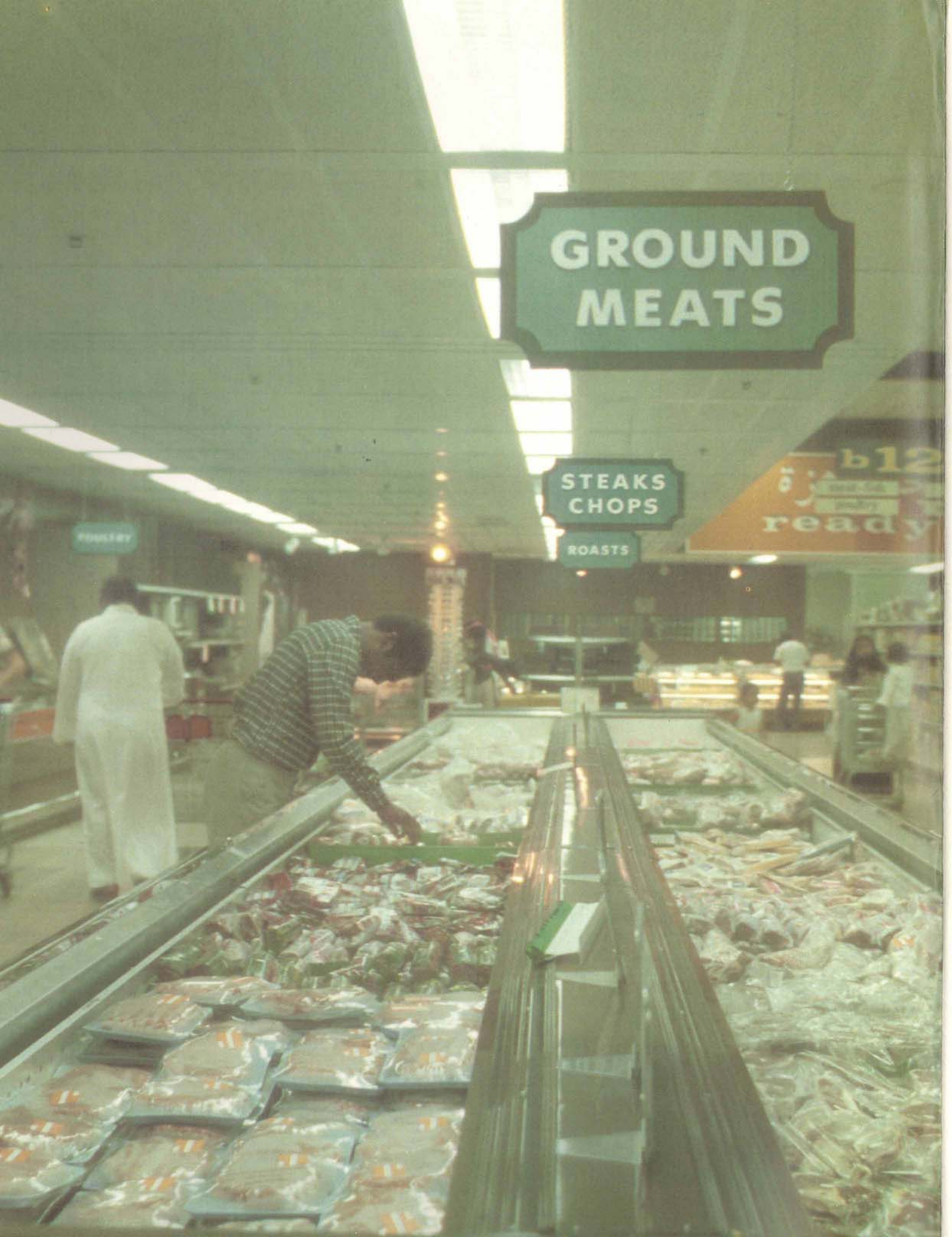
ARAMCO WORLD
magazine
P.O. BOX 2106
HOUSTON, TEXAS 77001
(PRINTED IN ENGLAND)
ADDRESS CORRECTION REQUESTED
RETURN POSTAGE GUARANTEED

ARAMCO WORLD magazine

JANUARY–FEBRUARY 1981

THE LAKES OF EGYPT



ARAMCO WORLD magazine

VOL 32 PUBLISHED BI-MONTHLY JANUARY–FEBRUARY 1981

SPECIAL BLUE BINDERS, TO HOLD 12 ISSUES OF ARAMCO WORLD MAGAZINE, ARE AVAILABLE FROM EASIBIND LTD., 4 UXBRIDGE STREET, LONDON W8 7SZ, ENGLAND, FOR $6.50 EACH. MAKE ALL CHECKS PAYABLE TO EASIBIND LTD.

REPRINTS OF SOME ARTICLES ARE AVAILABLE FOR CLASSROOM USE. REQUEST SAMPLES FROM THE EDITORS.

Published by Aramco, a Corporation, 1345 Avenue of the Americas, New York N.Y. 10019; John J. Kelberer, Chairman of the Board and Chief Executive Officer; Hugh H. Goerner, President; J. J. Johnston, Secretary; Nabil I. al-Bassam, Treasurer; Paul F. Hoye, Editor; Martin Love, Assistant Editor. Printed in England by Ben Johnson & Co. Ltd. Distributed without charge to a limited number of readers with an interest in Aramco, the oil industry, or the history, culture, geography and economy of the Middle East. Correspondence concerning **Aramco World Magazine** should be addressed to The Editor, 55 Laan van Meerdervoort, 2517AG The Hague, The Netherlands. Changes of address should be sent to Aramco Services Company, Attention S. W. Kombargi, 1100 Milam Building, Houston, Texas 77002. ISSN 0003-7567

Cover: The shoreline of Egypt's High Dam Lake would, if straightened out, stretch further than the width of the African continent, and its blue waters abound with succulent fish and support a prosperous fishing industry. Straddling the border with the Sudan, the lake is easily Egypt's largest and most important, from a commercial standpoint. Back Cover: Dawn splashes soft, pastel colors onto still water in a small canal near Lake Burullus in northern Egypt. Photographs by Tor Eigeland.

◄ Customers at al-Khobar's Safeway supermarket can shop for their food in air-conditioned comfort. This modern market caters to foreign – and Saudi Arab – tastes.

A History of the World

WRITTEN BY PAUL LUNDE – WITH ROSALIND MAZZAWI
PHOTOGRAPHS COURTESY OF SOTHEBY PARKE BERNET

On July 8, 1980, an illuminated manuscript in Arabic, 120 pages long, was sold at Sotheby's in London for £850,000 – $2,017,050 – to a firm of Swiss lawyers acting for an unidentified client. The price – which works out to about $16,790 a page – was the highest ever paid for an Arabic manuscript.

Even in today's overheated art market, the price paid for this manuscript – *Jami' al-Tawarikh*, ("Compendium of Histories") – is astonishing. Though it is very old – exactly 666 years when sold – and is lavishly illustrated, to fully understand its importance it is necessary to go back to the single greatest upheaval of the Muslim Middle Ages: the Mongol conquests of the 13th century. Without the Mongol conquests there would have been no manuscript auctioned at Sotheby's.

In 1215, while the West was occupied with the Crusades and the Arab East with bitter dynastic quarrels, the Mongol tribes of Central Asia, united under Genghis Khan, sacked Peking and turned towards Transoxania and the wealthy lands of Khwarizm (See *Aramco World* September-October 1979). By the time Genghis Khan died, in 1227, the Mongols were poised to strike at the lands of Islam and 29 years later – after invading Russia, China and Southeast Asia – they moved on the heartlands of the Abbasid Caliphate; Iran and Iraq.

The attack on the Islamic world began on January 1, 1256, when Hulagu Khan, grandson of Genghis and brother of the Great Khan of China and Mongolia, crossed the Oxus River and passed into Iran. After receiving the homage of the petty rulers of northern Iran and the Caucasus, he moved against the Assassins, a fanatic sect which had terrorized the orthodox Islamic world, and, in 1257, destroyed the Assassins' castle of Alamut, the lair of the Grand Master. Among the prisoners released, when Alamut was taken, was the grandfather of Rashid al-Din Fadl Allah Abu al-Khair, the author of the work auctioned at Sotheby's on July 8, 1980.

A year later, in 1258, Hulagu, in one of the turning points of history, sacked Baghdad. Hulagu, in fact, was under orders Caliphate, which had ruled for more than 500 years, and assumed the mantle of power that, before 1258, had rested largely with the Arabic speaking peoples of the Middle East. After 1258, hegemony passed to the Turkic and Mongol peoples who had poured out of Central Asia.

The Mongols did not stop with Baghdad. Hulagu, in fact, was under orders to reach Egypt, and soon after the fall of Baghdad took Aleppo and Damascus in Syria. But in 1260, on receiving news of the death of the Great Khan, Hulagu hurried back to the Mongol heartlands to attend the election of his successor. During his absence the Mongol hordes suffered a crushing defeat – their first – at the hands of the Mamluks at 'Ain Jalut ("The Well of Goliath") in Palestine. Thus Egypt and much of Syria, were spared but Iraq and Iran found themselves under Mongol rule.

It was into this world, so similar to our own, with its violent upheavals, that the historian Rashid al-Din, the author of the fragment of the *Jami' al-Tawarikh* sold at Sotheby's, was born. It is a curious irony that the terrible events of the 13th century were responsible for the elements which make his book unique.

Rashid al-Din, born in 1247, came from a long line of distinguished scholars. His grandfather, for example, on his release from the castle of Alamut, had entered the service of Hulagu Khan, and set a precedent for government service under the new Mongol rulers which Rashid al-Din followed; he entered the service of Abaqa Khan, one of Hulagu's three sons, as court physician.

When the Mongols arrived in Iran, they had already been exposed to religious and cultural influences of the most diverse kinds; the hordes of Hulagu contained Shamanists, Buddhists, Muslims and Nestorian Christians, an Eastern sect centered in Iran and Iraq. But as in China, where they had been quick to adopt its language and customs, the Mongols eventually accepted the Persian language and the Islamic religion – without, however, abandoning entirely their connection with the Far East.

This mixing of cultures and religions, the product of the geographical extension of the Mongol Empire, is reflected in the historical works of Rashid al-Din. They deal with all the peoples with whom the Mongols came into contact and for the first time treat history on a universal scale. His works, in effect, provided a history of the whole world of that era.

Even historians are at the mercy of history...

The Mongols were also in constant diplomatic contact with Europe. Abaqa Khan, for example, sent a number of embassies to the Christian powers, who were interested in cultivating the Mongols. One reason was the Mongols' enmity towards the Mamluks – 'Ain Jalut had not been forgotten. Another was Europe's belief in Prester John of the Indies, a legendary Christian ruler in the Far East with whom several popes had sought an alliance to outflank the Muslim powers of the Middle East.

These legends of Prester John were not without some foundation: Doquz Khatun, the wife of Abaqa's father Hulagu, *was* a Christian and consistently interceded on behalf of those Christian communities so unfortunate as to find themselves in the path of the Mongol hordes. Her father, in turn, was Khan of the Christian tribe of the Kera'its.

Meanwhile, the initial – almost unbelievable – destruction wrought by the Mongols was giving way to what has been termed, with only slight irony, the Pax Mongolica. The Mongols, engineers of what has been described as "one of the most dreadful calamities which ever befell the human race," soon established order throughout their vast possessions and for the first time since classical times, communications between Europe and the Far East became safe and practical. Ambassadors and envoys began to flock to Karakoram, capital of the Golden Horde, and to Peking, where the great Kublai Khan reigned. In return, two Mongol ambassadors turned up in Northampton, in 1307, bearing letters to Edward II.

As had Hulagu Khan before him, Abaqa Khan actively supported the Buddhist faith. He built temples and encouraged Buddhist monks to settle in his dominions. Yet, like all of the Mongol rulers, he also seems to have been extremely interested in what can only be called comparative religion. A favorite entertainment, described by William of Rubruck, a papal envoy to the Golden Horde, was debates by adherents of the different faiths before the Khan, who awarded prizes to those who argued most convincingly for their point of view.

Because of the barbarous cruelty of the Mongol hordes, these intellectual interests may seem surprising, but the two – unfortunately – are not mutually exclusive. Hulagu – the man who cast the libraries of Abbasid Baghdad into the Tigris until the water of that river ran with their ink – also founded the most up-to-date observatory in the Middle East at Maragha, and the Ilkhans – the dynasty founded by Hulagu – consistently patronized scholars and raised them to high positions. Rashid al-Din is only the most notable of many similarly favored.

When Abaqa died in 1282, a period of unrest followed. His brother Ahmad, a Muslim, as can be seen from his name, briefly took power, but when he sought to heal the breach with his co-religionists, the Mamluks of Egypt – despite their second, humiliating defeat of the Mongols in 1277 – he was deposed by Mongol hard-liners and replaced by Arghun, one of Abaqa's sons, in 1284. Arghun, in turn, was succeeded by his brother Ghaikhatu who won a sort of fame by trying to introduce paper money – and single-handedly ruining the economy of the Ilkhanid state when merchants and soldiers alike refused to accept the strange block-printed currency. Disorders erupted and by the time Ghazan Khan came to power, in 1295, the situation was chaotic: public disorder, government corruption and disastrous fiscal policies. Worse, the postal system, the most vital Mongol institution, had broken down, and Ghazan, faced with a formidable task of reorganization, chose Rashid al-Din to undertake it.

Until then Rashid al-Din seems to have been in the shadows. From what he wrote, it seems clear that he was an important official quite familiar with the various peoples who sent emissaries to Hulagu Khan, Abaqa Khan, Ahmad, Arghun and Ghaikhatu. But it was under Ghazan that he came to the fore. In 1295 Ghazan chose Rashid al-Din as his vizier, confided virtual control of the government to him and, recognizing his vizier's scholarly gifts, chose him to be the official chronicler of the Mongol conquests.

Behind Rashid's appointment as chronicler was a momentous event. On June 19, 1295, Ghazan and 10,000 of his most loyal followers publicly embraced Islam. Coins were issued bearing Islamic inscriptions, and four years later the Mongol princes formally adopted the turban, abandoning their traditional head-gear with its non-Islamic associations. This was momentous because it marked a decisive break with the Mongol past and the absorption of the conquering race by the dominant Islamic culture. On the other hand, Ghazan, though learned in Islam and a supporter of the faith, did not wish the national traditions of the Mongol people and the story of their extraordinary conquests to be forgotten.

Rashid al-Din's Prayer

"O God, who revealest the most hidden secrets, and divest knowledge of history and traditions! As Thou hast graciously guided Thy servant Rashid the Physician, who standeth in need of Thine Abundant Mercy, in the composition of these works, which comprise investigations supporting the fundamental dogmas of Islam, and minute researches tending to elucidate philosophical truths and natural laws, profitable to those who meditate on the inventions of Art, and advantageous to such as reflect on the wonders of Creation, even so hast Thou enabled him to consecrate a portion of his estates to pious foundations, on condition that from these revenues should be provided sundry copies of these books, so that the Muslims of all lands and of all times may derive profit therefrom. Accept, O God, all this from him with a favourable acceptance, and cause his efforts to be remembered with thanks, and grant forgiveness for all sins, and pardon all those who shall help to accomplish this good work, and those who shall read or consult these works and put in practice the lessons which they contain. And bestow on him a good recompense, both in this world and the next! Verily Thou art worthy of fear, yet swift to forgive!"

From a Translation by E.G. Browne in A History of Persian Literature

To facilitate Rashid al-Din's work, Ghazan placed the state archives at the disposal of the historian, including the *Altan Debter*, the "Golden Book", or official history of the ruling family, as well as his own deep knowledge of both the historical and the legendary Mongol past and his interest in sciences and languages; he spoke Mongolian, Chinese, Arabic, Persian, Tibetan and Kashmiri. He also brought Rashid al-Din together with Pulad Chinksank, representative of the Great Khan of China at the Mongol court, who was able to give Rashid al-Din precious details on the history of the Mongol conquest of China.

Unfortunately for Ghazan, he did not live to see the history of the Mongols completed. He died in 1304. But his successor, Uljeitu, encouraged Rashid al-Din to continue the work and in 1307 the first volume of the *Jami' al-Tawarikh* was completed; it was called the *Tarikh i-Ghazani*, or "Ghazanian History," in honor of Rashid al-Din's patron.

This book, which fortunately survives, is one of the prime sources on the history of the Mongols and much of it is based on information supplied by Ghazan himself to Rashid al-Din. It contains the history of the Turkish and Mongol tribes, including their tribal legends, geneologies, myths and the history of the Mongol conquests from the time of Genghis Khan to the end of the reign of Ghazan Khan. Uljeitu was so pleased with it that he encouraged Rashid al-Din to supplement it with two more volumes: one on the history of all the peoples with whom the Mongols had fought or with whom they had exchanged embassies, and a third on historical geography. This final volume may never have been written – or if it was it has not survived – but the second definitely was; the manuscript auctioned at Sotheby's contains portions of it.

The fact that Rashid al-Din was vizier during a period of massive reform both hindered and helped him. He obviously had little time to work on his chronicles, but his position also gave him access to vast amounts of information. It permitted him, furthermore, to take unusual measures to insure that his works survived. Indeed, few authors in history have taken such care to ensure the survival of their works.

Because of his high position – it was said by a slightly later historian who knew him that he was the most highly paid civil servant in history – Rashid al-Din possessed the means to do so. He founded a suburb of Tabriz, the Ilkhanid capital, named after himself the Rab' i-Rashidi, or "Suburb of Rashid," the main industry of which appears to have been the production of copies of his works.

The Rab' i-Rashidi was enclosed in the great wall, 25,000 paces in circumference, which Ghazan Khan had erected to serve as a customs barrier. It lay on the slopes of Mt. Valiyan, was built at the personal expense of Rashid al-Din, and its endowment provided for Koran readers, theologians, a physician, a surgeon and 12 medical students. The suburb contained mosques, markets, a bath and a library – in which Rashid al-Din set up a system to produce as many copies of his works as possible in order to guard against oblivion.

Under this system he had copies made, lent them to friends, and urged them to transcribe them and return the originals. He had Arabic translations made of those works he composed in Persian, and Persian translations of works composed in Arabic. When the translations had been prepared, he deposited them in the mosque library of the Rab' i-Rashidi.

Rashid al-Din also collected all of his compositions into a single volume, entitled *Jami' al-Tasanif al-Rashidi* ("The Collected Works of Rashid"), complete with maps and illustrations. He even had some of his shorter works, on medicine and government, translated into Chinese. Anyone who wished was given access to his works and encouraged to copy them. In order to facilitate this, he set aside a fund to pay for the annual transcription of two complete manuscripts of his works, one in Arabic and one in Persian.

These copies were written on the finest paper by the most skilled scribes, carefully collated with the originals to make sure that they contained no errors, and, when finished, were illustrated, bound and carried into the mosque where a special prayer, composed by Rashid al-Din, was recited (See above). The same prayer was written at the end of each copy, followed by a colophon indicating the name of the town for which the manuscript had been copied and the name of the administrator of the endowment (*waqf*). The manuscript was then sent to a committee composed of the *qadis* of Tabriz, who certified that the wishes of the author had been carried out.

Even then Rashid al-Din was not satisfied. The finished books were sent to the towns for which they were destined and

The Manuscript

The fragment of Jami'al-Tawarikh *sold at Sotheby's July 8, 1980 was lost for nearly 500 years, mysteriously surfaced in Northeastern India and then, unrecognized, vanished into the anonymity of the Royal Asiatic Society's collection of oriental manuscripts for another 25 years. Now, in a sense, it has vanished again.*

No one has ever learned how it got to Danapur, the town where John Staples Herriot, an army officer and interpreter, found it in 1813, but in 1838, W. H. Morley, while cataloging oriental manuscripts for the Society, came across it, recognized it as rare and precious and, the next year, informed the Society of his discovery. Since then it has borne the prosaic catalog number A 27 and from 1948 until it was sold it was on loan to – and on display at – the British Museum.

By 1980, unfortunately, the Royal Asiatic Society was seriously short of funds for the program of Asian Studies that it was founded to encourage. As the president of the Society, Sir Cyril Philips, made clear in a letter to The Times, *and in the preface to Sotheby's elegant catalog "notwithstanding economies of every kind, repeated increases in subscription, a public appeal, and certain grants-in-aid from national funds, the Society has been in deficit for all but two of the last sixteen years."*

So the manuscript was sold and, since the new owner is unidentified, it has disappeared again – at least for the present.

The manuscript contains portions of four sections from the second volume of Rashid al-Din's history – the volume devoted to the peoples of Europe, Asia, and India. It contains (1) The History of the Prophet Muhammad (incomplete); (2) The History of China (incomplete); (3) The History of India and; (4) Old Testament History. Of these four sections, the second and third are of most interest, for they are based on original sources. The section on the history of China is illustrated with portraits of 80 Chinese Emperors, all stylized and obviously drawn from a Chinese model, although nothing quite like them has yet been found. The text is based on Chinese sources, and although it adds little to our knowledge of the history of China, so well known from other sources, it illustrates the breadth of Rashid al-Din's historical vision and his reliance on original documents.

The same can be said of the third section, devoted to the history of India. Rashid al-Din here gives a knowledgeable account of the life of Buddha, whom he calls by his Sanskrit title of Shakamuni. Parts of this section are based on Rashid al-Din's predecessor, the great al-Biruni; others, such as the account of the kings of Kashmir and the account of the four yugas, *or ages of the world, are derived from Rashid al-Din's informant, Bakshi Kamalashri, a Buddhist monk summoned from Kashmir by Ghazan Khan, the ruler who chose Rashid al-Din to be a chronicler of Mongol history.*

The miniatures illustrating the text are unique; the only others like them are those in the Edinburgh manuscript, a sister to this, for both came from Rashid al-Din's scriptorium. The last folio of the history of India bears the date 1314, so the manuscript was written only three years before the death of the author.

Rashid al-Din was the first historian to conceive of history on a global basis, as a subject transcending national or religious boundaries. His account of the history of the Franks, which includes a complete list of Roman Emperors and popes, with notes on their reigns, as well as geographical and historical details of countries as remote from Tabriz as Ireland – which, he says has no snakes – is in part based on the 13th century Latin chronicler Martinus Oppaviensis, but possibly on information from emissaries too. Rashid al-Din tried, where possible, to obtain first-hand information and preferably, when written, in the language of the people whose history he treated. One of the first historians to do this, Rashid al-Din, in effect, initiated modern historiography.

deposited in the public libraries, where they could be consulted by the public, and even borrowed, on deposit of a fee. At the foundation, professors were appointed to read and expound the complete works of Rashid al-Din – he composed a number of theological and scientific works as well as historical – and one of the terms of their appointment was that each professor had to make a copy of Rashid al-Din's collected works during the course of his lectures. If he failed to do this, he was dismissed and replaced.

Ironically, given the immense effort that was made, Rashid al-Din failed, proving that even historians are at the mercy of history. Although the text of the *Jami' al-Tawarikh* has survived in a number of later copies, all the magnificent productions of the scriptorium at Rab' i-Rashidi have perished – with two exceptions. One extensive portion, with the original illustrations, survives in Edinburgh; the other is the Royal Asiatic Society manuscript auctioned at Sotheby's.

The reason so few productions of Rashid al-Din's scriptorium survived, despite his elaborate precautions, lies in the political events that led to his downfall. As noted, Uljeitu had confirmed Rashid al-Din in his position and heaped additional honors on him as well. As a result, Rashid al-Din was able to construct two more suburbs, one outside the new capital of Sultaniyya, named after its builder "Rashidiyya," and the other east of Tabriz, both financed with the enormous sums Uljeitu lavished upon him, sums never before received by any minister from his sovereign.

In the year 1312, however, things began to go badly. His colleague, Sa'd al-Dawla, fell from power and was replaced by 'Ali Shah, who soon began intriguing to bring down Rashid al-Din. Then, in 1314, Uljeitu died and power passed to his son, Abu Sa'id. Young and inexperienced, Abu Sa'id sided with 'Ali Shah and on July 18, 1317, Rashid al-Din, at the age of 70, was put to death on the obviously trumped-up charge of having poisoned Ghazan Khan. His property was confiscated and – even worse from the standpoint of both art and history – Rab' i-Rashidi, with its scriptorium and its precious copies, was turned over to the Mongol soldiery. Only two fragments of the *Jami' al-Tawarikh* have survived, one of them the manuscript sold at Sotheby's last year.

Paul Lunde is a staff writer for Aramco World. *Rosalind Mazzawi, formerly of Beirut, has contributed several articles to* Aramco World.

FROM SUQS TO SUPERMARKETS

"NOTHING SHOWS THE SWIFT MODERNIZATION OF SAUDI ARABIA MORE..."

WRITTEN BY GEORGE W. WINDSOR, JR
PHOTOGRAPHED BY BURNETT H. MOODY

FROM SUQS TO SUPERMARKETS

It's a familiar scene. Along most of Saudi Arabia's narrow, crowded streets, the shoppers stroll, pause, walk some more and then, from worn sidewalks, turn into shaded *suqs* to inspect, sniff, squeeze and eventually choose, from overflowing wooden crates jammed haphazardly together, their fruits and vegetables for the day.

The next step is equally familiar. They hand their choices to the shopkeeper who pops their bags onto one side of an old brass balance scale, nimbly picks out a combination of weights to balance the trays, and makes change from an old wooden drawer while simultaneously greeting friends, bartering with customers and loudly advertising today's loss leader.

Further on, in the meat *suq* and the fish *suq*, or in a small shop stocking canned goods, you'll see similar scenes. They're part of Saudi Arabia's economy and heritage: a familiar way of shopping – and of life.

But today, that scene is changing – swiftly – in the Eastern Province, in Riyadh and in Jiddah. Nothing, in fact, shows the swift modernization of Saudi Arabia more vividly than the emergence of the giant supermarket.

Overnight, it seems, the kingdom has gone from *suq* to super-suq, from the homey corner store to the computerized supermarket with its steel-frame racks of smartly packaged international foods, and from the shopkeepers' old brass scales to electronic registers that total bills, calculate refunds and give printouts of sales.

In fact, though, the transition has been gradual; alert businessmen began to introduce modern retail food stores in the Eastern Province years ago (See *Aramco World*, January-February 1977). They were not really supermarkets, but they did chart the way for the food chains that have since opened in the Eastern Province, Jiddah and, more recently, in Riyadh – where the Saudi owned Panda Trading Establishment already operates two stores and plans three more. Panda, moreover, is not alone. The al-Johar Trading Establishment has also opened a supermarket, the French Euromarché chain will open a 108,000-square-foot "hypermarket" this year, and the American A&P chain will enter the field soon.

The new super-suqs vary considerably in size, ownership, organization and marketing strategy. In the Eastern Province, for example, two American-style chains cater to an international clientele, whereas in Riyadh, Panda focuses on Saudi Arab customers. With products like fresh camel meat selling at $1.36 a pound and lamb at $160 per whole lamb – both cut, pre-packaged, weighed and displayed alongside the meat from other parts of the world – Panda has drawn large numbers of Saudi Arab customers – about 35 percent now – and plans to boost its total with a $300,000 advertising campaign.

As in the United States, retail food is a highly competitive business in Saudi Arabia, and where *suq* and super-suq meet head-on, the supermarkets are not forging ahead because they're underselling their competition. Instead, they are relying on convenience, accessibility, one-stop shopping and well-lighted, spacious parking lots adjacent to the stores – evidence of how, in recent years, Saudi Arabia has developed into a motorized society.

This is particularly true in the Eastern Province, where the Tamimi and Fouad Food Company – an offshoot of Safeway Stores – and the Souks Company, Ltd., predominate. With a total of five stores, these two chains have invested close to $55 million in modern facilities.

In these stores, for example, shopping begins when electric eyes sweep doors open for customers and display what in some cases is a Disneyland array of brightly colored packages, fresh vegetables and fruits, meats in shining trays, and rows of decorative and functional household goods beneath high ceilings overlooking thousands of different products bathed in fluorescent light: fresh Caribbean coconuts, Greek parsley, Australian beef and lamb, Swiss chocolates, English biscuits, Japanese oysters, Danish caviar, and Saudi dairy products and breads.

These days, Saudi Arabia boasts a multinational work force and this, in the super-suqs, is instantly obvious. Well-groomed, uniformed Filipino and Indian employees help customers, stock shelves, man registers and push brooms endlessly across waxed tiles – and, of course, boost overheads. Imported labor costs more than kids from the neighborhood. But then most of the food is imported too: an inventory of between 6,000 and 8,000 items which, for these Eastern Province entrepreneurs, has meant a logistics problem with several twists.

When, for example, the al-Khobar Safeway opened in the fall of 1979, the company ran preliminary marketing surveys, found that expatriate customers

Above: The shelves in the al-Mokhtar supermarket in Jiddah are crammed with a variety of foods.
Far Left: Two Saudi Arab women discuss the assortment of cheeses offered for sale at the Safeway market in al-Khobar.
Left: Computers keep track of inventories at al-Khobar's Safeway market.
Right: Saudi Arabs stroll outside the al-Johar supermarket in the evening in Riyadh.

Because marketing surveys showed that customers demand fresh fruit most food chains offer a wide range of produce.

At a market in Dhahran, customer peers into food case.

Children eye sweets inside al-Johar market in Riyadh.

At the al-Johar supermarket in Riyadh, shoppers can purchase more than food. Here, shoppers try on new shoes.

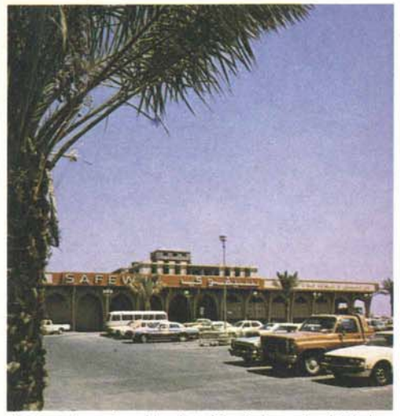
preferred U.S. Grade A produce in the bins and chartered a jet to fly fresh produce from the U.S. – 90,000 pounds of vegetables and fruits at a cost of $100,000. Unfortunately the company overlooked a key problem. Buying and flying ran to about $1.50 per pound so the store had to increase the selling price to break even. But they couldn't – because government regulations had established ceiling prices on imports of such basic foods as milk, eggs, flour, sugar, coffee – and produce. As a result the company had to revamp its whole buying strategy; produce is now purchased from local importers or neighboring Arab countries.

In an area of burgeoning income, such price regulation is important. It helps combat inflation and keeps food prices under control. But in Saudi Arabia there are regulations on food sales with a far more important goal: to preserve Islamic traditions.

One regulation affects all products containing pork or alcohol – both forbidden to Muslims in the Koran. Under a 1973 law on labeling, all oils and shortenings, creams and milk products, juices, tomato paste and tea and coffee extracts must show the name of the food, ingredients, volume, name and address of the producer, date of packing, and country of origin – in Arabic. And under a 1979 amendment jams, tuna, salt, soups and canned meats were added to the list. In addition, new foods are put through laboratory tests to check for pork and alcohol content.

For importers who have not done their research carefully, these regulations have meant some surprises. Nutmeg, for example, is classified as a drug; some mustards contain quantities of white wine; gelatine and lard products are sometimes made from pork; and some

In super suqs Arabic labels are added to U.S. brands.



The exterior and parking lot of the Safeway in al-Khobar.

Packaged meat at a counter in the Panda market in Riyadh.

Often functioning like department stores supermarkets sell a variety of goods such as al-Johar's line of Hondas.

Some of the new supermarkets provide tables and chairs so their customers can rest or check their shopping lists.

shortenings, a key ingredient in pastries and pizzas, contain pork products.

As authorities enforce the labeling law by checking goods when they arrive at Saudi ports, some products have been banned because there is not enough information on them. Manufacturers, for instance, couldn't adequately show the origin of the animal bones – from which the gelatin in Jello is made – so Jello, for a time, couldn't be imported.

In addition, regulations require that shipments of meat be certified that the animals were slaughtered according to Islamic requirements – including proclaiming "Bismillah" and "Allah akbar" ("In the name of God" and "God is great"). Saudi consulates or their representatives issue the certificates in the exporting countries.

Such regulations, of course, affect costs and deliveries. One supermarket manager says labeling requirements add about eight percent to the cost of affected goods, and inspection of labeling at ports has sometimes caused delays. To Saudi Arabia, however, which is determined that modernization will not dilute Islamic tradition, such factors are quite simply irrelevant.

Since local wholesalers had already complied with the laws, the new supermarkets soon began to buy heavily from them. The Souks Company, for example, now gets close to half its food – and all its household goods – from local sources. Their figures show transactions with 113 local wholesalers.

Even so, both the Souks Company and Safeway have to import substantial quantities of food and other goods. The Souks Company, for example, imports about 60 percent of its stock from 17 different countries, primarily the United States – and Safeway maintains an

A child in the al-Johar market in Riyadh stands by the shopping carts and seems anxious to get on with the shopping.

Vegetables and fruit juices stay fresh in a refrigerated section of shelving at the Safeway supermarket in al-Khobar.

A child inside the al-Johar supermarket in Riyadh has her own ideas about what to buy. Here, she holds an apple.

inventory of $5.4 million worth of goods in its stores and warehouses.

Ultimately, however, high sales volumes depend on more than large inventories. In the Eastern Province the super-suqs must appeal simultaneously to Saudi Arabs and to the great variety of nationalities now working in Saudi Arabia since the kingdom launched its massive modernization plans, and at the beginning the owners weren't at all sure that a system that is computerized, prepackaged and impersonal would be acceptable.

They needn't have worried. Supermarkets, in fact, were probably inevitable. In the first great rush to market food and luxury items to Saudi Arabia's population some years back, Western-looking, medium-sized stores not only appealed to expatriate and Saudi buyers alike, but made handsome profits. As a result, electronic cash registers, modern shopping carts, and flashy packaging were not completely new to the area. Furthermore, Saudi buying habits had been changing as more Saudi Arabs traveled to the West.

Another factor is that more Saudi Arab families are moving into modern high-rise apartment buildings where storage space is limited. Consequently more frequent trips to the markets are necessary – which make parking lots and one-stop shopping more attractive.

In many of the supermarkets, what the customer *doesn't* see is as impressive as what he does: structural and safety features the equal of any stores in the world. Both Eastern Province chains have their own refrigerated transport systems and backup generators in case of a general power failure and Tamimi has a second backup system – batteries – which provide lighting and power to cash registers to allow customers to check out even if the generators fail. Souks Company claims that the laminated beams in the stores' structure will remain intact longer than steel in case of fire, and both chains have heat-sensitive sprinkler systems to protect against fire in all phases of construction. Also invisible to customers, but vital to their convenience, is, at several chains, a fully computerized ordering system which provides instant inventory analyses.

Another difference between the kingdom's supermarkets and their counterparts in the States is that by law, they must house their imported workers – and they do so, in dormitory-style rooms or apartments with recreation rooms, pool tables and other amenities such as outdoor

Some super suqs import up to 60% of their food but the National Dairy and Ice Cream Plant of al-Khobar process and package food within Saudi Arabia itself.

A shopper in Dhahran buying meat at modern counter.

Butcher at a shopping center in Jiddah prepares meat.

A typical scene at the new Jiddah Shopping Center.

volleyball courts. The chains also feed their men in company dining rooms.

Both chains in the Eastern Province, like Panda in Riyadh, are 100 percent Saudi-owned, but were planned and developed along American lines. Some Americans still serve as consultants at the Souks Company, but the management in 1980 was all British, a result, says one general manager, of American tax laws which make U.S. personnel too expensive. Tamimi still has a majority of Americans on its 24-man management staff, but says it will have to hire fewer Americans in the future if the tax laws don't change.

Originally, both companies had ambitious expansion plans. The Souks Company, for example, built a 50,000-square-foot warehouse which could supply an additional six to eight stores comparable to the 20,000-square-foot stores now in operation. It also has enough staff housing for four times its present 100 workers. Safeway, also looking ahead, built a 100,000-square-foot warehouse.

Because of competition and other unexpected difficulties, however, some chains have scaled down or changed their goals. Tamimi, which once planned 10 more stores in the next five years, has cut back to one in Riyadh, and the Souks Company is studying the possibility of switching to another U.S. phenomenon: the neighborhood convenience store, patterned after the 7-11's and Minute Marts which now dot American cities. These shops would be open long hours and carry a limited line of goods: milk, eggs, frozen dessert and other items suitable for a five-minute stop. The firm's planners once thought of opening these mini-marts in al-Khobar, but are now considering sites in the smaller areas of Jubail, Qatif and Hofuf. Small-scale operations relative to the supermarkets, they would be supplied by the central warehouse, with each group of three stores under one manager.

Behind these cutbacks is a very real question about the future. For one thing competition is fierce. *Suqs* still do a thriving business and medium-sized markets, though crowded with goods and lacking parking facilities and aisle space, also offer their customers the personal touch impossible in the super-suqs. For another, supermarkets, because of the enormous initial investments, must maintain a high volume of sales. If Saudi buying habits haven't permanently changed – that is, if Saudi Arab customers see the supermarkets as a novelty and eventually return to more familiar shopping places – the chains would be in trouble. Should the number of Western expatriates decrease in the Eastern Province, the supermarkets, obviously, would have to depend even more on the Saudi and Eastern expatriate customers.

Are supermarkets, then, another fad, subject to overbuilding and saturation? It's certainly possible. With markups on household goods of between 50 and 100 percent, 20 percent on local foods and 30 to 60 percent on imported foods, overall supermarket prices are 20 to 50 percent higher than in England, and Souks Company management says it will take about two years for the company to make a "reasonable" profit. Furthermore, there are additional concerns ahead.

One is an effort by the government to facilitate customs inspections by requiring all imports to be shipped in a standard 20-foot container with double doors at each end of the container; although this will facilitate inspections, the chains believe it will also add to the cost of imported goods.

Nevertheless, Souks Company and Tamimi say they're there to stay. They say that overall food prices in the Eastern Province have dropped some seven to eight percent in the past year because of the influence of the super-suq. And they achieved this, they say, by constantly reviewing their prices, to stay competitive, by advertising on the radio and in newspapers, and by announcing specials and new products over the store intercoms as customers wheel their carts down the aisles. Recently, the Souks Company, in cooperation with a local automobile dealer, also sponsored a contest in which shoppers tried to guess the value of foodstuffs packed into the rear of a Toyota liftback. And in Riyadh the al-Johar Shopping Center – which already accepts credit cards – may build a car wash on its premises and offer free car washes to customers who spend a certain amount.

Some chains have also begun to lease satellite shops which surround the centerpiece supermarket with its large lighted sign beckoning motorists to parking places – creating, in effect, shopping centers.

Furthermore, with experience in dealing with the specific problems and restrictions of the kingdom, companies hope to cut what were "sizable losses" in the beginning. And they definitely don't think that Western buying habits – in a country of still burgeoning business opportunity – are a temporary fad.

The evidence is certainly persuasive. In Riyadh, for example, Panda has invested some $600,000 in a computer system to link all its shops with its warehouses. And the al-Johar center, which includes a department store, provides parking for 300 cars and some 54,000 square feet of space for shoppers inside – including a 200-foot aisle of diet foods and a selection of 250 French cheeses.

In Jiddah, the kingdom's major commercial center, there is even stronger evidence. The al-Mokhtar chain already runs three stores, one an 18,300 square-foot, three-tiered store, one of the tiers, a ground-floor, 17,000-square-foot supermarket. Al-Mokhtar, furthermore, plans to open a fourth store in northern Jiddah soon.

Another example is the Caravan Shopping Center with 63 specialty shops plus a supermarket, and still another is the Jiddah Shopping Center, with a central supermarket in a U-shaped complex of offices, shops and apartments. Its supermarket carries some 4,500 to 5,000 items on its shelves and specializes in fresh imported meat which is cut and packaged in the store itself.

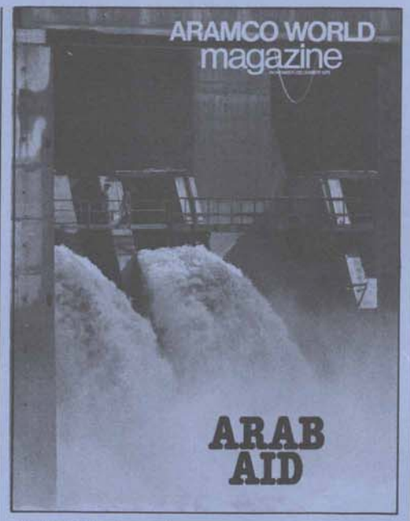
The Jiddah center – also owned and managed by Saudi Arabs – believes in drawing Saudi customers by catering to an increasingly cosmopolitan palate, yet also providing traditional foods. The policy reflects co-owner Muhammad Arif's belief that the success or failure of the super-suqs will depend more on sales to Saudi Arabs rather than to Saudi Arabia's expatriates. Like his counterparts elsewhere, he too thinks that the super-suq is here to stay.

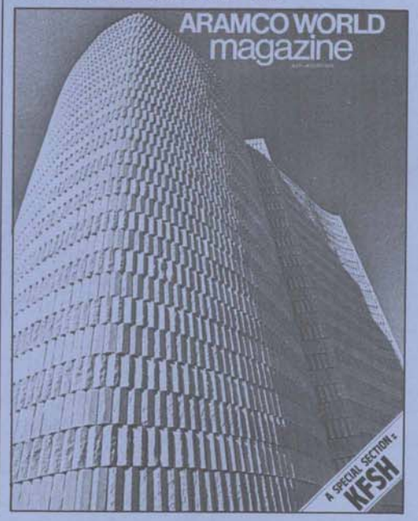
George W. Windsor Jr. is an English instructor at the University of Petroleum and Minerals in Dhahran.

ARAMCO WORLD INDEX 1979-1980

COMPILED BY ANNABELLE CASS

Index of Contents



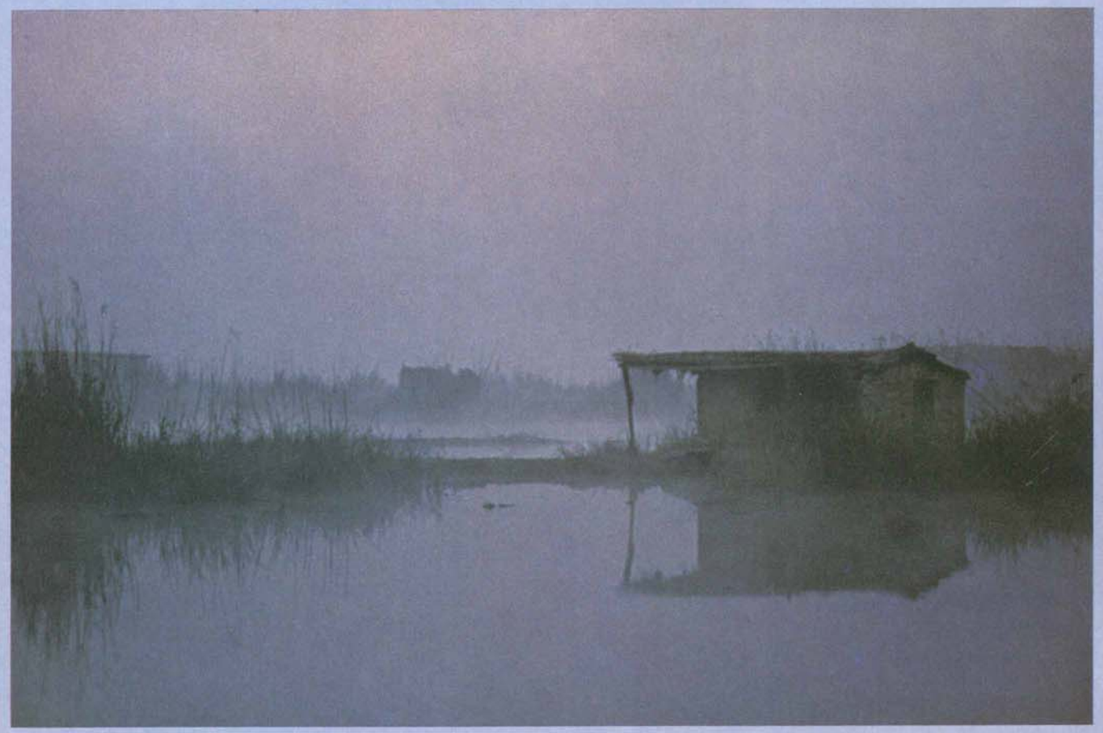


Index of Authors

Index of Photographers

Index of Illustrators

"Each in it's own way, startlingly beautiful"



THE LAKES OF EGYPT

WRITTEN BY TOR EIGELAND – WITH MARTIN LOVE
PHOTOGRAPHED BY TOR EIGELAND

THE LAKES OF EGYPT

Lakes in Egypt? What lakes? Well, okay, there *is* Lake Nasser, and maybe you could include the Bitter Lakes and Lake Timsah, but they're really part of the Suez Canal – aren't they?

It's a common reaction. Egypt, to the non-Egyptian, usually brings to mind such features as the Western Desert, the Suez Canal and, of course, the Nile. But lakes?

In fact, there are numerous lakes in Egypt. Even if you don't include the Bitter Lakes and Lake Timsah which, as part of the Suez Canal system, are fed by the Mediterranean and the Red Sea, there are at least seven sizable lakes with a total surface area of 3,600 square miles – enough to accommodate 130 Manhattan Islands. They are: the High Dam Lake, straddling the Egyptian-Sudanese border in the south; Lake Qarun, southwest of Cairo, and, from west to near the Mediterranean coast, Lakes Maryut, Idku, Burullus, Manzilah and – in Sinai – Lake Bardawil.

These lakes, admittedly, do not compare in size with the Great Lakes, and the terrain is nothing like the wooded shores of lakes in New England, northern New York and Canada. And some would argue that five of them – Maryut, Idku, Burullus, Manzilah and Bardawil – are more inlets of the Mediterranean than real, fresh-water lakes.

On the other hand, most of the lakes are, or were, fresh water lakes. All but one – Lake Bardawil in the Sinai Desert – draw some water from the Nile. And though the terrain may be different from the lake districts of North America or Britain, the seven lakes are, in their own way, startlingly beautiful.

Lake Qarun, for example, lies at the edge of the fertile Fayyum region, but at the far end of the lake, in striking contrast, are the dunes of the Western Desert. On shallow Lake Maryut near Alexandria you can see fishermen poling canoes silently and swiftly through forests of tall reeds, and on Lake Idku, just to the east, visitors to the lake might find fishermen standing waist deep in the water far from shore rhythmically gathering in the folds of their nets.

One particularly lovely lake is Lake Bardawil, in Sinai, which sits like a blue-green gemstone embedded in dunes of sand that change in color from brown to yellow to pink, depending on the time of day. And then, of course, there's the High Dam Lake, formerly called Lake Nasser, the greatest as well as the newest. Nearly 298 miles long – 112 miles of it in the Sudan – and 590 feet above sea level, the High Dam Lake, a vast inland sea behind the Aswan High Dam, is breathtaking.

But one aspect of the High Dam Lake is also, in an odd way, sad; for beneath the lake's waters, slowly crumbling away, are the homes of thousands of Egyptians who had to be relocated as the waters of the Nile backed up behind the dam – as well as vast areas of what was once desert and some monuments of ancient Nubia that, unlike the famous Abu Simbel, could not be relocated.

Through reeds (above) and open water (left) on Lake Maryut near Alexandria, fishermen pole slender canoes.

The High Dam Lake is not in the same category as the other six lakes. Incomparably larger, and more famous, the High Dam Lake may in time be developed into one of the great resorts of the world, where, planners predict, there will be floating hotels, crocodile pools and tourist villages along the banks. But in one aspect it's similar to the other lakes: it provides a livelihood for fishermen – an estimated 6,000 – and food for thousands of Egyptians.

A farmer ploughs at dawn near Lake Burullus.

Indeed, fishing is the chief economic value of all the lakes. The catch on the High Dam Lake, for example, has grown from 2,662 tons in 1968 to 27,000 tons in 1979. Lake Burullus, measuring only 265 square miles, supports an estimated 45,000 fishermen, and on Lake Manzilah, about twice as large as Burullus, the boats often stay out for a week or more and merchants from shore communities sometimes sail out to buy up fresh fish on the spot.

Like many lakes in Europe and North America, the lakes of Egypt have suffered severe ecological damage from industrialization, modern agricultural systems and unexpected side effects from projects meant to help, not hurt Egypt's economy.

On Lake Maryut and Lake Idku, industrial wastes and chemicals used to spur agricultural productivity nearby are damaging the fish habitats; fishermen say that in Lake Idku fishing as an industry is dying. The salt content of Lake Qarun's waters has risen so dramatically in recent years that sole and shrimp, brought from Mediterranean hatcheries, now thrive in the lake – but at the same time other problems threaten nearby agricultural efforts.

On Manzilah and Burullus, fishermen are worried about the erosion of sand bars which separate the lakes from the Mediterranean. Said the mayor of al-Burj, Atiya Ramadan: "Previously, one to one-and-a-half yards were added to the coastline each year. Now the shore is being eaten away at a rate of 30 to 40 feet a year... and this winter our whole town was flooded three times during storms."

Lake Bardawil, fishermen claim, is being choked by weeds because two channels which connect the lake to the Mediterranean are clogged with sand. The fishermen say the lake can no longer breathe and cleanse itself.

Ironically, the High Dam Lake, which has become a fisherman's paradise, and the dam itself, which provides Egypt with electric power, may also be contributing to the ecological changes taking place at the other lakes. Most of the Nile's silt, a life-giving and natural fertilizer, instead of pouring onto the Delta's farmlands, is settling into the lake. Some of the silt, furthermore, may have helped maintain the coastal bars and dunes which separate some of the lakes from the Mediterranean.

The dam, fishermen say, also deprives the other lakes of the nutrients that once sustained the fishes' habitats. As a result, the fish have diminished in size and number in the past decade. Even worse, perhaps, the High Dam Lake may be the cause of an alarming rise in Egypt's water table – the level of underground water. With some 4,500 billion cubic feet of water backed up behind the dam, the lake, in the past 11 years, has found underground channels and its water is surfacing in the Western Desert, along the Mediterranean and, according to some experts, even leaking into tombs in the Valley of the Kings.

Fortunately, though, Egypt is very much aware of these problems and has begun to search for solutions. Geologists from the universities of Cairo and Alexandria are studying the problems, several experimental drainage projects are under way and, according to Abdulgani al-Masri, chairman of the High Dam Development Authority, Egypt has "just about completed" the Tushka Canal. The canal is designed to divert some of the Nile's waters into the Tushka Depression and thus ease the lake's immense pressure.

As to the other lakes, the solutions are relatively basic: restrictions on the dumping of industrial wastes, improvement in drainage to prevent pollution from insecticides and fertilizers and better techniques to monitor changes in water quality. As one scientist said of Lake Maryut, "It has tremendous self-cleaning potential. If you stop the pollution, the lake will recover."

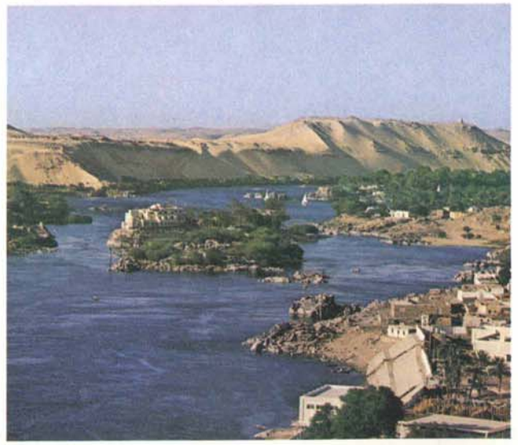
The lakes, beautiful as they are, are testimony to the fact, as scientists and ecologists have only recently begun to discover, that man can quickly and unwittingly damage what nature took millennia to create. They are also testimony to a diversity in Egyptian geography that is not commonly supposed and a beauty largely unknown.

Tor Eigeland, an Aramco World *photographer and correspondent, contributes regularly to European periodicals and to* National Geographic books. *Martin Love has recently joined* Aramco World *as assistant editor.*

Fishermen on Lake Bardawil in Sinai, east of the Suez Canal, pull in their heavy nets from motorized fishing boats. Most of the fishermen live in al-'Arish — not on the shore of this lake — and often bring their boats to the shoreline by trailer.

At Lake Bardawil the desert sand dunes come right to the water's edge.

Fishermen drag and push their boat through shallow waters near the shore of Lake Qarun.



An island in the Nile close to the town of Aswan, below the High Dam.

THE ISLAMIC GAMES

WRITTEN BY JOHN LAWTON
PHOTOGRAPHED BY TURK HABELER AJANSI
(THE TURKISH NEWS AGENCY)

In 1980, world sports were dominated by the Moscow Olympics. But last September in Turkey, quietly and with little fanfare, another international sports event was inaugurated: the Islamic Games.

Located at Izmir, on Turkey's lovely Aegean coast, the Islamic Games were held between September 26 and October 6 and though far less elaborate than the Moscow games – and virtually unpublicized – the first Sports Games of Islamic Countries were, as one participant put it, "a great step forward in the effort to get 42 Muslim nations together on the sports field."

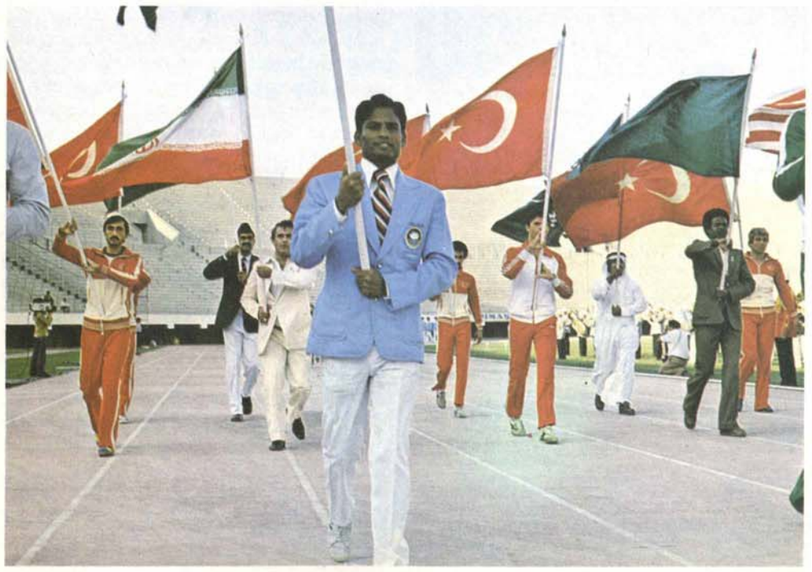
Undoubtedly, the Izmir event was comparatively modest. Only nine countries were able to send teams to Izmir, fewer than 700 athletes competed and there were only seven sports represented: track and field, swimming, football, wrestling, basketball, volleyball and tennis. Yet the Islamic Games, a new idea, were played in the same competitive spirit as the competitions in Moscow, and with something more: a determination that for once the smaller countries would compete in an international event without being overwhelmed and discouraged by the giants of the sports world. "The best part about these games," said Professor A. Chowdhry, General Secretary of the International Amateur Boxing Association, "is that all the countries competing have relatively the same level of performance. This provides our athletes with encouragement to put on an even better performance."

In a sense, one observer commented, the Islamic Games also restored some of the freshness of the original games – if only because Izmir, appropriately, adjoins the Aegean region where the Olympic tradition blossomed 2,700 years ago, when the ancient Greeks organized a race among their best runners at Olympia to honor Zeus, and because a native son of Izmir, then called Smyrna, won the Olympics' first boxing match in 688 B.C.

There were also practical reasons to hold the games in Izmir: an impressive assortment of sports facilities, including the 40,000-seat Ataturk stadium, a sports hall, tennis courts and swimming pool, and the Izmir Olympic Village. Capable of accommodating 2,000 athletes, the village was built by the Turkish government for the 1971 Mediterranean Games (See *Aramco World*, Summer 1972).

Such competition among athletes from Islamic countries is not entirely new. In 1976, for example, the Arabian Games were held in Damascus, and in 1977 an event in Kuwait featured athletes from countries located in the Arabian Peninsula. The Izmir games, however, are unique in concept because they sought to gather competitors not from particular geographic regions, or from a particular ethnic group – but from all Islamic countries.

The decision to hold an Islamic competition was taken by foreign ministers of 42 Muslim states meeting in Islamabad in 1979. "It was felt that this was a good way to bring the Muslim countries closer together," explains Wan Ahmad Radzi, Malaysia's Director-General of Sports. The Muslim states, furthermore, unlike some countries in 1980, made it clear that the Islamic games are to be a permanent feature of the international Islamic calendar. Meeting in Izmir prior to the opening of last fall's games, sports officials from Muslim countries decided to hold an Islamic Games every four years, one year prior to the world Olympics. This,



officials explained, will give Muslim athletes an opportunity to warm up for the world Olympics the following year. After meeting, delegates unanimously accepted the invitation of Saudi Arabia's delegates to hold the 1983 Olympics in Saudi Arabia, and agreed that the number of sports, wherever the games are held, should be increased from the seven at Izmir to a minimum of 12. These will be swimming, football, wrestling, boxing, cycling, shooting, lawn and table tennis, basketball, volleyball and handball – and, if facilities are available, up to three more.

In the meantime, the Izmir conference decided, writers, composers and artists throughout the Muslim world will be engaged in a competition to select an emblem and an anthem for future Islamic Games.

At the Izmir games, the largest visiting contingent – 141 athletes – came from Saudi Arabia, with Libya second (95) Malaysia third (78) and Pakistan fourth (42). Other countries participating in the 10-day event were Algeria, Bahrain, Bangladesh, Morocco, the Turkish Federated State of Cyprus, plus the host country, Turkey.

And the winners? Well actually, as one observer put it, "Everyone won, in that all the athletes learned what the leader to the Pakistani contingent called 'unity through sports within the Muslim community.' That's worth a gold medal right there."

There were, of course, real medals as well:

	Gold	Silver	Bronze
Turkey	63	38	16
Morocco	7	4	3
Algeria	4	14	23
Pakistan	3	18	5
Turkish Federated State of Cyprus	3	3	9
Saudi Arabia	3	1	4
Bahrain	2	2	2
Libya	2	1	3
Malaysia	—	4	3
Bangladesh	—	—	4

And even the 28 athletes from Bangladesh who won no gold or silver medals, left Izmir content. As the leader of their contingent said: "We didn't come here to win medals, we came here to win friends – and we won plenty of them."

John Lawton, a roving correspondent for Aramco World Magazine, *is a veteran UPI reporter now free-lancing from London.*

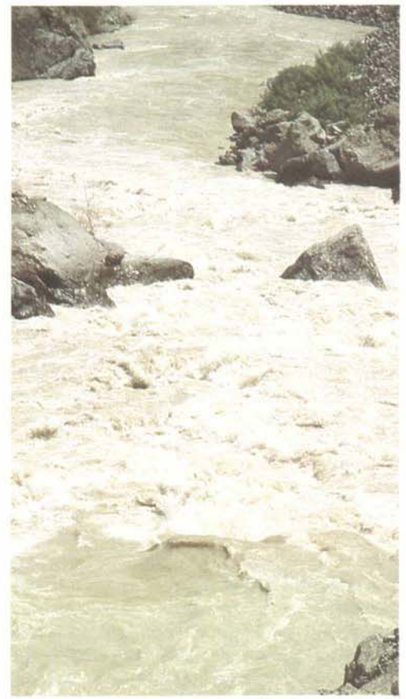
Down the Gorge

WRITTEN AND PHOTOGRAPHED
BY RICHARD BANGS

This story of the Euphrates begins, however queerly, in a sticky jungle in New Guinea, during a three-day portage on the Yuat River. The temperature was 110 degrees, in humidity so high our fried eggs came out poached, and the flies were swarming over us as we wrenched our inflatable raft over the slippery, sharp rocks that littered the banks of a mile-long unrunnable rapid – and dropped it, ripping a four-foot tear in the bow. Then our guide fell, breaking his ankle, and the other raft, yanked loose from its mooring, plunged over a waterfall. I turned to John, my partner, and asked, "What next?" Slinging sweat off his face, he said, "How about the Euphrates?" "Right," I said, and a year later we touched down at Istanbul's Yeshilkoy Airport, headed toward the Euphrates.

One of the great classical rivers, the Euphrates, like its sister the Tigris, flows through a broad fertile floodplain, spanning southeastern Turkey, Syria and Iraq and ending in the Arabian Gulf. On the lower Euphrates, some scholars say, is the site of the Garden of Eden, and archeologists are still uncovering evidence of successive civilizations that throve along its banks: Assyria, Babylonia, Chaldea and Sumeria.

My interest, though, was not historical. I wanted to test the Euphrates as a potential rafting run. And information of that sort, I found, was less than simple to uncover. I began with tedious visits to libraries that smelled like the interior of Byzantine tombs, but didn't have an artifact of a practical reference; proceeded to *Readers' Guides,* in eight different languages; and thence to the map room, where I found the first morsel of meaning on a 1:1,000,000-scale map: a faint tracing of the river's course.



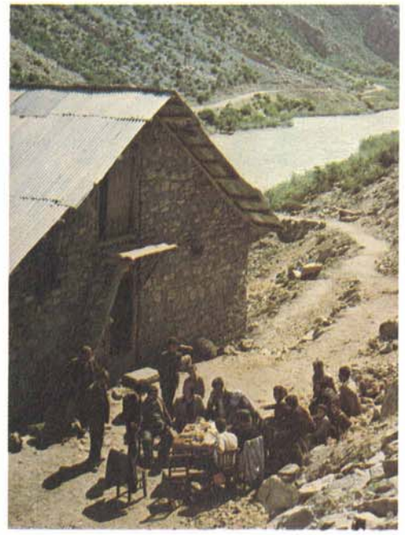
"Let's go do it."
"It's too fast
...We can't."
"We've run bigger."
"I'm scared."

The Euphrates springs from central Turkey. Its largest affluent, the Murat, leaps to life in the perennial snows of Mt. Ararat, Turkey's highest peak at 16,946 feet. After that, though, it turns into a flat, fat serpent slithering toward its merger with the Tigris and its exit into the Gulf. But for some 300 miles through the escarpment of the Anatolian Plateau, the Euphrates drops like a steep, twisting staircase, kicking whitewater spray up against sheer canyon walls and darting down narrow gorges. Midway, the feisty flow has been arrested by the Keban Dam, a power project completed five years ago, but below the reservoir runs the longest, deepest canyon of the 1,800-mile-long river. This canyon had to be our target.

But we still needed practical information. What was the river like in various parts of its course? Where could we launch our rafts and where haul them ashore? What supplies could be found locally? And what sort of authorizations would we need? Above all, where could we get maps – really good, large-scale topographic survey maps of the river area? Though good maps of Turkey do exist, they're virtually impossible to examine; as in many countries, *serious* maps are classified for military use.

For a while, it looked as if the trip was over before it had begun. We tried the U.S. State Department. We wrote the Turkish Tourist Board in New York for the official tourist map. We explored the Library of Congress. But all we drew was blanks. On the tourist map, for example, the end of Turkey that includes the Euphrates was simply left off, and even the 1:500,000 Tactical Pilotage Charts were still listed as "classified" at the Library of Congress.

Still, we had to have detailed information about the river, so I ventured to



Far Left: A rest stop on the Choruh River in Turkey.
Top Left: A monastery looms over the Euphrates River.
Left: People from Isper watch rafter head off downriver.
Above: Girls on the banks of the Choruh.
Right: A village on the banks of the Euphrates.

Washington, D.C. – to visit the Turkish embassy – went on to the consulate in San Francisco, ferreted out some people who had passed through eastern Turkey and finally, hungry for anything, wrote to the authors of guide books to Turkey, especially Fodor's and the seminal *Turkey on $5 and $10 a Day.* Fodor never answered, but Tom Brosnahan, author of *$5 and $10,* sent back an encyclopedia of contacts and information garnered from his years in Turkey as a Peace Corps volunteer and academic. We were on our way at last.

As the expedition jelled, the crew took shape. We would be: John Yost, vice-president of our wilderness-expeditions company; Jim Slade, leader of trips in Ethiopia, Papua-New Guinea, Chile and Alaska; Tom Cromer, math professor and veteran of several exploratory expeditions; and Micki McEwen, a shrink from Marin County who had floated the Colorado three years previously and has been looking for another river to run ever since. She signed as trip doctor.

As Yost and Slade were to be in New Guinea until June, Tom, Micki and I agreed to go on ahead to see if the government would permit our little enterprise. If not, well, we could at least hike the back country, maybe even climb Ararat. We'd find something to do – a two-week tour of the Covered Bazaar; a swim across the Bosporus; belly-dancing lessons. We'd find something . . .

As we squeeze through Immigration at Yeshilkoy, two thoughts prevail: can we clear our gear through customs, and will somebody meet us? Sure enough, we sweep the waiting crowd and a smart hybrid of Mark Spitz and Omar Sharif, complete with Middle Eastern moustache and nervous cigarette, holds up a sign hand-lettered with my name. He is Mustafa Nurettin Suleymanfil, or Nuri for short, an agent for what, apparently, is the only tour company desperate enough to react to the telegrams I had sent. With his help, we get through customs unscathed and grab a taxi before a taxi grabs us.

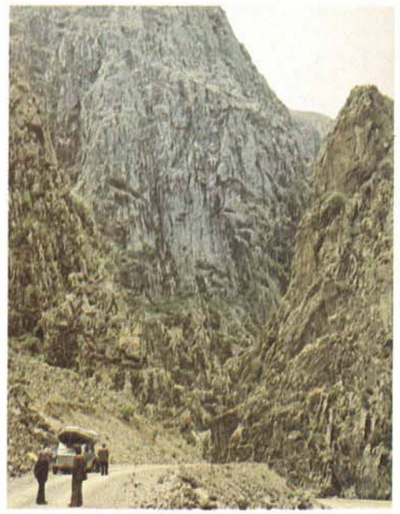
We drive along Kennedy Caddesi by the Marmara Sea, past small fishing piers and outdoor cafes, along the Byzantine city walls. Istanbul has the highest traffic fatality rate in the world, I read somewhere, and our driver clearly wants to keep his city number one. As we weave within millimeters of disaster, he looks over his shoulder and practices his English with an old Turkish proverb, "Every day is a holiday for a madman." As we shut the car door I wish the cabbie happy holidays.

But we're not so happy with our own holiday; there's a lot of arranging to do, like sending Tom off to ride public buses on a 600-mile circuit of the Euphrates watershed. His job is to learn as much as possible about the river, its flow, obstacles – anything. Officialdom has yet to yield anything concrete about the river, so we are gambling that first-hand contact with local people and actually looking at the river will tell us something.

It does. A week later, Tom phones us in Ankara. He's fine, travel conditions are fine, and the main Euphrates below the Keban Dam looks terrific – but too big to handle without a crack crew. That means Slade and Yost, who aren't due from New Guinea for another 10 days. So what to do until then? Why, take a raft down the Choruh River in northeastern Anatolia. It'll be good training for the Euphrates, and besides, according to one guidebook, the Choruh's scenery "is enough to bring the most blasé to a halt, with forests, peaks and precipices unlike anything you've ever seen before."

So we fly to Erzurum, hire a minibus and, after a long, hot ride over high passes and along broad alluvial fans, get to the Choruh. The noisy laboring engine fades down the road into silence; suddenly all we're left with is the small sound of the river gurgling. All the chaos and clamor – of airports, Istanbul, Ankara, Erzurum, taxis, carts and buses – all that is left behind. It's just the river and us.

Before we go, I have to give Micki, Nuri and Vic, another recruit, some paddling pointers, but then we assume positions – two in the bow, two middle-stern, and me in the far aft acting as paddle captain and rudder – and shove off. It's a quiet launching: no fanfare, no whoops of delight. The current grips, pulls us sideways as we fumble with the paddles to coordinate strokes. After a few slipshod riffles, though, we seem to be getting the hang of it. We're not exactly in total command, but we're ready . . .

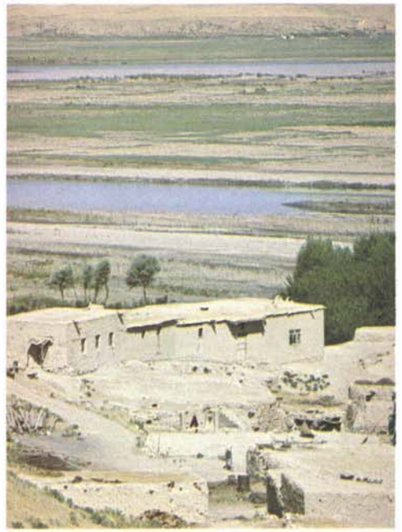


A truck carries the raft through a gorge by the Euphrates.

The first day is quiet, the river rolling softly past stark landscapes and indescribable vistas, but the next day more character creeps into the canyon. There are cattle, water buffalo and sheep, and gaily dressed Black Sea children. We pass willows, Russian olives, red poppies, ground lupins, yellow daisies and tamarisk, and spot several new bird species, such as the *ankaz,* red-breasted geese that migrate from the Arctic. The water is fast, minced with small rapids; the weather is wet and cold, not what any of us expected in summertime Turkey.

During one storm we seek refuge in a cave and break out the backgammon board: we're in the Middle East, after all. At this point, Nuri, who has spent a lot of time on a river for someone who can't swim and has never been on a raft, opens up as we talk about Turkish hospitality. "You must share everything you have. You must not refuse any hospitality. You must try everything offered to you. If people seem not so friendly, just smile and ask for help. They will then help." We find later this formula works every time.

Again the morning mizzles with icy rain. We continue downriver, moving like rusted toy soldiers, singing songs to keep our spirits afloat. The map shows a town coming up, so we round each bend with necks craned. Until, at last, we see a huge, yellow, medieval castle. Pointing to the clouds, perched on a crag above a gray-brown village, it's a fairy-tale picture, and we're entranced – so much so we don't even notice the rapids ahead.



"My God, look!" Tom screams. Immediately downstream the river is going berserk, kicking brown water skyward in chaotic sprays. It's definitely a major rapid, bigger than anything we've encountered to date and, from its looks, as formidable as the Colorado. We paddle frantically, but it's quickly evident we don't have the arm power to get to shore. So, on command, we jump into the frigid water – which luckily is only waist deep – and tug the boat to safety. We moor, and set dripping. off to town, collecting the curious along the way.

Isper is a town lost to another epoch. Dominated by the enormous Seljuk castle we saw from the river, the town looks and feels like a living tableau from another age. Veiled women pad through the muddy streets, while the men congregate in crowded, smoke-clouded tea houses and feverishly pitch backgammon dice between swigs of tea from tulip-shaped glasses. We are told we're the first tourists to come to Isper in 10 years, so, like good tourists, we decide to visit the castle.

Carved out of granite and fortified with limestone walls, the 12th-century castle seems a well-planned fortress, protected from the north by a river too wild to cross and from the south by the town itself; a lookout could easily detect invaders from the east and west. But it serves higher purposes today. The highest castle tower flies the white-crescent Turkish flag and carries a series of loudspeakers, through which, five times a day, the muezzin chants the call to prayer as it has been chanted for nearly 1,400 years.

As we step down from the castle hill, a woman appears and motions us inside her home. In the anteroom a pale grandmother sits silently. In a back room sit two very young girls, wan from lack of sun, weaving a nine-foot-wide silk rug. Fingers fly as they tie endless knots, following a pattern on scale cards, using vegetable-dyed yarn. We're told it will take the girls two years to finish the rug and that it will sell for $235 a square yard. The family drowns us in hot tea, for which they refuse payment, but they gladly beam for a snapshot of the clan.

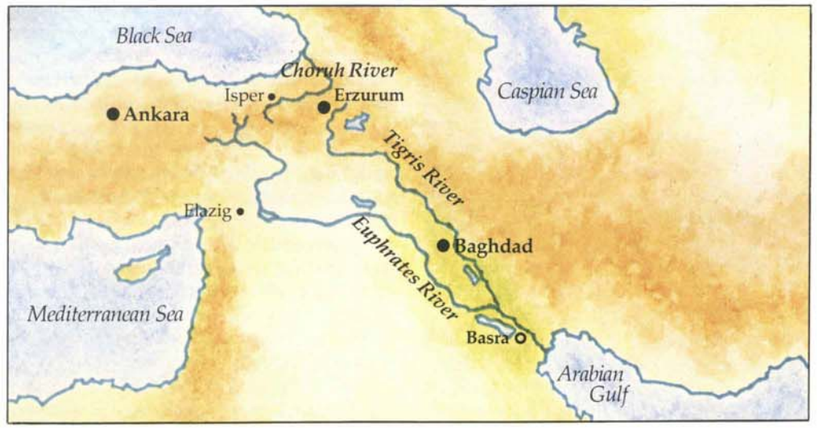
The next day, June 6, is declared a holiday in Isper so everyone can come watch the Americans odyssey down those rapids that surprised us before. Everybody is excited because the Isperians, who call the Choruh "the crazy river," claim nobody has yet survived the rapids. More than 500 people crowd the bridge, and more gather on the shores as, at nine o'clock, with a swell of cheers, a soldier shoves us into the current – where we're quickly swept downstream into the gullet of the rapids. Instantly we crash into mountainous waves, list one way, heave another, broach, churn, and, to a thunder-roll of applause, emerge right side up at the bottom.

But now the river kicks into overdrive and our audience, following us on a dirt road along the river in a parade of bicycles, vans, trucks and cars, frantically waves a warning. We manage to swing in, and sure enough, an unnavigable rapid blocks our passage.

Portaging on most rivers is a grueling, time-consuming task. But here, we discover, Turkish hospitality makes the chore a snap. Thirty men and boys help us hoist everything to the road in minutes, where it is loaded onto a van. Then we rock and roll down the road, past the obstruction, listening to a current Turkish pop singer on the

tape deck. Exploratory rafting was never so cushy. Half an hour later we're back on the river.

The rapids continue, ever increasing in frequency and magnitude. Cedars join the life zone; the canyon is growing greener. At noon we park under a suspension bridge and walk up to the local post office building, where Mehmet Gültekin, a retired school teacher, offers us tea and bread. Mehmet, who has never met any Americans before, politely tastes our Cheese Whiz and peanut butter, but has difficulty disguising his displeasure with the foreign food. However, he loves our company, even if he can't comprehend our conversation. (Nuri, embarrassed to be wearing anything as outrageously un-Turkish as shorts, is pretending to be an American too.) As we return to the river, the sunshine breaks through for the first time in days. Magnificent vistas, Grand Canyon-like, are around us. Swirling around one bend we look up to see the highest peak in the range, Katchkar Dagi, some 12,800 feet high.



The next morning we go on again, digging the paddle blades through a gorge stratified with textbook geology; the earth has done some fancy dancing here. Every inch of level ground at the river's edge has been cultivated, so we're never more than a few deft strokes from peaches, cherries and a raft of vegetables. Starvation is not one of our chief concerns. As we glide past we yell "Merhaba!" to astonished farmers.

The rapids are now so formidable it seems a miracle each time we come out of them intact. Tom says they're the biggest he's ever run – and he spent eight years as a Colorado River guide through the Grand Canyon. His remark doesn't seem to sit well with the tyros of our crew. After a five-minute rapid – the longest I've ever navigated – we pull in beneath another castle for lunch and Vic measures the current: seven miles an hour. The Colorado averages four. On that news, lunch is a brief affair as anxiety overrides appetite. The ferocity of the water is only matched by the wildness of the canyon, and we seem lost in the Pleistocene. Until, that is, we carom past the village of Tekkale and see a television antenna on top of a mud-brick house.

Late in the afternoon, we approach yet another cataract hiking spray high into the air. Our established routine at this point is to paddle feverishly in a cross-current traverse to shore just above each rapid, where our phlegmatic Vic heroically leaps to shore, throws the bow line around an anchoring tree or rock, and holds tight. Then as Vic holds the rein, Tom and I scout the impending rapid, to plot a course between the holes, waves, rocks, whirlpools and eddies.

This time, though, the current suddenly double-clutches into high, pulling us toward the killer curve like a swaying trailer on a mountain grade. There can be no worse feeling than entering an unreconnoitered, unknown rapid out of control.

Niagara Falls could be around the bend. I suddenly remember the Australians in Papua-New Guinea who tried rafting the Fly River without proper scouting. As the river, without warning, poured into a limestone cave, so did they – and only a punctured raft poured out the other end.

On that note, we smash into the initial wave, a monster that pitches Vic over the prow and snatches his paddle. Micki lunges for Vic and pulls him back, but the paddle swims away. I toss Vic a spare, but as I stick mine into the froth we drop into a sharp souse-hole. I'm snapped forward, a pellet in a slingshot, against the front thwart. I scramble back to my position, but another hole sucks us down and this time I'm whipped backwards into the boiling water with my legs draped over the back tube. Tom drags me in just as we swirl into a soft eddy at the rapid's end. No one argues when I call for camp.

The next day, more rapids. They've ceased to be fun. Each one brings a flood of diffidence, of apprehension. Midday is spent in a series of three portages. By three o'clock Tom is bent over the gunwale vomiting; the sky looks as though it's about to do the same. "Euthanasia! Give me euthanasia," Tom babbles, and Nuri is puzzled. "But you're only 27. You *are* youth-in-Asia." That does it. We call it a day.

Friday, a drenched Nuri accompanies me, for the first time ever, in scouting a rapid. It's nothing compared to some of the past runs, but still mean. Nuri stares and trembles.

"Let's go do it." I slap his back.

"It's too fast . . . We can't."

"We've run bigger."

"I'm scared."

A powerful admission for a proud man. But I'm scared, too, and have been for days. I tell him that and we return to the boat, canvass the crew, and with mixed emotions elect to end the trip here. We want to save something for the Euphrates, even if it's only our necks.

Back in Ankara we link up with Jim Slade and John Yost, who've flown in from New Guinea, hop a plane to Elazig and take a minibus west to the Keban Dam, which backs up the largest reservoir in Turkey. The dam sits in a cloud of mist, with 36,000 cubic feet of emerald water gushing down its 4,200-foot-long concrete spillway every second. When the water strikes a lip at the base it shoots hundreds of feet into the air in a tremendous arc, then crashes down in a deafening tumult. After a year of dreaming and planning, we're all standing on the bank of this classical river, overwhelmed by the man-made creation that's controlled the flow that once ruled men and their civilizations.

By 12:30 we're on the great, green, cold expanse called the Euphrates. It's beautiful, but somehow anticlimatic. It feels no different from the Colorado, the Blue Nile or a dozen other big rivers. I somehow expected a deeper sense of ancient history, ruins at every bend, caravans crossing the shallows. The yellow canyon, illustrated with folding whorls and faults, is still, save for the sounds of birds. It feels as though we're floating through an empty coliseum, layered and deep, reverberative, punctured with caves and rimmed with winding paths.

At dusk, as we camp, we see two other inflatable rafts drifting toward us. Is this possible? We thought we were the only inflatable for 1,000 miles and at least as many years. The vessels gradually wave into focus as though emerging from a desert mirage. They're jerryrigged rafts, tractor-tire innertubes lashed to planks, piloted by farmers. They wave, and pass on toward unknown destinations. Micki invents and cooks "Beef Euphrates Italian," and, as we lie sleepily looking at the night sky, I remember that farmers and herders along the Euphrates have been using inflatables for millennia. Cuneiform tablets tell about crossing this river on inflated animal skins, Herodotus mentions it, and so do 19th-century travel books. Our $2,000 raft has a long history behind it.

The next morning I poke my head from my fiberfill sleeping bag and witness, in the flat dawn light, a tractor in the middle of the Euphrates. I get up to take a better look. The river is gone. A tiny trickle remains, bubbling 50 feet from the raft. They've turned off the dam! It's an astonishing sight. The mighty Euphrates, river of antiquity, ignominiously reduced to a rivulet, the victim of the flick of a switch at the Keban Dam. The tractor driver assures us the water will be back up tomorrow, so we take the day off.

But the river's still not there the next day. We break the wait by hiking across the ridge behind us, where we discover the real Euphrates rushing by in sizeable volume. We're on an island, it turns out, and have parked in a channel that exists only in high water. We wrestle the boat down to the trickle and proceed to drag it over the rocks downstream. After a couple of hours of pushing and shoving we meet the current from the opposite side of the island: smooth sailing. Within hours we've floated 20 miles to Kale, at the head of the Kermer Khan Canyon, where we set up camp on a high sand beach.

Through this Grand Canyon of the Euphrates, the river cuts its most imposing course, scything around a lava mass erupted from the Karajali volcano, and stabbing across anticlines of the Taurus Mountains. Here, too, are the river's biggest rapids. Lulled by days of flat water, we're taken by surprise when we plummet into the first cataract. Our boat is tossed like a tiny cork, and as it slaps on end I'm washed overboard, Micki loses her paddle, and our sense of anticlimax evaporates. This is not a complacent river after all; we have to listen to it, reckon with it.

As, all afternoon, we do – in a series of Arizona-size rolling rapids that lash us with some honest thrills. Beyond the oblique canyon we can sometimes see snow-capped mountains and, at tributary mouths, we occasionally spot Kurdish women fetching water in long-necked clay jugs.

Late on the sixth day we enter a travertine gorge pocked with shallow caves. High on the west bank, fitted into a limestone alcove, sits a remarkable sight – a masterfully constructed, ancient, abandoned Byzantine monastery, one with no written history that we're aware of, but as impressive as any in Turkey. Honeycombed with dank passageways, festooned with swallow nests, graced with Roman-arched doors, filled with bats and with no easy access to the world beyond the river gorge, the place is a hidden wonder. We can't help but feel we've stumbled across something significant. It's like finding gold while stranded on a desert isle: we can do little with the discovery, but feel richer nonetheless.

On Sunday, after the river has broken from the canyon, dropped off the Adiyaman Plateau and started its long, sluggish journey across the flatlands, we round a bend and see a glint of steel spanning the timeless flow: the Akinjilar Bridge, our takeout. As we pull in under the abutment, some teenagers manning an open-air soda fountain for bus travelers scramble down to meet us. We're not the typical afternoon visitors. One boy, recalling his English lessons, yells a greeting: "Hello! Welcome!" His eyes betray his incredulity. "You 'fraid this?" he asks, pointing to the river. I can't resist. "No," I say, "Eu-phra-tes."

Richard Bangs, a former script writer and magazine contributor and editor, now heads a company that organizes and guides tours of remote areas, most of them by raft but others on skis, boats and bicycles or on foot.