depositions taken in a lurid case of malfeasance brought against a town mayor. Harvard Semitic Museum, **Cambridge, Massachusetts**, through April 2001.

Mysteries of the Mummies: *Rotating Preview* will present at least one important artifact—a coffin, a mummy, canopic jars, and so on—every six months as the museum cleans and conserves items in its important recent acquisition of ancient Egyptian artifacts. Carlos Museum, **Atlanta**, through summer 2001.

The Saudi Aramco Exhibit, which relates the heritage of Arab-Islamic scientists and scholars of the past to the technology of today's petroleum exploration, production and transportation, has been extensively renovated and updated, and will be reopened in 2000. **Dhahran, Saudi Arabia**.

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



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