ARAMCO WORLD
magazine
P.O. BOX 2106
HOUSTON, TEXAS 77001
(Printed in England)
ADDRESS CORRECTION REQUESTED
RETURN POSTAGE GUARANTEED

ARAMCO WORLD magazine

JANUARY-FEBRUARY 1978

CLASSROOM IN THE SKY

ARAMCO WORLD magazine

VOL 29 NO 1 PUBLISHED BIMONTHLY JANUARY–FEBRUARY 1978

SPECIAL BLUE BINDERS DESIGNED TO HOLD 12 ISSUES OF ARAMCO WORLD MAGAZINE (REGULAR SIZE) ARE AVAILABLE FROM EASIBIND LTD., 4 UXBRIDGE STREET, LONDON W8 7SZ, ENGLAND, FOR $5 EACH. BINDERS FOR SPECIAL ISSUES (SIZES 10" X 14") ARE ALSO AVAILABLE FOR $5 EACH. MAKE ALL CHECKS PAYABLE TO EASIBIND LTD.

Hammam 2

By Paul Lunde

In the West today, the sauna is a hot item. But in the Muslim world something very similar has been an important part of community hygiene for centuries.

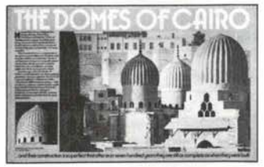
LUNDE

Classroom in the Sky 4

By Daniel da Cruz

In just 12 years Jordan's fledgling aero club has blossomed into the Royal Jordanian Air Academy, the largest civil aviation school in the Middle East.

ARNDT



The Domes of Cairo 12

By John Feeney

Often unseen, frequently unnoticed, the domes of Cairo have been an essential, if subtle, part of the city's beauty since the time of the Fatimids.

FEENEY

To Travel the Earth 18

By Frances Carney Gies

Muhammad Abdallah ibn Muhammad ibn Battuta was not the only Muslim traveler, but, as his travel book proves, he was the greatest of his time.

GIES

A Trove in Turin 28

By Nancy Jenkins

In Turin, the Museo Egizio di Torino *guards an important collection of Egyptian art and, more importantly, the story of Egyptian civilization.*

SCARFIOTTI

Published by Aramco, a Corporation, 1345 Avenue of the Americas, New York N.Y. 10019; John J. Kelberer, Chairman of the Board and Chief Executive Officer; R. W. Powers, Vice-Chairman; J. J. Johnston, Secretary; Charles P. Sawaya, Treasurer; Paul F. Hoye, Editor; Robert Arndt, Assistant Editor. Designed and produced by Motivation Techniques Limited. Printed in England by HunterPrint Group Ltd. Distributed without charge to a limited number of readers with an interest in Aramco, the oil industry, or the history, culture, geography and economy of the Middle East. Correspondence concerning **Aramco World Magazine** should be addressed to The Editor, 55 Laan Van Meerdervoort, The Hague, The Netherlands. Changes of address should be sent to Aramco Service Company, Attention S. W. Kombargi, 1100 Milam Building, Houston, Texas 77002. ISSN 0003-7567

Cover: In clear blue skies arched over Jordan, students at the Royal Jordanian Air Academy, in Cessna training planes, learn the rudiments of flying, an initial step toward winning their wings at the largest civil aviation school in the Middle East. Photograph by Robert Arndt. Rear cover: One of the treasures on display at the Egyptian Museum of Turin. Photograph by Gian Luigi Scarfiotti.

◀In the *hammam*, the Arab world's public bath, architects often pierced the building's domes with geometric patterns of glass to transmit sunlight into the interior.

Hammam

WRITTEN BY PAUL LUNDE
PHOTOGRAPHED BY KHALIL ABOU EL-NASR

"Cleanliness is next to godliness" is the sort of platitude that grandmothers once embroidered on samplers and that mothers once invoked in the futile attempt to get children to wash behind their ears – not knowing, probably, that many of Christendom's early philosophers completely disagreed. Indeed, because the pagan Greeks had made a cult both of personal cleanliness and of the human body, some early Christians thought that excessive attention to bodily matters was tantamount to apostasy.

By contrast, Muslims, from the time of the Prophet, had adopted ritual washing as a part of their religion and, in addition, enthusiastically advocated the healthy Greek attitude towards personal hygiene.

The Muslims, to be sure, dissociated themselves from the somewhat sybaritic attitude of the Greeks towards the human body. But at the same time they preserved that exceptionally civilized institution which the West calls "the Turkish Bath" and the Arabs call *hammam*. In the early days, in fact, every Muslim town and city had at least one public bath and some communities had hundreds. During the Islamic era in Spain, for example, 10th century Cordoba counted 900.

With the advent of central water supplies and modern plumbing the public bath in the Middle East, as in Europe, declined in popularity – just as, in the West, the sauna was catching on. But the *hammam* still exists, and in some poorer or less modernized communities is important to hygiene as well as to pleasure.

Traditional communities in the Middle East today often provide a separate *hammam* for men and women, while poorer communities either divide the bath houses into men's and women's sections, or set aside certain days during the week when the facilities can be used by women only. But the layout, typically, is the same: three main sections which include a combination reception and cold room, a medium-temperature room and a steam room. Bathers enter the changing room, wrap a sort of sarong around their waists – modesty is carefully preserved – and then proceed directly to the steam room. After some time there, relaxing in the hot steam, they summon attendants and stretch out for a vigorous rubdown – with either a rough-textured glove made of horsehair or coarse fabric, or with a pumice stone. Sometimes, when an expert attendant is available, they may also, for a supplementary sum, add a massage.

Next, when they have had enough of the steam room, they return to the medium-temperature room, wait till their temperature drops and then return to the cold room where they splash in cool water, rub down with a towel and then relax with a cup of tea or coffee. More elaborate baths have additional rooms with more subtle gradations of temperature, but the principle is the same.

The water in the baths is heated by a system of flues which conduct the heat from a wood or coal fire under the floors – thus the typical wooden hammam slippers – and sometimes through the walls. These heat-conducting systems were developed in the great Roman baths of classical antiquity, but the Arabs, in preserving them, also accommodated them to varied and ingenious architectural forms. Indeed, the *hammam*, throughout the Muslim world, from the humblest to the most elaborate, shows Islamic functional architecture at its best, particularly with respect to the problem of heat conservation and lighting. The use of the dome – a form not available to classical architects – was perhaps the greatest contribution of their Islamic successors to these buildings.

The domes were often pierced with geometric patterns of glass, so that sunlight was transmitted into the deep interior of the bath, and formed patterns of light on the walls and floor. The wealthier communities, moreover, often spent large sums on the decoration of the *hammam*. They were often faced inside with marble and alabaster and had elaborately carved ablution basins, walls tiled with the exquisite ceramics of Turkey and Iran, and beautifully woven hangings and cushions for the bathers to recline upon.

During the Renaissance, European travelers to the East were so struck by the bath houses and the general cleanliness of the people that on their return to the West, they built their own. Hence the "Turkish Baths" of Europe, hence "Turkish" towels. Like so much else in classical culture that died in Europe during the early Middle Ages, it was left to the Muslim world first to preserve and then to reintroduce to the West advances that had been made during classical antiquity.

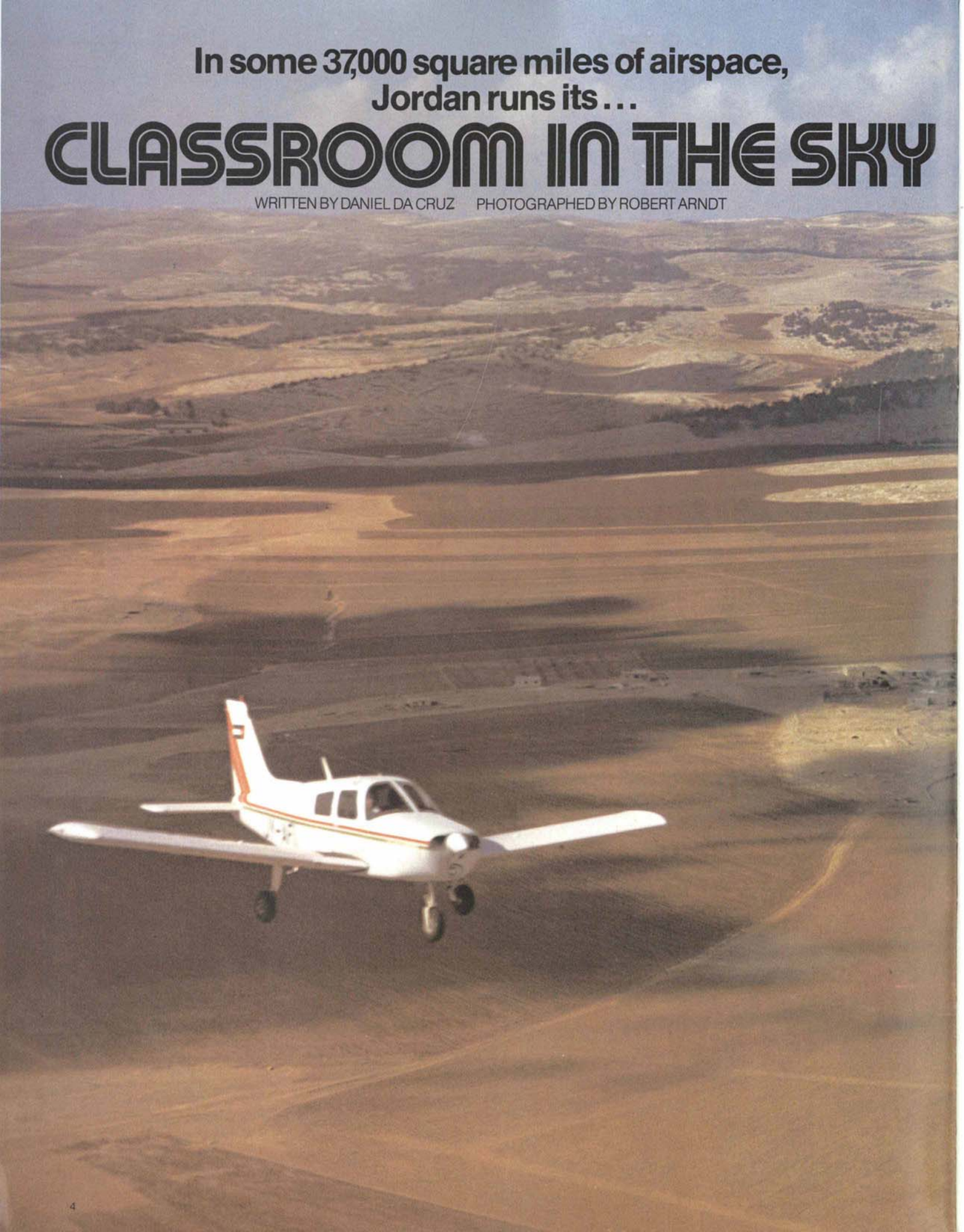
These advances are very much part of daily life today in many parts of the Muslim world, especially – and appropriately – in Turkey. There, the washing facilities in private homes may sometimes be rudimentary, but no village and no quarter of a large city is without its local *hammam*, regularly patronized by the population as frequently as time and finances allow. Many of the Turkish baths were built in the days of the Ottoman empire as a part of an endowed mosque complex or *kulliye* – both to provide a source of income for the mosque and its schools, and as a public charity – and are still used today.

Paul Lunde, a graduate of London's School of Oriental and African Studies, is a staff writer for Aramco World Magazine.

In some 37,000 square miles of airspace, Jordan runs its...

CLASSROOM IN THE SKY

WRITTEN BY DANIEL DA CRUZ PHOTOGRAPHED BY ROBERT ARNDT



Headed for their next class, books in hand and immersed in conversation, pretty Samar Oran and slim, mustachioed Rami Ba'ara could have been students at any of a thousand universities around the world – until they climbed into the cockpits of their twin-engined Seneca PA34's and took off for their classroom in the sky.

At 8,000 feet the sere, rocky hills south of Amman flatten out into golden desert on the east, and toboggan down toward the leaden Dead Sea on the west, with Mt. Nebo straight ahead dividing the two contrasting geographies. But of all this and of the cerulean sky around them, the two young Jordanian pilots, blinded to the outside world by long-visored plastic helmets, would see nothing.

Flying with a watchful, unhooded co-pilot they would put their aircraft through intricate maneuvers at times involving simultaneous changes in altitude, speed and course, flying entirely by instruments. After two hours of twisting and turning, climbing and descending in patterns only a 250-mile-long strand of spaghetti could duplicate, they would come winging home, with seeming wizardry lining their planes up precisely with the runway into Amman International Airport, still invisible to their shrouded vision.

Their classroom is immense, and occupies 37,000-odd square miles of airspace above the Hashemite Kingdom of Jordan. But grander still are the ambitions of the Royal Jordanian Air Academy of which Samar Oran and Rami Ba'ara are a part: to become the first fully-integrated air university in the Middle East, literally and figuratively the pilot plant for the burgeoning Arab civil aviation industry, which already counts 16 individual Arab airlines.

That plant may someday be the center for training pilots and other professional aviation personnel for Arab commercial airlines. It was the brainchild of Ali Ghandour who in 1965 was Technical Director of Alia, the Jordanian airline founded only two years before. An alumnus of the American University of Beirut, Ghandour's fancy has been flight ever since he was graduated as an aeronautical engineer from New York University in 1953. From that moment, his course has been steadily skyward, first as engineer for an American airline, then as aviation safety expert for Lebanon's Department of Civil Aviation, and since 1968 as president of Alia, of which he also became chairman of the board in 1974. His fascination with flying led him to found and organize, in successive years beginning in 1974, the all-cargo carrier Jordan World Airways, the first Arab executive-jet service Arab Wings, and the aerobatic Jordanian Falcons, who recently concluded a 58-city tour of the United States.

In the early 1960's, however, Ghandour found that Jordanians did not share his passion for flight; fledgling Alia boasted only three Jordanian co-pilots and no Jordanian aircraft mechanics, aeronautical engineers or captains at all. So, convinced that the day would soon dawn when regional airlines would clamor for professional Arab flight personnel, Ghandour, in 1965, founded an aero club at Amman airport in a room and hallway that had been the modest home of Civil Defense firefighters. His aim: to kindle in the hearts and minds of Jordanians an enthusiasm for flying to match his own.

Ali Ghandour had chosen the right country for an aviation crusade. He sought, and instantly received, the wholehearted backing of His Majesty King Hussein, who not at all incidentally was then, as he is still, Jordan's most avid and accomplished pilot. Ghandour forthwith organized a comprehensive ground course and became the club's first instructor of engineering, meteorology, navigation and the myriad other aviation basics, aided by two Alia pilots. The first class of 15 students was a name-dropper's paradise: to dramatize aviation's coming role in Jordan, King Hussein was the first student to enroll, followed by former – and future – Prime Minister Zaid Rifa'i, His Majesty's cousin and Minister of the Royal Court Prince Ra'ad, Mrs. Sherifa Hussaima, King Hussein's personal secretary who was the wife of the Director General of Civil Aviation, and others of distinguished rank.

The course was far from being a public relations stunt. King Hussein underlined the value he placed on the instruction by never missing a session of the classes, which met two hours every evening, five days a week, for four weeks. To celebrate the course's successful conclusion, the club invested in a Link trainer to supplement the two U.S. AID-donated Cessna 150's used for flight training.

With that acquisition the founders felt emboldened to shuck off the name "aero club," with its suggestion of amateurism, and take wing with the resounding designation of Royal Jordanian Air Academy. To lend substance to its ambition King Hussein personally, Alia corporately, and the Jordanian government officially supported the new school with gifts of money, expanded quarters at Amman airport, and four new Piper Cherokee training aircraft. Ground and flight instructors were brought in from Lebanon, Pakistan and the United Kingdom, and the school's operations soon expanded to such a degree that 12 Bulldog trainers were purchased from England to accommodate new students.

Today, 12 years after its birth, the Royal Jordanian Air Academy is the largest civil aviation school in the Middle East. Smaller schools in Saudi Arabia, Sharja, Egypt, Lebanon and Qatar have a similar bright future too for, as Ali Ghandour notes, "We need tens of thousands of pilots and technicians in the decade ahead to staff Arab airlines which now depend largely on foreign personnel." With that in mind, the Civil Aviation Council of Arab States meeting last June in Casablanca moved to set up an Arab Air Academy which would establish standards, policies and procedures for national flying schools in the Arab world. And when King Hussein promised the Amman International Airport as the academy's home – once the Queen Alia Airport is completed – CACAS immediately called for a $500,000 feasibility study with a view to accepting the offer.

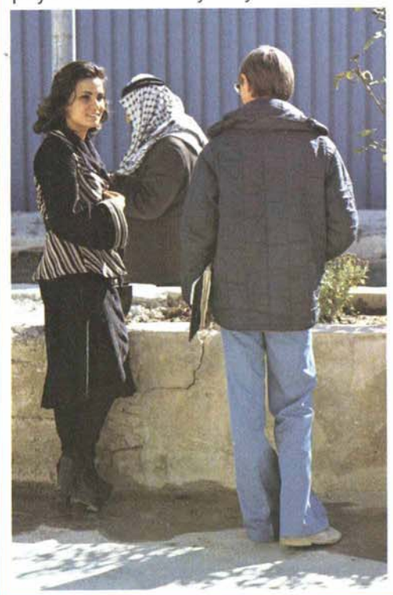
The academy, according to Ghandour, will train pilots, mechanics, air traffic controllers and airport management specialists, indeed all personnel required for the functioning of a modern, independent airline. To get this bigger bird off the ground will require financing of a magnitude to rival King Hussein's gift of Amman airport. As an initial contribution, Alia has already pledged its Boeing 707 and 727 flight simulators, worth $5 million, to the academy.

SAMAR-"QUEEN OF THE SKY"

She could pass for a pert, pretty secretary—as indeed she is in her spare time to augment the family income—whose only interest in aviation would be along the lines of flyin' down to Rio.

Nothing like it. Samar Oran has been obsessed with flying since she was a child whose home near Amman airport provided her with frequent glimpses of aircraft soaring into the sky. Furthermore, in her quest for wings she has overcome handicaps which would have grounded a less determined spirit.

Unable to afford a flying career, on graduation from secondary school Samar enrolled at Beirut's Arab University to study political science. But she had her eyes in the sky, and after a year she returned home to work as a secretary, scrimping to set money aside for flying lessons. Beginning early in 1975, whenever she accumulated enough for an hour's flying – the Cherokee 140 B rents for approximately $35 an hour in Jordan today – she would promptly go up for a lesson. But she soon discovered that a secretary's paycheck doesn't fly very far.



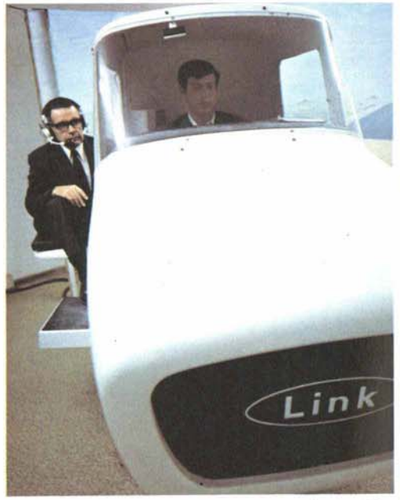
A year and a half of frustration later she happened to meet King Hussein and confided in him her dream of becoming a pilot. King Hussein, recognizing the gleam in her eye and impressed with her bootstrap resolution, forthwith awarded her a full scholarship at the Royal Jordanian Air Academy.

Her troubles were far from over. Her fellow students, all young men, were suspicious and aloof, doubting her seriousness of purpose. The English language was hostile, too, until concentrated study made it an ally. Worse yet was her timing: she was accepted in December for a course which had begun the previous October, so despite her flying experience she had to put in long, hard hours to catch up with her class. She finally did, the following March.

While enjoying her new-found leisure, however, she wound up with a broken leg when she went horseback riding and her horse threw her. Another two months were lost. Recovered, she redoubled her efforts, and by mid-July had caught up once again. By then her determination had convinced her classmates that she was serious indeed, and her acceptance was complete.

When she wins her wings, Alia has promised her a flying job as its second woman line pilot. But, Samar says wistfully, she'll miss school days, "especially aerobatics and solo work. I love soloing, because up there, all alone, I feel I'm queen of the sky." ■

ICAO requires that schools on its approved list give their CPL candidates 150 hours of actual in-flight training. The Royal Jordanian Air Academy does better: because most of its students are not native speakers of English, the academy demands an additional 30 hours of flying time to instill in its students a higher degree of competence and self-confidence. Another 25 hours is spent in the Link trainer, basically a blacked-out cockpit which never flies beyond the air-conditioned room in which it is immured. Here the student practices instrument flying, radio navigation and airways procedures at a fraction of the cost of actual flying, and at risk of wounding only his pride instead of sacrificing his life should he blunder.



Once the student has compiled 180 hours of flight experience in single-engined Cherokee 140 B's and receives that emblem of new-wrought professionalism, the CPL, he moves on to the twin-engined Seneca PA 34. In this aircraft, whose complexity of instrumentation – two engine instruments for each one he had to monitor on the Cherokee – is offset by the security of having one functioning engine in reserve should the other ever fail, the pilot achieves the Multi-Engine Instrument Rating which qualifies him for an airline flying position as flight engineer.

A favorite old saw among airmen is that "a pilot's life is 98 percent boredom and 2 percent sheer terror." The mission of a first-class flight school such as the Royal Jordanian Air Academy is to train the student so thoroughly in the various emergencies that can arise in flight –

'ALL THE FUN IS....GETTING THERE'

I may be the only pilot in the world who doesn't want to boss a 747," replies Rami Ba'ara, when asked which type in the Alia fleet he aspires to command. "Personally, I'd rather captain a Boeing 707. The pay is less, to be sure, and the 747 has more glamor. But the bigger plane is pretty thoroughly automated and computerized, while the 707 takes a lot more actual flying. And flying is what I'm here for."

To become a pilot has been Rami's goal since high school days, but his father, a retired Jordanian army major-general and a firm believer in education – Rami's three brothers are, respectively, army officer, medical student, and secondary school student – urged him to finish his formal studies first.

Rami compromised. For three years he attended the University of Jordan full-time. Then, in mid-1976, eager to get airborne, he enrolled in the Royal Jordanian Air Academy.

His first months flying the university-academy scholastic biplane were the toughest. The main difficulty was studying in two languages simultaneously, mostly Arabic at the university and English at the RJAA, where he also had to tune his ear to the various national dialects of his instructors. Easier was ground school, because of his university background in the sciences.

For a strenuous 12 months he had to forego his usual extra-curricular pleasures of swimming, tennis and football to get up as early as 4:00 a.m. on flying days, spend five and a half hours at the academy, bolt lunch, hurry over to the university's campus for three hours of lectures, and then trudge home to battle sleep and the books to keep abreast of assigned outside work. He managed the intellectual juggling act well enough to graduate from the university in June 1977 with a B.A. in economics and statistics.

On a full Alia scholarship, Rami went on to graduate from the Royal Jordanian Air Academy in October and immediately signed on as a panel system operator with the Jordanian airline which sponsored his flight training. It will be another two years before he takes the big step to flying duties as first officer, but the wait doesn't bother him. For Rami, a lifelong travel addict, almost all the fun is just getting there. ■

thunderstorms, engine failure, congested landing patterns, loss of radio and loss of bearings are but a few – and their remedies that sound decision becomes second nature, thus reducing the terror quotient to manageable terms.

Contrary to lay opinion, the actual techniques of flying are relatively simple, for the rudiments can be absorbed in a few weeks by any reasonably intelligent 14-year-old. Fourteen-year-olds do not, however, pilot commercial aircraft. The reason is implicit in the collateral skills and experience which the paying passenger seldom notices, yet depends on implicitly to bring him to earth safely, and on schedule. These skills are learned, refined and honed to razor keenness in 651 hours of ground school and 250 hours in-flight training. After their 15th week and 36 hours in the flight simulator at the academy, students begin 14 weeks of practice in navigation by ADF (automatic direction finder), VOR (very-high-frequency omni-range), and ILS (instrument landing system). Using these systems in combination with Loran (long-range navigation), the future pilot will be able to lift off at the end of the runway at Amman, traverse Europe and the Atlantic in the dead of night, and put down in Chicago without ever having glanced through his windscreen until he feels his wheels touching the runway. That degree of expertise will cost the student six hours of classroom work a day when he is not practicing flying, frequent quizzes, and 36 hours of formal examinations during his 16 months at the Jordanian academy – followed by years of closely-observed line experience and periodic checks as flight engineer and first officer before he assumes full responsibility for plane, passengers and crew as captain.

The complexity of the subject matter of today's flying – a far cry from seat-of-the-pants pilotage of yesteryear – can be inferred from RJAA's ground school syllabus, which comprises aircraft performance, aircraft type rating, airframes, principles of flight, navigation, electrics, engines, loading, aviation law, flight planning, radio aids, aviation medicine, communication and radio procedures, instruments, and meteorology. A very partial list of lecture topics in just one of those subjects – meteorology – includes synoptics, humidity, air in vertical motion, wind, icing, fronts, altimetry, forecasting, pressure systems and temperature. The seemingly elementary subject of temperature, in turn, becomes the stuff of three hour-long lectures, covering measurement units, solar and terrestrial radiation, conduction and convection, heat transfer, vertical distribution in troposphere and stratosphere, lapse rates, inversions, diurnal variation and other esoterica. In ground school, as aloft, the romantic notion of the pilot as a daring fellow with goggles, trailing scarf and flashing grin quickly expires beneath an avalanche of must-remember information on conversion angles, suction-driven direction indicators, normally aspirated engines, Bernoulli's theorem, mach numbers and a thousand other minutiae and gargantuae guaranteed to make a student straighten up and fly Wright.

Since the Royal Jordanian Air Academy's inception nearly one hundred fully qualified Jordanian, Syrian, Kuwaiti, Pakistani and Bahraini pilots have been graduated. Most of the Jordanians go directly to Alia where they will serve as panel systems operators or flight engineers for approximately two years, while keeping up their flying skills with periodic continuity training. Promoted to first officer, they will advance to the right seat on the flight deck. After an additional five to seven years seasoning, the qualified first officer will make that long voyage for which some 10 years of flying have finally prepared him, the four-foot shift to the left seat, where he will henceforth exercise command as captain of his aircraft.

By then, depending on his luck, sense of vocation and proficiency, the pilot who is today an RJAA student will be approximately 31 years old, captain a Boeing 727, 707 or 747, or one of their successors, and

be one of the highest-paid professionals in his country. By every measurable criterion he will be the equal of jet captains anywhere, for in world aviation, if not in world politics, there is a democracy of achievement which flies above the clouds of language, age, race, sex, nationality and religion, and one's rating as a pilot is based on strict standards of excellence. experience and judgment observed and honored by all who wear wings.

Like its pilot-trainees, the Royal Jordanian Air Academy is steadily maturing, month by month. When CACAS approval is obtained, the school's first mechanic's course will begin – with a class of 20 studying theory and shop practice for 20 months. Firmly grounded in basic mechanics, they will then receive – probably with Alia – six months of on-the-job training, rounded out by another three months of advanced schooling leading to the A & P (Airframe and Powerplant) license, which requires an equivalent period of work and study in the United Kingdom.

An academy for the training of mechanics in aircraft maintenance and repair is one of five envisaged for the full-fledged air university which is still in the planning stage, according to Najeeb Halaby, former PanAm board chairman and presently part owner, along with Alia and Syrian Arab Airways, of Arab Air Services Corporation. The others will be for flight services – the training of cabin crews – airport facilities and maintenance, airways flight controllers and communications and, of course, pilot training.

Halaby notes that some of the academies could well be set up in other countries; the airport academy in Saudi Arabia, for example, already has splendid facilities. Current estimates are that buildings and equipment for the Arab Air University will cost some $25 million, exclusive of Alia's Boeing simulators and the Amman International Airport already earmarked for the project. In addition to short-term specialist courses, the university will offer subjects leading to a four-year degree in aeronautical sciences and engineering. Should current hopes for capitalization materialize, work on the university's facilities could begin in the next year or two. If all goes well, the Arab Air University in Amman will spread its wings in 1980 and Jordan, a nation which has already subdued desert and plain, will fly forth into a new dimension, helping to tame the wild blue yonder.

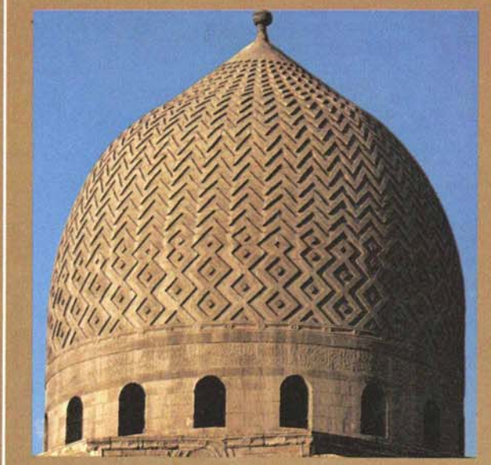
Daniel Da Cruz is a veteran Middle East correspondent, magazine writer and novelist. His latest book, The Captive City, *won a Special Award in 1977 from The Mystery Writers of America.*

THE DOMES OF CAIRO

Minarets have always delighted the people of Cairo. Indeed they sometimes call their city, "Cairo-of-the-thousand-minarets." In architectural terms, however, Cairo's medieval domes, largely unknown and at times unseen, are far more important and possibly even more beautiful.

They are not, to be sure, as impressive as the great domes swelling over Istanbul. And they are certainly not as obvious. Merely to see them you must go down into the narrow streets of the old city and search. But the domes of Cairo, nevertheless, are quite unlike any others and some are unique.

Centuries ago, when the domes of Isfahan and Samarkand were blossoming in profusions of mosaic splendor, the domes of Cairo were already in full flower. Unlike Samarkand's fabled turquoise domes – built in a day by craftsmen captured and brought back to build Tamerlane's new desert city – Cairo domes had been evolving for hundreds of years and with little reference to the craftsmen of other lands in the great Islamic empire.



WRITTEN AND PHOTOGRAPHED
BY JOHN FEENEY

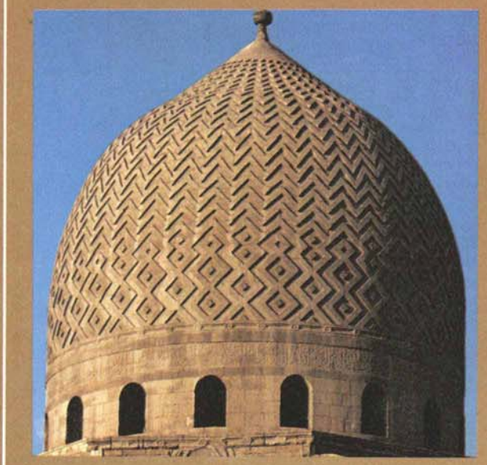
"...and their construction is so perfect that after six or seven hundred years they are still as complete as when they were built."

THE DOMES OF CAIRO

Minarets have always delighted the people of Cairo. Indeed they sometimes call their city, "Cairo-of-the-thousand-minarets." In architectural terms, however, Cairo's medieval domes, largely unknown and at times unseen, are far more important and possibly even more beautiful.

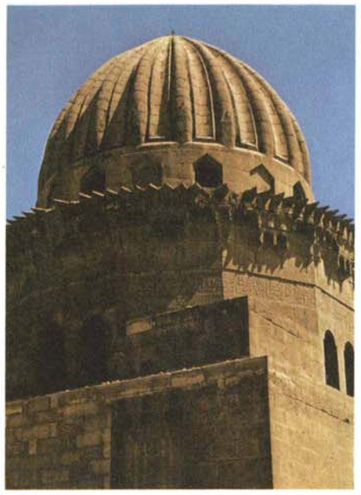
They are not, to be sure, as impressive as the great domes swelling over Istanbul. And they are certainly not as obvious. Merely to see them you must go down into the narrow streets of the old city and search. But the domes of Cairo, nevertheless, are quite unlike any others and some are unique.

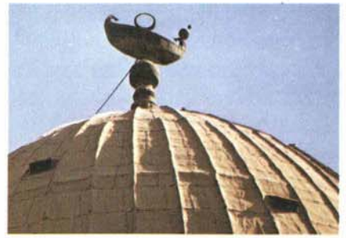
Centuries ago, when the domes of Isfahan and Samarkand were blossoming in profusions of mosaic splendor, the domes of Cairo were already in full flower. Unlike Samarkand's fabled turquoise domes – built in a day by craftsmen captured and brought back to build Tamerlane's new desert city – Cairo domes had been evolving for hundreds of years and with little reference to the craftsmen of other lands in the great Islamic empire.

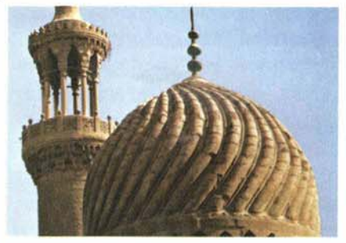


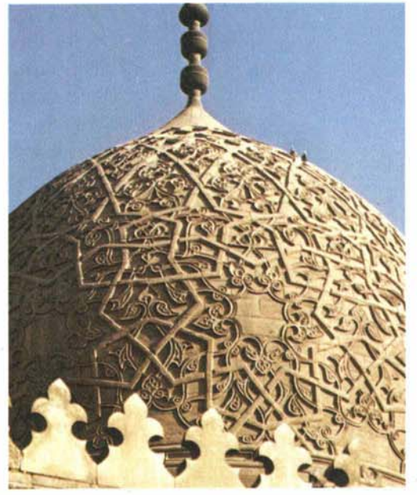
WRITTEN AND PHOTOGRAPHED
BY JOHN FEENEY

"...and their construction is so perfect that after six or seven hundred years they are still as complete as when they were built."



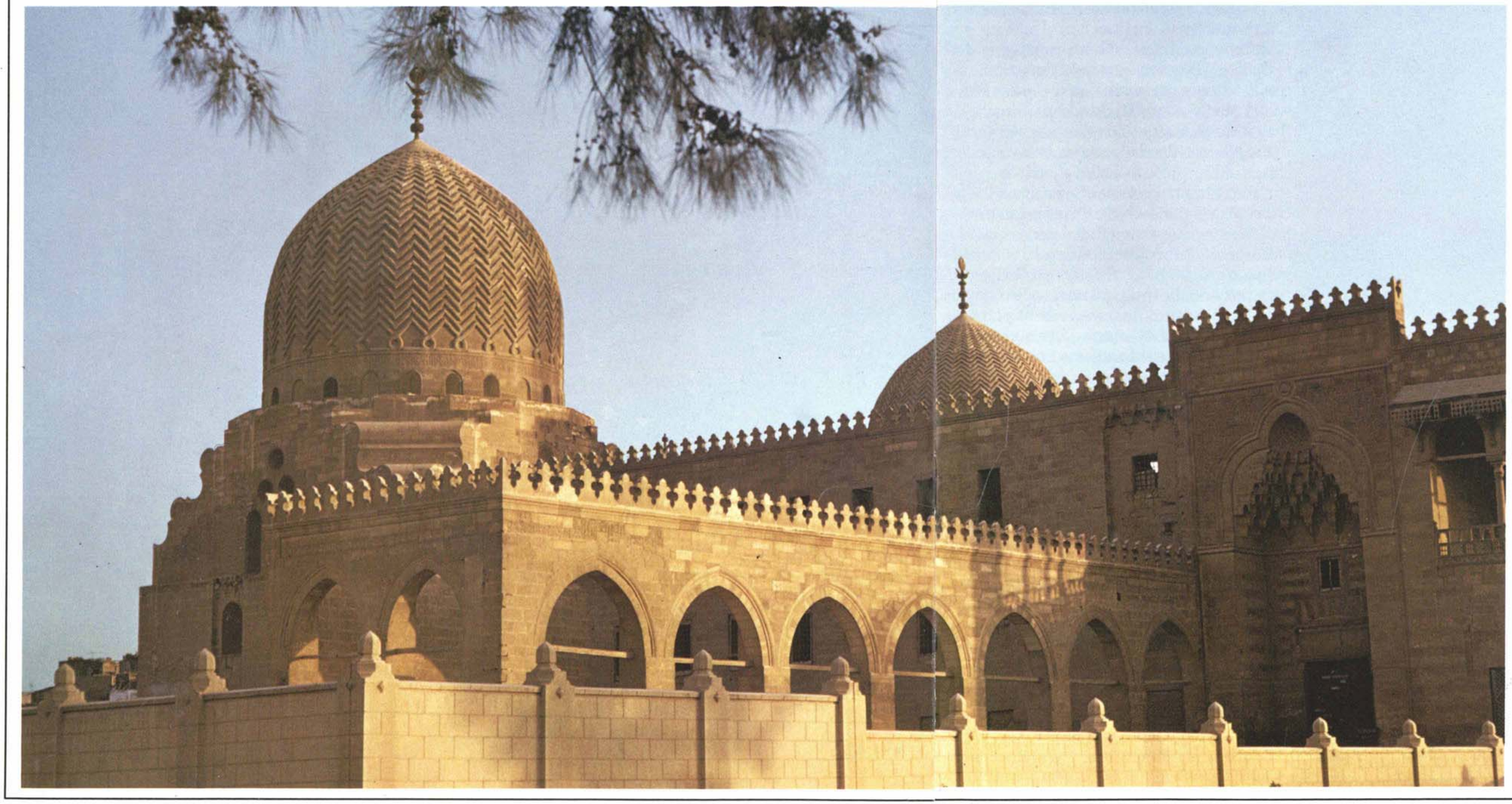


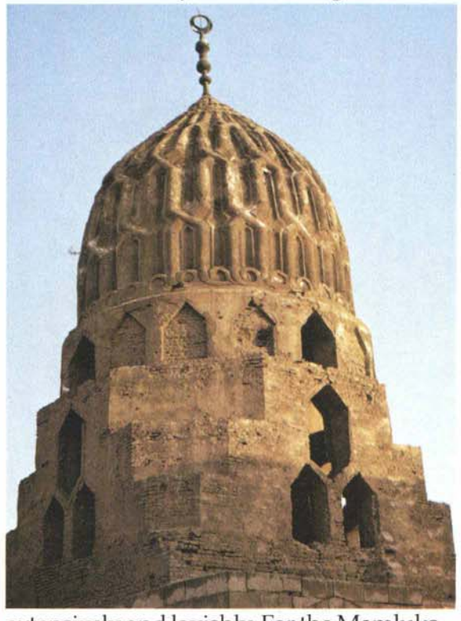




The very first "Cairo", or Islamic style, dome, was built during the Fatimid rule in Egypt, specifically in the second half of the 10th century. Small, smooth and white-washed to a ghostly white, in sunlight or moonlight, these early Fatimid domes have since vanished into the anonymity of dull, somber colors almost lost in the midst of more imposing buildings from later ages.

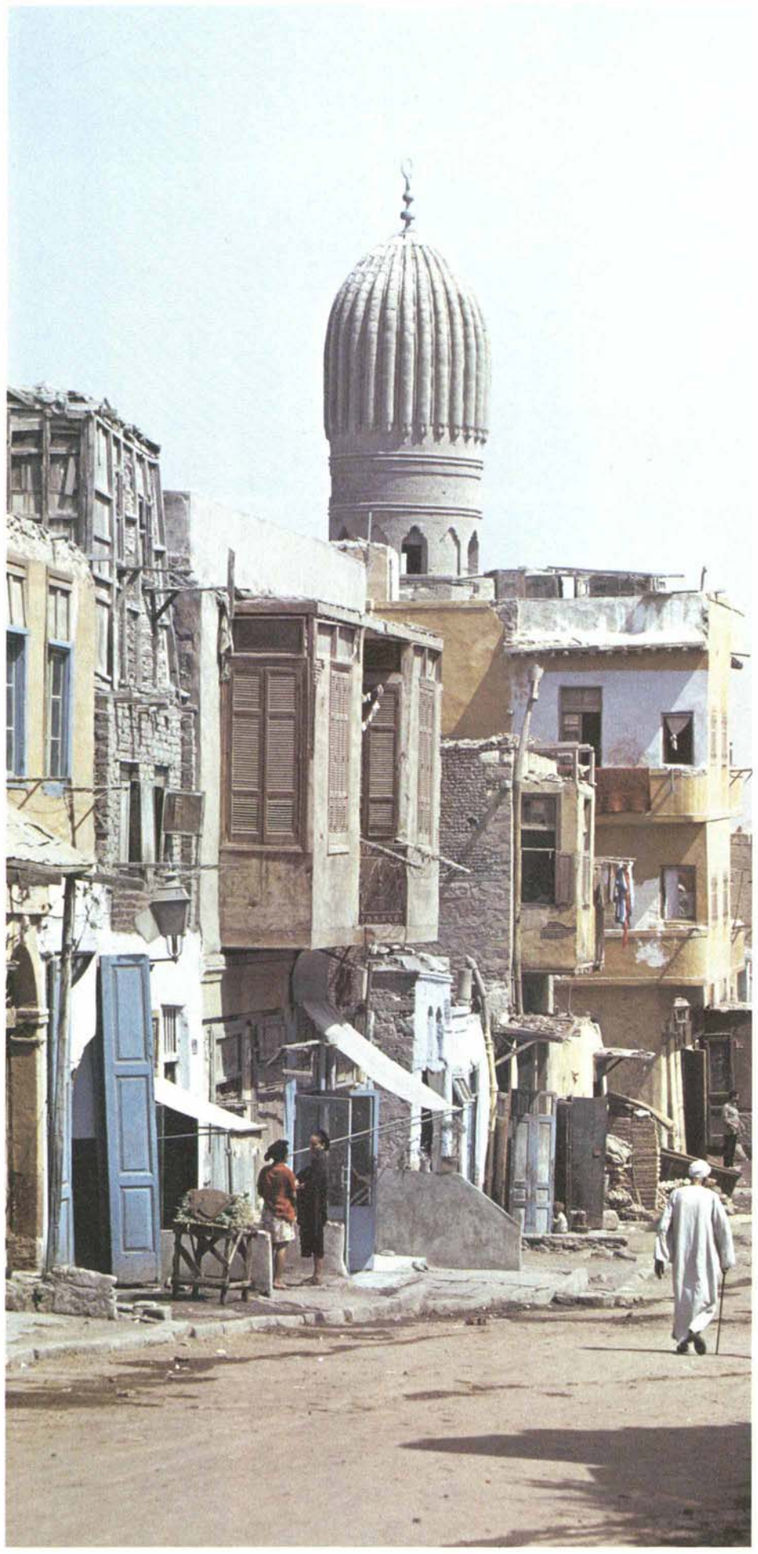
But the small whitewashed dome was merely a beginning. By the time of the Ayyubids, Cairo's home-grown craftsmen had developed their fine brickwork to the point where they could shape the domes into peaked and oval melons. And by the age of the Mamluk sultans, who governed the city for about 250 years, between A.D. 1250 and 1517, they were building both





extensively and lavishly. For the Mamluks wanted monuments – imposing monuments to themselves – and to be sure they got what they wanted, they built their tombs within their own lifetime. Being exceedingly rich, each Mamluk ruler tried to outdo his predecessor until eventually their funerary palaces – each consisting of an imposing decorated dome, a soaring minaret, a mosque and a mausoleum – were as luxurious and spacious as the palaces they lived in.

To satisfy the need for grandeur, Mamluk domes grew to twice and three times the size of the earlier ones – thus demanding a radical change in the method of



construction. Instead of using small baked bricks, the craftsmen began to work with large stone blocks. Architecturally, this was a daring move; to build bigger domes was one thing, but to build them with stone blocks, instead of small bricks, called for not only extremely skilled stonemasons, but also engineers able to design and construct stronger and more massive structural bases.

The stone for the new domes was conveniently quarried in the nearby Mokattem Hills – no more than a mile away from the construction sites in the "cities of the dead." Originally pure white, this stone, from centuries of hot desert winds and cooling Nile mists, has since weathered into the soft grays and browns that characterize the domes today.

As with the small domes, the craftsmen of Cairo – architects, engineers and masons – began to experiment with new shapes and, in the next 200 years, produced amazing results: domes that were fluted, domes that were both fluted and twisted – as though they were about to swirl off into space – and many others with elaborate embellishments chiseled directly onto the lovely white surfaces. Other experiments involved chevron designs – which, through pattern and shadow, suggested fluted domes – and still others adorned the stone with geometrical star patterns, stars and leaves together, and the interwoven foliage today called "arabesque." As none of these patterns was easy to achieve – cutting an elaborate design onto a curved and receding stone surface called for a supreme level of skill – the domes with sculptured patterns emerged as an architectural triumph which moved a French consul to write:

"...in particular one cannot but marvel at their ornamentation. Some are fashioned to form a kind of lace-work, others are decorated compartments of flowers, or have parquet-type paneling or a melon-rib design, and these, let it be said, are among the more ordinary styles of ornamentation. Some of the more flamboyant domes are adorned with green and blue stones which heighten their effect still further...and their construction is so perfect that after six or seven hundred years they are still as complete as when they were built..."

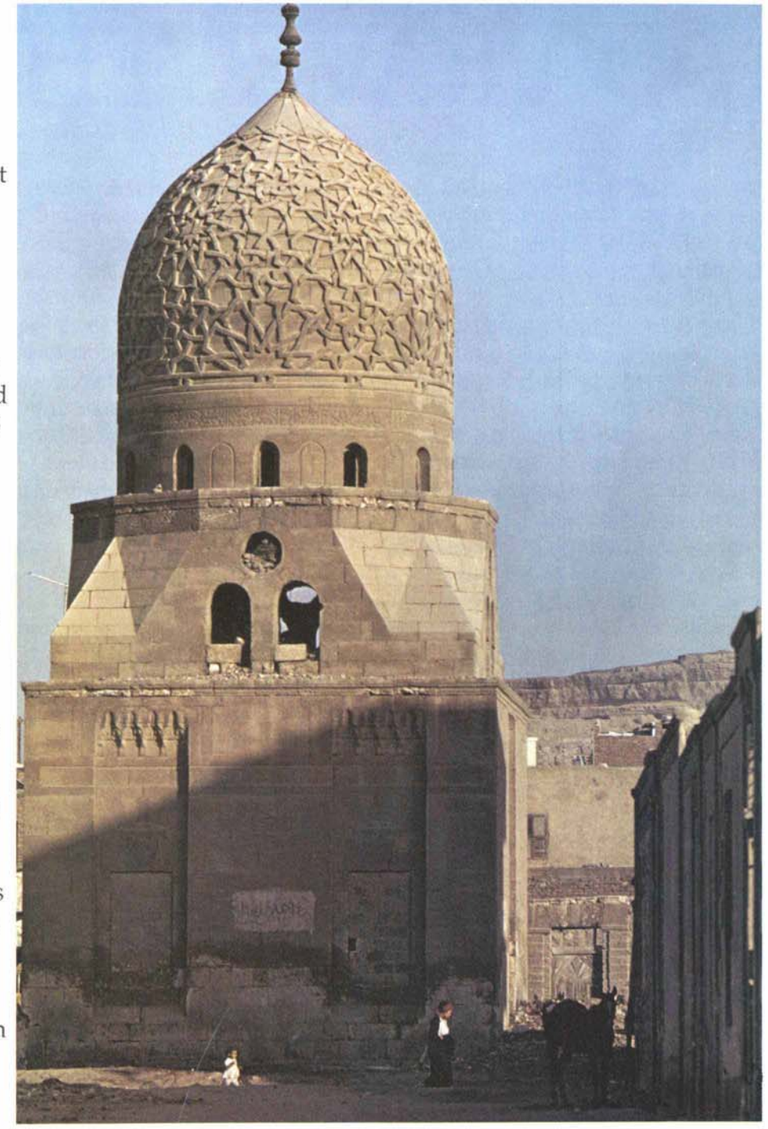
As with so much of Islamic art, the identities of the Cairo craftsmen who produced it are largely unknown. But it is clear that they were master builders; alone, and with little influence from other centers of Islamic architecture, they conceived domes that had not been built before – and have not been equaled since. They were, certainly, masters of decoration too, but decoration, in a sense, grew out of Islam itself. Because of Islamic prohibitions against the drawing of man or beast, the artisans who decorated Cairo's domes confined themselves to geometric designs – possibly expressions of crystal structure – and the floral vines clinging about them were but expressions of ordinary plant life.

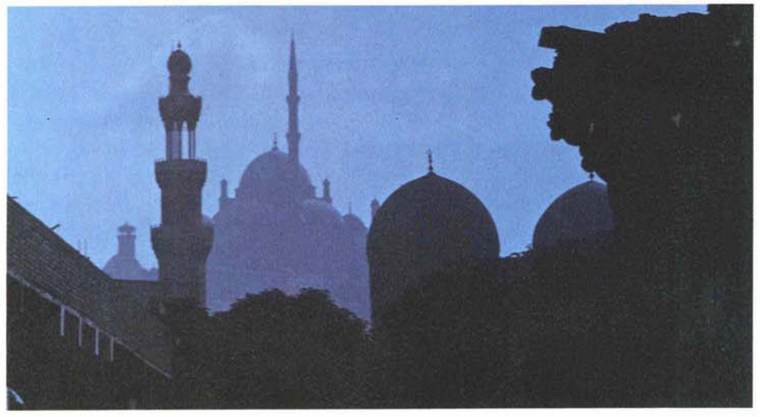
Traditionally the highly decorated domes of Cairo were never put on mosques; instead they were constructed only on mausoleums – although it was also a tradition that a funerary mosque be attached to the mausoleum. Sometimes too, schools, libraries and even hostels were attached, thus creating in the end impressive complexes of buildings such as those that stand today in ancient burial grounds to the north and south of medieval Cairo.

Here, where the most impressive domes can be found, are such examples as the complex built by Sultan Barquq and his two sons, Farag and Abd al-Aziz. One of the most magnificent medieval buildings in all of Cairo, it consists of two very large domed chambers containing the family tombs and, around a large central courtyard, a series of rooms and arcades leading to immense halls and a sanctuary of magnificent proportions. Not far away there is also Kait Bey's tomb, a masterpiece of architecture built in A.D. 1474. As in Sultan Barquq's tomb, the walls are lined with marble, the floors are paved in mosaic patterns and, set high in the walls, clusters of traditional stained-glass windows send shafts of startlingly intense colored light into the darkened interior.

Despite the somber nature of the tombs, their effect on observers is one of beauty rather than sadness. Instinctively, the eye looks upward – first to glittering pin-points of blue, red and green light filtering through tiny windows set in the massive stone walls, and then into the dome itself where, inevitably, it tracks the endless rim into a darkness that seems infinite. To many observers – and not only the faithful of Islam – it suggests a beauty beyond the experience of man and his most esthetic achievements.

John Feeney, a writer, photographer and film producer, writes regularly for Aramco World *from Cairo.*





TO TRAVEL THE EARTH

WRITTEN BY FRANCES CARNEY GIES

I left Tangier, my birthplace, in the year seven hundred and twenty-five (A.D. 1325) with the intention of making the pilgrimage to Mecca and visiting the tomb of the Prophet... I made up my mind to leave all my friends male and female, and abandoned my home as birds abandon their nests. My father and mother were still alive. I resigned myself to part with them, though the separation brought pain both to them and to me. I was then twenty-two years old." Thus began a career of travel with few rivals in history – either for endurance or for its written record. For Muhammad ibn Abdallah ibn Muhammad ibn Battuta, in the course of the following 28 years, logged an estimated 75,000 miles, a record which was unequaled until the age of steam, and which very nearly satisfied what he confessed was his ruling passion: "to travel over the earth." In 1353, moreover, obeying the command of the Sultan of Fez, he dictated to the Sultan's private secretary a manuscript which runs to four printed volumes, known today as *The Travels of Ibn Battuta*, one of the greatest books on travel ever written.

Ibn Battuta was far from being the first Muslim traveler. Even in pre-Islamic times, Arab merchants were constantly on the move, by ship or caravan, to other parts of Africa, to Persia, India and China, and who, after the Muslim conquest, could, and sometimes did, journey from the Pyrenees to the Indus River without leaving the Muslim Empire. There were also pilgrims, who traveled long distances to Mecca and Medina, as well as geographers and historians who traveled to collect information. But Ibn Battuta was indisputably the greatest.

Born into a well-to-do Berber family of Tangier, Ibn Battuta was educated for a legal career and, before setting out on his pilgrimage to Mecca, planned to follow law in Tangier. En route to Mecca, however, he visited one of the seven wonders of the ancient world – the ruined lighthouse of Alexandria, built by the Ptolemies 16 centuries before – and heard an arresting comment from a pious ascetic of Alexandria which apparently whetted his appetite for more wonders. "I see that you like to travel and roam strange lands," the ascetic said, adding calmly, "You must certainly, if God will, visit my brother Farid al-Din in India, and my brother Rukn al-Din Ibn Zakariya in Sind, and my brother Burhan al-Din in China. When you see them, greet them for me."

"I was astonished at this speech," Ibn Battuta wrote later, "and the desire to go to those countries was planted in my mind. I never ceased to travel until I had met the three men that he named and given them his greeting."

After leaving Alexandria, still heading for Mecca, Ibn Battuta visited the Pyramids and sailed on up the Nile, intending to cross the Red Sea to Jiddah and Mecca. At the Red Sea, however, he found that a local sultan, at war with the Mamluks of Egypt, had sunk all the ships in the harbor as a defensive measure. The pilgrims, therefore, had to return to Cairo, and Ibn Battuta went on to Syria, stopping at post-stations along the way. En route he toured the Holy Land and then, after three weeks in Damascus, set out once more – on September 1, 1326 – for Mecca. At last, after visiting Medina, where he paid his respects at Muhammad's tomb, he arrived in Mecca and, made his pilgrimage.

It was at that point that Ibn Battuta started to travel for the sake of traveling. Instead of embarking on the study of law, as he had planned, he decided to make a side trip to Iraq. By then, however, the Mongols had descended on the Muslim Empire and Ibn Battuta, arriving in Baghdad, found the once-magnificent capital depopulated and in ruins. Ibn Battuta, therefore, decided to learn what he could of the Mongols and joined the *mahalla* – mobile court – of the Mongol leader Abu Said, a descendant of the infamous Ghengis Khan.

Traveling with the Khan's train for 10 days, Ibn Battuta observed how the Mongol leader lived on the road. Abu Said and his slaves, he wrote long after, occupied a camp by themselves and each of Abu Said's wives had a separate area with its own imam, muezzins, Koran readers and bazaar. The viziers, secretaries and finance officers occupied another section, and each commander had his own quarters.

Each morning at dawn, he went on, the Mongols struck camp in a colorful ceremony in which musicians played trumpets, fifes and drums. Then the commander of the advance guard galloped off, his troops at his heels, while the rest of the train followed: the Khan's wives, the royal baggage train, its escort and, finally, the main body of the army.

After his excursion with the Mongols, Ibn Battuta returned to Mecca, where he settled down for three years of study. But then wanderlust seized him again and he set out on his first ocean voyage. Taking passage at the Red Sea port of Jiddah on a fragile sailing vessel called a *jalba* – whose planks were stitched together with coconut fiber – he endured a bout of seasickness, noted that in the Red Sea, ships sailed only by day – because of the danger of running aground – and eventually disembarked at Aden. But not for long. Soon after he boarded another ship and sailed down the coast of East Africa to Maqdashaw, Mombasa and Kulwa, taking note at each stop of the customs and cuisine.

Returning by way of Oman and the Arabian Gulf, Ibn Battuta and a companion, tired of shipboard, decided to land and walk to the city of Qalhat to spend the night. As a sailor hired as a guide tried to lead them into a dangerous ford – hoping to drown them and steal their belongings – the three men spent an uneasy night by the roadside... "I placed the guide between my exhausted fellow-traveler and me, put my extra clothes between my robe and

ILLUSTRATED BY MICHAEL TURNER

Ibn Battuta – the greatest traveler of the 14th century – logged some 75,000 miles in 28 years.

my skin, and gripped my lance firmly. My companion went to sleep, and so did the guide, but I stayed on watch, and every time the guide stirred I spoke out to show him I was awake." In the morning they limped into the city, where they spent six days recovering from their adventure.

Back in Mecca in 1332, Ibn Battuta decided to visit India where, he had heard, the Sultan of Delhi, Muhammad Tughluq, was a generous patron of foreign scholars. Crossing the Red Sea, he joined a camel caravan through Egypt and Syria and, at Latakia, boarded a Genoese ship bound north for the "land of the Turks." Landing 10 days later at Alaya, he set out on horseback to cross Asia Minor and, along the way, began, for the first time, to encounter a problem familiar to today's travelers. Because he spoke only Arabic he had to hire a Turkish interpreter who, he says "was a man of ... low ambitions, base character, and evil actions ... We had to put up with him because we did not know Turkish, but matters went so far that we ... would say at the end of the day, 'Well, Hajji, how much of the expense money have you stolen today?' He would reply, 'So much,' and we would laugh and make the best of it."

At Sinop, Ibn Battuta boarded a Greek ship, and in a raging storm, crossed the Black Sea to the Crimea, then ruled by the Mongol Uzbek Khan. When they reached Karsh, his party hired wagons "covered with felt or blanket cloth, in which are grilled windows. The person inside the tent can see without being seen, and can spend his time as he likes, sleeping or eating or reading or writing while he is traveling..." As the governor of the territories north of the Black Sea was on the point of setting out for Sarai on the Volga – near present-day Volgograd – Ibn Battuta, possibly emboldened by his earlier trip with the Mongols, joined the governor's caravan. As on his earlier trip, Ibn Battuta was impressed, but this time by the respect accorded Turkish and Mongolian women. The governor's wife, he reported, traveled in a wagon covered with fine blue woolen cloth and neither she nor her attendants were veiled. When she alighted, moreover, the attendants carried the train of her gown and the governor himself rose, helped her to her seat beside him and even dined with her.

Merchants too treated their wives with respect, he said. Most wives were so well dressed that they sometimes

eclipsed their husbands. As Ibn Battuta wrote of one such husband, "anyone seeing him would take him for one of her servants; he wears a rough sheep's wool cloak and a high cap to match."

At Bish Dagh, east of the Black Sea in the Caucasus, the governor's party joined the *mahalla* of Uzbek Khan, "a vast city on the move, with mosques and bazaars, the smoke of the kitchens rising in the air (for they cook while on the march), and horse-drawn wagons transporting the inhabitants. Upon reaching the camp, they unloaded the tents from the wagons and set them on the ground, for they were very light, and they did the same with the mosques and shops."

One of the Khan's wives, it turned out, was a Byzantine princess, daughter of the Byzantine Emperor. As she was pregnant, and wanted to return to Constantinople to deliver her child, Ibn Battuta seized the opportunity to join her party and, as a result, met the princess' father, the Emperor Andronicus. He also toured Constantinople in style, thanks to the emperor, who, impressed by his travels, presented Ibn Battuta with a guide, a robe of honor, a horse – and an umbrella such as was carried above the emperor's own head as a sign of protection. Ibn Battuta spent weeks inspecting the vast fortifications, the bazaars, the monasteries, the harbor, and Santa Sophia – from the outside, for no one could enter it without prostrating himself before the cross over the gate, and this Ibn Battuta refused to do.

The Khan's wife deciding to remain in Constantinople, Ibn Battuta returned with her military escort, crossing the steppes north of the Black Sea in the depths of the Russian winter. "I wore three fur coats and two pairs of trousers, one lined, and on my feet woolen boots, with a pair of linen-lined boots on top of them and a pair of horse skin boots lined with bearskin on top of those. I performed my ablutions with hot water near the fire, but every drop of water froze instantly. When I washed my face the water ran down my beard and froze, and when I shook it off a sort of snow fell from it ... I could not mount my horse because of the quantity of clothes I was wearing, and my companions had to help me into the saddle."

After paying his respects to the Khan in his capital city of Sarai, the insatiable traveler made up his mind to fulfill his postponed ambition and visit India. Selling horses and wagons, he hired camels to cross the desert between Sarai and Khwarizm, today's Khiva, south of the Aral Sea. He was amazed at the populousness of the capital Khwarizm – "One day as I was riding in the bazaar I became so wedged in the crowd that I was unable to move forward or backward." Next came Bukhara and Samarkand, the two once-great Muslim cities razed by Genghis Khan 100 years earlier, and then Balkh, "an utter ruin and uninhabited." After a month and a half of waiting – for the worst of the winter storms to end – his party pushed into the rugged mountain passes of Afghanistan. They were armed, he wrote, with bundles of felt mats which they spread in front of the camels to help them keep their footing in the deep snow. At Ghazna, the capital of Afghanistan, they found still more ruins and pushed on, in a hazardous forced march, to the Indus. From there, by slow stages, Ibn Battuta proceeded to Delhi, where he presented himself at the court of Muhammad Tughlaq, sultan of one of several large Muslim principalities in India.

Delhi, Ibn Battuta recalled later, was one of the most colorful places he had seen. Outside the doors of the Sultan's palace, he wrote, trumpeters and flute-players waited to sound their instruments when any important person arrived and on nearby platforms were guards, the keeper of the register – with his gold mace and jeweled tiara surmounted with peacock feathers – and the scribes who kept the list of people who entered.

In the audience hall of "a Thousand

Pillars," he goes on, the Sultan held his public levees, sitting cross-legged on a throne set on a dais carpeted in white, with a large cushion at his back, a servant with a fly-whisk beside him and 200 armor-bearers ranged on the right and left, carrying shields, swords and bows. "Then 60 horses are brought in, half ranged on the right and half on the left, where the Sultan can see them. Next they bring in 50 elephants adorned with silken cloths, their tusks shod with iron . . ."

And during one of the Sultan's spectacular entrances into the capital, Ibn Battuta reported, three or four small catapults placed on the elephants' backs cast gold and silver coins among the people.

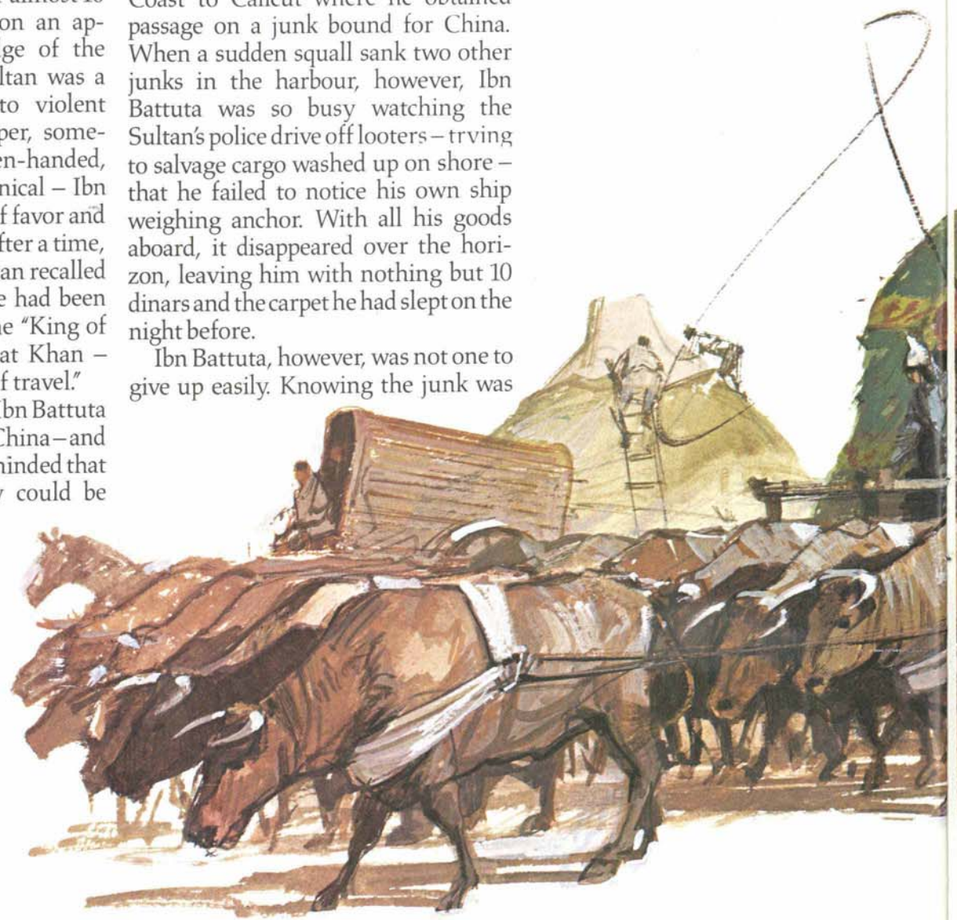
Fascinated by Delhi, Ibn Battuta settled down at the court for almost 10 years, during which he won an appointment as *qadi,* or judge of the *Shari'ah* courts. As the Sultan was a difficult ruler – subject to violent whims and storms of temper, sometimes munificent and open-handed, sometimes cruel and tyrannical – Ibn Battuta eventually fell out of favor and withdrew from the court. After a time, however, the capricious Sultan recalled him and announced that he had been appointed ambassador to the "King of China" – the Mongol Great Khan – because "I know your love of travel."

On the road again at last, Ibn Battuta on July 22, 1342, set out for China – and was almost immediately reminded that travel in the 14th century could be difficult. A few days out of Delhi his party was attacked by bandits, who stripped him of everything except the clothes on his back. He managed to talk them into setting him free, but for several days had to live on roots and berries and to sleep where he could. One night he bedded down in a grain bin, on top of which a bird fluttered all night. "We made a pair of frightened creatures," he wrote. After a week, he met a Muslim who gave him food and water and carried him piggy-back to a village where the governor helped him rejoin his friends, regain the comforts of his new ambassadorial rank and resume his journey to China.

His second try, however, was also beset with troubles. Accompanied by his entourage, he moved through central India and down the Malabar Coast to Calicut where he obtained passage on a junk bound for China. When a sudden squall sank two other junks in the harbour, however, Ibn Battuta was so busy watching the Sultan's police drive off looters – trying to salvage cargo washed up on shore – that he failed to notice his own ship weighing anchor. With all his goods aboard, it disappeared over the horizon, leaving him with nothing but 10 dinars and the carpet he had slept on the night before.

Ibn Battuta, however, was not one to give up easily. Knowing the junk was scheduled to put in at Quilon, south of Calicut, he hastened there by river boat. But the junk never came; en route, he learned that the junk had been seized by pirates. As, by then, his entourage was scattered he concluded that his service with the irascible Sultan Muhammad Tughluq was over. He sailed, therefore, for the Maldive Islands instead of China and, on the basis of his legal training and experience in Delhi, won another post as a *qadi.*

As a *qadi* in the islands, Ibn Battuta attempted to reform the free-and-easy customs of the islands, but when the reforms made him unpopular, he went on to Ceylon, Bengal – "a vast country, abounding in rice" – and then Sumatra, where, finally, he boarded a junk for China.



In China, Ibn Battuta wrote, he sailed "up the River of Life" – probably the inland system of canals and rivers – to Canton and soon set off on still further explorations – this time more peacefully. Indeed, he said, he found traveling safer in China than anywhere else in the world. When a Muslim merchant arrived in a town, he was given the choice of staying with a local merchant of his own religion or at an inn; in either case his money was given to his host for safe-keeping, his expenses being paid out of it and the host held accountable for any deficit when he left. On the road each post station registered the names of all travelers, with their descriptions; at the next post-station a clearance certificate had to be sent back stating that all were accounted for.

Among the cities Ibn Battuta visited in China were "Qanjanfu," probably Fuchow, and Hangchow, "the biggest city I have ever seen on the face of the earth." Hangchow, he continues, "is so long that it takes three days to traverse in the ordinary succession of marches and halts," and was divided into six cities, each with its own wall, the whole surrounded by an outer wall. In one city lived Jews and Christians, under a Chinese governor, another was occupied by Muslims, who had their own bazaars, mosques and muezzins.

From Hangchow, Ibn Battuta went to Peking, the Khan's capital, arriving just in time to attend the funeral of the Khan. It was, he said, observed with music, games and amusements, and a magnificent burial service. But as the Khan had been killed by rebels, Ibn Battuta felt uneasy. Furthermore he was beginning to be homesick. In Fuchow he had encountered a Muslim merchant and learned that he came from Ceuta. "And I from Tangier!" Both men wept and Ibn Battuta decided to go home.

Even the voyage home, however, provided its quota of adventures. En route to Sumatra on a junk he saw an island on the horizon which suddenly appeared to rise into the air, terrifying the sailors who swore they had seen Sinbad's famous giant bird, the Roc.

From Sumatra, Ibn Battuta took passage for Quilon and Calicut, then sailed across the Indian Ocean to Oman and traveled overland through Persia to Baghdad, and thence – after 20 years – to Syria.

Returning home after all that time, Ibn Battuta found himself a Rip van Winkle – a man facing a different world from the one he had left. In India, the Sultanate of Delhi was breaking up; in Persia and Iraq the il-Khans had been overthrown; and in Egypt the Mamluks were on the verge of collapse. There was more sinister news too: the Black Death had swept through Syria, Egypt and Africa on its way to Europe, killing 1,000 people every day in Gaza, more than 2,000 a day in Damascus and, at the height of the epidemic, 21,000 a day in Cairo. The epidemic had also, he learned on approaching Tangier, taken the life of his mother.

The sad homecoming, however, did not cure his mania for travel. After a visit to Spain, where Muslims still held the Kingdom of Granada, he undertook what proved to be his last journey – to what was then called Black Africa, and including a Muslim state called Mali, a name to be revived 600 years later. Ibn Battuta, however, found this outpost of Islam disappointing and the Sultan a miser. As he told the Sultan himself, "I have traveled all over the world and have met the kings of many countries. Here I have spent four months in your country, and you have neither shown me hospitality nor given me anything. What am I to say of you to other rulers?" The Sultan took the hint, and presented his important guest with an appropriate gift.

Still, there were interesting customs to describe. He witnessed, for example, a ceremony in which the court poets appeared dressed as birds, with feathers, wooden heads and red beaks. "They stand in front of the Sultan in this ridiculous get-up and recite their poems. I was told that their poetry is a kind of sermonizing in which they say to the Sultan, 'This throne on which you sit was once occupied by this king and that king, and such and such were this one's noble actions, and such and such the other's. So may you too do good deeds whose memory will outlive you.' Then the chief poet climbed the steps of the throne and laid his head in the Sultan's lap, then on his right shoulder, and then on his left."

He also saw crocodiles and hippopotami for the first time, heard intriguing stories about cannibals and, on the way home again, passed through Touareg country, whose women impressed him. They were, he wrote, "the most perfect in beauty and the most shapely in figure of all women, of a pure white color and very fat; nowhere in the world have I seen any who equal them in fatness."

Recrossing the desert to Fez, Ibn Battuta settled down under the wing of the Sultan, entertaining the court with the story of his adventures. Some of those adventures, contemporaries said, were received with some of the same incredulity met by Marco Polo – particularly his reports of India – but the Sultan believed him and ordered him to dictate his story to a secretary. At last, therefore, the weary traveler rested. Resuming the career for which he had trained – 28 years and 75,000 miles before – he became a *qadi* in Morocco, lived another 15 years and either traveled no more, or, if he did, left no account.

During that time he also finished his book on travel – a work which provided a rich source for historians about people and places, ships, navigation, caravan routes, tolls, pirates, roads, inns and much more besides – in some areas the only firsthand evidence that exists. His book, moreover, has value as a lively, readable, candid story of a man who loved life in all its infinite variety. As Ibn Juzayy, secretary of the Sultan of Morocco, commented at the end of his transcriptions of Ibn Battuta's *Travels:* "It is plain to any man of intelligence that this sheikh is the traveler of our time, and if one were to say the traveler par excellence of our Muslim community, he would be guilty of no exaggeration."

Frances Carney Gies, with her husband, is the author of 12 books and numerous articles, mostly on history. She has also written screen plays and recently contributed a cover story to Aramco World Magazine *on the Arab geographer al-Idrisi.*

"A mummy in one hand and a crocodile in the other..."

A Trove in Turin

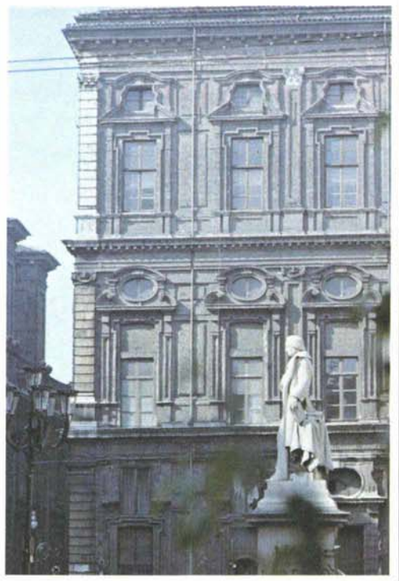
WRITTEN BY NANCY JENKINS PHOTOGRAPHED BY GIAN LUIGI SCARFIOTTI

One of the greatest collections of Egyptian antiquities in the world, outside of Cairo, is housed in an obscure if rather imposing old gray stone palazzo in the northern Italian city of Turin.

Turin itself is hardly obscure. As the home of the vast Fiat auto works, it is probably the most important industrial center in Italy. Still, this picturesque Savoyard town, tucked in beneath the snow-capped peaks of the Piedmont Alps, is an unlikely spot for a collection as important – and as interesting – as that of the *Museo Egizio di Torino.* The ground floor sculpture halls alone would do any "name" museum proud, and there are, as well, room after room of artifacts on the floors above: paleolithic stone axes and neolithic flints, wall paintings, mummies and mummy cases, pottery, fabrics, stone and wood reliefs, papyrus documents, jewelry, masks, altars, scarabs and amulets, weapons and household equipment – the whole glittering gamut of ancient Egyptian culture and religion, from the earliest Predynastic period to Paleo-Christian times, and from the life of ordinary workingmen to that of the pharaohs themselves.

Almost unknown – except to the most devoted Egyptologists and a few public-spirited citizens of Turin – the *Museo Egizio's* collection is a breathtaking example of what happened when 19th-century Europeans discovered the ancient civilization of the Nile Valley and took it upon themselves to, as some say, preserve the precious remnants of an ancient culture or, as others say, plunder a helpless colony.

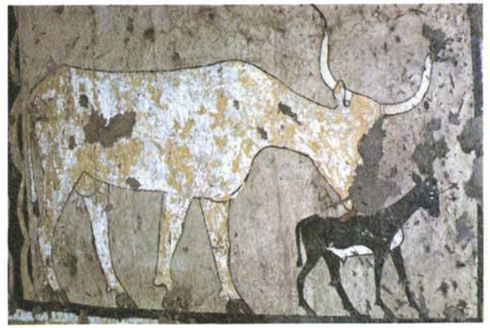
Like many great museums, the Turin collection began as a royal collection – that of the House of Savoy, the Piedmont dukes who were later to become kings of a united Italy. In that collection were a few genuine Egyptian pieces, but none, actually, was of any importance. Egypt, ancient or modern, was, after all, not something that Europeans knew very much about at that time. Egyptians for millennia had lived among the crumbling remnants of past glory –



pyramids, sphinxes, musty tombs, ruined temples to strange, forgotten gods and goddesses, half-animal, half-human, and wholly irrelevant to the Muslims and Copts who populated the valley and delta of the Nile. Some Europeans had heard of these things, of course; both Old and New Testaments provided tantalizing glimpses of the might of ancient Egypt and occasional reports from travelers and adventurers had provided more up to date impressions. But it was not until Napoleon Bonaparte's brief occupation of the Nile Valley that Egypt broke on the consciousness of Europe like an explosion. Suddenly Egypt was all the rage, a trip up the Nile became obligatory for wealthy travelers, and a piece of sculpture, or a mummy, or a sphinx was *the* fashionable thing to display in one's salon upon return. "A mummy in one hand and a crocodile in the other," was the way one French monk described returning travelers from Egypt. What individuals did on a small scale, moreover, museums did on a much greater. As Karl Meyer wrote, "A hall of Egyptian statuary, a trove of mummies, and an obelisk – these became a badge of sovereignty, much as a national airline is today."

It was at the beginning of this extraordinary period, in the year 1803 to be exact, that Bernardino Drovetti arrived in Alexandria as a French consul general. A 25-year old Piedmontese lawyer from a hill town near Turin, who had served with great distinction in Napoleon's Italian campaigns, Bernardino Drovetti seems to have stepped right out of a Stendhal novel, so much was he a product of the Napoleonic era. Robust and impassioned, he believed fervently in Italian unity and the ideals of the French revolution, and saw Napoleon as a symbol of change – one reason perhaps for his decision to accept the post of consul in Alexandria.

It wasn't, certainly, a promising post. He represented, after all, a country that only a few years earlier had crushed Egypt's famous Mamluks and, later, had put down opposition with force. Drovetti, however, mastered such difficulties – and others – to such an extent that he



later became a trusted advisor to Muhammad 'Ali – Egypt's first modern ruler – and to Ibrahim Pasha, the son of Muhammad 'Ali. Altogether, he remained in Egypt for 26 years and, during that time, became an explorer and surveyor of such remote regions as Nubia and the Siwa Oasis in Libya.

During all these years Drovetti was also busy collecting Egyptian antiquities. Only a few years after his arrival in Egypt, the first volume of the monumental *Description de l'Egypte* (See *Aramco World*, March-April, 1976) was published in Paris. It burst upon astonished European imaginations, already captivated by Napoleon's invasion, as a confirmation of the wonders that had previously been only sensational rumors. Here, for the first time, in page after page of beautiful drawings, most of them by Dumont, exquisitely and faithfully detailed, was the whole panoply of Nile civilization, both ancient and modern. But it was, of course, the ancient beauty of the cultures which stunned Europe.

With that, the demand for Egyptian antiquities began to increase. European museums, and governments and rich aristocrats, suddenly wanted souvenirs of Egypt and began to commission agents to collect artifacts and other objects for them – agents such as Drovetti who saw at once that there was a tidy fortune to be made in Egyptian antiquities and set out to earn a share of it.

Drovetti was motivated by more than greed. From his letters, it is quite clear that he had become an impassioned lover of Egypt and Egyptians. But that did not stop him from participating in what can only be called wholesale looting. Along with the English consul Henry Salt and Salt's agent, the ex-circus strongman Giovanni Belzoni, Drovetti divided the Nile Valley into spheres of influence and, for a time, effectively barred anyone else from excavating without their permission.

"Excavating" is an improbably

dignified word for the kind of looting and destruction that went on; the technique was simply to hack off what they wanted, haul it away and sell it to the highest bidder. As a result priceless treasures were destroyed – along with vital information about them. Other than the *Description de l'Egypte* and the journals of a few concerned travelers, there were few records kept and no one will ever know how much irretrievable information was lost thereby.

On the other hand, the Egyptians themselves had done almost nothing to preserve their past, and in fact contributed to its destruction. Muhammad 'Ali, for example, in his drive to modernize Egypt, was one of the most zealous destroyers of antiquity, tearing down whole temples to find building stone for his factories.

The Western looting, consequently, did preserve such irreplaceable treasures as the wonderful polished blackstone statue of Ramses II with its gently inclined head and quizzical, almost saintly smile, so different from the bombastic tyrant depicted elsewhere. A masterpiece of Egyptian art – and indeed of art itself – that statue today is intact in the Turin museum and not pulverized into filler for a concrete factory wall. It is also indisputable that the three collections amassed by Drovetti during his 26 years in Egypt are among the world's finest. One, bought by Charles X of France, formed the basis of the Louvre's Egyptian wing; another, purchased by one of the first great Egyptologists, Richard Lepsius, is in the Berlin Museum; and the third – and most important – eventually went to Turin.

This last collection, sold in 1823 for the not inconsiderable sum of £13,000 to Carlo Felice of Savoy, then King of Sardinia, was of particular interest to the nascent science of Egyptology. What made it interesting – and what characterizes it to this day – is the consistency, the breadth and the completeness of the collection. As

Professor Silvio Curto, the present director of the Turin Museum, says, the *Museo Egizio di Torino* is a museum, not of an ancient Egyptian art, but of ancient Egyptian civilization.

It is an important point. There are certainly many fine pieces of esthetic distinction in the museum, but the emphasis of the collection is on Egyptian culture as a whole, in all its varied manifestations. The only lack one feels is in significant representation from the brilliant, fascinating Amarna period when religious reforms under the Pharaoh Akhnaten led to a break with established belief and artistic canons.

The Turin museum, of course, did not stop with the Drovetti collection. Although in the turbulence of 19th-century Italy, little time, money, or attention could be spared from the demanding task of establishing a new country, the present century has seen constant, careful expansion. This was achieved partly by purchases and exchanges with other museums, and partly by excavations in Egypt sponsored jointly by the museum and the *Missione Archeologica Italiana*, under the direction of archeologists like Ernesto Schiaparelli, Giulio Farina, Sergio Donadoni and Silvio Curto. In the late 1960's furthermore, the Egyptian government, grateful for Italian financial and archeological help in rescuing monuments threatened by the rising waters of Lake Nasser (See *Aramco World*, July-August, 1976; May-June, 1969) donated to Italy the Nubian temple of Ellesias, erected in the reign of Thutmosis III, around 1450 B.C., and one of the oldest and most interesting of the riverside temples in Nubia.

Among the most interesting finds from museum excavations in Egypt have been those from burials at Heliopolis, Asyut and Gebelein – not rich pharaonic tombs, but the graves of simple landowners and rather minor government officials.
The panoply of grave goods is both touching in its simplicity – the sandals, the light linen shift for summer wear, the wig of Merit, as finely braided as though it had just come from the hairdresser, humble salt and bunches of garlic for meals in the hereafter – and stunning in its richness: the rich gold leaf and lapis and turquoise of coffins, coffin covers and sarcophagi, the unguents from Ethiopia and Lebanon, jewels and alabaster vases and intricately-worked toiletry boxes. One room is covered with wall paintings from the tomb of Iti, a headman and leader of commercial and mining expeditions during the confused years between the Old and Middle Kingdoms, around 2100 B.C. The paintings are crude and provincial, perhaps even old-fashioned, but nonetheless charming in their depiction of Iti's life: Iti with Nubian prisoners, with his hunting dog, with his servants, and marvelous renderings of agricultural scenes: milking the cow; herdsmen separating two fighting bulls; bringing in the harvest to the granary while the scribe notes it all down; slaughtering a bull, perhaps as a sacrifice since one man holds a bowl to collect the bull's blood while another realistically braces himself, one leg against the bull's flank, while he tugs the rope that holds the bull still. Paintings such as these are almost unique in their antiquity and their state of preservation, and they supply us with far more information about how Egyptians actually lived than all the gold and gems of Tutankhamen (See *Aramco World*, May-June, 1977).

There are many objects,

particularly sculptures, in the museum that are of undeniable esthetic importance, but the museum's insistent emphasis is on the historical and cultural impact of the collection. This is particularly obvious in the room devoted to writing and the scribe's métier. The masterpieces of the museum, though not immediately obvious, are in this room – in the papyrus rolls and the chips of limestone called "ostraca" that were used much as sketchbooks and notepads are today. The fragmented papyrus called the Royal Canon of Turin, for example, is an extraordinarily precious document, vital to the understanding of Egyptian and indeed all ancient history. Written down in the 13th century B.C., during the reign of Ramses II, the Royal Canon is nothing more nor less than a list of the kings of Egypt and their regnal years, beginning in the remote and mythical past and continuing down to about the 15th century B.C. From it, it is possible to date ancient Egyptian history, and, through Egypt, the entire history of the ancient Near East – Mesopotamia, Palestine, Syria, and Anatolia.

But there are other unique documents in this room as well. A diagram of an area of the Wadi Hammamat which runs from the Nile Valley to the Red Sea may be the oldest map in existence. Then there are wills and testaments, an account of an attempted coup against royal authority, the record of charges brought against a corrupt priest (theft, rape, perjury, sacrilege, bribery and arson are among his crimes!), stories, poems, architectural drawings and, a remarkable historical document, a record of the strikes that were called by the workmen in the Theban necropolis in the 29th year of the reign of Ramses III. With marches, wildcat walkouts, sit-in demonstrations, it suggests problems acutely familiar to modern workers, management and government.

The overall impression from the museum is a sense of the continuity of Egyptian culture over a period of at least 3,000 years and the persistence of certain beliefs and modes and canons of expression. It is not that Egyptian art and culture were completely static and unchanging: even a total newcomer can feel the difference between, say, the classicism of the Middle Kingdom and the "art nouveau" of the Amarna period. But the fundamental rules were laid down in the earliest times and they changed little over the millennia. In this sense, Egyptian art is perhaps most like Chinese art where, despite stylistic changes, the conventions, again, persisted over thousands of years. This is seen most obviously in the tradition of mummies and funerary masks: the masks of the Old Kingdom evoke the primitive, ancient, closed world of tribal society, hauntingly echoing Egypt's antique origins in Africa. More than 3,000 years later the style has changed, has become in fact portraiture, and the world thus evoked is open, Mediterranean, Greek. The style has changed, that is, but the masks themselves remain, their mysterious purpose unchanged through the millennia.

One problem with modern knowledge of ancient civilization – particularly Egypt, where so few cities, palaces or fortresses remain – is that almost all of it comes from burials. In the end there is a kind of lugubrious quality to all those rows and rows of mummies, particularly when it comes to mummies of cats, fish and ibis. For although not all of ancient Egyptian civilization was caught up in this dreadful anxiety about death and the hereafter, there is a distinct sense of agitation in the lines and lines of hieroglyphs, whether carved in stone or painted on wood or papyrus, an agitation that belies the static nature of the art. A distraught and nervous aviary of symbols, the hieroglyphs go on and on, begging, pleading, imploring the unknown gods to look with favor on the deceased. This is particularly true in a museum like Turin, where the sheer weight of accumulation is so great.

This passionate study of ancient times and other cultures, of course, says something about European civilization as well. It is difficult, for example, to imagine a Department of Saxonology at Cairo University devoted to the study of the habits, language, art and history of the ancient Saxon tribes in the way that Egyptology is studied at Oxford, Harvard and the Sorbonne. And although Egyptology today is pursued with the same rigorous discipline at Cairo as it is in western universities, its origins are really a phenomenon of European imperialism. Future generations, therefore, may well conclude that despite its less attractive aspects 19th century colonialism also illuminated ancient civilizations – not just for Europeans, but for the heirs of those civilizations as well.

Nancy Jenkins, now based in Rome, studied archeology in Beirut.