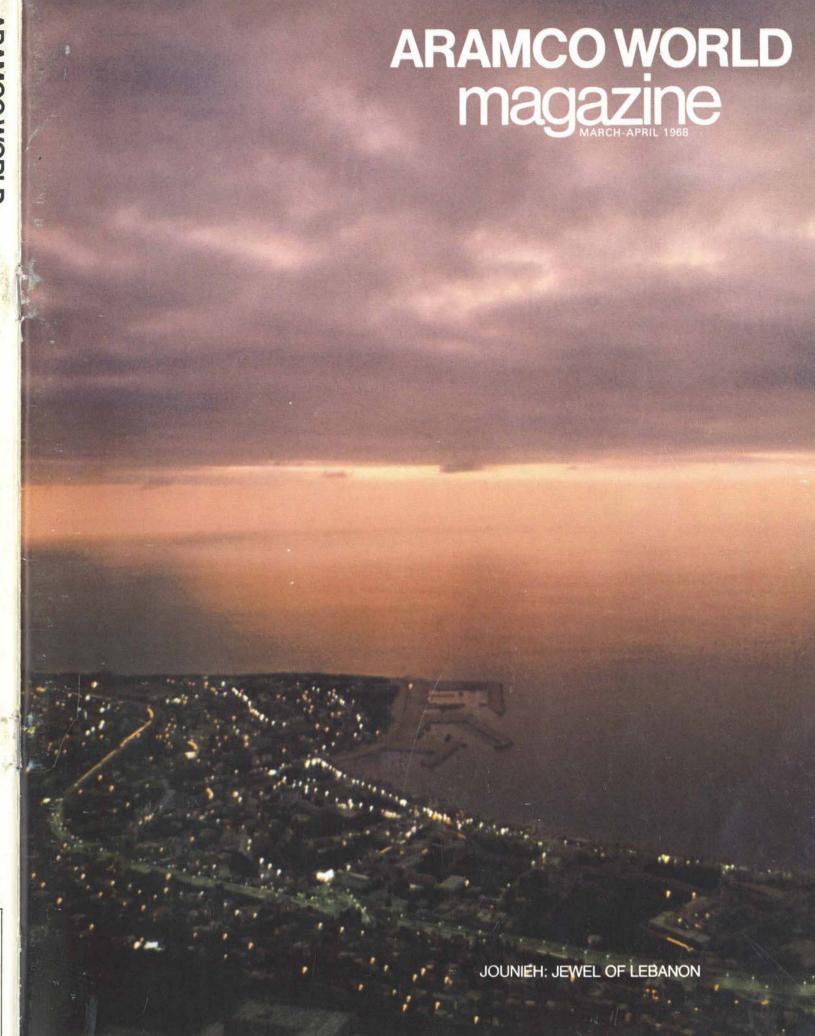


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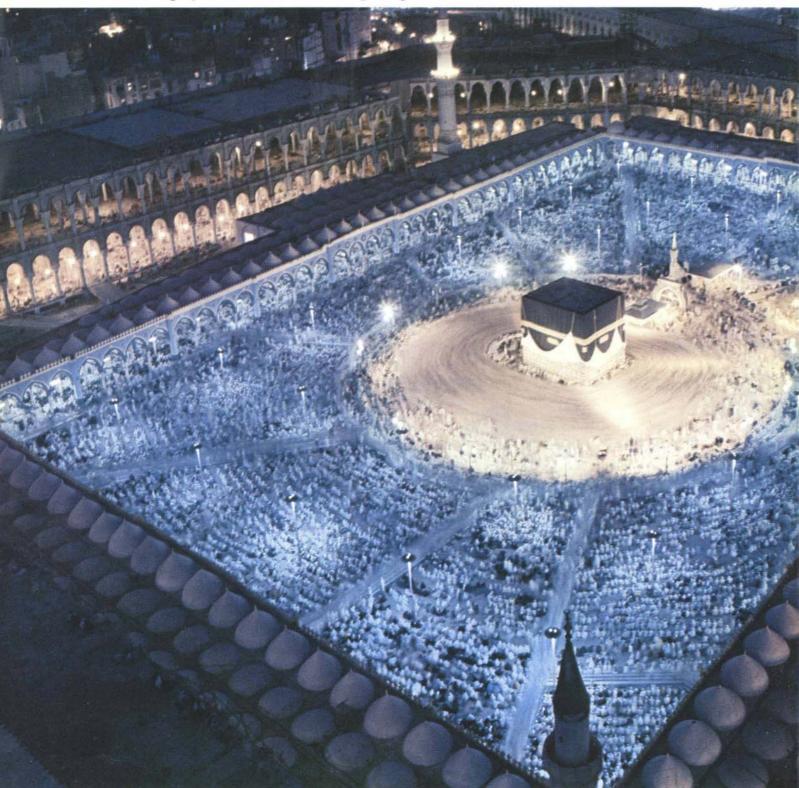
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Special in this issue: THE HOLY JOURNEY

A Photographer's Record of his Pilgrimage to Mecca



In the great courtyard of the Sacred Mosque in Mecca during the hajj, Muslim pilgrims from around the world circle the Ka'bah, most sacred spot in the Holy City. Photo-essay on page 40.

ARAMCO WORLD magazine

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THE CASE OF THE VANISHING TRAIN

BY BRAINERD S. BATES

Years ago just the mention of the famous Orient Express was enough to evoke images of romance, danger, intrigue and elegance. That this reputation was never entirely justified and is today more than slightly out dated is the gist of this amusing report from Brainerd Bates who rode the Express from Paris to Istanbul a few months back and found the trip as hard on his illusions as on his appetite.

UR OF THE CHALDEES

There was always a hint of excitement in the Bible's short reference to "Ur of the Chaldees", a suggestion perhaps that the fame of Ur needed no amplification. But the real excitement did not begin until Sir Leonard Woolley carefully scraped away the earth of ancient Mesopotamia, found Ur and unlocked some of the most puzzling mysteries in archeology.

DISCOVERY: THE STORY OF ARAMCO THEN

BY WALLACE STEGNER

In this installment, the second from Wallace Stegner's book on the pioneering period in Aramco's history, the author focuses on the crucial three and a half months when Lloyd Hamilton sat down with the shrewdest men in Arabia to hammer out an agreement on how and when the search for Arabian oil would begin.

JOUNIEH: JEWEL OF LEBANON

BY WILLIAM TRACY

"See Naples," they used to say, "and die." In Lebanon they paraphrase it: "See Jounieh and live." Jounieh is a small village north of Beirut, a village of red roofs and quiet streets on a strip of sand just below a deep bowl of forested cliffs and pine clad mountains. It is also one of the loveliest places in the world.

THE GREAT BADANAH FLOOD

BY PAUL F. HOYE

From the air it was almost unbelievable: wide rivers foaming angrily through the deserts, village streets awash, the desert vastness transformed into a swamp of shallow pools and small ponds, and, at one place, a lake more than half a mile long, with waves breaking against the great trans-Arabian pipeline and a film of oil spreading across the surface. The Great Badanah Flood was underway.

THE HOLY JOURNEY

Among the approximately 300,000 Muslims who made the pilgrimage to Mecca last year was an Aramco photographer named Shaikh Muhammad Amin. He, his wife, and his mother and father, who had begun their pilgrimage in Pakistan, crossed Saudi Arabia by train and by car to make what in Islam is the most sacred of their duties to God. On the way he recorded the look and the feel of a pilgrimage as seen and made by a Muslim.

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is at its loveliest. In the morning when bright sunlight spills onto the pale strip of coastal sand and the red tiles of the village? At night when the moon shimmers on the surface of the bay? Or at sunset, as in this photo by Tor Eigeland, when the sky glows with the last rays of the sun and the village lights outline the bay for one spectacular moment before dusk and darkness settle down?

THE ORIENT EXPRESS... ONE OF THE WORLD'S MOST FAMOUS TRAINS... HAS VANISHED... LAST SEEN LEAVING PARIS... BOUND FOR ISTANBUL... DISAPPEARED SOMEWHERE BETWEEN YESTERDAY AND TODAY... ABOUT HALFWAY BETWEEN FACT AND FICTION... ANYONE HAVING INFORMATION IS ASKED TO...



BY IAN FLEMING / AGATHA CHRISTIE / GRAHAM GREENE / ERIC AMBLER / AND

BRAINERD S. BATES PHOTOS BY KHALIL ABOU EL-NASR

The weather, the setting and the mood were all so right. The rain that had been pouring down on Paris all day was dissolving into a soft drizzle. The streets, black and glistening in the lights of the speeding taxi, were deserted. A damp chill came off the Seine.

We made very good time. As we sped over the Ile de Cité, down the Rue de Rivoli and across the deserted Place de la Bastille I had been uneasy. But now ahead, the clock face above the Gare de Lyon showed 11:10 p.m. I had made it with almost an hour to spare.

There were no porters, of course, but under the circumstances it was just as well, although with my baggage the walk to Voie 1 deep inside the terminal seemed to take forever.

Under the white oval designating the track number a large tin plaque covered with bold black letters told the whole

23:53 DIRECT ORIENT Rapide 155 1ère et 2ème Classes Dole - Frasne Vallorbe — Lausanne — Vevey Brigue — Domodossola MILAN Venise — Trieste — Zagreb BELGRADE ISTANBUL — SOFIA ATHÈNE (Le Pirée)

Or maybe not the whole story. It didn't say outright that this was the train most people call the Orient Express. And it certainly didn't say what my part in the story was. But then how could it? I barely knew myself.

The assignment sounded easy at first: "Find out what happened to the famous Orient Express." But when I asked for

details I got some very strange replies. "It's missing," they said. "The Orient Express is missing. It was seen leaving Paris for Istanbul but somewhere between yesterday and today, about halfway between fact and fiction, the Orient Express vanished. We want to know why."

I sighed and moved along Voie 1.

Successive conductors passed me along the train until I reached Voiture V, a handsome royal blue car emblazoned with the legend "COMPAGNIE INTERNATIONALE DES WAGONS-LITS ET DES GRANDS EXPRESSES EUROPEENS." The car also displayed the company's elaborate crest and the words "Voiture-Lits" and "Sleeping-Car." I climbed aboard, found my compartment, checked to see if the corridor was empty and began to inspect it.

As a vicarious occupant of Orient Express staterooms on many paperback journeys across the Continent, I looked at this one with preconceived notions galore. The compact space which was to transport me from the right bank of the Seine to the shores of the Sea of Marmara, 1,800 miles away, fitted the picture perfectly.

The stateroom was about six by seven feet and the seat, which ran the whole width of the compartment, was already made up into a berth. In the corner opposite was a waist-high stand which opened into a minuscule washbasin. Above it was a mirrored cabinet of varnished teak with drinking glasses and a flask of water in brackets and two white hand towels tucked neatly behind the glasses. Some wonderfully old-fashioned touches gave clues as to the car's vintage: an electric fan set in the high ceiling overhead, a small steam radiator under the wide roll-down window, and, inside a cabinet of its own under the washstand, a utensil whose function puzzled me for at least a minute. Then it struck me what it was. The Orient Express had thought of everything.

While I was busy investigating these

wonders a conductor came through to collect my ticket and, for French-Swiss border formalities later that night, my passport. At the same time he left with me forms to be filled out for police and customs men. I inspected them carefully and began to fill them out, thinking that whatever had happened to the old Orient Express, this aspect of it—this flavor of frontiers at night and uniforms in the darkness of the corridors—was as true as it had ever been.

Or was it? Suddenly I was alert, my senses tingling. Would this have been possible on the old Orient Express? Would a man on a mission, even one like mine, have passed so easily through frontiers in the darkness of night? Had I stumbled on something this soon?

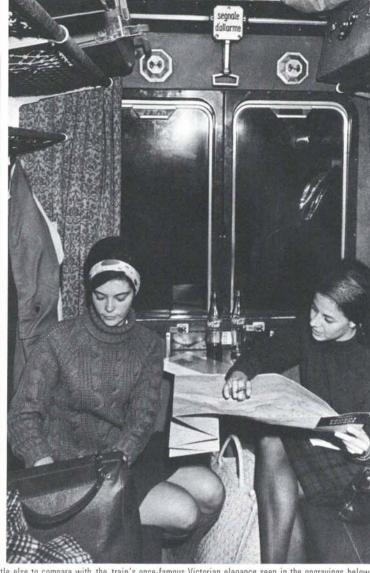
My mind raced. Was it worth sending word? Or was it too soon? As I hesitated the issue was decided for me. The train began to move. I shrugged, watched the darkened outskirts of Paris fade away and began to unpack.

In the stateroom, I had noticed that the slide bolt to the closet was sticking. Now I pressed it harder and suddenly it slid open and the door swung back. Before me was an exact replica of my own quarters—in reverse. And suddenly the gates of memory opened too and I began to remember things—things about the Orient Express.

I remembered, for example, that more than 33 years ago on the Orient Express, in a snowdrift in Yugoslavia, Agatha Christie's Inspector Hercule Poirot had taken many hours of interrogations and pondering to figure out precisely how the murderer of Samuel Edward Ratchett had managed to leave the scene of the crime even though the victim's compartment door was locked on the inside and snow prevented escape through the window. The answer would have been obvious to anyone on these trains looking for a suitable place to store his belongings out of sight: First Class Single staterooms have connecting doors.

I remembered too that Eric Ambler had put Charles Latimer on the Orient



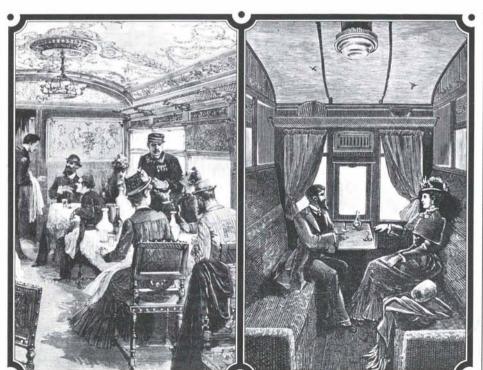


En route to the Middle East on the Orient Express author Bates found one femme fatale (above, left) two pretty, adventurous students (above, right) but little else to compare with the train's once-famous Victorian elegance seen in the engravings below.

Express and sent him all over Europe searching out the secret of A Coffin For Dimitrios. More recently, I recalled, James Bond and the beauteous Tatiana Romanova had boarded this same train near the Galata Bridge and for a tempestuous three days has ridden the same route to Dijon. Tatiana ... Ahh, Tatiana.

Taking off my clothes and folding them neatly on the floor below me, I climbed into bed, opened the black attaché case and, as we streaked through the vineyards of Burgundy, began to review what the files had turned up about this most famous of trains ...

he royal blue sleeper on which I rolled southeastward toward Switzerland that night was a lineal descendant of all the Grand European Expresses that once made European railroading synonymous with



glamour, luxury and romance—trains like the *Golden Arrow* and the *Blue Train*. They—and the Direct Orient—have been unique both because they link such widely contrasting worlds on a regularly-scheduled basis and because they still, in an age of jets, survive.

The idea that came to be the Orient Express was reportedly inspired by George Mortimer Pullman of the United States. It called for comfortable sleeping cars in which passengers could remain to the end of their journeys even while crossing national frontiers. The plan was the dream of a 19th-century Belgian engineer named Georges Nagelmackers, founder of the Compagnie Internationale des Wagons-Lits and possessor of a considerable talent for getting government officials and regional railroads to see things his way.

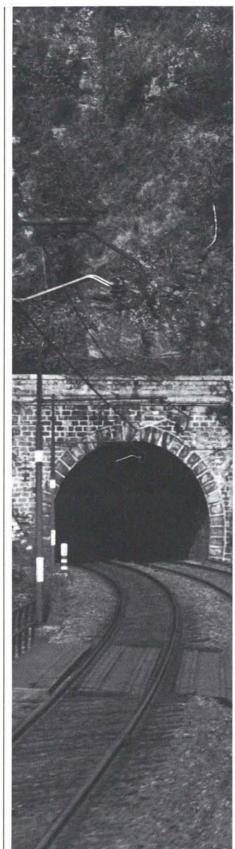
After protracted negotiations, Mon-

5

sieur Nagelmackers' company drew up a contract between Wagons-Lits and eight European carriers bearing such period-piece names as the State Railways of the Grand Duchy of Baden and the Kingdom of Wurtemberg State Railways. Under its terms the tracks were cleared for the unencumbered passage of M. Nagelmackers' rolling stock to the easternmost rim of Europe. The inaugural train-six sleeping cars and a diner-carried some 40 government officials, engineers, railroad executives and journalists and left Gare de l'Est on October 4, 1883. Routed via Karlsruhe, Munich, Vienna, and Bucharest, the train deposited its passengers, very little worse for wear, at the Bulgarian port city of Varna, from whence they proceeded south by overnight steamer to Constantinople where they began to praise the train by its inaugural title: "Express d'Orient."

Later, when regular service had been established, all Orient Express trains went from Paris to Vienna, where they split into two sections, one continuing east to Bucharest, the other going south to Constantinople via the Austrian Alps, Belgrade and Sofia. By 1889 the trip took 67 hours and 35 minutes—only seven and a half hours longer than the same trip today. When the Simplon Tunnel was opened in 1906, the section going to Turkey was renamed the Simplon-Orient Express and the Vienna section was called the Arlberg-Orient Express.

While comfortable appointments and solicitous attention drew ordinary passengers of means to these now-extensive systems, it was the storied reliability of Wagons-Lits that attracted the King's Messengers, the diplomatic couriers and other representatives of governments who eventually gave rise to the rumors that the Orient Express was somehow crawling with agents and spies. And in fact, as new national boundaries, created increasingly stringent frontier regulations, some of the passengers riding Wagons-Lits may have found encounters with inquisitive border officials distressing. It is not unlikely either that the



The Simplon Tunnel, where James Bond fought for his life.

various ingenious means they employed to conceal their identities and missions may have given rise to the somewhat sinister aura commonly associated with Orient Express even today.

Whatever dark reputation the train may have earned on its own, however, it was the masters of fictional espionage who publicized it. In the 1930's especially, but as late as the James Bond era, a whole school of writers saw the advantages in a setting so perfect for intrigue and so mobile it could span seven countries in a few days.

One of the better contributors from this school was Eric Ambler who, in A Coffin for Dimitrios, used the train as a setting for international smuggling. In Stamboul Train, a more literary "entertainment," Graham Greene put his pathetic cabaret dancer Carol Musker onto another Orient Express at Ostend to travel to Istanbul, then stopped the train under melodramatic circumstances at the obscure northern Yugoslavian city of Subotica. Ian Fleming's James Bond made a rendezvous with Tatiana Romanova at Istanbul's Sirkeci Station in To Russia With Love, then rode with her until the last stop before the Gare de Lyon. Agatha Christie outdid everyone by putting 17 assorted characters aboard the train-in Murder in the Calais Coach-and stranding them between Vincovci and Brod in a snow-

I recalled that in Miss Christie's book, Inspector Poirot, who as luck would have it was one of the passengers, had begun his long train journey back to Europe aboard a Taurus Express in Syria—a reminder that Wagons-Lits service does not confine itself to the Continent. The company's current *Guide* in fact, indicates that passengers may travel on its cars in Algeria, Morocco and parts of West Africa, and even take Taurus Express sleepers on the Asian side of Istanbul which will land them eventually at either Baghdad or Beirut.

As all this ran through my mind that night, so did the question that had brought me to Paris: Where did it



As in the past the Orient Express frontier crossings meant suspicious customs officers and policemen, but something, Bates found, was different.

vanish, this wonderfully romantic Express? Where and why? I fell asleep thinking about it ...

sudden lack of motion woke me.

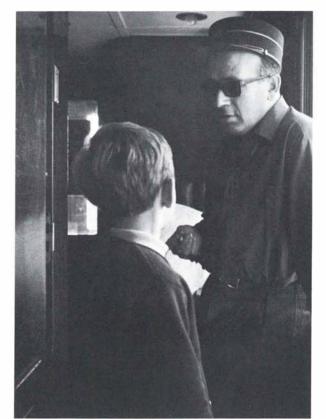
It was 7:10 a.m. and I saw we had stopped at Lausanne. I dressed, stumbled to the dining car and over croissants and café au lait enjoyed the view of Lake Geneva all the way to Montreux. I would have lingered longer had I known then that this was the last voiture-restaurant service I would see until well inside the Turkish border, two whole days hence.

As Rapide 155 sped up the Rhone Valley through scenery growing increasingly hilly, I decided it was time to leave the confines of Voiture V and investigate adjacent cars.

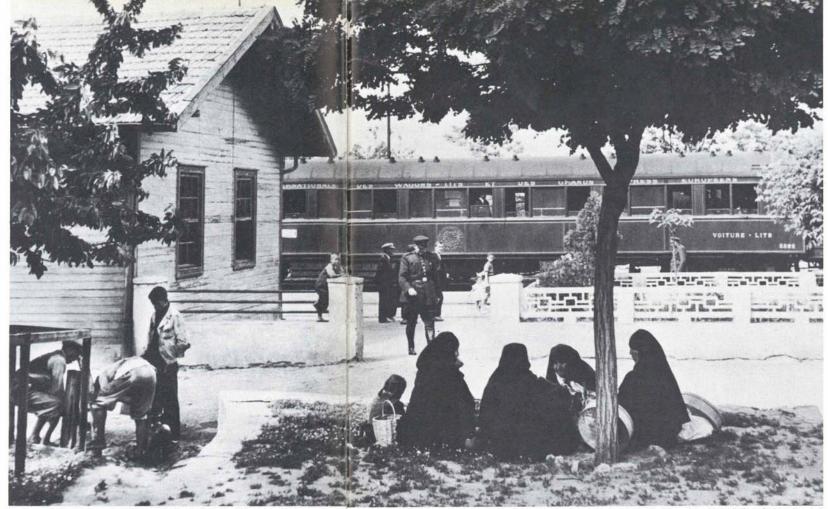
All the train's other cars contained second-class accommodations: compartments for eight with facing leatherette seats. In one compartment three young men of college age were enjoying each other's company through the medium of English, "our one common language," they explained. One of the trio turned out to be a Lebanese architectural student from the American University of Beirut who was going to Istanbul. His companions, a Frenchman and an Austrian, were getting off at Milan. The Direct Orient, I was soon to discover, caters mostly to regional traffic; few passengers ride far. The 19 stations listed on the schedule do not begin to account for all the stops the train makes while progressing from France to Turkey.

As that idle thought went through my mind I suddenly drew a deep breath. If the legendary Orient Express were essentially a long-distance "local" with one or two Wagons-Lits sleepers simply tagging along, wouldn't this explain something? I resolved to probe this idea more deeply later.

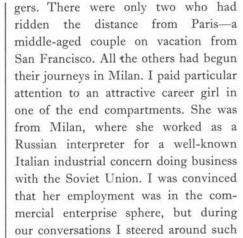
At Brig, the last stop on the Swiss side, we changed locomotives and almost immediately plunged into the Simplon Tunnel, 12.3 miles long and at one point more than 7,000 feet below the pure Alpine air. It was in this very same



As the train heads east a boy checks the famous route with a conductor.



Having crossed six countries, France, Switzerland, Italy, Yugoslavia, Bulgaria and Greece, the Orient Express pauses on the frontier of Turkey before beginning the final leg of the long trip from Paris to Istanbul.



We were rounding the head of the Adriatic now, dusk was getting deeper, and I was getting hungrier. But the best I could manage was an expensive tray of cold chicken and macaroni (kept warm in a foam plastic container). Not, I thought, what one would expect a quick census of my fellow passen- I on one of the world's most famous

topics as missile site locations, harbor

defense systems and relative troop

strengths. On the Orient Express, one

just can't be too careful.

In Belgrade a grimy passenger rinses tired feet at a station fountain. trains. Yes, something was definitely

The next stop was Trieste where I noticed with admiration how Wagons-Lits solved the lack of porters. Station crews went through the train making up our berths for the night. The next morning in Belgrade, their Yugoslavian opposite numbers converted our compartments back for daytime use. Again I could not help comparing the train's present operations with the way things must have been back in the 'thirties.' When Inspector Poirot, on the trail of Mr. Ratchett's killer aboard an Orient Express of that era, asked Natalia Dragoniroff if she would describe her movements from dinner onwards the night before, the aged and formidable princess replied: "Willingly. I directed the conductor to make up my bed whilst I was in the dining car. I returned to bed immediately after dinner..." My pulse quickened at that point. I was beginning to see a glimmering of light...

The Yugoslavian countryside early

From the frontier of France the Orient Express streaks 78 miles downhill to the Milano Centrale station, an important passenger exchange point, then heads east towards Venice, the Adriatic Sea and Yugoslavia.



passage that British Agent Bond had his climactic battle with Donovan "Red" Grant who had the duties and responsibilities of Chief Executioner of SMERSH. But the taut drama played out in 007's stateroom was at least illuminated by one small blue night light. I spent the 20 minutes required to go through in total darkness.

The 78-mile run from Domodossola, on the Italian border, to Milan is largely downhill and gets south-bound trains into Milano Centrale about noon. Milan is an important passenger exchange point on the Direct Orient route, and a large proportion of riders out of the north disembark there.

From Milan we rolled off across the plain of Lombardy, stopping at stations in Verona, Vicenza, and Padua, and watching motorized gondolas ply the Venetian Lagoon as we pulled over the long causeway leading into Santa Lucia Termine in Venice. Occasionally I got up to stretch my legs and take



In Paris this sign, alive with the names of the most romantic cities in Europe, promised adventure and romance..





in the morning of our second day looked cold and muddy. We passed miles of fields where sugar beets and corn were being harvested. At Belgrade the Tauern-Orient train-another section of cars from Munich via Salzburg, Villach and Zagreb-was hooked to

Some distance southeast of Belgrade, at Nish, the Athens section broke away from the Istanbul cars and rumbled off towards Skopie and Thessaloniki. We went on to Sofia. It was late in the afternoon when we arrived and after six when we left. Since we were still without a dining car I had to go out again in search of food. But just as I got the Balkan equivalent of a cold hamburger in my hand, the train pulled out. Stuffing change of numerous national origins and obscure denominations into my pocket, I leaped aboard as it gathered speed for a fast getaway.

During the night, Rapide 155 rolled across a tiny section of Greece. There was no perceptible evidence of this but it must have, because a map showing the train's route says it does. In any event, the next morning we were traveling through the seventh and final country of our passage, in a land once called Thrace. The biggest news on that last leg was that a dining car had joined the train. It was an ancient wooden carriage, but it offered strong Turkish tea, bread and butter, so there were no complaints. By then, however, I was worried. The trip was coming to an end and the mystery of the missing Express was still unsolved. Thus as we switched from steam to electricity in Halkali and went clicking down along the coast of the Sea of Marmara, I sat in a state of perplexity and frustration.

And then there we were in Sirkeci Station in Istanbul, the end of the fabled Express route. The station was rich with color and noise as Yugoslavs, Greeks, Bulgarians and Turks, many in village costumes, some carrying sacks, others wearing babushkas, poured off the train in a great confused flood. The smart

Orient that rainy night in Paris, I thought, had undergone a positively kaleidoscopic metamorphosis.

Suddenly I sat bolt upright. Metamorphosis! That was it! That was what had happened!

Excited now, I hurried off the train my mind running back over those dim clues so painstakingly gathered during the days and nights of travel: the realization that although police officers and security agents still prowled the trains in darkness at obscure frontiers, they no longer forced passengers out of their staterooms to display their passports and visas; the fact that although connecting doors still intimately linked the first class compartments, their fastenings were now stiff with disuse; the fact that in Paris there was a dining car, but afterwards only station-bystation foraging.

nd what about the passengers? There were unquestionably diplomats aboard as there used to be, a lonely girl or two and even possibly some agents—but now they were agents for plumbing fixtures and ladies' underwear.

But the keys to the mystery were really my idle observations that at times the fabled Express resembled a local train, and that it didn't seem to be the same train in Istanbul that it had been in Paris.

It all fitted. The Orient Express wasn't missing. It was in disguise.

I saw it clearly now. Imperceptibly over the years, the Express, never quite a fact, vet never entirely fiction, had been transformed. From a crack express that only yesterday roared across Europe in an aura of wealth, intrigue and elegance, carrying wealthy travelers, high officials and beautiful, well-born ladies rapidly across Europe, it had become no more than a loosely-linked series of local railroads. To put it another way, the Orient Express had been disguised as, of all things, a train.

Oh, it had been done cleverly. All passengers who had boarded the Direct | the essentials were retained, but only

as camouflage. Crossing frontiers were automatic formalities, the policemen were functionaries, the mixture of peoples the quite natural outcome of a long ride through diverse countries. And why? So that the slow death of a fictional vesterday and the substitution of a reality, the kind of gray reality, in which illusion cannot exist, would go unnoticed.

I shook my head sadly, looked one last time at what for me, anyway, was now just a train sitting in a station, sighed and walked away. The mission was over and one more illusion from the past had succumbed to the realities of the present.

Outside I paused for thought. Why was I upset? After all I had completed my assignment. And if I didn't like what I found it wasn't the end of the world, it was Istanbul.

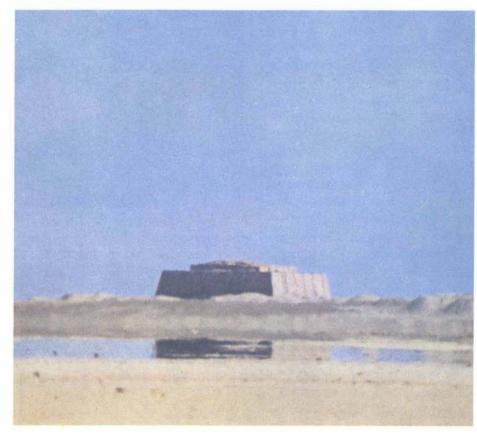
Suddenly I felt lighthearted and began to push my way through the throngs to a waiting taxi. There I supervised the loading of my luggage and slid wearily into the back seat, making sure to bring the black attaché case inside with me. "Don't ever let that thing out of your sight," H had warned back at Headquarters. "If you do, we'd have to change every code in the Service." Weaving through heavy traffic on Gatala Bridge, the driver glanced over his shoulder for instruc-

"The Kristal Palas," I said. I tried to sound casual. Tatiana had promised she'd be there.

We were mounting the heights of the Pera now, and the ancient cab was feeling the strain. Before I could think, the words were out. "No, make it the Hilton." I was tired, hungry, and needed a bath-bad. Tatiana would just have to wait. She'd be disappointed, of course. But that was the thing about Tania. Besides being breathtakingly beautiful, she was the most understanding spy I'd ever known.

Brainerd S. Bates, ex-navy officer and once a freelance writer in Spain, is a Public Relations writer for Aramco stationed in Saudi Arabia.

Under a dull red mound on the plains of Mesopotamia...



PHOTOGRAPHY BY TOR EIGELAND

▼n A.D. 1927, after a night that had Lasted more than a million days, the sun of Mesopotamia again touched the gold of Ur. Through the dust-heavy sky of southern Iraq its rays slanted down on a massive mound of crumbling brick and on across fresh trenches and pits on the barren plain to the south. And there again-or still-was Ur of the Chaldees.

Ur. Even today, 40 years later, the name evokes echoes of the excitement that flickered through the world when Charles Leonard Woolley and his expedition began to uncover not only the Biblically famous city itself, but also the treasures of the Sumerian royal cemetery.

Before the 20th century, written history had told the world very little about Ur. Beyond the Bible's brief references to it as the home of the patriarchs, almost nothing was known. But in the early 1920's the British Museum and the University Museum of Pennsylvania sent a combined expedition to Iraq under Woolley's leadership to investigate a certain massive mound of brick about

230 miles south of Baghdad. And there was Ur.

It doesn't seem possible now that Ur was ever the site of the great civilization that Woolley was later to describe: a city surrounded by bounteous gardens with groves of figs and dates and tall palms standing by mathematically straight irrigation canals, a city of temples and warehouses, workshops and schools, spacious villas and the towers they called ziggurats, all within a great wall overlooking the waters of the Euphrates.

For now, despite the excavations and restorations that followed the initial discoveries, Ur squats unimpressively on a flat plain about halfway between Baghdad and the present head of the Arabian Gulf near a railway station prosaically called Ur Junction. That plain, called "waste of unprofitable sand" by Woolley, played an essential part in the story of Ur. Once covered by the waters of the Arabian Gulf as far north as modern Baghdad, scholars theorize, the plain emerged from the water primarily as a result of an accumulation of silt

carried into the Gulf by two rivers. One was the Korun River pouring out of the mountains in what is now Iran and the other, now dry, flowing from the high Arabian Desert in what is now Saudi Arabia.

The silt from these two streams built up a bar across the ancient Gulf like a belt at its middle. Combined with the water and silt of the Tigris and Euphrates flowing down from the north, it filled the upper half of the Gulf, first converting it into a shallow, brackish lagoon, later into a marsh and finally, probably about 7000 years ago, into a fertile plain. This theory explains why the area around Ur supported human life earlier than the northern area where one would have expected the Tigris and Euphrates delta to have begun its push into the Gulf. As soon as the land emerged, still unidentified non-Semitic peoples, whose successors would one day build Ur, came and settled the south

One of Woolley's more exciting discoveries came out of the 1927 excavation of the royal cemeteries. In the spring of that year, the sixth season in the field, the expedition began to find the astonishing, sunless kingdom of Ur-a kingdom of the grave into which deceased Sumerian kings had been followed by their servants, soldiers, courtiers and whole teams of oxen. In the graves the retinue took a soothing narcotic and lay down to die still bearing graceful lyres and harps, gaming boards, jewelry of lapis lazuli and carnelian, daggers, finely wrought helmets and golden bowls, all to be crushed by the debris of succeeding civilizations and layers of fertile silt left bone dry when the great Euphrates changed its course.

he oldest of the royal graves revealed by Woolley's team at Ur has been dated at about 2800 B.C. Although there has been much controversy about the occupants of the tombs (some authorities believe them to be symbolic kings and queens, married and sacrificed with their splendid retinues of up to 80

persons in mystic fertility rites; others believe them authentic temporal rulers buried in state) there is no dispute about the richness of the tomb furnishings and provisions for the dead, or the skill with points out that although the graves are as beautiful as the famous tomb of the Egyptian pharoah Tut Ankh Amon, they are more than 1,000 years older.

If one helmet with locks of hair in beaten gold Woolley wrote: "If there were nothing else by which the art of these ancient Sumerians could be judged we should still, on the strength of it alone, accord them high rank in the roll of civilized races." Of a set of golden toilet instruments he adds, "A recognized expert took them to be Arab work of the 13th century A.D., and no one could blame him for the error, for no one could have suspected such art in the third millennium before Christ."

Written records of the Sumerian culture in the form of baked clay tablets inscribed with Sumerian cuneiform writing, date from as early as 2600 B.C. The so-called First Dynasty of Ur dates from circa 2500 B.C. and it was about that time, scholars generally agree, that the first ziggurat was built at Ur, probably on the foundations of an earlier eventually, conquered Ur and reigned structure.

Almost nothing is known of Ur's Second Dynasty, but from about 2112-2015 B.C. the Third Dynasty flourished and Ur was the capital of an empire. During the reign of King Ur-Nammu, who established the dynasty, the ziggurat that Woolley explored was built, probably on the rubble of the first one.

By the time the archeologists got to it, of course, the ziggurat had been so altered by decay and by succeeding restorations that a precise reconstruction was difficult. Woolley believed that it had three irregular stages, each with broad terraces on two sides, the topmost surmounted by a small shrine dedicated to the moon-god Nannar. The lowest stage, about 50 feet high (since restored by the Iraq Government in the

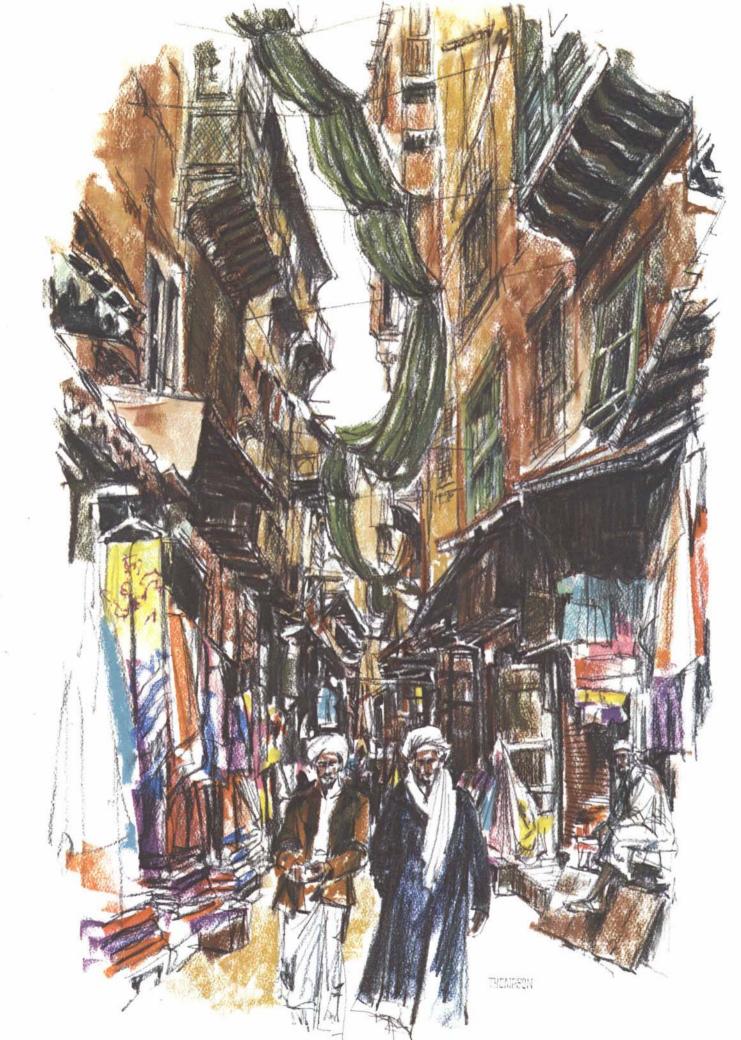
early 1960's) measured approximately 150 by 200 feet, with the four corners lined up on the cardinal points of the compass.

The ziggurat was constructed of unbaked bricks faced with baked bricks which they were executed. One writer bound together with tar and colored to represent the zones of heaven. At the base the courtyard was whitewashed; the lower stage was brushed with black bitumen; the top was of red brick and the highest shrine painted brilliant blue. On the northeast side were the three stairways giving access to the shrine, a feature setting it apart from the stone tomb pyramids of Egypt and more akin to the pyramids of Mexico.

> Most of the cities on the Mesopotamian plains had ziggurats of some kind, apparently, according to one writer, "...the work of people investing mountains with religious meaning." This offers one clue to the origins of the immigrants. The Sumerians gave the towers names such as "The House of the Mountain" or "The Holy Hill." The ziggurat at Ur is the best preserved although the tower in Babylon is more famous because of the references to it in Genesis and Herodotus.

> bout 1800 B.C. the Babylonian power was growing in the north and, over it until about the 6th century B.C. At the end of this period Nabonidus, a king of Babylon who was also an ardent archeologist and in his own words "venerator of the past," restored the ziggurat at Ur and even added two or three stories. It is from his clay records that the name of King Ur-Nammu the Third Dynasty builder was discovered.

> In the mid-19th century there were tentative efforts by the British Museum to investigate the lonely red hill on the southern Mesopotamian plain, the hill the nomads called "Tell al-Mugayyar." Complete excavation, however, was delayed until after World War I. Then came Woolley, to let the sunlight shine on ancient Ur once again.



DISCOVERY the story of ARAMCO then

BY WALLACE STEGNER ILLUSTRATED BY DONALD THOMPSON

CHAPTER 2: THE CRUCIAL CORNER

SYNOPSIS OF CHAPTER 1: For the Kingdom of Saudi Arabia, a handful of California oil executives and an astonishingly diverse group of individuals in the Middle East, February 15, 1933 was to be an important date. That was the day Lloyd Hamilton, standing eagerly on the deck of the pilgrim ship Talodi, arrived in Jiddah.

Lloyd Hamilton was a lawyer and a land lease expert for the Standard Oil Company of California. He was also the last player to make an entrance on what had become a very crowded stage since the curtain had risen eleven years before on the drama of Arabian oil.

The first act of that drama actually opened in the early 1920's when a group of London financiers set up the Eastern and General Syndicate as a broker in Middle East oil concessions, picked a genial New Zealand adventurer named Major Frank Holmes as their representative and sent him to persuade the dynamic monarch of Saudi Arabia, King Ibn Sa'ud, to grant the syndicate a concession to search for oil. Major Holmes succeeded, but the syndicate, unable to find a customer willing to buy the concession, later let it lapse in favor of a more promising prospect on Bahrain. It then sold the Bahrain rights to the Standard Oil Company of California and in so doing permitted an American oil company to edge into the Middle East for the first time.

On the other side of Saudi Arabia, meanwhile, explorer Harry St. John Philby was making a most important suggestion to King Ibn Sa'ud, now known as King Abd al-Aziz. Instead of waiting for someone like Holmes to tap Arabia's treasures, Philby said, why don't you discuss the matter with someone else? The someone he suggested was the American philanthropist and former Middle East adviser to President Wilson, Charles R. Crane, The King thought it over, agreed and in 1931 Crane, and then a mining engineer called Karl Twitchell, came out to take a long hard look. Twitchell's report was optimistic: the prospects for oil are promising.

Up to that point, the King, Philby, Crane, Twitchell, Holmes and the various companies involved had been groping in the dark, none of them entirely sure of what they wanted, or how they wanted to go about getting it. But suddenly Socal found oil on Bahrain and the situation changed radically. Almost overnight Socal decided that a concession in Arabia could be very valuable and dispatched experts to see the King and open negotiations. One of those experts was Lloyd Hamilton and on February 15, 1933 he arrived in Jiddah to do just that...

owever unsteady the profile of Jiddah had been from the sea, the quay was as solid as a knock on the head. The docks were **-** crowded with the curious; the smells of the city smote the newcomers. Karl Twitchell's assurance that they would be admitted with only a cursory customs examination proved unreliable. Some officer tiny shops crammed with rugs, copper, strange foods. had missed his signals, and Airy Hamilton watched —and so did about a thousand interested spectators as every intimate article of her clothing was pulled out and shaken and stuffed back in again.

Then the streets of Jiddah, the flavor of a forbidding land: sand-floored alleys, sun-smitten squares, and the shadows, almost impenetrable by contrast but shot with beams and slants of light, under the tin and board and palmfrond roof of the sug; the loom of the city's mud and coral wall, glimpses of This world startled them with contrasts—white teeth flashing from a black beard, eyes of an incredible aliveness in a dark face under a turban or framed by a ghutra; an occasional woman in sepulchral black,

only the hint of eyes showing behind the mask's to be performed by standing in a tin pan and pouring square holes, the robed figure as nervous as a run- water over oneself. Fair enough. away child.

And the Grand Hotel, balconied at all three stories, ornamented along its roof with merlons and crenels of plaster. They were its first guests. Twenty or thirty workmen had been busy on it for several weeks, renovating it not only for the Americans but for future use as a first-class hotel for wealthy pilgrims years of the hajj there had been no such public accommodations in Jiddah and the Americans approached it with interest and entered with curiosity.

them. By the standards of that time their quarters on the top floor were lavish—two great high-ceilinged bedrooms with brass beds and washbowl sets, a dining room big enough for banquets and furnished with table and chairs; a well-furnished living room the size of a basketball court, divided into two sections which they christened the coffee shop and the lounge. And two bathrooms.

The Twitchells, old Arabian hands, were very well pleased, but Airy Hamilton called her husband in and showed him the facilities with raised eyebrows. There was no running water. Bathing was evidently



Of servants there seemed to be dozens, whose principal duty seemed to be to rise respectfully when anyone came in or out. They were the friendliest and most smiling of mortals, a mixture of Arabs and Somalis, and as curious as the crowds on the dock. It was not unreasonable that they should be, for these four were the only Americans in Arabia, and there accustomed to Western comforts. In all the 1,300 hadn't been enough of their tribe there before them to make them a familiar sight.

Within hours of their arrival the foreign colony of Jiddah began to pay calls. All knew what they were On the whole, the Government had done well by there for; there were no leading questions. Invitations were issued and accepted; they began to feel their way into the city's mysteries. Then on the fourth day came driving from Mecca the most influential man, next to the King, in Saudi Arabia. This was Shaikh Abdullah Sulaiman, the Minister of Finance, small, polite, acutely intelligent, capable of instant and bold decisions and of long and shrewd maneuvering. The ladies had put on their best dresses and covered their arms; the gentlemen had brushed their hair and donned coats. The Arabian delegation came in single file, according to rank. Thank God, thought the Hamiltons, for the Twitchells, who spoke some Arabic, and for the servants, who seemed to know what to do.

> They introduced themselves and they sat around the walls and had tea and cakes, and they talked politely of banal things, through a suave interpreter named Najib Salha who had worked for British firms in the Sudan and Egypt and was now Abdullah Sulaiman's private secretary. Then came coffee, poured ceremoniously from a beaked pot into small handleless cups, a sip or two to each cup. Everything was very deftly done. The spectacle of their own formal hospitality astonished them; they felt that it had been a picturesque and instructive hour when the Minister of Finance, through Najib, begged leave to go.

> It was only then that they found Shaikh Abdullah's capacity for single-minded attention to business. This had been purely a social call, but Shaikh Abdullah understood that they had come to talk about oil, and he wanted to know what time suited them. He himself suggested eight that evening. A little startled, for they had an invitation to dine at the British Legation, Hamilton said that eight would be perfect. It was a good sign that Shaikh Abdullah was so eager.

> Later, when everyone had gone, Hamilton went out in the late afternoon onto their balcony. Across the

he saw the white figure of the muezzin, and heard the high wavering cry. In the streets passersby and shopkeepers prepared themselves, and down below him his own servants were aligning themselves in prayer, bending and rising with their faces all turned toward the east. The crooked alleys of Jiddah were half filled with dusk; from the sug he heard the complaining snarl of a camel, and then for a moment in the stillness, the perhaps imaginary mutter of a whole city's prayers...

or all the promptness with which Abdullah Sulaiman got down to business, American Industry was not destined to make fruitful contact with Arabia in one ceremonial coffee visit and an evening's conversation. It would be three and a half months of hard, hot, discouraging work before Hamilton and the King's ministers would succeed in hammering out an agreement.

The men with whom Hamilton dealt most frequently were Shaikh Abdullah, a Najdi by birth; Fuad Hamza, the Deputy Foreign Minister, and the King's confidential secretary Yusuf Yasin. Hardheaded, smart, patient, tenacious, wary, they were bargainers worthy of anyone's steel, and Hamilton was handicapped in his negotiating by his ignorance of Arabic and of the Arab character and culture. British political opposition, too, made itself almost immediately apparent in the hospitably hostile attitude of Sir Andrew Ryan, the British Minister. It was likewise clear that Socal would not have a clear field, but would have to compete for a concession with at least the Iraq Petroleum Company and perhaps others. Most complicating of all was the fact that in Iran and Iraq, on the strength of enormous potential production and enormous proved reserves, new agreements profitable to the local governments had recently been made; and on Bahrain oil had been struck with the first well. It was these agreements and discoveries that the Saudi Ministers were using as a basis for judging the value of their own concession. There was a fair possibility that the combination of hard bargainers, outside political and economic competition, and excessive expectations on the part of the Saudi Arabs would result in a higher price than a very speculative wildcat was worth.

To counter these difficulties, Hamilton had certain advantages. He was as shrewd a bargainer as even

rooftops, on the perilously slanting shelf of a minaret, Arab customs was partly offset by the presence of Twitchell and Philby. Philby particularly, from his station in Mecca, was in a position to forward information on government attitudes almost as soon as they crystalized. The IPC, whose representative Stephen Longrigg turned up on March 12, was a definite threat to Socal's chances, but Longrigg very shortly gave indications that his principals were less interested in developing Arabian oil than in preventing others from doing so and that their purse strings were by no means wide open. It looked as if IPC could be outbid. And Saudi Arabia, as Hamilton well knew, was deeply in debt, hard hit by the world-wide depression and desperate for cash to meet its new, growing responsibilities.

> Despite this, negotiations for an oil concession were as difficult as if the ministers had not a fiscal care in the world. They played off Longrigg's presence against Hamilton's, and vice versa; they played off offer against offer; no sooner had Hamilton got what he thought were outrageous demands down to something reasonable and got San Francisco's approval of an offer, than the ministers made new demands as extravagant as the old ones. Hamilton at one time went up to Cairo to confer with Lombardi, who had come over from Bahrain, and there encountered Major Holmes, also over from Bahrain, with some proposals he wanted to make Ibn Sa'ud on the oil rights to the Saudi Arabia-Kuwait Neutral Zone, which were shared half and half between Ibn Sa'ud and the Shaikh of Kuwait. Holmes' proposals, however, later fizzled out when he got to Jiddah.

The story of the three and a half months during which Lloyd Hamilton worked out his concession agreement with Ibn Sa'ud's ministers has been told several times: by Philby in his Arabian Days and Arabian Jubilee, by Twitchell in Saudi Arabia, by Longrigg in Oil in the Middle East, by Benjamin Schwadran in The Middle East, Oil, and the Great Powers, by Marquis Childs in an article in the old Collier's magazine. It has never been quite fully or quite accurately told, even by the people who participated in it. For one thing, not even Twitchell knew that Philby was acting as a consultant for Socal, and Longrigg, who had served with Philby in Mesopotamia, tried at one point to turn over his job as IPC negotiator to him, so that Longrigg could get back to his pipeline job at Haifa. Sometime some historian, working from Hamilton's and Lombardi's letters, will relate the episode in detail, but even if incomplete Shaikh Abdullah, and his ignorance of Arabic and the negotiations suggest the way in which men,

by some ineluctable force, turn the crucial corners of history. The concession for which Longrigg and the Hamilton could rest easy. IPC unsuccessfully bid and which Hamilton won would insure—or compel—Saudi Arabia's entrance Hamilton was perfectly assured that if anyone got the into the modern world. It would also mark a step in the decline of British power in the Middle East and the second step—a huge one—in the entrance of America into the region. For Great Britain the painful politics of relinquishment of power; for Saudi Arabia the unsettling effects of sudden wealth and abrupt cultural change; for America, though it came here tangled negotiations into a snarl again. April 20, without political intention, the inevitable political responsibilities of massive involvement—they were all implicit in the drama of demand and offer, stipulation and concession, in which Hamilton and the ministers were engaged.

Company's last offer, the one on which he advised the Company to stand. It called, among other things, for an advance loan of £30,000 gold to Saudi Arabia, with a second loan of f,20,000 eighteen months later; for the beginning of exploratory geological work within three months; for drilling within three years at the latest; for a guaranteed royalty somewhat less than the ministers had persistently asked; and for developpractice.

would accept these terms. Hamilton expected it; he was, in fact, assured of it, because one of these mornings Shaikh Abdullah called on him at the Grand Hotel, informed him that the King was briefly in Jiddah and would like to see him, and escorted him and Twitchell to the palace a mile or two outside Jiddah's walls. fierce-looking guards and servants who wore pistols liking either alternative. when they brought coffee, Hamilton, as he said later to his wife, was almost scared to move. But he was greatly impressed by Ibn Sa'ud, by his size (the King was over six feet four), by his dignity, by his grasp on May 3, Hamilton having delayed because he of the issues at stake. And he was greatly heartened knew the IPC, through Longrigg and Sir Andrew by what Ibn Sa'ud said. The King liked the speed Ryan, was trying hard to discover the Socal terms in with which the Americans had developed Bahrain, order to make up its mind about a topping offer. and the methods they had used there. Though if he (It made up its mind on May 5 that it did not want could suit himself he would prefer to develop the to compete further, and thus left Socal alone in the country's resources himself, without the help or the running.) intrusion of foreigners, still if he had to deal with

corporations, and governments, moving almost as if because geographically they were so far away. And so with regard to these latest terms, the King believed

> After that interview, about which he told no one, concession it would be Socal; he did not need Philby's letter from Mecca which said that the King had been putting pressure on the ministers and that things looked propitious.

But on the day when Hamilton submitted his final terms, something happened that threw the whole 1933, was the day on which the United States announced an embargo on gold. Within a few days Lombardi was cabling from London to hold everything, and the Netherlands Bank in Jiddah had raised the value of the gold pound from \$4.87 to \$5.60. On April 20, Hamilton gave Shaikh Abdullah the Within another few days it climbed to above \$6-carrving with it the whole price of Hamilton's carefully negotiated agreements.

T t was not clear, from Jiddah, exactly what the embargo meant, apart from a perhaps temporary devaluation of the dollar. At worst, it might mean complete abandonment of the gold standment as fast as was consistent with good oilfield ard, with fatal consequences for the concession, since Saudi Arabia insisted on being paid in gold. Initially There was every reason to believe that the ministers Hamilton was not seriously alarmed, and he did not pass on to the Government San Francisco's proposal that all concession payments be pegged at a value of \$5 to the gold pound. In London, Lombardi went on trying to find out how gold might be secured, since it could not be shipped from the United States; he investigated the importation of sovereigns from India A few minutes in that monumental and kingly presence at a three-shilling premium, and the purchase of compensated for weeks of shadowboxing with the bullion in the London and Amsterdam financial negotiators. Sitting in the great majlis, surrounded by markets, at the present premium value of gold, without

> The ministers, still hopeful of playing off one bidder against the other, asked Hamilton for a revised statement of the April 20 terms, and got it finally

The summer heat grew in Jiddah's streets and in Western companies he liked the Americans better the fanless and iceless Grand Hotel. The tension in Iiddah's social life grew too. The more remote tensions paid in gold and its insistence that the initial loan be of the world's financial collapse seemed, in the cirrepayable out of only 10% of royalties. Socal, though cumstances, less critical than they were, but they were it consented to make the initial payment in gold, insisted that it must be protected from having to buy critical enough to make Socal seriously consider pulling out of the negotiation, and to cause Hamilton days and nights of strain. Even when he was convinced he was winning, or about to win, delays and snags blocked a final approval. In Mecca Philby, after attending a meeting of the ministers on May 8 in which the draft of Hamilton's final offer was debated point by point, wrote jubilantly that the thing was in the bag.

Wearily the duelists fought it out, until, on May

further gold at premium prices in case the gold

embargo persisted, and that the first loan must be

repayable more promptly than 10% of the purely

hypothetical royalties would do it. Hamilton had

already had a hard time instructing the ministers in

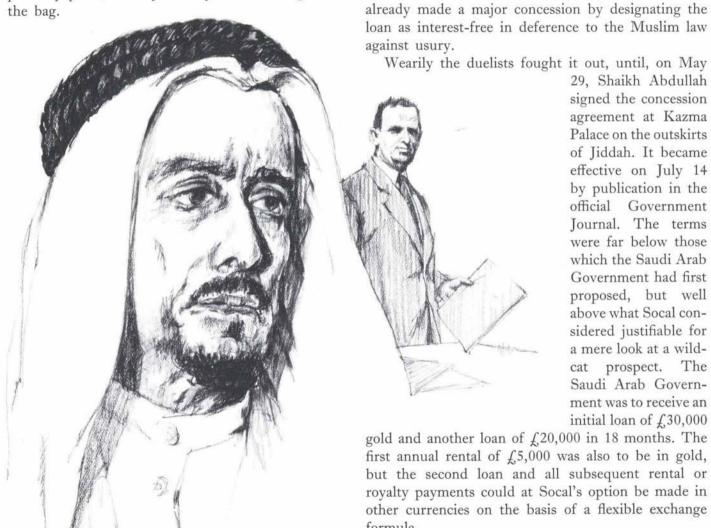
what he meant by a loan—money that must be repaid,

even if there never were any royalties-and had

29, Shaikh Abdullah signed the concession agreement at Kazma Palace on the outskirts of Jiddah. It became effective on July 14 by publication in the official Government Journal. The terms were far below those which the Saudi Arab Government had first proposed, but well above what Socal considered justifiable for a mere look at a wildcat prospect. The Saudi Arab Government was to receive an initial loan of £30,000

gold and another loan of £20,000 in 18 months. The first annual rental of £5,000 was also to be in gold, but the second loan and all subsequent rental or royalty payments could at Socal's option be made in other currencies on the basis of a flexible exchange formula.

The Company would begin exploration within three months and keep at it until it started drilling or gave up the concession. It would start drilling no later than three years from the effective date of the concession and drill until it gave up or developed commercial production, which was defined as 2,000 tons of oil per day. On the announcement of commercial production, it would pay the Saudi Government a royalty advance of £50,000, and a year later it would pay £50,000 more. The agreement was good for 60 years;



And yet the conferences and arguments went on -May 14, May 16, May 18, May 23-with the tough bargainers Shaikh Abdullah, Fuad Hamza, sometimes Yusuf Yasin, always the interpreter Najib Salha. The Government steadfastly clung to its wish to be

it covered the whole of eastern Saudi Arabia, from the specified that the Company could acquire rights Gulf to the western edge of the Dahna sands, and there too, by matching any terms obtained by the from the northern to the southern boundaries—both Shaikh of Kuwait for his share. ill-defined—of the country.

What Hamilton had thought might take a few weeks In a separate and private agreement, Socal acquired had taken three and a half months. After he had signed preferential rights in other areas reaching west from the agreement with Shaikh Abdullah, the Hamiltons the Dahna; it could, by matching any offer made in left Twitchell to look after details (Philby had already good faith by any other company, acquire the right gone on to Cairo on a business trip) and took several to explore and develop in this additional territory. weeks' vacation in southern Europe, winding up in As for the Neutral Zone, the private agreement London about the first day of July. While they were traveling, six copies of an "impressive piece of paper," in both English and Arabic, went back and forth across the ocean and received the signatures of many people. By the end of July, Hamilton had it in his hands to forward to W.F. Vane, head of the land-lease division, in San Francisco. It contained then the signature of Amir Faisal, Foreign Minister of Saudi Arabia, on behalf of his father Ibn Sa'ud. The Amir's signature was authenticated by the Dutch vice-consul in Jiddah. Hamilton jokingly doubted

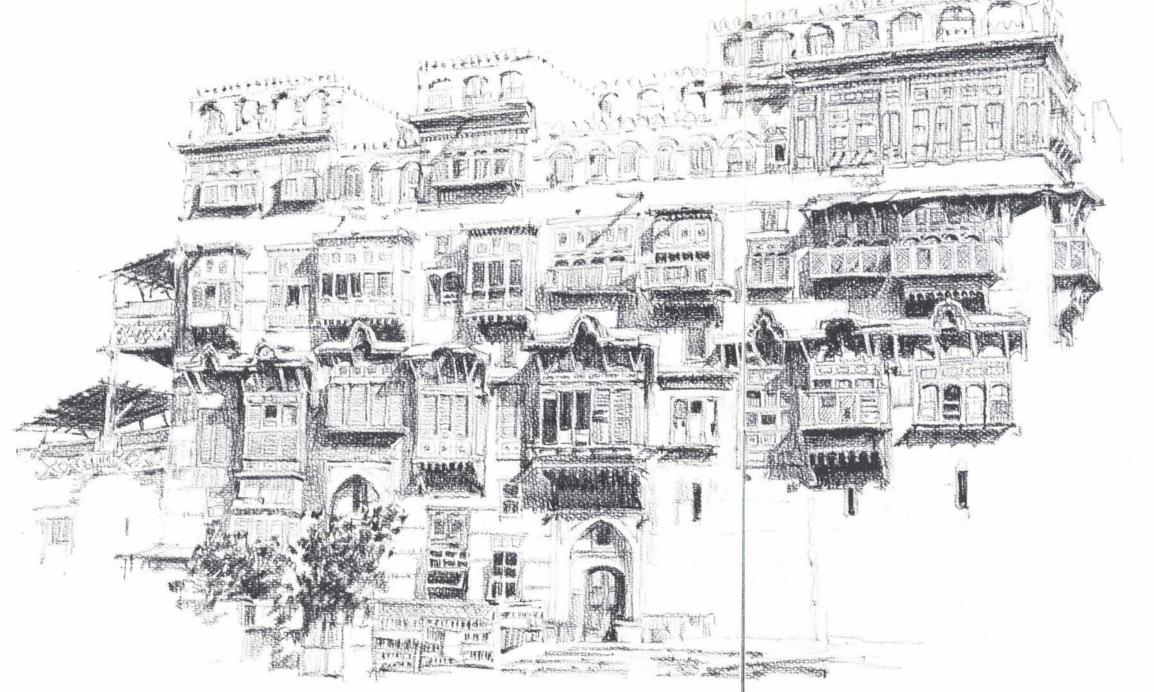
the necessity of having the vice-consul's signature authenticated by the Minister of Foreign Affairs at the Hague, and the signature of the Minister of Foreign Affairs validated by the American Minister to the Netherlands. And yet the weight of this impressive piece of paper warranted the most gingerly and reverential treatment: such documents as this, stemming from the work of such people as humorous, boy-faced Lloyd Hamilton, make the future of nations and alter the economic equilibrium of the world.

Now there were only loose ends to be tied. Hamilton tied them from London, where he set up a small permanent office for the company. He arranged with Twitchell, still looking after the company's affairs in Arabia, to take two cars and two light trucks, with drivers and mechanics, across to the Arabian Gulf coast as soon as arrangements could be made; there he would help start two geological teams on the first explorations. He began stirring up San Francisco about possible use of a plane in Arabia, as permitted by a clause in the private agreement. And he made a deal with Philby for the lease of Philby's old, delightfully dilapidated palace, the Bait Baghdadi, as a Jiddah headquarters. Philby, now that he had the Government monopoly to sell Ford cars, was moving outside the walls to an old building known as the Green Palace, given to him by the Government to house his expanded operations. Philby would leave furniture and equipment, including an electric-generating plant, behind him for the use of the junior land-lease man who would shortly be sent out to represent the company.

As for the gold sovereigns for which the Saudi ministers had so tenaciously dickered, they were a little delayed. Socal's unoptimistic application for a permit to export the sum of \$170,327.50 in gold received no reply from the United States Treasury Department, and on July 26, within a few days of the due date, Hamilton made an emergency arrangement to have 35,000 gold sovereigns shipped to Jiddah by the Guaranty Trust Company of London. The move proved wise when Dean Acheson, then Under-Secretary of the Treasury, denied the export permit on July 28. The boxes of gold went out from London on a P & O steamer on August 4, and on August 25 Twitchell cabled that he had counted them out on the tables of the Netherlands Bank in Jiddah under the eves of Shaikh Abdullah Sulaiman, and had Shaikh Abdullah's receipt.

That was the first-act curtain. The second act would follow after a brief intermission.

-TO BE CONTINUED



On the Mediterranean shore, a glimmering crescent of mountain, sand and sea. It's...



JOUNEH: jeweloflebanon By WILLIAM TRACY/PHOTOGRAPHY BY TOR EIGELAND

Along the new expressway cars sweep down in a graceful curve onto the narrow strip of coast between the mountain and the sea. To the left a small, picturesque town of stone houses, arched windows and red tile roofs straggles off along a curving beach. To the right, nearly 2,000 feet above the town and the bay, soars the precipitous wall of a pine-clad mountain with orange and olive trees clinging to the foot and a tall white statue standing on the summit. This is Jounieh, the jewel of Lebanon.

Jounieh's primary asset is its natural setting, a half bowl of rugged cliffs and forested mountains clutching the shimmering bay like the prongs of a Tiffany setting. The mountainside is so steep that the view from the cool terrace restaurant at the top is like looking down from the back of a bird. A little higher, in the village of Harissa 1,700 feet up, a towering statue of the Virgin Mary—"Our Lady of Lebanon"—turns her back on snow-covered peaks to look down from her conical pedestal as though to bless the 30,000 people in the cluster of hillside villages and the town below. To the west, seemingly at her feet, the waters of the bay ripple toward the sea, changing shades and tones with the passing hours. And to the north and south rocky cliffs extend into the sea, cupping the bay like weathered hands.

But if nature has been good to Jounieh so has man. With imagination to match the grandeur of the area, far-seeing entrepreneurs have begun to construct in Jounieh a series of such splendid developments that this glimmering crescent of mountain, sand and sea may soon be the most lustrous jewel in the chain of coastal resorts that have won Lebanon the apt title, "Riviera of the Middle East."

Bracketing the bay, for example, are two luxurious motel complexes that combine an unforgettable setting with some of the most up-to-date architecture in the Mediterranean. To the south, only 7½ miles from Beirut's skyscrapers, is Holiday Beach, a unique resort at the mouth of historic Dog River. On the northern end of the bay, still only 13 miles from Beirut, is Tabarja Beach, lying beyond a dramatic deep-water cove dominated by a 14th-century watch tower and cypress trees on the cliff top.

And within the bay's encircling arms, on a slope high above

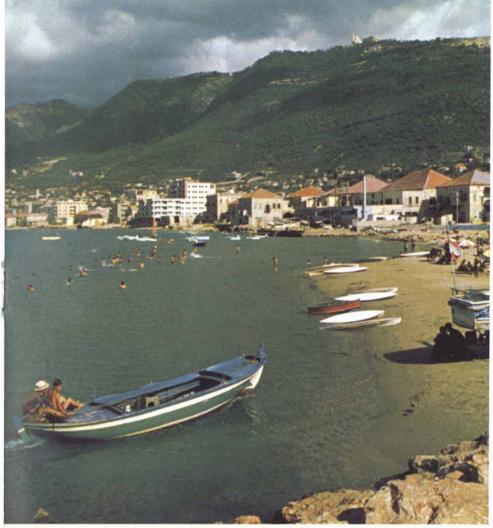
them, is the famous Casino du Liban, the jewel's gaudiest, yet most elegant facet. It is an extravagant tourist palace with a theater, a nightclub, European and American gaming rooms and the most lavish supper club and floor show this side of Paris.

There are other attractions in Jounieh too. One is the téléphérique, a mile-long cable car ride that, combined with a funicular, carries visitors from the shore to the top of the mountain in 11 minutes. From the tiny cars of the téléphérique visitors get still more breathtaking views. To the north they can see two bridges, one a handsome stone structure left by the Romans, the other a soaring concrete span longer than a football field, that bridges the Maameltein Gorge where the modern expressway swings into a deep cut in the mountains behind the Casino. Both cross the River Maameltein, once the boundary of two rival crusader fiefs.

To the south, in a harbor now under construction, are three basins. The first basin, the largest and deepest, is scheduled to become a home for all yachts and sailboats now anchored in Beirut's busy commercial harbor. There too, on land claimed from the sea, the Automobile and Touring Club of Lebanon, "a private association of recognized public interest", has been granted a government concession to build a major sports and tourism complex with a club house, tennis courts, swimming pools and all facilities for yachting and sailing. Its opening, projected for the summer of 1969, will be marked by a three-way rally, land, sea and air ("terre, mer, air") converging on Jounieh from all over the Mediterranean.

The second basin will serve units of the Lebanese Navy and Coast Guard, also being moved from Beirut, while the third, closest to the town and its old houses, will shelter some 250 small fishing boats from a score of villages near Jounieh. And if the efforts of some concerned local citizens are successful the small cafes on the waterfront, the weavers at their looms, the colorful covered passage ways and twisting alleys of the town will remain as a charming attraction of the area: a haven in which to stroll in quiet admiration of the interplay of sun and sea at Jounieh.

William Tracy is Assistant Editor of Aramco World Magazine.

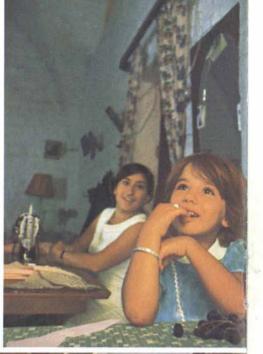


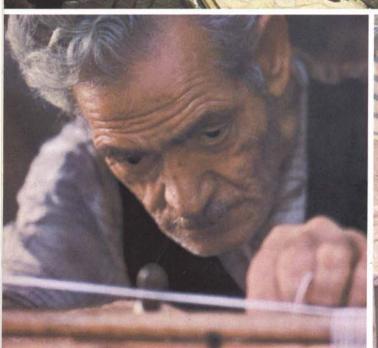


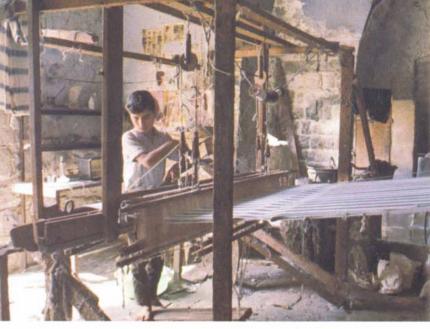
Jounieh is wed to Jounieh Bay, a half moon of sheltered water which laps the curve of sandy or pebble beaches and reflects the waterfront's red-roofed houses



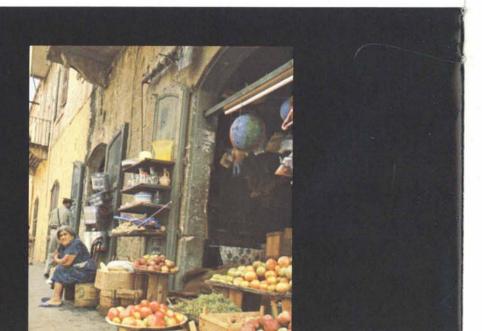


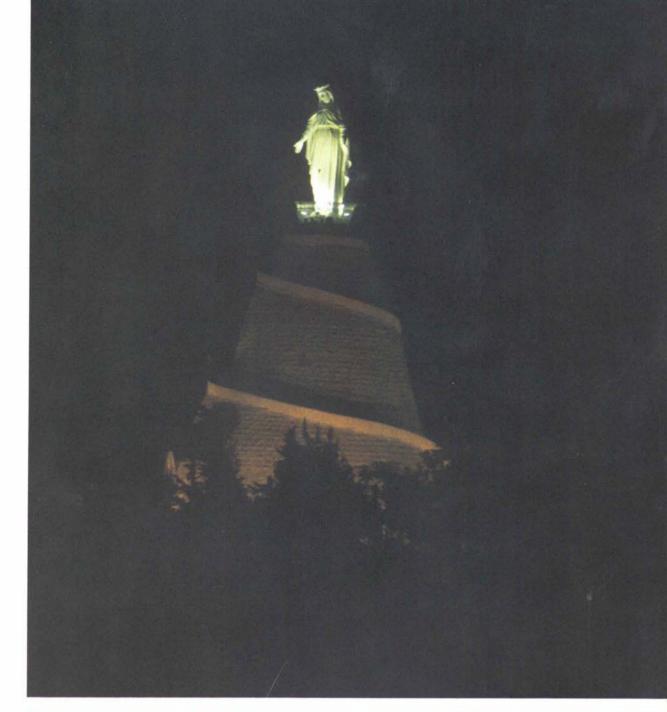




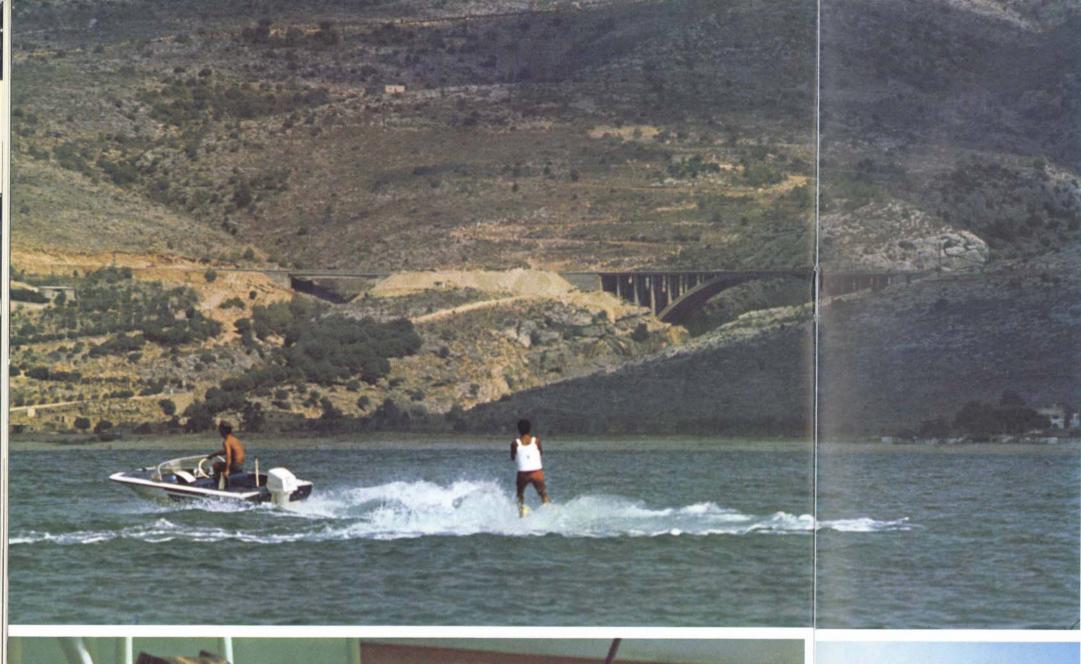


To know Jounieh really well one should explore its stone-paved alleys and quiet back ways where children can find pleasure from a simple stone post, where friendly people keep the doors of their charming old houses open and every visitor is a guest, where a skilled craftsman or a young apprentice work their creaking hand looms to turn out a sturdy, colorful throw rug or a delicately patterned bed spread and the neighborhood grocer displays the rich produce of Jounieh's market gardens and orchards. Opposite page: Our Lady of Lebanon, floodlit at night, looks down on the darkened crescent of the bay from her pedestal in the mountain-top village of Harissa, 1,700 feet above the sea. The newly completed expressway bypasses the old town, yet brings all of Jounieh Bay's many attractions, old and new, scenic and recreational, within a few minutes drive of the city of Beirut.





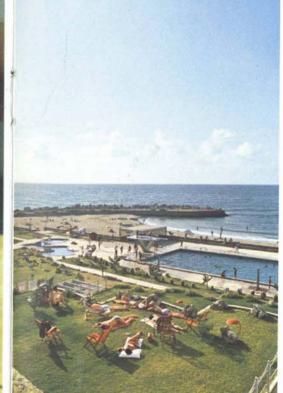


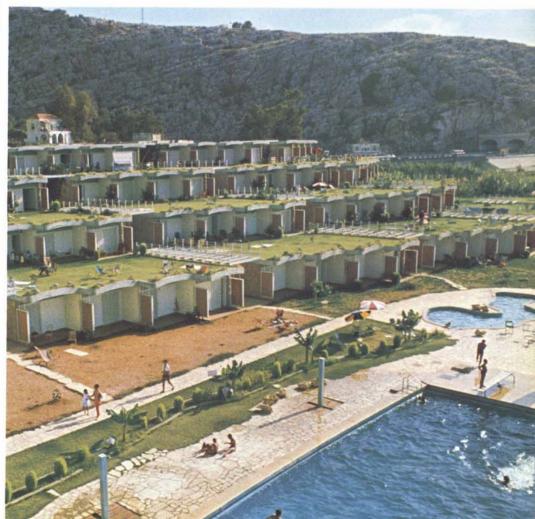




Jounieh is the sea, and all the pleasures of a summer day linger on through much of the year: water skiing beneath majestic mountains, basking in the warm sun on a terraced lawn or beside a turquoise pool, girl watching of course, swimming, diving, fishing, sailing and—if you are among the young in heart—doing the latest dance craze at one of the new resorts.











Jounieh is also the mountain, a forested slope that rises straight up out of the warm sea to a cool terrace where the scent of pine replaces the salt air and birds sing instead of the surf. A spectacular cable-car and funicular ride ends near a mountaintop shrine and a restaurant with one of the world's most beautiful panoramas on its bill of fare.





THE GREAT BADANAH FLOOD

It began as a shower, a gentle autumn rain falling in the darkness of a November evening.

But through the night the rain kept falling and out on the desert tiny rivulets trickled down to the wide dry beds of the wadis. By dawn, nearly two inches had fallen and rising streams of thick brown water were lapping at the wadis' shallow, crumbling banks. Within hours the water had overflowed those banks and had begun to pour northward in an angry torrent—northward to Badanah, the Tapline Road and the trans-Arabian pipeline. The Great Badanah Flood had begun.

Floods are not unknown in Saudi Arabia. Although rain is scarce, when it does come it often falls so fast that the desert cannot absorb it. The results are flash floods that race down dry water-courses with enough speed and strength to turn a locomotive on its side. But the flood at Badanah last November 16 was no flash flood; it was the kind of flood nature usually reserves for areas like the Mississippi Valley: a raging torrent sweeping all before it. The only real difference at Badanah was that the longest oil pipeline in the Middle East happened to be in the way.

Badanah, one of four pump stations built by Tapline (the Trans-Arabian Pipe Line Company) is a small, well ordered station of some 200 inhabitants in the northeastern corner of Saudi Arabia, about 40 miles from the Iraqi frontier. The houses are neat and the trees-in sharp contrast to the arid barrenness beyond-are green and soft. Outside the station one section of the newly paved Tapline Road curves off to the east and another goes west. There are a hospital, a school, a dining hall, a swimming pool and, of course, a pump house where the great diesel-powered pumping units add their thrust to the oil coursing toward the Mediterranean from the fields of the country's Eastern

On the night of the first rainfall all was quiet at Badanah. Certainly no one

From the Trans-Arabian Pipe Line Company plane it was an almost incredible sight: the northern deserts of Saudi Arabia, usually one of the driest areas in the world, transformed into a vast swampland, waves splashing against the pipeline, a great river flowing majestically past lakes and ponds and nibbling hungrily at the edges of the Tapline Road



After nearly 12 hours of rainfall the dry river beds that run past the Badanah pump station changed into foaming rivers that soon overflowed and about 10 a.m. breached the dike.

be sure, always the possibility of a flash flood, since Badanah sits just slightly above the junction of two huge dry river beds, Wadi Badanah and Wadi 'Ar'Ar, its work, Tapline years ago constructed a dike about five feet high around the southern perimeter of the camp. And recently, in improving the Tapline Road, the company's engineers had bridged the Wadi Badanah with 11 culverts five feet nine inches high and eight feet two inches wide, enough to handle 735 million gallons an hour. No, there seemed to be no reason for alarm.

By 6 a.m. the next day, however, Superintendent Howard Jensen and others were uneasily prowling the dikes, the landing strip and the causeway, and taking another, much closer look at the situation. Desert Arabs coming into the was on the way. And there was no doubt that the rainfall had been unusually to higher ground.

expected serious trouble. There was, to heavy; in some places more than half the average rainfall for a whole year. Mr. Jensen decided some precautions a brown tide three and a half feet deep.

but with the foresight that marks most of increasingly clear that neither the foresight of past years nor the precautions of the day were going to be of much value. The rain was still falling and instead of draining away into the sand as it usually does after a storm, the water in the wadis was rising at an alarming rate. By midmorning it was 14 feet deep at the culverts and washing across the road. Then, at 10 a.m., it breached the dike into the station.

Station personnel, already on the alert, moved fast. In record time they evacuated 30 patients from the hospital and moved the instruments and equipment to the upper floor. In the Govern- pull him ashore. station had warned that heavy water ment Relations office the staff stored precious files at safe levels and moved miles similar conditions were developing:

The water was moving fast too. It swept across the roads and under doors, In the Government Relations office it As the morning wore on, it became reached a depth of 18 inches, in the hospital 12 inches. It broke the freshwater pipelines in three places between the station and the town of Badanah. It brought down the main power line and two utility poles, flooded the adjacent Government deep test water well drilling operations and cut off the village of 'Ar'Ar from the main road. Over by the Wadi Badanah it nearly took the life of a Tapline employee sent out with and a current of brown water poured a heavy bulldozer to open a drainage hole in the lower end of the dike. The water poured through the break so swiftly it swept him and the bulldozer 20 feet downstream and stranded him until other workers could get a rope to him and

Up and down the pipeline for 100 great sheets of water spilling down into



looked not like the arid waterless desert that it had been for the past 20 years but like a huge river flowing through an

endless marsh.

the pump house suddenly registered a drop in discharge pressure and an 300 barrels an hour.

To the dispatcher in Beirut, to whom the information was reported, this was not immediately alarming. Although such developments can mean a leak, the cooling effect of rain on the pipeline produces exactly the same effect. But when the pressure did not return to normal and when inquiries disclosed that Badanah had made no adjustments that

did, and at 3:30 p.m. radioed back that the dispatcher's suspicions were confirmed: there was a large pool of oil forming in the desert about 40 miles east In Rafha, meanwhile, the gauges in of Badanah. It was a leak and it was

To Tapline, leaks are never routine. increase in the station flow rate of about Yet the technique of dealing with them has been so polished over the past 19 years that they rarely result in heavy losses. But the Badanah leak, it was soon clear, was going to be different.

For one thing the demand for oil last November was unusually heavy. With the Suez Canal closed, tankers were lining up at Tapline's Sidon terminal like customers in a cafeteria. Seldom before, in fact, had Tapline's

share of the oil transportation burden been heavier. That meant that if at all possible the leak had to be fixed without reducing the throughput.

The technical problems were also formidable. The site of the leak was in the center of a shallow depression that the flood had transformed into an astonishingly large lake: nearly 1,000 feet across by approximately a half mile long. Indeed water flowing into the lake may have caused the leak by cracking a weld. Exactly how, no one was sure, but with waves breaking against the above ground pipeline, engineers theorize, the vibrations may have been too much for a girth weld already under high tension caused by cool temperatures and cold water lapping against the bottom of the pipe.

The size of the leak also made a difference: a crack 36 inches long, one third the circumference of the pipe-and a loss of 3,000 barrels an hour. Even worse, the oil, spurting out with a





pressure of 400 pounds per square inch a leak in a pipeline, but the simplest is behind it, had gouged a hole 10 feet in diameter and at least 10 feet deep beneath the line, creating a pool much too deep for men to stand in and work. Off to Dhahran, therefore, went a strange message from a company that operates in one of the driest desert areas in the world: send us some boats.

Dhahran, headquarters of the Arabian American Oil Company (Aramco) didn't blink an eye; it scouted around, found two six-man rubber life rafts, and loaded them aboard an Aramco Beaver that Tapline also needed to move supplies and people until roads could be reopened. The next day about 2 p.m. the Beaver landed at Badanah, picked up the repair crew, with their tools and equipment, of the leak.

to bolt a large, 150-pound circular band around the crack. The band comes in two parts, each a two-foot wide semicircle of steel a half inch thick, with ears at each tip like the flaps on a ski cap. Inside, fitted to the steel, is a quarter inch lining of compressible neoprene. When the band is clamped in place the neoprene lining presses snugly against the pipeline and, with luck, seals the crack as the bolts in the ears are tightened.

There are hazards, of course. One is the presence of potent hydrogen sulphide gas. Another is the highly volatile nature of unrefined crude oil when it is fresh out of the pipe. And this time there were additional complications: the 130,000 barrels of lost oil spread across and went on to kilometer 517, the site the lake in a layer nearly a foot thick; the lack of any lifting or earth moving There are several ways of repairing equipment; the necessity to work in, or

across a deep pit filled with oil and water.

The pit offered special difficulties: trying to clamp a 150-pound band around a leaking pipeline without a place to stand was rather like applying a tourniquet to a bleeding artery without touching the patient.

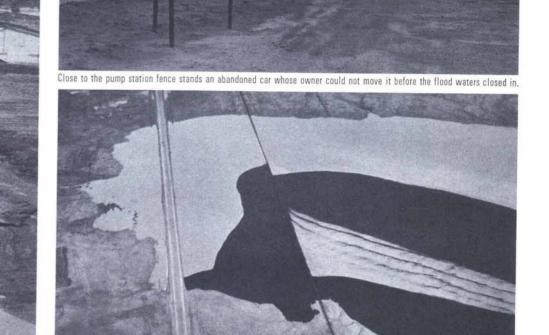
For Tapline's seasoned crews, however, all that added up to just one more challenge. Having weighed the hazards and difficulties against their own experience and knowledge they decided it could not only be done, but could be done with only a slight reduction in the normal daily flow of oil through the line. Thus, bright and early on Saturday, they heaved their tools and the band into the boats, donned their rubber rain suits and hip boots, slipped on gas masks and waded in.

The first step was to assemble the band on the pipeline tightly enough so it

would close the leak but loosely enough so it could be pulled into place by long ropes. About as easy, one man said, as slipping an engagement ring on a girl's

finger with chopsticks.

The men also had to work as close to the leak as possible but in water shallow enough to work in. This turned out to be a point 30 feet upstream and even there they faced difficulties. Working in a waist-deep mixture of water and oil proved to be extremely difficult. Rafts had to be lashed to the pipeline so they wouldn't float away-and the crew had to fasten life lines to themselves so they could be pulled ashore in an emergency. To make everything harder the dangling air-purifying cannisters for the gas masks kept dipping into the film of oil and getting clogged with black, viscous petroleum.



Oil leaking from a cracked weld in the pipeline spread a foot of oil (above in black) across the surface of lake

most of Saturday to finish the job, but about 4 p.m. the last of the four bolts on the band was tightened and the crew made their weary way to the shore to see if they were successful. In minutes the gauges at Badanah gave the answer: the loss rate dropped from 3,000 barrels an hour to 120. Phase I was over. Now they could concentrate on Phase II.

In sealing off the break Tapline's repairmen had gotten rid of the worst problem. What remained to be done. however, was no snap: welding the band in place and disposing of nearly 130,000 Sunday went into action. barrels of oil.

Although welding a steel band to a pipeful of volatile crude oil sounds dangerous, it seldom is. But this particular job had to be done in the middle of a lake that had been filling up with oil for 53 hours. The first step, obviously, Because of the difficulties it took was to get rid of some of the oil.

Earlier that Saturday, Tapline's manager had sent orders down the line to bring up a heavy pay loader, a bulldozer, a grader and five trucks that by sheer good luck were standing by for some road work just 20 miles away. Thus by the time the band was bolted in place an impressive squadron of earth-moving equipment was already on its way. The operators had to stop twice to fill huge gaps the flood had torn out of the roadway but by Saturday night they had lumbered into position and on

The first job in the dispersal phase was to prepare a place to put the oil. Engineers had already decided that there were two good places, a small depression southeast of the lake and an area on the other-north-side of the road. To move the oil into the bowl was simply a matter of opening a canal through



Before repairing the leak the engineers had to first lower the lake level by draining oil and water into pond, at left, and across road



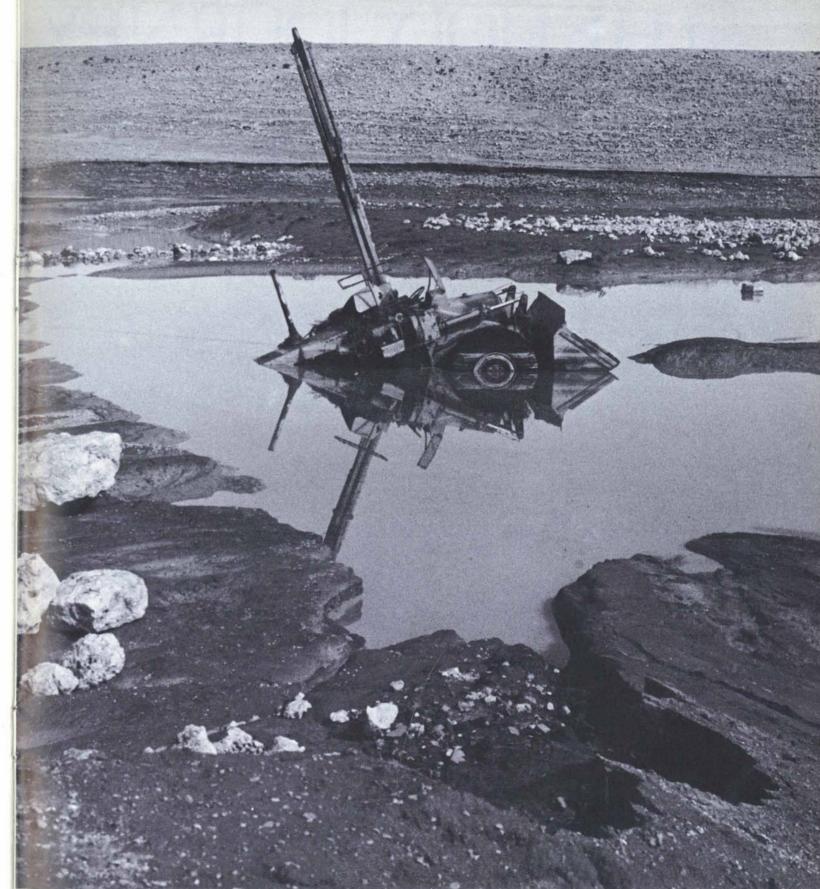
As the flood receded Tapline began to assess the damage and found that great sections of the newly completed road had been destroyed.

which the lake with its film of oil could drain. The other required that engineers construct a sand dike on the northern edge of the road and plug the culverts that led under the road to the lake. When the dike was finished, two pumps able to move 1,000 gallons a minute were turned on, the canal was opened and the lake began to subside.

The first task accomplished, the bulldozers and loaders clanked into position and set to work scraping and lifting more sand, enough to construct and extend two twelve-foot wide dikes out into the lake from the shore, one on each side of the pipeline. Then, using the dikes as roads, they carried out enough sand to build an island 130 feet across and surrounding the cracked part of the line. Finally, with a large part of the oil drained or pumped away, the rest blocked off by solid earthen barriers, they welded the band to the pipe and the emergency was over.

In the days that followed Tapline crews were too busy to talk much about the flood: busy cleaning up a three-inch carpet of mud in the station, restoring power and water, burning the oil they had drained away from the break. They also had to crank up a major road reconstruction project to restore the miles of damaged roadway and inspect, on foot, nearly 250 miles of the pipeline to be sure the flood waters had not knocked it out of alignment, damaged the supports or exposed buried line.

But now, four months later, the emergency assignments are long behind them, the road repairs are nearly complete, the oil is coursing smoothly through the line and another hot dry summer is just over the horizon-a summer in which the men of Badanah will look out at the dusty wadis by the station and remember brown torrents foaming over the banks and skilled men wading into a desert lake. That's when they'll really talk about it and when the stories will begin-the rest of the stories, that isabout the Great Badanah Flood. __ Paul F. Hoye is Editor of Aramco World



Left as a graphic reminder of the flood's dangerous power was this bulldozer washed downstream with the operator still in it when he opened a drainage hole in the pump station dike.

THEHOLYJOURNEY

An Aramco photographer and his family make the pilgrimage to Mecca.

In Malaya, soon after the holy fast in the month of Ramadan, an old man finishes packing a shiny new suitcase and then prays, "O God, Thou art my Companion on the journey, and Thou art the One who remains with my people."

In Morocco, perhaps at that very moment, a young merchant bolts the door of his house and prays from the step, "In the name of God, I place my trust in God."

Someday soon these two men may pass each other on a hot and dusty plain in Saudi Arabia without ever being aware of the other's existence. Or, God willing, they might meet and pray side by side in the courtyard of the Sacred Mosque at Mecca. For both men are setting out on the *hajj*, the world's greatest religious pilgrimage and for Muslims one of the five pillars of their faith.

To a Muslim the *hajj* is one of the great religious experiences of his life. For it not only deepens his personal involvement but binds him more closely to great body of Islam, a body 500 million strong and spread throughout the Middle East, Asia and Africa. It is a sort of social cement added to his faith and linking him in holy unity to the faithful everywhere. As one writer put it: "At Mecca the Javanese meets the Negro from Senegal and the mountaineer of Albania, all brought together by the same holy purpose." The pilgrimage, furthermore, binds "the whole household of Islam within and beyond its religious center," since even those who stay at home can participate vicariously.

Unlike the other pillars of Islam, the pilgrimage is an act of piety required of a Muslim only if he has the means to perform it. For most, however, it is the "aspiration of a life-time," for the merit of a pilgrimage is great and the reward of God for an acceptable pilgrimage is Paradise. The Holy Koran (in Surah III 97) demands only that "whoever is able ... make his way thither." Those who lack the means, women without a suitable escort, the feeble-minded are excused from the rigors of the journey.

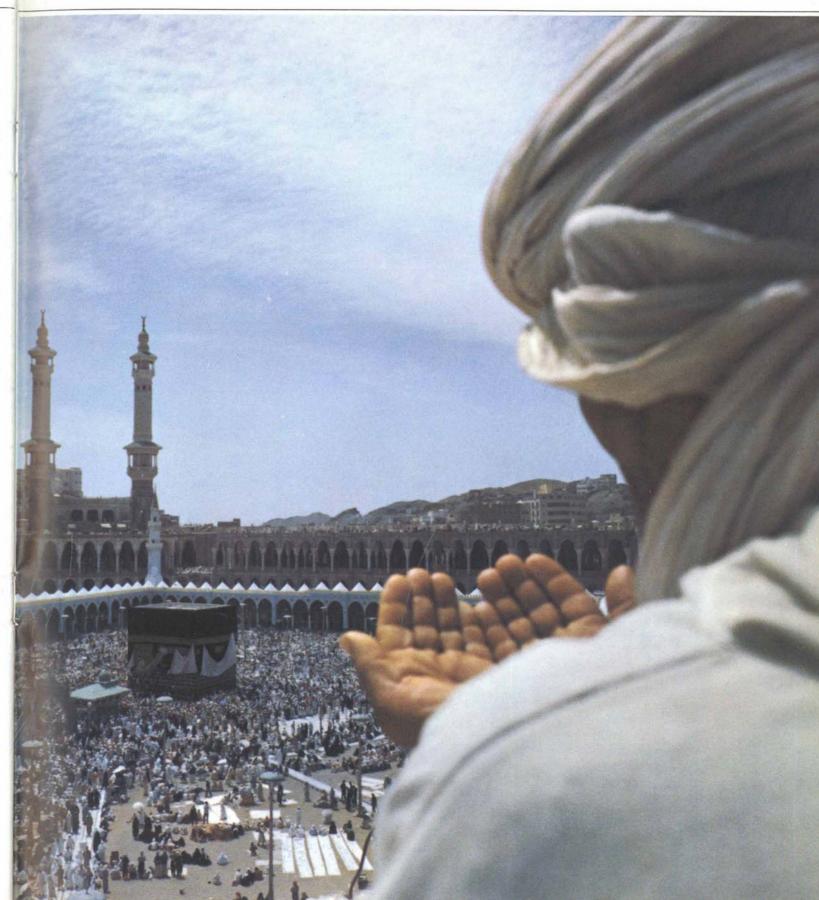
And there *are* rigors: a long journey over difficult terrain, costly, crowded and sometimes unsanitary transportation and accommodations, and a long absence from family and friends. There is also the frustration and confusion of trying to communicate with masses of fellow Muslims who profess the same faith and read the same Holy Book but speak the languages of countries 6000 miles apart. Since many of the rituals are conducted out of doors the most exacting trial is often the heat of a desert summer when the *hajj* falls during that season.

Years ago, the pilgrimage was even harder, but now roads that were once infested by bandits are now safer than most Western cities. Ruinous taxes and fees imposed by local rulers have long since been eliminated; paved roads, hostels and rest areas have been built. At entry points into the Kingdom there are now strict health checks and quarantine stations. Disinfectant teams patrol camping areas and there are even Boy Scouts on hand to assist strangers. Even better, transportation to Arabia from almost anywhere can be arranged by fast, comfortable jets, and safe modern ships.

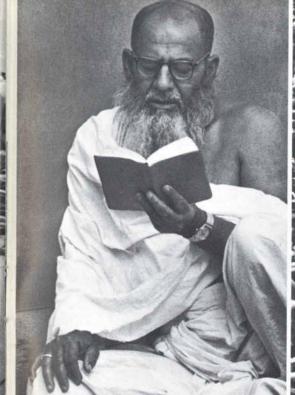
The result has been a steady increase in the number of pilgrims. Last year an estimated 300,000 foreign pilgrims from 92 countries, made the *hajj*. Among them was an elderly couple from West Pakistan, Shaikh Abdul Aziz and his wife, father and mother of Aramco photographer Shaikh Muhammad Amin.

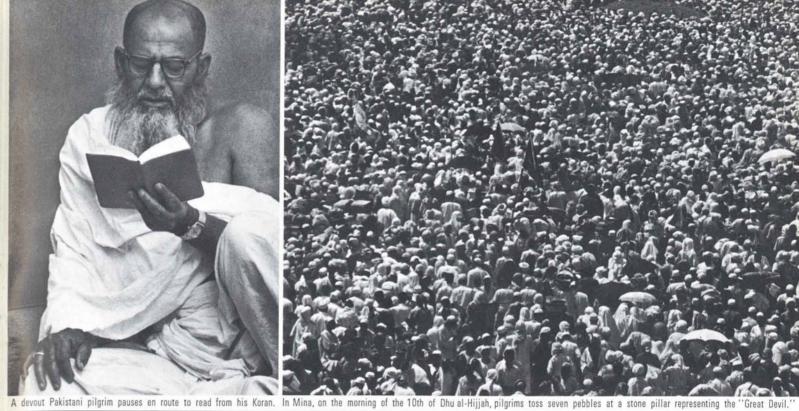
With his own wife and daughter, Mr. Amin accompanied his parents across Saudi Arabia and during the rituals of the pilgrimage in Mecca and its vicinity, capturing in the photographs which appear on the following pages something of the beauty, tradition and meaning of the Holy City and the *hajj* as seen through the eyes of his own family. If any journey can be called typical in such a wide body, then their Holy Journey is typical of that made by countless other families from countless other lands, united in Islam and joined closer by the pilgrimage itself.

THE EDITORS



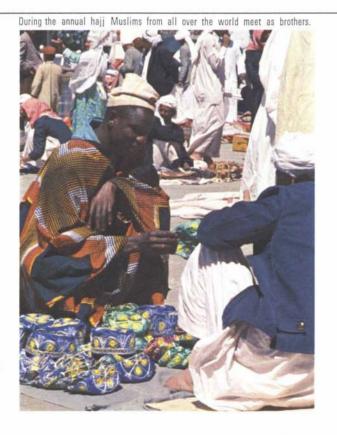


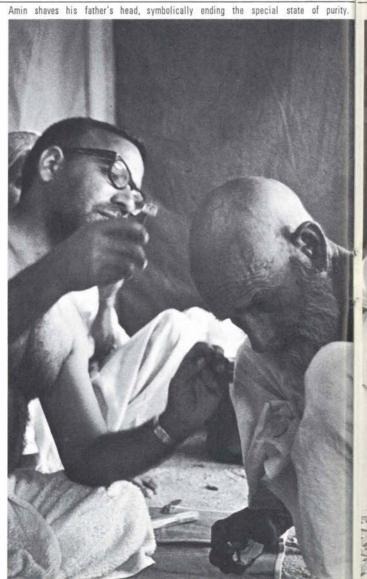


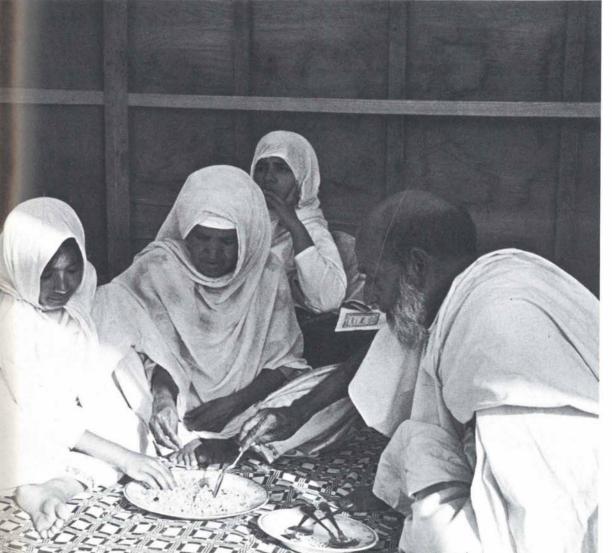


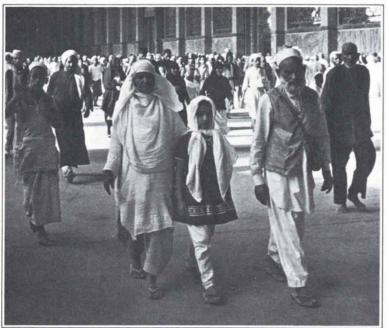
On the ninth of Dhu al-Hijjah, the month of pilgrimage, the road between the town of Mina and the plain of 'Arafat is so choked with traffic that the three-mile journey may take up to six hours.

Amin shaves his father's head, symbolically ending the special state of purity. Dressed in the white seamless garments of ihram prescribed for pilgrims, Amin's daughter, mother, wife and father eat their noonday meal at 'Arafat.









Seven times pilgrims traverse the covered "Course" between two knolls near Mecca's Sacred Mosque, reenacting the tradition of Hagar's frantic search for water for Ishmael, her son by Abraham.

After the hajj many pilgrims visit Medina, 250 miles north of Mecca, where Muhammad is buried in the Prophet's Mosque.

Two Saudi Arab pilgrims sit in one of the new minarets of the Sacred Mosque, high above the courtyard where crowds circle seven times around the Ka'bah, said to have been built by Abraham, a cubical building draped with silk and containing the sacred Black Stone.

Climax of the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the hajj is the Standing (before Allah) at 'Arafat, where the courtyard where crowds circle seven to the courtyard where crowds circle seven to the courty at the

