ARAMCO WORLD

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NOVEMBER-DECEMBER 1989

jordan's royal falcons

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Cover: in a tight diagonal formation against the red rock walls of Wadi Rum, the high-performance Pitts Special S-2S aerobatic biplanes of the Royal Falcons smoke past in a practice run.
Photo: Bill Lyons.
Back cover: Bursts of fireworks light the Washington Monument to salute the premiere of "Saudi Arabia: Yesterday and Today," the kingdom's national exhibition now touring the United States.
Photo: Mehmet Biber.

◀ The prayer hall of the award-winning Jiddah Corniche Mosque reflects architect Abdel Wahid El-Wakil's concern with traditional forms. Photo: Akram Mohamed.

ARAMCO WORLD

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LAWTON


KESTING


LYONS

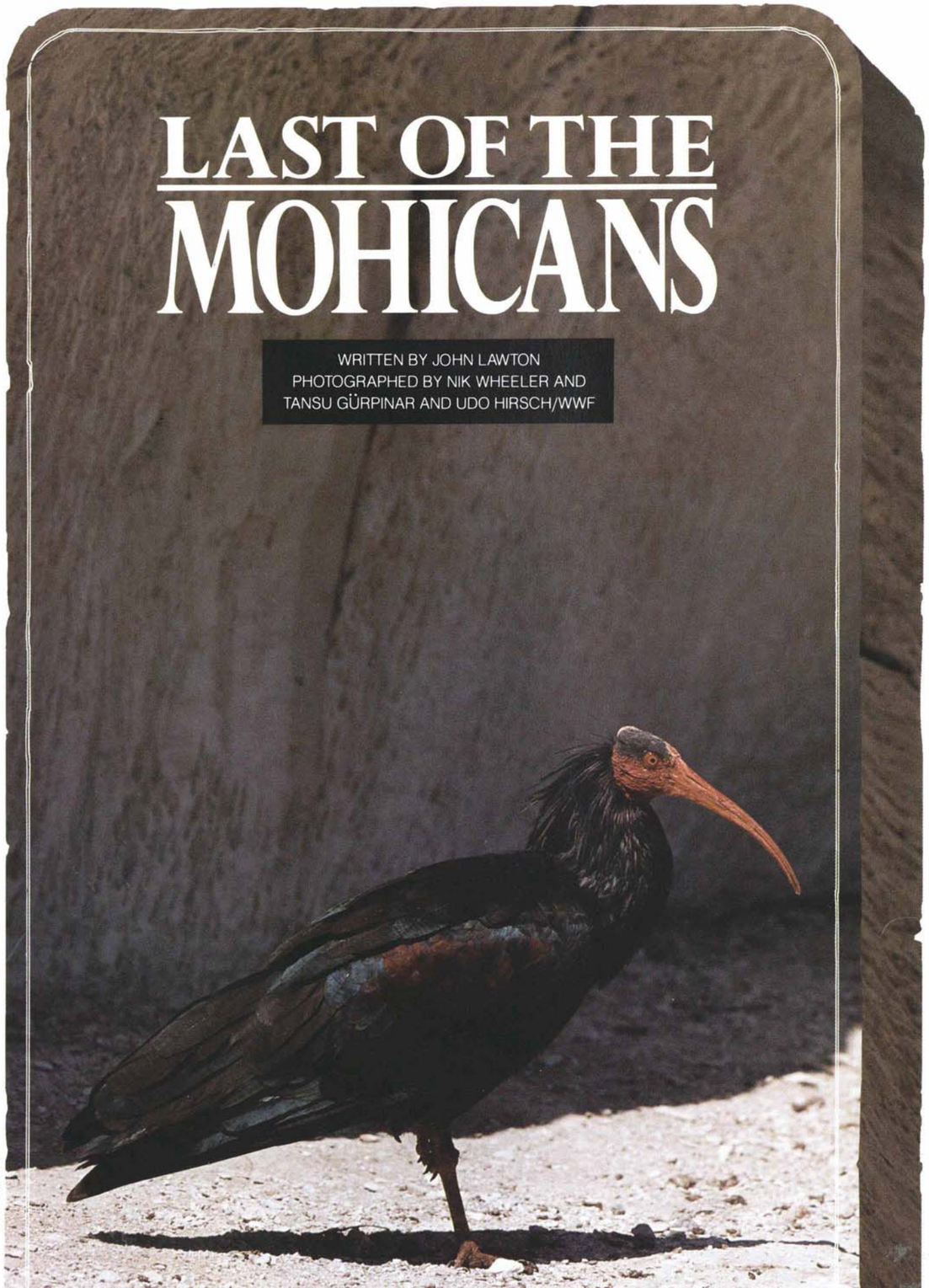

LOUGHRAN


TRACY

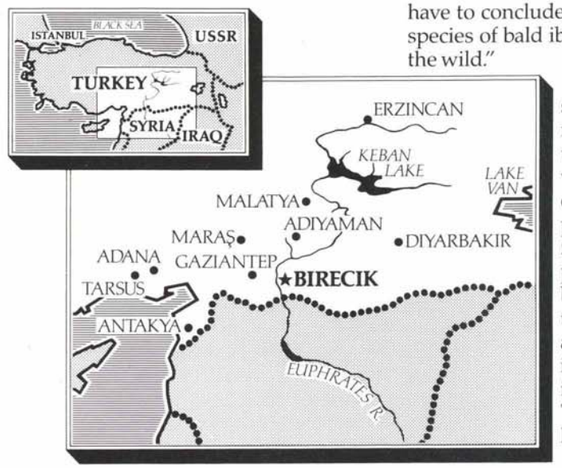

KHATER

LAST OF THE MOHICANS

WRITTEN BY JOHN LAWTON
PHOTOGRAPHED BY NIK WHEELER AND
TANSU GÜRPINAR AND UDO HIRSCH/WWF



UDO HIRSCH /WWF



In a long struggle, the bald ibis was backed to the wall by the pressure of pesticides and population growth.

A small band of conservationists seems to have lost its 22-year battle to save the last wild breeding colony of Turkey's bald ibis.

Only three of the rare and remarkably ugly birds returned from their Red Sea wintering grounds this year to Birecik in southeastern Turkey – their last known nesting place. All three birds apparently died before they could reproduce.

It is possible that some young birds still survive in Red Sea regions, where they spend six years maturing before returning to their birthplace to breed. But without older birds to guide them back to Birecik, the revival of the *Geronticus eremita* breeding colony on the banks of the Euphrates must be considered unlikely.

"It will be several years before we know for certain," says Gernant Magnin, a project officer of the International Council for Bird Preservation based in Turkey, "but we have to conclude that this migratory subspecies of bald ibis will soon be extinct in the wild."

Some 200 bald ibis do still survive in the wild in northwest Africa. But these birds, known as the western population, are ecologically and morphologically different from Turkey's eastern population. The Turkish birds were migratory, but those of northwest Africa are resident, both breeding and wintering mostly in Morocco and Algeria. The African birds also have a slightly longer bill.

Although classified as an endangered species, the future of the western bald ibis seems relatively bright. Its three most important breeding colonies are within the limits of the Massa National Park, presently being established in southwest Morocco. This park also includes a large portion of the known wintering area of this population. Furthermore, some 650 western bald ibis are kept in 45 zoos around the world – many with good breeding records – ensuring its survival in captivity at least.

A Birecik captive breeding colony was established in 1976 in an attempt to reinforce the rapidly declining wild population of the birds, but its effect was to reduce the wild population still further. The 32 bald ibis adults captured for the breeding station produced only 24 healthy young birds, most of which disappeared or died on their release to the wild.

The long story of the eastern bald ibis – also known as the crested ibis or by its German dialect name of *Waldrapp* – is full of such ironies: According to legend, the bird was freed by Noah following the flood as a symbol of fertility – yet it was made temporarily infertile by modern man. One of the world's first officially protected species – it was named in a decree by Archbishop Leonhard of Salzburg in 1504 – the bald ibis died out, in the end, at least partly because of official neglect. And although it is the emblem of the Turkish Society for the Protection of Wildlife (TDHKD), it was the one species the society could not save.

"They were the last of the Mohicans," says TDHKD president Nergiz Yazgan, in wry reference to the crest of long, black feathers which sprouts like an Indian headdress from the back of the bird's pink-and-grey bald head. Goose-sized and iridescent black, the bird has a long, red down-curved bill and gawky red legs.

Fossil finds show that the bald ibis was part of the fauna of a wide mountainous area of southern Europe even in stone-age times, and it was recorded as a "local ibis species" by a Roman official traveling in the Alps during the first century of our era.

In medieval times, when its nestlings were a delicacy for the tables of the rich, the bald ibis's range extended from Eastern Europe to the Rhône Valley in France. But by the middle of the 17th century it had completely disappeared from Europe, due partly to climatic cooling, partly to overhunting and destruction of the bird's preferred habitat: stony cliffs, usually along rivers.

Within a single century, the bird was so well forgotten that 18th-century naturalists believed it to have been a myth. They argued that earlier naturalists like Switzerland's Konrad von Gesner, who had published a drawing and description of the bald ibis in 1555, had been either hoaxers, or hoaxed themselves.

Thus when a wandering ornithologist discovered a huge colony of bald black-crested birds in Syria in 1854, they were treated as an entirely new species, and it was not until after 1906 that this bird was finally accepted as Gesner's *Waldrapp*, or forest raven. By that time the Syrian colony had been destroyed and the Birecik colony had been discovered, in 1879, by a passing English ornithologist.

According to legend, Birecik's links with the bald ibis date back to Biblical times, when Noah and his family, after releasing the bird from the ark, followed it to a fertile river valley where they built a small house and settled down. *Bir evcik*, meaning "a

small house" in Turkish, is said to be the origin of the name of today's village.

Indeed, the Qur'an says the ark "came to rest on Mount Judi." Birecik lies near one of several Middle Eastern mountains that bear the name cited in the Qur'an. And although the Bible places the ark's landfall upon "the mountains of Ararat" – and popular Western belief says Noah's journey ended on the peak of that name in northeastern Turkey – the two geographic descriptions are not mutually exclusive, since at one time the designation "Ararat" denoted much of eastern Turkey.

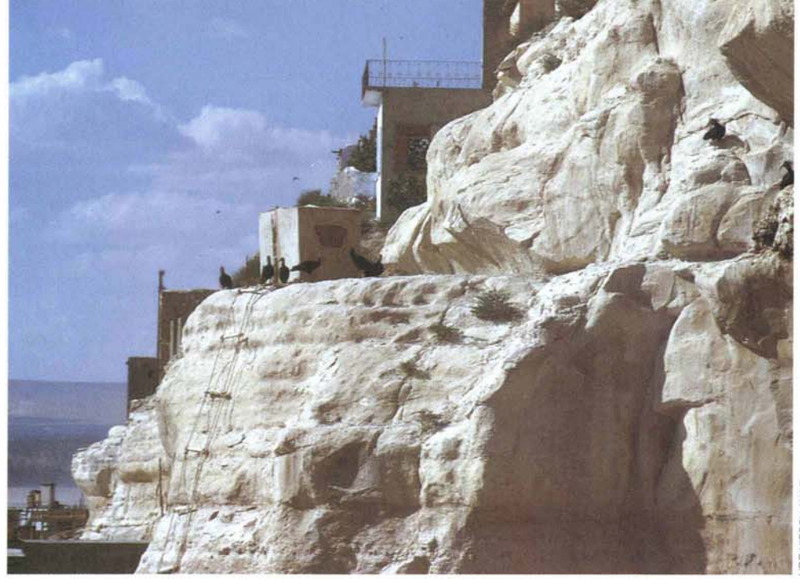
Birecik, situated where the mountains of Anatolia plunge down sharply onto the upper Mesopotamian plain, backs against a steep limestone cliff. Rock holes and crevices in that cliff have been favorite nesting sites for the bald ibis as long as anyone can remember – certainly since the colony came to Western ornithologists' attention. During the first half of this century, the Birecik colony of bald ibis maintained a relatively stable population of about 500 breeding pairs. The first accurate count, in 1953, showed 1300 birds, including young.

Then, between 1956 and 1959, Birecik was repeatedly drenched in insecticides as simultaneous spraying operations were carried out in the region: Intensive prophylactic spraying against swarms of locusts which had invaded the Euphrates basin coincided with DDT and dieldrin spraying to combat malaria.

The effects of this double dose of toxic chemicals were catastrophic. Concentrations of DDT and its derivatives were so high in the environment that many people fell ill, domestic animals died and much wildlife was destroyed. Six to seven hundred bald ibis, about half of the Birecik population, died of acute organophosphate poisoning.

The long-term effects on the birds, who use their long beaks to probe for grubs and insects in the earth, were even more devastating. For more than a decade the bald ibis produced hardly any young. Even 15 years later an analysis of their eggs revealed high levels of insecticide contamination. And, weakened and disabled by toxins, the bald ibis were abnormally susceptible to accident, weather and disease.

In 1967, only 50 ibis pairs nested in Birecik; in 1970, 36 pairs; and in 1972, only 26 pairs, and the total population of the colony had declined to some 60 birds. It was at this point that Turkey's well-known bird painter Salih Acar, rug specialist Belkis Balpinar and German wildlife photographer Udo Hirsch learned how close the birds were to extinction and moved to protect them (See *Aramco World*, January-February 1974).



UDO HIRSCH/WWF

After the pesticides, Birecik's own townspeople had become the main continuing threat to the ibis colony. Although they had once welcomed the birds back each year with a day-long celebration, the force of the legends and superstitions surrounding the birds had faded. The ibis, now nesting mostly on a long, narrow ledge in Birecik's cliff, found rooftops – where people might cook, eat, sleep, hang laundry, keep pigeons or dry peppers – within a few meters of their nests. In 1973, three-quarters of the colony's heavy egg and chick losses were due directly to human interference.

The World Wide Fund for Nature supported the conservationists' proposal to wall off the nesting ledge – to protect it from household garbage dumped from above – to hire stonemasons to deepen it, and to install wooden shelving to increase its length.

But the human and bird worlds of Birecik failed to coexist, and the breeding population continued to decline.

In 1977, with the number of breeding pairs reduced to 13, a colony of captive birds was established up-river from Birecik. The goals were to attract the wild population away from town and to preserve a captive breeding stock to reinforce the wild population.

In the following six years 32 bald ibis were captured for the breeding station, and the first objective was achieved in 1982 when the wild population – now down to six pairs – left town and began nesting on rocky ledges near the breeding station.

NIK WHEELER

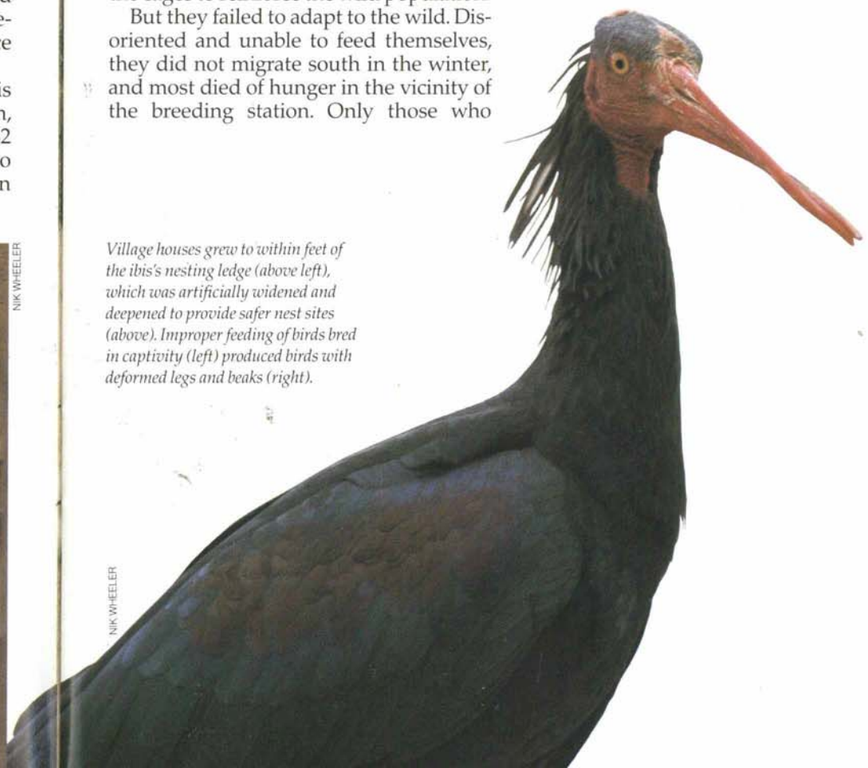
TANSU GÜRPINAR/WWF

Inexperience, however, turned the captive breeding program into a disaster. In its early years, many of the young born in captivity died within a few days because of overcrowding in the breeding cages: A cage built for 14 birds at one point contained 41. And an inadequate diet of chicken feed gave many of the birds rickets and caused deformed legs and bills.

Starting in 1981, young birds successfully raised in captivity were released from the cages to reinforce the wild population.

But they failed to adapt to the wild. Disoriented and unable to feed themselves, they did not migrate south in the winter, and most died of hunger in the vicinity of the breeding station. Only those who stayed at the breeding station, and were fed by the wardens along with the caged birds, survived.

Subsequent scientific research carried out in Morocco and in various zoos has shown that the bald ibis has a much more complicated and stronger family bond than ornithologists had previously known, and that the young are dependent on their parents for a much longer learning period than most other species.



NIK WHEELER

Village houses grew to within feet of the ibis's nesting ledge (above left), which was artificially widened and deepened to provide safer nest sites (above). Improper feeding of birds bred in captivity (left) produced birds with deformed legs and beaks (right).

This applies particularly to the bald ibis's complex migration pattern. In late June or early July, small groups of birds fly south and winter in the Red Sea coastlands of Ethiopia and Saudi Arabia, as well as the central highlands of Ethiopia. They have also been observed in North Yemen, Somalia, Sudan and Jordan in winter and during migration.

Immature birds remain in the Ethiopian highlands and, as they mature, perform northward movements in the appropriate seasons. After six years, finally adult, they fly back to Birecik to breed – but how they find and join their elders, who know the flight paths to follow, is not understood.

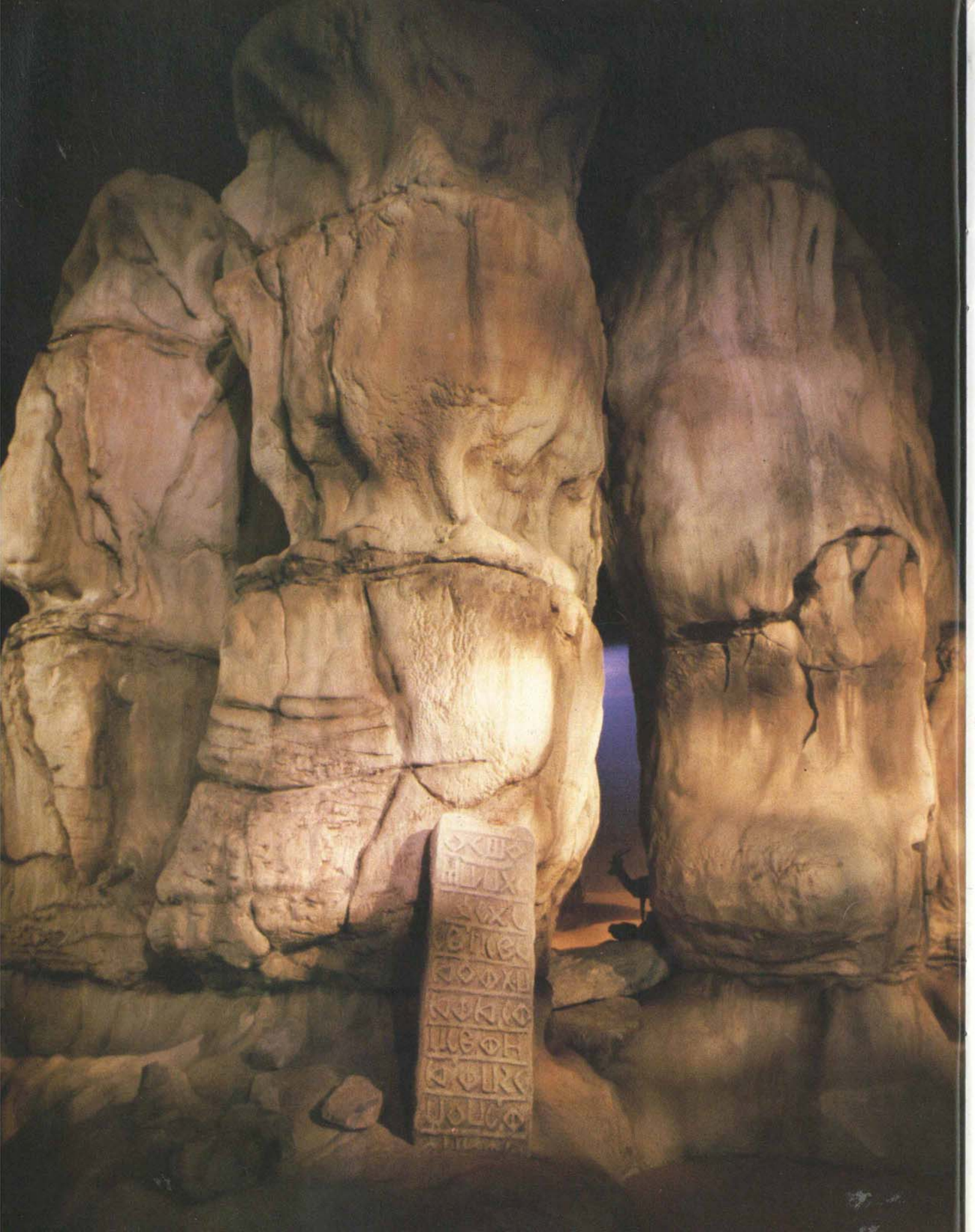
Efforts to improve the breeding success of the wild population in Birecik were only marginally more successful than the captive breeding program: The free birds produced an average of 1.83 young per pair per season, compared to 1.45 chicks from caged parents. They often used a second long wooden shelf, attached to a cliff face near the breeding station, as a nesting site, but it faced south, and nests built on it were unprotected from birds of prey and the fierce heat of direct sunlight.

"Most of this misfortune could have been avoided," says Dr. Sancar Baris, leader of the Bald Ibis Project of the TDHKD, "had the authorities responsible for the captive breeding program accepted help offered by bald ibis experts and international conservation agencies. Exact directions for construction of successful breeding places and preparation of a proper diet have been available for years."

But there is enough blame to go around. In Turkey as in many other countries, private conservation groups and government agencies have been at odds for years, and international organizations hesitate to commit funds to disputed projects. It was not until February of this year, with the wild population in Birecik down to three birds, that representatives of governmental, private and international conservation agencies finally agreed on a new, eleventh-hour rescue plan: Existing nesting ledges were to be destroyed and replaced by nest-boxes, the feeding program of the captive ibis was to be urgently improved, and all 36 young birds in captivity were to be released to the wild.

The measures came too late: Two of the three remaining wild birds at Birecik were killed in March by a freak hailstorm. The third, recapitulating the history of his species, simply disappeared.

John Lawton, an Aramco World *contributing editor, is a frequent visitor to Turkey.*



PRESENTING

SAUDI ARABIA

WRITTEN BY PINEY KESTING
PHOTOGRAPHED BY ROBERT AZZI,
MEHMET BIBER AND
KARL SCHUMACHER

Visitors expecting to see merely an exhibit at the Washington, D.C., Convention Center this summer found themselves plunged instead into an experience. Dunes beckoned them into the desert where, in the distance, the sandstone formations of Madain Salih loomed over a 24-meter (80-foot) Bedouin tent. A quiet courtyard and a fountain welcomed visitors to the world of Islam, and a busy Jiddah street, full of Saudi artisans, transported them to the very heart of a Saudi Arabian city. The scent of jasmine lingered in the air as the pulsating rhythm of the music accompanying the multi-media laser show filled the halls.

"It's *awesome*!" one woman commented as she wandered around the exhibition's seven sections, which conscientiously detailed the story of a country dedicated to its traditional culture and religion, yet destined to become the most successfully modernized nation in the Middle East.

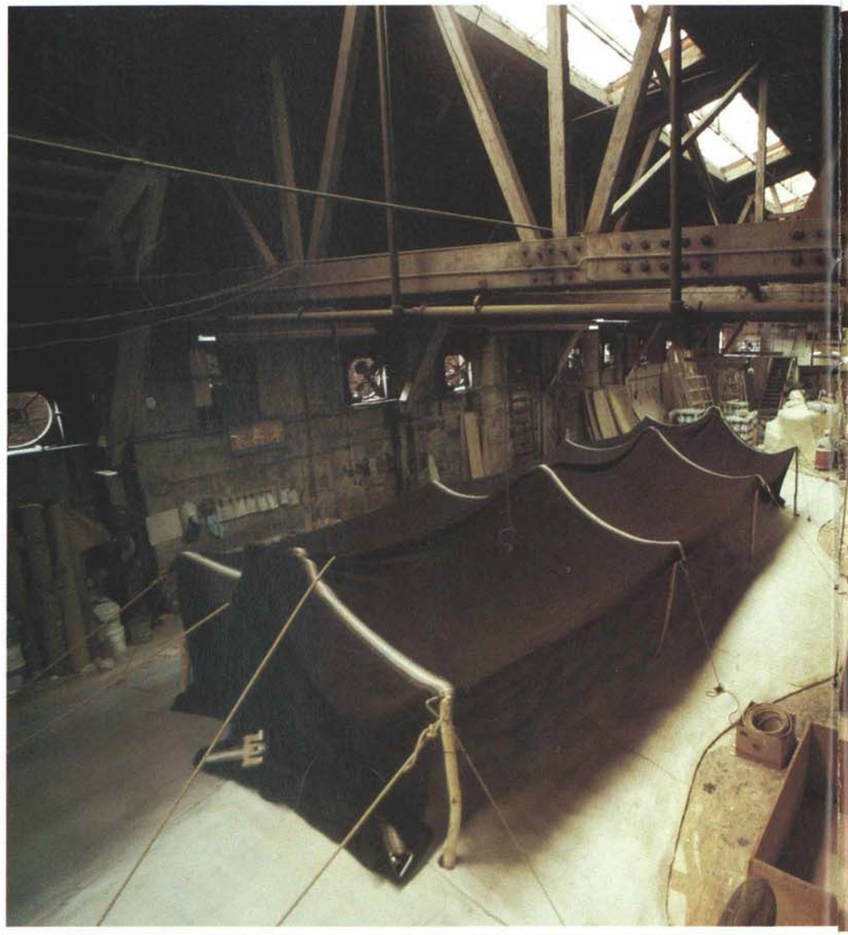
The exhibition, "Saudi Arabia: Yesterday and Today," is indeed a celebration of Saudi Arabia's accomplishments over the past 50 years, and of the unique Saudi-American friendship that has facilitated the nation's growth. From the signing of the first productive oil concession in 1933 to the present era of joint ventures, hundreds of thousands of Americans have contributed to the development of Saudi Arabia – and a few have played important roles. Today, over 35,000 Americans work in Saudi Arabia and thousands of Saudi students are enrolled in universities across the United States.

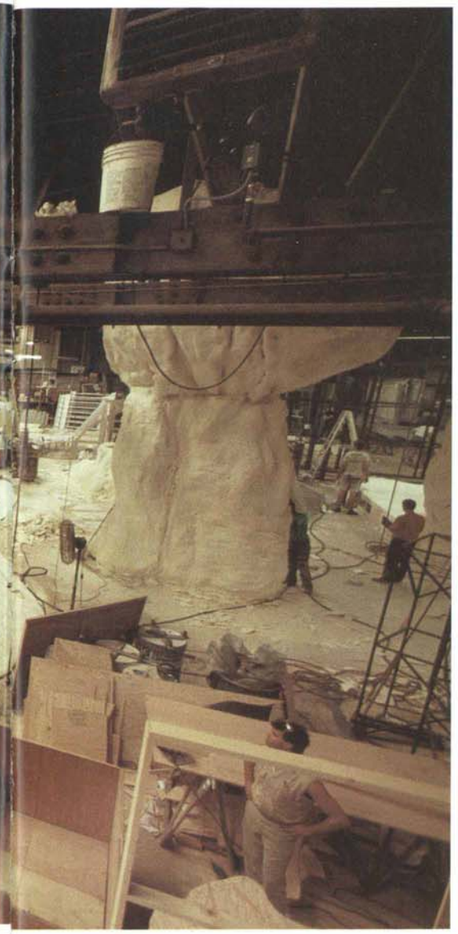
The roots of the exhibit, which attracted an over-capacity crowd of more than 20,000 visitors a day during its stay in Washington, were planted years ago and thousands of miles away in the heart of Riyadh (See box, page 16). The path of "Saudi Arabia: Yesterday and Today" can be traced from the Saudi capital through major European cities, back to the Middle East, and finally to warehouses in Brooklyn and Manhattan, where the American exhibit was built and assembled.

Preparations for the American tour began in 1986. Saudi Arabian and American consultants were called in to redesign the exhibit for an American audience, to find a way to illustrate Saudi Arabia's rock-solid religious foundations and its delicate and determined balance between tradition and technology. Special emphasis was also placed on the development of the Saudi-American relationship.

An initial corps of three consultants traveled to the exhibit's earlier runs in London and Paris in 1986 before visiting Saudi Arabia to determine just how the exhibit should be developed for the United States. Concept papers were drawn up, revised and finally approved in November, 1988.

Peter Hannaford, chief executive officer of The Hannaford Company, the public-relations firm called in to organize the project, recalled that "one of the principal





Building and assembling the elaborate exhibition took 18 weeks. Counter-clockwise from lower left: The terraced hills of 'Asir Province take shape under a background-painter's brush; foam carvers shape the "sandstone" formations of Madain Salih into natural forms; the 'Asir tower house is assembled by sections; the Bedouin "house of hair" is first erected in a New York warehouse.

reasons for having the exhibition was to change stereotypes people might have about the kingdom. It's not just sand and oil wells. It's a highly developed country with a very energetic, industrious people."

Energy and industry were also essential characteristics of the group of Saudis and Americans that managed to conceive, design, build, assemble and erect the American exhibit within seven feverish months. In January 1989, The Hannaford Company and Rathe Productions, a firm specializing in exhibition work, assembled a staff of designers and "concept people" to travel to the kingdom and meet with the exhibition's organizing committee.

Two trips later, the working team had crisscrossed Saudi Arabia, researching the history and architecture of areas that would later be recreated for the exhibit. From Riyadh to Dhahran, from Hofuf to Jubail and Jiddah, the group searched for artifacts and images. Private and government sources around the country, such as the Department of Antiquities and Museums, the High Commission for the Development of Riyadh, the Aramco Exhibit in Dhahran and the Khalil Museum in Jiddah, were asked to lend objects to the exhibition.

During their travels, members of the team also met with individual, professional and official Saudis to discover just how they wanted their country to be portrayed. Ziyad Zaidan, a Saudi architect known for his detailed research in traditional Saudi Arabian architecture, was called in as a consultant. As project manager Mike Smith noted, "We wanted this to be the kingdom's own story."

By January 1989, the countdown began. One major task, the selection of five exhibition sites around the United States, had been taken care of by June 1988 – no minor accomplishment, since 9,000-square-meter (100,000 square-foot) exhibitions often require five years' advance booking. Now all – all! – that remained was to build an exhibit that could travel from site to site and fit into five buildings of different sizes and ceiling heights. It was like designing a three-dimensional puzzle.

Richard Rathe, executive vice-president of Rathe Productions, explained that "for one country to do this much square footage in a traveling exhibit is very rare. Even though we specialize in large exhibition work, to do the entire exhibit and plan it so that it can easily be removed creates a tremendous amount of complexity." It is a "difficult task," he added, to make large structures, such as the 7.3-meter (24-foot) 'Asir tower built for the exhibit, look credible and still be moveable.

The actual building of the exhibit began in March 1989, four and a half months before the scheduled July 29 premiere in Washington. More than 400 people in 18,500 square meters (200,000 square feet) of warehouse space in Brooklyn and Manhattan began to recreate Saudi Arabia. Carpenters and welders, scenery and exhibit designers, model-makers, silk-screeners, laser technicians, painters, foam carvers and countless other specialists worked diligently behind the scenes.

Most of the models for the exhibit were built by Bruce and Bruce Scenery. But these were not models that could be placed on tables and displayed under Plexiglas: They were models that loomed more than seven meters (24 feet) above the floor, sand dunes that measured 12 meters wide and 24 meters long (40 by 80 feet), palm trees 120, 240 and 360 centimeters (four, 8 and 12 feet) tall.

Listening to Rob Oakley, project manager at Bruce and Bruce Scenery, describe the materials used to create the exhibit is like reading a shopping list for the construction of a miniature city: Eleven metric tons (24,000 pounds) of steel, used to build trusses; one freight-car load of foam rubber; eight 400-kilogram (900-pound) barrels of sand; 680 kilograms (1500 pounds) of real wheat, flame-proofed and then dyed back to green; four to five truckloads of lumber every week; 2500 lighting instruments – enough to light 10 Broadway shows – and kilometers of cable.

During the four and a half months, the various houses and structures that create the exhibit's environment were designed, built and then disassembled into parts that were loaded onto trailers. Seventy palm trees, made of real palm bark sleeved onto steel pipes, took six weeks to build. Sand dunes, constructed of plywood, metal mesh, foam and Caldecore, a sand finish sprayed on the base, were designed to break into 19 moveable sections.

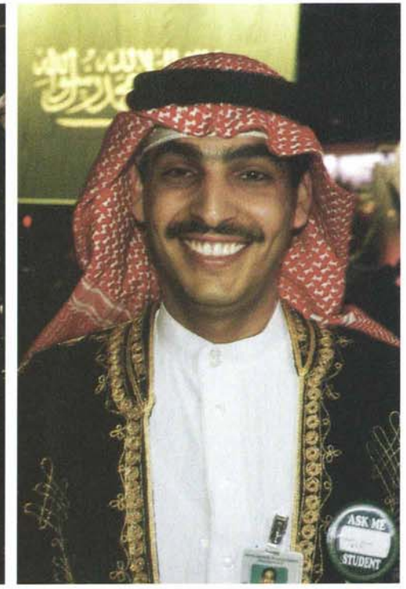
Among the most imposing structures in the exhibition were the "sandstone" formations of Madain Salih, which took three weeks to build. "One of the biggest [exhibition] structures ever built," Oakley called them, adding that "people aren't used to walking into a building and seeing 24-foot-high [7.3-meter] rocks." Specialists were called in to duplicate the ancient writing found on the 2000-year-old tombs in northwestern Saudi Arabia.

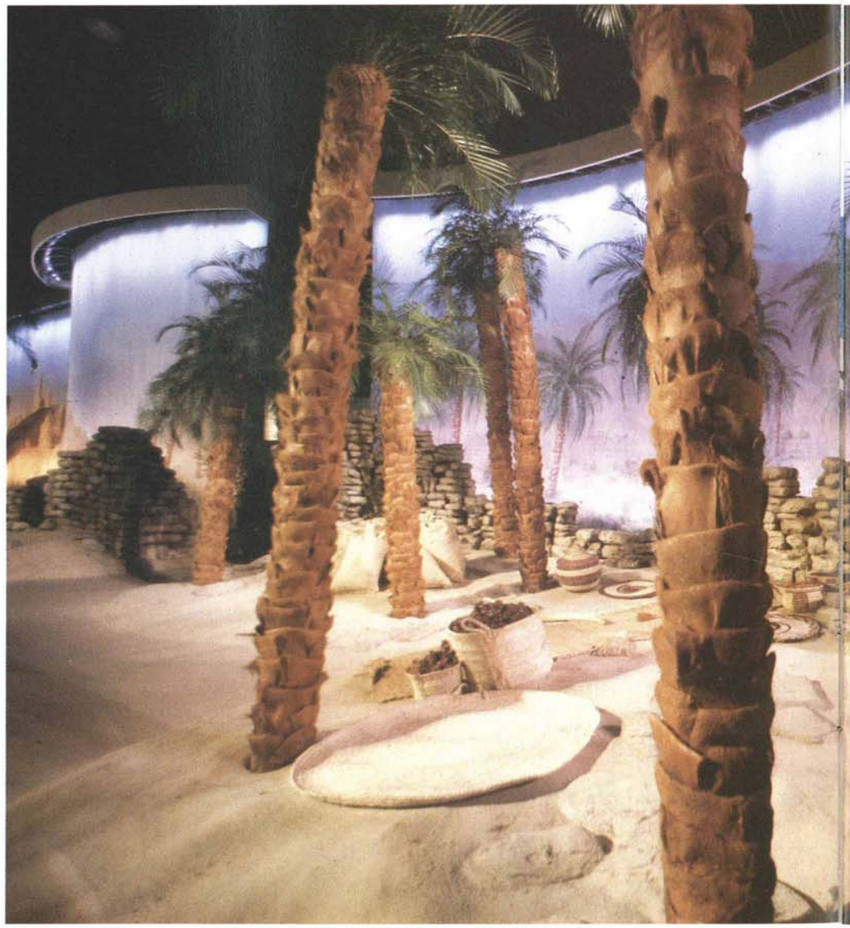
Seventy-five tractor-trailers later, all the pieces of the exhibit were ready to be transported. On July 17, the trailers and a crew of 80 descended on Washington. For the next seven days, the crew, which will travel around the country with the exhibit, worked behind closed doors to assemble the illusion of Saudi Arabia within the cavernous halls of the Convention Center.

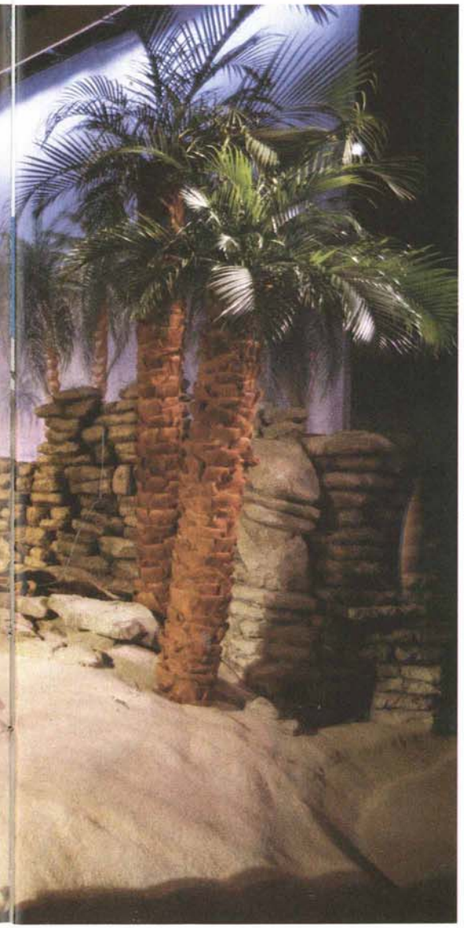
For the thousands of Americans who waited patiently on opening day, July 29, to visit "Saudi Arabia: Yesterday and Today," there was indeed a friendly welcome to a country that still mystifies the uninitiated.

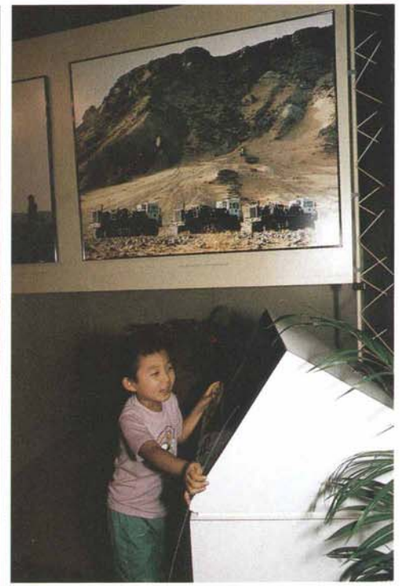
"Ahlan wa sahlan!" – Welcome! – the young Saudi guide greeted the first visitor. Parents with children, students, tourists and businessmen all passed by the young men in traditional garb as they entered the exhibit through a cool, dark tunnel.

Vibrant strains of Saudi music filled the tunnel as pictures flashed out of the darkness. Dunes and camels, a veiled woman, modern supermarkets, old *suqs*, Saudi astronauts, pilgrims worshiping at the Ka'ba, modern cities and superhighways: All were scenes from a country with many faces and many moods, a country that most of the visitors were about to discover for the first time. As they left the tunnel, the piercing bright light of desert landscapes welcomed them to their journey through Saudi Arabia.









Clockwise from upper left: Prince Salman ibn 'Abd al-'Aziz, Governor of Riyadh, inaugurates the exhibition with Vice President Dan Quayle as Saudi Arabian Ambassador Prince Bandar ibn Sultan and Marilyn Quayle look on; Saudi exhibition guide Awadh Badi, a PhD. candidate in the United States; a child enjoys the interactive video games in the Saudi Aramco section of the exhibition; an old date-palm grove sprouts in the Washington Convention Center.

The night before the exhibit opened to the public, Saudi Arabia's ambassador to the United States, Prince Bandar ibn Sultan ibn 'Abd al-'Aziz, hosted an inaugural preview for 450 of Washington's political and business leaders. Prince Salman ibn 'Abd al-'Aziz, governor of Riyadh and chairman of the exhibition committee, opened the exhibit with Vice President Dan Quayle, and after Quayle cut the ribbon, scores of American and Saudi Arabian officials and other black-tied guests toured the exhibit. They were the first of more than 427,000 visitors who would see it during its three-week stay in Washington.

Prince Salman commented during the preview that "Saudi Arabia: Yesterday and Today" was brought to the United States in the spirit of friendship and "to reaffirm that we are an advanced nation in terms of civilization .... Though much is different about our two cultures, the values shared by our people are remarkably similar. Faith in God, love of family, freedom of work, moderation and stability in the field of international relations and the promotion of free enterprise – all of these have reinforced the special ties and sound friendship between our two countries."

Visitors to the exhibition are introduced first to Saudi Arabia's varied landscapes and then to its pre-Islamic culture. Scattered throughout the sections, videotapes and information panels explain the different regions and the histories and cultures of the areas.

It seemed, however, as if the favorite explanations came from the exhibition's Saudi student guides, all of whom wore green buttons saying "Ask Me!" Robert L. Norberg of Saudi Aramco's Washington office noted that "it was really the Saudi young people who were serving as guides and answering questions who brought the exhibit to the personal level that Americans enjoy and appreciate." Mohammed Zakariya, a Washington-area calligrapher who participated in the exhibit, said he "heard a lot of people whispering, 'Boy, aren't they nice kids!'" as they walked through the exhibit.

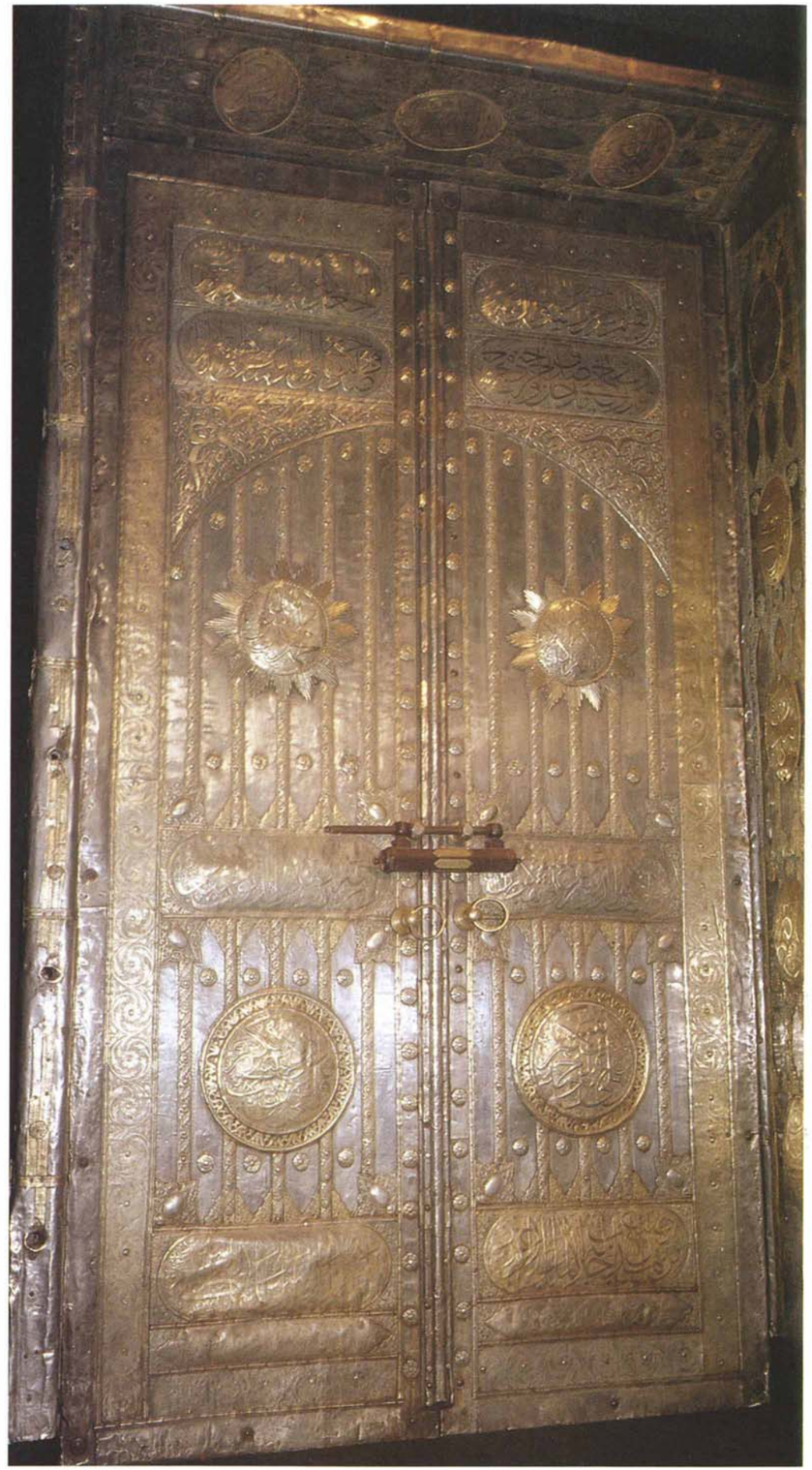
Seventy Saudis studying in the United States were chosen as guides for the Washington exhibit, and 15 Americans

were hired to work with them. They were dressed in traditional Saudi clothing – white *thawb*, white or red-and-white *ghutra*, and gold-brocaded black jackets for the men – which drew the attention and curiosity of visitors. Adnan Akbar, a young Saudi *haute-couture* designer whose fashions were brought to Washington in conjunction with the exhibition, designed the women's dresses.

Abdul Azeez Aalsaadan, a Saudi guide from the University of Southern California, was in charge of the exhibit's information booth in Washington. An exhibit like this, he said, "is the best way of communicating with people." He recalled an older visitor who came up to him and admitted he knew nothing about Saudi Arabia – not even where the country was. Aalsaadan gave him a package of information and two days later the man came back. "Ask me anything!" he said. "I can tell you about Islam, I can tell you about Bedouin life… anything!" Aalsaadan smiled and admitted, "He started to tell me things *I* didn't even know." And other visitors found that, whether they knew a lot or just a little about Saudi Arabia, they could still expect to learn something new.

The third section of the exhibit, "Islam," offers visitors an introduction to the religion practiced by over a billion people around the world. Islamic artifacts from the 18th and 19th centuries are on display, and short videotapes explain the Hajj, or pilgrimage to Makkah. Models of Makkah's and Medinah's holy sites astonish visitors with the sheer size of the mosques. "You could get lost in there!" one man remarked to his friend. Former Senator Charles Percy visited the exhibit twice and commented that the "religion section was laid out beautifully for people to better understand the Islamic faith."

"'Scuse me, what is this door for?" a little boy asked as he ran up to a Saudi guide and tugged on his robe. The guide explained that the elaborately detailed gold and silver door is the one that closed the entrance of the Ka'ba itself until 1981. Made in Makkah in 1942, it is a unique artifact, and this was the first time it has been exhibited in the West. "I never expected to see anything like that on tour," said one impressed visitor.



Images of Arabia

As "Saudi Arabia: Yesterday and Today" tours the United States, visitors to the exhibition will be discovering Saudi Arabia in part through the eyes of Arab-American photographer Robert Azzi. Much of the exhibit photography on display represents 20 years of Azzi's own photographic journey through the kingdom.

From his first visit to Saudi Arabia in 1970, Azzi and his camera have been able to capture the many faces of a country undergoing a dramatic transformation. Today, Azzi noted, some of his early shots have become historical documents that "present parts of Saudi Arabia that no longer exist."

Walking through the exhibit in Washington, Azzi said, he was touched by the people who came up to him and said, "Hey, that's my father in that picture!" or "That's me in this picture!" These Saudis, Azzi commented, "find themselves and their families representing their country in a way they could hardly have imagined earlier."

Twenty years ago, photographing Saudi Arabia was a real challenge, Azzi recalled. "Everything was an effort because they weren't used to having photographers roam the countryside. On the other hand, security wasn't a big problem then. My big concern the first time I photographed the late King Faisal was whether his staff would be able to find a necktie for me to wear!"

Azzi has returned to Saudi Arabia at least 30 times since his first visit and his archives, as well as the photographs on display at the exhibition, attest that he has captured more of Saudi Arabia on film than most other photojournalists in the world.

"Memorable experiences for photographers," Azzi commented, "are often not the pictures they bring back, but what happens as they take the pictures." For the visitors to the Saudi Arabian exhibition, Azzi's photographs become experiences themselves as they carry viewers into the heart and soul of Saudi Arabia.

Inscribed with verses from the Qur'an, the gold and silver doors of the Ka'ba, left, are a unique part of the exhibition. A model of the Sacred Mosque at Makkah, above, stands nearby.

Those who attended the Washington venue of "Saudi Arabia: Yesterday and Today" were also treated to a $9.1-million collection of rare Islamic illustrations, manuscripts, maps and astrolabes dating from the 12th to 18th centuries. An early form of analogue computer, astrolabes simulate the apparent rotation of stars around the celestial poles. These sophisticated tools, whose development began in the second century BC, were used primarily for navigation at sea, but could also measure direction and time by day or night, among other uses.

A wonderful illustration of the body of ancient knowledge preserved and elaborated in the Islamic world, the astrolabes shown in Washington represented the second-largest collection in the world, after those on display in the Museum of Science at Oxford University. Two of only three surviving astrolabes made in 1304 or 1305 by Husayn ibn Baso, a famous astronomer of Granada, were among those exhibited in Washington.

Assembled by the High Commission for the Development of Riyadh, the astrolabe collection will not accompany the exhibit as it tours the United States. In October, it returned to Riyadh for the inauguration of the new cultural center in the city's Diplomatic Quarter.

Ancient artifacts, modern technology and contemporary Saudi artisans – the exhibition offers a taste of all. "The juxtaposition of the old and the new is a very important feature of the exhibit," Richard Rathe explained. "People can see the development, the historic roots, the Islamic influence, but can then see how those roots are integrated into a very modern society and a modern culture which, I think, the American audience is not familiar with."

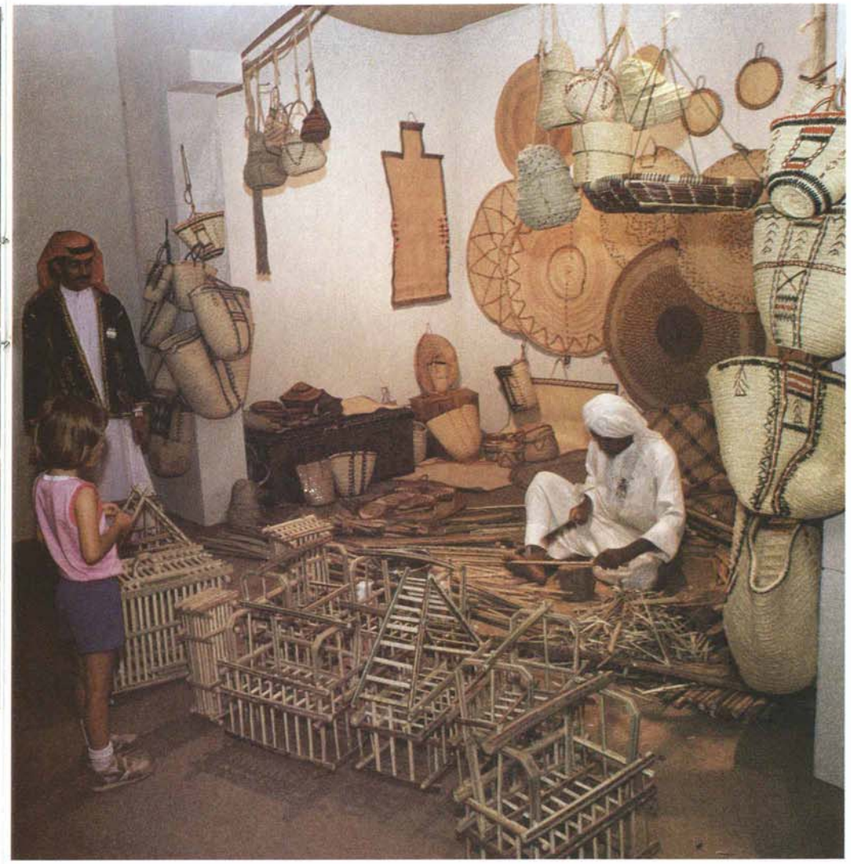
Leaving the world of Islam section behind, exhibition visitors walk through the next two sections, "Society" and "People." Here the models of city and village architecture so painstakingly built in Brooklyn come alive.

Along a busy Jiddah street, Saudi artisans brought from the kingdom for the exhibit practice their trades. Craftsmen sitting crosslegged on the floor weave colorful tent walls on a simple wooden loom. Another artisan bends for hours over a wooden frame, carefully embroidering gold calligraphy onto a panel of black cloth destined to become part of the *kiswah*, the covering of the Ka'ba (See *Aramco World*, September-October 1985).

Down the "street," a sandalmaker cuts and stitches leather while a tailor across the way embroiders the edge of a man's formal cloak, or *bisht*. Saudi guides sit in the rooms of a traditional Najdi house, writing visitors' names in Arabic calligraphy. And a gallery tucked away in one of the buildings displays the work of 35 contemporary Saudi artists.

At the very end of the street, laughter rose above the din of the crowd as children played on the carpeted rooftop of a Najran home designed as a play area. Female guides helped the children explore "discovery chests" full of traditional clothes and scarves, and little boys giggled as they tried on long white *thawbs*.

From displays of the Arab scholarly legacy and Saudi Arabia's revered traditions, visitors passed to the world of sophisticated technology. The last two sections of the exhibit – "Nation Building" and "Saudi Arabia and the World Community" – highlight the country's modernization over the last 50 years and its commitment to the international community.



Above, President George Bush and Ambassador Prince Bandar ibn Sultan tour the Saudi Aramco portion of the exhibition. At right, palm fronds provide the raw materials for one of the exhibition's craft displays.

A multi-media video and slide show enhanced with laser effects offers a quick overview of Saudi Arabia "yesterday and today." The theater then empties into exhibit sections describing the kingdom's elaborate infrastructure developed in communications, transportation, health care, education, urban development and, of course, the oil industry.

Aramco has been a part of Saudi Arabia's development from the first years after the country's unification, so it comes as no surprise that the Aramco exhibit, at 140 square meters (1,500 square feet), is the largest in the modern section. From the early days of oil to the development of today's petrochemical industry and current joint ventures, Saudis and Americans have worked side by side in Aramco.

Margaret Wright, one of the American women working as a guide, said she was astonished at the number of older people visiting the exhibit who had worked in Saudi Arabia during the 1930's and 1940's. Many of them walked up to tell her, "I remember when…!"

Six Aramco employees accompanied the exhibit from Dhahran. They were on hand to explain the two interactive computer games programmed in Arabic and English for the American exhibit. More often, they fielded questions from visitors who were unaware of the level of American involvement in Saudi Arabia, or they found themselves up-dating former Aramco employees who had left Saudi Arabia years ago. For many of the latter group, seeing the kingdom's thoroughly modernized face "was like a kind of culture shock."

Norberg of Saudi Aramco commented that "a lot of people just never pictured Saudi Arabia as being as developed as it is. I think [the exhibit] corrected a lot of stereotypes that still persist in people's minds that the country's just a trackless wasteland. You don't have to spend even 45 minutes in here to have that notion turned on its head."

There was a lot of head turning at the exhibit, and much staring and talking, tasting and touching. As its designers intended, visitors do not just tour this exhibit, they participate in it.

Nowhere was this clearer than at the last stop in the exhibit, and one of the favorites, the *suq*. Armed with information and often overwhelmed by everything they had seen and heard, weary visitors headed for the exhibit's marketplace, hoping to sample some Saudi dishes from the restaurant or admire the handicrafts displayed in the shops.

Reaching Out

When Saudi Arabia comes to town, as Washingtonians and summer tourists found, the country doesn't fool around. A dazzling fireworks display thrilled crowds gathered on the grounds of the Washington Monument the evening of the July 29 premiere. Palm trees and crossed swords leapt across the sky amid a green, white and red rainbow of assorted fireworks. Orchestrated by the Zambelli International Fireworks Manufacturing Company, the display was especially enjoyed by handicapped students from the C. Melvin Sharpe Health School, invited guests of the Saudi Arabian embassy.

The week prior to the opening of the exhibition saw a host of activities scheduled around the city. Posters on buses and subways advertising "Saudi Arabia: Yesterday and Today" reminded Washingtonians that the Saudis were coming. Several days prior to the opening, the Saudi Arabian Folkloric Dance Troupe performed on the Washington Mall and, to the delight of young patients, at the Washington Children's Hospital.

Saudi Arabian officials and dignitaries in town for the opening lectured at various international institutes, universities and museums in Washington – archeologist Abdullah Masry at the Museum of Natural History and astronaut prince Sultan ibn Salman ibn 'Abd al-'Aziz at the Air and Space Museum, for example. A group of Saudi businessmen arrived to participate in a conference sponsored by the national U.S.-Arab Chamber of Commerce, and an exhibit of works by Saudi artists opened at the Alif Gallery in Georgetown.

Special activities are scheduled for each exhibition city. Children's and seniors' days will be designated at each stop and teaching guides on Saudi Arabia will be made available to educators. In each city, profits from the sale of souvenirs in the suq *will be donated to a local charity.*

BUILDING ON SUCCESS

WRITTEN BY JOHN CHRISTIE

Flourishing undertakings often grow from a fortunate combination of original ideas and opportune circumstances, and sometimes they prosper well beyond the first concepts which brought them into being, spinning off parallel ideas for other projects. The highly successful exhibition "Saudi Arabia: Yesterday and Today" fits that description, for its beginnings stretch back both in time and place to some seemingly remote connections.

During the late 1970's, the Riyadh Development Authority launched the billion-dollar project which, today, is the Riyadh Diplomatic Quarter (See Aramco World, *September-October 1988). The city of Riyadh itself had undergone a dramatic transformation and modernization during the 1970's, so much so that it was often referred to as "the largest building site in the world" and "the nesting place of the 40-story crane." As Riyadh expanded and the Diplomatic Quarter project, or DQ, was launched, the city became a showcase for some of the world's leading architects and their brightest ideas.*

In early 1983, when London's Arab-British Chamber of Commerce agreed to stage its first cultural venture, a public exhibition of Arab architecture seemed a suitable choice. The chamber's directors felt that the richness and splendor of traditional Arab and Islamic architecture, displayed beside samples of the modern and often dramatic new construction in the region, would provide an attractive and instructive spectacle. The exhibit would also publicize the substantial and impressive social and practical developments in Saudi Arabia and the rest of the Arab world, of which modern construction was only one manifestation. And finally, it would promote the already considerable cooperative ventures in this field between Arab firms and British and other Western companies.

Eventually, in the following year, the exhibition "Arab Architecture, Past and Present" was opened in London by Crown Prince Hassan of Jordan and the Duke of Gloucester. The four-week show displayed tableaux of Arab town and village life, models of famous buildings and illustrated panels of contemporary and traditional Arab structures of all kinds. Included, of course, were many examples of different styles and forms from Saudi Arabia. The restored traditional town houses of Old Jiddah (See Aramco World, *September-October 1987) were featured throughout London on posters advertising the exhibition, and Saudi companies were prominent among the exhibitors. The popularity of the event, the first of its kind in England to focus on these subjects, surprised its sponsors.*

From the undoubted success of the Arab architecture exhibition, the idea of staging a much larger and more general presentation of Arab progress and achievement grew naturally. It could cover the social, cultural, scientific and economic developments in the Arab world, as well as the immense changes of recent years in industry, trade and commerce. It might have official backing from Arab governments and inter-Arab organizations, and include exhibits and contributions from both the private and public sectors in the Arab countries. It could even, after its opening period in London, tour the major countries of the world.

However, the limited organizational and logistic resources available in London for the project, and the effects of the world-wide economic recession of the time – which had caused several Arab countries to tighten their purse strings – made the project impractical, and it was shelved.

One of the traditional town houses of Old Jiddah (opposite) featured in the exhibition "Arab Architecture, Past and Present" in London in 1984; Britain's Prince and Princess of Wales (left) at the opening of the exhibition "Riyadh: Yesterday and Today" also in London in 1986; and President Hosni Mubarak of Egypt (above) visiting the exhibition "Saudi Arabia: Yesterday and Today" with Prince Salman in Cairo in 1987.

Nonetheless, some seeds of interest had been sown in Arab capitals. So the reaction was favorable when, in 1985, German companies involved in the development of modern Riyadh and its DQ suggested that architectural models they had used be displayed in West Germany in a public exhibition about Saudi Arabia. Prince Salman ibn 'Abd al-'Aziz, the governor of Riyadh, headed a committee, which included Riyadh Mayor Abdullah al-Nwaim, Assistant Deputy Minister of Information Dr. Shihab Jamjoom and other senior officials, to organize and run the exhibition. The chosen title, "Riyadh: Yesterday and Today," was intended to suggest not a national exhibition, but to show the substantial progress of the kingdom's capital city. Over 100 models of buildings illustrating the history and architecture of Riyadh were thus shown in Cologne, Hamburg and Stuttgart in 1986, and when more than a million people toured the exhibit, it became apparent that Europeans were eager to learn about Saudi Arabia.

News of the exhibition's unqualified public success soon spread, and led to moves to bring it to Britain. "Riyadh: Yesterday and Today" came to London at the end of July 1986, where it was opened by Prince Salman in the presence of the Prince and Princess of Wales. It was the largest exhibition of its kind in London since the 1976 World of Islam Festival (See Aramco World, *May-June 1976), and the public success of the West German staging was repeated. According to Dermot Graham, who runs the exhibition company which acted as advisers to the Riyadh exhibition, it was the best-attended foreign exhibition ever held in Britain.*

After London, in December 1986, the exhibition premiered in Paris, and in the following year, the next move was to Egypt. There the Saudi authorities, recognizing the now vastly increased scope of the exhibition – it had grown to more than 11,000 square meters (120,000 square feet) – renamed it "Saudi Arabia: Yesterday and Today." Open for 24 days in Cairo, the kingdom's spectacular attracted a staggering four million visitors, an unprecedented event in Egypt and a record-breaking performance at the international exhibition level.

Dancers form a swaying line in the *'ardah*, Saudi Arabia's best-known traditional dance.

In one corner of the *suq*, a Saudi potter crafted traditional vases on a wooden kick-wheel. Across the way, a 65-year-old basket weaver from the Eastern Province oasis region of al-Hasa sat amid pieces of palm frond building bird cages and cradles from the stems and weaving baskets from the leaves. The sound of voices and the tantalizing smell of *kabsah* or *sambousak* filled the air as people strolled around, hoping to catch a performance by the Saudi Arabian Folkloric Dance Troupe.

Four times a day the troupe's male dancers stole the show with their colorful costumes, brightly painted drums and spirited regional dances. Whether performing the *'ardah* or sword dance, the fisherman's dance or one of the 20 other dances in their repertoire, they kept the crowds captivated. Children sat mesmerized at the foot of the stage as the performers leapt and circled.

According to Abdullah al-Jarallah, director of the dance troupe, traditional dance is very important in the kingdom: "It reminds people of their roots." The 24 young men, who will travel with the exhibit, were selected as the best dancers from the five main regions of the kingdom. None is a professional dancer, but all have a deep interest in preserving one of Saudi Arabia's richest and oldest traditions.

When Saudi Arabian Ambassador Prince Bandar first announced the exhibit's tour, he noted that it was meant, among other things, as an expression of appreciation for growing American interest in Saudi Arabia.

Habib Shaheen, director of information at the embassy, knows from his own experience that "the interest of the American people toward Saudi Arabia has increased tremendously." In 1984, he explained, fewer than 800 people came to the embassy requesting information on his country. But in 1989 he had more than 3600 visitors during the first six months of the year. "This shows that such an exhibition as this is coming just in time to respond to this curiosity."

The Saudi architectural consultant to the exhibit, Ziyad Zaidan, also believes that the timing is propitious. "I think the American public is becoming more aware of the world. There seems to be an eagerness to learn. Probably, if we had done [the exhibit] 10 years ago, people would not have been interested. As it is, it is a privilege to me as a Saudi to see the American people take this great interest in our culture that we see here."

Dr. Abdullah H. Masry, director of Saudi Arabia's Department of Antiquities and Museums, was in Washington for the premiere. One night, as he was leaving the exhibit dressed in *thawb* and *bisht*, he passed an older American man who turned to him and said, "I really thank you." "For what?" Masry asked. "For having given us a chance," the man answered, "to get to know you people through your own eyes."

Following the Washington premiere, the exhibition headed to the Inforum in Atlanta, where it will be open from November 10 to 25, and to the Dallas Convention Center for its December 9 to 23 display dates. In 1990, it will travel to New York's Exposition Center in April and to the Los Angeles Convention Center in June – the last stop on the tour as presently scheduled. But the exhibition's Washington success may lead to the addition of other venues to the list.

As the exhibit travels around the United States, it will answer many questions, arouse more curiosity and, for most, it will present a fascinating voyage through an unknown land. But for a few lucky Americans who, like Robert Norberg, have lived and worked in Saudi Arabia for years or decades, a walk through "Saudi Arabia: Yesterday and Today" will be "just like going home."

Piney Kesting, who earned a master's degree from Johns Hopkins' School of Advanced International Studies, is a free-lance writer specializing in Middle Eastern affairs.

EVENTS & EXHIBITIONS

Iznik: *The Pottery of Ottoman Turkey* is an exhibition "unlikely to be matched in our lifetime," according to one expert. It continues at the Museum of Turkish and Islamic Arts in Istanbul through December 15. The focal point of Turkey's celebration of "Iznik Year," the exhibition brings together for the first time some 200 pieces, including loans from 40 museums and private collectors around the world. In terms of technical and esthetic achievement, pottery made at Iznik, in northwest Turkey, in the 15th and 16th centuries is unprecedented in the Islamic world. It represents the third great flowering of Islamic ceramic art, after those in ninth- and 10th-century Iraq and 12th- and 13th-century Persia, and reached its peak under Ottoman court patronage, which included the 1033 plates and bowls commissioned by Sultan Murat III in 1594 for the wedding banquet of his daughter Ayşe Sultan. The Istanbul exhibition includes tableware, vases and candlesticks with the characteristic bright, multicolored floral designs finely painted on a clear white background, as well as a mosque lamp found in Jerusalem in the 19th century – the only signed and dated example of Iznik pottery. Iznik ware was so widely scattered and widely copied that it was not until the 1930's that art historicans, who had previously attributed the beautiful pieces to Persia, Syria or Rhodes, were able to identify the present-day agricultural center of Iznik as their source. A related exhibition focusing on finds during recent excavations at Iznik kiln and pottery sites is on display – also until December 15 – at the Iznik Museum.

Majolica. The origins of this brilliant and exuberant Italian earthenware lie in the energy and vivacity of Islamic pottery. Exhibit reopened on a reduced scale. Metropolitan Museum of Art, **New York,** November 2, 1989 through January 31, 1990.

Music on the Banks of the Nile. Classical Western and Arab music from Mozart to Munir Bashir, performed in ancient Egyptian temples and archeological sites. **Aswan, Luxor,** other locations, November 2 through November 14, 1989.

Najma. The Indian Muslim vocalist, a force in the world music movement, performs in Urdu at the Town Hall, **New York,** November 3, 1990.

The First Egyptians. Recent discoveries made at Hierakonopolis, including a piece symbolizing the union of Upper and Lower Egypt. Natural History Museum of **Los Angeles** County, through November 5, 1989.

Istanbul Antiques Fair. A synopsis of late 19th-century Ottoman art and taste culminating in a final-day auction. Yıldız Palace, **Istanbul,** through November 5, 1989.

Timur and the Princely Vision: *Persian Art and Culture in the 15th Century.* Objects created under the patronage of Timur (Tamerlane), the legendary Mongol warlord, and his successors. **Los Angeles** County Museum of Art, through November 5, 1989.

Mughal Paintings. Drama, detailed incident and the tumult of life in a stimulating exhibition of 30 paintings. Brookyn Museum, **New York,** through November 6, 1989.

Saudi Arabia: *Yesterday and Today.* A 100,000-square-foot exhibition on the land and people, past and present, of the kingdom, including a live *suq*, traditional foods and dances, artifacts, and a 180° film theater. The **Atlanta** Inforum, November 10 through November 25, 1989; The Convention Center, **Dallas,** December 9 through December 23, 1989.

Islamic Calligraphy: *Sacred and Secular Writings.* The broadest exhibition in recent years, ranging from the first century after the Prophet's death to the present day, and covering all the territory of Islam. The Jordan National Gallery, **Amman,** through November 11, 1989.

The Arabic Calligraphy of Mohammed Zakariya. One of America's leading calligraphers presents 28 works in various styles. Oriental Institute Museum, **Chicago,** November 14 through December 20, 1989; **Birmingham [Alabama]** Public Library, January 25 through February 23, 1990.

Palestinian Costume. Richly ornamented traditional costumes, headdresses and jewelry of Palestinian villagers and Bedouins are revealed as expressions of social status and regional identity. Archival and contemporary photographs provide context. Museum of Mankind, **London,** from November 16, 1989.

Nomads: *Masters of the Eurasian Steppe.* More than 1,000 artifacts from Soviet museums illustrate the lives of and influences on nomadic peoples of Eurasia. National Museum of Natural History, **Washington, D.C.,** November 17, 1989 through February 18, 1990.

India Along the Ganges: *Photographs by Raghubir Singh.* Sixty-five recent photographs by one of India's finest photographers. Sackler Gallery, **Washington, D.C.,** November 23, 1989 through April 15, 1990.

The Thracians. Thracian treasures recently discovered in Bulgaria cast light on a vanished civilization of the Near East. Palazzo Ducale, **Venice**, through November 30, 1989.

Faces of Asia: *Portraits from the Permanent Collection.* Sixty portraits, ranging from Mughal miniatures to Japanese screens, of which more than half have never been on public display. Museum of Fine Arts, **Boston**, December 1, 1989 through February 18, 1990.

Ikats: *Woven Silks from Central Asia.* Colorful hangings, robes and coats produced over a 200-year period demonstrate a complex and beautiful dyeing method. Shipley Art Gallery, **Gateshead, Tyne and Wear,** through December 3, 1989; City Museum and Art Gallery, **Stoke on Trent, Staffordshire,** January 27 through March 11, 1990.

The Orient Observed: *Images of the Middle East from the Searight Collection.* The world's greatest collection of Western watercolors, drawings and prints of the Middle East and North Africa. Victoria and Albert Museum, **London,** December 6, 1989 through February 25, 1990.

Lahore: *The City Within.* Paintings and photographs by a local Pakistani artist, displayed with Mughal watercolors and architectural fragments from the subcontinent. MIT Museum, **Cambridge, Massachusetts,** through December 17, 1989.

Romance of the Taj Mahal. Shah Jahan's eye for beauty and collector's instincts are demonstrated by 200 objects from European and American collections. **Los Angeles** County Museum of Art, December 17, 1989 through March 11, 1990.

Yemen: *A Culture of Builders.* The variety of architecture in the Arab Republic of Yemen, in 74 color photographs by Peggy Crawford. Roger Williams College, **Bristol, Rhode Island,** December 22, 1989 through January 31, 1990; University of Minnesota School of Architecture, **Minneapolis,** February 16 through March 23, 1990.

The Architecture of Jean Nouvel. Works by the controversial French architect whose Arab World Institute in Paris won a 1989 Aga Khan Award for Architecture. The Octagon, **Washington, D.C.,** through December 31, 1989.

Persian Drawings. From the museum's own collection, 35 drawings – some never before exhibited – dating from the 15th to the early 20th century. Metropolitan Museum of Art, **New York,** through December 31, 1989.

Traffic Art: *Rickshaw Paintings from Bangladesh.* The paintings that decorate these ubiquitous vehicles show scenes of war or rural peace, movie stars, religious scenes, and more. Museum of Mankind, **London,** through December 31, 1989.

Arabesques and Gardens of Paradise: *French Public Collections of Islamic Art.* Textiles, wood and ivory carvings, drawings and ceramics. Musée du Louvre, **Paris,** through January 2, 1990.

Traditional Crafts of Saudi Arabia. The John Topham collection of weavings, jewelry, a Bedouin tent, and metal, wooden and leather objects. **San Diego** Museum of Man, through January 2, 1990; Maxwell Museum of Anthropology **Albuquerque, New Mexico,** from March 31, 1990.

Carthage: *A Mosaic of Ancient Tunisia.* Pictorial mosaics, Punic jewelry, Roman bronzes and 300 other pieces from 800 BC to the coming of Islam show ancient Tunisia as a center of culture and art. Natural History Museum of **Los Angeles** County, through January 7, 1990; **Cincinnati** Art Museum, February 7 through April 8, 1990.

Egypt: *Masterworks of All Ages.* Small but beautiful display ranging from Pharaonic times to the 14th century. Institut du Monde Arabe, **Paris,** through January 14, 1990.

Forced Out. A group exhibition of photographs documents the plight of political refugees. P.S. 1 Museum, **Long Island City, New York,** January 14 through March 11, 1990.

Nomads and Nobility: *Art From the Ancient Near East.* Spectacular artifacts from the pre-Islamic Middle East, primarily metalwork but including ivory and ceramic objects. Sackler Gallery, **Washington, D.C.,** through February 4, 1990; reopens April 8, 1990.

Dragons, Blossoms, Sunbursts: *Textile Arts of the Caucasus* demonstrates the range of production of Caucasian rugs, flatweaving, and embroideries, focusing on 17th- to 20th-century pile carpets. The Textile Museum, **Washington, D.C.,** through February 25, 1990.

Artifacts from Ancient Iberia. Bronzes, weapons and utensils from prehistoric to Roman times complement a permanent collection of paintings, sculpture and decorative arts that continue to the present day. Hispanic Society of America, **New York,** through February 28, 1990.

Gold of Africa: *Jewelry and Ornaments from Ghana, Côte d'Ivoire, Mali, and Senegal.* More than 150 spectacular objects are evidence of highly developed skills and tastes in the West Africa of the 19th and 20th centuries. Metropolitan Museum of Art, **New York,** through March 11, 1990; **Dallas** Museum of Art, April 8 through June 7, 1990.

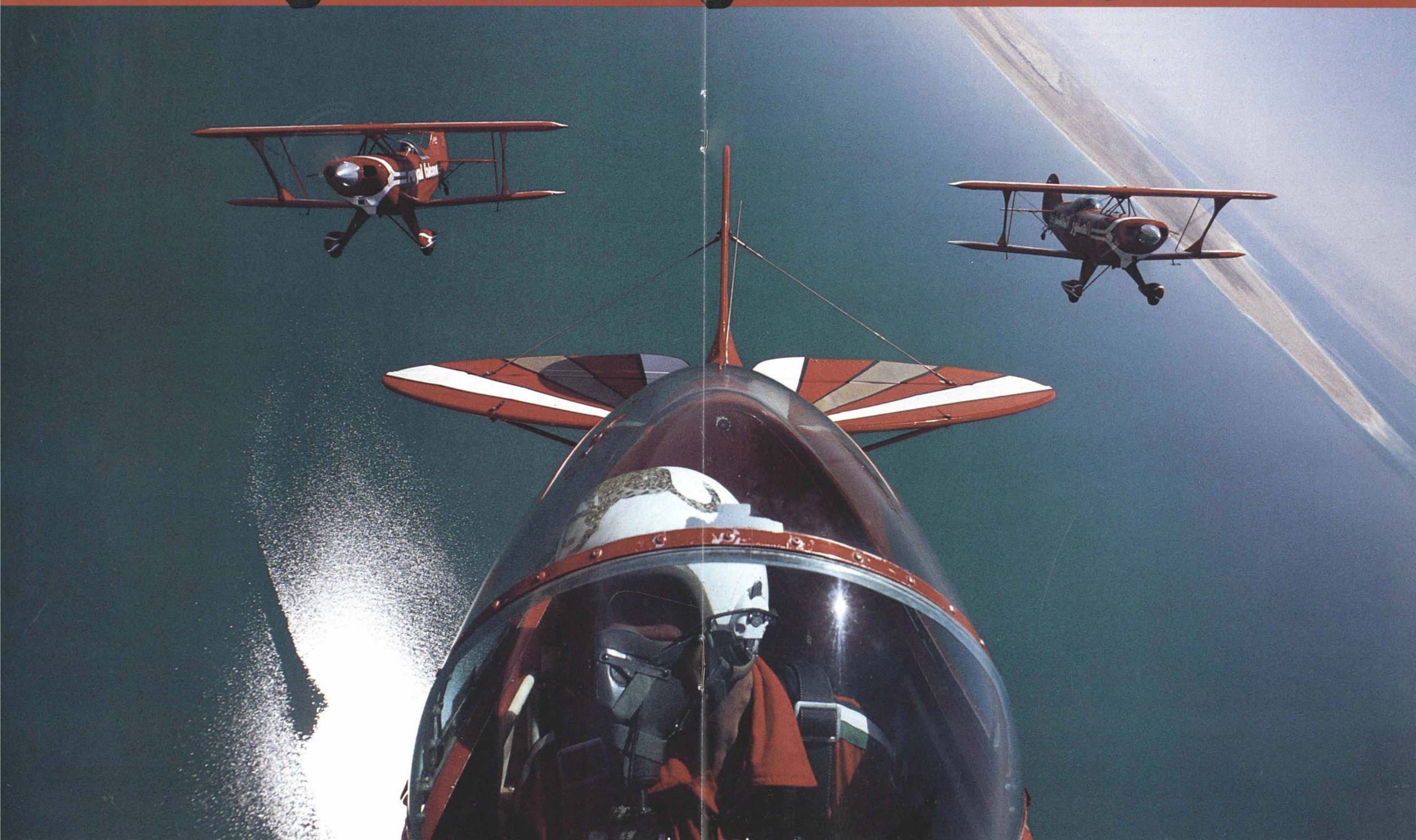
The Wabar Meteorite. Fragments of the iron-nickel meteorite that left a 300-foot crater when it fell in the Rub' al-Khali, with related published material. Nance Museum, **Kingsville, Missouri,** from March 15, 1990.

Matisse in Morocco. Paintings from two American and two Russian museums illuminate the effects of Moroccan space and light on an artist trying to balance intellect and emotion. National Gallery of Art, **Washington, D.C.,** March 18 through June 3, 1990.

The Aramco Exhibit. Centered on the Arab-Islamic technical heritage, this permanent interactive, "learn-by-doing" scientific exhibit relates the historical background to today's petroleum exploration, production and transportation. **Dhahran, Saudi Arabia.**

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

jordan's royal falcons



Millions of enthusiastic fans have enjoyed their performances since 1978. With their superb airmanship, their willingness to stake their lives on precise control of a few hundred kilograms of Dacron, wood and steel and, watchers say, with their personal friendliness and charm, the Royal Falcons – Jordan's unique aerobatics team – have captured the attention of audiences worldwide.

WRITTEN AND PHOTOGRAPHED BY BILL LYONS.

Jordan's King Hussein, himself an accomplished pilot, suggested the team's formation 13 years ago and has been the Falcons' keenest supporter ever since. Two pilots, David Rahm and Steve Wolfe, began both to perform and to recruit and train additional pilots in 1976.

Their first severe setback came almost immediately: In 1977 Rahm, a Canadian, was killed during a local performance attended by the king, in an accident that called the safety of the whole project into question. Nevertheless, the Falcons persevered, and two years after the team's inception William Farid, Jalal Kattab and Hani Zu'mot – all Jordanians trained in commercial aviation by the Royal Jordanian Air Academy (See *Aramco World*, January-February 1978) – set out for Fort Lauderdale, Florida, for six weeks of intensive training in advanced aerobatics and formation flying. By September 1978, though each had less than 400 hours of flight time, their performance had reached air show standards, and the Royal Falcons took flight. Over the next decade, they were to gain international recognition at some of the most prestigious aerobatics events in the world.

But local fame came first. The three-man team, flying two Pitts Special S-2A biplanes expressly designed for aerobatic flying, made its domestic debut in October 1978 on the occasion of the Middle East Civil Aviation Conference in Amman. Soon after, the Royal Falcons made their first appearance outside Jordan with two successful displays in Doha, Qatar.

Sponsored by the national airline, Royal Jordanian, the Royal Falcons soon became both the country's and the airline's "ambassadors of goodwill." The team is the only one of its kind sponsored by an airline, and the only full-time civilian aerobatics team in the Middle East. Until 1983, it was the only one in the world.

Acquiring a third Pitts biplane in 1979, the team practiced a three-ship sequence for its first tour outside the Middle East, and performed its maneuvers before at least 1.5 million spectators at the two most prestigious air shows in the world. They made their debut at the Paris Air Show at Le Bourget before King Hussein himself, then went on to open a tour of Britain with the 1979 International Air Tattoo, held at the Royal Air Force's Greenham Common base. Both the Tattoo and the Paris Air shows are held biennially, with the participation of civilian as well as military teams at the French event, and almost exclusively military performers at the International Air Tattoo. The Royal Falcons' tiny red Pitts appeared alongside such air-show giants as the RAF's Red Arrows, the Patrouille de France and Italy's Frecce Tricolori.

The following year, the team went on another British tour, this time presenting 25 displays over a period of four months. By then, invitations to perform in various parts of the world were flowing steadily in, and in 1981 the Royal Falcons once again appeared at both the Paris Air Show and the International Air Tattoo. A 1982 North American visit, however, was the Falcons' *tour de force*. Their first stop was in Afton, Wyoming, where they took delivery of three brand new Pitts Special S-2S aircraft – single-seat biplanes slightly more powerful than their earlier models – and became the first performance flyers to present formation displays in this plane.

The Falcons' American debut was at Detroit's Willow Run Air Show, and officials there said the Falcons "turned the show upside down." They greeted fans, signed autographs and allowed dozens of children to inspect their planes. The Falcons recall one spectator saying, "I never thought Arabs could fly like that!"

The Royal Falcons flying in formation (below) over Wadi Rum in Jordan, and (above) maintenance crew assembling their biplanes before a show.


الصنور


الصنور
الصنور

They went on to perform in more than 20 cities in the United States and Canada in the course of the next five months. Besides their aerobatic displays, they flew 145 hours, or 32,000 kilometers (20,000 miles) cross-country. Equipped with only basic navigational instruments, the Pitts Specials fly in formation behind their twin-engine support aircraft, a Britten-Norman Islander that carries spare parts, luggage and the Falcons' maintenance team – one engineer for each aircraft – from one display location to another.

Not counting television audiences, approximately two million American and Canadian spectators watched the Falcons fly during their first North American tour, including close to 100,000 spectators at the Dayton International Air Show in Ohio, America's number-one aviation event.

The next year, the Royal Falcons performed again at the International Air Tattoo and at the annual air display at the RAF base at Church Fenton, and in 1983 they recruited a young Jordanian Air Force pilot, Majed al-Kayed. One year later, Mufeed Hassouneh and Muhammad Ghbour, also from the Air Force, joined al-Kayed to form a second Royal Falcons team which was, for the first time, made up entirely of non-civilians. Paul Warsaw, who had met the original members during their training in Florida in 1978 and had led and trained the team since, now made way for Jalal Kattab to become director of operations and training. Kattab, the longest-standing member of the Falcons, has held all three positions on the team as well as several administrative jobs.

The Royal Falcons resumed their international career in 1985 with performances at the Air Tattoo in Britain, at two air shows in France, four in West Germany, two in Belgium and one in Switzerland. Those were followed by performances at the Indonesia Air Show in 1986 and finally, for the fifth consecutive time, at the International Air Tattoo, held at RAF Fairford in 1987.

For all that the Royal Falcons fly relatively slow propeller-driven biplanes rather than blazing jet aircraft, newspapers hailed the team as "spectacular," "dazzling," and "a Middle Eastern jewel." In Britain, the Falcons met with explicit admiration from the usually restrained audiences, and Jalal Kattab recalls the compliment of the leader of the RAF Red Arrows, rated the best military aerobatic team in the world: "Boys, you are doing one hell of a job!" And in the United States, Kattab says, the then president of the Experimental Aircraft Association watched the Falcons perform and then told his son – a member of America's famous Christen Eagles team – "Go train!"

A relatively small team, the Royal Falcons design their display sequences to avoid time-consuming rejoining maneuvers in order to provide the audience with constant action; in a larger team, one element can perform "fill-in" maneuvers to compensate for the time lapse. They take great care to plan their performances in a sequence that ensures that exit from one maneuver will leave the pilots with the altitude and airspeed they need to begin the next. The Pitts Special S-2S is a light and highly maneuverable biplane, powered by a 260 horsepower Lycoming engine with a redline speed of 327 kilometers an hour (203 mph). Unlike jet teams, the Falcons must therefore fly in their maximum power range most of the time, leaving them only a very small margin of power in reserve to correct mistakes in timing. Even more than for their jet-powered colleagues, proper positioning throughout the entire sequence of maneuvers is essential.

Among the team's most thrilling maneuvers are the hammerhead turn and the knife-edge pass. The hammerhead, also known as the stall turn, requires the pilot to point the nose of the aircraft vertically upward until it reaches zero speed. Within three to five seconds, the pilot must use the rudder to throw the plane sideways before it slides back into a spin. In the knife-edge pass, the planes approach each other head on at a closure rate of 560 kilometers an hour (350 mph) until they are about 16 meters (50 feet) apart. At this point they roll 90 degrees, continuing on head-on courses, and pass each other canopy to canopy with 150 to 300 centimeters (5 to 10 feet) of clearance. To further complicate the maneuver, it is carried out so that the actual pass takes place directly in front of the crowd or reviewing stand. Also in the Falcons' extensive repertoire are snap rolls, loop splits, mirror rolls and Cuban eights.

Their most spectacular maneuver, however, is the formation slow roll, which demands perfect coordination between leader and wingmen. As the name suggests, it is a roll of the entire three-plane formation, and not of the three planes separately. After picking up speed in a V-formation, the lead pilot gradually reduces speed and initiates a roll. The lead aircraft rolls around its own axis, and counteracts excessive drag on the aircraft by reducing speed to maintain its position, but the right and left wingers must roll around the leader, and they have to increase their speed accordingly. Maximum coordination of flight controls and throttle must be maintained for the wingmen to keep their proper positions. The Christen Eagles were so impressed by the formation slow roll during a performance in Wisconsin that they requested the Royal Falcons to accompany them to Fond du Lac – where the Eagles were invited to participate in the American Aerobatic Championships – to demonstrate the maneuver.

The Royal Falcons practicing three-ship formation flying.

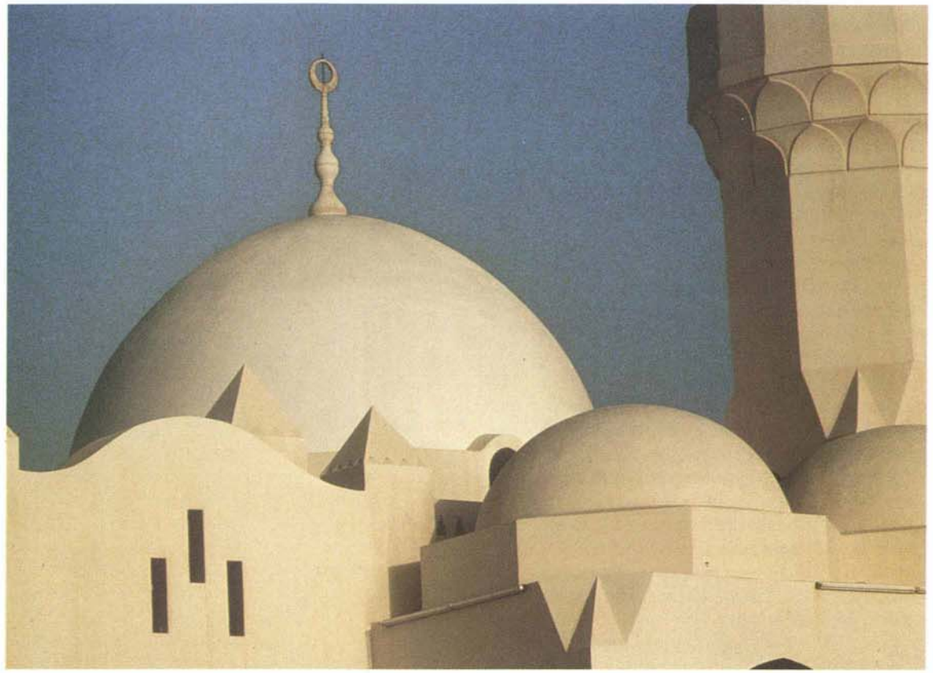
The Royal Falcons success is built on skill, mutual trust and teamwork. According to former Director Paul Warsaw, precise coordination and nerve are musts. New-member applicants undergo a written exam, a basic plane-handling test and an oral examination. Only if the applicant is acceptable to the existing team members may he begin an eight-month training program. In keeping with the concept of the Falcons as representatives of their country, pilot and maintenance applicants must be Jordanian citizens. After three years of flying for the Falcons, members have the option of moving to a first officer's position with Royal Jordanian Airlines, a rank normally only obtained after five to seven years of service.

The team usually spends the spring and summer months on international air show tours. Before each tour, the Pitts aircraft are dismantled and airlifted from Jordan to an appropriate display location for assembly and test flights. The light structure of the aircraft – a steel-tube fuselage and wooden wings covered with Dacron fabric – allows two people to dismantle one in four to six hours. Back in Jordan, the team prepares for autumn and winter performances at home and throughout the Middle East, and new recruits are hired and trained. "Falcon Flight" home base at Amman International Airport is equipped to handle every aspect of aircraft maintenance.

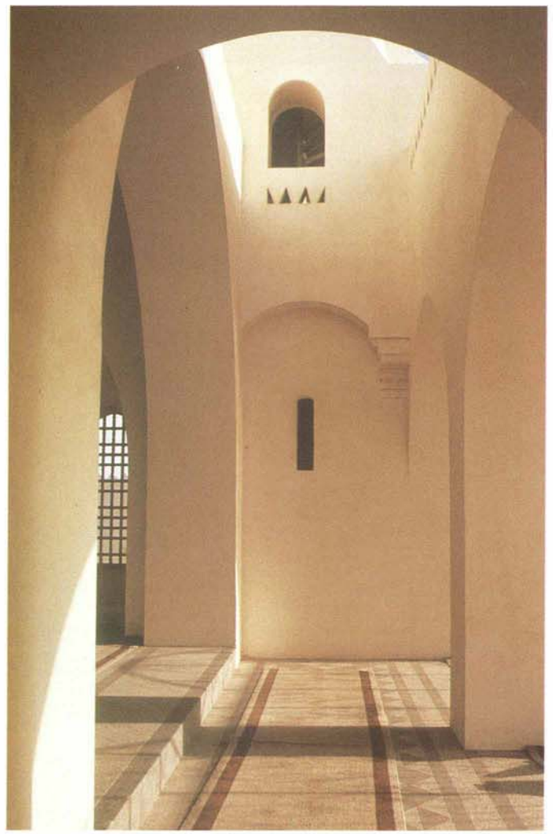
Aerobatics enthusiasts the world over recognize the red-and-white biplanes of Jordan's Royal Falcons, and recognize also the team's consummate skill and dedication. For their part, the team members recognize the importance of their dual roles as both cool-headed performers and dashing ambassadors of their country. To judge by the awe on upturned faces when they perform, the Royal Falcons have succeeded in leaving an indelible impression on their audiences.

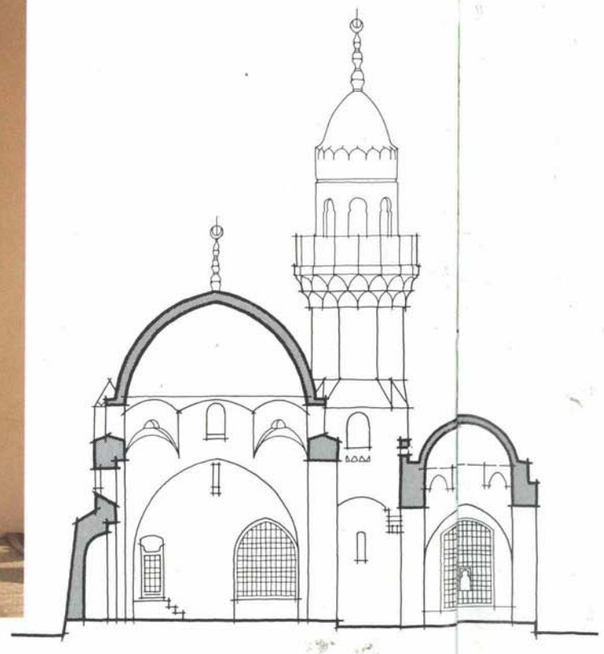
Bill Lyons is a free-lance photojournalist based in Amman, Jordan.

A tiny red Pitts biplane does a slow loop (left), before heading home (right) with the rest of the Royal Falcons.



Corniche Mosque, Jiddah, Saudi Arabia.





The AGA KHAN Awards

WRITTEN BY GERARD LOUGHRAN
PHOTOGRAPHS COURTESY OF
THE AGA KHAN AWARD FOR ARCHITECTURE

Better by DESIGN

Many were nominated; Few were chosen

Of 241 architectural projects proposed to receive the 1989 Aga Khan Award for Architecture, 11 have been selected by an international jury of leading architects and academics. Three of the winning projects were built in Saudi Arabia.

Other winners range from the restoration of a 13th-century mosque in Lebanon to a construction program comprising thousands of $350 peasant homes in Bangladesh. All are outstanding, the jury said, "in terms of the issues they reflect, the questions they pose and the messages they send."

The Diplomatic Quarter of Riyadh, for example, is hailed as "a model for cities in Islamic and Arab societies."

The Ministry of Foreign Affairs, also in Riyadh, and the Corniche Mosque in Jiddah are the other two Saudi projects to win world-wide recognition and a share in the $500,000 award.

The triennial competition, first held in 1980, was organized to curb the damage that inappropriate design – often unrelated to its context and its users – was doing to the built environment in the Islamic world. Its aim is to promote architectural excellence appropriate to the times by encouraging projects grounded in good design, in particular those that make innovative use of local resources and appropriate technology.

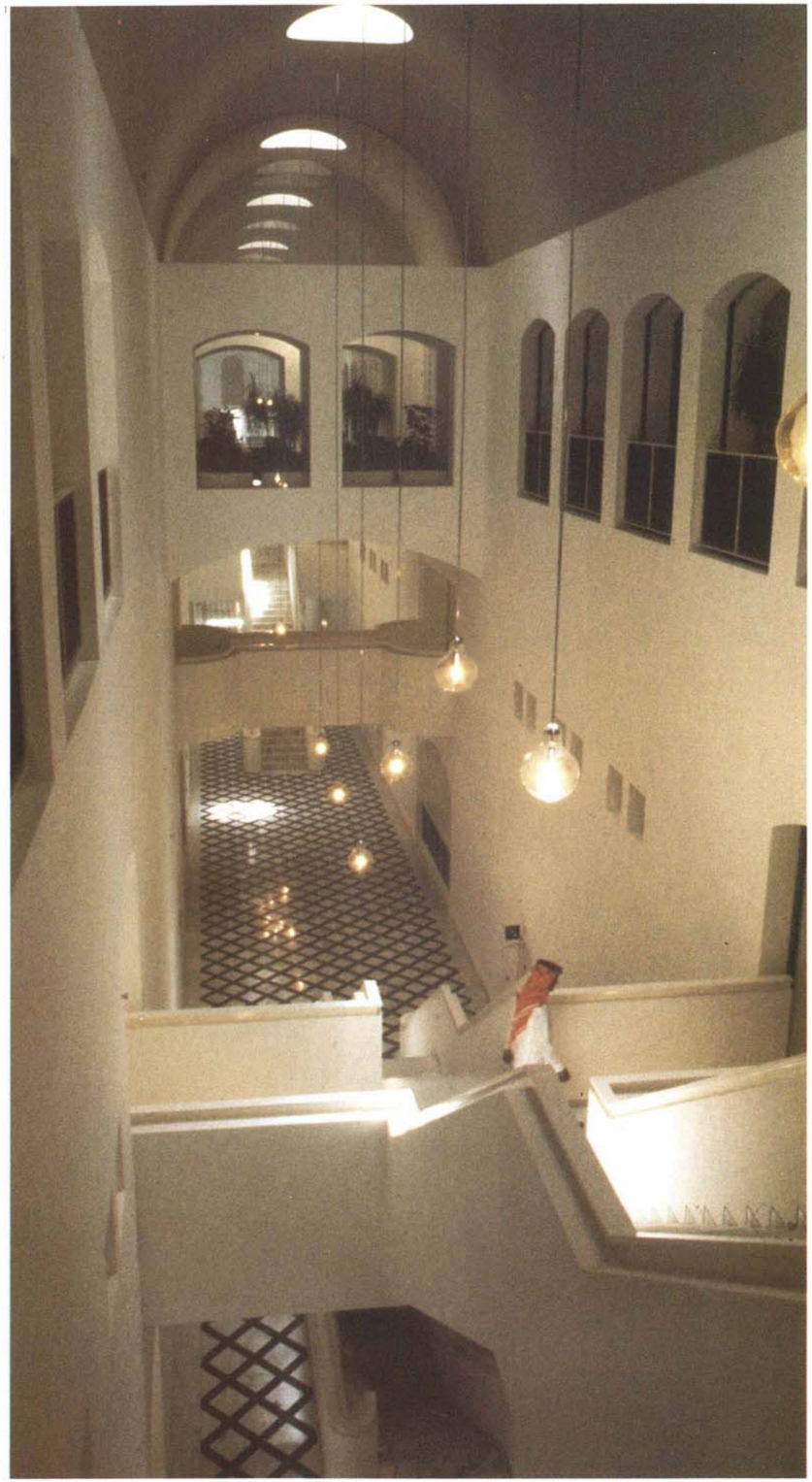
Under competition rules, nominated projects must either be located in the Islamic world or be intended for use primarily by Muslims, and must have been completed and in use for at least two years. The latter requirement distinguishes the Aga Khan Award from the Muslim world's other prestigious architecture prize, the King Fahd Award for Design and Research in Islamic Architecture, which considers research and unbuilt projects, including those of students and "emerging talents" (See *Aramco World*, July-August 1987).

The nine-member jury noted broad changes in Muslim-world architecture that have taken place in the decade since the Aga Khan Award began. Projects, and the planning, selection and design processes leading up to them, are generally of better quality; thus the jury selected 11 of 241 projects for the awards, compared with six out of 213 in the previous cycle. The physical, social and economic components of social and community building projects have become more complex. Architects and builders are more aware of the existence and the needs of the large Muslim communities located within non-Muslim countries; thus the jury welcomed the first nominations ever received from the Central Asian republics of the Soviet Union. And, the jurors stated, there has been an enormous increase in the number and quality of nominated projects actually built by Muslims.

The first of the three Saudi locations to appear in the prize list is the Riyadh Diplomatic Quarter, the city's ambassadorial precinct that includes residential areas, urban spaces and parks.

Specifically, the jury honored the al-Kindi Plaza, whose architects were Ali Shuaibi and Abdul-Rahman Hussaini of the Beeah Group in Riyadh, and the landscaping of the whole quarter, carried out by Richard Bödeker, Horst Wagenfeld, Klaus Steinhauer and Jurgen Baer of the German firm Bödecker, Boyer, Wagenfeld & Partner (See *Aramco World*, September-October 1988).

Al-Kindi Plaza comprises a mosque, library and garden, a government services complex, shops and other services, all linked by covered passages and arcades. Courtyards and open spaces are scattered

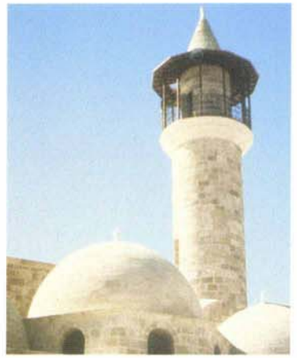


1 *Ministry of Foreign Affairs, Riyadh, Saudi Arabia.*

2 *Diplomatic Quarter, Riyadh, Saudi Arabia.*

3 *Sidi el-Aloui Primary School, Tunis, Tunisia.*

4 *Grameen Bank Housing Program, Bangladesh.*



National Assembly Building, Dhaka, Bangladesh.

Great Omari Mosque, Sidon, Lebanon.

Citra Niaga Urban Development, Indonesia.

Institut du Monde Arabe, Paris, France.

Asilah Town, Morocco.

Gurel Family Summer Residence, Canakkale, Turkey.

The AGA KHAN Awards

among the buildings, which are centered on a triangular *maidan*, or public square. The ground level is reserved for pedestrian movement, and vehicle traffic and parking is located underground. The plaza complexes "can be considered ideal models for cities in Islamic and Arab societies," the award citation reads. "They have attractively preserved the traditional link between the mosque and the other public services."

The landscaping of the DQ, of which al-Kindi Plaza is a part, demonstrates what the jury called "a realistic and imaginative understanding" of Riyadh's desert environment by using dry-climate, often local, plants and flowers whose water requirements are relatively low to create "a totally genuine environment," and by using recycled sewage water for irrigation. For this project, the jury commended not only the architects and planners but also the client, the Riyadh Development Authority, whose "enlightened ... understanding of the local environment and heritage" made it possible.

Of the Corniche Mosque in Jiddah, designed by London-based architect Abdel Wahed El-Wakil, the jury said, "Siting and technology distinguish this building from the great majority of mosques built today."

Jurors hailed the "unconventional but visually arresting" arrangement in which the mosque is one of three set as pavilions along the city's seafront road or corniche, and recognized that it was built according to methods the architect developed after researching the construction of a group of Egyptian mosques.

"The architect should be cited for innovative siting, for rethinking classical methods of building and for the effort to compose formal elements in ways that bespeak the present and reflect the luminous past of Islamic societies," the jury's citation reads.

The third Saudi winner is the Ministry of Foreign Affairs in Riyadh. Its architect, Henning Larsen of Copenhagen, was chosen by international competition in 1979. Situated in the Masrujah district, two kilometers (1.2 miles) northwest of the old center of Riyadh, the project provides office space for 1000 workers as well as meeting, conference and prayer rooms, a banquet hall, library, auditorium and exhibition hall.

The jury cited the project for "its intelligent use and interpretation of traditional architecture and of general Islamic urban concepts. . . . It is a contemporary work of architecture in harmony with the international architectural mainstream."

The citation described aspects of the project as "lively, exciting and spectacular" and said, "Simplicity and complexity are outstanding features of the design."

The other winners were:

Restoration of the Great Omari Mosque, Sidon, Lebanon. After the 13th-century mosque was damaged during the 1982 invasion of Lebanon, local people refused an offer to construct a new building, insisting on restoration of the old one. The jury described the result as "a beacon in a tortured land."

Rehabilitation of Asilah, Morocco. Under the impetus of an annual cultural festival, the biggest in the Islamic world, this town on the Atlantic coast has been notably upgraded: Old buildings have been restored, new ones built and maintenance improved.

Grameen Bank Housing Program, Bangladesh. The bank is a cooperative association lending to the rural poor. Under a scheme to help landless people build flood-resistant homes, 45,000 houses have been erected. Loans average $350 for four concrete pillars, corrugated iron roofing and a latrine.

Citra Niaga Urban Development, Indonesia. Commercial development of shops and workshops financed public and recreational facilities which transformed a slum area. The project showed how commercial interests can be harnessed for public benefit in the process of urban development, the jury said.

Gürel Family Summer Residence, Çanakkale, Turkey. A cluster of seven units on Turkey's Aegean coast whose living, sleeping and service functions were arranged so as to reproduce a traditional Turkish village on a smaller scale.

Sidi el-Aloui Primary School, Tunis, Tunisia. A "courageous exploration of traditional architectural forms," according to the jury, and a prototype of considerable value to developing countries. The design was developed by a group of local citizens as an alternative to standard government designs.

National Assembly Building, Dhaka, Bangladesh. The lavishness of this building in one of the world's poorest countries raised questions, but the jury reported that visits, surveys and discussions "reveal that over time it has come to enjoy overwhelming approval . . . and has influenced the country in a number of beneficial ways."

Institut du Monde Arabe, Paris, France. Intended to serve as a cultural bridge between the Arab world and France, the Institute (See *Aramco World*, January-February 1989) is located on the left bank of the River Seine and houses exhibition space, a museum, library, meeting rooms and a documentation center. "A showcase of contemporary architecture which has become a source of pride among the community of Arabs and other Muslims," the jury said. Architectural consultant on the Institute was Ziyad Ahmed Zaidan of Jiddah.

As well as leading architects from Jordan (Rasem Badran), Sri Lanka (Geoffrey Bawa), India (Professor Charles Correa) and Iran (Karman T. Diba), the Award jury included ***Dr. Esin Atil***, curator of Islamic Art at the Freer and Sackler galleries in Washington, D.C.; ***Professor Oleg Grabar***, historian of Islamic art and architecture, Aga Khan Professor of Islamic Art and Architecture at Harvard University; ***Dr. Saad Eddin Ibrahim***, a leading Egyptian social scientist who teaches at the American University in Cairo and writes for the newspaper *Al-Ahram*; ***Professor Hasan Poerbo***, professor of architecture and planning at the Bandung [Indonesia] Institute of Technology, and director of its Center for Environmental Studies; and ***Professor William Porter***, chairman of the Department of Architecture at the Massachusetts Institute of Technology, and consultant to the World Bank.

Gerard Loughran, former foreign editor of UPI, is managing editor of Compass News Features, a third-world feature agency now based in London.

A VISION OF PEACE

WORLD MONITOR TELEVISION

Fourteen-year-old Mustafa Tahoukji of Beirut, Lebanon, is just as old as the continuing strife in his native land. Last year the young artist painted his vision of the peace he has never known: a white dove soaring through shades of blue above burgeoning red roses. The painting was Mustafa's entry in the first Lions Clubs International peace poster contest, in which more than 100,000 children from 49 countries illustrated the theme "Peace Will Help Us Grow."

The world's largest service organization sponsored the contest to give young people between the ages of 10 and 14 an opportunity to think about what world peace means to them. To reach the finals, entrants' posters had to survive four levels of competition: schoolwide, regional, national and international. The work of the 24 finalists was displayed in the Junior Museum of the Art Institute of Chicago, and in February 1989 six judges – three from the United States and one each from Australia, Japan and the Soviet Union – selected Mustafa's dove and rose as the winner of the grand prize.

"It just came as a stunner when we found out that the winning design happened to come from a child who has witnessed the nightmarish reality of war," said Charles Stuckey, curator of 20th-century painting and sculpture at the Chicago institute.

Last March, Mustafa left Lebanon for the first time in his life to fly with his mother and a sister to New York to attend a special awards ceremony at the United Nations. He accepted the commemorative plaque and a $500 cash prize with a shy smile and considerable poise. "I love peace," he said. "I wanted to see how much of its message I could put into painting. The wake that the dove leaves behind as it flies is an expression of freedom."

Doreen Kays, of World Monitor Television news, reported the event: "What the TV cameras rarely show of Lebanon are the pockets of peace that continue to nurture the hopes and dreams of a 14-year-old like Mustafa Tahoukji, part of a war-torn generation determined not to be a lost generation." And Alfred Shehab, chairman of the National Association of Arab Americans, editorialized in his organization's magazine *Voice*, "We must strive to make Mustafa's vision of the dove of peace more than a symbol."

The international children's poster contest will continue; its 1989-1990 theme is "Picture a Peaceful World." Next March another young winner and his or her family members will receive a trip to New York, plus an increased award of $1,500, at the second United Nations ceremony. As the services organization president, Austin Jennings, said this year, "Though some of the posters may be the work of children who have never known peace, yet their vision of it may some day make a difference."

William Tracy is a frequent contributor to Aramco World.

WRITTEN BY WILLIAM TRACY

IMBABA

WRITTEN BY AKRAM KHATER
PHOTOGRAPHED BY JOHN FEENEY
AND ANTOINE GERARD

Although camels are conspicuously absent from the streets of Cairo today, you can still find them in the camel market at Imbaba. Lying at the northwest edge of the city, it is the final destination of camels that come from as far away as Somalia and Sudan to be sold there every Friday.

Arriving at the market very early, you will find the mist from the fields burning off, adding a surreal warping to the already awkward shapes of hundreds of camels. The first impression is a confused scene of humans in various states of repose – a few chasing animals in circles – and of camels equally in repose, standing, sitting or half standing and half sitting. The brownish colors of these "ships of the desert," ranging from dark coffee to nearly white, blend with the white robes of their Sudanese keepers and the green of the camels' *birseem*, their fodder of Egyptian clover.

No trading seems to be going on. The camels are continuously chewing, moving their jaws to left and right in a slow but sure rhythm, and the men – there are very few women there – sit and drink their tea or smoke their home-made water pipes in no particular hurry. The atmosphere is one of coexistence.

GERARD

A herd of branded camels (left) and their owners (above) patiently wait for trading at Imbaba market to begin.

As the sun clears up the mist and one's mind, this living tableau takes on the trappings of a veritable market. Amid the animal sounds one begins to hear the language of bargaining, and the visual confusion resolves to reveal some understandable organization. The camels are not a hodgepodge, generic collection: There are distinguishable and important varieties. There are big and small, dark and light, old and young, Somali, Sudanese and Egyptian camels, pack camels and meat camels, cheap camels and expensive camels. They are separated into different herds that belong to different owners, and the men who seemed to be chasing the camels for fun, or at least at random, turn out to be trying to keep the herds apart.

Most camels are branded, freehand, with the mark of the owner and can thus be traced; others have numbers painted on them. And what seemed at first to be a number of three-legged camels – "Strange breed they have here," one visitor commented – turns out to be normal four-legged beasts each with one leg tied up as a way of hobbling it. The hobble doesn't seem to bother the more athletic animals, though, who leap and run in a weird combination of lurching movements that is

FEENEY

nonetheless sufficient to keep four or five men busy running to corner them. A hitching wire awaits the determinedly venturesome: They are tied to it to spare everyone a havoc-wreaking, chase-around-the-market scene that sends vendors of rope and tack and brass bells searching on the ground and in their neighbors' stalls for their own scattered wares.

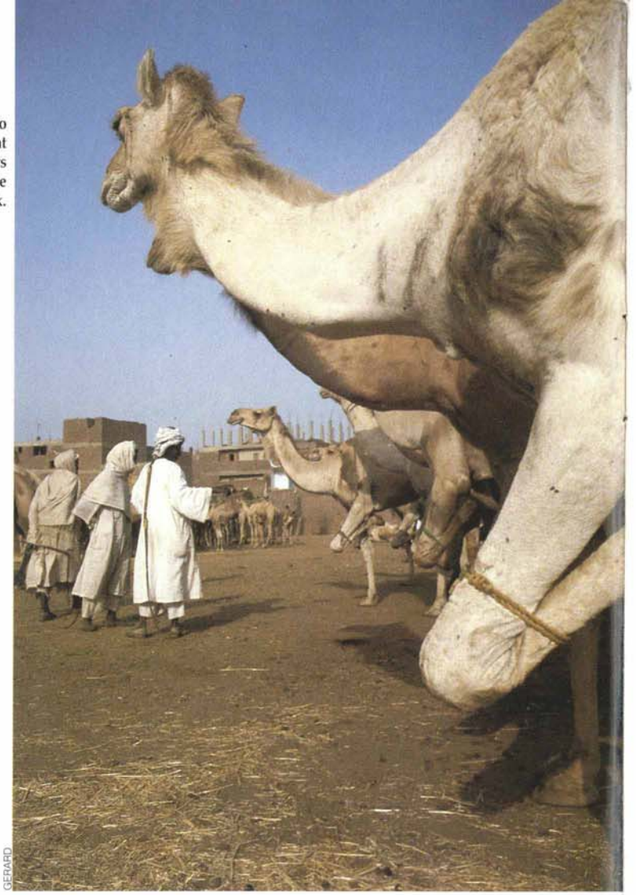
Comprehension brings more questions: How much does a camel cost? "Which one?" is the amused response. You can expect to pay anywhere between $500 and $2000. The Somali camels seem by far the most regal, and they are the most expensive. Looking down with their beautiful dark eyes from their height of 2½ to 3 meters (8 to 10 feet) above the ground, they seem to regard humans as inferior beings, hardly worth considering. Perhaps abashed, the keepers show respect for Somali camels, leaving them alone most of the time and refraining from pushing them around. Given this privileged treatment, these are relatively serene camels, chewing their cud with less agitation than the others in the market.

Somali camels are transported by truck all the way from Somalia – 2750 kilometers (1700 miles) at least – and are fed the best *birseem*. Their owners show the same kind of pride in their stock as a farmer whose steer has won first place in the county fair, and at least one even knows his camels by name.

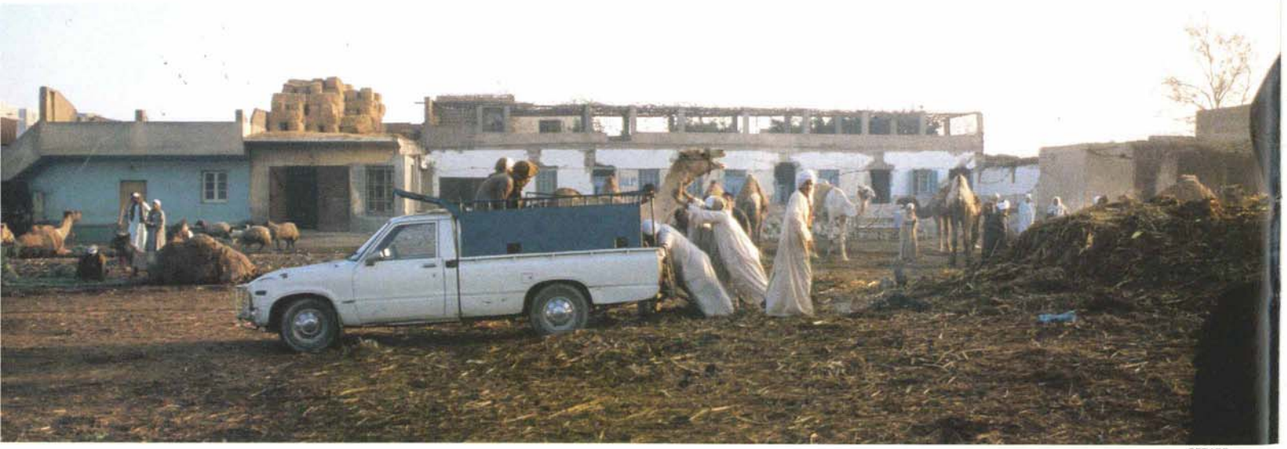
Sudanese camels are more within the price range of the average shopper. They travel less comfortably, making the 1500-kilometer (900-mile) trek to Imbaba by walking through the desert all the way from Sudan. They arrive with their humps much diminished, their fat reserves used up, and a look of hard use and faded majesty. Yet they are known to be strong animals that can carry very heavy loads over a fairly long haul.

The Egyptian camels tend to be smallest in size and the least beautiful, in the camel sense of the word. Their color is not the rich and dark brown of the Somali breed, but more of a dusty white; their teeth are yellower and their skin is more wrinkled. Their legs are shorter and fatter than those of the Somali camels, whose muscles are well defined.

Camels hobbled (right) to prevent them wreaking havoc at Imbaba, and (below) farmers loading their reluctant purchase onto a pickup truck.



GERARD



GERARD

Who buys camels in this age of cheap Japanese trucks? Fewer and fewer people – yet enough to keep this market stocked with hundreds of camels. Most of them, particularly the young ones, are bought by farmers who cannot afford the trucks for the transportation of agricultural produce. Theirs are the legs that are often all that is visible beneath the slowly moving mountains of grass that one sees alongside rural roads in the Delta and Upper Egypt. Older camels are supposedly slaughtered for meat, although camel steaks do not appear on any menus in Egypt, so one is not sure where this meat is being sold. And unlike in the Arabian Peninsula, very few camels, if any, are sold for racing.

Despite their differences, the camels do have their strange haircuts in common. Some are shaved except for a Mohawk strip of hair that is sometimes painted red or orange. Others have lines of shaved hair running in patterns all over their bodies: zig-zags, circles or diagonal lines. A few others have their heads shaved and what seems like a beard left under their gyrating chins. In this, the owners are cultivating not a punk culture among camels, but rather their own commercial interests: The cut hair eventually makes its way into camel-hair coats and jackets in shop windows on Bond Street or Fifth Avenue – or Shari' Sitteen in Jiddah, for in the Arab world too a cloak, or *bisht*, of camel hair is considered a luxury. Shaving the camels is thus another, and a renewable, source of income for their owners.

Camel buyers and sellers always use the services of a middleman, who literally stands between buyer and seller, holding hands with both. A tug of war ensues as bargaining begins, with both buyer and seller feigning reluctance to deal and tugging to free their hands from the middleman's. The middleman tries to bring their hands together to seal the agreement, and he is assisted by kibitzers who urge buyer and seller together, calling out their own comments on the camels – and the humans – involved in the sale and physically pushing the parties closer together from behind. Numbers fly back and forth, crossing in midair with agonized refusals, pronounced with many an *a'uth billah*! – God forbid! – or literally "I take refuge in God." Buyer and seller each express shock and incredulity at the other's offers.

After half an hour to an hour, the deal is sealed with a handshake at a price not too far from the one that all three parties had in mind to begin with, and the difficult task begins of loading the camel onto a small pickup truck. The tugging, pulling and stumbling of humans and animal are immense: Legs stick out at all angles, the men's faces turn a deep red with exertion, and the pickup itself creaks and moans as the struggle shifts back and forth in the truck bed. All through the procedure, the camel imitates an immovable object and protests loudly at the indignity, thus keeping up the tradition of stubborness, independence of character and pure resistance that the species is famous for. In the end, however, it is safely couched in the truck, just filling the bed, with its head, still groaning and bawling, peering over the cab or the tailgate.

Despite being known as a camel market, Imbaba is also the place for trade in donkeys, donkey tack and trappings, colorful donkey carts, sheep and goats, and the army-surplus clothes that the Sudanese or Somali cameleers need on the many cold desert nights of their trek north to Cairo. In Imbaba's donkey section, salesmen invite you to test-ride the latest donkey by running it up and down a path already crowded with vendors and their merchandise, as well as with other donkeys. In such an unlikely place they demonstrate their wares, racing around corners, putting the donkey brakes on and bounding on and off. One almost expects a demonstration of the donkey stereo after all the descriptions of praiseworthy donkey features! But that may be the only accessory unavailable there: Laid out for sale are tinkling bells, bright red saddle cloths, ropes, chains, harnesses and painted carts – all for sale in Imbaba.

Moving from one scene to another like a visitor in a Breughel painting, the unhurried browser will find time for a cup of tea from the makeshift tea-houses scattered around the market. Sitting on wooden

FEENEY

benches whose rough edges have been smoothed by thousands of past Fridays, it is a joy to run your eyes over the texture of this piece of Egyptian life.

Relaxing with the strong tea, one can fall into conversation with the cameleers, desert cowboys who can tell stories for hours about their adventures "out there." Most of the stories have been embellished – or so one hopes – but it is still enchanting to hear of their travels. This is particularly true of those who try to dodge the border patrols between Sudan and Egypt to avoid paying import duties on the camels. They take a long and roundabout path north, risking their lives by routing themselves past very few watering holes and over many long stretches of sand. On their faces you can see the treks that have hardened their skin into leathery wrinkles, but underneath their toughness there is a character that is warm and friendly. It shows itself in the smiles that often break across their faces while recounting episodes of their travels.

As the morning passes and the air gets warmer, a new element is introduced to the spectacle of sight and sound: that of smell. At first it is mostly the inoffensive smell of animals, particularly camels, that permeates the air, but then little by little, breaths of dry hay and green *birseem* mix into the layers of air already thick with aromas. The puffs of smoke coming out of the many water pipes add a smell of tobacco sweetened with honey, and there is also the flinty, clean smell of the desert trek emanating from the white and blue robes of the cameleers. All combine to produce a unique condensed and concentrated essence that clings to one's clothes, providing an olfactory signature of the camel market at Imbaba.

Can you smell it too?

Akram Khater, born in Lebanon, is working toward a doctorate in Middle Eastern history at the University of California at Berkeley. He has lived in Egypt and Senegal.

FEENEY

A middleman trying to bring together the hands of buyer and seller in order to seal a sale.

FEENEY

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Publisher (Name and Complete Mailing Address): Aramco Services Co., 9009 West Loop South, Houston, Texas 77096-1799

Editor (Name and Complete Mailing Address): Robert Arndt, Aramco Services Co., 9009 West Loop South, Houston, Texas 77096-1799

Managing Editor (Name and Complete Mailing Address): None

7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) (Item must be completed.)

Full Name	Complete Mailing Address
Aramco Services Company	9009 West Loop South Houston, Texas 77096-1799
100 percent of the stock of Aramco Services Company is owned by:	
Saudi Arabian Oil Company	Box 5000, Dhahran 31311, Saudi Arabia

8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities (If there are none, so state)

Full Name	Complete Mailing Address
None	

9. For Completion by Nonprofit Organizations Authorized To Mail at Special Rates (DMM Section 423.12 only)
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)
(1) [X] Has Not Changed During Preceding 12 Months [ ] Has Changed During Preceding 12 Months (2) (If changed, publisher must submit explanation of change with this statement.)

10. Extent and Nature of Circulation (See instructions on reverse side)	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies (Net Press Run)	161,622	159,180
B. Paid and/or Requested Circulation 1. Sales through dealers and carriers, street vendors and counter sales	-0-	-0-
2. Mail Subscription (Paid and/or requested)	155,496	152,770
C. Total Paid and/or Requested Circulation (Sum of 10B1 and 10B2)	155,496	152,770
D. Free Distribution by Mail, Carrier or Other Means Samples, Complimentary, and Other Free Copies	2,225	1,253
E. Total Distribution (Sum of C and D)	157,721	154,023
F. Copies Not Distributed 1. Office use, left over, unaccounted, spoiled after printing	3,901	5,157
2. Return from News Agents	-0-	-0-
G. TOTAL (Sum of E, F1 and 2 - should equal net press run shown in A)	161,622	159,180

11. I certify that the statements made by me above are correct and complete — Signature and Title of Editor, Publisher, Business Manager, or Owner: [signature]

PS Form 3526, Dec. 1987 (See instructions on reverse)

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