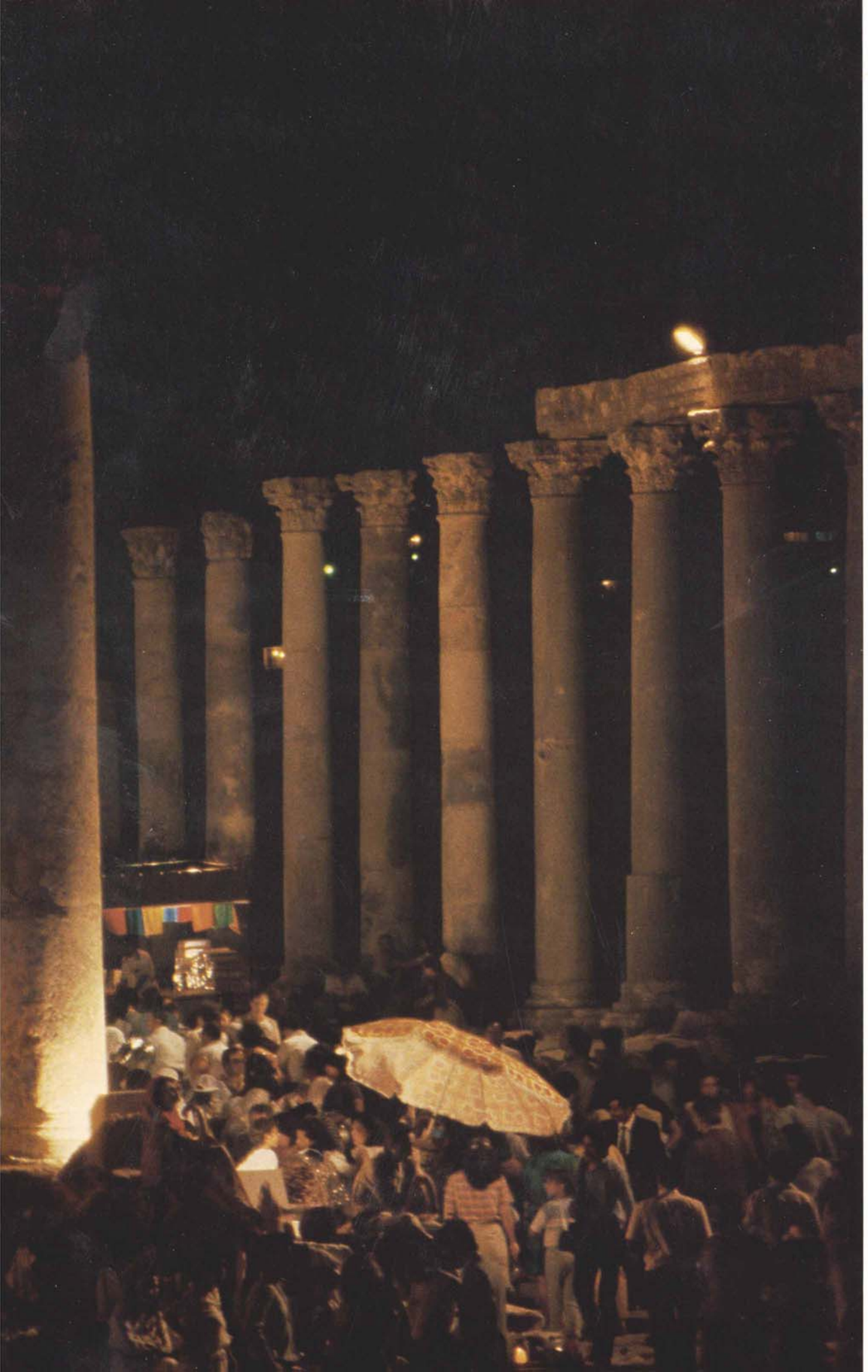
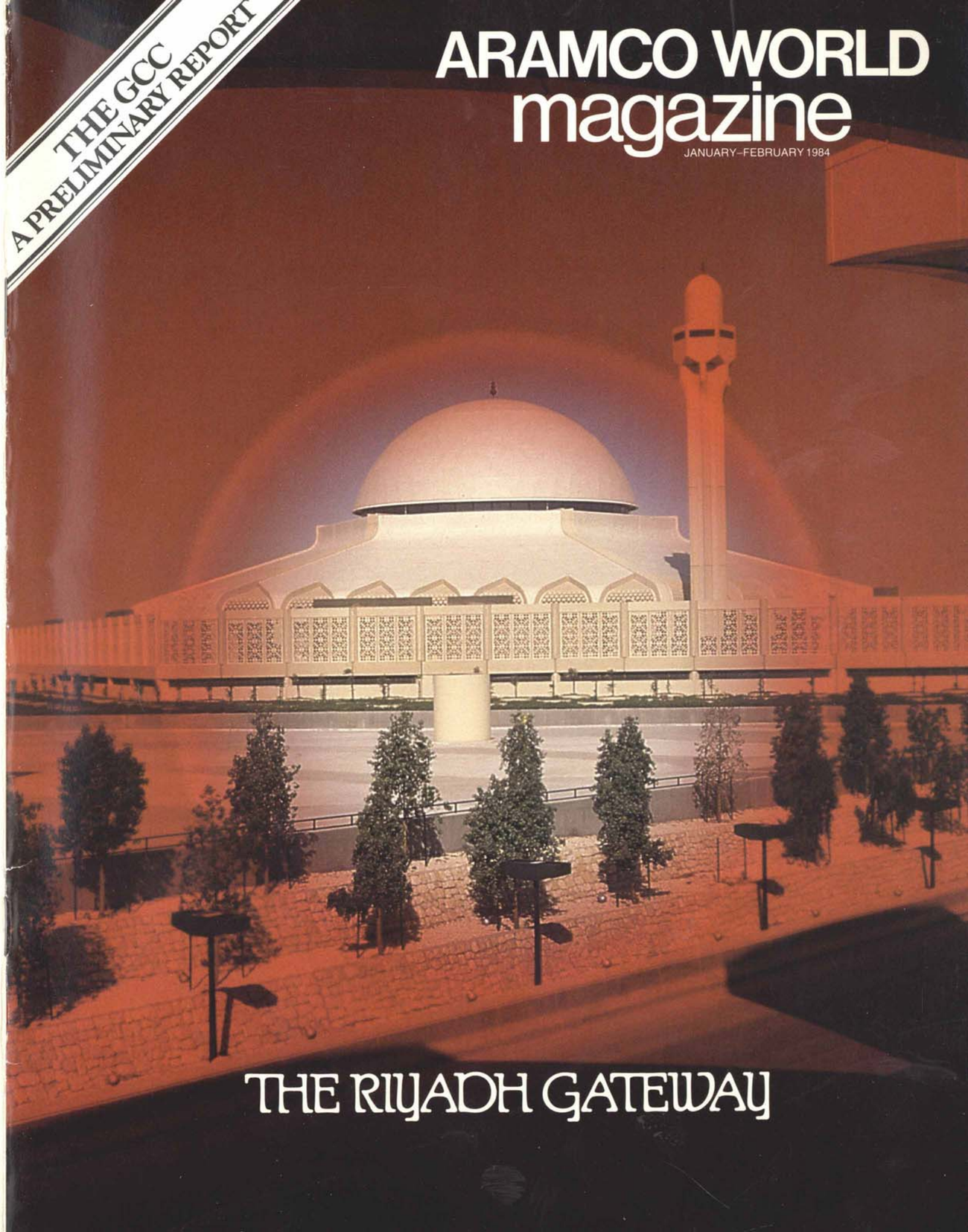


ARAMCO WORLD
magazine

THE GCC
A PRELIMINARY REPORT

ARAMCO WORLD magazine

JANUARY–FEBRUARY 1984



THE RIYADH GATEWAY

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Cover: Built well outside the bustling metropolis of Riyadh, the new King Khalid International Airport, gateway to the heartland of Saudi Arabia, is an architectural showcase: a complex of stunning structures that is at once airport, art gallery, garden and sanctuary. One of the highlights is a great mosque – shown here in Burnett H. Moody's filtered color – with an immense dome and a single minaret, the airport's visual pivot. Back Cover: Jerash at night during its festival. Photograph by Rami Khouri.

◄ In designing the new airport at Riyadh, architects combined futurism with tradition – including colorful, geometric patterns.

The Wounds of War

WRITTEN BY AILEEN VINCENT-BARWOOD
PHOTOGRAPHED BY KATRINA THOMAS

Last year, as the Israeli army laid siege to Beirut, a small freighter, the *Liban,* set sail from Egypt for Jounieh in north Lebanon. "Among the passengers crowded together in the hold," recalls David L. Guyer, "I immediately noticed three young children, who seemed to be traveling alone. The eldest was a girl about seven who was taking care of her two little brothers."

"The children were obviously terrified and clung to each other, accepting cookies now and then from the crew," says Guyer. "The little girl, Rashima, was doing her best to care for her brothers, Mahmud and Ali, who were five and three years old. She protected them from getting too near the rails, took them to the toilet and offered what reassurance she could."

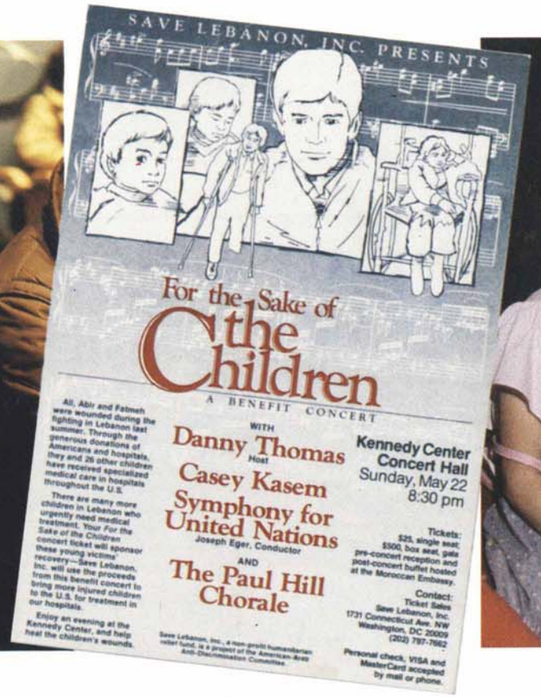
Guyer learned from the crew that the three young children had been sent to Egypt to escape the Beirut conflict, but, having been refused entry because they did not have the proper papers, had been kept on the ship to return to Lebanon alone. So when the ship docked at Jounieh, Guyer took the three youngsters by the hand and personally led them ashore. "You can't save the whole world," says Guyer, himself the father of six, "but sometimes you can save a little piece of it." In this case, Guyer was just the man to do it – for what Rashima and her brothers did not know then was that he was in fact president of Save the Children, one of the many relief agencies attempting to ease the suffering of the beleagured inhabitants of Beirut.

Together with Andre Karam, Save the Children's director in Lebanon, Guyer took Rashima and her two brothers to a hotel, got them a room, gave them a bath, clean clothes and food and brought in Lily Bouldoukian, the agency's health and nutrition coordinator. By talking to them at length, Lily learned that their house at Hay-Es-Sullum near the Beirut airport had been bombed and that they had fled with their mother to a village in the mountains where an uncle, a gardener named Tawa, lived.

"Lily named many villages," says Guyer, "and finally the little girl recognized the name of one near Baabda. We loaded the children into a car and drove up into the mountains – but nobody in the village knew a gardener named Tawa. Just as we were about to give up, a woman said, 'Oh, yes, there's a gardener about half a mile from here and I think that's his name.' A short way down the winding road, Rashima's eyes lit up and she cried, 'There's the gate! There's the house! There's the car!'"

"Sure enough, there was the gardener, their mother's brother, who had taken them under his wing," recalls Guyer. "There was a tearful, joyous reunion. They hugged each other and invited us in for coffee and fruit. But the mother was not there. She had heard on Radio Lebanon that Save the Children had found her children so she had rushed to the port. Finally, however, we found her – and the family was together again."

Reuniting that family Guyer said, was a miracle. "Thousands of children were lost in Lebanon. They happened to be lucky." Other Lebanese youngsters, however, were not so fortunate – many were killed, many were maimed and many were orphaned during eight years of civil war, invasion and the renewal of civil conflict. But for some of these



– the bone-deep burn – the amputated leg – the hidden scar –

Orchestra and choir (above) at Washington benefit concert for children (opposite page and below) injured in the fighting in Lebanon and taken to the United States for treatment.

children, there is now new hope – as international organizations, governments and individuals around the world join hands in an effort to heal the wounds of war.

In the United States, for example, some 2,500 Lebanese expatriates in America – and other Arab-Americans as well – crowded into Washington's magnificent Kennedy Center for the Performing Arts last spring and raised nearly $50,000 for the victims of war in Lebanon. Across the nation, other fund raising events and donations have netted an additional $333,800, and, as a result, some 40 or more Lebanese and Palestinian children have been brought to the United States and treated for particularly awful wounds of war – the bone-deep phosphorus burns, the amputated limbs and, deep in the mind, the hidden psychological scars.

The Washington concert was arranged under the Save Lebanon project of the American-Arab Anti-Discrimination Committee (ADC), which, since Israel invaded the country in 1982, has reunited families torn apart by war, placed orphans with U.S. families, set up a referral service for students needing housing and income, identified prisoners and, most importantly, brought 40 maimed and burnt children to the United States for specialized medical treatment – most of it given free either by the physician the hospital or both.

The stories of these children are heartrending. Three-year-old Mariam Shahla suffered an eye injury as she and her mother fled gunfire – and the cornea turned opaque;

Ode to Joy, *performed by the Symphony for United Nations, the Paul Hill Chorale group and guest soloists, symbolized new hope for the youngest victims of the war in Lebanon.*

Former U.S. Senator James Abourezk, founder of ADC.

Children wounded in the fighting in Lebanon arrive in the United States to start the long, hard road to recovery.

Ahmad Dbouk, 13, and his brother Ali, 11, both suffered severe burns trying to extinguish a fire that swept through their home – and even after plastic surgery doctors are not sure if the children will ever regain the use of their hands; and Sa'id Slim, 14, who picked up an unexploded bomb while playing with his friends; it went off in his hand and he had to have it amputated.

Such stories were obviously in the minds of the personalities who starred at the concert. As the host, Lebanese-American Casey Kasem, star of TV's *Top Forty,* told the audience: in war it is always the children who suffer most – not only the physical pain but the often deeper pain of having to grow up without parents. And Danny Thomas, another famous Lebanese American, and a popular TV comic said that the concert was a duty. "To be here," he said, "is a responsibility. I feel that I – we – owe it to these children, to our fathers' country, and to our own country to be here."

In a profoundly moving scene, Thomas also introduced 14-year old Amahl Qadi, who came to the United States to receive a new leg, and 15-year-old Fayizeh Amin, whose right leg was paralyzed when shrapnel from a cluster bomb shattered it. Both were being given rehabilitative treatment at nearby Holy Cross Hospital in Silver Spring, Maryland, and both received with shy dignity the thunderous applause accorded them by the audience.

Arab-Americans and Arabs are not alone in their efforts to help such youngsters. The U.S. State Department, for example, directed personnel in Beirut to speed up visas for the wounded.

Other help came from the Monsour Medical Center in Pittsburgh, which acted as a center to receive and evaluate the wounded. Meanwhile, 50 other medical facilities across the United States offered free treatment, including the Shriner's Burn Institute in Boston.

All around the United States, in fact, people were trying to help. Some examples:

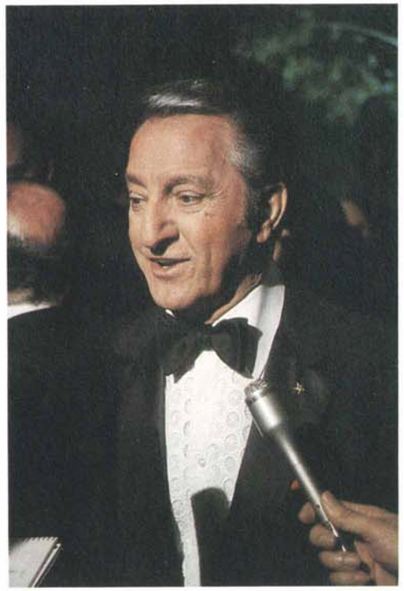
– In Syracuse, New York, according to the *Syracuse Post-Standard*, medical history was made at Upstate Medical Center by a spinal fusion operation performed on Ali Ghossen, one of the first cases to arrive in the United States.

– In Boston, doctors at the Retinal Institute carried out a laser operation that partially restored Ahmed Tourmus' sight.

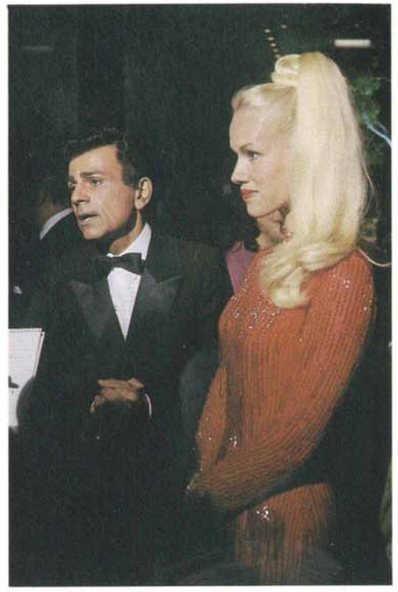
– In Richmond, the Richmond Children's Hospital offered to care for 10 children, and hospitals in Columbia, South Carolina; St. Louis, Missouri; Flint, Michigan; Minneapolis, Minnesota; Tampa, Florida; Chicago and Detroit, gave free medical care.

– In Madison, Wisconsin, an "Arab" banquet raised $17,000; in Boston, a fund raising drive netted $14,000; in Detroit, a $50-a-plate dinner at Detroit's Islamic Center raised $10,000; and in New York City, the Manhattan Islamic Cultural Society contributed $2,500, and a dinner at which $1,000 was raised.

– And on the night of the Kennedy Center concert, the Antiochean Orthodox Church of North America added $30,000 to the total.



Lebanese-American Danny Thomas, a popular TV comic.



Casey Kasem, star of TV's Top Forty, *and his wife.*

Expressing the feelings of many of those present that night, Danny Thomas said, "We can't know what these children have gone through. We can only guess the horrors they have experienced and must live with the rest of their lives. They must now be offered something which should not be denied the young and innocent: the chance to heal."

According to Janan al-Awar, a Lebanese-born-and-raised psychologist from John Hopkins University, and national coordinator of Save Lebanon project, getting the children to the United States is just the beginning of a long, hard process. "At first, they are very excited about being in America, and about their overwhelming welcome and response from the American communities. But after that they start to get homesick and a little apprehensive, a sort of 'what's-going-to-happen-now?' attitude. And some, of course, have a…long hard road ahead. They'll have to have new limbs fitted and learn how to use them."

Entire communities have been supporting the children since their arrival. In Pittsburgh, the response to them included letters, cards and money, and from every county in western Pennsylvania came declarations of support. In Utica, N. Y., support came from the Italian and Polish communities, the Black Pastors Association, the National Council of Churches, the National Association for the Advancement of Colored People (NAACP), and the Teamsters' Union. There was a raffle in New Orleans, an austerity dinner in New Castle and an auction in Detroit.

As for the Washington concert, it was a sell-out, its 55 sponsors including numerous well-known Arab-American names; included were Dr. Albert Attiyah, William Monsour, Abdeen Jabara, Mr. and Mrs. Edward Said, Archbishop Michael Shaheen and the Most Reverend Metropolitan Philip Saliba plus other celebrities and notables.

To "reflect the different emotions people have felt about Lebanon in the past year" to quote former Senator James Abourezk, founder and executive director of ADC, the musical portion of the all-Beethoven concert was divided into three sections: Creation, Destruction and Affirmation. For the last section the *Ode to Joy* from the Symphony No. 9 in D Minor was sung by the massed 200-member Paul Hill Chorale group – who donated their time and talent. It seemed an appropriate salute to the children of Lebanon who have suffered much, but have now been given new hope. As Danny Thomas said, "By saving the lives and limbs of Lebanon's children, whatever their race or creed maybe . . . we can restore Lebanon so that those who once lived together in peace and prosperity can, God willing, do so again."

Aileen Vincent-Barwood, a veteran free-lance writer, has covered Europe and the Arab East for magazines and newspapers in Canada and the United States.

A space-age oasis for jet-age caravans

THE RIYADH GATEWAY

WRITTEN BY DICK HOBSON
PHOTOGRAPHED BY BURNETT H. MOODY

At first, as you approach your destination, all you can see is a vast, brown, seemingly empty expanse; you have to blink away the notion that you're landing on the desert planet Arrakis in Frank Herbert's *Dune*. But then, after the aircraft touches down, you deplane and, through a carpeted air bridge, enter a sharply contrasting world: the stunningly modern passenger terminal of Saudi Arabia's King Khalid International Airport, the newest, biggest and, possibly, most beautiful airport complex in the world.

Even in a land of mega-projects – where facts so often sound like hyperbole – Riyadh's jetport is a showcase. Inside the domestic terminal, for example, sunlight streams through gaps in a great tiered roof, water cascades down tiled banks into a pool, fig trees grow out of the main staircase and, high above, a roof of 72 curved triangular panels spreads in tiers over a spacious concourse like a skein of migrating birds. It is cool, airy and clean – a space-age oasis for jet-age caravans.

The King Khalid Airport, gateway to the heartland of Saudi Arabia and to Riyadh, the kingdom's capital, is the second of three international airports that will be serving Saudi Arabia by 1988: Dammam, still to be built, Jiddah, the mammoth, prize-winning jetport and pilgrimage terminal which was opened 30 months ago, and Riyadh, which was dedicated by His Majesty King Fahd ibn 'Abd al-'Aziz in November and was opened December 5.

Like the other airports, the King Khalid complex will be an important hub of the kingdom's swiftly expanding air-transport nexus, and will be a center of operations for Saudia, the national airline. With the largest fleet in the Middle East Saudia averages 175 flights a day in or out of Riyadh including 39 international flights. Saudia will have exclusive use of two of the four terminals at King Khalid, one domestic, one international.

The Riyadh airport, however, is more than just another airline terminal. In response to specifications outlined by International Airports Projects (IAP), a directorate within the Ministry of Defense and Aviation, architects came up with a complex of structures that is at once airport, art gallery, garden, and sanctuary.

According to Major General Sa'id Yusuf Amin, IAP director and deputy president of the kingdom's civil aviation agency, the architecture of the Jiddah Airport was primarily to provide "service to the guests of God," a reference to the millions of pilgrims to Makkah (Mecca), who pour into Jiddah each year for the sacred *Hajj*, or pilgrimage. As a result, architects provided the unusual Hajj tent terminal (See *Aramco World*, July-August 1981) which won the prestigious Aga Khan Award for Islamic architecture in 1983.

In Riyadh, the point was to relieve air congestion in the capital's small outmoded field; the old airport was hopelessly clogged. But the new airport, IAP planners said, was also to be a facility befitting the capital. At Riyadh, IAP spokesmen told the

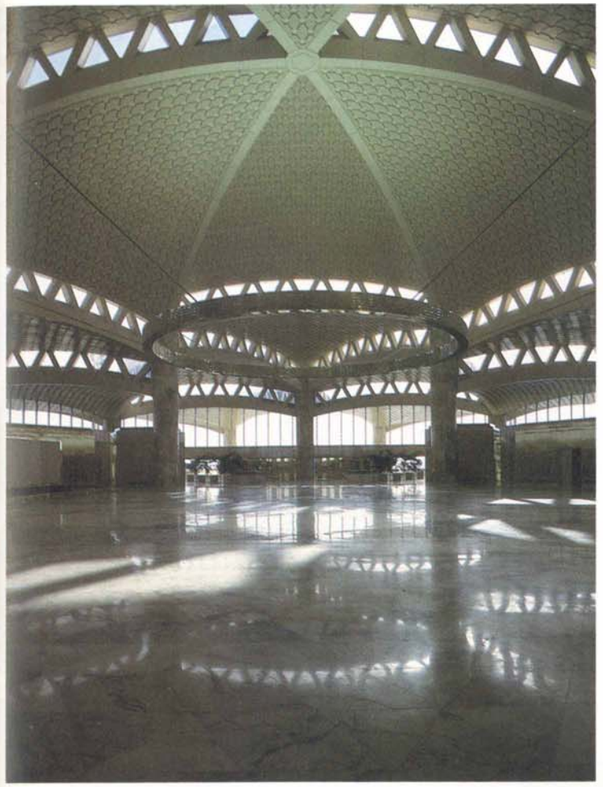
architects, the airport was to be spacious, comfortable, ultra-modern and fundamentally Islamic in character. It would also have to create a refreshing feeling of welcome, not only for Saudi citizens, but also for foreigners, including the heads of state and other dignitaries who come regularly to the capital. Finally, it was not to obtrude unduly on the stark beauty of the surrounding desert.

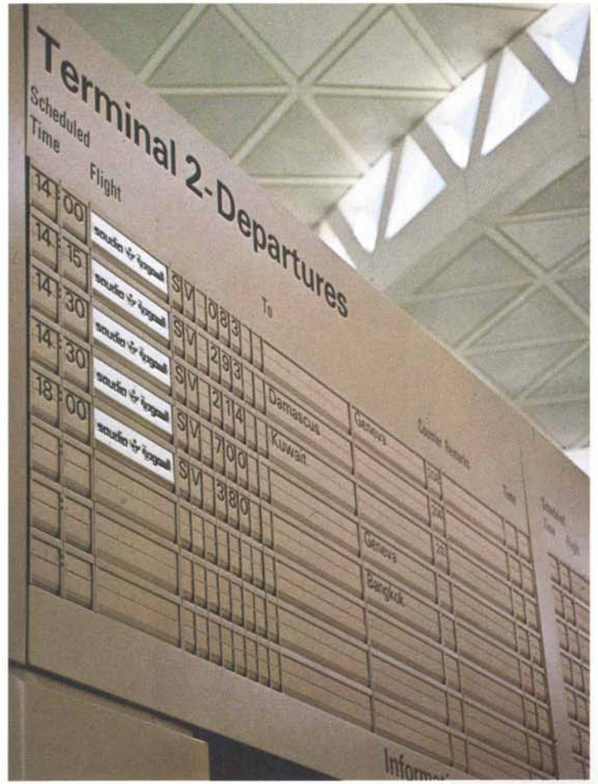
To the architects, Hellmuth, Obata and Kassabaum Inc. of St. Louis and San Francisco (HOK), this assignment was a challenge they eagerly accepted, and Gyo Obata, the partner in charge, and his team, met it brilliantly.

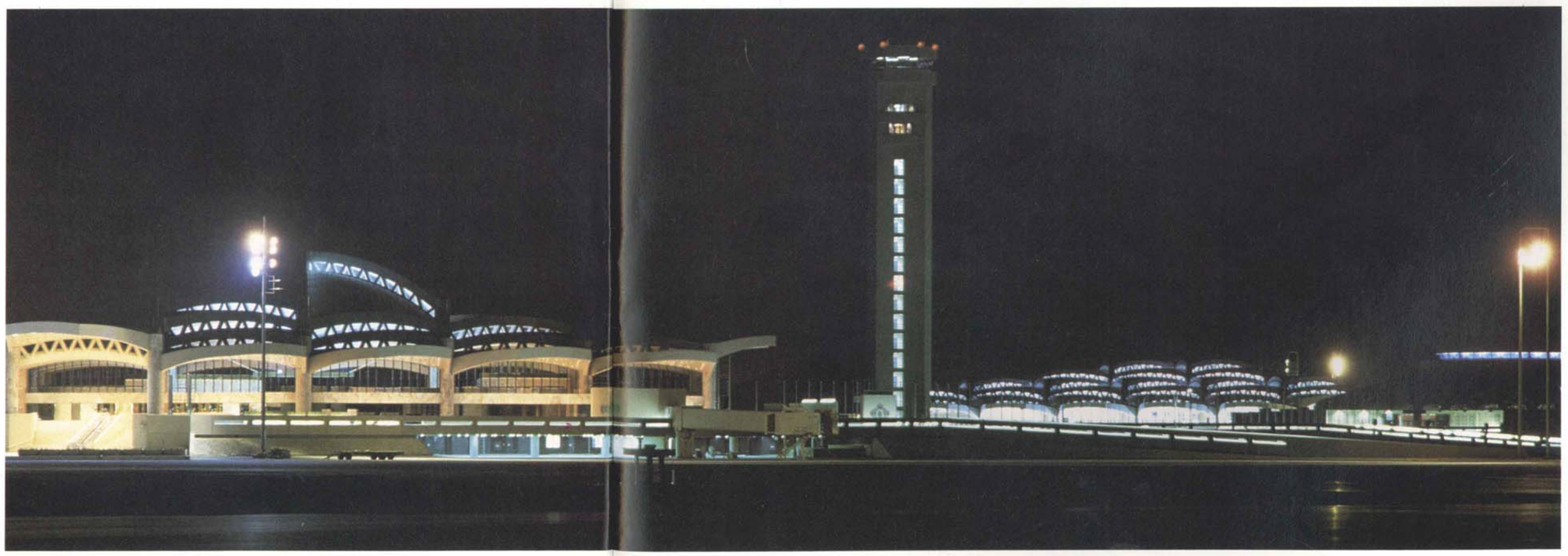
Built well away from the bustling metropolis of Riyadh, the airport lies on a great plain. From the control tower – at 81 meters (262 feet), one of the world's tallest – you can see a steep escarpment of the Tuwaiq highlands jutting up in the distance. Everywhere else is flat. The airport site stretches across 225 square kilometers (87 square miles), more than twice the area of King 'Abd al-'Aziz International Airport in Jiddah, which opened in 1981 as the world's largest (See *Aramco World*, November-December 1982), and in compliance with IAP's specifications the terminal complex and 65 support buildings are beige and off-white to blend with the brownish and blanched terrain, and the tiered construction of the four main passenger terminals and Royal Pavilion suggest low-slung

(Continued on page 14)

Above and right: an air of quiet efficiency permeates Saudi Arabia's King Khalid International Airport, the newest, biggest and, possibly, most beautiful airport complex in the world.

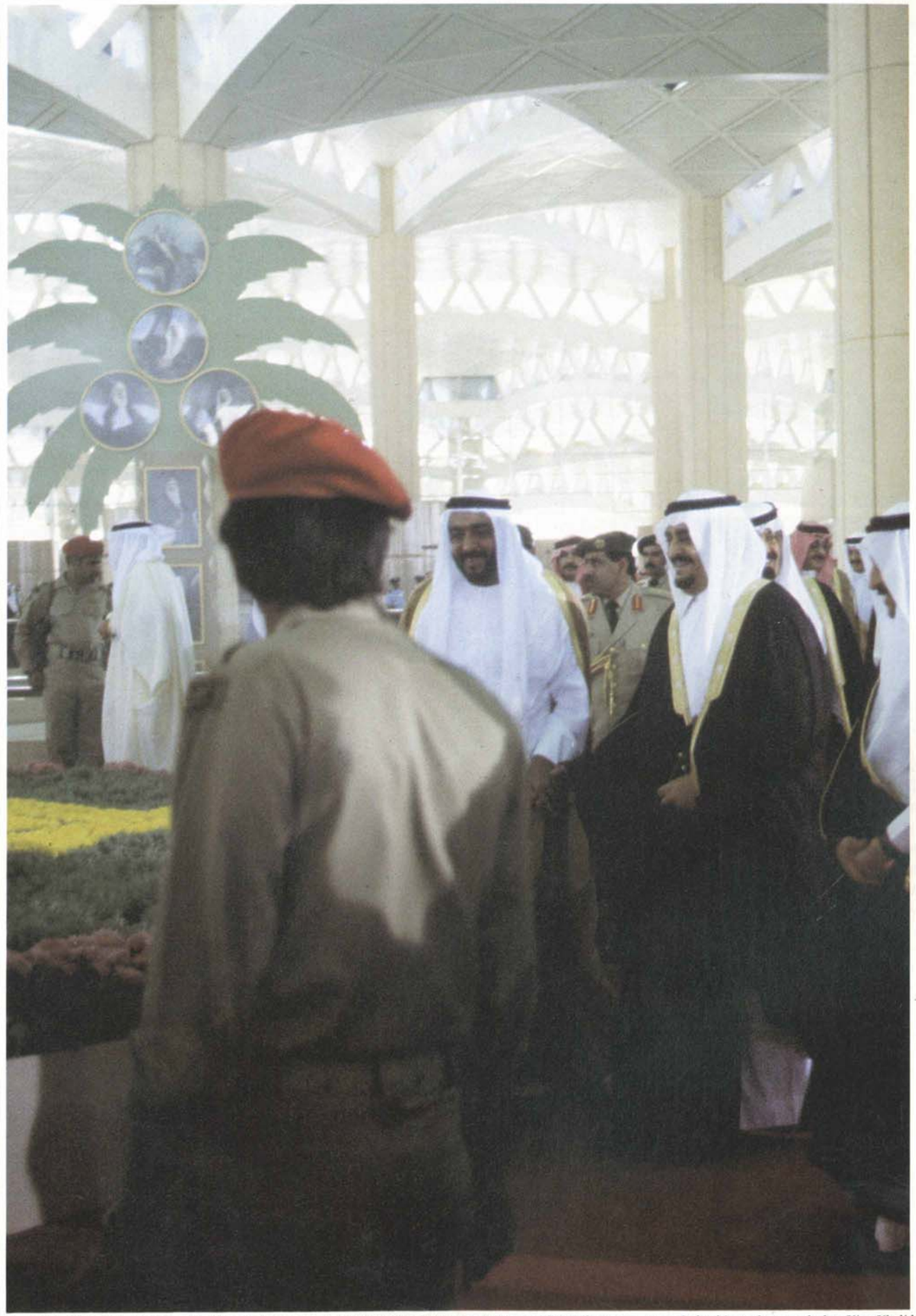






DEDICATION OF A MASTERPIECE

PHOTOGRAPHED BY BURNETT H. MOODY



King Fahd of Saudi Arabia (above) led the royal party at ceremonies (left) marking the dedication of Riyadh airport – named after his predecessor the late King Khalid.

"FROM THE INSIDE OUT"

WRITTEN BY DICK HOBSON

Architect Gyo Obata, chairman and president of Hellmuth, Obata and Kassabaum, Inc. (HOK), and the man responsible for the King Khalid airport architecture, says that all his projects "grow from the inside out." That is, the function of the structure – how people will use the indoor space – largely determines the rest of the design.

This HOK rule of thumb has been applied to works as diverse as the Galleria in Houston, Levi's Plaza in San Francisco and terminals at Dallas-Fort Worth and Lambert-St. Louis airports. It also has been applied to the highly praised National Air and Space Museum in Washington, D.C., which Obata claims can handle 60,000 people a day – without queues.

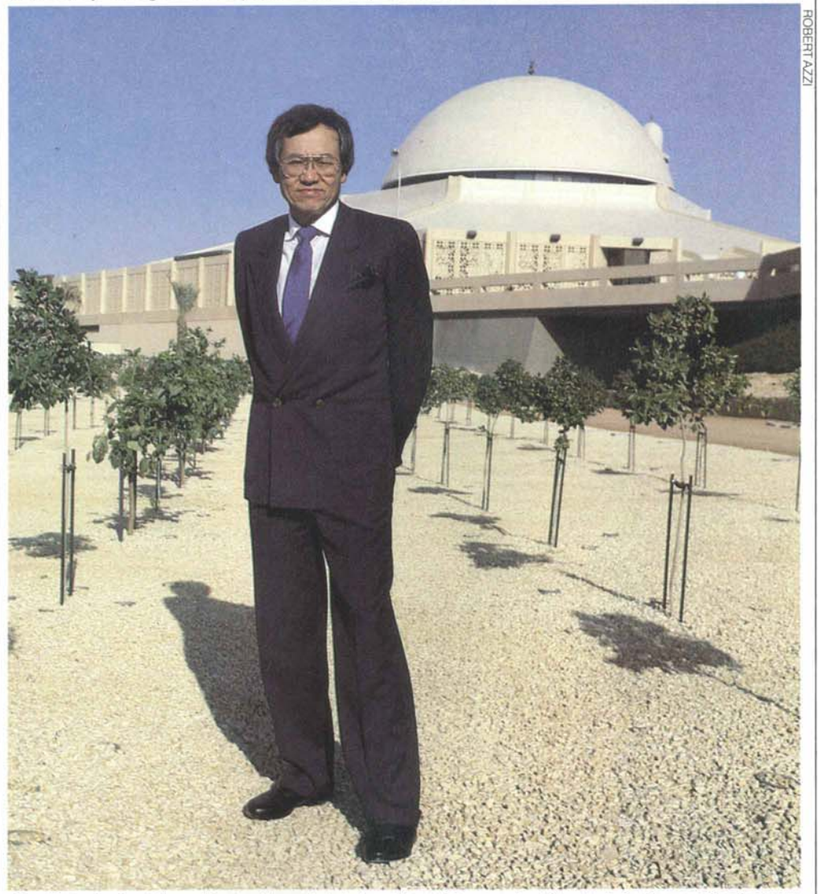
In Riyadh, Obata and his team – blessed with a lavish budget and virtually free creative rein – were able to work the inside-out principle with special flourishes like imported pink marble inside the Royal Pavilion and stained glass inside the mosque. "We had enough of a budget to use high-quality materials to enrich the interiors," said Obata from his office in St. Louis.

But it was at the passenger terminals that the basic design problems were resolved. The airport unfolded from there. "In most airports," Obata said "arriving passengers are shuffled through a lot of passageways and rooms without ever really getting a feel for the airport as a whole. We wanted to avoid this in Riyadh, especially because it would be the gateway to Saudi Arabia."

The aim, therefore, was to provide a memorable experience to both arriving and departing passengers – by ensuring that their movement through the terminals would be not only efficient, but engrossing.

The solution came, Obata said, from the positioning of the eight gates at each terminal, which is organized, pavilion-like, around a central garden with trees, a fountain, a waterfall and flowers. Arriving passengers descend through the terminal to the customs, immigration, baggage claim and pickup points below; departing passengers ascend to their gates from a middle-level mezzanine; and everyone using the gates is exposed to the full effect of the terminal design: they see the garden, hear the cascading water and absorb the natural light streaming through the roof.

The basic design only evolved, however, after an exhaustive study of Islamic architecture – "from Spain to China" – conducted with the help of a Harvard professor of Islamic art Oleg Grabar, Obata said. Traditional Najdi architectural forms – which are similar to the flat-roofed pueblo of the American southwest – also were examined. And while Najdi architecture was incorporated in the design of the new King Sa'ud University campus in Riyadh, for which HOK is the lead architect in a consortium of five firms, Obata wanted to reach beyond this for the international airport, he said.



ROBERT AZZI

Gyo Obata, leader of the architectural team that designed the striking complex of terminals for the new Riyadh airport

"We paid careful attention to several Islamic forms – the arch, the dome and also the use of geometry," Obata said. After analyzing a variety of shapes, the triangle emerged as the most suitable to accomodate numerous passenger waiting areas. As the simplest polygon, the triangle also proved the most versatile. "The basic triangular floor plan of the terminals developed into an entire triangular system throughout the complex," Obata said.

At the same time, Obata wanted to utilize the sunlight that shines during all but a few days during the year. The result was the system of 72 gently curved triangular sections that rise above the terminal concourse in six tiers to a center height of 33 meters (108 feet). "Lifting these arches brought in the beautiful, natural, soft light," Obata said.

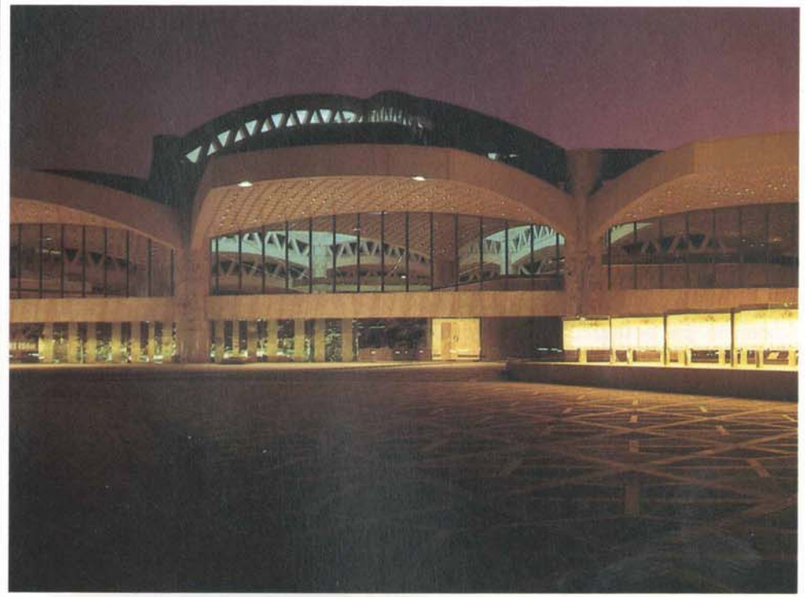
This design is strikingly modern, but with an Islamic feeling: the terminal roofs domelike and richly geometric. And at numerous points in the complex, especially in the pavement patterns and at the mosque, the theme of triangles gives way to hexagons, a favorite Islamic motif – the geometry used both ornamentally, as in the sidewalks, and structurally, as in the geodesic dome of the mosque and the terminal roofs.

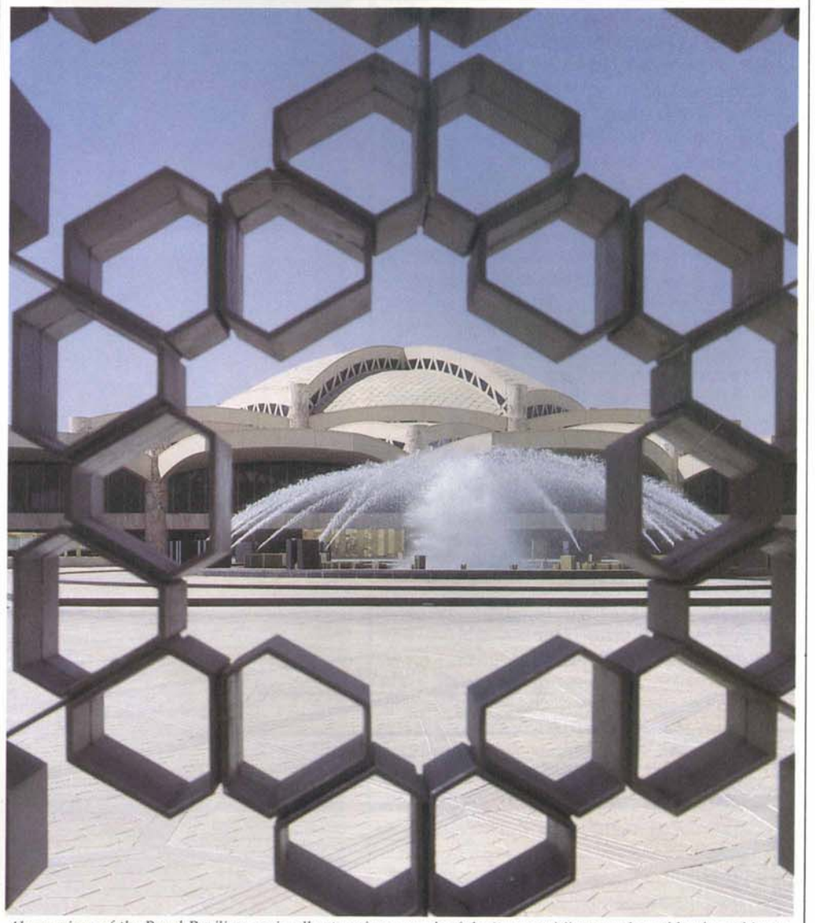
One curious footnote to the airport design is the layout of the runways and terminals. As at all airports, the runways were positioned according to a "wind rose," a meteorological diagram showing the relative frequency and strength of winds from different directions. The four main passenger terminals were positioned on a line parallel to the two main runways. On the perpendicular to this line went the mosque, ceremonial mall and royal pavilion. As it turned out, according to HOK, the southwest directional of this axis points toward Makkah (Mecca).

It may be less of a coincidence that three of the most distinctive examples of modern architecture in the Arab world are all at Saudi airports and that two of them were designed by Japanese-Americans. Obata's work in Riyadh was preceded more than 20 years ago by a terminal at Dhahran International Airport designed by Minoru Yamasaki. Writing in the May-June 1971 Issue of *Aramco World*, architect Friedrich Ragette said Yamasaki's work, completed in 1961, "was one of the first examples of modern 'Arab' architecture and has influenced subsequent design throughout the Middle East." But Obata, who worked in the same firm as Yamasaki for about four years prior to 1955, downplays the brief association. "Yama and I have gone totally different ways. He is more classical and symmetrical."

As to the third example, the late Fazlur Khan's Hajj terminal in Jiddah, a great tent (See *Aramco World*, July-August 1981), Obata was enthusiastic: "a marvelous solution" to the problem of protecting the huge numbers of people who use the terminal.

George Hellmuth, one of the founders of HOK has called the Riyadh airport "Gyo's masterpiece" – but Obata demurs. "If an architect says that one piece is his masterwork, it sounds as through his creativity has ended. Every project has its own set of problems to solve and a million variables to be considered. I do feel it was one of my best works, but at the same time I would hope that I have not yet reached my peak." With works like the Riyadh airport to his credit, there is good reason to hope that Gyo Obata, who turns 61 this February, has yet to reach that peak.





Above: views of the Royal Pavilion, a visually stunning example of the "geometric" approach used by the architects.

tents. Only the control tower and central mosque alter the natural skyline; with its immense dome and single minaret, the mosque is the airport's visual pivot.

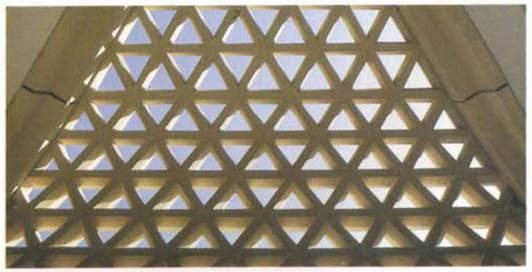
Up close, the airport unfolds as a tightly integrated whole that is a stunning blend of futuristic and traditional Islamic design concepts. In designing the mosque and Royal Pavilion, HOK achieved this synthesis through geometry. The simple triangle – geodesic à la Buckminster Fuller – is the dominant theme, leading by extension to the hexagon, both fundamental shapes in the richly complex patterns of traditional Islamic ornamental design.

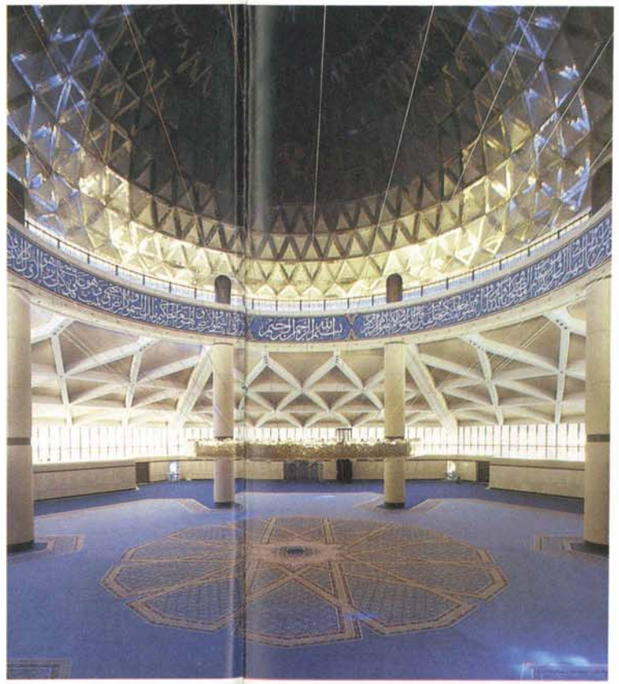
Obata and his team have created a terminal complex in Riyadh that is an overall, three-dimensional arabesque. The passenger terminals, with their interior garden courtyards, are essentially triangular and the pre-fabricated roof panels are gently curved triangles, supported on structural steel arches laced by triangular braces that frame triangular, double-insulated windowpanes. Even the carpeting in the waiting areas pick up the triangular pattern of the ceiling and lights shining upwards are contained in large, stainless steel cannisters in bundles of three.

The Royal Pavilion, a smaller version of the main passenger terminals, is also triangular – as is the stem of the control tower; it is capped by a six-sided observation room. And the blocks of stone in the walkways, inside and outside the terminals, are hexagonal – as are countless joints, metal grids and other details throughout the complex.

The design of the mosque pursues this theme even further. Large enough to hold 5,000 worshippers, the mosque is a huge hexagon. Six columns support its geodesic dome – which measures 33 meters (108 feet) across and is triangulated by more than a thousand panels of shiny brass – and the ceiling that slopes away from the dome is triangulated by steel beams supporting triangular tiles of ceramic. And outside, there is a hexagonal courtyard – which can hold up to 4,000 more people – surfaced with blocks of crushed stone laid in hexagons, quadrilaterals and triangles.

Inevitably, the airport's geometry engages the intellect – precisely as the great Muslim masters of the decorative arts intended. As art historian and designer Claude Humbert put it, geometry lent itself to the Islamic artist's task of communicating an inspired inner world to others. In tracing the elements of a polygonal design, he suggested, "all other thoughts and preoccupations are driven from the mind. It can even induce a physical state of abstraction."





Right: the King Khalid Airport mosque, like the rest of the airport complex, is a stunning blend of futuristic and traditional Islamic design.

The logistics of the King Khalid Airport also presented a challenge. Just the planning and economic analysis – which started nearly 10 years ago – ran to 30,000 pages of reports, and the budget for the project approached $3.2 billion. At the peak of activity, more than 14,000 workers were engaged and 66 separate construction contracts were let – more than a third of them to Saudi firms.

The project required hundreds of thousands of tons of freight from around the world: cement from Spain and Greece, structural steel from Korea and Japan, wire mesh from Germany and countless special items such as 34 passenger air bridges – manufactured in Texas and shipped intact on roll-on, roll-off cargo vessels. For the mosque, Travertine marble was quarried in Italy, shipped to England, where it was etched with kufic script, and then sent to Riyadh to surface interior walls. The marble facing of the outside walls was carved with floral designs in Italy; woodworking companies in Syria, Switzerland and Jiddah worked geometric designs into teak, mahogany and oak doors; and the immense hexagonal carpet bathing the entire floor in a soft slate blue, was woven in Hong Kong.

To house the work force, the contractors – Bechtel Saudi Arabia Ltd. – built a 10,000-man compound – as well as a 36-bed hospital. Built as a permanent facility, the hospital delivered more than 100 babies born to wives of workers during the construction phase. A permanent mini-city to house airport personnel and their families also was constructed; it contains more than 500 apartments, town-houses and villas as well as schools, a mosque, grocery store and recreational areas.

Construction contractors also put up rock-crushing, asphalt and concrete batch plants near the site, built water treatment plants, fed by four wells drilled a mile deep, constructed a sewage plant with a 2.7 million-liters-a-day (700,000 gallons) capacity, an elaborate jet fuel storage and pumping system, and emergency generators that can restore power to the airport within 20 seconds of an outage.

Other support facilities include a series of administrative buildings, a fully automated air cargo warehouse with over 56,000 square meters (600,000 square feet) of covered space, and a meteorological center. In addition, a central food plant was erected to serve up the thousands of meals consumed daily in the airport's numerous snack bars and restuarants. In ultra-modern kitchens, this center also provides in-flight catering to Saudia.

In all, the construction of the airport required 7.8 million concrete blocks, 86,100 metric tons of rebar, more than 7 million tons of aggregate, over 408,000 tons of cement and 29.6 million cubic meters of earthworks.

To cope with such massive logistical problems, Bechtel, a firm with experience in huge Middle East projects, installed a powerful computer at the job site and opened logistics control offices in Dammam, Tokyo, Rotterdam and Baltimore. Using satellite information relays, this system enabled Bechtel to track shipments every step of the way between point of origin and project site – and intervene when there was a snag. Company spokesmen say the system shaved costs by minimizing lost construction charges.

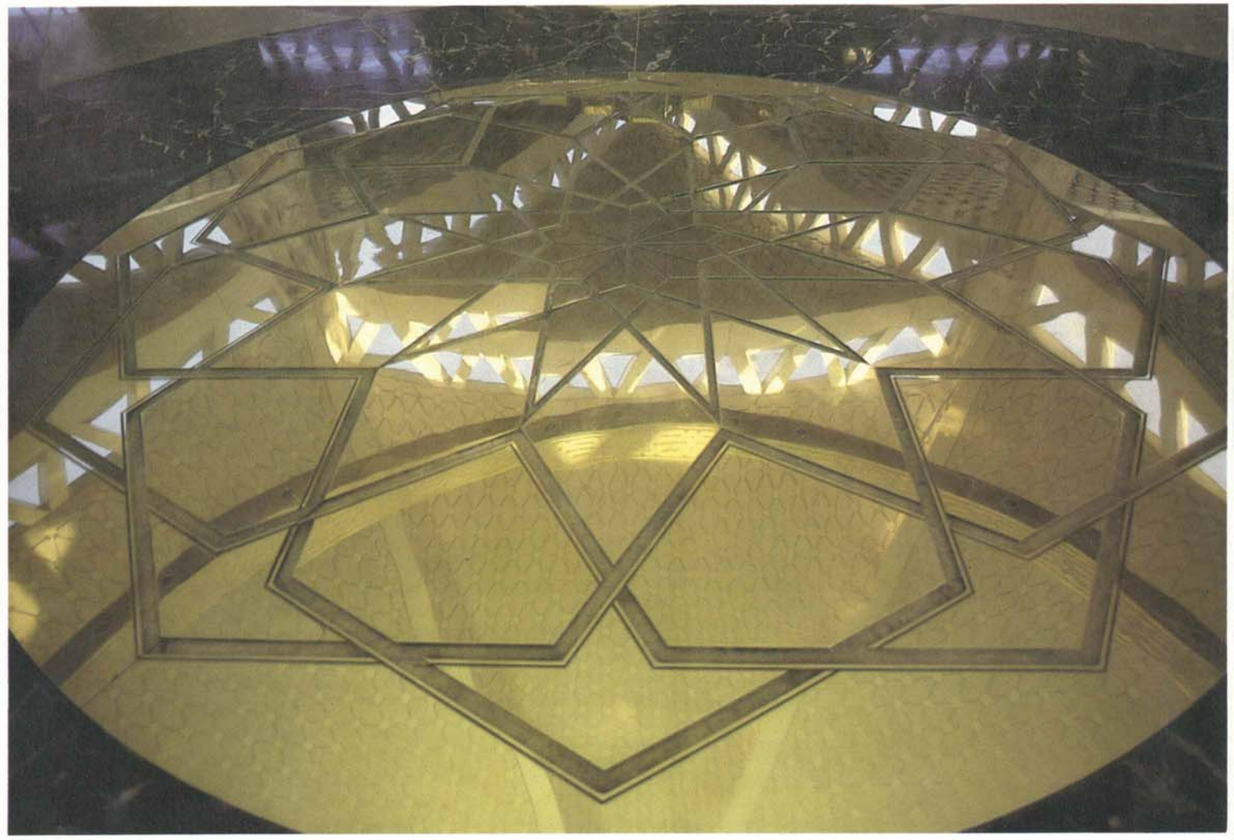
Next came the greening of the airport: an estimated 750,000 plants, including more than 300 varieties of trees, shrubs, flowers and creepers. Most were placed by hand along the access roads, on embankments and in or around the terminals, mall, mosque and pavilion. And most were nurtured from saplings or propagated from clippings in the airport's own greenhouse.

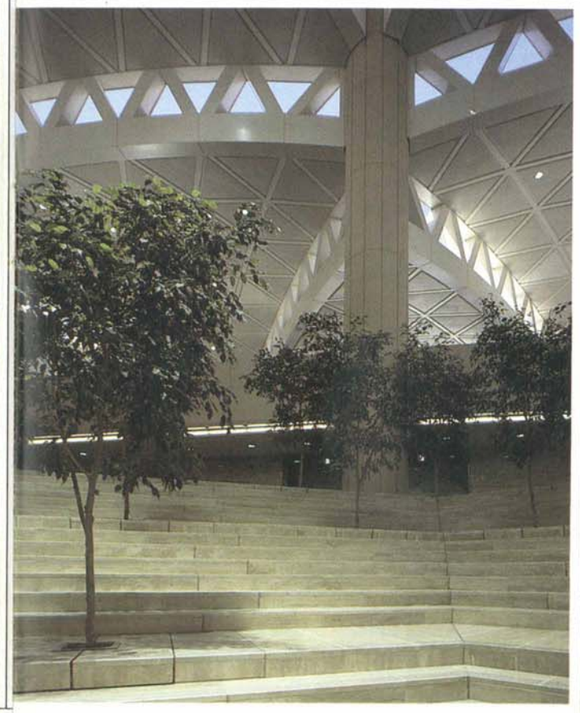
The landscaping also had an international flavor. Planeloads of Mexican fan palms from Southern California arrived with their roots bare, in accordance with government regulations designed to limit the importation of plant disease by keeping out pathogens contained in potted soil. Indoor plants arrived mainly from Britain and Holland, and date palms were shipped from the al-Hasa oasis in the Eastern Province. Nutrients, root stimulants and anti-disease agents were injected into a special soil mix at the greenhouse, where pots and other equipment are regularly fumigated with methyl bromide in a gas chamber. These and other measures have cut the plant death rate at the nursery to less than five percent – extremely low by any standard, according to Al Petrie, a desert plant specialist from Tucson who runs the operation.

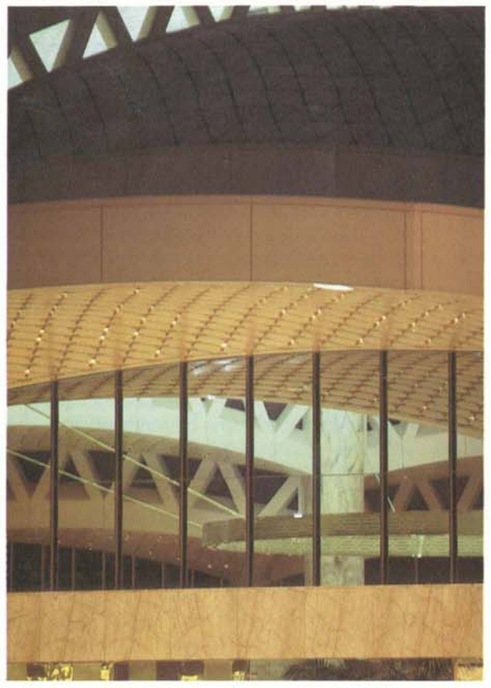
Nearly every outdoor plant at the airport is watered individually through a network of underground drip lines. To conserve water, treated effluent from the sewage plant irrigates the greenery. Fertilizers and nutrients can be injected into the system.

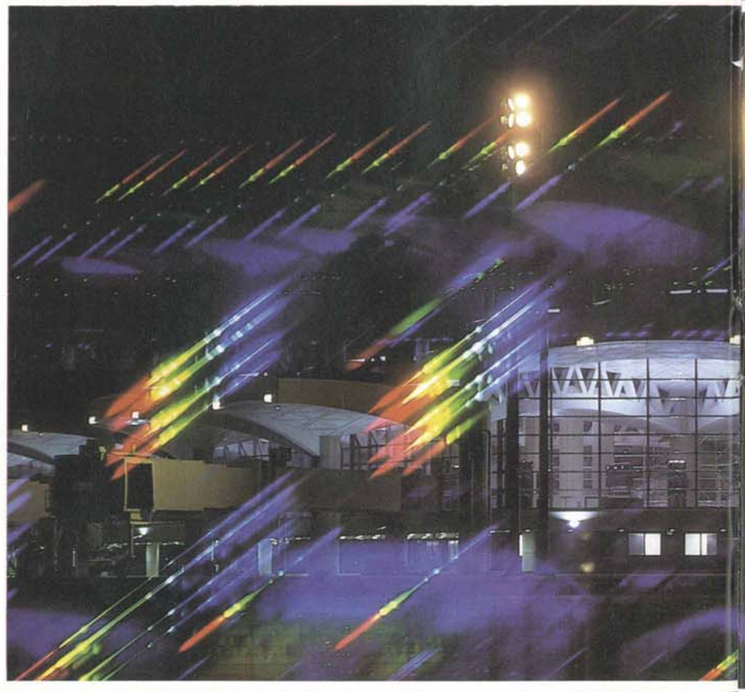
"SYNTHESIS THROUGH GEOMETRY"

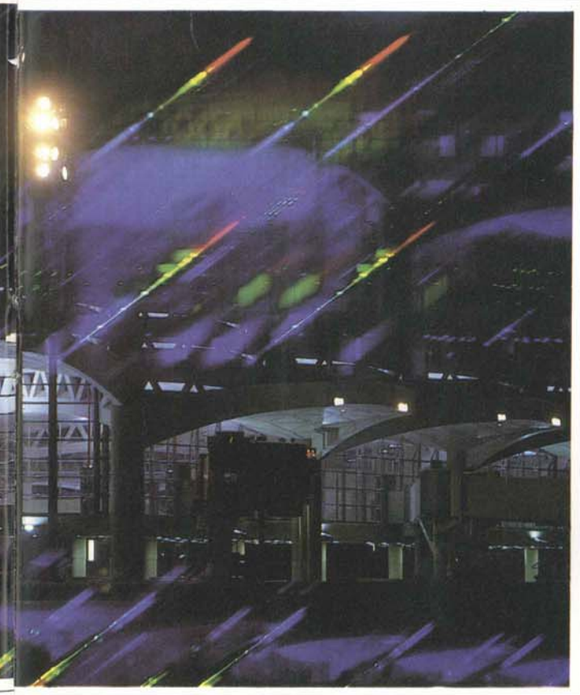
PHOTOGRAPHED BY BURNETT H. MOODY











Meanwhile, flowers at the indoor fountains and in beds throughout the terminal are changed the moment they begin to lose their bloom. Petunias, for example, may appear one week and mums the next.

The result is an airport that is refreshing, as well as comfortable, and permeated by an air of quiet efficiency. You can have moments of pleasure here. As one Saudi from the Eastern Province said upon seeing the indoor garden at the Saudia domestic terminal for the first time, "I feel I don't want to leave this place."

At King Khalid, it is easy to get around – and get to. The airport has 80 escalators and elevators serving the terminals, the mosque and the sprawling three-level parking complex, and buses operated by the Saudi Arabian Public Transport Co. (SAPTCO) leave downtown Riyadh for the new airport every half hour from before sunrise to just before midnight.

If you drive, you can easily find a spot among the 7,500 spaces now available at the parking complex, a capacity that is growing to 11,600 spaces under the second-phase construction program. Conveniently located in front of the terminals, it provides a striking contrast to the mad and exasperating scramble for scarce parking spaces at the old airport.

The new airport is the first in Saudi Arabia to have moving walkways, which hurry passengers and their baggage between the domestic and international terminals at nearly one meter per second. It is also the kingdom's first airport to rely exclusively on the "air bridge" for boarding and deplaning. In Jiddah, for example, most passengers are shuttled between plane and terminal in hydraulic mobile lounges, while in Dhahran they walk off the plane and into waiting buses. There are eight of these retractable corridors at each Riyadh terminal and two at the Royal Pavilion.

Continuing a program begun for the Jiddah airport, airport authorities also commissioned works of art for the public areas of King Khalid International. But whereas artists from throughout the Arab world were commissioned for the Jiddah project, in Riyadh mostly Saudi artists were used. IAP's Major General Amin, who was personally involved in the year-long talent search, said, "We felt that most of the art works on view should be by Saudi artists, in order to provide an appropriate welcome for visitors to the capital." An art committee comprised of Saudi and international art consultants, including the Vesti Corp. of Boston, chose an impressive array of mostly modernistic paintings, murals, mosaics, tapestries and sculpture that add bold splashes of color and pockets of interest to the airport facilities.

The size and beauty of the King Khalid airport is testimony to the growth of Riyadh. In the early days of the kingdom, Riyadh was a remote desert town; only the most intrepid foreigners ventured there. Air travel and several decades of development, however, have changed that; today Riyadh may be the largest city in the kingdom. Furthermore, it has become an important commercial and banking center and the home of the Saudi Arabian Monetary Agency (SAMA). Riyadh also has the most sophisticated medical centre in the kingdom, King Faisal Specialist Hospital (See *Aramco World*, July-August 1979) and two of the largest universities: King Sa'ud University with 22,000 students and Iman Muhammad ibn Sa'ud Islamic University with 11,000. Riyadh is also headquarters of the Gulf Cooperation Council (GCC) (See page 22) and the regional home of several international agencies.

And, of course, Riyadh is the seat of a highly centralized government whose role in international energy, monetary and diplomatic circles is well known. By the end of this year, moreover, most of the embassies long based in Jiddah will have moved to the new Riyadh Diplomatic Quarter, a self-contained city within the capital.

Accordingly, Riyadh is opening its doors to the world. With the inauguration of the new airport, the Saudi government has granted landing rights in the capital to foreign carriers for the first time. Previously, foreign commercial airlines had regularly scheduled access only to Jiddah and Dhahran. Among the initial foreign users in Riyadh are Gulf Air, Kuwaiti Airlines Yemenia, Swissair and Air France. According to civil aviation officials other international carriers keen on entering the Riyadh market can be expected to follow suit, pending bilateral negotiations.

In planning the airport, civil aviation planners decided to take the long view; thus they built a new airport that would run little risk of outgrowing itself or being squeezed out anytime soon. The airport was designed to handle 20 million passengers a year, nearly three times the current demand.

Air traffic to and from Riyadh, in fact, has already increased sharply, and all indications are that the pace will continue, or even accelerate. In 1975, less than a million passengers boarded or deplaned in the capital, but by 1983 the total was roughly seven million and by the turn of the century could be 15 million – by which time Riyadh's swelling population will have passed the two million mark, according to current projections. This is why such a huge site was staked out for the new airport.

Flights from Riyadh already link the capital with numerous foreign destinations: Cairo, Karachi, London, Paris, Khartoum, New York, Kuwait, Bombay, Bangkok, Athens and Frankfurt. Domestically, Saudia shuttles more than 200 times a week between the capital and Jiddah and 190 times to or from Dhahran. Other well-traveled routes fan out across the kingdom to Qasim, Taif, Medina, Abha, Tabuk, Jizan, Hail and Hofuf.

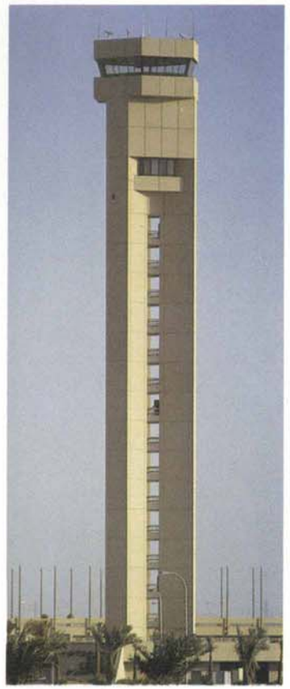
The kingdom's network of 21 domestic airports and three international airports represents a dramatic turnabout for a nation that four decades ago had no civil aviation program whatsoever. The kingdom's first aircraft was a DC-3, presented to King 'Abd al-'Aziz by President Franklin Roosevelt at their historic wartime meeting of 1945 in the Suez Canal Zone. Later, the king ordered two more Dakotas and, with this fleet of three planes, Saudi Arabia made its belated entry into the age of aviation.

The impact of the kingdom's extensive modern day network of aviation facilities on the Saudi people and the national economy cannot be overstated. As Major General Amin points out, it has both enriched the lifestyles of the citizenry and contributed toward boosting the standard of living generally.

"It goes without saying that the civil aviation system is one of the lifelines of the nation. Without our air transportation system, our economy could not flourish and grow."

Amid this nexus, King Khalid International Airport is destined to become a centerpiece. While not nearly as busy as such overworked feed airports as Heathrow or JFK, it is a world-class airport dispatching world-class jets at a pace that makes its computerized flight information boards flutter, especially on Wednesday evenings, the start of the Saudi weekend. And with ample room in which to expand its operations, the Riyadh gateway – airport, art gallery, garden and sanctuary – will offer a welcome to generations of travelers as warm as the legendary hospitality of the desert on which it was built.

Dick Hobson, a former reporter with the Miami News, *writes on Saudi Arabia for* Aramco World magazine.



Right: a computerized control tower and cool, clean passenger terminals cater to the safety and comfort of the space age traveler.

BEETLE OF THE GODS

WRITTEN AND PHOTOGRAPHED BY TORBEN B. LARSEN

The scarab, *khunfus* in Arabic, is a typical beetle – medium-sized and jet black – and most people would not give it a second look if they chanced on a specimen in nature. To the ancient Egyptians, however, the scarab was a symbol of the sun, of rebirth, of life itself.

In Egyptian art, consequently, some of the finest examples are devoted to the scarab. It is, moreover, one of the characters in the hieroglyphic alphabet, and because of its popularity in Egypt, its fame spread through the Mediterranean basin, even becoming part of the culture of the Etruscans and the Greek colonies of North Africa – quite an achievement for an undistinguished beetle of questionable habits.

To an extent, this all came about because the life cycle of the scarab fused with the content and evolution of ancient Egyptian mythology. Actually, the term "scarab" covers a multitude of closely related beetles with similar life styles and appearance, and the Egyptians probably accepted several different types as sacred. But the species that impressed them most was the "Sacred Scarab" (*Scarabaeus sacer*) and its closest relatives – as some of the best paintings and sculptures make clear: they contain such precise detail that entomologists can recognize them.

Despite its exalted status in art, the scarab has habits that would seem to disqualify it from glory, since as larva and adult it lives in and near animal dung – in safe underground burrows which it has hollowed out with forelegs specially adapted to be effective shovels.

It is not immediately obvious that a scarab can fly, but under the tough black surface of the body lie some folded, transparent wings. Thus, when the scarab is hungry, it simply flies off somewhere, rolls up a perfectly formed ball of dung and transports it to the burrow or another safe place where it can be enjoyed at leisure. Such a ball is far too heavy for air freight, of course, so other means have to be considered; some beetles roll the ball across the ground, often over a considerable distance, and usually in a straight line.

The single-mindedness of a scarab trying to overcome an obstacle in its path has to be seen to be believed. When facing, for instance, a steep ditch, the scarab, ball and all, often falls, head over heels, time and time again. But each time it repositions the ball, reviews the routes, pushes up the ball, and falls down again, like Sisyphus of Greek mythology who, on arrival in hell, was condemned to push a huge stone to the summit of a mountain only to watch it roll down over and over again. Unlike Sisyphus, however, the scarab eventually succeeds. And to the ancient Egyptians, this success was important.

...a symbol of the sun ...of rebirth ...of life itself...

When a female scarab has mated and is ready to breed, she builds a special underground chamber, sometimes as deep as 30 centimeters below the surface (12 inches) and rolls several balls into it, forming a pear-shaped mass in which she lays a single egg. It is important that the ball – food for the larva – be moist, because the larva will die of starvation if the ball dries out and hardens. Once her preparations are made and the egg laid, the female seals off the chamber, camouflages the entrance and wanders off to repeat the process somewhere else. Compared to most insects she lays only a few eggs, but because of her care and attention to detail, they nearly all produce offspring.

Meanwhile, underground, a tiny larva hatches from the egg and begins to grow, taking care not to breach the wall of the pear-shaped lump. By the time the dung is devoured, only a thin crust remains, and the larva, now fully grown, strengthens the crust with a glue secreted from the body and reaches pupa stage, at which a new scarab will eventually hatch.

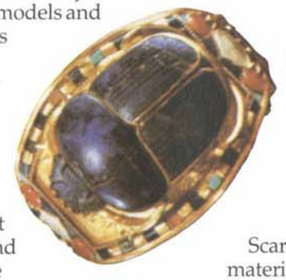
Since the ancient Egyptians did not know of the underground transformation from egg to larva to pupa – and finally to fully formed beetle – it must have seemed that new scarabs were suddenly created out of nothing – as one Horapollon, writing on a papyrus some 2,500 years ago, indicated. "The scarab buries her ball in the ground, where it remains hidden for 28 days, a space of time equal to that of a revolution of the moon, during which period the offspring of the scarab quickens. On the 28th day, which the insect knows to be that of the conjunction of the sun and the moon and the birth of the world, it opens the ball and throws it into the water. From this ball issue animals that are scarabs."
Horapollon was right on at least one count: when conditions are suitable, the whole development from egg to adult takes about a month – one revolution of the moon.

In Egyptian mythology, meanwhile, one of the most important gods in the multifaceted Pantheon is "Ra" (or Re) – god and creator of the sun, often depicted as a man with the head of a hawk. That a sophisticated civilization like Egypt's should have chosen the sun as the basis for a deity is hardly surprising; the daily rise of the sun, its passage over the blue skies of Egypt and its subsequent disappearance certainly suggested divine power. But how, struggling in dung, does the scarab come to symbolize the magnificence of the sun?

Apparently, the scarab rolling its ball with grim determination in the face of all adversity seemed to ancient Egyptians to be similar to the relentless movement of the sun – as burial of its ball resembles the sun sinking into western deserts. More to the point, new shining scarabs emerge miraculously from the ground every turn of the moon; thus mythology embraced the concept of a giant insect carrying the ball of the sun across the sky every day, a stand-in for Ra, its creator. Through the god Khephri, every morning, there was a rebirth of the sun. Soon the scarab evolved into a symbol of rebirth in general.

The emergence of the scarab in Egyptian mythology dates back to the Old Kingdom more than 4,000 years ago, but it was during the New Kingdom (1570-1085 B.C.) and later that it proliferated in an increasing number of roles. Nowhere is the scarab more beautifully depicted than in the funerary artifacts of the boy-king Tutankhamen – "King Tut." For example, the royal cartouche of Tut's "throne-name," Nebkheperura, includes a scarab illustrating phonetically the *khepr* component of the name, derived, of course, from Khephri.

Many of the scarab images produced in this period were done with such precision and attention to detail that they can almost be identified to species level by beetle specialists. Special attention is paid to the six bulges on the head and to the claws of the forelegs, both special adaptations to assist in digging; they are, in effect, shovels. It is clear that in many cases artists must have used real models and observed proportions accurately.



During the New Kingdom and later, Khephri began to assume a broader symbolic role. Because it symbolized rebirth, it was used in tombs and liberally placed in the shrouds of mummies; many mummies from this period have a particularly large scarab placed in the position of the heart, with an inscription containing a spell designed to ensure that the heart would not bear false witness when the soul of the deceased faced the divine judges.

Scarabs were also used as seals by senior religious and bureaucratic officials. In the Egyptian museum in Cairo, for instance, there are boxes of funerary statuettes sealed with the scarab seals of the priests of Amon.

Various forms of commemorative scarabs also became popular and were sometimes produced in quantity – much as the British upper classes record their doings through advertisement in *The Times*. One such scarab commemorates the marriage of Pharaoh Amenophis III to Queen Tyi – when the Pharaoh slaughtered 102 lions – and another says: "Memphis city is mighty forever," rather like graffiti in favor of a football club. Another expresses hope – "May thy name endure and a son be born unto thee" – and still another extends good wishes: "May Bubastis grant you a good year." Since many scarabs contain the names of personalities, gaps in genealogy have been often filled by this type of data.

From such use of the sacred scarab, it was an easy step down to good luck charms, simply expressing health, luck, happiness and advancement without a specific message. Some late scarabs of this sort have been copied and re-copied so many times by illiterate craftsmen that the seemingly correct hieroglyphs no longer make sense. Eventually, too, scarabs came to be used for purely ornamental purposes, many of outstanding beauty.

Scarabs may be found in virtually all the materials used in ancient Egypt. They are found as bas-relief in granite and in the plaster walls of funerary chambers. They figure in many of the remarkably fresh frescoes that adorn the walls of tombs. They are integrated into the splendid jewelry of Tutankhamen, where they sometimes have, as an extra, the wings of the vulture of Upper Egypt.

Most scarabs, however, are small, single portable charms made of blue or green *faience* – a brilliantly glazed pottery – and there must be tens of thousands in museums around the world. In the Egyptian Museum in Cairo, for example, there are two displays of scarabs, one, a selection collected by King Fouad I, containing scarabs in colors and materials too numerous to list.

Such is the story of the lowly scarab. Although animals figure prominently in Egyptian art and mythology, the only other references to insects are the inclusion of the mosquitoes – symbols of Upper and Lower Egypt when they were united – and locusts, an ever present threat to agriculture. Among the insects of ancient Egypt only the scarab – the beetle of the gods – rose to prominence.

Torben B. Larsen, who writes regularly for Aramco World *magazine on Middle East entomology, is finishing a book on insect life on the Arabian Peninsula.*

THE GCC·A PRELIMINARY REPORT

WRITTEN BY JOHN CHRISTIE
PHOTOGRAPHED BY BURNETT H. MOODY. ILLUSTRATED BY NORMAN MACDONALD

Last November, the heads of state of six of the Arabian Gulf countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) – met in Qatar to review the progress and plans of the Gulf Cooperation Council (GCC), an organization that bids fair to transform the political and economic face of one of the most important regions in the world.

At the gathering, the fourth such summit meeting, Kuwait's Abdullah Bishara, the GCC secretary general, capsuled the organization's potential in his answer to a reporter's question on how the GCC would settle disputes. Happily, he said, that matter is entirely academic – since it has no serious disputes either tabled or expected.

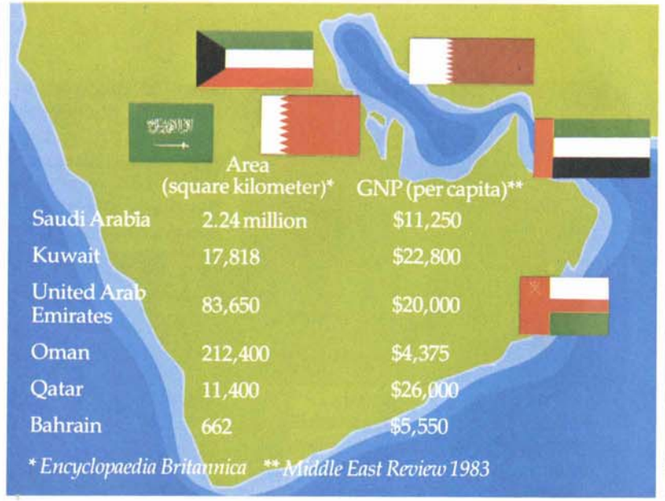
No one would suggest that this level of agreement is likely to be permanent – especially in the troubled Middle East – but some observers believe that hopes for GCC unity are grounded in reality. One, Dr. John Duke Anthony, of the National Council on U.S.-Arab Relations, firmly believes in the future prospects of the council. "Unlike, say, the short-lived United Arab Republic, formed by Egypt and Syria in 1958, or the 1971 effort by Libya, Egypt and Syria to form the Confederation of Arab Republics, the GCC is not based on any ideology."

Another promising element in the GCC approach, Dr. Anthony says, is its pragmatic style. "Unlike some of the previous movements towards Arab unity, the GCC approach is less ambitious, less elaborate. Members have deliberately adopted a conservative and consultative style, and that could make the difference. You can, in fact, discern a pattern in their approach already: first deliberate, then ameliorate."

Dr. Anthony, who has attended all of the four GCC summit conferences, thinks the GCC countries have a "commonality of needs and a homogeneity of experience" which "makes cooperation not just possible but probable."

The GCC, of course, has a long way to go before it catches up with its European counterpart the EEC – European Economic Community or Common Market. Nevertheless, the Gulf Arabs, as this preliminary report suggests, have achieved more – in terms of political, economic and social integration – in their first two-and-a-half years of cooperation than the western Europeans achieved in their first 10. That, perhaps, is the fact to focus on.

– The Editors



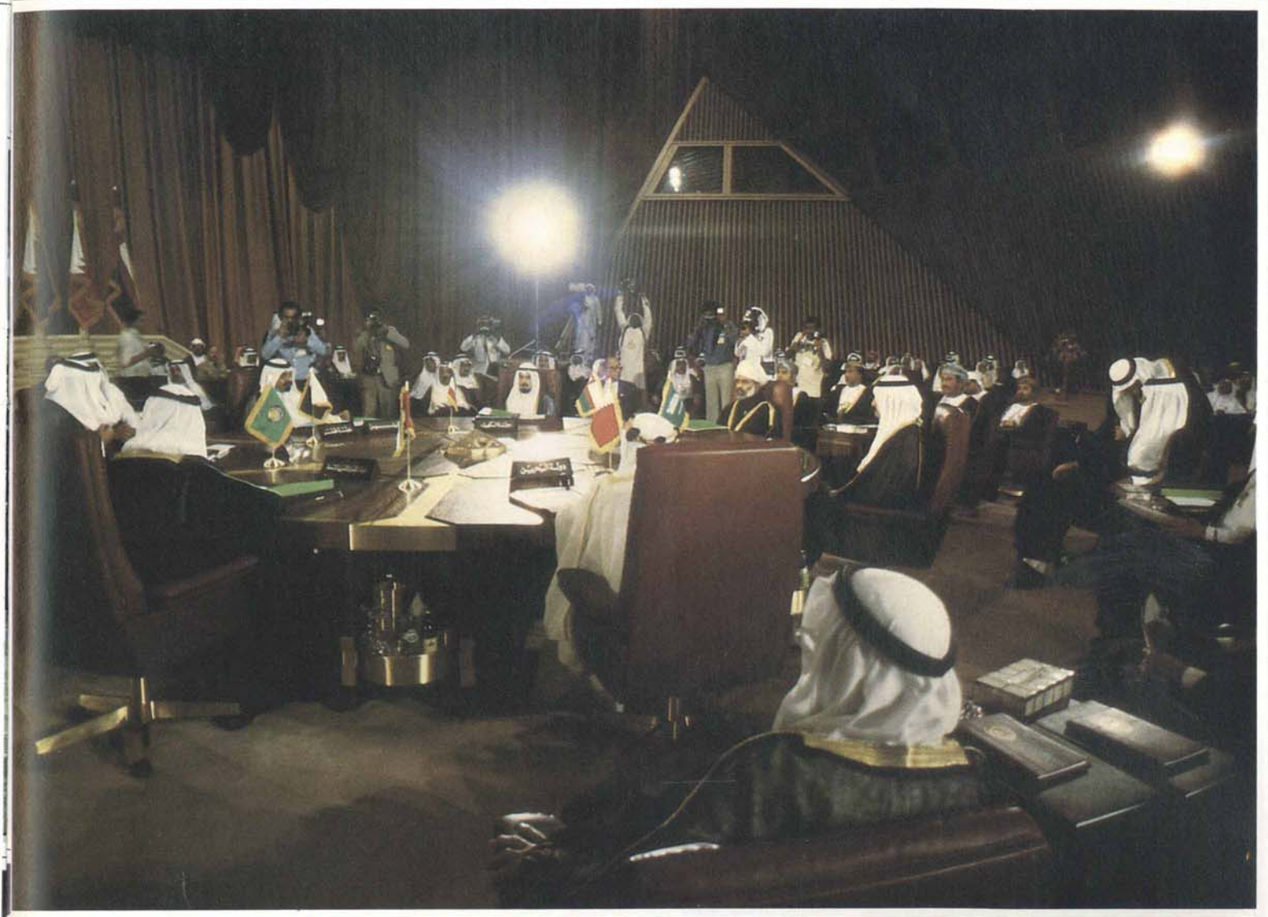
Top, left: location of the GCC countries, with some of the statistics relevant to their size and trade.

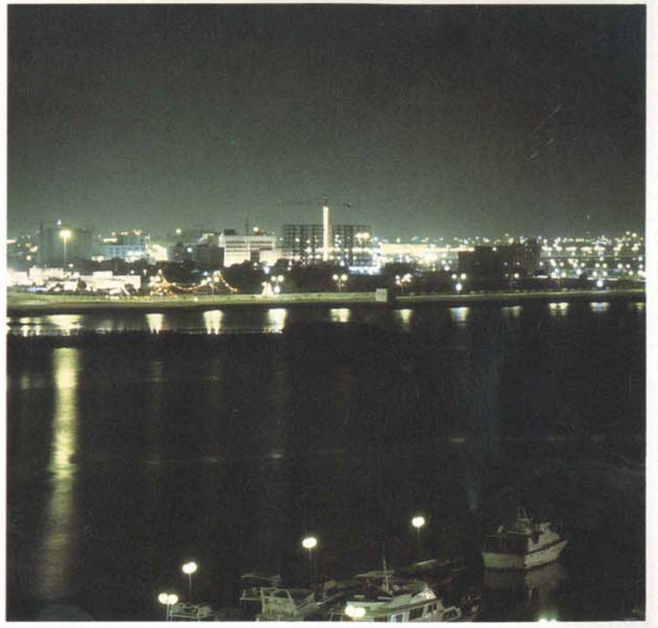
Top, center: the GCC organization's new headquarters building in Riyadh. Top right: Saudi Arabia's delegation arriving for the Qatar summit. Bottom: the leaders of the six GCC states.

A Summit in Doha

PHOTOGRAPHED BY BURNETT H. MOODY

At the summit: In Qatar last fall the heads of state of the six GCC members met to assess the organization's progress and plans. Among them — (at left, clockwise) King Fahd of Saudi Arabia. Foreign Minister Prince Sa'ud al-Faisal and Minister of Petroleum and Mineral Resources Shaikh Zaki Yamani. At right: leaders, delegates and site of the summit.





The first steps forward

WRITTEN BY JOHN CHRISTIE

Some weeks ago in London, Abdullah Bishara, secretary general of the Gulf Cooperation Council (GCC), predicted that "by 1990 a Gulf Common Market will be functioning." This new Common Market – linking GCC members Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE), plus, possibly, other neighboring Arab nations – will be based, Bishara said, on economic integration but will also work toward political coordination, defense cooperation, collaboration on internal security, and shared social, cultural and educational programs.

At first blush, the GCC may seem to be just one of 60 official inter-Arab organizations, of every conceivable form and size and involved in nearly every kind of operation and endeavor. Some function under the auspices of the Arab League, others report to several governments. There are regional organizations, bilateral and multilateral groups, professional associations and technical assemblies. Together, their acronyms denote a bewildering array of diverse concerns.

But the GCC, formed in 1981, and a comparative newcomer, already seems different. The council has emerged as possibly the most important, the most significant and the most exciting inter-Arab combination in recent years. "The GCC," says Lord Jelico, chairman of the British Overseas Trade Board, "represents a new and potentially very powerful trading block."

Just how powerful may be seen in some recent figures quoted by Saudi Arabia's Minister of Finance and National Economy at a December seminar at King Sa'ud University in Riyadh. The volume of the Gross Domestic Product (GDP) in the GCC states, he said, has risen to $187 billion, and their total oil reserves are now estimated at 274 billion barrels – 52 percent of the world's oil reserves. Furthermore, he said, the volume of trade in 1981 reached $201 billion – $148 billion for exports, $53 billion for imports.

In just the two-and-a-half years since its formation, the GCC has taken preliminary steps toward eventual removal of all trade barriers among members, and has set up a $2.1 billion fund to finance joint investments. And although most other GCC schemes are what Bishara describes as "still on the drawing board," the recent GCC summit in Doha gave the go-ahead for feasibility studies on several major projects. One is for a Trans-Gulf Railroad running from Kuwait to Muscat and a second is for a gas pipeline network linking GCC states.

ILLUSTRATED BY NORMAN MACDONALD

The council has agreed – subject to a marketing study proving its viability – to construct an export oil refinery on the Indian Ocean in Oman. It is also actively considering laying a crude oil pipeline outside the Strait of Hormuz, and establishing a Gulf electricity grid. One GCC-related project is the construction of a Gulf University for up to 5,000 students – some of whom have already started their studies in temporary facilities in Bahrain. Still other GCC-related projects include a $101 million aluminum rolling mill, also in Bahrain, and a 25-kilometer causeway (15.5 miles) linking Bahrain island with Saudi Arabia (See page 28).

Long before the GCC was established, its six member countries had already begun to cooperate in many fields, and formal and informal contacts between them were close and constant. Furthermore, various joint bodies had been set up: the Gulf Television Authority, the Arab Gulf News Agency, the Arab Gulf Labor Organisation and the Gulf Organization for Industrial Consulting. But there was no overall coordination of these efforts, and no regional master plan existed. As in the rest of the world, each country tended to formulate and implement its national program and policies on an individual basis with only minor attention given to questions of a wider regional coherence.

The beginnings of cooperation, however, were present and there was a growing recognition of the common interests and shared similarities among the people and states: a common religion and language, systems of government that are largely the same, standards of economic development roughly alike and similar social structures. Most important of all, perhaps, there was a sense of a common culture, mutual values, and a matching outlook. The prime requirement of homogeneity and community already existed.

Not all the considerations that brought the GCC into being were based on the simple premises of kinship and fellow-feeling, of course; such inescapable imperatives as politics and the stern dictates of economics played a large part in its genesis. With the 1971 withdrawal of Britain from the area, for example, some of the newly independent states realized that, singly, their defensive capacity against external threats was uncomfortably slight. And though the region's oil resources had brought immense wealth to most of the Gulf countries – and enabled an astonishing rate of development to take place – it also brought new pressures and problems to the area, ranging from altered life-styles for the inhabitants to a massive influx of foreign workers. Interstate machinery to deal with these concerns was not merely desired; it was becoming a necessity.

Although it was not so regarded at the time, the first seeds of the GCC were sown in 1967, with what is called the Dubai Agreement, an effort to unite the seven tiny Trucial States with Bahrain and Qatar. And though

ultimately Bahrain and Qatar elected to remain outside the proposed union, a new federal state was established as the United Arab Emirates, composed of Abu Dhabi, Dubai, Sharjah, Ajman, Ras al-Khaimah, Fujairah and Umm al-Qaiwain. It was not the first attempt to forge some type of unity among different Arab states, but none had been successful and all were short-lived. The UAE has proved a happy exception and its creation not only set the stage for later developments but also proved that unification need not be a dream.

In 1976, another effort to improve regional coherence was made when Sultan Qaboos bin Sa'id of Oman called together the foreign ministers of the six Arab states of the Gulf – plus Iraq and Iran – to discuss political coordination on regional security matters.

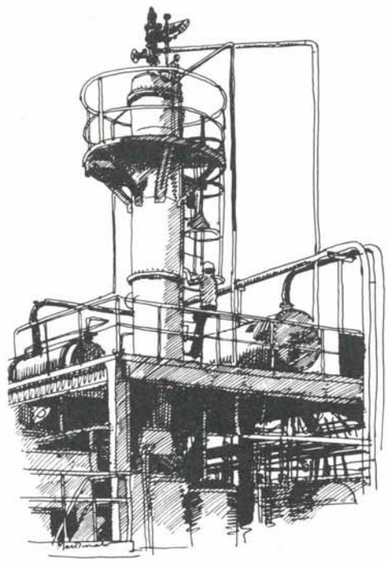
The ministers were unable to agree on a common posture and the conference dispersed without further action. But later that same year the Ruler of Kuwait, Shaikh Jaber al-Ahmad Al Sabah (then prime minister and crown prince) formally proposed establishment of a "Gulf Union," to "realize cooperation in all economic, political, educational and informational fields." As a result, and after exploratory talks with Shaikh Zayed bin Sultan Al Nahyan, president of the UAE, these two countries established a joint "Ministerial Council" of their respective prime ministers, consulted Saudi Arabia, Bahrain, Qatar and Oman – who hailed the idea enthusiastically – and launched a series of meetings and discussions that took place over the following five years.

During this time, conflict in the region lent an added urgency to the deliberations – and to the mutual desire of the six to preserve and ensure the stability of the Arabian Gulf – and so in Riyadh in February, 1981, the foreign ministers of the six countries agreed to the text of the GCC charter. Three months later, on May 25, this was signed by the six heads of state and the Gulf Cooperation Council was born.

Since the terms of the GCC charter are far-reaching and comprehensive, the council faces a formidable program. The council, furthermore, has limited authority since substantive matters require unanimous approval and all the states are on an equal basis. Before the formation of the GCC, most of the member countries were largely, in population and territorial terms, city-states – albeit flourishing and successful ones. Only Saudi Arabia and Oman possess sizeable territories, measured on a world scale, and only Saudi Arabia has a comparatively large population. But, in combination, the six countries add up to a not inconsiderable entity. The GCC states have a land area larger than Europe and a total population of well over 10 million.

Another significant result of the amalgamation is that the GCC stretches the important sea-lanes of the Red Sea – leading to the Suez canal – and the waters of the Gulf, including the vital Strait of Hormuz. The strategic ramifications of this geographical fact are immense, and add a great responsibility as well as advantage to the new council. At peak oil production, more than 40 percent of the non-communist world's oil supplies passes through the Strait of Hormuz. Even today, despite lower production levels, a substantial proportion of world oil trade still passes through the Gulf.

The economic strength of the six, of course, puts them into a financial superleague of their own. All are oil producers, and all have reaped enormous economic rewards from this resource. A large proportion of the income generated by oil production has been plowed back into financing unprecedented development, and each of the countries is being transformed by the building of roads, schools, hospitals, new cities, power networks and new industries (See *Aramco World*, November-December 1982). Not only is the scale of development astonishing but the pace itself is breathtaking. At the height of the building boom, the merchant ships of the world queued up outside every port on the peninsula, waiting



to unload cargoes of cement, steel, timber and machinery for which there was an insatiable demand.

But even with this prodigious spending on development and the cost of the sweeping welfare programs instituted in all the states, the flow of oil income has created huge surpluses for still further investment. Whatever other deficiencies and shortcomings the GCC might have, a shortage of money is not one of them. Possessed of land, population and natural wealth, the six nations indeed seem to lack nothing to make their joint enterprise successful – except, possibly, military strength. Though each of the countries have armed forces, some equipped with advanced weapons, the numbers each state can muster are comparatively small.

The GCC's basic structure consists of a supreme council, a ministerial council and a secretariat. Its highest authority, the Supreme Council, is composed of the heads of state and it lays down guide-lines for the

higher policy of the GCC. The Ministerial Council, engine room of the GCC, generates proposals, recommendations and projects to further the common aim of cooperation and coordination. The Ministerial Council is made up, usually, of the foreign ministers, although other delegated ministers can be appointed. The Secretariat, headquartered in Riyadh, has, in addition to the expected administrative functions, substantial responsibilities in the GCC scheme of things. It initiates and undertakes studies in fields of actual and potential areas of cooperation and drafts the legislation required to translate the agreed GCC policies into action.

Since its formation, the GCC has established a host of specialized committees

Continued on page 32

A Bridge to Bahrain

Following the 1982 Gulf Cooperation Council (GCC) summit in Bahrain, heads of state of the six member countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) – drove in a cavalcade from the capital, Manama, along roads lined with cheering and waving people, to the unveiling of a marble plaque mounted on a massive 25-ton limestone boulder.

Although a simple ceremony, there was no mistaking its historic significance when King Fahd ibn 'Abd al-'Aziz of Saudi Arabia and Shaikh Isa ibn Salman al-Khalifah, the ruler of Bahrain stepped forward to release the black drapes: Bahrain, at least in theory, was no longer an island. The plaque formally commemorated the start of construction of a 25-kilometer causeway (15.5 miles) linking Bahrain to the mainland Arabian Peninsula.

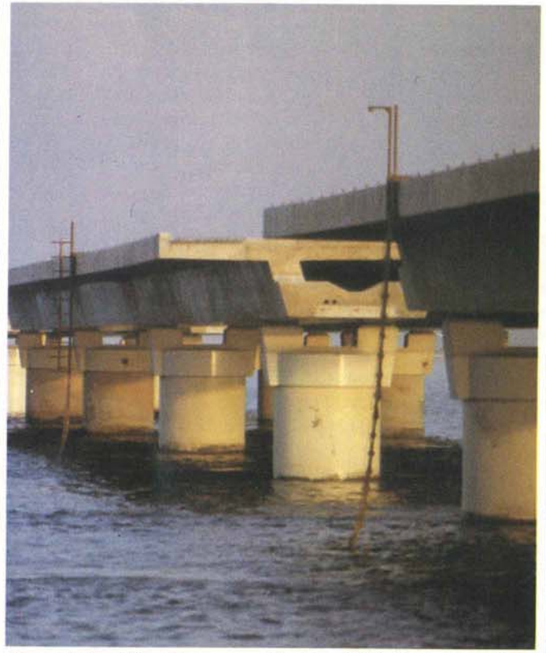
A huge hydraulic engineering project – all work is carried out in the open sea – the causeway, when completed, will consist of five bridge sections, with a combined length of 12.5 kilometers (7.75 miles), and seven embankments, also with a total length of 12.5 kilometers, and carry a four-lane highway between al-Khobar, Saudi Arabia and Bahrain. Although not strictly a GCC project – it is a bilateral Saudi-Bahrain project – the causeway typifies the unifying spirit of the GCC, and was an appropriate climax to the council's third summit.

The first job of the contractors – Ballast Nedam of The Netherlands – was to construct an extension to an island called Umm Nasan, located just off the coast of Bahrain; the extension serves as the site of camps for the 1,500-man workforce, workshops, offices and plants to make 325,000 cubic meters of concrete and shape it into box girders and other elements of construction. Next they built a second, larger island – by dumping rocks in a ring from barges and then filling in the circle with sand sucked up from the seabed by dredgers. This island, located at the mid-point of the causeway, will be the location of the border-posts for immigration and customs.

A total of 552 piles will support the causeway bridges, of which the largest, 40 meters long, 3.5 meters wide (131 feet long and 11 feet wide), will weigh 384 tons. A special pontoon crane transports the piles to various points – where they are positioned in holes up to 16 metres deep (52 feet) drilled into the solid rock layers of the seabed by a unique drill with a bit four meters (12 feet) in diameter. Laser beams and other measuring apparatus aboard a survey platform are used to determine the exact location of the piles. Once a pile has been put in position, the annular space between pile and hole is filled under pressure with thin mortar to anchor it securely.

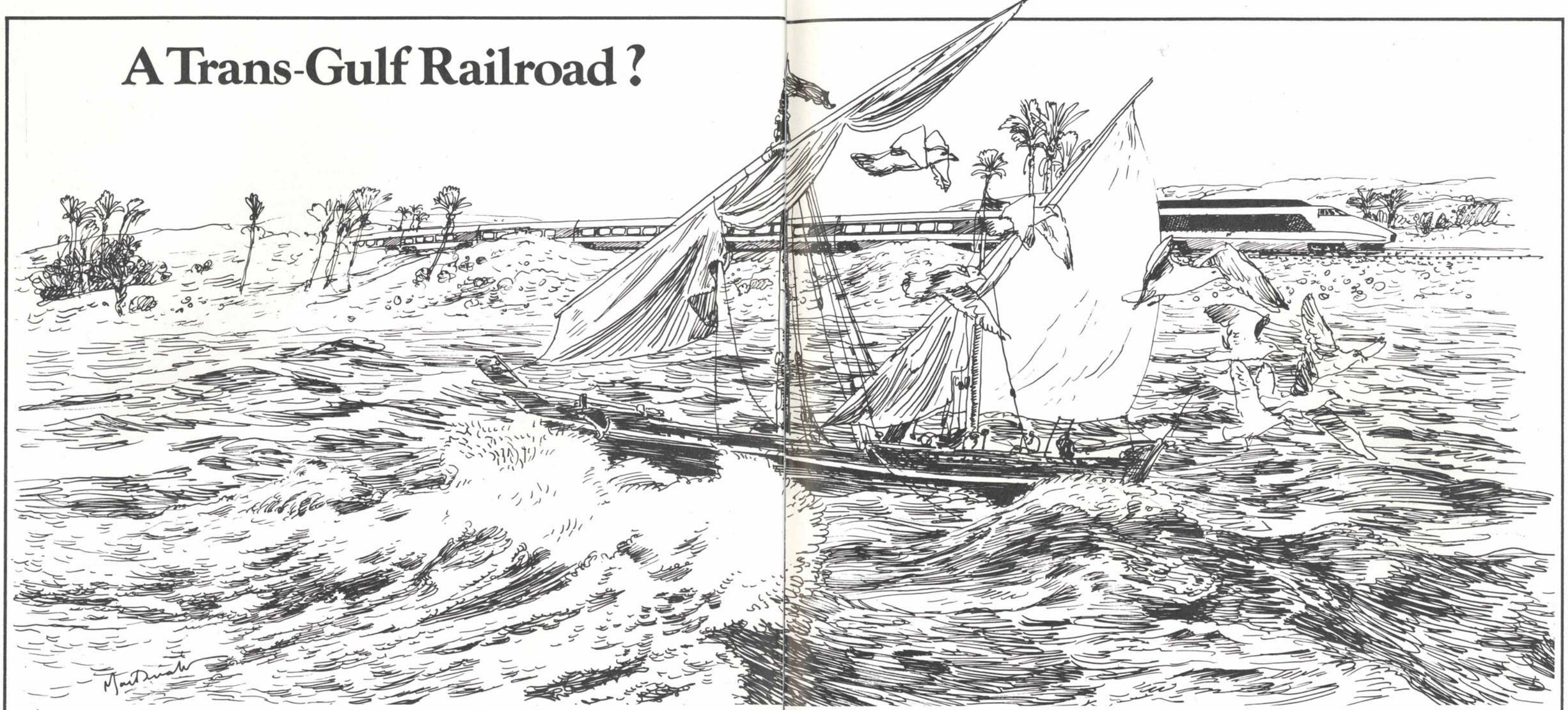
Because of the presence beneath that part of the Arabian Gulf of a subterranean freshwater reservoir, from which the Bahrainis draw much of their water, pile driving for one of the five bridge sections is not allowed. This bridge section, 934 meters long, (3,064 feet), will rest on 18 caissons, each weighing nearly 1,000 tons; the caissons are sunk into the seabed to a depth of about 10 meters (33 feet).

Causeway work is scheduled for completion by the end of 1985.



Top: artists' rendition of the causeway. Courtesy of Ballast-Nedam Groep N.V. Bottom: piers, man-made islands and bridges push out from Bahrain into the Gulf.

A Trans-Gulf Railroad?



Among the decisions taken at the fourth Gulf Cooperation Council (GCC) summit meeting in Doha, in November, was approval for the GCC to go ahead with detailed feasibility studies on a project which could have far reaching effects and implications for the whole Gulf region: construction of a railway network to link the GCC's six member states.

Though their air transport is highly advanced, and their roads and highways stand comparison with any country's, most Gulf states skipped the railroad era entirely. But now that the GCC countries have set out on the path to industrial integration and rationalization, a GCC railway network has some obvious attractions. As the industrial sector expands, an efficient and cost-effective bulk transportation system could be a key element in the economics of development – a crucial link between raw materials, production and markets – and railway enthusiasts maintain that a network of railroads is the best system possible.

As long ago as 1978, five countries – Saudi Arabia, Iraq, Kuwait, Qatar and the United Arab Emirates (UAE) – reached an agreement in principle to construct a railway line along the coast of the Gulf to join with Iraq's existing railway to Turkey and thus complete a Gulf-Europe railroad. For various reasons, the idea did not progress beyond the discussion stage, but the idea persisted and, with the formation of the GCC, interest has been revived. Where a railway might not have been economically viable for an individual state, the proposition improves considerably when the needs and requirements of all six nations are taken into account.

Compared to road transport, which presently moves the major part of interstate trade within the GCC, railways begin to reduce bulk transportation costs with distances of 50 kilometers or more (31 miles) and, with modern high-speed trains, reduce travel time dramatically.

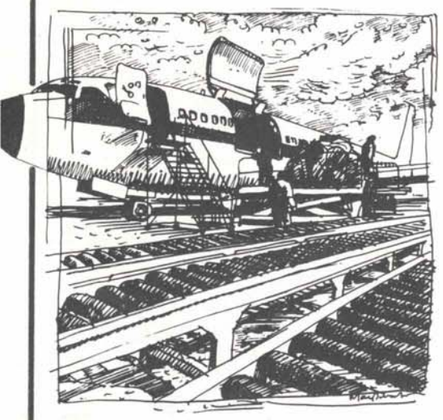
The new feasibility study, to be carried out by British rail consultants, will consider a railway from Kuwait south to Doha in Qatar, Dammam in Saudi Arabia, Abu Dhabi in the U.A.E. and on to Muscat in the Sultanate of Oman. Such a railway line offers the possibility of other connections to Bahrain – once the causeway from the mainland is completed – to the smaller Emirates of the UAE, and to the existing Dammam-Riyadh railway in Saudi Arabia; if needed, a subsequent enlargement of such a network could include extensions to Jiddah and a northward link from Kuwait to Iraq's railway system. GCC states would then have a rail system linking the Gulf to the Indian Ocean, the Red Sea coast and Western Europe.

With major industrial plants in the region, expected to come into production within the next few years – especially in Saudi Arabia (See *Aramco World*, November-December 1982) – a Trans-Gulf Railroad would be invaluable, since these industries will be export-oriented, and Western Europe will be one of their major target markets. A rail link which could carry the peninsula's exports to, say, Istanbul in Turkey in a fraction of the time sea shipment would take has easily calculated advantages.

Among the GCC states themselves, a greater mobility of people is also expected as economic integration increases. In this respect, some estimated journey times on a modern high-speed, air-conditioned train suggest a comfortable and time-saving means of travel. From Kuwait City to Dammam in Saudi Arabia: three hours and 33 minutes; from Abu Dhabi to Dubai less than one hour; from Dubai to Muscat a mere three and a half hours. Compared with the present alternatives of road and air transport, an inter-city rail link offers a highly attractive alternative to the Gulf traveler.

In the swift pace of their modernization, the GCC countries moved in one step, so to speak, from camel caravan to jet aircraft. Railroads were, somehow, largely left out in the process. Now though, if economic and other questions are satisfactorily answered, the GCC may rectify the omission. In keeping with its imaginative beginnings, the GCC is not likely to be deterred by the scale and scope of such a project. And, to both the hard-headed and the romantic, a possible Trans-Gulf Railroad has an eminently satisfying sound to it.

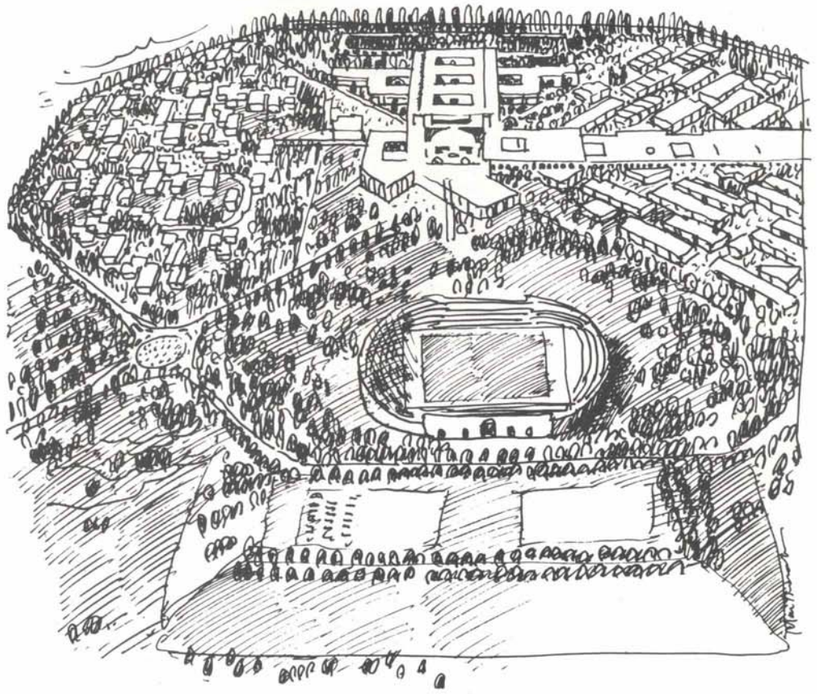
which work out the technical details of coordination and integration in different fields. They cover politics, economics, finance, commerce, industry, defense, oil and energy, housing, construction, ports, communications, information, medicine and even sport. This requires access to a vast amount of data and statistics, and the GCC Secretariat is fast becoming the repository of a wealth of detailed economic and social information on the six member states. In the process, and almost in passing, the secretariat is accumulating a store of historial records of inestimable value. The work of these specialized committees, usually at a working level of directors general of, for instance, posts and telegraphs, civil aviation, or labor affairs, is fed into *ad hoc* meetings of the ministers concerned. There, the suggestions and proposals in the specialized fields are hammered into shape before being channeled to the Ministerial Council.



The first thrust of the GCC has been in the field of economic integration and it is here that the greatest and quickest progress has been made. One of the GCC's basic decisions was to agree on a blue-print for the complete economic integration of the region. The Unified Economic Agreement, approved by the six heads of state in June, 1981, could prove as historic a document as the Treaty of Rome which laid the foundations of the European Economic Community (EEC). The GCC agreement is designed to lead to the establishment of an Arab Gulf Common Market, creating a new – and significant – body in the international economic scene.

The GCC agreement also allows for free trade among the member states, with the right of nationals to live and work anywhere in the region – with complete equality of rights of ownership, movement of capital and freedom to follow any economic activity. Even future development is covered, with stipulations for the member states to coordinate their industrial activities, standardize import and export policies and establish a uniform customs tariff.

Most important of all, perhaps, the six nations have agreed to try and formulate a coordinated oil policy and present a common position on oil to the outside world, including, possibly, some degree of coordination in production through refining to marketing.



Before the sharp 1982 decline in exports began, the figure for the combined oil production of the six countries was close to 14 million barrels a day. Translated into straight economic terms – and crude oil sales account for roughly 90 percent of their revenues – the six countries' exports world-wide amounted to around $148 billion in 1981, while their import bill came to nearly $53 billion in the same year. It is small wonder the GCC's initial emphasis has been on the economic front.

Another measure of their mutual financial strength is indicated by the council's decision to establish a Gulf Investment Corporation with an authorized capital of $2.1 billion. Made up with equal contributions by each state, the fund can engage in any financial and economic activity it chooses. Significantly, it's operations are not limited to the region itself but can be undertaken anywhere in the world. Since much of the construction in the member countries is well on the way to completion, it could be difficult for them to absorb all the potential investment the Gulf Investment Corporation represents. It may, therefore, not be long before the corporation makes its investment presence felt on the international scene.

The implementation of the first stage of the Unified Economic Agreement began last March. Now, as a result, all natural, agricultural and industrial resources can be moved freely among the member states, free of customs duties and taxes. Effectively, the national borders of the states have been abolished for industry, agriculture, fishing and a wide range of business ventures. Already, joint business ventures between different nationals are being undertaken; theoretically, lawyers, doctors, engineers and other professionals can practice where they wish in the GCC area.

The next stages in economic unification are already under way and the states are working on the coordination of their financial, monetary and banking practices. The eventual aim is to have a single, common currency for the region. The formal words of the GCC Charter are rapidly being translated into the substance of fact, and the political concept is taking tangible form.

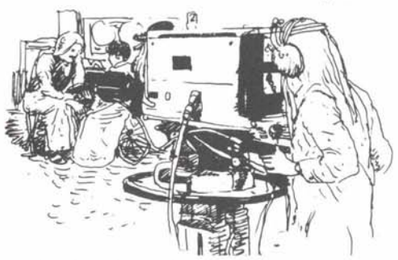
Not all the concerns of the GCC are directed inwardly to the affairs of its component parts. Last year, existing contacts with Europe were expanded and talks were opened with the European Economic Community. So far, discussions have concentrated on ways of developing closer political ties between the two regions. An EEC delegation has visited the GCC's headquarters in Riyadh and Secretary General Bishara toured Europe to explain to European governments and officials the aims and objectives of the GCC. Next, a GCC delegation is to visit ECC headquarters in Brussels to discuss the future of Gulf exports – particularly petrochemicals – to Europe. These contacts are to be followed by negotiations to organize common project financing in developing countries. The initiative towards a joint partnership in project financing came, it may be noted, from the GCC. The Arab oil-states are already a major source of aid to developing countries and a common approach with the EEC, also a key contributor, could transform the nature and scope of international project financing.

In a message marking the second anniversary of the formation of the GCC, Bishara said the council was moving along five tracks. The first is political coordination, from which stem the foreign policies of the organization. By general consensus, the GCC adopts a strictly non-aligned position in international affairs. Together with the Gulf Arab countries' close and intimate involvement in the affairs of the Arab world at large, these are the keystones of the GCC's external outlook. The self-reliant nature of the GCC is emphasized and the responsibility of the member states – to ensure the stability and security of the Gulf, including navigation – is firmly stressed.

The council's second track, said Bishara, is economic integration. He described this as the "backbone" of the GCC's activity and, certainly, this is the fundamental basis of GCC moves in other fields of cooperation. Yousef Shirawi, Bahrain's Minister of Development, has predicted that over the next five years the GCC would unify its economic infrastructure in preparation for the creation of a Gulf Arab Common Market modelled on the European Economic Community.

Defense cooperation, the third track, is, admittedly, one of the more complicated and difficult of the problems with which the GCC has to deal. As Bishara said in his message, "Non-alignment rings hollow if it is not coupled with an instrument for its assurance and protection." The defense ministers of the Six (who meet regularly and frequently), therefore, are introducing various measures of rationalization and coordination in defense matters.

In October last year, the first joint military exercises of the Six were held in Abu Dhabi. Entitled "Peninsula Shield", the manouvers marked the practical beginnings of a regional coordinated defense system. GCC officials admit there is a long road to travel before the Gulf states possess a fully integrated defence capacity, but they are well satisfied with the initial steps.



The fourth track involves internal security and finally, the fifth, is the social, cultural and educational goals. In this, the GCC is careful to talk about "approximation" rather than coordination; the council has no intention of trying to obliterate the individual and different national characteristics among the member states. As the GCC appreciates, distinct local and indigenous qualities must be respected. A Jibali hill-tribesman from Oman is a very different man from his cosmopolitan cousin in an office tower-block in Kuwait, while a Qatari fisherman from Doha has little in common with either. Sensibly, the diversity within the region is regarded as a source of strength and richness: an essential leavening. Nevertheless, substantial cooperation can be achieved, especially in the field of education. Rationalization of administrative and financial matters in education and formulation of compatible – but not identical – curriculi are all being pursued by the GCC. The Arabian Gulf University project in Bahrain, for example, will, when completed, provide a natural focus of higher education in the region. Construction work is due to begin next Spring on this ambitious project.

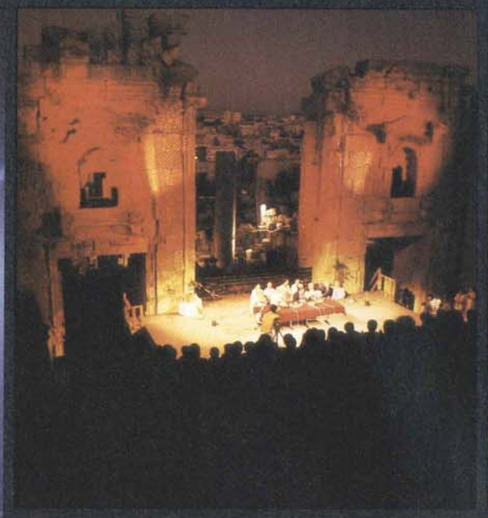
What, though, is the ultimate objective of the GCC? The charter does not define the precise intended shape of the six nation grouping and, perhaps wisely, has not detailed an eventual limit to the kind or degree of cooperation between them. Yousef Shirawi, of Bahrain, told his London audience a year ago that the GCC is "not open for further membership at the moment." But he did not rule out the possibility that other states could one day be invited to join the GCC, indeed he specifically mentioned Yemen and Iraq as potential candidates.

Bishara thinks the concensus is for a federation – meaning anything from a loose association of countries to a tightly-knit organization.

It is far too early to even guess what form such a confederation might take – if it comes about at all. But the GCC is already a powerful and significant combination and, whatever its destined frame, offers exciting prospects for the future. Already the day of the inconsiderable principality and the minor shaikhdom in the Gulf is past. Indeed the GCC epitomizes the irrevocable changes that have shaken the region and demonstrates not only the countries' willingness to embrace an ambitious vision, but also the ability to transform the vision into reality.

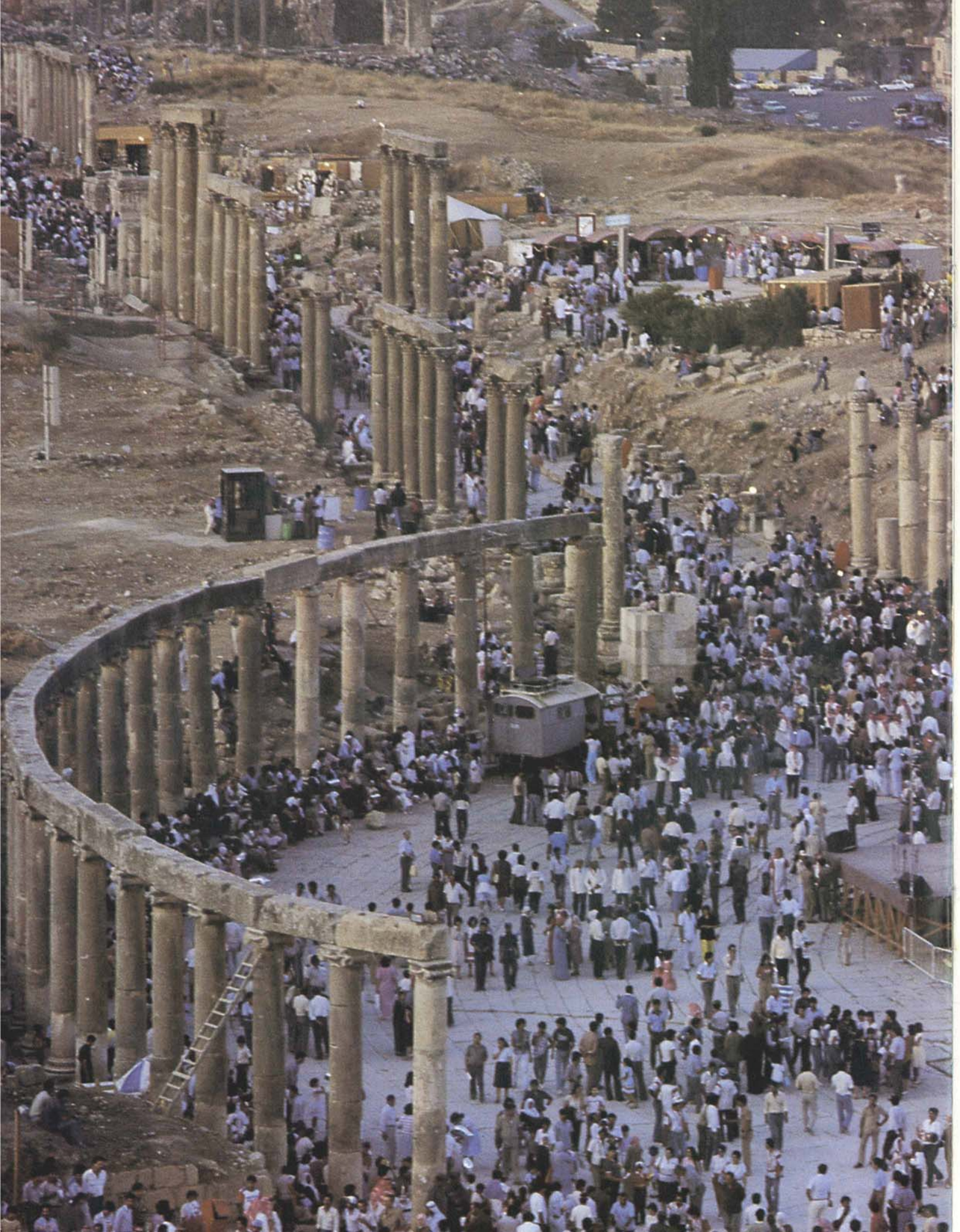
John Christie, O.B.E., served 17 years as a British diplomat in the Middle East and now edits Middle East Newsletters.

"A forum for old talent to mature and for new talent to bud"



A Festival at Jerash

WRITTEN AND PHOTOGRAPHED BY RAMI G. KHOURI



When the Jerash Festival of Culture and Arts was held last August – among the impressive ruins of Jordan's 2,000-year-old Roman city – it filled the ancient colonnaded streets with music, dancing, poetry, handicrafts, people and merriment, restored life to the ancient stones and stimulated development of Jordan's national arts and cultural heritage at the broadest level.

In so doing, Jordan may also have set a timely example for other Arab countries groping with the same challenges: how to preserve and promote national culture and folklore – while simultaneously offering a variety of Arab and international performing arts.

The Jerash Festival idea had been bouncing around Jordan for decades, but nothing significant happened until Jordan's Queen Noor joined forces with the public-spirited, energetic Arts Faculty at six-year-old Yarmouk University to launch a three-day trial festival in 1981 – and surprised everyone. Largely a local affair, the trial festival was expected to draw no more than 15,000. But more than 50,000 people attended – a turnout that confirmed the assumption of the festival organizers that the Jordanian people were hungry for this kind of family-oriented cultural extravaganza.

Because of the Israeli invasion of Lebanon, the organizers decided to cancel a follow-up festival in 1982, but planning continued for the full-scale Jerash Festival that was eventually held last summer and drew more than 175,000 people.

The success of the festival is credited to two factors: the quality and diversity of the arts on display and the way the entire area of the ancient city of Jerash was exploited to allow as many as 10 different events to take place simultaneously.

Festival Director Dr. Mazen Armouti, who doubles as the head of the Journalism and Mass Communications Department at Yarmouk University, says the Jerash Festival differs in significant ways from other arts festivals in equally impressive sites – Baalbek, Carthage, Cairo – in the Middle East. From the start, the Jerash Festival was designed to be non-elitist and non-specialized. It sought, above all, to provide a showcase for Jordanian artists, craftsmen, dancers, folklore troupes, poets, writers, actors, sculptors, musicians and other artists.

The festival organizers, all volunteers, worked jointly with Yarmouk University and a Higher National Committee for the Jerash Festival, headed by Queen Noor, to offer activities and arts catering to the widest possible range of tastes. Thus, the 70 different individual shows, exhibits, displays and performances included plays, films and puppet shows; books for children; Chinese acrobats; American bluegrass music; local rock and traditional Arab music; Scottish bagpipers and drummers; Arabic poetry readings and literary discussions; Jordanian productions of local plays; five different Jordanian folklore troupes and the Jordanian armed forces band; folklore, theater, dance or music troupes from Lebanon, Egypt, Yemen, Kuwait, Algeria, Tunisia, Austria, China, the United States, France, Italy and India; a display of local artists' and ceramicists' works; a pan-Arab book fair; an exhibition of the wares and production techniques of 28 different Jordanian craftsmen and women; two fashion shows that depicted contemporary and historical Jordanian and Palestinian dresses; and Arab and international films and slide shows.

This varied program was vital to the festival's success, but so was Jerash itself. The sprawling, well-preserved antiquities of the large Roman city with its two theaters, several temples, colonnaded streets, oval piazza, and ample open areas permitted guests to stroll at their leisure through the exhibits, rest among the ruins at will and choose from the 10 different activities taking place simultaneously. In various parts of the city, as a result, the festival took on a permanently bustling yet relaxed atmosphere: thousands of families strolling up and down the colonnaded streets, eating and drinking, enjoying an exhibit, listening to a music group, watching a folkloric performance, chatting with friends or simply sitting down on a fallen second-century Corinthian column capital and enjoying the spectacle of an ancient city ablaze with lights and the sounds of tens of thousands of people making – and enjoying – music and art.

In setting up the facilities for the different stages and exhibition sites, festival organizers barred permanent structures that could damage the antiquities. All structures set up were pre-fabricated wood and steel facilities that were dismantled afterwards and stored for future use, and all work was approved by the Department of Antiquities. Some of the more atmosphere-creating settings included the underground vaults of the Zeus temple that housed an exhibition of Jordanian paintings and ceramics, the south theater that accommodated the main ticketed events, the majestic steps leading up to the Temple of Artemis, which were transformed into an intimate stage setting with the added attraction of the moon rising behind the stage every evening, and the full length of the colonnaded side street, the South Decumanus, which housed the First Annual Arab Book Fair and some of the craft booths.

In addition to exposing the Jordanian public to a sample of the world's best folkloric troupes, the festival also allowed Jordanian performing artists to rub elbows and exchange ideas with their counterparts from the Arab world and further afield.

"We wanted it to be a people's festival," Dr. Amouti said in an interview, "and we wanted to allow tens of thousands of Jordanians, particularly those who do not travel abroad, to be exposed to art forms that they might not otherwise have a chance to see, appreciate or enjoy."

Among prominent non-Jordanian groups that performed at the festival were the famous Arab singer Fayrouz and the Lebanese Troupe, (See *Aramco World*, January-February 1982), the Reda Folklore Dance Troupe of Egypt, the Hall-Rogers Modern Dance Troupe, the Doyle Lawson and Quicksilver bluegrass band from the United States, the Pipes and Drums of the Argyll and Sutherland Highlanders from Scotland, the Hanjo Acrobatic Troupe from China, and the Parvatiya Kala Kendra Folklore Troupe from India, to mention only a few.

Leila Sharaf, deputy chairperson of the Higher National Committee for the Jerash Festival, noted in an interview that the emphasis on foreign folkloric troupes, instead of more sophisticated art forms such as symphony orchestras or Shakespearean drama, was intentional. The committee wanted to offer shows that were "closer to the heart and tastes of the Jordanian public . . ." She added: "The effects of the Jerash Festival can only be fully assessed after many years, because behind the immediate objective of providing an enjoyable cultural outing for Jordanians and their families, there is the longer term aim of using the Jerash

Festival as a means of promoting a dynamic cultural movement that would spread throughout the country and reach into all quarters of our national cultural life and heritage."

One of the key guidelines of the festival organizing committee was to make sure that at least 50 percent of the activities were Jordanian, even though in most cases the Jordanian performing troupes were less developed than the foreign talent. The point was to expose local performers and artisans to an audience of tens of thousands of Jordanians, as well as to their Arab and foreign counterparts.

"No culture can develop without sustained interaction with other cultures and arts from abroad," Mrs. Sharaf notes, "and it has been a weakness of Jordanian cultural development in the past that there has been very little contact with established artists from other countries."

Dr. Armouti said that an average of nearly 20,000 people attended the festival every day during the nine days of activities, reflecting the need among Jordanians for such organized cultural activities.

The size of the Jerash antiquities and the use of 10 different exhibition and stage sites among the ruins allowed for the large turnout. The festival was open daily from 4:00 p.m. to midnight, with most activities taking place in the evening – when the Jerash setting was made all the more dramatic by the hundreds of floodlights that illuminated all the monuments. The fine August weather, with guaranteed clear skies and evening temperatures that averaged 20 degrees Centigrade (68 degrees Fahrenheit) simply added to the pleasant atmosphere.

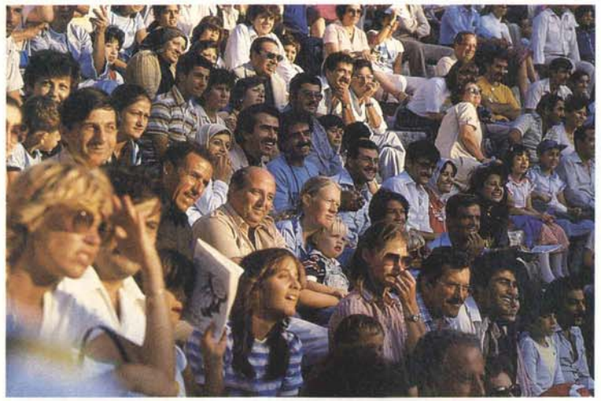
The sheer number and variety of offerings meant that many people went to the festival two or three times, and some of the more enthusiastic members of the public attended daily to be sure to catch all the performances and exhibits that interested them. Future festivals will probably be expanded to two or three weeks, with fewer performances per evening, to alleviate some of the crowding problems that were experienced this year at the most popular acts, particularly the Fayrouz and Reda performances. Future festivals may also limit attendance to a maximum of 15,000 people per day, so as not to overtax the infrastructural facilities such as water, seating, toilets and food and beverage stands. Up to 25,000 people were accommodated on some days last year, and during peak attendance periods the sheer numbers of visitors caused the old colonnaded streets of the city to become clogged in places.

The festival organizers openly admit that they are still learning how to put on such a large public event – even though, in terms of the number and variey of offerings, the Jerash Festival is the largest such festival in the Arab World. Indeed, the fact that it is organized and managed entirely by volunteers – including a 400-strong contingent of student ushers from Yarmouk University makes its success remarkable.

"We learned a lot from this year's festival," Dr. Armouti said, "and we will make changes in future festivals to iron out some of the practical problems and inconveniences. Some of the events that required paid tickets will probably be made free, and each venue will have more seats. The festival will be longer than nine days, and individual tickets should be less expensive." But the thing that will not change, he said, is the broad scope of the Jerash Festival. "We insist on maintaining the variety of arts and cultural events available at the Jerash Festival in order to offer something of interest to all tastes and to all parts of the Jordanian public. After all, it is the main aim of the festival to promote and encourage local culture and arts in all fields, and to achieve this... it is imperative that all facets of Jordanian, Arab and international culture, art and folklore be on show at the festival."

Certainly, the different kinds of activities that enlivened the air and stones of the Jerash ruins gave the festival its special atmosphere. The 28 different handicrafts that were exhibited in individual booths along the Cardo . . . the main colonnaded street running through the heart of the ancient city . . . included craftsmen demonstrating how they produced their wares: rug weavers from Madaba and north Jordan, glass blowers from Hebron, dollmakers from Zerqa, straw workers from the West Bank, brass, copper and silversmiths, woodworkers, and stone cutters. They, and many others, contributed to the colorful and educational atmosphere along the Cardo. The craftspeople sold thousands of dinars'-worth of goods, as their work was exposed to an audience of some 175,000 people in the span of just nine days. As one craftsman commented: "This is probably a bigger audience than most of

Left: artists and audiences restored life to Jerash's ancient stones.



The Jerash Festival catered for visitors of all ages and all tastes, ranging from traditional weaving (opposite page) to such famous vocalists as Lebanon's Fayrouz (bottom left).

us would aspire to reach during a lifetime of work."

The enthusiasm worked both ways, as many spectators were introduced to a variety of local crafts that they never imagined existed in Jordan. In future festivals, the organizers plan to continue their policy of assuring balanced representation of crafts from all parts of Jordan, permitting only genuine artisans to be represented while excluding any purely commercial merchants.

A new twist, starting with the 1984 festival, will be a coordinated regional and international promotional campaign to link the festival with Jordan's overall tourism marketing effort. The ancient city of Jerash, with over half a million visitors a year already making it Jordan's top tourist attraction, should take on an increasingly significant role in Middle Eastern archeology because of the discoveries being made by a five-year excavation and restoration program that has teams from eight different countries working simultaneously to dig and study the remaining unexplored parts of the city. Some of the initial important finds continue to confirm that Jerash, besides being an important Roman provincial city, was a major Byzantine Christian city with at least 15 churches, and an important early Islamic (Umayyad) city in the seventh and eighth centuries. Far from being simply another collection of Roman ruins, Jerash is proving to be an important historical site that was occupied and flourished during a 1,000-year stretch of ancient history, from 300 B.C. through A.D. 700. The continued excavation of the city, combined with the powerful drawing card offered by the annual Jerash Festival, should gradually transform Jerash into one of the Middle East's top tourist destinations.

Another possibility is for the Jerash Festival itself to sponsor local groups or even national folkloric troupes. Among the possibilities, Dr. Armouti says, are national theater, dance and music. The lack of any outstanding national Jordanian troupes that equal the international stature of the Fayrouz or Reda troupes was one reason why the festival insisted on allowing many smaller, local Jordanian troupes to participate – thereby giving more groups a valuable chance to perform before large audiences and simultaneously giving the public an opportunity to sample the full diversity of Jordanian culture.

"The Jerash Festival is one big event in the summer," says Mrs. Sharaf, "but the plan now is to see the festival as a catalyst that would in turn promote a dynamic cultural movement throughout the country and throughout the year. We have to create a national cultural infrastructure based on hundreds of local clubs, groups, theaters and associations that would sponsor and promote local talent. The long years of stagnation of arts in Jordan's modern history, coupled with Jordan's lack of a strong historical artistic tradition such as existed in Damascus, Cairo or Baghdad, mean we need something to breathe some life into the culture and arts of the land of Jordan. We hope the festival will do that, by providing a forum for old talent to mature and for new talent to bud."

Rami G. Khouri, senior editor of the Jordan Times, *covers Jordan for* Aramco World magazine.