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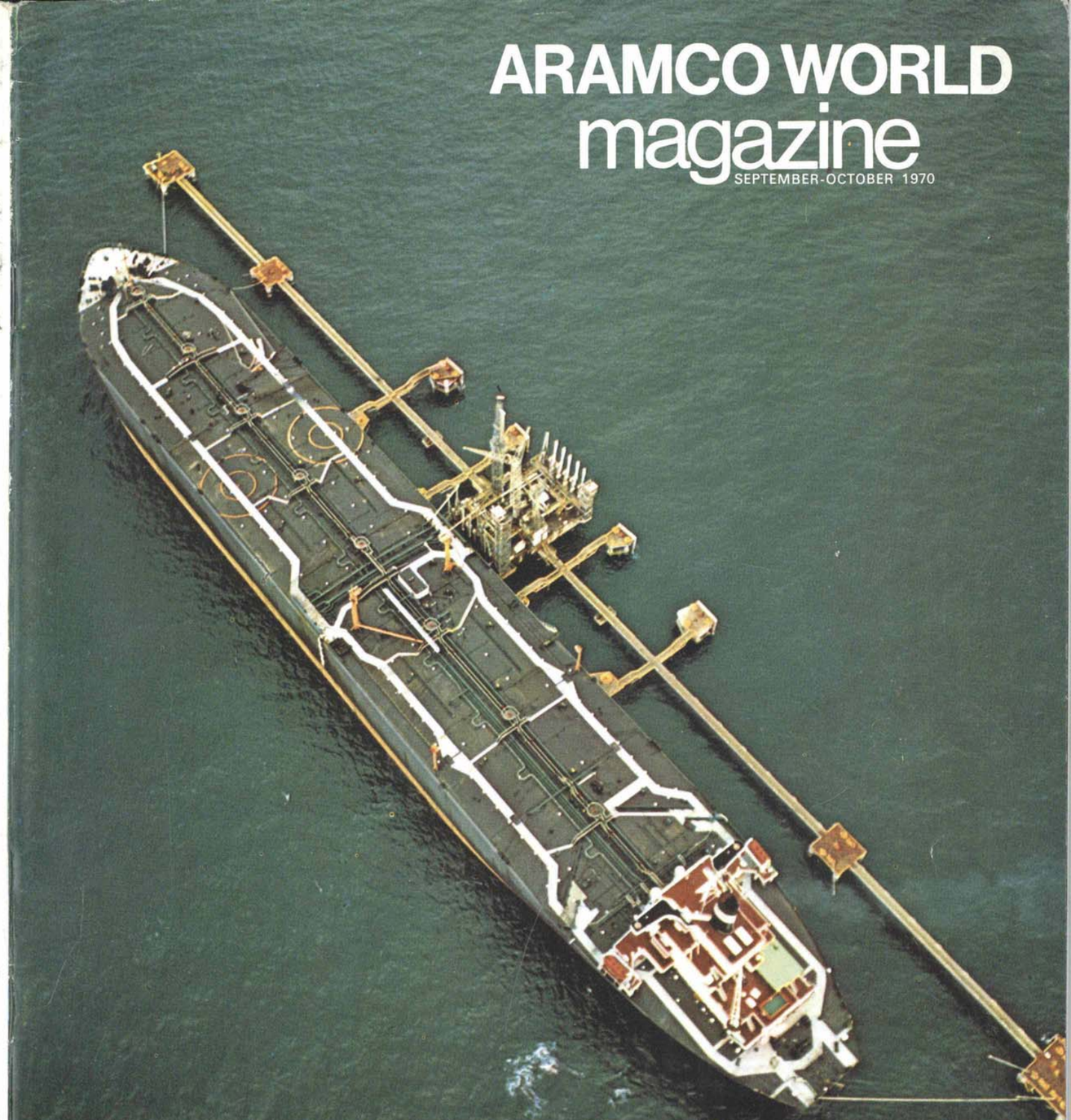
SEPTEMBER-OCTOBER 1970



"THROUGH THE HAWSE PIPE"
A story of Ras Tanura

Among the countries and companies eager for a share of the profitable Middle East market more than 500 American firms have bases in Beirut, a few of which are represented in this multiple-exposure photograph.

ARAMCO WORLD magazine

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Cover: To Ras Tanura's Captain Paul E. Cole and his experienced team of harbor pilots, the 251,000-ton supertanker Esso Cambria, seen taking on a super cargo of Arabian oil at a deepwater Sea Island in this aerial view by photographer Tor Eigeland, is just one of the more than 2,800 vessels which they conned safely into Aramco's busy Marine Terminal last year. Story on page 22.

SIGN UP!

PHOTOGRAPHY BY KHALIL ABOU EL-NASR

The signs seen on these pages are only a few of the most obvious and more colorful symbols of US commercial and industrial involvement in the Middle East —an involvement, according to one study group in Washington, worth close to $2 billion each year to the United States.

Taken with North Africa, and including the oil industry, American investment and trade in the Middle East is the source of nearly $2 billion net annual inflow into the United States. Close to one fourth of this ($500 million yearly) comes from the export of American industrial goods, services and consumer products from firms as diversified as IBM, MGM and 3M.

American companies sell everything from chicken feed to caterpillars, from cornflakes to carwashes. As might be expected, more than 20 oil supply companies vie for a share of the market, but also, surprisingly, almost the same number of pharmaceutical companies. Eight U.S. tire companies are pushing their treads. There are 12 insurance companies, nine banks. Both Avis and Hertz are trying hard. Pan Am and TWA are moving heaven, Allis-Chalmers and International Harvester earth.

Some companies have also worked out local licensing arrangements so that products as varied as Libby's tomato catsup, Chicklet chewing gum, Devoe paints, Kleenex and Tide and Otis elevators are packaged, assembled, or processed in Middle East countries. Sales direct from U.S. factories or their European subsidiaries are even bigger business, however.

Regional headquarters for most American companies in the area is booming Beirut, where the 390 US corporation representatives located there in 1967, grew to 451 in 1968 and 499 by the end of 1969. By spring the total was over 500, according to the U.S. Embassy's Commercial Section which issues a 160-page directory listing them. The lobby directories of such Beirut office buildings as the Starco Center (Bache & Company, Boeing, Francis I. du Pont, Hilton Hotels, ITT, Singer, Merril Lynch) and the Piccadilly Center (Carrier, Esso, Goodyear, Marsh & McLennan, Smith Corona,) would look at home in many US cities.

With Japan, France and Germany already solidly intrenched, Russia, East Europe and even China edging in, the economic future of U.S. trade in the Middle East is impossible to predict now. But in the meantime one thing is certain. The signs shown on these pages, at least, couldn't be brighter. _____


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محارم الورق الشهيرة
Kleenex
tissues
Kleenex tissues
ناعمة.
لينة.
نقية.
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Carrier
بيع مكيفات هواء صيانة
وكيل معتمد


وفي بيروت أيضاً لك صديق في تشيس منهاتن
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you have a friend at Chase Manhattan
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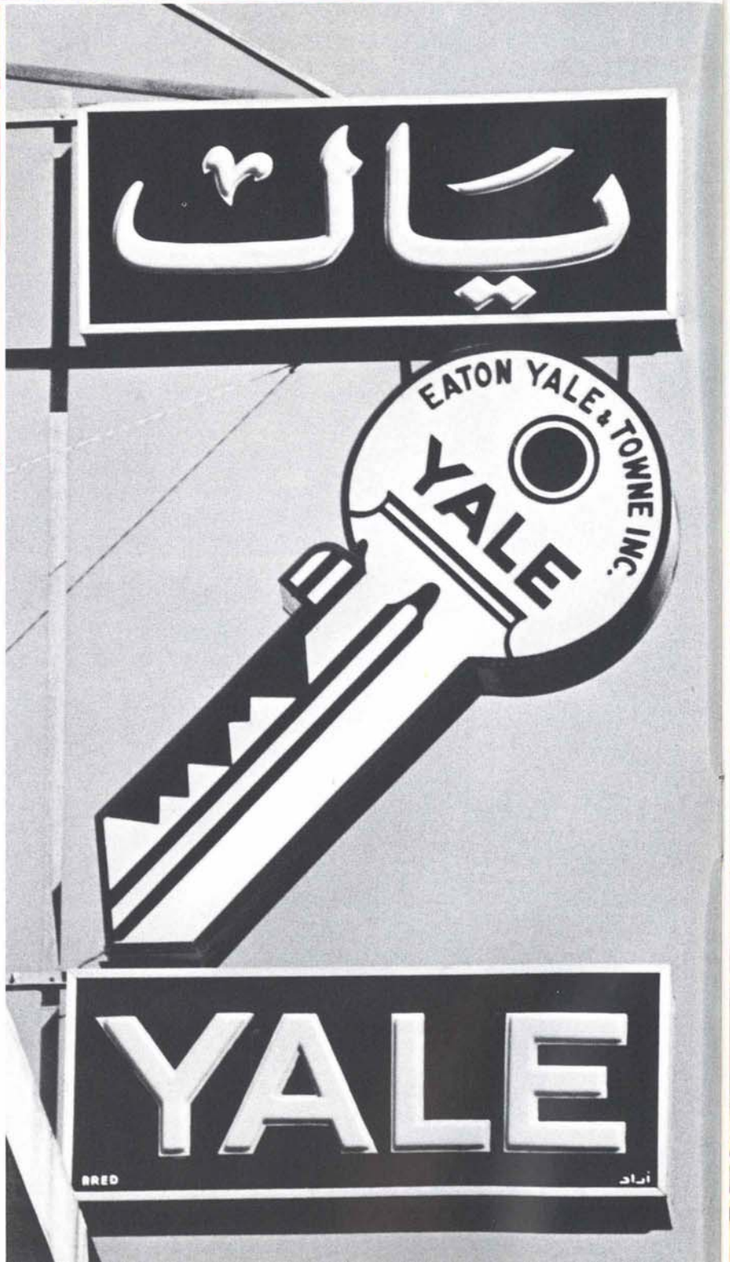
معلبات غذائية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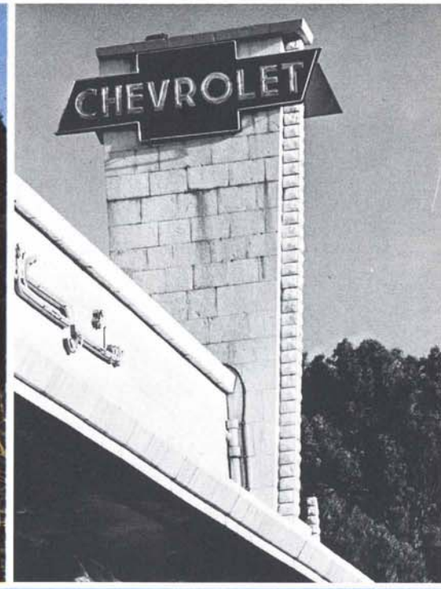
CHEVROLET


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96 RON
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PANAM
Don't Leave
Without Us

Recognize these?

... Arabic versions of some familiar American firms (See answers below)

1. Caltex 2. Pepsi-Cola 3. Orange Crush 4. Kodak 5. Chevrolet, Cadillac and GM Trucks 6. Westinghouse 7. Kent 8. Canada Dry 9. Singer Sewing Machines 10. Parker 11. Chrysler and Plymouth 12. Mobil

LADY HESTER STANHOPE "Queen of the Desert"

BY DANIEL DA CRUZ

PHOTOGRAPHY BY KHALIL ABOU EL-NASR

The career of Lady Hester Stanhope had, you might say, its ups and downs. She started life at the top as the favorite daughter of the wealthy Lord Charles, 3rd Earl of Stanhope; was impoverished and orphaned at 27, after her father succeeded in giving away his fortune out of sympathy for the French revolutionaries of 1789; became

within one year the official hostess of the Prime Minister of England, William Pitt the Younger, her uncle; was thrice disappointed in love, and fled England, never to return, at the age of 33; was crowned, according to her own account, "Queen of the Desert" as successor to Queen Zenobia of Syria in the ruined city of Palmyra; and finally died alone in poverty and squalor in her palatial retreat in the Lebanese mountains, its entrance mortared shut against her hordes of creditors.

Lady Hester came by her eccentricities honestly, for Lord Charles, her father, besides flinging his patrimony to the winds and destroying his coat-of-arms wherever found, in revolt against his own nobility, was an established oddball from an early age, refusing to send his sons to school, sleeping with the windows open and without a nightcap, and working at menial jobs that dirtied his patrician hands. His daughter showed her breeding when, still a child and curious about France, she climbed into an empty boat on the English Channel and started rowing east. It was the shortest voyage of her life—she had gone about six yards before being caught—but nevertheless portentous, for it is only because of her infatuation with the East that she is today remembered.

As a young woman, Lady Hester was very attractive to men—vivacious, witty, a good talker in a society that loved conversation, and although not beautiful, tall, slender and dark-eyed. Those charms became the currency of English high society when, after her father died in 1803 and she went to live in Walmer Castle with her uncle, Pitt became Prime Minister in 1804. Now 28, Lady Hester was at the zenith of her career. Pitt loved her for lack of a daughter, English nobility loved her for her consummate ability as a gracious hostess, and a succession of men loved her for position and perhaps, even, for herself. It seemed to Hester Stanhope too good to last. And she was right.

She was just recovering from being jilted by Lord Granville Leveson Gower when Pitt died, leaving her nothing but the deathbed wish that Parliament, in regard for his services, might see fit to bestow on his impoverished niece a modest livelihood (Parliament responded with a sumptuous —for then— pension of £1,200). Soon thereafter she became engaged, and disengaged, to the Hon. William Noel Hill, but quickly rebounded into the affections of Sir John Moore, England's commander-in-chief in Spain and Portugal against Napoleon's forces. In 1808 he was killed, her name on his dying lips, and shortly afterward one of her brothers was shot dead in the same campaign. Grief over the loss, in rapid succession, of five men she had loved, drove her from the London which now contained only bitter memories. She went first to Wales, then in 1810 left England never to return. She was 33.

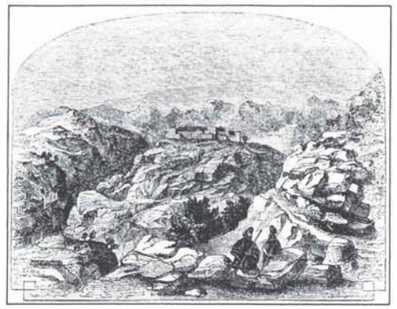
Lady Hester set sail for the Mediterranean accompanied by her private physician, Dr. Charles Meryon, and in Gibraltar added to the party a 20-year-old Englishman named Michael Bruce, who soon became her avowed lover, to the immense chagrin of Dr. Meryon, who fancied the role for himself. By the time Lady Hester's expedition reached Corinth, Greece, its personnel had swollen to nine people, representing five nationalities, which gives some idea of the purchasing power of £1,200 per annum in those far-off pre-devaluation years. If she had any purpose beyond getting away from it all, it was the wildly harebrained one of pushing on to Constantinople, winning the goodwill of the French Ambassador there, and after obtaining a passport to France proceeding to Paris through Hungary and Germany. Lady Hester then intended to ingratiate herself into the confidence of the Emperor Napoleon, discover the mainsprings of his character and mind, and return to England where her information would provide the basis for his overthrow by her mobilized countrymen. But the British Minister got wind of her plan, and with the indignant caution of most diplomats, sabotaged all her preparations. There was nothing for her to do but leave. She embarked for Egypt.

The week's trip took nearly two months, with time out for a shipwreck during a storm off Rhodes. Ashore, she took refuge in a rat-infested windmill and while she was waiting for another ship to remove the party she adopted the male attire that she affected the rest of her life. She earnestly believed it was typically oriental but, being of her own design, it was actually closer to Regent Street Tunisian, and when the local gentry was not stifling laughs at her expense, she was, says Dr. Meryon, generally mistaken for a young Turkish bey "with his moustachios not yet grown."

In February 1812, two years after it had left England, the motley party reached Alexandria, where the English members set about learning Arabic and Turkish. The East was in her blood, its combination of mystery, romance, mysticism, hardship, fatalism and fanaticism having captured her English soul as it was to capture so many of her countrymen in future decades. But enough of the British aristocrat remained for Lady Hester to pay a call in Cairo on Muhammed Ali, ruler of Egypt, as a courtesy between equals, before the fleas and flies of her temporary home in Damietta drove her out of the humid Nile Delta to the relative haven of the Palestine hills.

Arriving in Jaffa, she at once set to the task of obtaining a safe conduct across the bandit-infested countryside to Jerusalem. She quickly discovered that it was the goodwill of Shaikh Abu Ghosh, the bandit-in-chief, that had to be secured. With that combination of guts-and-guile that characterized all her dealings with her fellowman, she went directly to the Shaikh's camp, talked his ear off and bribed him handsomely, then told him that she would hold him personally responsible for the welfare of her caravan. The amused—perhaps *be*mused—old man pocketed the money, gave his word, and kept it by keeping the competition at arm's length while Lady Hester made the grand tour of the Holy City then proceeded north to Nazareth, Acre and other little-known cities that were but Biblical words to the West whence she came.

By the time her caravan approached the foothills of Mount Lebanon, the Englishwoman had largely disappeared. In her place was a mannish figure who wore a species of male clothing, smoked a bubbly *narghila*, and could swear at her mule drivers in three languages. The hospitality —to her already fevered mind it seemed homage—she was accorded by the Levantine people, to whom a generous reception of guests and travelers is an article of faith, convinced her that in the Orient she had at last discovered a race of man which truly appreciated her aristocratic bearing, lineage and inherent superiority, which the English had recognized so fleetingly during her uncle's day of power. Like many who followed her, Lady Hester had all too humanly confused hospitality with awe and



servility, toleration with submission, and acclaim with admiration. And to the end of her days she never discovered her mistake.

While passing through Sidon she received an invitation, doubtless motivated by curiosity, from the Christian Emir Bashir, suzerain of the Druzes, to visit his palace in the Lebanese mountains at Deir el-Kamar. She prepared for instant departure, for the Emir controlled the reclusive sect that had split from Muslim orthodoxy in the 11th century and now wielded a stern law of its own in its mountain strongholds, and as such was to her an intensely romantic person. Dr. Meryon was, on the other hand, rather hesitant. "They say," he wrote uneasily in a letter home, "he is a very good man. It is true he blinded his three nephews and had his prime minister strangled . . . but these things go for nothing in Turkey." Lady Hester, as usual, overrode her physician's fears, and they departed for the mountains, traveling light, with only their most necessary possessions carried on the backs of 22 camels, 25 mules and 8 horses. As she had known all along, everyone had a marvelous time, and Emir Bashir extended a standing invitation to visit his domain for as long as she wished.

But bearding despots in their lairs is habit-forming, and Lady Hester now conceived the idea of visiting the Pasha of Damascus, a city then implacably hostile to outsiders, particularly Europeans and women, and consequently but rarely visited. She made her usual frontal assault on her objective: she asked for—and received—an invitation from the Pasha himself, then entered the city on horseback (Christians were forbidden to ride a horse within the city walls)—and unveiled. "The people gazed at us," Meryon said later, "and all eyes turned toward Her Ladyship. Many saw at once that it must be a woman, but before they could recover from their astonishment, we had passed on . . . followed by a few boys only . . . to the Christian quarter." Perhaps the Damascenes thought her "afflicted of Allah"—insane—as well she might have been, and refrained from violence, for in the Arab world the insane are considered under divine protection. At any rate, during her Damascus sojourn the townspeople congregated around her house every day to observe her mount her horse, and when she entered the crowded *suq* everyone rose—perhaps to get a better look—and Lady Hester nodded graciously, and proceeded on her way with the air of a great lord surveying his dominions. It was very heady fare.

One accessible "forbidden city" remained: Palmyra, near the oasis of Tadmor, the seat of Queen Zenobia's ancient desert kingdom east of Damascus that had once defied Rome. The despot in this case was the Bedouin Emir of the 'Anazah, and typically she practically demanded to be invited—successfully, of course. And she went alone, except for two guides, to the Emir against whom all had warned her, predicting nothing but evil from the encounter. On arriving she stood before her host and said: "I know you are a robber and that I am now in your power. But I fear you not. I have left behind all those who were offered me as a safeguard . . . to show you that it is *you* whom I have chosen as such." The Emir was captivated.

Sometime during the week's visit her guides and host arranged an entertaining visit to the decayed city. At first sight, she "stood on what seemed to be the ridge of the world, and below lay Palmyra . . . a forest of mutilated columns carelessly scattered on the tawny plain . . ." To the throbbing of desert drums she led a procession of Bedouin notables, followed by the lesser tribesmen, down one of the few well-preserved colonnaded Roman avenues leading to the great temple which stood in the center of the city. Beside each column was stationed a young maiden, and as the procession passed, each fell in beside the mounted Lady Hester as escort, all the way to the temple, where, she remembered much later when time had embroidered the truth with harmless fantasies, "I have been crowned Queen of the Desert, under the triumphal arch at Palmyra."

It was undoubtedly the crowning point, so to speak, of her aimless, restless life. For a few hours, at least, she must have been blissfully happy. The remainder of her life was to be an interminable, disordered, frustrating anticlimax. Her lover Michael Bruce had already departed, in 1813, for England. Dr. Meryon was to leave later, and after two brief returns, also stay away for good. She tried and tired of several residences in southern Lebanon before establishing herself permanently, in 1821, in a 36-room house, a crazy-quilt of secret passages and chambers, oddly resembling her own mind, which became increasingly befuddled. She began to believe her own fables, studied alchemy and astrology, dosed guests willy-nilly with foul-smelling potions from black bottles, talked wildly and incessantly to the few people who now came to see her at her home in Joun, guarded by Albanians and staffed by black slaves she made treat her as royalty.

She still had flashes of her old fire. Outraged that the Ansaries of Latakia had violated the laws of hospitality by murdering a French consul who had shown her much deference, she prevailed on a local chieftain to conduct a private war against the northern sect, in the course of which some 300 innocents were slain. On another occasion, convinced that she had discovered a map giving the precise location of buried treasure in Ascalon, she grandly offered to present the entire sum to the Sublime Porte in Constantinople if the Ottoman government would provide means to conduct the excavation. Funds were made available, but the dig was a complete fiasco. Then she became convinced that the Mahdi—the ruler expected by some Muslims to establish a reign of righteousness throughout the world—was about to appear in the East, and that she was destined to be his bride. Her eccentricities compounded—among other things, she kept an Arab mare in a constantly-lighted stable, and had the animal served with sherbets and other delicacies; her friends vanished, debts mounted, enemies multiplied, and the British government gave her the last and unkindest cut of all—cutting off her pension to placate (but not, however, repay) a Turkish debtor.

It was this final blow to her pride that started her on the road that has but one end. She walled up the great gateway to her house, dismissed most of her servants, and prepared to die with the only companion that had served her steadfastly throughout her life: her unbending dignity. Death came in 1839, when she was 63, alone in an alien world, among alien people, whom she had tried for more than a quarter century to make believe were her own.

Daniel da Cruz, a long-time resident of Lebanon, and Middle East correspondent for several U.S. publications, contributes regularly to Aramco World Magazine.

A Visit To "The Lady's" Tomb

BY JOHN BRINTON

For those who wish to kick the dust of romance on what writer Lesley Blanch called the "Wilder Shores of Love," there is no better place of pilgrimage than a lonely hilltop near the village of Joun, in southern Lebanon; for there lies buried, in a simple marble-topped tomb, the eccentric "Queen of Palmyra," Lady Hester Lucy Stanhope.

There is a steady trickle of curious romantics who still climb the hill near Joun each year to gaze on the sad remains of her once-grand estate. Forty minutes south of Beirut, on the coast road to Sidon and Tyre, a road branches off to the left up into the rocky, wooded hills, and begins the eight-mile climb to the village. Wild flowers grow on the hillside; red poppies, white daisies, and pale violet cyclamen. The Awali River, on the right, which was a dried-up wadi for most of the year before a modern power scheme diverted another river into its bed, is a raging torrent of water. The road winds up and around the crests of hills and the sea recedes slowly behind, but never quite lost to sight.

It takes 20 minutes to reach the village. In its general appearance there can be little change since Lady Hester's day. There are graceful old stone houses, pierced by arched windows and doors, and surmounted by red-tiled roofs. Many of the houses bear the scars of a 1956 earthquake, and cracks and fissures have been visibly patched.

Drive through the village and park the car near the principal cafe. It is resplendent with a quaintly misspelled green and red sign, donated by a local soft-drink firm, hung over the entrance:

CAFE LADY STANHOB. The Arabic script above it spells out "lady" phonetically rather than using the Arabic term **sitt**. She is still the village celebrity. Children and old men crowd about. They know the purpose of the visit and point to a path by the side of the cafe. The sitt's house is that way. Several small boys appoint themselves as official guides, and go running on ahead down the path.

The start is inauspicious. The trail is steep and muddy—it also does duty as a drain for the village olive-oil press. For those who are non-walkers there is a rough dirt road a little past the village, cut through by the Monastery of the Savior which owns many of the olive groves. But for true romantics the approach by foot is important. Descend then to the bottom of a ravine and step out onto the open hillside and begin to climb up the rough donkey path which leads to the collection of ruined buildings on the summit of the hill. The bare and rocky hillside is covered by a new carpet of wild flowers that hides its nakedness. There are splendid lonely trees along the way—olive, orange and walnut. This is the same path described by many famous 19th-century travelers, Kinglake, Lamartine and James Silk Buckingham. The boy guides lead the way, running and skipping ahead. The chant of "the sitt," "the sitt" fills the air. Lady Hester is being warned of callers.

Near the top climb over some low rubble and crumbled walls; a gesture from a child points to a broken doorway. Then, like some phantom doorkeeper, he ushers visitors into a courtyard overgrown with weeds and brambles.

The suite of rooms built by Lady Hester facing the sea stands intact. Although cracked and neglected, it still bears traces of habitation. Enter the room where Lady Hester received her visitors. The raised platform, the niches in the wall are all still there. Sit in a windowed alcove and look out. No vestige remains of the formal gardens so celebrated in their day, and often described as the finest in the East. The rare plants, the secret paths, the pavilions and kiosks have all vanished, but all else is there as she left it—the air and the sky and the magnificent view towards the sea.

The room is impregnated with memories of that pale, wan figure, "wondrous white woman," as Kinglake described her, whose skin was so white that "one could not see her pearls against it."

She was eccentric like her father, and the wild Pitt blood coursed through her veins. Haughty and domineering, she was also humble and witty, commanding both love and fear. Lord Byron tagged her "that dangerous thing, a female wit," and her long-suffering doctor, Charles Lewis Meryon, her first biographer, proclaimed her "the best lady that ever breathed." She attempted mad things and carried them through. She hated women, and yet was a woman all through. "I let her do as she pleases," said her uncle, England's Prime Minister William Pitt, "for if she were resolved to cheat the devil she could do it." He also said that if she had been a man he would give her the command of the army against Napoleon. Muhammad Ali said that she gave him "more trouble than all the insurgents in Syria," but he respected her.

Having settled in Joun, she was ruined in the end by extravagance and eccentricity, and beset by moneylenders. She was disowned by members of her own family, then by Queen Victoria. She sent all her followers away before she died, and was robbed of her few remaining possessions. She was discovered dead and alone in her room by an American missionary and the British Consul from Beirut, who buried her at midnight. The missionary wrote at the time, "Will such an end pay for such a life?"

Sitting in her ruined room, one finds it difficult not to believe that it has paid. Her death was in perfect contrast to her birth, and is part of her legend. Are pilgrims not here today, and will there not be many others to follow?

To clear the vision and return to today, rise up and move outside into the cool spring breeze. Inspect the stables where she kept her "sacred" mares; descend into the dark dungeons under the courtyard, where she threw those who had displeased her. Storerooms, kitchens, cisterns—their only use today is to shelter a few shaggy goats during the rainy winter season.

Her tomb is a short way from the house, on the edge of the hillside near the sea. It is a simple white stepped monument cut from the native limestone, surmounted by a white marble plaque. Engraved upon it in English and Arabic are these words:

LADY HESTER LUCY STANHOPE
Born 12 March, 1776
Died 23 June, 1839

The boys who have followed along place a few sprigs of wild spring flowers on her tomb. It is a dignified and elegant monument, and has recently been repaired. A few old orange trees grow near by, and clumps of mountain laurel. It is a pleasant place to rest and dream.

Lady Hester lived as a legend: once crowned "Queen of Palmyra" by the Bedouin tribes of the Syrian desert, posterity crowns her still. Romance of the East! Her ruined abode, the "Dar es-Sitt," and this terraced hillside near Joun with its simple marble tomb is its very essence.

John Brinton, a regular contributor to Aramco World, *is the son of Judge Jasper Brinton, the subject of two articles in this issue.*

BY ABDUL MON'IM S. TALHOUK / PHOTOGRAPHY BY KHALIL ABOU EL-NASR

PESTS AMONG THE PALMS

Despite the dominance of oil in the economy of Saudi Arabia, several hundred thousand of the kingdom's inhabitants make their living in agriculture. Others live from raising sheep, camels, goats and cattle for their milk, their meat, their wool and their hide—occupations that for more than 20 centuries were practically the only means of livelihood. Until very recently, the only permanent crop of particular economic significance was the date palm which was carefully developed by Arab farmers in magnificent, extensive oases in several places on the seacoast and in the interior.

The date palm, viewed ecologically, is a logical development. An oasis is very much like an island in that sand is just as hard a barrier for plants and animals to cross as is sea water. Plants in an oasis, therefore, are limited to some endemic species that tolerate the climate, the soil, and the quantity and quality of available water, or can adapt themselves to the environment. In oases, although the number of native and introduced foreign plant species is relatively large, the natural vegetational climax is the date palm.

This climax is the result of a delicate balance in the chain of life, involving the palms and other species that have adapted to the oasis environment, animals and insects that feed on the plants, and birds, lizards, toads and a horde of different insects that feed on the plant-feeders. With time these species usually achieve a more or less stable, proportional population density through a natural regulatory mechanism. However, even on an isolated island, if the balance is disturbed, species not normally a threat could, through unregulated population growth, achieve the status of "pests." Thus, the utmost care must be taken not to upset the balance. In Saudi Arabia, the Arabian American Oil Company (Aramco) demonstrated this some years ago.

In 1956-57, Aramco, as a preliminary to an agricultural development program in the Eastern Province, began to survey the pests, or potential pests that might harm crops already known or likely to be introduced in the area. As a result of the survey about 60 different species of insects and mites were labeled as economically dangerous, or potentially so. Unwise tampering—such as short-term chemical control campaigns—could neutralize the natural regulation by parasites and predators, and change harmless populations into uncontrollable pests.

Actually, of the 60 dangerous or potentially dangerous insects isolated, the seven most common date palm insects cause *no* serious damage under normal growth conditions. When weather favors the growth of scale insect populations, however, and palm fronds become covered with these sucking pests, the scales inject their poisonous saliva into the green tissues and thus stop photosynthesis. As a result, the palm tree loses much of its vigor. Only after it is weakened beyond a certain point can the tree be attacked by grubs of the long-horned date beetle. The beetle, *Pseudophilus testaceus*, lays its eggs under the bases of fronds, and in crevices in the bark of the date trunk. They hatch in about two weeks and the ensuing grubs, for 10 months, bore galleries in the trunk. Early in spring, the grub attains its full size, pupates, and produces a beetle in the late spring and early summer months. Another pest of date palms is the rhinoceros beetle, *Oryctes elegans*. In the adult stage it feeds on the midribs of fronds and on the fruit stalk, thus preventing the fruits from reaching full size. Its grubs, however, feed as borers in the stem of dying palm trees. The rhinoceros beetle usually lays its eggs in trees that have already been weakened by the long-horned beetle. A third beetle, whose grub and adult also attacks weak palm wood, particularly the fronds, is known as *Phonapate frontalis*. Attacked fronds may break up in a heavy wind. It is not always necessary that attacks by the beetle be preceded by the establishment of high scale populations on the tree; poor management, in the form of no pruning, lack or excess of irrigation will also predispose trees to borer attacks.

Oryctes elegans (rhinoceros beetle).

Sesamia cretica.

Earias insulana.

Prodenia litura (Egyptian cotton leafworm).

Eudioptes indica.

Besides borers, the caterpillars of two species of moths feed on the flowers or date fruits. One, known as the greater date moth, *Arenipses sabella*, lays its eggs on the unopened spathes and other tender parts of the palm. When the spathes open, the caterpillars leave them in the direction of the fruit stalks. They sever the stalks from the strand, but connect them again with silken threads. The fruits then turn grayish-brown and shrivel. Moths of this species appear from February to April, but the second generation in April-May is more serious. Another moth, *Batrachedra amydraula*, known as the lesser date moth, attacks date fruits in the caterpillar stage, and causes similar damage. The adults of this species appear as of mid-April, but at least another generation is formed before the beginning of summer. In the oases of Qatif and al-Hasa, up to 20 percent of the young fruit on some trees is damaged. This loss occurs only occasionally and in limited areas, thanks to the biological regulating mechanism that reigns in the old, settled date palm climax.

Among the pests that were singled out in Aramco's survey, however, were many that threatened, or could threaten crops other than the date palm.

One such pest, apparently unique in Saudi Arabia, is a moth named *Aproerema alfalfella*, whose caterpillar feeds on the top growth of alfalfa and does particular damage to its flower buds. The white-banded, light violet caterpillar ties together a number of growing points of the plant, making a sort of a nest out of them. It feeds on the tender buds and foliage inside the nest. Much damage to alfalfa grown for seed can result since this species can produce one full generation in about 20 to 30 days—a considerable threat if you recall that alfalfa still ranks as one of Saudi Arabia's major crops, topping even the date palm. The average annual yield of alfalfa is about 2 million metric tons, that of dates about 257,000 metric tons.

A number of endemic insects seem to feed on different plants of the cucumber family. One is a brownish fly, about the size of a housefly, known as *Daculus frontalis*. Like all its relatives, the fertilized female inserts a needle-sharp, egg-laying apparatus into a young cucumber fruit and lays about 7 to 12 eggs at a time, about 2 mm. deep. In about a week these hatch into white, legless maggots. Together with the eggs, the fly introduces a rot-causing bacterium that decays the fruit and helps the maggots eat and digest the pulp.

Another species, *Eudioptes indica*, prefers watermelons. It lays its eggs on the underside of leaves, and the beautiful green caterpillars that hatch in about 3 to 4 days tie the leaves together and feed by scraping their tissues; later they may enter the stem of the plant as borers. Newly-set fruit is often attacked as well. In May-June the caterpillars attach a leaf to the surface of the fruit and hide underneath it. They feed by scraping the rind fairly deeply, leaving an ugly brown callus which impairs quality.

In contrast to all the pests that limit feeding to one plant species in Arabia, there are also many species that feed on numbers of different plants. This group is rightly called the "opportunists," because they switch without hesitation from one plant species to another. To this group belongs the beautiful green moth *Earias insulana*. Its caterpillar naturally feeds in the fruits of different wild malvaceous plants, but when cultivated malvacae such as okra or cotton are available, the moth prefers to lay its eggs on them, not because they taste better but because the progeny will find much more food there. Under such conditions of abundance, a bigger progeny is produced, and moths of the opposite sexes have a much better chance of meeting for adequate egg fertilization. The caterpillar of this moth, known as the spiny bollworm, opens large galleries in cotton bolls and okra fruits and completely destroys them. Because of the fertility of the female and the large number of generations produced per year, this insect is a very serious pest, particularly to cotton. It succumbs to a number of phosphoric acid esters and chlorinated hydrocarbons, however.

Other opportunists are *Trichoplusia ni* and *Sesamia cretica*. The caterpillars of the first attack many totally unrelated plants such as lettuce and watermelon. In the Eastern Province of Saudi Arabia lettuce has been totally ruined in three days, and fine watermelon crops rendered useless in less than a week. Caterpillars of this moth burrow deep in the green fruit rind. This insect produces a number of generations per year but the moths usually migrate to far away places after devouring a crop; otherwise their progeny will find nothing to eat. The caterpillars of the second species, *Sesamia cretica*, bore into the stalks of different graminaceous plants, including maize, sweet corn, sorghum, sugar cane and some reeds. The damage is particularly serious when the whorl of sorghum is killed. Often the caterpillars cause a great deal of damage to corn and maize cobs. Young plants are eaten up entirely.

The most serious potential pest, however, is the one known as the Egyptian cotton leafworm, *Prodenia litura*. This is the opportunist *par excellence*. The food plants of its caterpillar comprise a horde of wild species, but among the cultivated ones are cotton, tobacco, alfalfa, eggplant, melons and peanuts. The moth lays up to 1,000 eggs. The caterpillars literally graze a field in about a week; even hot pepper fruit are totally consumed, as seen on more than one occasion. The insect is favored by warm, humid weather and thrives particularly well in the coastal oases.

Obviously, then, care must be taken as the techniques of modern agriculture—including wider use of chemicals—spread throughout Saudi Arabia and change the settled relationships of crop, insect and animal. Unwise upsets in their relationships could easily turn what is now a minor threat into a force able to severely damage the food supply of the entire kingdom.

Abdul Mon'im S. Talhouk, who has extensive research experience on the insects of the Middle East, is Professor of Economic Entomology at the American University of Beirut.

JASPER YEATES BRINTON:

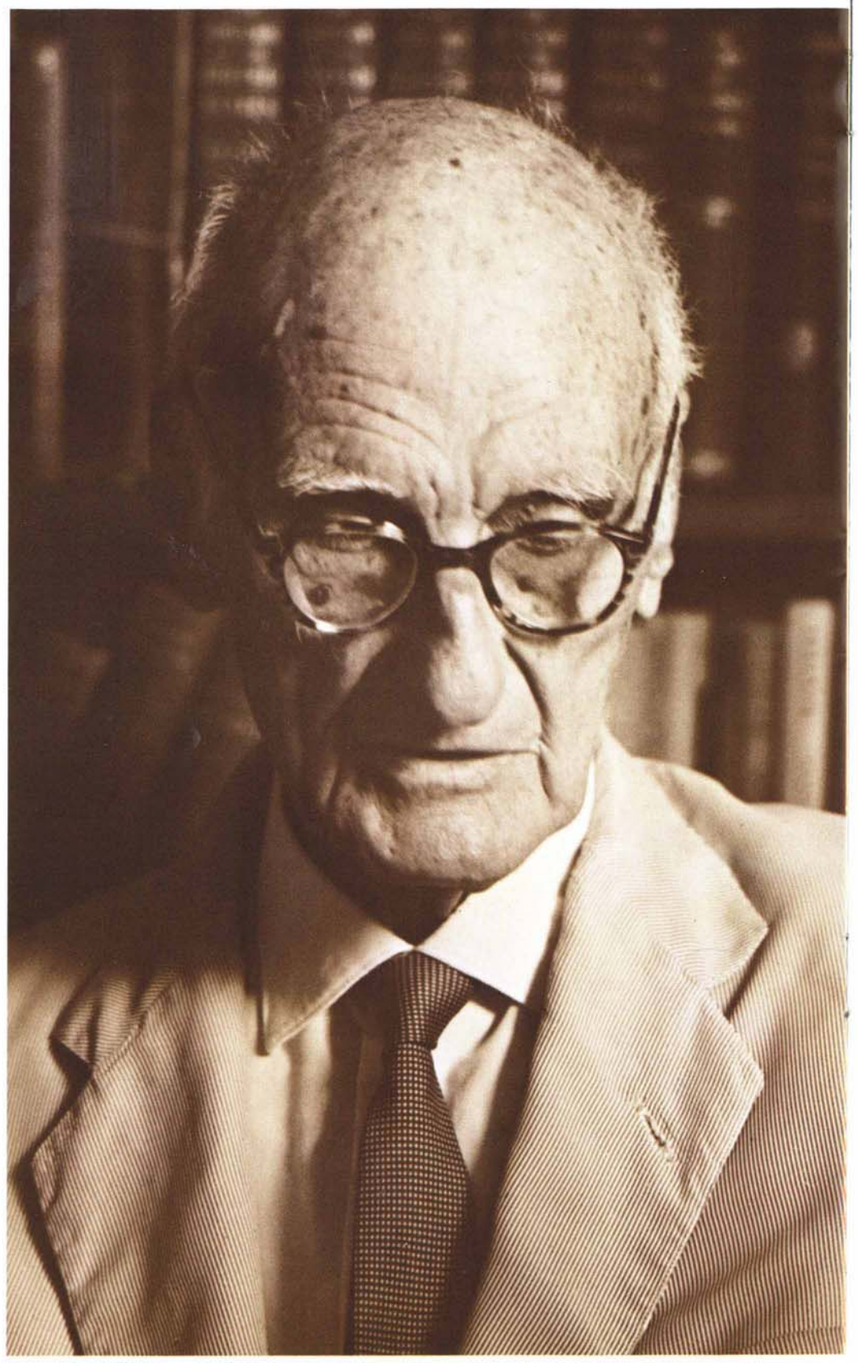
an American Judge in Egypt

PHOTOGRAPH BY TOR EIGELAND

When Jasper Yeates Brinton, lawyer and judge, was born in Philadelphia in 1878, an imaginative experiment in international justice known as the Mixed Courts of Egypt was already two years underway. But it was more than 40 years before the two got together. In 1921, after graduating from Pennsylvania Law School, serving as lieutenant colonel in the Judge Advocate General's Department and as a member of an American investigatory mission to troubled Armenia, Judge Brinton was nominated by President Harding to be an American representative to Egypt's Mixed Courts. When he sailed for Alexandria to join the courts—by then a much acclaimed success—he didn't realize that he was starting not only another distinguished career, but a brand new life. Judge Brinton was to serve Egypt for the next 27 years, first as a justice, then from 1943 until 1948, as president of the court. He was later, until 1953, legal adviser to the American Embassy in Cairo.

During his years with the courts Judge Brinton was in a unique position to observe this century's fundamental shifts in the long-established relationships between world powers and Egypt—the gradual change from a colonial era in which the Mixed Courts could appear to all—foreigner and Egyptian—as perhaps the world's most enlightened and progressive model of international justice, to the inevitable day 75 years after they were founded, when such foreign influence could no longer be accepted as compatible with the sovereignty of an independent nation.

Judge Brinton, who with his wife, Geneva, continues to live in Cairo and receive a pension from the Egyptian government, is Honorary Vice President of the Egyptian Society of International Law, which he founded. He has received honorary degrees as Doctor of Laws from Washington College in Chestertown, Maryland, and from his alma mater, the University of Pennsylvania. His scholarly and readable history of the Mixed Courts, first published in 1930, has recently been published in a revised edition by the Yale University Press.



BY WILLIAM TRACY

Since they moved to Cairo from Alexandria in 1948, Judge Jasper Yeates Brinton and his wife, Geneva, have lived in an airy, gracious flat on the top floor of No. 5 Sharia Willcocks, a quiet, tree-shaded street named after a British irrigation expert of the colonial era and located on a Nile island not far from the famous Gezira Sporting Club.

Neither the street nor the island have changed very much from the days when Willcocks would have sipped brandy at the Gezira Club, I decided one morning last winter, but Cairo certainly has. For as I talked with Judge Brinton I had to compete not only with the timeless Friday call of the muezzin but also with the excited cries of young Russians playing volleyball next door.

The Judge and I were sitting in his morning study, with the windows thrown open so he could soak up the December sun. It was a light and pleasant room, overflowing onto the balcony with cartons, cabinets, tins and even old suitcases, all filled with the articles, clippings, photographs, letters and documents which, I learned, the Judge has been collecting almost compulsively for the 50 years he has lived in Egypt. The overflow was piled up on the balcony, because, Judge Brinton explained, there was nowhere else to put it.

"I keep up my correspondence," Judge Brinton said. "You have to if you're living abroad." He chuckled as he said "abroad" and told how *Los Angeles Times* correspondent Joe Alex Morris was visiting one day when he mentioned "home in Pennsylvania." Morris broke into a guffaw and said "Home! Why that's ridiculous! You've been out here 50 years."

"Of course Egypt *is* my home," the Judge explains. "But I'm at home in Pennsylvania, too . . . Philadelphia, Phoenixville—that's near Valley Forge—and Washington." He nodded. "I still visit friends who've been out here over the years. It's very pleasant . . ."

At the mention of Philadelphia, Judge Brinton's eyes lit up and soon, as is his habit, he was off on one of a dozen subjects that fascinate him. He grew up in Philadelphia, he said, and as a result of that exposure to the home of the American Constitution, became a collector of Americana. "I just happen to be," he said, "the depository of all the books of an ancestor of mine, Dr. William Smith, who was the first provost of the University of Pennsylvania. He was at one time a friend and stalwart of Benjamin Franklin, so the collection includes much Franklin material which involves me in correspondence with historians at home."

"Look here," he said, rising, taking a book from a stack on a nearby table and passing it to me to admire. "That's just one example, a first edition."

Eventually, after many marvelous discursive side trips, we got to the Mixed Courts of Egypt, that interesting, now half-forgotten experiment in international justice, and to Judge Brinton's experiences with the courts after the Sultan of Egypt in 1921 accepted him as President Harding's choice as an American representative.

In those days, Egypt was still a British protectorate and a very formal protectorate at that. Before taking the train up to Cairo to call on the Sultan and Lord Allenby, the British High Commissioner, Judge Brinton had to borrow a frock coat and put on a silk hat.

That same day Dr. Howell, the last American to bear the title "Diplomatic Agent," presented his credentials. And the next year, in 1922, after Egypt's independence, Howell became American Minister and the Sultan became King (Fuad, father of the late King Farouk who was deposed by Nasser). From that time on protocol required that the Judge make at least one formal call on the King each year, which, Judge Brinton admits candidly, he enjoyed immensely. "As an American it rather tickled me to be calling on a king. You don't very often go calling on a king like that, all by yourself, and sit there and talk to him. He was very pleasant."

Judge Brinton's first assignment was with the Court of Appeals, in Alexandria. It was challenging and rewarding work, and life in Alexandria, in the years between the two world wars, was stimulating. He remembers his colleagues on the court not only as "men of competence in law but also frequently men of education and culture in all branches." As were, he added, the attorneys who came to court. There were nearly 1,000 of them, mostly French, Italian, Greek and Levantine, and they were, Judge Brinton says, "the intellectual elite of the country, lawyers of great ability and eloquence, singularly articulate."

"That was the finest court in the world, I think," the Judge said, ". . . with all apologies to the U.S. Supreme Court."

Alexandria itself, Judge Brinton said, his eyes lighting up again, was a city of great distinction. "Sophisticated, fond of music, art and literary interests, a city of beautiful homes, many of them veritable museums. It was a city of rich men—millionnaires—many old families, cotton merchants."

"All the wealth of Egypt passed through Alexandria. To my mind it was very far from the picture drawn by Lawrence Durell in his *Quartet*. That was a libel on the city. Alexandria was pleasure loving—but cultivated. I doubt if any city of Europe could surpass it in the elegance of its social life."

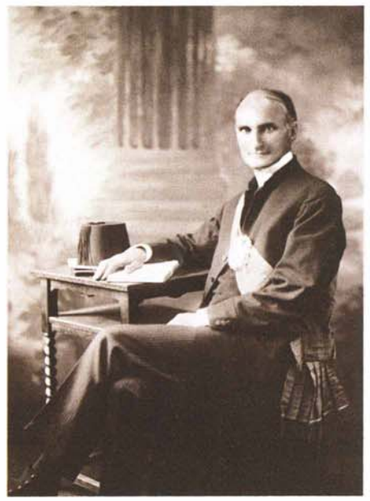
THE MIXED COURTS OF EGYPT

From the earliest days of commercial contact between West and East around the fringes of the eastern Mediterranean, foreign merchants looked to their own consulates for justice whenever trade disputes arose. In the Ottoman Empire, these special privileges developed into formal concessions called "Capitulations" and eventually came to be seen as rights. In Egypt, the consular courts, gradually extending their control, ended by claiming jurisdiction over all matters affecting their nationals. By the middle of the 19th century, some 15 sovereign consular judicial systems were jealously serving the 80,000 foreigners (the majority Greek, French and Italian) doing business in Egypt.

Since terribly difficult problems of jurisdiction soon developed, 14 of the so-called capitulatory powers reluctantly agreed to try, for an experimental period of five years, a federal system of Mixed Courts. The countries were Germany, Austria, Belgium, Denmark, Spain, the United States, France, Great Britain, Greece, Italy, Sweden, Holland, Portugal and Russia.

The agreement was an important advance in international cooperation. With the Suez Canal attracting ever more trade, hardly any situation was without mixed foreign interests. Eventually the courts were handling the bulk of Egypt's legal business. In one period the judges filed nearly 40,000 written opinions in a single year and turned over nearly $5 million to the Egyptian national treasury after deducting operating expenses.

By then the Mixed Courts included three district courts, sitting at Cairo, Alexandria, and Mansourah, and a court of appeals in Alexandria. Their basic law and language were derived from the Code Napoleon and their jurisdiction extended to all suits "between Egyptians and foreigners and between foreigners of different nationalities," and disputes involving land between all foreigners. The consuls retained jurisdiction only in serious criminal cases and suits involving a single foreign nationality.



Despite the foreign code and language, however, the courts were considered part of the national Egyptian judicial system. They were maintained by the Egyptian treasury. All writs were issued in the name of the Egyptian sovereign. One third of the judges were Egyptian and although the others were nominated by foreign nations, the Sultan made the appointments. Furthermore, the judges had tenure and were able to give their loyalty to the courts, rather than to their country of origin.

To western jurists the courts were clearly a success. Henry Morgenthau, in the New York Times in 1930, said that for "solid achievement in the field of international cooperation the Mixed Courts of Egypt are without parallel in history..." And in 1925, Sir Maurice Amos called them "next to the Church... the most successful international institution in history."

On the other hand, as a book reviewer in the Egyptian Gazette pointed out in 1930, "...although the Mixed Courts are an Egyptian institution of international character... (it) cannot be expected to appear so admirable to the Egyptian as it does to the foreigner...

"The foreign colony is too apt... to look upon its advent and labours in Egypt as a divine blessing," the paper went on, whereas the educated Egyptian "has doubts if his countrymen get much out of it other than the privilege of acting as hewers of wood and drawers of water to the invader." At this time some 150,000 resident foreigners largely controlled the commerce of a nation of about 14 million inhabitants.

The shift from the system of the Mixed Courts began at the Conference of Montreux in 1937 when much of the remaining authority of the archaic consular courts was transferred to the Mixed Courts. Then, after a 12-year transition period, during which Egyptian membership and influence increased, the Egyptian courts took over and the Mixed Courts closed forever—on October 15, 1949.

He sighed pleasantly. "I could tell you about the social life of Alexandria. Of course, I suppose a legal fellow should live sort of straight, but . . . there would be four or five hundred people at masked balls . . . up and down the grand stairways . . . On weekends there was our house in a unique little walled village in the desert 40 miles west of Alexandria . . . From there we used to explore the desert and find ancient monasteries." This was a natural offshoot of his position as president of the Royal Archeological Society of Alexandria.

Even during World War II, as the Allies and Germany fought it out in Egypt's Western Desert, that excellent social life continued. The war, in fact, stimulated the gaiety of the city. Their house being "large, old fashioned and commodious," and his wife "an army girl," it became for several years a convalescent center of Allied officers coming from the front.

But the war, Judge Brinton said, was really only "artificial respiration of a passing age." After the war everything began to change. The Mixed Courts gave way to purely national courts, with all Egyptian judges, and the foreign justices—most of them—went home. Brinton, at the urging of the American Embassy in Cairo, stayed on. "Whether I made a mistake or not I don't know," he says today. "But you can't just break away."

Judge Brinton at this point interrupted his story and suggested that we retreat from the sun to have tea in the library, a cool, dim oasis on the north side of the apartment where the walls were lined with books and both a long high table and a massive desk were covered with stacks of them. As we continued our conversation, he was constantly pulling books down or sorting through notes on his desk.

"Now look here," he would say, turning to a stack of magazines. "This came just this morning." Or he might reach for another exhibit, a book: "A friend sent this yesterday." Or searching for a photograph he might explain: "I saw that just today. Look here. I was just showing . . . ," or still another time: "I was just writing . . . I was just reading."

When I asked the Judge about his book, *The Mixed Courts of Egypt*, however, he paused. "Characteristically," he apologized, "I don't suppose I even have a copy." Then he smiled. "I can borrow it from the library of the Egyptian Society of International Law, I guess. Ha! I mean I should be able to. I just finished writing the rules!"

"The society has a fine library," he continued. "The Egyptian government gives us loyal support and several thousand pounds a year for books. Of course, you see," he chuckled, "lawyers know how to get things."

The society has flourished "famously," according to Judge Brinton and many distinguished lecturers have spoken under its auspices, including Justices Jackson and Stewart of the American Supreme Court and Attorney General Francis Biddle.

Judge Brinton cherishes such visits and also his many professional contacts in America. "When you grow old, you know, if you don't have something," his voice trails off, " . . . a profession. For example, whenever I go home and go up to Yale or Harvard I feel as much at home as at my own university. There's a family circle of doctors, international lawyers. Now there's an object lesson for a young man," he interjected. "Get hold of a profession you're interested in and hang on tight."

Judge Brinton rose from his chair again, chose a brown paper-bound volume from a series standing together, and plopped it onto the table on the ever-growing stack. "This," he said, holding up a report from the United States Supreme Court, "is the best reading I have . . . I also get most of the journals from the various law schools. It keeps you in contact. As I say, it keeps you alive."

I asked Judge Brinton if he maintained a regular schedule each day or if he set aside a certain number of hours to work each morning. He replied, smiling, "Well, I try to keep busy."

"I really have a life of luxury," he continued, "because I have a secretary. A nice, pretty little girl named Effie. She's Scotch, married to an Egyptian professor of physics at Cairo University. She does beautiful typewriting which helps my correspondence and that way I can keep in touch." (I do not think I would be unflattering to Effie, who *is* both "nice" and "pretty," if I inserted here that she is a "little girl" only in the terms of reference of a man entering his 10th decade.) "Oh there's plenty of things to do here," he added. "As I say, if you have a secretary."

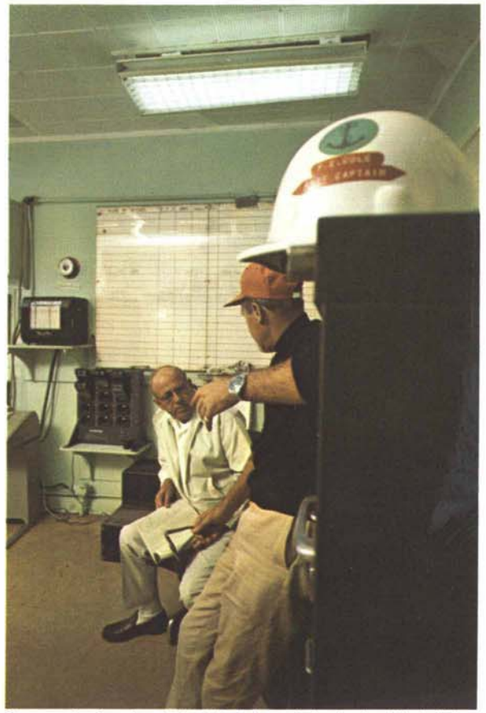
For one thing, he serves as what he wryly calls "free legal advisor." "I just carry on as sort of an old patriarch. People come around or call me up and say 'Would you mind helping me with this?' 'Oh yes,' I say, 'I've got the documents!' " Then, Judge Brinton continued, snorting in half-serious jest, "They borrow them and don't return them."

Beyond that he's a member of the board of the Anglo-American Hospital, works closely with the Egyptian Society of International Law, and is writing a history of the American presence in Egypt, including the story of early American consulates. He was also, at the time, trying to interest an American publisher in a law book by a bright young Egyptian friend. "I'm helping to translate the French edition, but that's just a side show. I told him I'd do what I can."

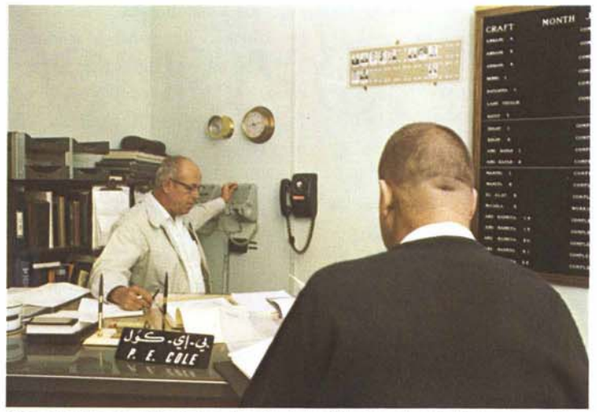
"Then there's this Horace business." Judge Brinton got up still again and brought a sheaf of papers from his desk. "I'm working on a little edition of Horace for gentlemen with a former British colleague from the courts. That's a remnant of what used to be a pleasant judicial pastime of translating popular British nursery rhymes into Latin and Greek or Arabic. The British do this sort of thing for the love of it. Not to be 'learned'. Just for Tom foolery. Gosh!"

The Judge paused for a minute reflecting, then poured more tea for both of us. "Yes, I've been mixed up in a good many things here," he continued pensively. "But I had a very concentrated 27 years on the bench, 27 years of my life in search of the *mot juste*. In law you have to put your spy glass right there and concentrate. Now I can afford to spread out a little." Judge Brinton told me of another project he had been working on for some time: the memoirs of his years in Egypt and his boyhood in Philadelphia. It was something he had long wanted to do, simply for the family to read, for children and grandchildren. "But don't misunderstand," he said, suddenly sharp. "I'm not interested in making a name as a writer. I'm a lawyer, I've been a lawyer since the beginning."

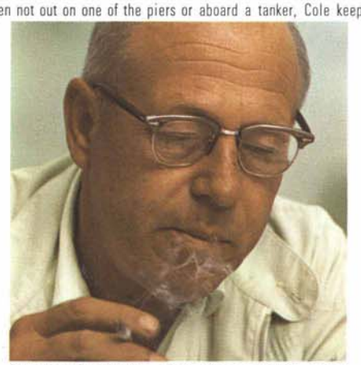
William Tracy is Assistant Editor of Aramco World Magazine.



First stop for Port Captain Paul E. Cole each day is the Pilots' Office.



When not out on one of the piers or aboard a tanker, Cole keeps busy in his own shore office.



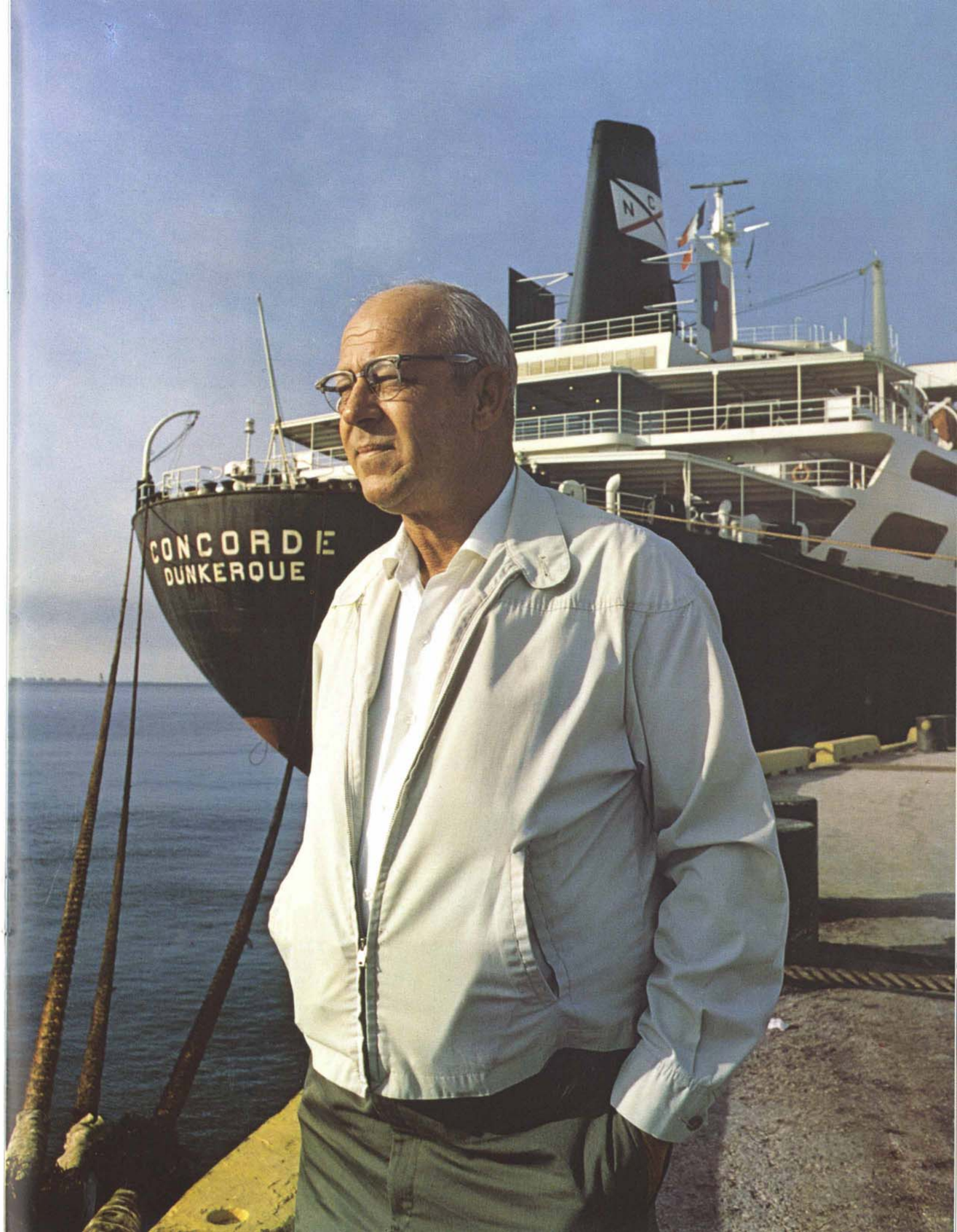
Cole brought a lifetime of experience with him to the busy port. Opposite: at Ras Tanura's North Pier.

"THROUGH THE HAWSE PIPE"

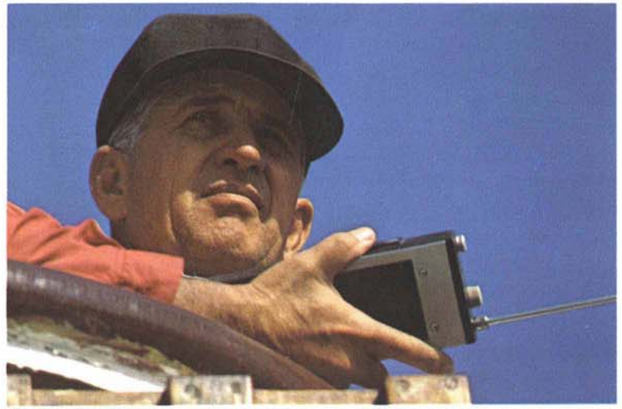
A story of Ras Tanura

BY BRAINERD S. BATES

PHOTOGRAPHED BY TOR EIGELAND



A supertanker takes on a cargo of petroleum at one of Ras Tanura's offshore Sea Islands while in the foreground a dhow, sail furled, pushes through a choppy Arabian Gulf. Salt spray and swaying rope ladders are routine for the 11 harbor pilots at Aramco's Marine Terminal.



Walkie-talkie in hand, harbor pilot Herbert C. Schulz talks from the bridge to unseen tugs alongside.

There is a certain look about spaces perpetually occupied by men on jobs needing someone's constant presence. They're functional in the extreme, furnished with no more than the few essentials needed to make employes on duty self-sufficient throughout their shifts: a refrigerator for soft drinks and snacks, a coffee pot, some spoons, a shelf for condensed milk and sugar. Whatever chairs there are have a battered, second-hand appearance. The reading matter lying about tends to be either job-connected or something light enough to be read in snatches. A washroom can always be found close by.

The commodious, gray-painted, windowed room in a narrow wooden structure near the head of the North Pier in Ras Tanura is that kind of room—except that much of the time it is unoccupied. The men assigned there are usually off somewhere else whenever they are actually working. For they've got quite a job: directing the arrival and departure of every oil tanker calling at Ras Tanura, the busiest oil port in the Arabian Gulf, and one of the most active anywhere.

In 1969 the Arabian American Oil Company (Aramco) exported through this Gulf coast outlet a total of more than 900 million barrels of crude oil and manufactured products—a daily average of nearly 2.5 million barrels—and under special circumstances has loaded more than five million barrels in a single day.

To move such vast quantities of petroleum obviously requires not only a large number of tankers—2,873 of them in 1969—but also piers to accommodate them. Ras Tanura, at its North and South T-head Piers and at its Sea Island a mile off the shore, has that space. The terminal can berth 16 tankers at a time, plenty of room, you'd think, for all comers. The situation, however, is not that simple. Six berths can deliver crude oil only; the rest either crude or products. Thus berths must be allotted in accordance with the most efficient use of mooring space to meet demands for delivery of the type of petroleum each tanker has been ordered to lift. Length of dock space and depth of water limit some berths to tankers of certain sizes and drafts. It would be very bad business to assign, say, a 50,000-deadweight-ton ship to a berth perfectly able to handle one in the 210,000-DWT class, and make the larger ship wait. Then, too, it occasionally happens that one or two berths are down for maintenance, alterations or repair.

The overall responsibility for such situations rests with a desk called Port Control in the company's headquarters building in nearby Dhahran. This post, in round-the-clock touch by radio, telephone and computerized "Synchronous Communications Adapter" with New York and Ras Tanura, does the actual assigning of tankers to berths. Once that's done, however, sea-trained Aramco personnel at Ras Tanura take over. It is their job to see that all tankers putting into the company's Arabian Gulf oil port are berthed and unberthed with safety and dispatch, and on their judgment, exercised under almost every condition a sailor can encounter, rests a large portion of the success of the entire Aramco enterprise.

The working combination which brings the procession of tankers from the anchorage

area off Ras Tanura Port into assigned berths for loading and guides them out into the stream again consists of Aramco's four diesel-powered docking tugs manned by all-Saudi crews and its 11 harbor pilots—currently five Americans, four Britishers and two Saudi Arabs. The jobs of the pilots, who have their counterparts in every port and inland waterway of consequence in the world, are justified on the sensible premise that a man totally familiar with such local conditions as tides, currents, shoals, prevailing winds and weather is much better qualified to conn a vessel through the area than is the ship's own captain or navigator, no matter how able. Their function has an ancient and honorable tradition, going all the way back into the 16th century, when Spain appointed the Italian explorer and navigator Amerigo Vespucci Chief Pilot in 1508, and England four decades later officially designated Sebastian Cabot Grand Pilot of the Kingdom.

Actually, the area where Aramco's harbor pilots carry out their duties is no harbor at all. It's an open roadstead located on navigational charts at 26°37′25″ North latitude and 50°09′50″ East longitude, where the coastline offers no shelter from unpredictable north, northwest winds and heavy weather that can start building momentum on the other end of the Gulf. During certain seasons of the year, moreover, these strong northerly winds often carry sand, causing disturbances known (and dreaded) locally as *shamals*, and sometimes fine dust held in suspension in the atmosphere cuts visibility to a dangerous point. Ordinary fog can blanket the port in the early morning, currents and propeller backwash sometimes alter the depth of the water by the loading piers, and there always exists the possibility that currents and winds will shift the position of a crucial offshore channel marker.

As every sailor knows, conditions at sea and along the waterfront never remain the same for long. The individual in Ras Tanura perhaps most acutely conscious of this is a calm and experienced man of the sea named Paul E. Cole. As captain of the port he is in charge of all piloting and technical services at the terminal, an assignment which affects the security of millions of dollars worth of property afloat and ashore, and the welfare of everyone who tends it.

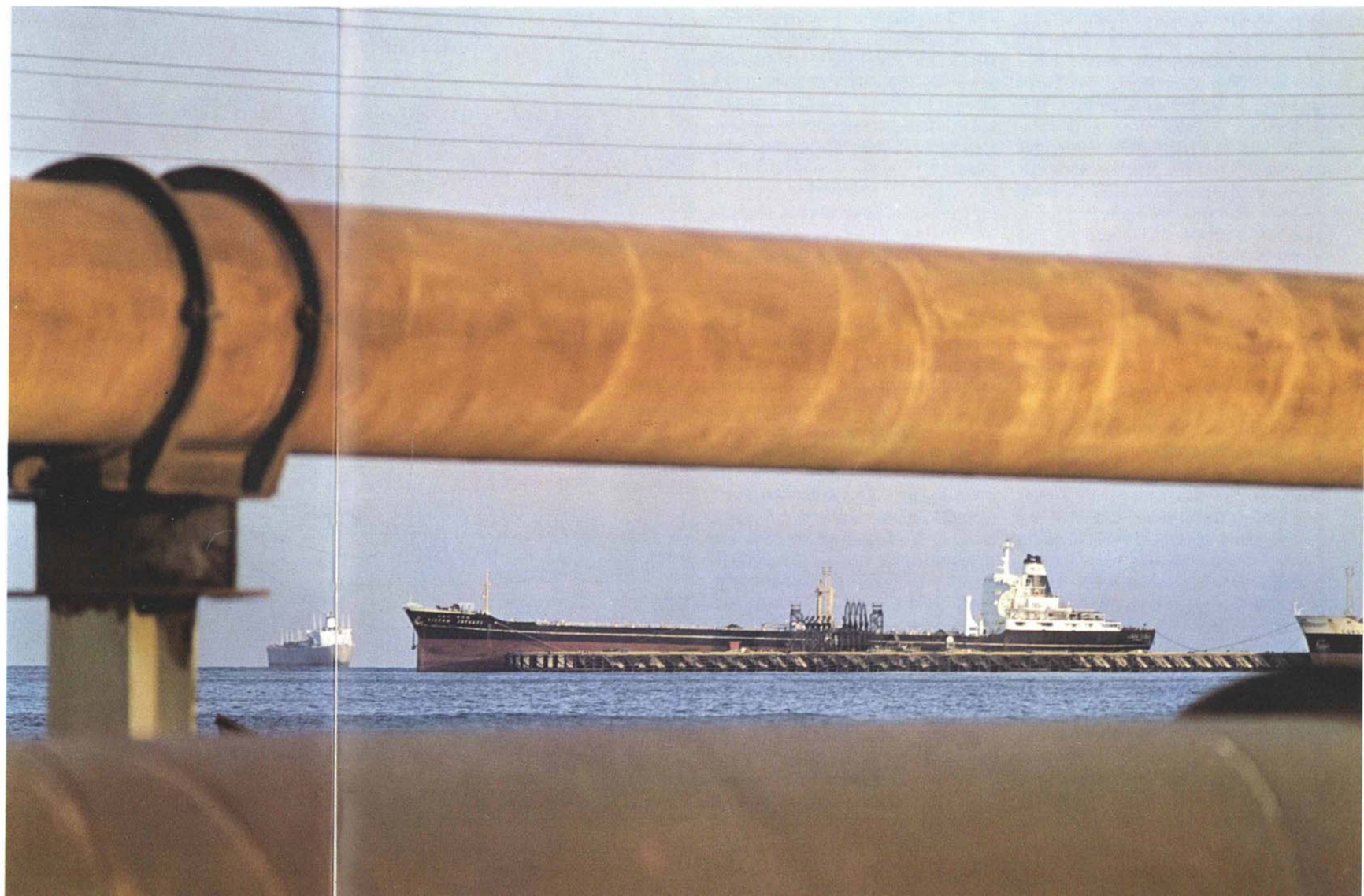
Captain Paul Cole climbed the ladder to his present eminence as marine operations chief of one of the world's major oil ports rung by rung—or as he puts it more saltily, "through the hawse pipe"—and in many ways his career is a prototype of every mariner's who has followed the sea lanes to a position of high responsibility. He grew up near the sights, sounds and smells of a great seaport—San Francisco—went to sea right after high school graduation and spent years on tankers, dry-cargo freighters and aboard ships of the American President Lines. During these years Cole advanced steadily along the prescribed route: deck boy, ordinary seaman, able-bodied seaman and, with requisite time spent in each rating and rank and having successfully passed Coast Guard-administered examinations, boatswain, quartermaster, third mate, second mate, chief mate (the second in command aboard merchant ships), and captain. By early 1948 Cole had command of the *President Wilson*, flagship of the American President Lines, sailing with the fleet commodore.

No ship's officer can work aboard a merchant marine vessel without holding a valid license for the rank he sails under. Such licenses come up for renewal by the U.S. Coast Guard every five years. Though no longer active as skipper afloat, Captain Cole keeps his papers up to date, and now proudly points out that he is on the sixth issue of his Master's license, entitling him still to assume command of "a ship of any gross tonnage on any ocean" in the world.

For the past 20 years Captain Cole has been intimately associated with oil ports in the Middle East. Early in this phase of his career he was mooring master, chief mooring master, assistant and then relief superintendent at the Trans-Arabian Pipe Line

The terminal has berths for 16 tankers at a time; factors such as efficiency and safety help determine how they are allocated.

Saudi Arab pilot Ahmad Kudaisi conns a tanker to a North Pier berth.



Company's Mediterranean Sea terminal at Sidon, Lebanon. He came to Ras Tanura nearly nine years ago to be a harbor pilot, and chief harbor pilot before assuming his present position as captain of the port.

Cole and his wife of 30 years, Norah, a trim, dark-eyed U.C.L.A. graduate from Southern California, live in a comfortable, rambling one-story house, that has regulation-size red and green running lights secured to either side of the new addition and a mast rising out of the center of the structure bearing a vertical set of red and white pilot lights ("Red Over White/Fishing Tonight; White Over Red/Pilot Ahead"). From there he makes occasional sorties to Ras Tanura's Surf Side Golf Course, goes fishing in the Gulf (aboard an Arab dhow) and, when he can, in such favorite deep-water fishing holes as the Bay of Islands of northern New Zealand, where the marlin run very strong. Like most professional mariners on or off duty, Cole is in his natural element only when afloat.

On working days, Captain Cole spends his time in a port-area office furnished with the usual appurtenances associated with his trade—a chart table, barometer, and ship's clock which strikes off the time in bells, and radios set to the three local marine frequencies for direct voice contact with pilots and tugs on duty, berthing stations on the piers, and the bridge of every ship in the port. On his office wall are the tugboat drydock schedule currently in force and a large, lined, glass-enclosed traffic board by which the port captain keeps track of "Ships Now In," "Ships At Anchor," "Ships Due."

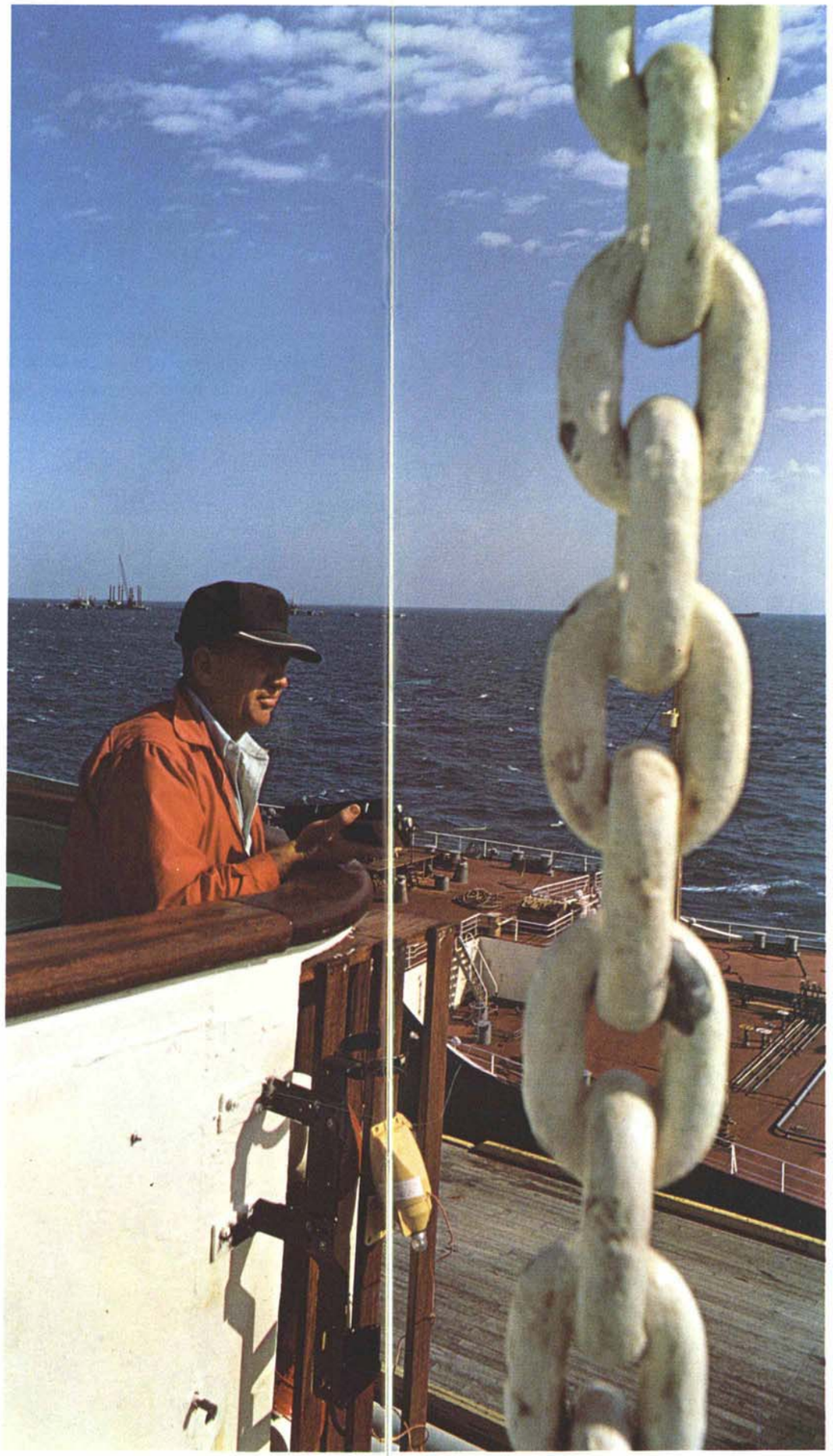
Coming to work each day at 0700 Cole makes his first stop the Pilots' Office on the North Pier. Here he inspects the night log, consults harbor pilots, and visits the loading piers, occasionally going aboard a tanker when the berthing or unberthing maneuver promises in some way to interest him. Then he proceeds to his own office and the everyday operations of the job.

One of the port captain's key responsibilities is determining utilization of the Ras Tanura Marine Terminal during severe storms. Weather is rarely so unfavorable that all loading spaces are knocked out completely, but depending on the direction and force of the wind, certain spaces are safer to use than others. In deciding which, Captain Cole must keep in mind the safety of the tankers, yet never forget that each tanker captain is anxious to load and get away in as fast a turnaround time as possible and that Aramco, with limited storage capacity, must keep the oil flowing. A lot of money rides on the captain's ability to balance mandatory marine safeguards against full, uninterrupted operations.

The part of Paul Cole's job which seems to consume the biggest chunk of his day and hold the greatest portion of his personal interest, however, is piloting. With its direct application to every element of seamanship and use of human skill frequently employed under almost unbearable tension, the work of a harbor pilot would be challenging enough, but the calling requires much more than technical know-how and nerves of steel. The successful sea-going pilot should also have the diplomatic finesse of a State Department careerist and the constitution of a marathon runner. Cole explained to me the need for the first subsidiary qualification and I discovered first-hand during several tours with the pilot the necessity for the second.

The modern oil tanker is world-girdling, designed and built to make round-trip voyages between supply and consuming points half way around the world—nonstop. After a vessel arrives off Ras Tanura from Europe or the Orient the first human contact ship's personnel have with the outside is an Aramco pilot. The manner with which that pilot conducts himself from the moment he climbs aboard strongly flavors initial impressions not only of Aramco but of Saudi Arabia and by extension the entire Middle East. The role of a harbor pilot is an especially sensitive one because all the while he is on the bridge of a ship he acts as advisor to the captain who is normally the supreme authority on board. On the job he gives orders to men who ordinarily take orders only from the ship's master. It is evident that a successful pilot should not only know his business, but always show, by demeanor and voice, that he *knows* what he is doing. A pilot who did not have the confidence of the ship's captain and officers would not be a pilot for long.

Many tankers call at Ras Tanura on a regular basis and after several visits the relationship between captain and Aramco pilot becomes that of old friends, customarily



TOPS AMONG THE TYPICAL

Many sailors go to sea because they have salt water in their veins. Their fathers and maybe their fathers' fathers sailed before the mast and it's the only way of life they can imagine. Not so in the case of Ras Tanura Harbor Pilot Herbert C. Schulz. For him it was no more than the desire for a steady job.

Captain Schulz came of age in the midst of the 1930's depression and prosaically accepted a relative's suggestion that going to sea was a good, steady way to make a living. From this start Captain Schulz went on to become one of the ablest pilots in the business, employing on behalf of Aramco nautical experience earned as an ordinary seaman and coastal pilot, and, on the way up from one to the other, just about every rating and rank in between.

Born and brought up in Glendale, Long Island, Captain Schulz first went to work full time with the Isthmian Lines out of New York. It was aboard that company's "steel" ships transporting pipe to Ras al-Mish'ab for the building of Tapline, and Swedish prefabs for Aramco housing, that the youthful Schulz had his first glimpses of the Arabian Gulf.

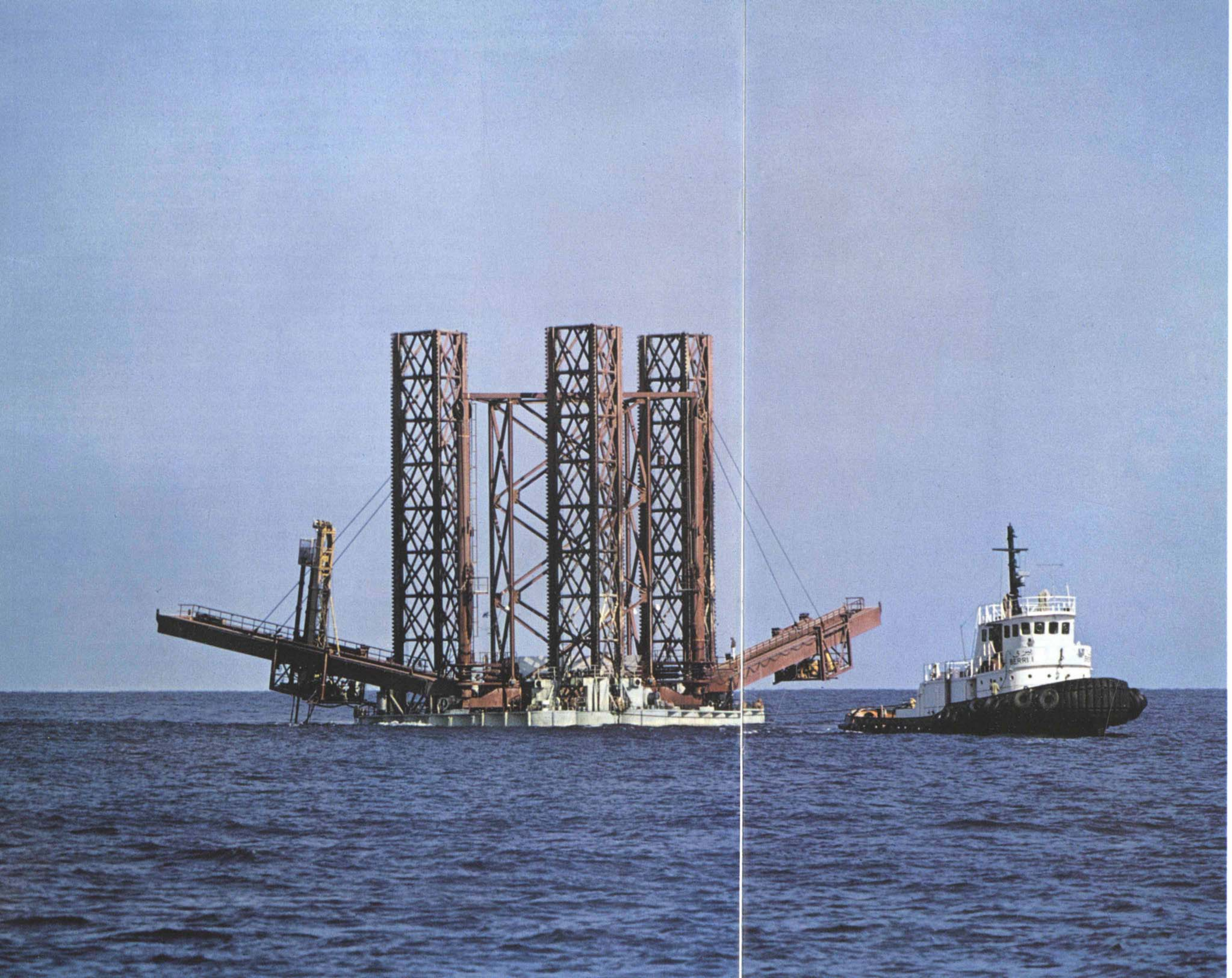
Starting in 1948 he spent 10 years aboard oil tankers flying the Esso colors. Jersey Standard's Marine Department in those days had a policy of working its ships' crews 90 days and then giving them 30 days off. It also followed a policy of strict seniority when assigning berths. The result was that during his tanker days Schulz, like all his shipmates, worked six months a year in positions one step above his actual rank on paper. The system had a tendency to pull men who could cut the mustard up through the ranks ahead of normal schedules and gave those who served their posts well unusually broad experience over a relatively brief span of years.

Long, consecutive weeks at sea, though,are never easy on a family man, and there finally came a day when Schulz decided to find a job which permitted more time at home. The Long Island Sound Pilots' Association provided the answer. Based on Block Island, western landfall of many a transatlantic crossing, this organization provided piloting service on the northeastern U.S. coast from Portland, Maine, down to the entrance of New York harbor via the Cape Cod Canal and Long Island Sound. A pilot's fee is based on getting a ship from one stated point to another and not on the time required to make the distance in between. Association pilots working the often fog-bound New England coast before radar had been perfected understandably hoped for clear weather every hour they were on the bridge.

Captain Schulz, however, had always wanted to live and work overseas, possibly as a result of his years on the water in the 1930's and 40's. In any case, eight years ago July Schulz signed on as an Aramco harbor pilot.

The captain's title is no mere courtesy. Schulz is on the fifth issue of his Master's license, which means that he has been duly certified by the U.S. Coast Guard to command vessels of any size anywhere for the past 25 years. The license, once obtained, is renewable every five years by mail, assuming an applicant can pass a test on the Rules of the Road, prove he is still a working captain, and offer medical evidence that he is not color blind. "In our business," says Schulz with a grin, "it's important to be able to tell red from green."

The same basic principles of seamanship work on any body of navigable water. Herb Schulz is a good example of a pilot who has absorbed them all through the only method there is—the long hard way.



nourished by relaxing sessions of chitchat and coffee in the master's quarters after the vessel has been berthed. Several households in Ras Tanura save magazines and paperbacks which pilots distribute to tankers in the port. A visitor carrying fresh reading matter is especially welcome aboard a vessel just in from a long sea voyage.

The best way to appreciate the physical aspects of a harbor pilot's job is to stand up with him on the foredeck of a pilot boat rising and falling on rolling swells as it approaches the side of a tanker in the dead of night—then look straight up. Several times during a typical shift an Aramco pilot has to make a well-timed jump from a yawing pilot boat to the bottom of a rope ladder and climb the height of a tanker's freeboard, which on an empty tanker today can be as high as a six-story building. Nowadays tankers with more than 30 feet of freeboard are supposed to provide a winch-powered ladder, which hauls the pilot up the side of the ship.

On deck an officer escorts the pilot to the bridge, where he and the ship's captain and the Aramco pilot carefully address each other as "Captain," and sign forms before turning to the task of berthing the ship.

Time, of course, is of the essence, so the pilot customarily inquires immediately about the ship's readiness to weigh anchor (*"Is the steam on the deck?"*), then, as the anchors break water, issues his initial orders to the engine room (*"Dead slow ahead,"*) and helm (*"S-t-e-a-d-y!"*). As the tanker begins to move slowly in the direction of the shore, the conn orders changes in her speed and direction as he sees the need: *"Hard aport"* . . . ,*"Slow astern"* . . . *"Midships"* . . . *"Stop the engine"* . . . *"Starboard easy"* . . . Simultaneously he begins to issue orders to tugs that have come alongside and tied up to tanker's hull. Except from way out on the wing, they can't be seen from the bridge, but with a walkie-talkie, he can tell them what he wants: *"Five ahead twelve,"* *"Four astern eight."* Each unseen tug acknowledges her order with a brief, staccato toot on her whistle. The reaction time on these whistles is almost instantaneous. In this business seconds are vital.

All the time the pilot is giving orders to the bridge and the tugs the main part of his thinking is focused on the empty berth ahead,

Mobile drilling platform helps in a harbor dredging experiment.

planning how to bring the tanker in safely but with the utmost economy of movement and time. In one neat series of maneuvers I witnessed from the bridge, Captain E.C. Brown, veteran of 20 years on Esso tankers and an Aramco pilot for the past seven, brought a tanker almost parallel to an inside berth of North Pier, then let the wind blowing square on her port beam push her, bow slightly ahead of stern, squarely into her allotted space. The initial contact between the side of the ship and the pier's tendering was so gentle I never felt it.

The spring and breast lines go out first, the tanker's manifold lined up evenly with the Chiksan loading arms and the ship is secured by bow and stern lines. The pilot notifies the captain that the helmsman is no longer required, tells him "*Finished with engines,*" and it's time for Aramco's loading crews to take over. All part of a day's—or night's—work.

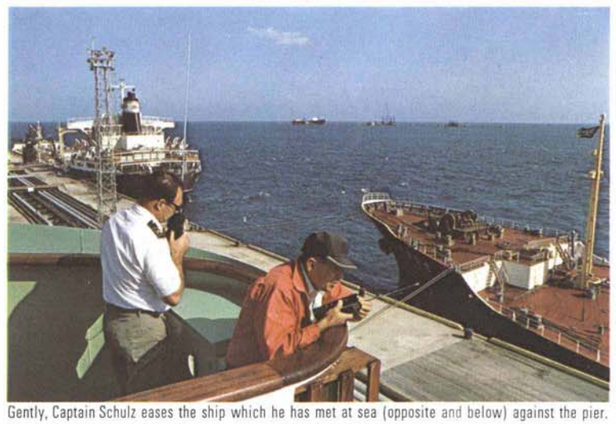
Certainly, Captain Paul Cole could not agree more. To him the job may be challenging, but there is nothing in the least extraordinary or heroic to piloting as an occupation. True, mistakes could turn out to be unusually costly and conspicuous. It is an important part of Cole's job, however, to see that piloting errors are *not* made, and the obvious method he employs to accomplish this is seeing that every pilot on his roster is exceptionally well qualified.

Each expatriate Aramco harbor pilot engaged for Ras Tanura duty has behind him, like Captain Cole himself, many years at sea, is in possession of a valid Master's license and typically lists among his credentials considerable piloting experience elsewhere—in U.S. coastal waters, Aden, or Port Sudan, for instance—before coming to Saudi Arabia. The backgrounds of Saudi pilots Ahmad Kudaisi and Sa'ad Mubarak are the exception. One had been an Aramco refinery employe and the other was selected for his new career out of Aramco's fleet of workboats. Both have been trained for piloting from scratch, in local waters and in U.S. ports, where they worked with the marine departments of other oil companies. It took eight years of intensive on-the-job and theoretical training for Kudaisi to become a pilot. Mubarak, who has been in training a shorter time, is still aiming towards this status.

Though technical competence comes in time to any pilot who works to attain it long enough, according to Captain Cole there is one characteristic, presumably inborn, which every man must possess if he wants a place in the top drawer of his profession. Basic principles of seamanship, tested and proven by generations of marine pilots, can carry today's performers a long way, but situations do arise which have never been described in the rule books. The very best pilots are able not only to improvise on the spot but can admit to themselves when a carefully-devised approach or departure plan goes sour, and change it—literally in midstream.

They say that every harbor pilot has his own personal style of conning a ship, as distinctive from all others as a fingerprint. Captain Cole is one who can attest to this truism of the trade. He claims he can tell which one of his pilots is on the bridge, without referring to his shift schedule, merely by observing a tanker's approach to the piers. If there were such a thing as a post-doctorate in ship handling, Ras Tanura's port captain would have one.

Brainerd S. Bates, a writer for 15 years, is a specialist in petroleum reporting.



Gently, Captain Schulz eases the ship which he has met at sea (opposite and below) against the pier.