Saudi Aramco world

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Stirring up Beauty

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The Hidden History of a Scented Wood

By Eric Hansen

Aloeswood has a 3000-year history in the Middle East, China and Japan, and it remains today the world's most expensive incense. A resinous wood from fungus-ridden *Aquilaria* trees, its name in Arabic is *'ud*, which denotes "a piece of wood" but has connotations of "strength," "force" and "intensity"—a good description of its memorable olfactory effect. From the forests of south Asia and through aromatic warehouses in Singapore, the author follows *'ud*'s multi-billion-dollar trail into the shops, homes and mosques of the Arabian Peninsula.

The Sadana Island Shipwreck: The Red Sea in Global Trade

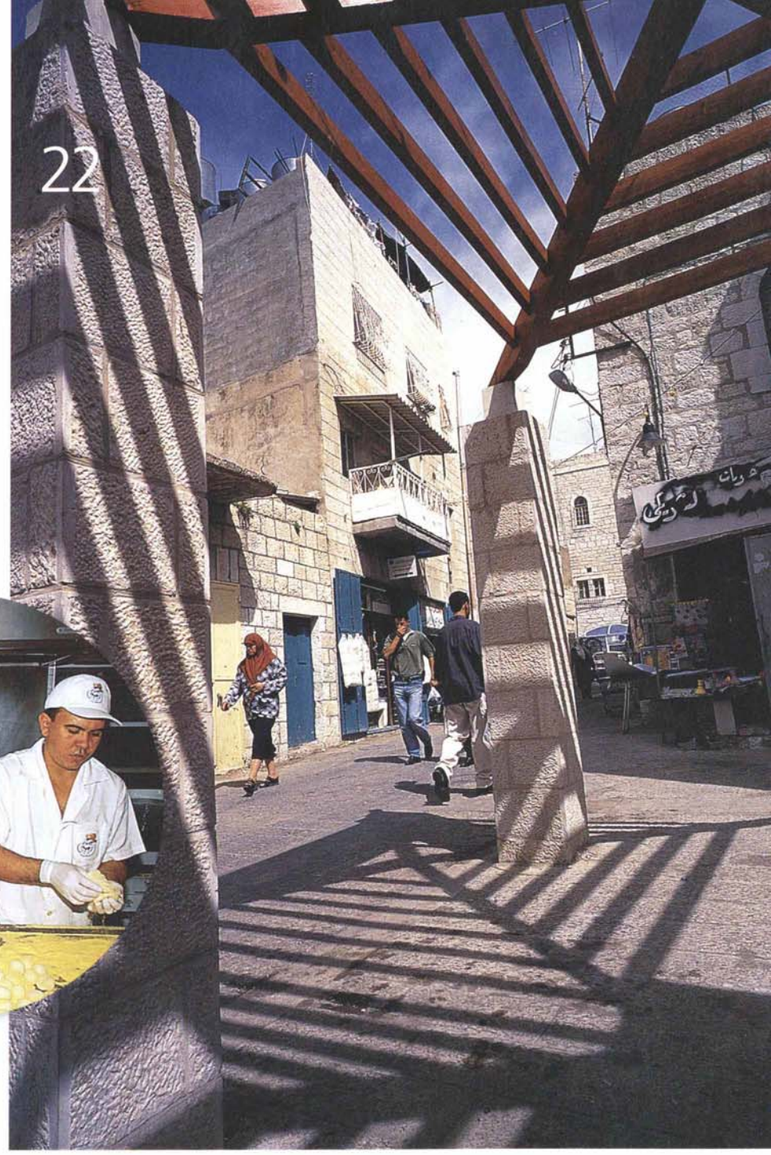
By Cheryl Ward

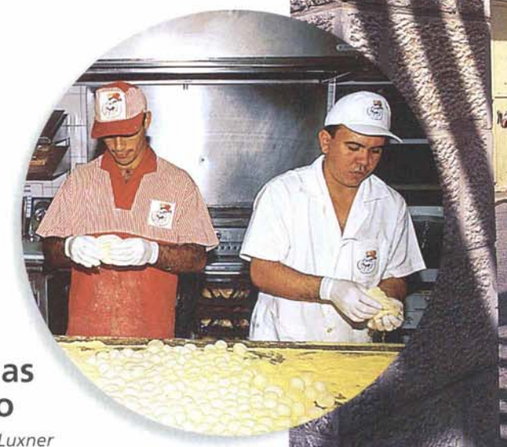
In the 1760's, a ship of 900 tons burden struck a coral reef off the Red Sea coast of Egypt and sank. Its voyage north had followed a route that, since earliest times, had combined risk and profit in equally high measure, for the Red Sea linked Arabia, India and East Asia with Egypt, the Mediterranean and Europe. A recent three-season underwater archeological dig has shed new light on one of the most historically critical maritime trade routes.

Stirring Up Beauty

By Kerry Abbott

"If you wish to awaken a nation," wrote Palestinian Khalil Sakakini in the early 20th century," stir up and develop its sense of beauty." Today, the architecture of handsome stone-crafted homes, markets and some 300 town and village centers in the West Bank have been documented, and about a dozen of them have been conserved and restored by Riwaq, a Ramallah-based organization that has become Palestine's national architectural conscience.



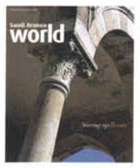


34 Esfihas to Go

By Larry Luxner

The largest fast-food chain in the world to serve Arab cuisine is not in the Middle East—it's in Brazil, and it may soon be in Mexico and the United States. Its signature dish is the *sfiha*, an open-faced meat pie popular in Lebanon. At 19 cents apiece, Brazilians are gobbling up what they call *esfihas* at a rate of 220 million a year.

Cover:



In a late-19th-century Palestinian *riwaq*, or portico, the vegetal patterns and the scrollwork on a column capital signal the endurance, over two millennia, of a Hellenistic aesthetic, while the arch's alternating pink and white voussoirs recall Mamluk styles of the 14th and 15th centuries. Inside the building are the offices of the nine-year-old Palestinian agency that is preserving a much-neglected architectural heritage. Photo by David H. Wells.

Back Cover:

The rich and complex aroma of smoldering *'ud* is unforgettable, and the ability of its scent to cling to a room or to clothing has helped make it one of the world's most popular aromatics. Gathered throughout south Asia—and almost unknown in the West—it is especially popular in the Middle East, where it is burned in mosques, and where it adds a special touch to weddings, funerals and other significant occasions. Photo by Eric Hansen.

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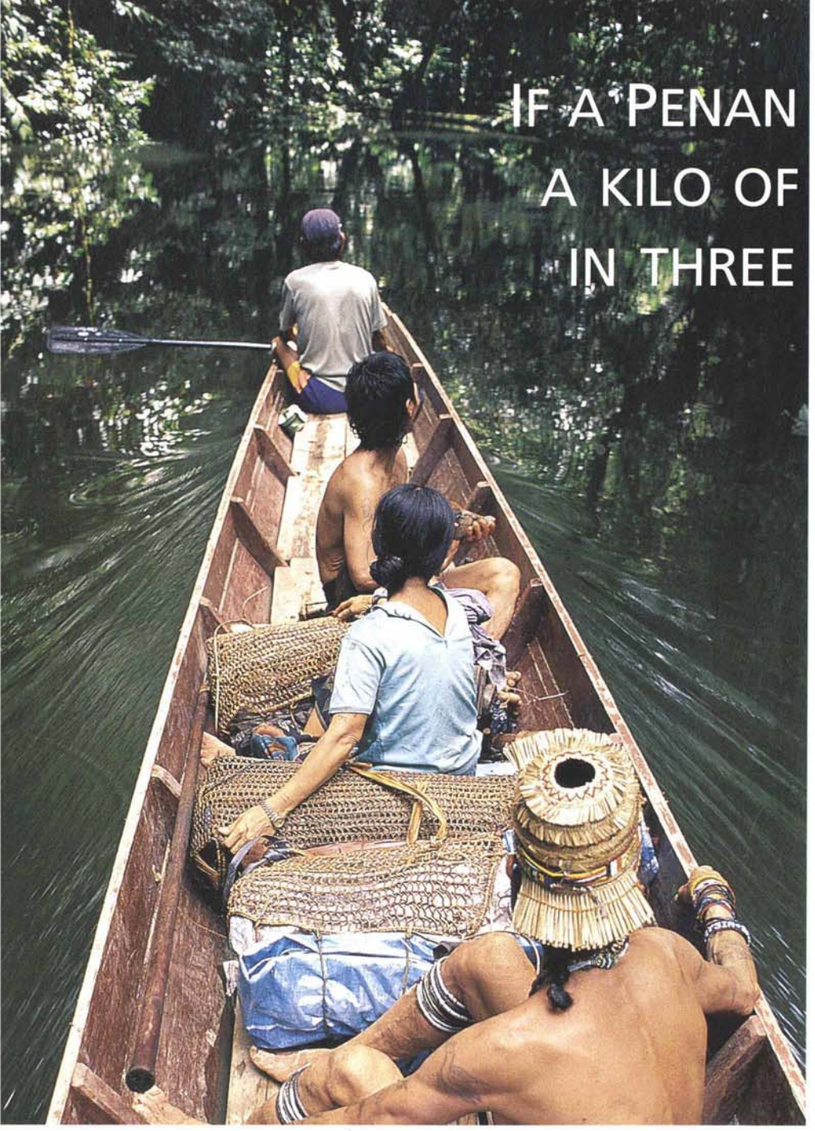
THE HIDDEN *History* OF A SCENTED WOOD

WRITTEN AND PHOTOGRAPHED BY ERIC HANSEN

SEVERAL YEARS AGO, IN THE perfume and incense market in the old city of Sana'a in Yemen, I caught sight of a large apothecary jar full of wood chips. The jar sat on a dusty shelf, tucked away in a dark corner of the stall owned by Mohammed Hamoud al-Kalagi. When I asked him to show me its contents, he placed the jar on the front counter and pulled out a chip of wood. Mohammed called the wood *'ud* (pronounced *ood*), a name I did not recognize, but it looked very familiar. I could hardly contain my growing sense of excitement as I examined it closely.

Mohammed placed a tiny sliver of the wood on the end of a lit cigarette. Within moments we were inhaling a rich, sweet, woody fragrance that I had first smelled in the Borneo rain forest 15 years earlier. At that time, I was traveling with a group of nomadic hunter-gatherers known as Penan. We were looking for herbs used in traditional medicine, but one day the Penan cut down a tree and collected pockets of fragrant wood from within the trunk and branches. They called these dark patches of wood *gaharu*. I rubbed a small piece of *gaharu* between my palms to warm it, and it smelled like cedar and sandalwood, but with subtle fragrance notes of roses and balsam. For years I had wondered what the wood was used for and where it was sent after leaving Borneo. The Penan thought *gaharu* might be used in Chinese medicine, because it was the upriver Chinese traders that bought it, but apart from that, they were mystified as to why anyone would want to buy those gnarly bits of wood.

In the understory of forests from India to Indonesia grows an evergreen tree with sweet, white blossoms whose scientific name is *Aquilaria*. Its response to infection by the fungus *Phialophora parasitica* is to produce an aromatic resin that infuses its own tissues. The resin-impregnated wood is the world's most valuable incense: aloeswood, or, in Arabic, *'ud*.



IF A PENAN GROUP IS LUCKY, IT MAY COLLECT A KILO OF *gaharu* AVERAGE-QUALITY IN THREE OR FOUR DAYS.

Mohammed al-Kalagi, who thought that *'ud* came only from India, was the first person to help me begin to unravel the long and convoluted history of this scented wood. He told me it was burned as incense throughout the Islamic world, and an oil was extracted from it that retailed for nearly $20 a gram ($500 an ounce) as a perfume.

When I told Mohammed that the *gaharu* collectors in Borneo considered the wood to have only a modest barter value, he laughed and recited lines that he attributed to the eighth-century Egyptian jurist and poet Muhammad ibn Idris al-Shafi'i:

Gold is just dust when still in the ground.
And *'ud*, in its country of origin,
Is just another kind of firewood.

A FEW DAYS AFTER MY visit, I walked through the narrow streets of old Sana'a to the home of Yemeni friends. The family lived in a tastefully restored stone tower house in the Turkish Quarter, and during the meal that night I discovered that *'ud* has domestic uses beyond simple incense: A small chip placed amid the tobacco in the bowl of the *mada'ah*, or water pipe, sweetens the smoke and keeps the pipe fresh. And although *'ud* is generally considered more of a man's scent, it is also used by women who place bits of the wood in a *mabkharah*, a small, hand-held charcoal brazier used to scent clothes; it is also used to perfume hair and skin. My host explained that at women's get-togethers it would be considered strange not to pass around a *mabkharah* of smoldering *'ud* or other incense so the female guests could perfume themselves.

"When you walk by a woman on the street and you smell *'ud*, you know that she is from a good family," the husband told me. "It is a sign of wealth, good breeding, refinement and status."

Similarly, when Yemeni men congregate, it is customary for them to pass around a *mabkharah* of *'ud*. Each man opens his jacket and censes his shirt and underarms, then his face and his *mashedah*, or head scarf, if he is wearing one. The *mabkharah* is always passed counter-clockwise, and each man wafts the smoke onto himself and says, "God's blessings and peace on the Prophet Muhammad." *'Ud* is burned ceremonially at weddings, too, and the oil is sometimes used to perfume the body of the dead before burial.

In Yemen, the price and quality of *'ud* varies considerably: At an average wedding party in Sana'a it is considered appropriate to spend about $30 to $50 by burning 50 or 100 grams (two or three ounces) of one of the less expensive grades of *'ud*, but for the well-heeled, 30 grams (a single ounce) of a superior grade can set one back $250 to $300.

Before I left the dinner party that night, my host placed a tiny drop of *'ud* oil on the front of my shirt and explained that the fragrance would survive several washings—which it did. *'Ud* oil is often placed on older men's beards or younger men's jacket lapels so that during the traditional cheek-to-cheek greetings its sweet, woody scent dominates.

ALTHOUGH THE SOUTHERN Arabian Peninsula has been long identified with aromatics, few Westerners are familiar with *'ud*, a word that means simply "wood" in Arabic. This obscurity is partly due to *'ud*'s rarity and cost, but it is also a matter of varying taste and differing cultural traditions. During the Hajj, for example, Muslim pilgrims from around the world come to Makkah and Madinah, where many are introduced to the scent of *'ud*, which is burned in the Great Mosque as well as in many other mosques throughout Saudi Arabia. *'Ud* produces a fragrance that is not soon forgotten, and for this reason small packets of *'ud* chips are a common souvenir to take home from the Hajj.

In various other places in the Islamic world, *'ud* is burned to help celebrate the important events of everyday life. In Tunisia, for example, *'ud* is burned on the third, seventh and 40th days following the birth of a child, a time when the mother traditionally remains at home while female relatives and friends come to visit.

Throughout Malaysia and Indonesia, *'ud* is called by the name I first heard in Borneo, *gaharu*, a Malay word derived from the much older Sanskrit term *agaru*, meaning "heavy." The scented wood was given that name because, indeed, a high-quality piece of *gaharu* will sink in water. The *Susruta Samhita*, one of the "great three" texts of Ayurvedic medicine, describes how people of the Ganges plain used smoldering *agaru* for worship, as perfume and to fumigate surgical wounds. In those times, *agaru* came largely from the tree *Aquilaria agallocha*, which was found in the foothills of Assam.

In the 16th century, the Portuguese, who were actively trading in Goa, Malacca and Macao, adapted the word *agaru* to *pao d'aguila*, or "eagle wood"—which at least had a meaning in Portuguese, though there is no connection between eagles and *'ud*. In the English-speaking world today, the most common terms for *'ud* are aloeswood or agarswood; this last word preserves a clear link to the original Sanskrit.

The best grade of *'ud* is hard, nearly black and very heavy. In general, *'ud* becomes inferior as it appears lighter in tone, flecked with diminishing amounts of resin. The only truly reliable way to test for quality, however, is to burn a small bit and evaluate the complexity and richness of the smoldering wood. *'Ud* oil can be taste-tested: Touch a bit to your tongue, and a bitter taste points to high quality.

Historians are uncertain when *'ud* first reached the Middle East. There are several references to "aloes" in the Old Testament, and estimates by historians of China Friedrich Hirth and W.W. Rockhill put the date as far back as the 10th century BC. This was when King Solomon began trade with the

A rain-swollen tributary pours from the tree-carpeted hills of Kalimantan on the island of Borneo. Opposite: **In this back country live about one million people, including this group of four Penan. Expeditions in search of *pohon kayu gaharu*—*'ud*-bearing trees—have long been an economic staple for south Asian forest peoples. A kilogram of the best *'ud* can bring them up to $400 from a middleman, but that price will be multiplied by a factor of 10 or even 25 before the *'ud* is sold over shop counters in the Arabian Peninsula.**

THE HUB OF TODAY'S *'ud* TRADE IS SINGAPORE.

south Arabian Sabaean kingdom, which was already trading with merchants on the Malabar (western) coast of India. (See *Aramco World*, March/April 1998.) Written accounts of Arab and Chinese travelers and merchants that mention it date to more recent times, approximately the first century of our era, a time of accelerating trade among the Arabian Peninsula, the Malabar coast and China that was made possible by the exploitation of the seasonal monsoon winds across the Indian Ocean. At this time, frankincense and myrrh from Oman and the Hadhramaut region of southern Arabia were being traded in the Far East, so it seems reasonable to assume that a reciprocal trade in *'ud* would have traveled on the same maritime routes.

THE CHINESE ROLE IN THE *'ud* trade has been significant since the Han Dynasty (206 BC–AD 220), when Imperial perfume blenders used it along with cloves, musk, costus-root oil and camphor. Like the Indians, the Chinese named the wood for its density, calling it *ch'en hsiang*, "the incense that sinks in water." In those days, *'ud* was sorted into as many as 20 different grades. Responding to the increasing domestic and international demand for *'ud*, Chinese traders ventured into Annam, now part of Vietnam, where they found top-quality trees in abundance. This new source of supply allowed them to become wholesale dealers and middlemen, and to this day they retain this position worldwide.

Arab and Persian traders had established settlements on the outskirts of Canton as early as 300, and a Chinese traveler named Fa-Hien noted the riches of the Arab *'ud* traders from the Hadhramaut and Oman who lived comfortably in Ceylon. The Greek geographer Cosmas Indicopleustes, writing in the sixth century, also noted that the China–Ceylon–Middle East trade included large shipments of *'ud*.

In his book *Silsilat al-Tawarikh* (*Chain of Chronicles*), Zayd ibn Hassan of Siraf (now in Iran) tells of the experiences of two ninth-century traders, one Ibn Wahab of Basra and another named Suleyman. Although they traveled at slightly different times, both reported that the price and availability of *'ud* in both Basra and Baghdad was much affected by frequent shipwrecks and by pirate attacks on trading ships. Their roughly similar routes went from the Arabian Gulf to the Maldives, Ceylon, the Nicobar Islands and then on to Canton by way of the Straits of Malacca and the South China Sea. At the time, the round-trip took at least two years, for the traders had to wait for seasonal winds, and customs formalities and the complexities of doing business in China consumed a good deal of time. Hassan relates that in Canton, Suleyman saw Arab and Persian traders playing a board game that appears to have been similar to backgammon. Occasionally the playing pieces were made of rhinoceros horn or ivory, but most commonly they were carved from fragrant *'ud*.

Reading up on the history of the 12th- and 13th-century Arab–Chinese sea trade, I also came upon the *Chu-fan-chi*, a trade manual written by Chau Ju-kua, who was a customs official in the southern Chinese province of Kwangtung in the mid-13th century. In the text he mentions that the search for *'ud* had intensified to the point that it was being collected from Hainan Island, parts of present-day Vietnam, lands about the Malay Peninsula, Cambodia and the islands of Sumatra and Java. By this time, he observed, it had become an established custom for well-to-do Muslims to wake up, bathe and perfume themselves with *'ud* smoke before going to the mosque for the morning prayer.

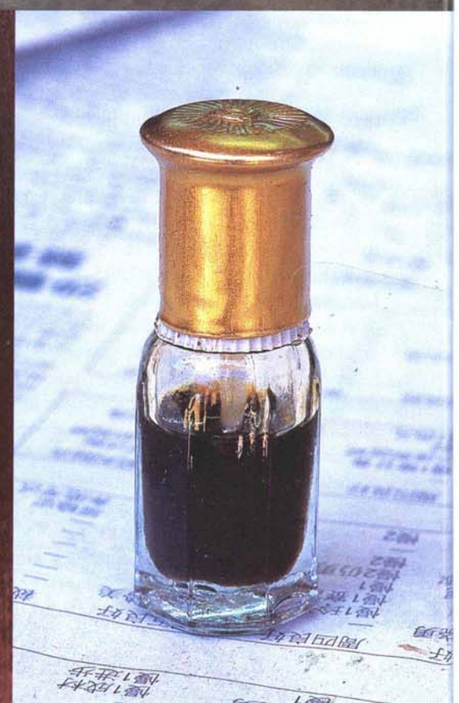
In the early 14th century, Ibn Battuta described a visit to Ceylon where during a visit to Sultan Ayri Shakarwati he was shown "a bowl as large as a man's hand, made of rubies, containing oil of aloes." Ibn Battuta also mentioned that in Muslim lands every *'ud* tree was private property, and that the best trees grew in Qamara, or Cambodia. (See *Saudi Aramco World*, July/August 2000.) In Saudi Arabia today, *'ud kambudi*—Cambodian aloeswood—is still usually the most treasured and costly variety.

Isaac H. Burkill, in his 1935 *Dictionary of the Economic Products of the Malay Peninsula*, described *'ud* in scientific terms. It is an aromatic resin deposit found in certain species of *Aquilaria* trees, especially *Aquilaria malaccensis*, whose species name recalls the days when the *'ud* trade was centered in Malacca and dominated by the Portuguese. Burkill explains that the resin is produced by the tree as an immune response to a fungus (*Phialophora parasitica*) that invades the tree and, over many years, spreads through it. It is these diseased sections of the tree that are collected by people in the jungles of Southeast Asia.

TO BETTER UNDERSTAND the modern trade cycle from Southeast Asia to Middle Eastern homes and mosques, I returned to Borneo and traveled upriver to talk again with the Penan tribesmen who make their living collecting *'ud*, which they call *gaharu*.

The Penan, I learned, recognize seven types of *gaharu*. To collect it they paddle up small tributaries by dugout canoe, and then climb the slopes of remote mountains to locate the best trees. A gathering journey can take a week or more. Once a likely looking *pohon kayu gaharu* (a "gaharu-wood tree") has been found, they make a series of shallow, exploratory cuts into its trunk, branches and roots; they cut it down only when they are persuaded the tree has the fungus and will yield a reasonable amount of good *gaharu*. If the tree contains only low grades of *gaharu*, they will often let it grow for another few years before

A piece of *'ud* of this size and color is a prize find. The darker the wood, the more resin it contains, so good *'ud* is heavy: The Chinese name for it is *ch'en hsiang*, "the incense that sinks in water." Above left: **Most pieces of *'ud*, such as these being sorted in a Singapore dealer's warehouse, come small and in widely varying grades. This keeps the lower grades of incense affordable for ordinary social gatherings, weddings, funerals and other ceremonies.** Opposite: **Freshly collected *'ud*.**



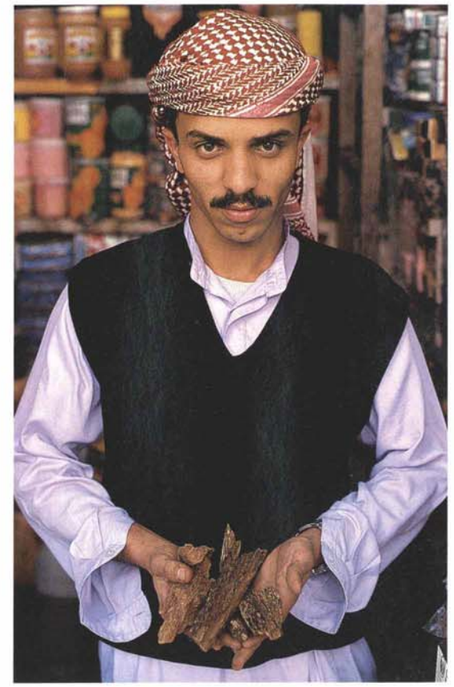
retesting it. If they do decide to cut it down, they will spend days extracting the *gaharu* and cleaning it with smaller knives. Traditionally, the Penan used *gaharu* themselves to treat stomach aches and fevers, and as an insect repellent, but now they sell or trade all they find.

In the backwaters of Borneo, the Penan sell the very best *gaharu* for about $400 a kilogram, or approximately $12 an ounce. They usually sell to local Chinese traders who stockpile it until they have enough to send to wholesalers and bigger middlemen in Singapore. The Penan claim that *gaharu* is getting more difficult to find because large-scale logging operations have destroyed many of the hill forests where the *gaharu* trees are found. If a Penan group has good luck, it might collect a kilo (35 oz) of average-quality gaharu in three or four days—but it is increasingly common for them to return with nothing, or with only the lowest grades.

Thirty years ago Hong Kong played an important role in the *'ud* trade, but today the international hub is Singapore. There, the wholesale business is dominated by Chinese traders who receive *'ud* from agents scattered across Vietnam, Cambodia, Laos, Burma, Thailand, Borneo, Hainan Island and, most recently, Irian Jaya, Indonesia. C. P. Ng, owner of Buan Mong Heng, a emporium on North Bridge Road, is Singapore's undisputed *'ud* king. He tells me that his best *'ud* sells for $5000 to $10,000 per kilogram ($2275–$4545/lb). At present, the rarest and most expensive type, known as Keenam, comes from Vietnam; it must be stored in a cool place to keep its scent from deteriorating. In Irian Jaya alone, he says, more than 50,000 part-time collectors supply some 30 collection centers. Throughout the Chinese community in Singapore, he says, people use *'ud* as incense in the home, for worship and during marriage ceremonies. He also explains that it can be taken with herbs to cure a stomach ache, and that the sweet smell is a cure for insomnia. "A tea made from *'ud* will warm the body and restore youthful vigor to older men," he says.

In Singapore, *'ud* is graded in descending quality from Super AA, which is weighed out on a jeweler's scale, to Super A, Super, and lesser grades numbered 1 through 8. The lowest quality, called *kandulam* in Malay, is used to make incense sticks; it sells for roughly three cents a gram ($1 per oz). The value of *'ud* shipped out of Singapore each year has been estimated to exceed $1.2 billion.

In the Middle East and in Borneo I never saw more than small amounts of *'ud*, amounting to a few pounds at most, but Singapore was different. There I visited the Nk Kittai warehouse,



The first written mention of *'ud* comes in verses of the Song of Solomon that refer to the 10th century BC; some 3000 years later, the author photographed *'ud* for sale at the shop of Mohammed Hamoud al-Kalagi in Sana'a, Yemen. Opposite, from top: **A worker in Singapore uses a rubber-tapping tool to remove non-resinous wood from an *'ud* log. Packaged for retail sale in the Middle East, a 50-gram (1¾-oz) package of *'ud* chips awaits export from Singapore. Distilled *'ud* oil is no less prized than the incense: It can cost up to $30 per gram, or $850 an ounce.**

'Ud USED TO MAKE INCENSE STICKS SELLS FOR THREE CENTS A GRAM, BUT "SUPER AA" 'ud IS WEIGHED OUT ON A JEWELER'S SCALE, AND DEALERS KEEP IT IN VAULTS.

Although unburned *'ud* is richly fragrant, the only reliable way to test it for quality is to burn a sample chip and evaluate the scent. Opposite: **In Sana'a as in much of the Arabian Peninsula, *'ud* may be either a specialty purchased at a boutique shop—or just another quotidian item on the shopping list, along with groceries, medicines and sundries.**

where cardboard boxes packed with *'ud* reached tall ceilings and wheelbarrows and shovels were the tools of choice to move quantities that perfumed the entire surrounding neighborhood. The owner, C. F. Chong, waited on buyers from India, Saudi Arabia, the United Arab Emirates, Oman and even Japan. In Japan, *'ud* is used in a complex fragrance guessing game called *koh-do*, part of the ceremonial appreciation of incense adopted from the Chinese, who still use the expression *wenxiang*, "listening to the incense."

The fragrance in the hot warehouse was overpowering, and as I wandered the narrow aisles surrounded by a fortune in scented wood, I saw *'ud* logs as thick as my thigh and nearly three meters (10') long. Workers sat on the floor cleaning up pieces of *'ud* with modified rubber-tapping knives. When I remarked that it must be a risk to store so much *'ud* in one place, Chong replied that he, like other dealers, kept his very best *'ud* locked up in vaults.

Out on the warehouse floor, buyers specified the type of *'ud* they wanted by region and quality, and then a worker would dump a pile at the buyer's feet so that he could hand-select the individual pieces. "This is an on-the-spot business," said Chong. "Each piece has to be evaluated."

Each buyer's selection was weighed, and as all of the buyers that morning were old customers, only a minimal amount of haggling led to an agreement on a price. Nobody, it seemed, bought more than he could easily carry by hand, and each parcel was tied up for stowage as in-flight baggage. The visits concluded with tea and soft drinks in Chong's air-conditioned office.

Before leaving Singapore, I went to visit Haji V. Syed Mohammed. His shop, V. S. S. Varusai Mohamed & Sons, is just across the street from the Sultan Mosque. The store sells *'ud*, perfume, money belts, cassette tapes, shawls, skull caps and highly decorative incense burners made in Bangladesh. While we were talking, he told me of one of the most renowned *'ud* dealers in Dubai, in the United Arab Emirates: Ajmal's Perfume Manufacturing & Oudh Processing Industry. It was a fortuitous meeting, for Dubai was my next stop.

In Dubai, there are entire streets lined with shops selling *'ud*. Among them, the family-run Ajmal company is one of the largest dealers in pure and blended *'ud* perfumes in all of the Middle East. From their 22 shops throughout the Arabian Peninsula, they sell *'ud* oils from Laos, Thailand, Cambodia, and Vietnam, and their most extravagant creation is a blend of aged *'ud* oils called Dahnal Oudh al-Moattaq. The price: $850 for a 30-gram (1-oz) bottle. This is out of the reach of all but the most affluent, but nearly everyone can afford to buy modest amounts of *'ud* chips for daily use, rituals and ceremonies—which might include driving, for Dubai automotive shops sell clip-on electric braziers that plug into a car's cigarette lighter.

Because of the popularity of 'ud, its high price and the difficulty of collecting it from the wild, several companies in peninsular Malaysia and India have

begun to look into the possibility of artificially introducing the *'ud* fungus into *Aquilaria* trees in hopes of creating commercial *'ud* plantations. Thousands of trees have been inoculated with the fungus and people are waiting to see if the *'ud* will start to grow, and if perhaps they can even harvest it without cutting down the tree.

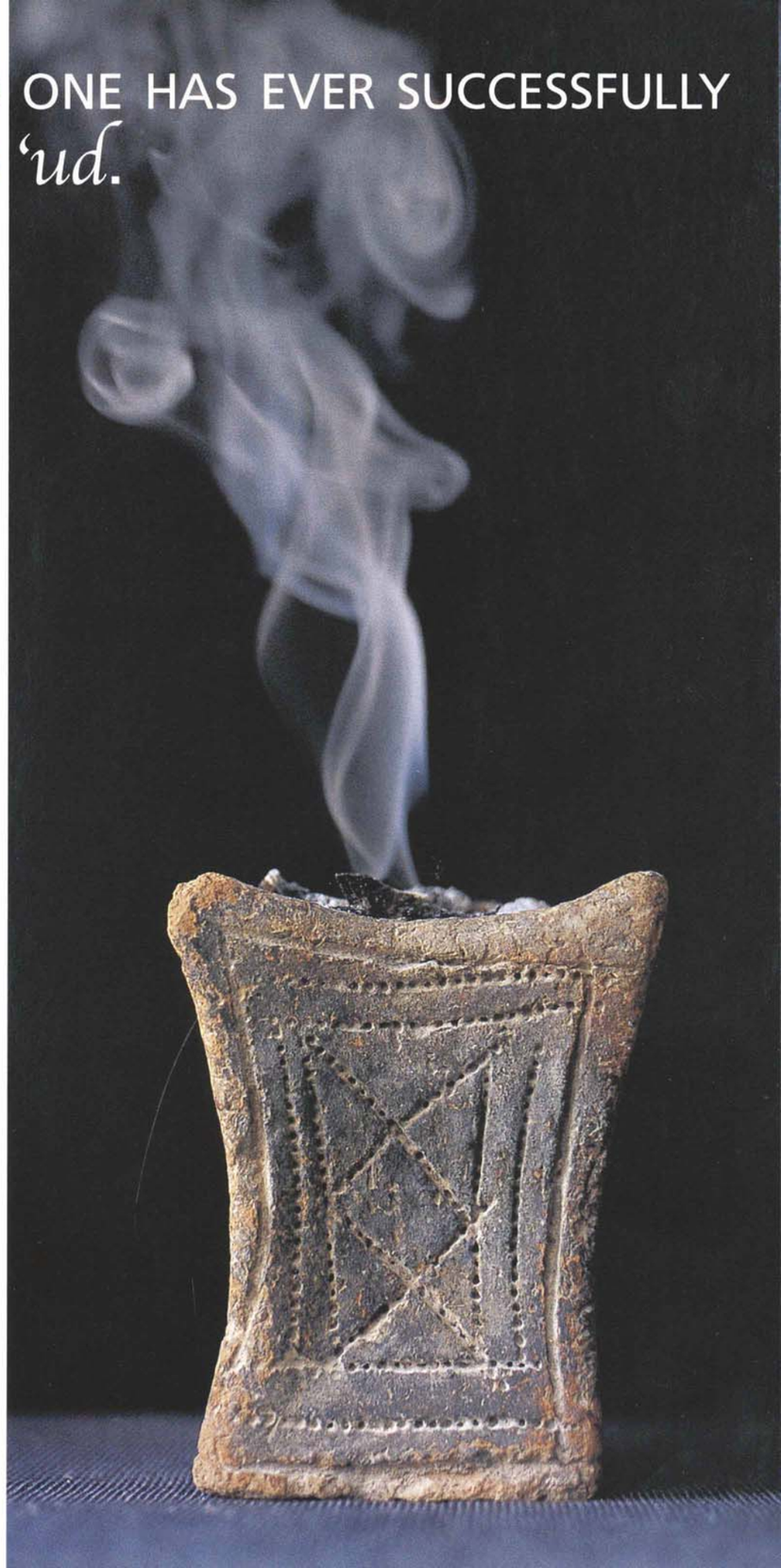
NEARLY A YEAR AFTER MY visits to Singapore and Dubai, another trip took me back to Borneo. I ran into a group of Penan friends at the riverside shop of Towkay Yong Khi Liang, a Hakka Chinese trader on the upper Limbang River in Sarawak. The Penan had just traded a kilo of low-quality *'ud* for a few sacks of sago flour, a replacement part for a chainsaw, some cartons of tinned food, some rolling tobacco, several pairs of cheap tennis shoes and soft drinks for everyone present.

As we stood on the dock, the Penan asked me if I had ever found out what the people in the Middle East did with the *gaharu*. I told them what I had discovered about the history of its trade, and then I explained the long and complicated journey it makes before arriving on the other side of the world. I described the networks of middlemen, the refined grading techniques and the marketing efforts that multiplied the price 25 times or more before it reached the final customer. They listened patiently to these facts, but what they really wanted to find out was what people did with the wood after spending so much money on it.

I suspected that they wouldn't believe me, but I had to reveal the astonishing truth: I told them people buy *'ud* so that they can take it home and burn it.

Eric Hansen is a writer and photojournalist living in San Francisco. His latest book tells the story of another of the world's enigmatic, scented wonders: *Orchid Fever* was published in February 2000 by Pantheon Books, and will appear as a Vintage paperback next spring. Hansen's e-mail address is ekhansen@ix.netcom.com.

TO DATE, NO ONE HAS EVER SUCCESSFULLY CULTIVATED *'ud*.

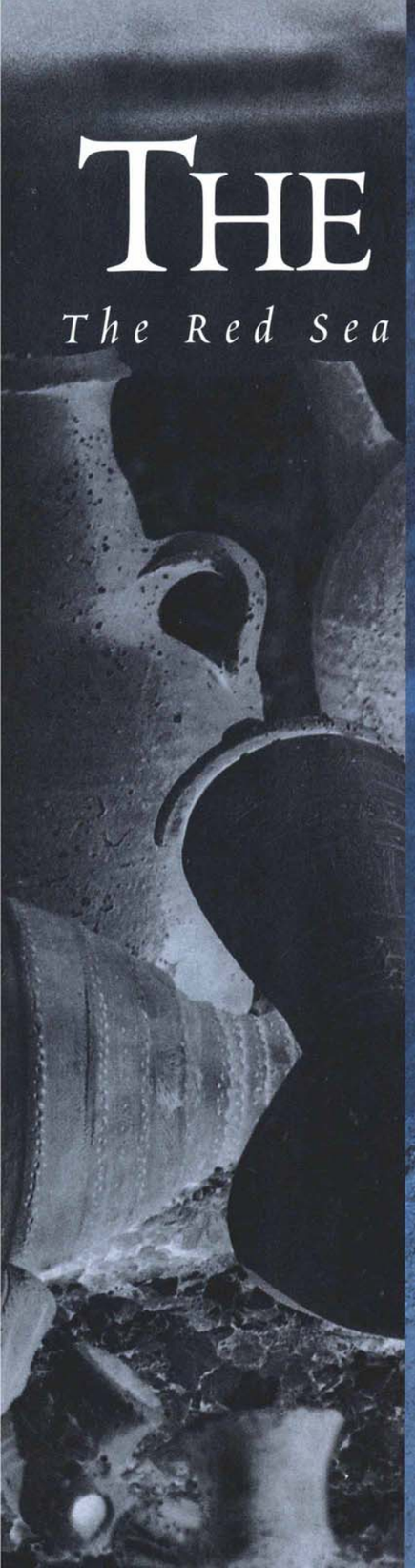


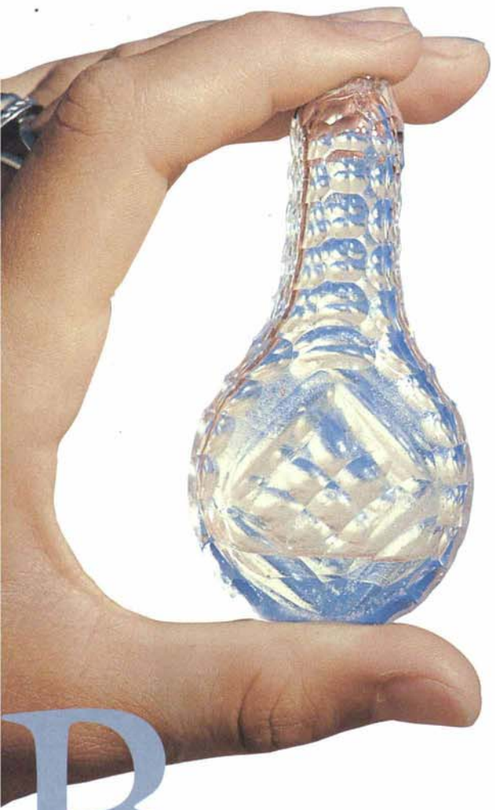
The popular *mabkharah*, or incense burner, takes many forms throughout the Arabian Peninsula and beyond. Opposite: **In Sana'a, a man censes his shawl with *'ud*. On the street and in society, *'ud*'s rich, enduring scent is a status symbol.**

THE SADANA ISLAND SHIPWRECK

The Red Sea in Global Trade

Written by Cheryl Ward





The Ottoman lands were the largest market for goods imported through the Red Sea.

Before Europe's Industrial Revolution, seagoing vessels were the world's grandest and most complex machines, carrying people and ideas, as well as precious cargo, between countries, continents and cultures.

In the 1760's, at about the time Carsten Niebuhr was drawing the first European chart of the Red Sea, an immense ship of more than 900 tons' burden slammed into a coral reef in that sea and sank beneath 30 meters (90') of water. In cooperation with Egyptian authorities and institutions and under my direction, the Institute of Nautical Archaeology (INA) in College Station, Texas has meticulously excavated the 50-meter (164') vessel and recovered a wealth of clues about the ship's last voyage. Those clues open windows on a time and place about which scholars know relatively little. Egypt's first shipwreck excavation in the Red Sea has provided a unique and wide-ranging look at international trade relationships in the middle and late 18th century.

International travel began early in the Red Sea. More than 5000 years ago, rafts or simple boats dared its waters to bring obsidian—a black volcanic glass that yields sharp blades—from the Arabian Peninsula to Egypt, where it has been found in pre-dynastic archeological sites. More than 3500 years ago, Egypt's pharaohs sent fleets into the Red Sea to visit copper and turquoise mines in the Sinai and to sail much farther south, probably through the Bab al-Mandab and into the Gulf of Aden, to the fabled land of Punt, where dancing dwarves, giraffe tails, huge gold rings and incense could be obtained for mere trinkets.

Millennia later, Roman ships regularly left Egyptian Red Sea ports such as Berenike bound for Indian cities, sailing with cargoes of gold, and with the secret of monsoon winds closely held by their navigators. Those ships returned with heady cargoes of aromatic resins and spices, elephant ivory, and silks from the Far East. In the 13th, 14th and 15th centuries of our era, Mamluk merchants landed Chinese and Iranian ceramics in medieval Quseir, on the Red Sea, which became virtually an Ottoman lake after the Turks took Cairo in 1517.

The Turks began sailing the western Indian Ocean in the 16th century, and the Ottoman lands were the largest market for goods imported through the Red Sea. At Jiddah, luxury goods from the East were traded for silver from Spain's American colonies that had passed into the hands of Ottoman merchants. (See *Aramco World*, May/June 1992.)

Opposite: A crystal flask found on the Sadana Island wreck may have been intended to contain perfume. This page: "Chinese Imari" ware, like the example below from the Topkapı Palace collection, was painted in gold, red and green enamels atop the glaze that sealed in the blue decoration. After more than 200 years in salt water, the Imari pieces from the wreck—among them the mostly white bowl at right—show only the remaining blue color that the glaze protected. Nonetheless, careful examination allows conservators to see and sketch the "ghost" of the vanished colors. Large quantities of blue-and-white and polychrome Chinese porcelain were part of the Sadana wreck's cargo.

INA / Cheryl Ward, previous spread, main; INA / Meredith Kato left; Philip Wilson Publishers Ltd, right; INA / Netia Piercy

Pilgrims returning to their home countries took with them not only water from the Zamzam spring at Makkah—and burial shrouds that had been dipped in its blessed water—but also exotic products of Red Sea trade—Chinese porcelain, metal wares, spices from India and the Moluccas, and scents from Taif—and spread them throughout the Muslim world. As the global economy strengthened, Yemeni merchants flouted Ottoman prohibitions on trade and exchanged precious coffee for imported Chinese porcelain, fabrics and spices brought by Dutch, English and Indian ships to Mocha.

A British sea captain, writing in 1723, gives us a hint of the sights and smells of this busy harbor, full of "English Free Merchants, Portugueze, Banyans and Moors, and by Vessels from Bossorah, Persia and Muskat in Arabia petrea," all trading in coffee and "some Drugs, such as Myrrh, Olibanum or Frankincense from Cassin, and Aloes Soccatrina from Socotra, liquid Storax, white and yellow Arsenick, some Gum Arabick and Mummy; with some Balm of Gilead, that comes from the Red Sea."

The coffee trade from Yemen up the Red Sea was so important that it made up two-thirds of the value of Egypt's foreign imports in the second half of the 18th century. At Suez, the fastest camels awaited the news of the coffee fleet's arrival in September or October, so as to race the 145 kilometers (90 mi) to Cairo with news that could make—or cost—fortunes on the coffee futures exchange. Re-exported through Alexandria, half of Egypt's imported coffee eventually reached Ottoman and European markets.

Indeed, the Red Sea served as the gateway to Europe for many oriental products, and trade on the Red Sea, despite the notorious risks of navigation in its reef-studded, coral-lined waters, proved to be much cheaper and safer than using land caravans. Although European ships had been sailing to Suez since the 16th century, Ottoman restrictions—including a customs monopoly granted to a Jiddawi family—generally prevented them from operating north of Jiddah during the mid-18th century. European ships brought Chinese export porcelain, designed for the Middle Eastern market, to Mocha and Jiddah to trade for coffee, and Muslim ships took the goods along the next leg north in the Red Sea. Southbound, their cargoes included iron and Ottoman-subsidized supplies of wheat, oil, lentils and beans for Jiddah.

Apparently, the sea link between Jiddah and Suez was considerably more important than historians had realized

THE GLOBAL ECONOMY IS NOT NEW, AND THE TASTES OF FOREIGN MARKETS...

before the search for shipwrecks began in the Red Sea in 1994. We have explored from Quseir up to Hurgada and across to Sharm al-Sheikh, and in those few areas we already know of four massive ships wrecked while carrying cargoes of porcelain and other wares.

One of these four is at Yanbu' in Saudi Arabia. A second, at Sharm el Sheikh, at the southern tip of the Sinai Peninsula, had been either salvaged or emptied of much of its cargo after it burned to the waterline and sank. Two other wrecks that we scouted had been so heavily looted by casual visitors that they were archeologically useless. Though the fourth, off Sadana Island south of Hurgada, had also been looted, it had not been as badly disturbed by SCUBA divers, so it represented an opportunity that might not come again: the chance to gain an understanding of these ships and the people who sailed in them.

We assembled an international team of archeologists and, over the next three seasons, made nearly 5000 dives between 28 and 40 meters (92–130') beneath the sea to conduct the first scientific excavation of such a cargo in Egypt's Red Sea waters. The porcelain we found, along with Indian pepper and coconuts, black-lipped pearl-oyster shells, spices from islands in the Indian Ocean, and earthenware vessels, incense, and coffee from the Hadhramaut, tells us that the ship sank on a northbound journey.

Curiously, the wreck site included no cannon, and we found only a handful of lead musket balls. Although survivors of the wreck could have carried off muskets, if any had been aboard, and cannon might have been salvaged at a later time, we would have expected to find quantities of shot remaining in the wreck as proof of their presence. Because so little was in fact found, we believe the Sadana ship voyaged solely in the Red Sea, within the boundaries of the Ottoman Empire. There, it had no need to defend itself either from pirates or from European merchant ships, which also had few compunctions about appropriating goods from other vessels in the western Indian Ocean and south of the Red Sea.

The ship itself is the largest artifact on the Sadana Island site. Contrary to expectations, its interior details bear little resemblance to Arab dhows or even to Chinese, Mediterranean, European, or American craft. So far, the ship is a unique example of a shipbuilding tradition that seems to have strong links to the western Indian Ocean. Iron fastenings four or five centimeters in diameter (1½"–2") held the massive, meter-thick (3') hull together, but we found no trace of either sewing or wooden pegs, fastening methods which would be typical of the region's local vessels. (See *Aramco World*, May/June 1999.) From a 1762 Danish scientific expedition chronicled by Carsten Niebuhr, we learn that the exorbitant freight charges of the Red Sea ships meant that even the largest ones—50 meters (165') and longer—earned back their construction costs in only three voyages. Niebuhr also provides an intimate portrait of life aboard one of these gigantic vessels, which he said might carry 75 crewmen, with their wives and children, in addition to 500 or 600 pilgrims.

The ship's owners and crew were probably Muslim. However, we found very few personal items—about two dozen Turkish-style pipe bowls, an embossed brass box with tobacco still inside, incense burners, a delicate cut-glass flask, an ivory finial and an ivory game piece—a pawn, perhaps—and inscribed cooking pots. And near gigantic grapnel anchors in the ship's bow was a copper basin inscribed *Sahibi Ra'is Musa Mahmoud*. In Arabic and Ottoman Turkish, *sahibi* means "its owner"; *ra'is* may have several meanings, but it is the most common term for "ship's captain" —so we may have Captain Musa Mahmoud's personal stew pot. Even more interesting for archeologists and historians was the *hijri* date 1178 scratched beside the name, equivalent to 1764, a time of increased economic activity in the northern Red Sea.

The international aspects of this investigation constantly remind me that the global economy is nothing new, and that

foreign trade, and the tastes of foreign markets, were as important centuries ago as they are today. Richard Kilburn's research in the archives of the British East India Company has turned up a letter of instruction addressed to the person in Canton, China responsible for purchasing porcelain for the cargo of the British ship *Princess Amalia*. The ship was bound for Mocha, Yemen.

Islamic religious and cultural injunctions against the representation of living creatures meant that most porcelain imported into the Middle East featured floral designs. The letter from London succinctly describes the task of tailoring the selection of goods to the requirements of the intended market:

CHINAWARE 300 to 350 chests.... One General Rule must always be observed, and that is, never to pack a peice [sic] *of Ware that hath the figure of Humane Species, or any Animal whatsoever, and as formerly the Color'd ware prevailed, so it is more than probable that it still doth, the red and gold used to be most in esteems, & three quarters of the colour'd Sortments with one quarter of blew & white was the customary package of the whole parcel.*

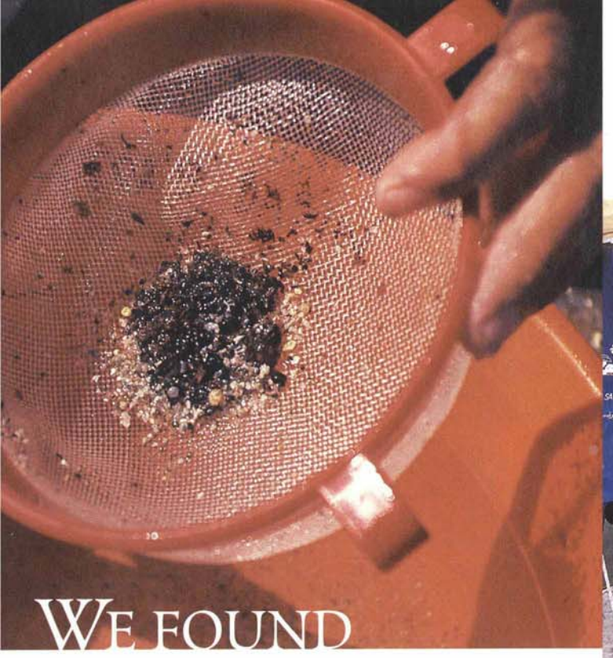
This letter, dated 1723, amounts almost to a cargo manifest for the Sadana Island ship. Monochrome, enameled (also called "colored" or "Chinese Imari"), and blue-and-white glazed wares let us glimpse the variety of Chinese porcelain known and used in the Ottoman world. The enameled pieces, whose bright colors are painted on top of the glaze after firing, are particularly challenging and interesting to study. Because of the greater labor involved in producing it, and the more

Opposite, top: **Skilled hands and dental tools remove underwater concretions from a copper basin that may have belonged to ship's captain Musa Mahmoud. The inscription, upside down, is visible on the lip of the bowl at center.** Opposite, lower: **A large variety of ceramic containers and pipe bowls was found on the wreck; they help determine date and provenance of the cargo.** This page: **Kilos of frankincense and a few lead musket balls, like these examples from other Red Sea wrecks, were found on the Sadana Island ship.**

INA / MEREDITH KATO (2)

DICK DOUGHTY (2)

...WERE AS IMPORTANT CENTURIES AGO AS THEY ARE TODAY.



WE FOUND PEPPER, CORIANDER, CARDAMOM AND NUTMEG,...

intricate designs, this type sold for several times the cost of pieces decorated only before firing. But the enamel colors were rarely found on pieces that we brought up from the sea; typically, only the underglaze blue decoration remained of a pattern once bright with red, yellow, green or gold.

With patience and a raking light, however, our artist, Netia Piercy, reconstructed the original appearance of these porcelains from the mute testimony of "ghost" patterns. Apparently, the enamels lasted long enough underwater to partially protect the glazed surface from the effects of salt water, leaving a faint tracing of the pattern etched in the glaze. Although the stunning collection of Chinese porcelain in the Topkapı Palace Museum in Istanbul includes many of the same types of objects, a number of the porcelain designs from the Sadana Island wreck are unique.

We also discovered the remains of at least three dozen "case" bottles, typically used for transporting liquor, as well as standard European wine-bottle bases and the neck of a large glass demijohn of the type used for wine in Ottoman Turkey. The contents have long since disappeared, but it is possible the bottles once held *arak*, a date-based liquor that European sources tell us the Jewish community at Sana' in Yemen supplied to other northbound ships.

More than 3000 artifacts that we brought up from the ship are now in the Alexandria Conservation Laboratory for Submerged Antiquities, a joint project of Egypt's Supreme Council of Antiquities and the INA. Because the ship was looted before archeologists arrived on the site, thousands of objects are shattered or missing, but the looting is not enough to account for the fact that the ship itself was largely empty when we began work. Even several thousand clay water jars made up less than a fifth of the cargo that the ship must have been carrying.

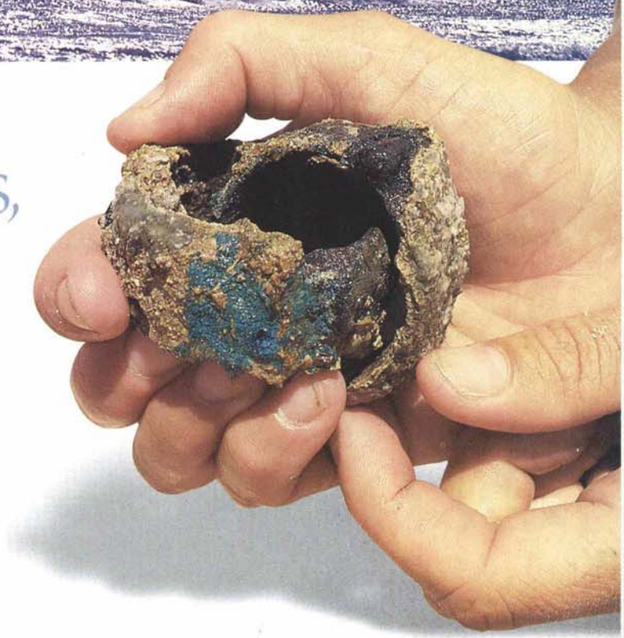
In fact, the ship's main cargo was organic. Intensive recovery of shreds and scraps of waterlogged bioarchaeological remains suggests several identifications for the missing tonnage. An aromatic yellow resin, identified as frankincense and found by the kilo, had probably been carried in bark or leather bags, and the ship's primary cargo—unroasted coffee—would have added its own scent to the heady mix aboard this vessel. Customs records in Suez suggest Chinese silks and cheap Indian cotton may also have been aboard, but we found no proof of that.

Excavators did uncover more than a hundred coconuts packed in the stern between frames of the hull. In addition to providing refreshing treats for those on the ship, coconuts were sold as curiosities to Europeans in the markets of Egypt. Both the coconut water and the flesh could be consumed raw or used as ingredients in a richly flavored cuisine: We found pepper, coriander, cardamom and nutmeg from India and, from the Mediterranean, hazelnuts, grapes, figs and olives as well as cereals, squash, and beans. Bones of sheep, goat, birds and fish were also recovered.

Two of the most fascinating and critical questions that any excavation of an ancient shipwreck hopes to answer is the origin of the ship and its crew. The inscription on the captain's pot and other inscriptions yielded the names of some of the Sadana Island ship's officers, perhaps, but we know little about where the ship was built. Historical evidence suggests that we should look eastward.

We know that Indian ships periodically carried goods north to Suez for French and other merchants during the 17th and 18th centuries. In 1670, one Ra'is Ahmed owned two Indian ships at Suez, customs records show, and in 1682, port chronicles mention a *markab hindi*, an Indian sailing ship, anchored in the harbor there. Less than a hundred years later, however, a foreign visitor noted that most of the 14 ships then sailing between Suez and Jiddah had been built in Suez. By the later 18th century, again, a French traveler commented that most Arab ships in the Red Sea had been built in India.

For much of the 17th and 18th centuries, strong commercial ties existed between Egypt and India, so it would not be surprising to find Indian shipbuilding techniques adopted by Egyptian builders. Could the Sadana Island ship be Indian? Or could it be of Egyptian construction? No one has yet found an Indian ship we could compare it to, but as exploration and research into archeological and historical sources continues, we will unravel the secrets of this gigantic ship, a participant in the multinational trading networks of the past.



...HAZELNUTS, GRAPES, FIGS, OLIVES, CEREALS, SQUASH, AND BEANS.

Copper bracelets (right) **and a large copper tray** (opposite, right) **were among the finds; both were probably personal possessions of ship's crewmembers rather than trade goods. The same is true of the quantities of spices and foodstuffs found, which included blackened coriander seed** (opposite, left). **A diving platform off Sadana Island** (above) **enabled archeologists to get across the reef's shallows and jump directly into deeper water to make the 5000 dives the excavation required.**

LEFT: INA / NETIA PIERCY; RIGHT: INA / S. SNOVDEN

INA / NETIA PIERCY (2)

Dr. Cheryl Ward found the Sadana Island wreck and headed its excavation from 1995 to 1998. She is now teaching anthropology at Florida State University, and plans to investigate ships in the Egyptian Desert and the Black Sea region. She is the author of *Sacred and Secular: Ancient Egyptian Ships and Boats* (American Institute of Archaeology, 2000).

Tucked away off the main thoroughfare that links El-Bireh with Jerusalem, some 20 minutes' drive to the south, stands an elegant house built of ochre stone, with an outside staircase that winds up to a *riwaq*, or portico. There, a generously shaded floor of colored tiles leads into the offices of the Palestinian organization that has taken on the job of protecting local vernacular architecture from the fast-paced commercial development characteristic of Palestine today. The organization is named Riwaq.

Co-director and historical archeologist Nazmi Al-Jubeh explains that the *riwaq* is one of the most distinctive features of the urban Palestinian dwelling built before World War II. "Most traditional houses have a type of *riwaq*," he says. "We wanted the name of our society to reflect an architectural aspect of the entrance, so that when people hear our name the first thing they think of is a traditional building."

This is a time of rapid change in the Palestinian landscape. Since 1993, in El-Bireh as in neighboring Ramallah and in towns throughout the West Bank and Gaza Strip, long-vacant lots have sprouted multistory offices and apartment buildings. A boom in speculative construction has made the preservation of those buildings that define the Palestinian architectural heritage into a critical task.

Stirring up Beauty

Riwaq was conceived by architect Suad Amiry who, with archeologist Ali Ziadeh and graphic artist Tayseer Masriyeh, taught at Palestine's Birzeit University, not far from El-Bireh. In 1990, they observed that, while some aspects of Palestinian material culture such as embroidery and handicrafts had become subjects of well-organized cultural preservation efforts, traditional architecture was largely neglected and, as a result, was rapidly disappearing. Yet unlike handicrafts, architectural conservation cannot be supported by a network of retail sales outlets, and preserving it demands work on a larger and inevitably more costly scale. At the very least, the three reasoned, Palestinian architecture should be documented in a publicly available historical register. According to Al-Jubeh, some 300 West Bank cities, towns and villages have "valuable historic centers," many of which have seriously deteriorated.

Beyond financial obstacles, Riwaq's founders foresaw cultural ones. Modern residents often prefer new houses, where such materials as factory-cut tile floors are easily available and quickly prove easier to keep clean than traditional rough-hewn stone. Additionally, renovating an old building often costs more than starting anew, and with the passing years it has become harder and harder to even find builders whose skills include traditional building techniques.

Written by Kerry Abbott | *Photographed by David H. Wells*

The graceful building that houses Riwaq's offices has stylistic ties to both the Mediterranean and the Middle East, and is itself an example of the vernacular architecture the nine-year-old non-profit organization is preserving and publicizing. From the columns spring four arches that support the roof of the portico—the *riwaq*.

Riwaq's offices, Ramallah

"Conservation is a philosophy, not just a technique."

Restoration has helped shore up an Ottoman-era arch. In addition to its own projects, Riwaq has offered six practical courses since 1998 that have allowed some 100 Palestinian architects to build their restoration skills.

Abdul-Hadi Palace, Arrabah

Floor tiles on the *riwaq* of the Al-Masoud Palace provide a rhythmic and colorful entranceway into the building, restored by Riwaq. Inside, high ceilings help keep rooms cool in the summer.

Al-Masoud Palace, Burqa

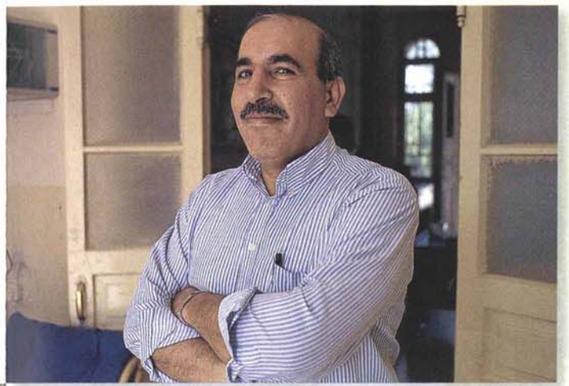
In 1991, Riwaq opened its doors as the first Palestinian organization for the preservation of architectural heritage. At first, it was funded modestly by the founders themselves. Later, they rented the house where they are today, choosing it because it included several key features of Palestinian design: the red tile roof, the floor of decorative tiles, the balcony with a balustrade and, of course, the arched portico —the *riwaq*.

Their first project was to compile a catalogue of traditional floor-tile designs. Produced mostly in the Ramallah and Nablus regions from the 19th century to before World War II, these tiles, intricately ornamented with variously colored geometric shapes such as stars and rosettes, now are treasures found—often in damaged and discolored condition—in houses of the late Ottoman period. They are produced today by only a few craftsmen, among them members of the Wazwaz family, which owns a tile factory in the nearby village of Al-Ram. There, traditional tiles can be made to order at a cost competitive with quality stone flooring. The family finds buyers among high-end homebuilders, and the tiles are a prominent feature in a new housing development at Tel Safa, on the edge of Ramallah, where a new neighborhood is being recreated in traditional style.

Since 1993 Ramallah has been a West Bank administrative center for the Palestinian National Authority (PNA), and rapid commercial and residential development has altered the face of the modest town, whose cool, gentle hills and graceful stone houses were once popular among visitors from the Arabian Peninsula seeking relief from summer's heat.

"Ramallah has not only changed its face," says Al-Jubeh. "It has also changed its character, its function and its demography." In the 1950's, he explains, what was built was "poor buildings to accommodate middle-class refugees." Since 1993, most construction has been funded by what Palestinians call

Riwaq based the design of its blue-and-orange logo on a traditional Palestinian tile design. The organization has documented many such designs and encourages the revival of their use. Across the street from Riwaq's offices, near the road to Jerusalem, a new apartment building rises. Opposite, lower: Since 1994, Riwaq has photographed, sketched and entered data about more than 20,000 traditional buildings throughout the West Bank—the beginnings of a national register of historic buildings. Riwaq staffers such as Hiam Rihan, shown at the computer, received additional support over several summers from some 60 college-student interns.



Nazmi Al-Jubeh, co-director

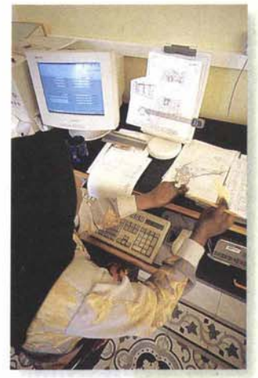
Suad Amiry, founder and co-director

"the returnees": Palestinians who lived abroad until 1993, many of whom returned—often with considerable wealth—to the West Bank and Gaza Strip. Their capital, Al-Jubeh says, made it possible for landowners to convert their holdings into profitable investments. Indeed, across the road from Riwaq's building, in the midst of an otherwise residential area, stands a new, eight-story office tower.

To develop their documentation methods, Al-Jubeh recalls, Riwaq secured a grant in 1994 to conduct a pilot study of old buildings in Ramallah. When the project came in under budget, Riwaq was encouraged to use the rest of the money to document neighboring El-Bireh.

The work was urgent. The rush to set up the PNA's West Bank operations often meant that builders' bulldozers worked faster than Riwaq's pens, cameras and database software. Besides a few documents by Christian missionaries and archeologists, whose concerns were limited to structures of possible biblical significance, the only previous architectural documentation of the city consisted of the late 19th-century British Survey of Eastern Palestine. Following the local success of the Ramallah survey, Riwaq expanded its documentation effort and recruited 60 students from Birzeit and Al-Najah universities to help over several summers.

In the legal arena, Riwaq has built a constituency for passage of a comprehensive historic-preservation law by the Palestinian legislature. At present, the only law protecting historical sites is a British Mandate law, still technically in force, that requires preservation of sites that pre-date the 16th century. "Most of our heritage is later than that," says Al-Jubeh, and thus unprotected. More recent is a scattering of local laws that have been promulgated as parts of the master plans of several West Bank cities. While working to pass its proposal through the legislature, Riwaq successfully encouraged the PNA's Minister of Local Government to issue a decree—which lacks the full force of law—banning the destruction of old buildings in cities or villages. More recently, the Palestinian Ministries of Culture and Tourism have joined Riwaq in these efforts, as have a number of legal professionals who have become members of the "Friends of Riwaq."



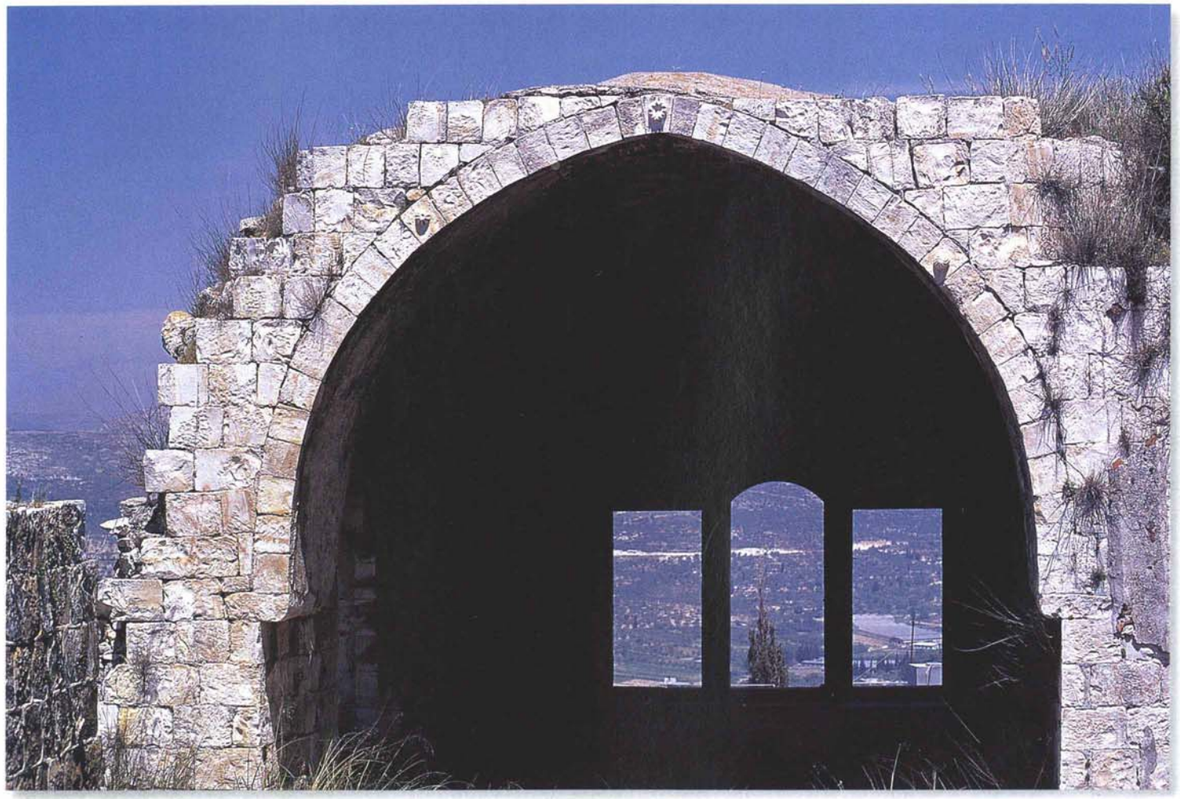
On the ground, Riwaq teamed up with the Palestinian Youth Union in 1997 to organize a work camp in the historic village of Mazare' al-Nobani, north of Ramallah. Over four months, an Ottoman-era village *diwan*, or reception room, was renovated and adapted for use as a youth center. Later, Riwaq's fundraising expertise, technical help and design assistance helped give such centers to more than half a dozen other villages.

In the course of this and other early projects, the architects often found previous restoration work that had been improperly done. Some stone houses, for example, had been patched with Portland cement, a material whose weight and changes in moisture content actually weaken the structure. In response, in 1998 Riwaq offered its first nine-week course in restoration techniques to some 40 architects working in the public and private sectors. It was so successful that five more courses have been given so far introducing more than 100 Palestinian architects to the problems of conservation and teaching them "how not to make major mistakes," says Al-Jubeh. Now, some of those graduates work with the Rehabilitation Committee in Hebron.

"Conservation is a philosophy, not just a technique," says Al-Jubeh, who adds that one of the most common conflicts is whether to stop with stabilization and renovation of a building, or go on to actually rebuild it, to make it more attractive while maintaining the stylistic integrity of the original. "If a facade is not straight, even if the structure is stable, the people will maybe not trust it," Al-Jubeh warns.

The rocky hills of the West Bank abound with pre–20th-century buildings made of local stone, among them the former homes of Ottoman governors and officials and local landlords. Many of these elaborate buildings show the signs of decades of neglect.

Al-Jayaysi Palace, Kur



Al-Qasim Palace, Beit Wazan

The work was urgent,
for speculators' bulldozers often outpaced Riwaq's cameras and pens.

Old City, Bethlehem

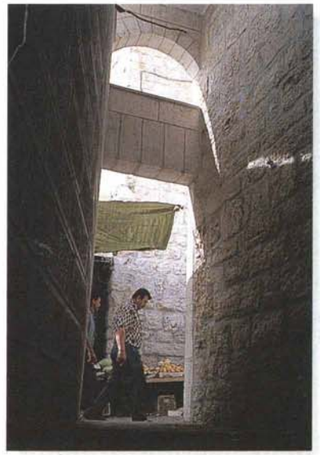
Riwaq's renovation of one of Bethlehem's main streets won it a 1996 design award from the United Nations. The city's 840 Riwaq-documented sites ranks it third after the 3350 sites in Nablus and Jerusalem's 1500. Below: Detailed carving adorns an Ottoman-era arch.

Al-Kayed Palace, Sabastiyah

For matters from decorative restoration to land-use planning, local and national groups rely increasingly on Riwaq.

Not far from Ramallah, in the village of Al-Ram, craftsmen of the Wazwaz family are among the few remaining manufacturers of mold-cast decorative tiles, which are increasingly popular among high-end home builders.

× *Ramallah* ×



× *Old City, Bethlehem* ×

Without the protection of preservationists, buildings of historical importance would be displaced as new construction sprouts (above). At left, a Riwaq-restored passageway in Bethlehem. As the capacities of the Palestinian Authority's Ministry of Culture have grown, Riwaq has transferred to it oversight of a number of projects—demonstrating, Riwaq says, the extent to which the non-governmental agency has become part of the emerging national fabric of Palestine.

"If you want people to have confidence and respect for the building, you have to rebuild it to make it look stable."

The range of homes Riwaq has helped to renovate extends from simple dwellings in the Old City of Jerusalem all the way to the elaborate Sakakini villa in Ramallah. Its eponym, Khalil Sakakini (1878–1953), was one of the godfathers of Palestinian national identity. "If you wish to awaken a nation," he wrote, "stir up and develop its sense of beauty.... For if you stimulate this sense, [it] will regard virtue as beauty and not veer toward vice."

Sakakini's family home is now the Khalil Sakakini Cultural Centre, founded in 1996 after Riwaq-led renovations in that year and again in 1998. Operated by the Palestinian Ministry of Culture, the center sponsors artistic, musical and cultural events. Inside, sunlight filtering through the original stained-glass windows superimposes additional patterns on the traditional floor tiles, some of which Riwaq salvaged from a dump. Director Adila Laidi shows off the villa with pride. "Whenever we have problems with fund-raising and things I think, 'Thank God I'm working in a beautiful building.' It's such a pleasure to come to work each day and see these beautiful tiles and windows."

Riwaq has also worked successfully in Bethlehem: In 1996, its design for the renovation of one of the town's main streets won an international competition sponsored jointly by the United Nations Development Program, the Swedish International Development Agency and the municipality. Today, Bethlehem has its own renovation plan for the city center under the auspices of the Palestinian ministries of culture and tourism.

In Hebron, Riwaq has a helping role, assisting the local Rehabilitation Committee with the support of international donors that include Arab groups and Spanish government agencies. Al-Jubeh and co-director Suad Amiry, along with architects Saher Ghazal and Firas Rahhal, serve largely as consultants, and as more local organizations form their own reconstruction teams, this is a role Riwaq plays increasingly. With Riwaq's help in preparing their entry, the Hebron project in 1998 won a triennial Aga Khan Award for Architecture.

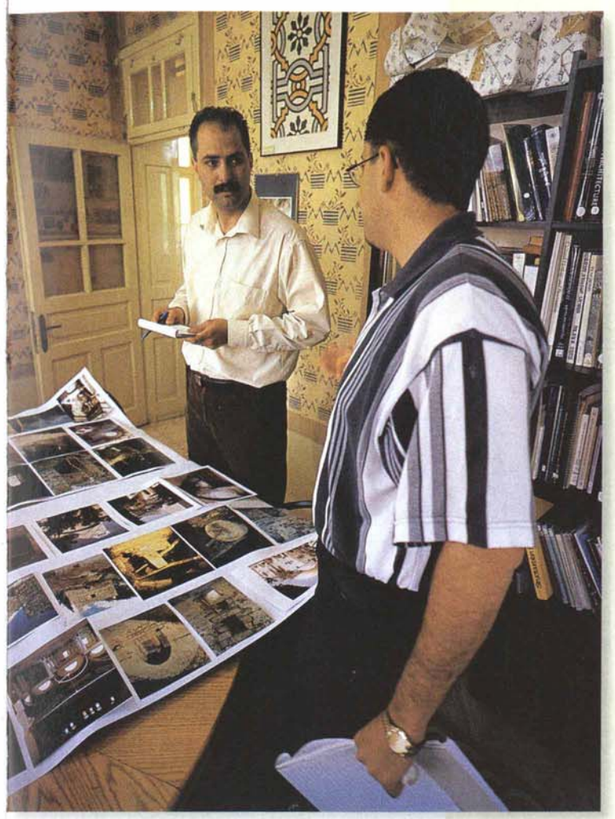
Emad Hamdan, administrative manager for the Rehabilitation Committee, says that some 160 homes have been renovated and reoccupied in Hebron so far—about half the total the group aims to renew, with an emphasis on the largely abandoned buildings bordering the old market. As these dwellings range from one to six bedrooms, post-renovation residents are selected according to family size, financial need and level of education. They pay no rent for the first five years, and there is a ceiling on utilities charges. These financial incentives are designed to help assure the area is populated by people most likely to take best advantage of the buildings.

Amiry points to these incentives as one way to make the costs of conservation realistic, especially among people who live with political instability, economic uncertainty and high land costs. Under these circumstances, he points out, Palestinian historic towns and buildings "are bound to be under threat."

Extensive restoration and renovation in traditional styles have made the Sakakini Cultural Center, top, **and the Baladna ("Our Homeland") Cultural Center,** bottom, **into showpieces. Recently, the Ministry of Culture solicited Riwaq's help in planning the renovation of two 1920's-era buildings that are slated to become a national historical museum.**

Sakakini Cultural Center, Ramallah

Baladna Cultural Center, Ramallah



Riwaq staff architect Naseer Arafat, at left, discusses with a colleague color proofs of *The Houses of Palestine,* **one of three books Riwaq is publishing.** Below: **Another of Riwaq's half-dozen staff architects, Firaz Rahal, gestures while relating the history of the Abdul-Hadi Palace to listening students.**

Abdul Hadi Palace, Arrabah

Riwaq today consists of the conservation unit, headed by Amiry, which deals with preservation and restoration; a second team that plans land-use and community revitalization strategies; and the national registry unit, headed by Al-Jubeh. Using photography and technical drawings, the registry unit has catalogued all the major towns presently under Palestinian administration in the West Bank, as well as some 80 villages. Together with PNA surveys now under way, the process of documenting the whole of the West Bank and Gaza Strip could be complete in a few years, Amiry believes.

One fact that appears to be emerging from Riwaq's survey data is that by protecting an area of only 10 to 20 *dunams* (9000–18,000 sq m, 2¼–4½ acres) in each town, some 90 percent of the stock of Palestinian architecture worth preserving could be protected. By working with the municipality of Ramallah, 40 *dunams* (3.6 ha, 9 acres) in the old town has been set aside for restoration as a historic district. A plan has been drafted for the renovation work and funding is currently being sought.

Current projects also include publishing, which will disseminate the wealth of knowledge Riwaq has gathered. Books under production include one on floor tiles, another on the social history of Ramallah, viewed through its buildings, and *The Houses of Palestine* by architect Diala Nasser, which uses typologies of housing to illustrate Palestinian social, economic, and political history.

According to Al-Jubeh, Riwaq's success comes in large part because its members work in fluid, complementary teams. The organization has also resisted the pressure to expand, he says, that inevitably comes during the flush phases of the cycles of expansion and contraction that are common to grant-funded, non-profit organizations. And as the Palestinian Ministry of Culture has grown, Riwaq has transferred oversight of some projects to the ministry, with some of Riwaq's core staff continuing to work on the projects under ministry auspices. This, Al-Jubeh maintains, demonstrates the extent to which Riwaq has become part of the emerging national fabric of Palestine. As more local preservation groups are founded to expand on the principles first championed by Riwaq not even a decade ago, they form links throughout the nascent country, pillars supporting yet another arch that shelters a fragile heritage.

Kerry Abott is a free-lance writer and development consultant based in Virginia.

David H. Wells is a free-lance photographer affiliated with the Matrix agency of New York. He has several times taught the art of the photo essay at the Maine Photographic Workshops and, in 1999, taught in India as a Fulbright scholar.

www.riwaq.com

ESFIHAS TO GO

WRITTEN AND PHOTOGRAPHED BY LARRY LUXNER

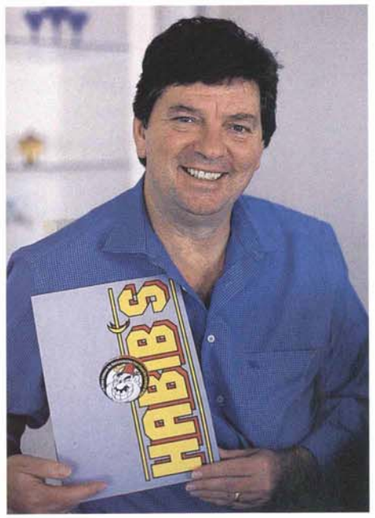
The world's largest fast-food chain that serves Arab cuisine is not in the Middle East. It's in Brazil, and may soon be in the United States. It's called Habib's.

With 151 franchise restaurants in Brazil, Habib's outnumbers foreign rivals Pizza Hut, Burger King, Wendy's, Arby's, KFC and Subway, and comes second only to the 384 McDonald's outlets in the country. Habib's has recently opened its doors in Mexico, and it is now laying plans to offer its menu of familiar Lebanese dishes in the southwestern United States.

There is, however, no Mr. Habib. (The word means "friend" in Arabic.) There is Alberto Saraíva, MD, born in a small town in Portugal to a family that claims no Arab or Andalusian roots. When he was six months old, Saraíva's parents emigrated to Brazil, where his father became a traveling candy vendor in the state of Paraná. As he grew up, Saraíva decided to become a doctor. But in his first year at the medical school of the prestigious Santa Casa de Misericordia de São Paulo, tragedy struck.

"My father had just opened a small bakery," recalled the entrepreneur, now 46. "One night, he was assaulted and killed by robbers. I was the oldest of three sons, and I had to support the family."

Saraíva stayed in medical school while also running the bakery. The experience, he says, led him to realize that he preferred business to medicine.



Alberto Saraíva, MD
"Except for the Arab immigrants, nobody in Brazil had even heard of *esfihas* before."

"After eight years, I finished my medical studies and entered the restaurant business," he says. "At first, we didn't have money to buy new equipment, so we bought used, but we opened our own restaurant." It was not long, he says, before he tripled his investment. "With this money, we built a second restaurant."

It was around that time, in the late 1980's, that Saraíva became friends with a Lebanese chef named Paulo Abud. From him, Saraíva learned a variety of Middle Eastern recipes, including the easy-to-prepare savory pastry called *sfiha*, a name that transmutes to *esfiha* in Portuguese-speaking Brazil. *Sfihas* are round flatbreads commonly topped with ground beef or cheese, tomato and chopped onions, and seasoned with spices and lemon juice. Saraíva also realized that São Paulo had only a handful of Arab restaurants amid an estimated four million residents of Arab descent—one of the largest Arab immigrant communities in Latin America—and he saw an opportunity.

"Among Brazil's 165 million citizens are some 12 million who are of Arab descent. I decided to create an Arab fast-food menu, aimed not only at the Arab immigrant colony but also at the Brazilian palate, with one extra ingredient: very low prices," says Saraíva. "This was an original idea. I didn't copy it from anyone else. Except for the Arab immigrants, nobody in Brazil had even heard of *esfihas* before."

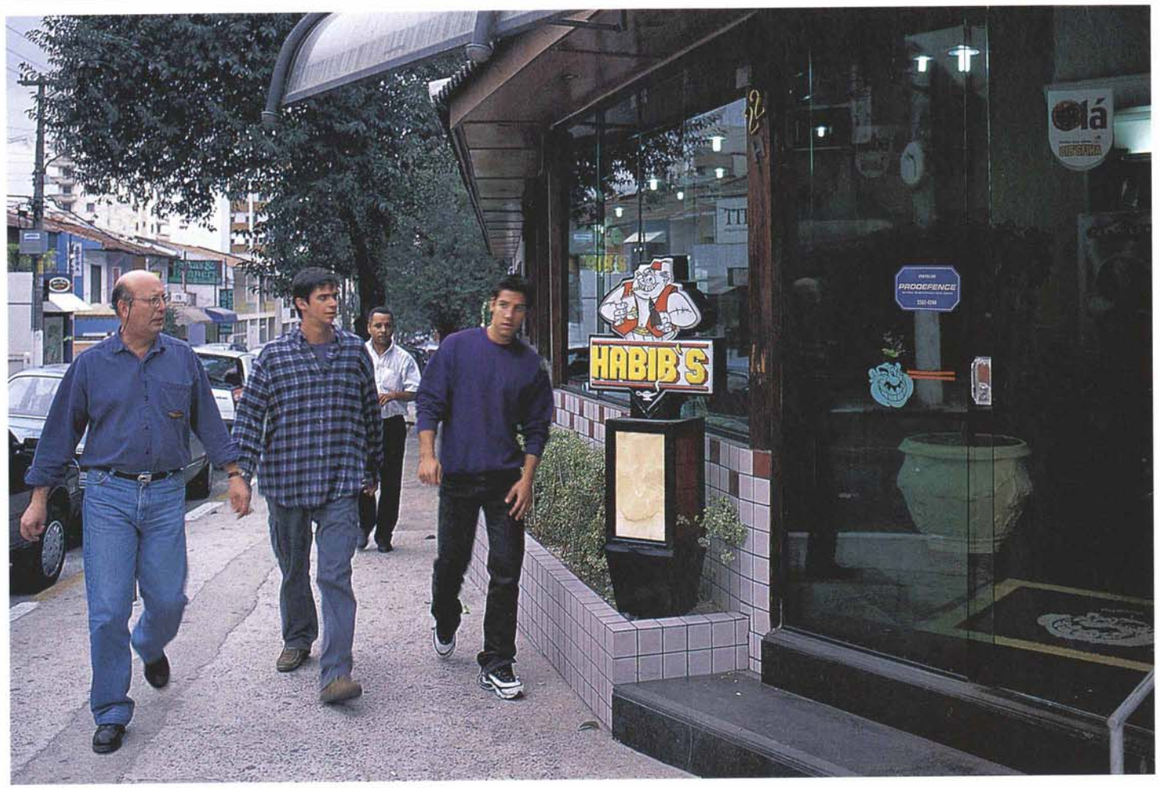
In addition to *esfihas*, the 56-item Habib's menu includes such traditional Lebanese-Syrian staples as *kibbe* (egg-shaped cracked-wheat-and-lamb croquettes filled with spiced lamb and cracked wheat); *kufta* (spiced meatballs grilled on a skewer); *warak 'aynab* (stuffed grape leaves); *hummus* (ground chickpea dip) and *tabouli* (a salad of parsley, cracked wheat, mint and tomato). For the less adventurous, Habib's also offers hamburgers, chicken sandwiches, pizzas, french fries and, for dessert, ice cream.

"When we started, we didn't advertise," Saraíva says. "All we had was a sign saying 'Esfiha Habib's—The Best in São Paulo.' I had a friend who always called people '*habib*', so when I told him I was starting a restaurant chain, he said, 'Why don't you call it Habib's?'"

Saraíva took that advice and, in 1988, with an investment of $80,000, he and his brother Belchior opened the first Habib's with 28 employees. For 45 days, he says, people stood in line to get in. The brothers quickly opened a second Habib's, then a third—and a chain was born.

Three years later, after inaugurating

Arab cuisine first came to Brazil with the Portuguese in the 16th century. Portugal had been part of the Arab world, politically and culturally, from the eighth century to the 15th, and much Arab culture remained long after political authority had come to an end. Later, Brazilian sugar plantations exploited slave labor by West Africans, many of whom had Arab-influenced culinary traditions themselves. A third wave of Arab flavors came in the late 19th and early 20th centuries, when several hundred thousand immigrants from Syria and Lebanon came to Brazil; today their Levantine tastes dominate the Arabo-Brazilian table with such items (above) as *tabouli, kibbe, hummus* and *baba ghanoush*, as well Habib's signature *esfihas*.



Habib's, where the basic *esfiha* costs the equivalent of 19 US cents, builds its 151 restaurants in three stock sizes: small kiosks to serve shopping malls, standard free-standing buildings such as this one, above and below, on Avenida Pedroso de Moraes in São Paulo, and a "full-service" design that offers drive-through windows, a playground and parking for 50 cars. Franchise operators invest $250,000 to $500,000, and Saraíva says they often recover their investment in less than a year.

his 16th restaurant, Saraíva established a central kitchen in São Paulo so Habib's could consolidate its purchases and some of its food preparation. Today, that kitchen processes 1800 tons of meat annually that go into some 220 million *esfihas* served at 73 Habib's in metropolitan São Paulo, 19 in the interior of São Paulo state and 20 in Rio de Janeiro. (The rest of the restaurants are in other major Brazilian cities: Curitiba, Florianópolis, Fortaleza, Goiânia, Recife and Uberlândia.) Altogether the eateries employ some 7000 people, and they ring up combined annual sales of $200 million—of which Saraíva says approximately $40 million is profit. Saraíva claims the market value of his company is roughly $600 million.

Now Habib's is no longer the only Arab fast-food chain in Brazil: There are Casa de Esfiha, Mister Sheik and several others, all of which contend for the market opened by Habib's, but Saraíva's chain remains the most popular and successful.

"Since the first Habib's, we've applied the philosophy of very low prices," Saraíva says, noting that the foods on his menu are cheap to produce and therefore can be sold at rock-bottom prices. An *esfiha* at Habib's, for example, costs less than one-third as much as a simple McDonald's hamburger and less than half as much as either a hot dog or a *pão de quejo* ("cheese bread"), two popular foods often sold by street vendors.

Confident that Habib's could appeal beyond Brazil, Saraíva inaugurated his first outlet in Mexico City last March, where customers can buy *esfihas* for the equivalent of 19 cents—the same price as in São Paulo. Over the next six years, he plans to open Mexico's first Arab-food chain with 220 restaurants in the three largest metropolitan areas: Mexico City, Monterrey and Guadalajara.

"This expansion in Mexico will be very important," he says. "Here we have a chance of being number one."

His next move, which Saraíva says is contingent on success in Mexico, would be to continue north into the United States, where he is already negotiating a joint-venture restaurant with Wal-Mart that would open next year in Los Angeles. "It won't be difficult to sell our most important products there," he believes.

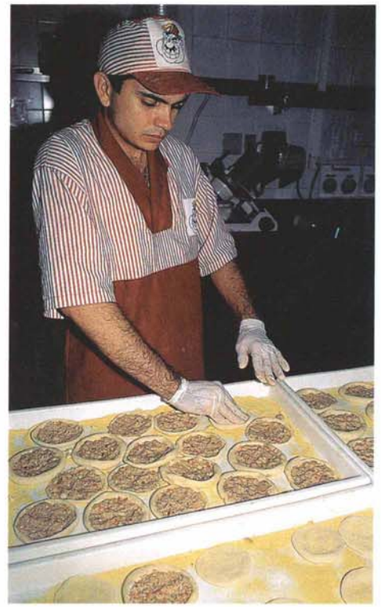
Expansion to other US cities would follow, and in doing that Habib's would follow a trail blazed by such other foreign chains as the Mexican El Pollo Loco, which has sprouted nearly 300 US franchises, and the Filipino Jollibee's, for whose pineapple-topped hamburgers Angelenos have queued up out the doors in scenes that could have been from Habib's during its early days in São Paulo.

But for now, Saraíva's hopes are pinned on Mexico. He points to market research showing that Mexicans are more likely to eat breakfast away from home than Brazilians—and Habib's, as it happens, offers an extensive breakfast menu. Saraíva and his director of expansion, José Mauro Magon, spent much of the early part of this year scouting hundreds of potential Mexican locations, putting in 15-hour, 400-kilometer (240-mi) days with frequent stops to make notes and meet with local entrepreneurs, real estate agents and officials.

That schedule leaves Saraíva little time to spend with his three children or enjoy his apartment in Mexico City's upscale Las Lomas neighborhood, where he and his wife Claudia plan to spend the next year. But Saraíva is ambitious.

"Our final big objective is the United States, because in the US, even though there's competition, everybody will want to be a franchisee," says the one-time doctor. "This has always been a dream of mine. If it were just for the money, I would have stopped a long time ago."

"FAST FOOD IS ALWAYS THE SAME THING. THEY CHANGE THE NAMES AND THE UNIFORMS, BUT IT'S ALL THE SAME—HAMBURGERS, PIZZA OR CHICKEN. WE'RE DIFFERENT."



In 1991 Habib's opened a central kitchen in São Paulo, which today processes 1800 tons of meat annually to make some 220 million *esfihas* served at 73 sites in the metropolitan area. Altogether, the eateries employ some 7000 people. Above, from top, some of those *esfihas* take shape: yeast dough balls are flattened and placed on a bed of cornmeal; their centers are patted down and the cooked spiced-meat filling is added, and finished snacks are boxed hot out of the oven.

Larry Luxner is a Wahington-based free-lance writer and photographer who specializes in Latin America and the Middle East. He can be reached at larry@luxner.com.

Events&Exhibitions

Hana Malallah (Baghdad)
Code No. 12
Mixed media on canvas, 99x96 cm (40x38"), 1998
Private collection

Strokes of Genius: Contemporary Iraqi Art shows 55 works in varied media, selected by an intercultural curatorial panel, created by 34 Iraqi artists living in that country and in more than a dozen countries abroad. The 34 are among 150 artists, many of them young, who have contributed over five years to produce a book, website and traveling exhibition that highlights both historical roots and contemporary experiences. *Strokes of Genius* was initiated by Maysaloun Faraj, an Iraqi-American artist, and has drawn on a pool of volunteers and UK-based and international arts organizations, including the Arts Council and the British Museum. The book (of the same title) will use reproductions, interviews, essays and biographical sketches to impart a broad understanding of Iraqi art in recent decades. It will be published late this year by Saqi Books (£17.95 hb). Information: +44-20-7898-4915, www.soas.ac.uk/Brunei/ and www.strokes-of-genius.com. Brunei Gallery, **London**, through December 8; Institute of Arab and Islamic Studies, **Exeter** University, opens April 1.

<< November

Travels through the Holy Land, Syria, Idumea, Egypt and Nubia: The Lithographs of David Roberts displays original and facsimile hand-colored lithographs produced in the 1840's by the Scottish artist whose meticulous draughtsmanship earned him his fame. The prints are from private collections and the Nance Museum. Museum of Printing History, **Houston**, November 16 through January.

Artists from Bilad al-Sham, Part 2, highlights Lebanese, Palestinian and Syrian artists in the fifth of six surveys of contemporary Arab-world arts, with an emphasis on painting. Information: www.daratalfunun.org/. Darat al Funun, **Amman, Jordan**, through November 17.

Chant Avedissian: A Contemporary Artist of Egypt shows scroll-like paintings, executed on corrugated cardboard, that encompass both current and historical Egyptian images, from political figures to everyday objects, in pursuit of "the essence of an Egyptian way of seeing." National Museum of African Art, **Washington, D.C.**, November 19 through February 19.

Artists from the Arab Maghreb highlights Algerian, Libyan, Moroccan and Tunisian artists in the final of six surveys of contemporary Arab-world arts, with an emphasis on painting. Information: www.daratalfunun.org/. Darat al Funun, **Amman, Jordan**, November 22 through January 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. Catalogue $30. Information: www.artic.edu. Rijksmuseum van Oudheden, **Leiden, Netherlands**, November 23 through February 18.

Foreign Affairs: Islamic Ceremonial Documents From the Royal Archives presents about 100 beautifully decorated calligraphic documents sent from various courts of the Islamic world to the Dutch government from the 17th to the 20th centuries. Most have never before been exhibited. They are complemented by maps, painting and engravings to provide a general picture of the rich and longstanding connections between Holland and the Islamic world. Peripheral events include concerts of classical Iraqi and Turkish music and calligraphy lessons. Wereldmuseum **Rotterdam** (formerly Museum voor Volkenkunde), November 26 through March 25.

Persian Steel displays objects from early times to the end of the 19th century, including arms and armor, horse bits and stirrups and flint-strikers. Catalogue. Ashmolean Museum, **Oxford**, through November 26.

<< December

Mysteries of Egypt presents more than 350 artifacts, large graphics, and a carefully recreated tomb to inform visitors about the intellectual, artistic, and practical achievements of the ancient Egyptians. Glenbow Museum, **Calgary, Alberta**, December 2 through March 11.

Women of the Nile explores the essential role of women and their variety of responsibilities in the four primary aspects of Egyptian life: in the home, the temple, the palace and the afterlife. Glenbow Museum, **Calgary, Alberta**, December 2 through March 11.

India Through the Lens: Photography 1840–1911 emphasizes the esthetic qualities, as much as the social and historical importance, of 135 photographs taken in the Indian subcontinent. The exhibition highlights the art of the panoramic photograph, the British passion for archeological and ethnographic documentation, and the work of Felice Beato, who recorded the aftermath of the Indian Mutiny in 1857. Also on view are Samuel Bourne's landscapes, and works by Lala Deen Dayal, an Indian photographer equally at home in the opposing worlds of Indian princes and British viceroys. Catalogue. Sackler Gallery, **Washington, D.C.**, December 3 through March 25.

Mesopotamian Civilization is the subject of a major exhibition that will tour Japan during the next two years. Setagaya Museum of Art, **Tokyo**, through December 3.

The Indus Civilization is the subject of a major exhibition that will tour Japan during the next two years. **Tokyo** Metropolitan Museum of Art, through December 3.

Persepolis: Documenting an Ancient Iranian Capital, 1923–1935 displays photographs, sketchbooks, watercolors, scale drawings and "squeezes" (papier-mâché casts) of inscriptions made by German archeologist Ernst Herzfeld and the team from the University of Chicago's Oriental Institute that excavated Persepolis. This was one of the capital cities of the Achaemenid Persian empire that flourished between 550 and 330 BC and whose writ ran from the Aegean to the Indus. The excavation set the stage for a new understanding of Persian imperial architecture and sculpture. Information: www.asia.si.edu. Sackler Gallery, **Washington, D.C.**, December 3 through May 6.

Human Image is a thematic introduction to the museum's collections through 100 representations of the human form arranged across broad reaches of history and geography into topical clusters—creation, devotion, perfection, power and more—that highlight both universalities and great differences. Curators have designed the interdisciplinary show to "challenge received understandings and provoke debate surrounding the role and purpose of the contemporary museum exhibition." British Museum, **London**, December 7 through February 11.

Emperors on the Nile presents a broad view of the Roman occupation of Egypt, displaying more than 250 objects from European museums. Allard Pierson Museum, **Amsterdam**, December 9 through March 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. Walters Art Gallery, **Baltimore**, through December 10; Mint Museum of Art, **Charlotte, North Carolina**, February 23 through April 22.

Saudi Costume and Jewelry from the Nance Collection displays more than 100 items of traditional clothing and mostly Bedouin jewelry at the Kirkpatrick Library, Central **Missouri** State University, **Warrensburg**, through December 15.

Fabric of Enchantment: Indonesian Batik from the North Coast of Java places colorful batik (fabric dyed in a wax-resist process) made on the north coast of Java from the late 18th to the mid-20th century in an esthetic, social, and historical context. Long overlooked by both connoisseurs and scholars, the foreign-influenced patterns in north-coast batik are both visually stunning and highly complex. Drawn from the Inger McCabe Elliott Collection of the Los Angeles County Museum of Art, the exhibition comprises 48 outstanding examples that tell the story of the development of north-coast batik through an examination of the relationship between wearers and makers. On the north coast, as elsewhere, dress was the major means for communicating identity. The wearing of batik was, and to some extent still is, a key element in distinguishing ethnic affiliation, marital status, social standing, and occasion. The textiles in this show are masterpieces of the batik-maker's art; at the same time they provide insight into the dynamics of a unique, multicultural society. **Cleveland [Ohio]** Museum of Art, December 17 through February 11.

The Glory of Ancient Egypt's Civilization displays more than 123 objects selected from the inexhaustible collection of the Egyptian Museum of Cairo and the Luxor Museum, including images of the gods, pharaohs, and officials who ruled this world and the next, the vessels meant to serve the dead in the afterlife, and the various types of gold ornaments that symbolize Egypt's royal culture—including the famous golden mask of Psusennes I. **Ehime [Japan]** Prefecture Museum, through December 17; National Museum of Art, **Osaka**, January 13 through April 8.

A Distant Muse: Orientalist Works from the Dahesh Museum of Art extends investigations around the "discovery" of Islamic and Arab lands by Europeans in the 19th century, exhibiting 50 works that demonstrate that Orientalism was not a simple dynamic between subject and object or dominance and dependency, but rather "a convergence of influences" that included Middle Easterners who participated in the "Orientalizing" of their own cultures for their own advantage. Information: www.daheshmuseum.org. Dahesh Museum of Art, **New York**, through December 30.

New Galleries for Ancient Near Eastern Art set the artifacts of one of the world's most far-reaching, extensive collections into new contexts that illuminate their use and significance in antiquity as well as their connections to the art of neighboring cultures. The spectacular Assyrian reliefs are now illuminated by natural light. Metropolitan Museum of Art, **New York**, through December 31.

Islamic Lustreware displays ceramics on loan from the Ades family and Frazer Mann collections that illuminate the art from ninth-century Iraq to 20th-century Iran. British Museum, **London**, through December.

Paul Bowles: 1910–1999 includes photographs, artwork, travel diaries and recordings that Bowles, expatriate American writer, composer, translator and ethnomusicologist, made during his five decades in Tangier, as well as correspondence and collaborations with such friends as Aaron Copeland, Ezra Pound, Orson Welles and Gertrude Stein. The material is taken from a trove donated to the university shortly before Bowles's death last November. University of **Delaware** Library, **Newark**, through December.

Mediterranean Gaza: Five Years of French–Palestinian Cooperation in Archeology presents the results of recent excavations at four sites on the outskirts of the modern city. New finds, most spectacularly Byzantine mosaics of very high quality, are complemented by photographs, documents and video presentations that make clear Gaza's historic role as an entrepôt—at the end of the Spice Route, the Incense Trail and the Via Maris—and as a producer and exporter of excellent wines and other agricultural products. Musée de l'Arles Antique, **Arles, France**, winter.

<< January

Batak: Art From Sumatra presents masterworks illuminating religion and everyday life from the Lake Toba region of northern Sumatra, drawn from museum and private collections. Museum für Völkerkunde, **Frankfurt**, through January 1.

Egyptian Treasures from the British Museum include stone sculptures of pharaohs and dignitaries, bronze statuettes of the gods, jewelry in gold and other precious materials, papyrus Books of the Dead with their painted vignettes, faience or glazed amulets, furniture and cosmetic objects in wood, ivory or glass, and a decorated coffin with its wrapped mummy inside. Bowers Museum, **Santa Ana, California**, through January 2.

Coptic Art in Egypt: 2000 Years of Christianity covers the history of the Coptic people in Egypt from their origins to the present through secular and religious art objects. Musée de l'Ephebe du Cap d'Agde, **Agde, France**, through January 7.

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, Qur'anic and other manuscripts, arms and armor, metalwork, ceramics, textiles and scientific instruments from the Nasser D. Khalili Collection of Islamic Art. Catalogue. **Albuquerque [New Mexico]** Museum, through January 7.

Syria, Land of Civilizations assembles more than 400 cultural treasures—some never before seen abroad—to present one of the world's oldest cultural centers and explore seminal events that took place there. Mesopotamia, the palace of Mari, the most ancient forms of writing and the earliest evidence of farming, Queen Zenobia and her oasis city of Palmyra, the first great Islamic dynasty in Damascus—all are parts of Syria's legacy. The exhibition views 12,000 years of history from successive viewpoints: first, social and political organization: the establishment of villages, the rise of cities, the creation of kingdoms and of empires; then economic and spiritual organization. The exhibit also highlights the West's intellectual and scientific ties to Syria. Catalogue. A concurrent exhibition, **Contemporary Syria**, explores everyday life, particularly from the perspective of young people. Musée de la Civilisation, **Quebec**, through January 7.

Heka: Magic and Sorcery in Ancient Egypt presents examples of the amulets, magic wands, statuettes—often of bound captives—and other devices with which Egyptian magicians warded off or cast out the enemies of earthly order, Death and his emissaries. The god Heka, often depicted as holding two snakes to his chest, represented the powers given to humans by the sun-god to enable them to combat the dangers of creation. The necessary rituals were recorded on papyri, which are also included among the 250 objects on display. Catalogue (96 pp) F120. Musée du Louvre, **Paris**, through January 8.

The Year One is an unusual exhibition of 150 works from the museum's collection that were produced about 2000 years ago in Western Europe, the Mediterranean, Africa, the Middle East, India, China, Southeast Asia and the Americas. They are chosen to highlight the cultural interconnections that existed just before and after the Year One among those widely separated parts of the world, some relationships established by the expansion of Roman power, others through overland and maritime trade routes that gave East and West tantalizing glimpses of each other. Metropolitan Museum of Art, **New York**, through January 14.

Egyptian Art at Eton College: Selections From the Myers Museum presents some 150 works of art from one of the least-known and finest collections of Egyptian decorative art, assembled by an alumnus of the college. The exhibition includes a series of remarkable faience chalices and bowls, an electrum pectoral and a finely carved fragmentary statuette. Metropolitan Museum of Art, **New York**, through January 21.

Gold of the Nomads: Scythian Treasures from Ancient 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. **Brooklyn [New York]** Museum of Art, through January 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, a high point of Sumerian culture. Catalogue $50/$35. Oriental Institute Museum, **Chicago**, through January 21.

The Unknown Paradise: Archaeological Treasures from Bahrain presents nearly 600 objects outlining 4500 years of the history of this past and present center of international trade in the Arabian Gulf. The Sumerians saw Dilmun, as they called it, as a prelapsarian paradise; it figures in the Epic of Gilgamesh. 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 (2100–1700 BC), whose most important trading commodity was copper. Bahrain enjoyed another, less well-known florescence at the intersection of Hellenic and Parthian culture (300 BC–AD 600), when it was known as Tylos. Sites from that period have

Continued on next page

Continued from previous page

yielded carved stelai, glass from as far away as Egypt, and jewelry of gold, precious stones and the famous Gulf pearls. Museum of Prehistory, **Dresden**, late January through late April.

February >>

Antioch: The Lost Ancient City brings to life a metropolis once ranked with Rome, Constantinople and Alexandria, presenting 160 objects—mosaics, sculpture, frescoes, glass, metalwork, pottery, coins, weights—created there nearly 2000 years ago. The exhibition evokes the luxury of the domestic settings of the elite as well as the street life of Hellenic Antioch. Catalogue. Information: www.worcesterart.org. **Worcester [Massachusetts]** Art Museum, through February 4.

The Golden Deer of Eurasia: Scythian and Sarmatian Treasures from the Russian Steppes displays spectacular finds of gold and silver recently excavated in Bashkortostan, Russia along with related Scythian, Sarmatian and Siberian objects from the Hermitage Museum. Created around the fifth to the fourth century BC by nomadic people who lived in the open steppe in the southern Urals, these distinctive works of art include wooden deer-like creatures overlaid with sheets of gold and silver, as well as gold attachments for vessels and gold plaques originally attached to leather or fabric. The subjects are similar to those of Scythian art, but the vibrant curvilinear elaboration of the body surfaces is unique in the area and resembles the style of artworks found much farther east in the frozen tombs of the Altai region of Siberia and in western China. Catalogue. Metropolitan Museum of Art, **New York**, through February 4.

Ikat: Splendid Silks of Central Asia. *Ikat* denotes a cloth-making process in which threads are grouped in tiny bundles and wrapped in selected areas to prevent color penetration. After dyeing, the wrapping is removed, and the procedure is repeated for a second color, a third, and so on. Finally, the colorful, patterned threads are woven, with other, usually unpatterned, threads, on a loom. As robes, sometimes worn in layers of 10 by the dandified man of Bukhara, ikat textiles signaled their wearers' wealth and social prominence. As panels hung on walls or used to make temporary outdoor pavilions, they became the backdrop for occasions ranging from intimate wedding ceremonies to vast clan reunions. Yet despite their beauty and pervasive social importance, the ikats of Bukhara and Samarkand enjoyed only a brief flowering. During the 1870's, newly introduced synthetic dyes harshened their colors, and the Russian occupation of Central Asia undermined their intricate system of production. This exhibition includes 40 wall hangings, velvet strips, and robes, all drawn from the Boston's Guido Goldman Collection, the largest and most comprehensive private collection of Central Asian ikats. Catalog illustrates 70 textiles, including those on view. **Denver** Art Museum, opens February 10.

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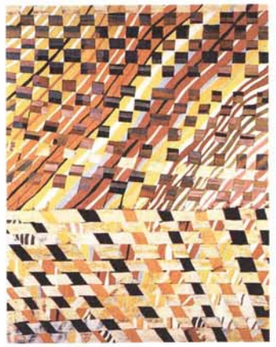

Lienzos Cruzados (Crossed Linens)

Teresa Lanceta: *Woven Abstractions* brings together some 50 textiles spanning three decades of thematically arranged works by the Barcelona-born, self-taught artist whose textile expressions have been greatly influenced by long sojourns as a student of Morroccan weavers. "Intense devotion" to her Moroccan experiences, writes Fernando Huici of *El País* in a review of Lanceta's show in Madrid early this year, puts her "beyond reach of suspicion of fascination with the exotic … Lanceta establishes a dialog in an original creative syntax, not from a diffuse evocation but from her immediate attention to concrete pieces." Catalogue. Information: +34-93-731-5202, con.mtextil@diba.es. Centre de Documentació i Museu Tèxtil, **Terrassa (Barcelona), Spain**, through January 10; **Elche (Valencia), Spain**, January 16 through February 15; **Teruel (Aragon), Spain**, February 21 through March 25.

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. Antikenmuseum **Basel**, through April 1.

April >>

Asian Traditions in Clay: The Hauge Gifts presents 81 vessels from three important ceramic traditions. On display are 33 examples of ancient Iranian painted or burnished earthenware, 16 low-temperature-glazed earthenware works from Islamic Iran and Iraq, and 35 Khmer stoneware vessels. The exhibition explores the different technologies and uses associated with the objects and the different esthetics that gave rise to them. Catalogue. Sackler Gallery, **Washington, D.C.**, through April 22.

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.

Later >>

Sites Along the Nile: Rescuing Ancient Egypt is an exhibition of nearly 600 objects representing the cultural development of ancient Egypt from 5000 BC to the seventh century of our era. The artifacts were rescued by archeological excavations from looting and flooding of ancient temples and burial sites, making this collection a world-class resource for Egyptologists. Hearst Museum of Anthropology, **Berkeley, California**, through June 30.

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.

Traditions in the Middle East is an interactive, hands-on exhibition for families and children based on children's art from Egypt, Iran, Turkey and the United Arab Emirates acquired through the museum's International Youth Art Exchange Program. Children can also enter a Bedouin tent, explore a replica of an Egyptian tomb, experience Arabic calligraphy and geometric art, knot carpets and try on clothing from the Middle East. Information: www.worldchildrensmusuem.org. World Awareness Children's Museum, **Glens Falls, New York**, through September 1.

Whem Ankh: The Cycle of Life in Ancient Egypt explores daily life in Ptolemaic Egypt (323–330 BC), a time when the great classical civilizations of the Mediterranean, North Africa and South Asia came together and eventually clashed in the aftermath of the conquests of Alexander the Great. The exhibition follows the life, death and afterlife of a known individual, Nes-Hor, one of two mummies in the exhibit. Examination of his mummy and detailed readings of the icons and text on his coffin have provided a great deal of information on Nes-Hor's life history, family relationships and his place in society as a priest in the Temple of Min in Akhmim. More than 200 artifacts illuminate the domestic life, economy, religion, politics and preparations for the afterlife of a "middle class" Egyptian family of about 2200 years ago. **Buffalo [New York]** Museum of Science, through September 2003.

Fountains of Light: Metalwork from the Nuhad Es-Said Collection features 27 elaborately inlaid base-metal objects, crafted in the Islamic world between the 10th and the 19th centuries, that were intended to rival the finest contemporary gold and silver works in their beauty and craftsmanship. The ewers, candlesticks, incense burners and vessels represent the heights of technical and esthetic achievement reached in that period in the regions that are now Iran, Iraq, Syria, Afghanistan, Egypt, Saudi Arabia and Turkey. The exhibition includes silver-inlaid keys to the Ka'ba commissioned by Mamluk rulers to symbolize their role as defenders of the faith. Texts discuss techniques, materials and design. Catalog $90. Sackler Gallery, **Washington, D.C.**, indefinitely.

Early Islamic Inscribed Textiles. In a variety of materials, weaves, embroideries and ornamental schemes, these textiles from the early Islamic world (10th to 13th centuries) were most frequently used for clothing. They also displayed a wealth of information. The earliest and most prestigious of them, called *tiraz*, name the official factories in which they were made, and the recipient for whom the caliph had them made, as well as quotations from the Qur'an. These were extremely important documents of high status, keenly sought after and widely imitated. Kelsey Museum of Archaeology, **Ann Arbor, Michigan**, permanent.

The Mary and Michael Jaharis Galleries for Byzantine Art offer expanded displays of secular and religious art produced from Constantinople to the southern border of Byzantine rule in Egypt. Metropolitan Museum of Art, **New York**, permanent.

Saudi Bedouin Jewelry displays more than 100 pieces donated recently by the Lewis and Marie Hatch Collection. Information: 816-697-2526. Nance Museum, **Lone Jack, Missouri**, permanent.

QUICO ORTEGA / CDMT

The Silk Road city of Merv, in today's Turkmenistan, has been named a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization. Actually a complex of three cities, Merv "exerted considerable influence over the cultures of Central Asia and Iran for 4000 years," according to UNESCO. "The Seljuk city, in particular, influenced architecture and architectural decoration and scientific and cultural development." World Heritage Sites, which now total 630, are "natural and cultural properties of exceptional universal value to humanity." At about the same time, archeologist Georgina Herrmann, co-director of the international team excavating at Merv, completed her book about the site. *Monuments of Merv: Traditional Buildings of the Karakum* (ISBN 0-854312-75-7) is published by the Society of Antiquaries of London. Jane Grutz's article "Oasis of Turquoise and Ravens" presented Merv's history and Herrmann's work to *Aramco World* readers in the July/August 1998 issue.

Aleppine architect Adli Qudsi and his colleagues on the Committee for the Conservation of Old Aleppo note that several of the city's graceful old courtyard houses, abandoned in mid-century, have now been bought by private citizens and are being restored. The committee has made 300 interest-free restoration loans to lower-income residents of the old city and more applications are pending. Repair of the pilot area's water and sewage systems is almost complete, the streets are being recobbled, and an intricate scheme intended to ease traffic flow through the quarter has been implemented. However, "the whole of the Old City needs the same kind of attention," Qudsi points out, and the work continues. His plans were described in William Graves's article "Preserving Old Aleppo" in the May/June 1999 issue of *Aramco World*.

Unable to eat gold, King Midas starved to death, according to some versions of the legend, but the mourners at his funeral evidently did not. Nor did 150 guests at the University of Pennsylvania Museum who in September attended a scientific re-creation of Midas's funerary banquet in about 700 BC. Patrick McGovern of the Museum Applied Science Center for Archaeology turned a battery of chemical analyses on organic remains in vessels uncovered in the "Midas Mound," a tomb—thought to be that of King Midas of the "golden touch"—at the site of ancient Gordion in central Turkey (*Aramco World*, September/October 1989). Elizabeth Simpson of the Bard Center for Decorative Arts reconstructed the course of events of the funeral, and the ritual banquet that followed it, from the contents of the tomb and the disposition of the artifacts. Chef Pamela Horowitz worked with McGovern on the main course, a spicy stew of fire-roasted lamb and lentils with onions, leeks, carrots and garlic, spiced with cumin, coriander, thyme, anise, fenugreek and salt and topped off with watercress. "The evidence told us what the ingredients were, but it didn't help with proportions. We put it into a big pot and made it spicy, adding a bit of this and a bit of that," says Horowitz, who missed peppers and potatoes in the dish, both of which are New World foods. "It was extremely well received," she says, but when diners asked for the recipe, "I could only give them the ingredients and tell them to play around with them, like we did." Accompanying the stew was a fermented drink of honey, grape juice, barley malt and saffron, which Horowitz describes as "having a beautiful golden color" and tasting "a lot like hard cider." Likely regional dishes supplemented the stew: Appetizers of figs, olives, sheep's-milk cheeses and bread began the meal, and a baked honey-fennel tart topped with pomegranate syrup was dessert. This is the first time that an ancient feast has been recreated on the basis of molecular archeological evidence rather than literary description.

The Map of Love, Anglo-Egyptian author Ahdaf Soueif's latest novel, was shortlisted for the Booker prize in Britain and warmly reviewed in the March/April 2000 issue of *Aramco World*. It has now been published in the United States as an Anchor paperback, ISBN 0-385-72011-4.

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

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.