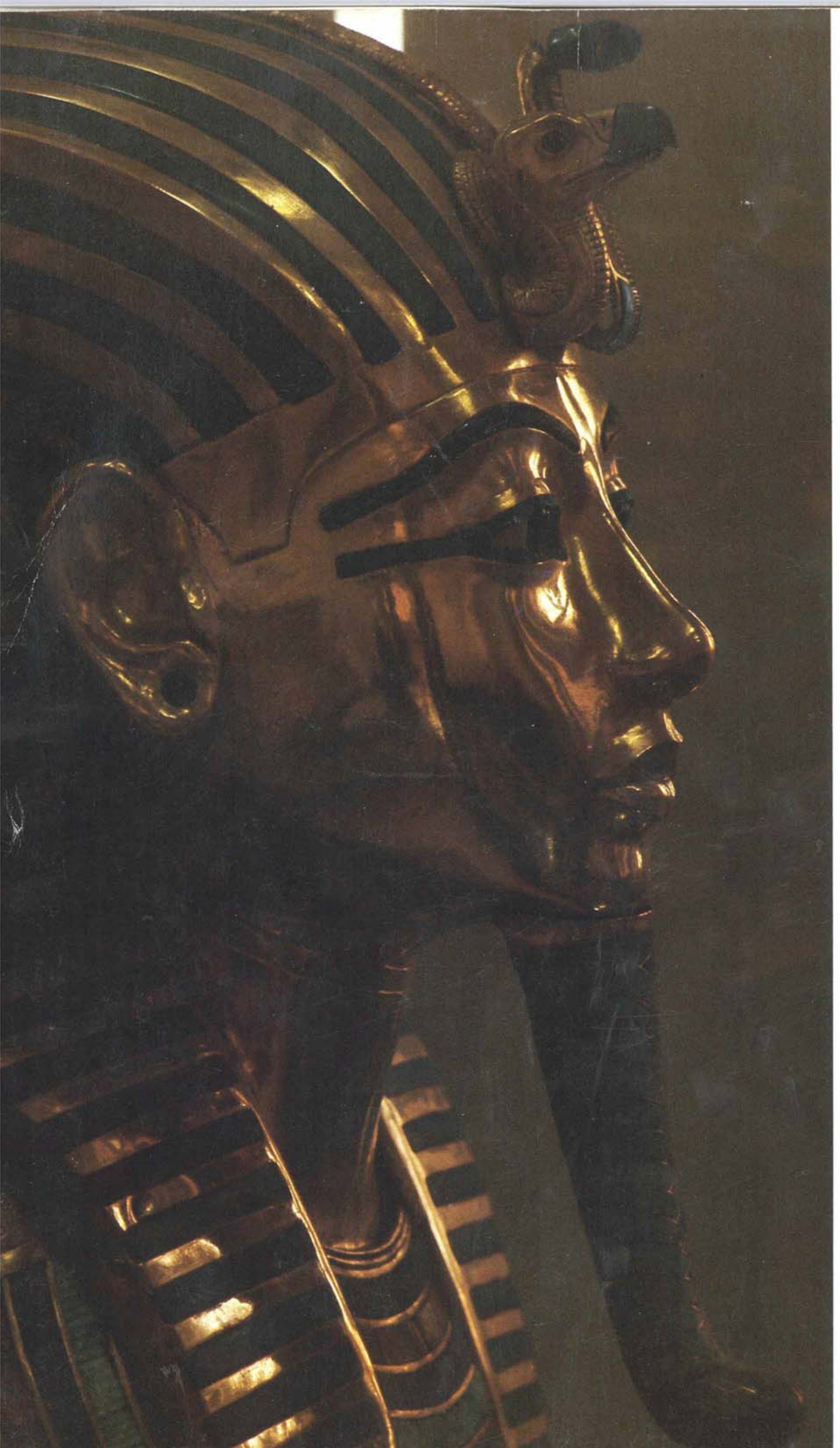

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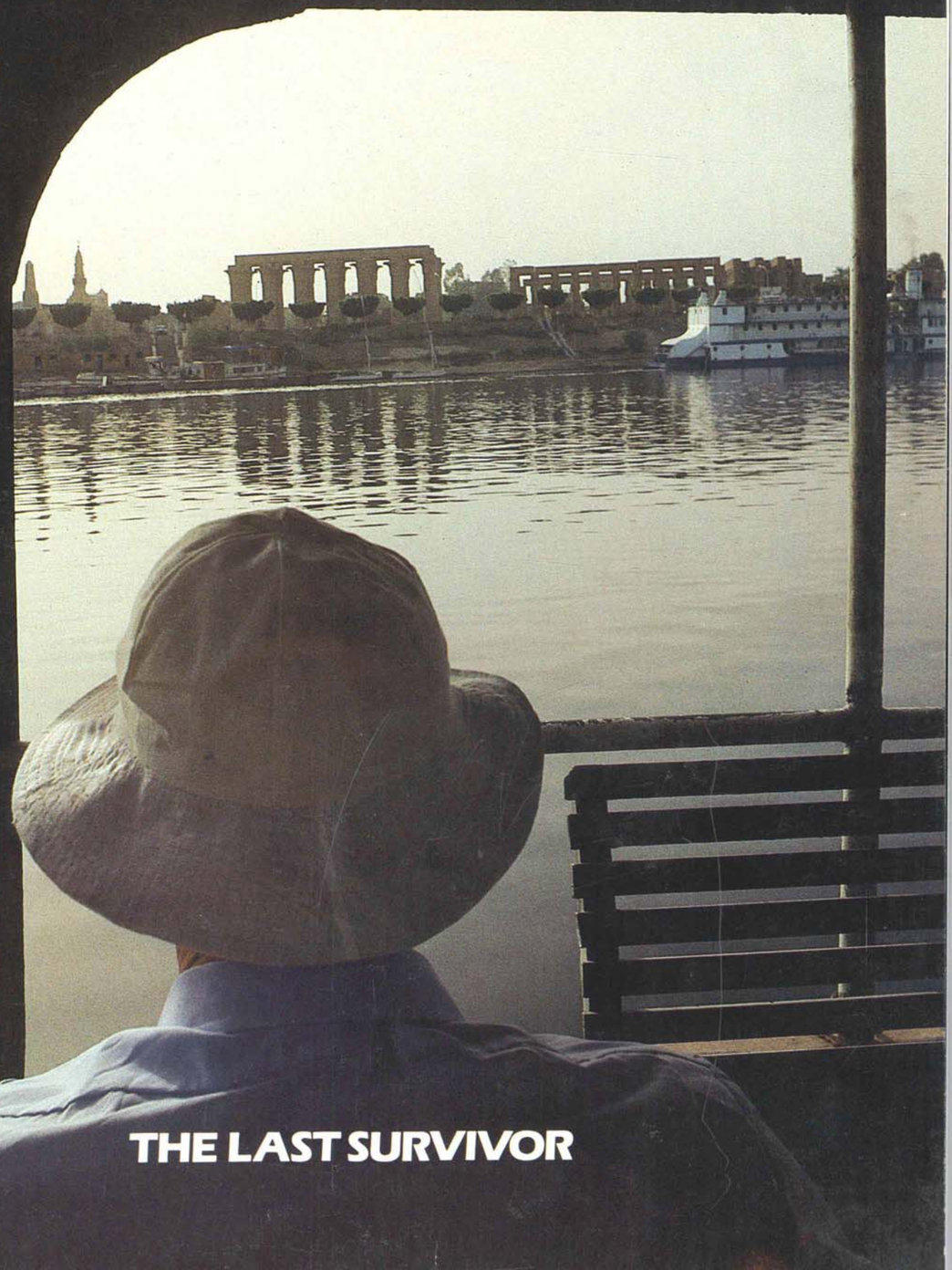

THE LAST SURVIVOR

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VOL. 32 NO. 6 PUBLISHED BI-MONTHLY NOVEMBER-DECEMBER 1981

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Cover: Richard Adamson, last survivor of the expedition that discovered the tomb of King Tutankhamen, crossing the Nile by ferry to revisit the Valley of the Kings at Luxor in Egypt. Adamson, who recently lost both legs, revisited the tomb in a wheel-chair to disprove the "curse" of King Tut, and try to settle the current controversy over whether archeologist Howard Carter broke into the Pharaoh's burial chamber before the official opening. Photograph by Tor Eigeland. Back cover: Gold mask of Tutankhamen. Photograph by Peter Keen.

◀During his return visit to the tomb of King Tutankhamen, Richard Adamson, the last survivor of the expedition that found the tomb, chats with a young Egyptian girl in the Valley of the Kings.

A lovely 14th-century copy of the Koran was one of the outstanding examples assembled by the Freer Gallery of Art for "The Renaissance of Islam: Art of the Mamluks."

IN THE MIDDLE AGES, AN ISLAMIC RENAISSANCE

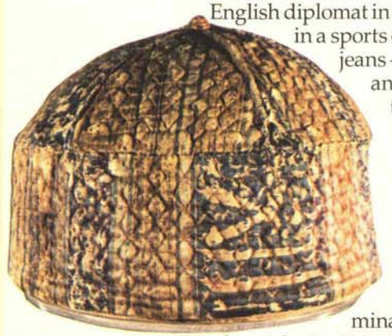
ART OF THE MAMLUKS

WRITTEN BY ELIZABETH G. SIMPSON. PHOTOGRAPHED BY STEVE EARLEY

Outside Washington's National Museum of Natural History last May, a dozen limousines inched to the curb one by one, disgorging a stream of guests – diplomats, curators, art historians, legislators, columnists – beneath a black flag fluttering between the pillars of the building and announcing, in gold letters, why the crowd was there: "The Renaissance of Islam: Art of the Mamluks."

Inside, the crowds dispersed quickly. Some headed straight for the fresh crab and oysters spread out lavishly beneath the curved tusks of a stuffed elephant. Others moved from one cluster of gowned women and black-tied men to another, or stood quietly listening to a musician playing Renaissance music on a lute.

A few though – the serious ones – lingered by the soft-lit cases that cluttered the route to the elephant and the fresh crab. Singly, or in couples, they peered at the intricate geometrics of the pottery, the symmetry of the metalwork and textiles, the calligraphy of the woodwork – an Arab woman in an embroidered abaya, an English diplomat in formal attire, an editor in a sports coat and a blonde in jeans – all, together, adding an international touch to the quiet elegance that prevailed.



Opening night for the Art of the Mamluks exhibition, however, was more than another posh Washington gathering.

It was also the culmination of many years of work by Dr. Esin Atil, curator of Near Eastern Art at the Freer Gallery of Art, and her co-workers: the assembling of outstanding Mamluk objects from national museums in Egypt, Syria, Europe, Canada and America for exhibit throughout the United States, from May 1981 to May 1983, and a symposium designed to examine the art and history of the Mamluks – and an extensive history it was.

The Mamluks ruled Egypt, Syria and Palestine from 1250 to 1517, their frontiers extending from southeastern Anatolia to the Hijaz and including parts of The Sudan and Libya. They controlled trade routes between Europe and the East, accumulated enormous wealth and improved methods of agriculture. Sultan after sultan commissioned ever larger and more magnificent buildings, and more luxurious and impressive *objets d'art*. As in the European Renaissance, this growth stimulated the arts, and although their art does not mark a definite break with the past, manuscripts, metalwork, textiles, glass, pottery and architectural decoration are technically superb. Today, as one consequence, the Mamluks are considered among the greatest patrons of art and architecture in the history of Islam.

At the museum's opening a woman gazes raptly at an exhibit.

Left, above: a 15th-century alabaster panel inlaid with marble and mother of pearl. Left, bottom: an Arabic inscription, circa 1470, carved from ivory, inlaid in wood. Below: a covered bowl crafted in Syria in the 14th century.

If much is known about the Mamluks, however, much remains to be discovered, and for four days, during the opening of the Art of the Mamluks exhibition, scholars of Islamic art and history gathered in the carpeted silence of an auditorium in the National Gallery of Art to hear 20 distinguished speakers from North America, Europe and the Middle East present papers on new developments in the field. They scrutinized old and new material, dissected each speech – during breaks, in small, informal groups – and disputed or defended every theory put forward.

Like the pieces of art brought together for the exhibit, these scholars had come together to share their various specialties and thus piece together the history of the Mamluks. And so they did. From such clues as textiles sewn with gold thread on silk, and the inventories of thousands of gold candlesticks and perfume holders, they reconstructed the social and the economic aspects of Mamluk society, and by the week's end, had shaped a comprehensive picture of Mamluk times.

One of the delights of the exhibition is that much of the evidence for the scholarly conclusions could be seen together for the first time. And in the exhibition room visitors, studying display cabinets rich in oversized copies of the Koran, made it clear that the intricate geometrics and precise calligraphy were appreciated. "It is a delight to see them again," said a man who catalogs manuscripts in London. "We never get our fill of them."

The Koran, revealed to the Prophet Muhammad in the seventh century, is divine revelation, and making copies of it came to be a meritorious and pious exercise. By the Mamluk period, calligraphers and artists had achieved a high level of artistic technique. The artist, or illuminator, decorated the chapter headings, margins and verse-stops with an infinite variety of geometric and floral motifs, while the calligrapher copied the text and chapter headings.

Most of the copies open with a double frontispiece, followed by an illuminated double folio containing the first verses. The concluding double folios are also illuminated, followed by a double finispiece. Koranic passages, spread across two facing pages of the frontispiece, often quote well-known verses from the *Surat al-Waqi'a:*

This is indeed an honored Koran,
In a book that is protected;
None shall touch it save the purified;
It is a revelation from the Lord of the Worlds.

At the exhibition, framed illustrations from secular manuscripts – colorful paintings of people and animals – also won smiles from the visitors. The Mamluks portrayed the human figure in a two-dimensional and decorative manner, with no scuptural form or shading, decorated their books with muted colors and textures and excelled in painting animals; they were particularly interested, for example, in horsemanship, *furussiyya,* and originated new themes in manuals on horsemanship.

One treatise on horsemanship, dated 1366, the *Nihayat al-Su'l wa al-Umniyya fi 'ilm al-furussiyya* – "An End to Questioning and Desiring Concerning the Science of Horsemanship" – includes 12 lessons on horsemanship in warfare. It contains exercises in the use of the bow and arrow, lance, sword, mace and other weapons; military tactics; the formation of armies; ruses employing fire and smoke screens; advice on the division of booty; the practice of augury and the treatment of wounds. Lesson two, for instance, is devoted to the use of the lance – with

The devices in the Automata *were toys meant to amuse the Mamluks. These illustrations depict an ingenious mechanical clock with musicians to mark the time.*

A Mamluk glass bottle with gilded enamel, circa 1300.

illustrations showing how to use it in the chase – and how to use a flaming sword and shield to strike terror into the enemy.

Among the more entertaining books at the exhibit is the *Kitab fi Ma'rifat al-Hiyal al-Handasiyya* — "The Book of the Knowledge of Ingenious Mechanical Devices" – by al-Jazari, copied in 1315, but composed more than 100 years earlier. Commonly known as the *Automata,* this book illustrates the construction of 50 mechanical devices, grouped in six categories, and contains some of the most exquisite examples of Mamluk book illustration.

One category describes 10 drinking vessels, another shows 10 automated ewers and basins for bloodletting or handwashing, and another shows ten clocks. The section on clocks is especially entertaining. "The Clock of the Drummers" shows a timepiece in which, every hour, the discs above the parapet of a castle change color, while a figure on the parapet moves over one notch, an eagle drops a ball into a vase – ringing a chime – and a cluster of musicians plays trumpets, drums and cymbals.

Although the devices illustrated in the *Automata* are princely toys meant to amuse the court, they all embody sound mechanical and hydraulic principles, and working models of them have been made.

In addition to manuscripts, the exhibition also features marvelous examples of Mamluk metalwork, one of the most acclaimed branches of Mamluk art. "The time-consuming detail and extreme intricacy and just the beauty of it are astounding. What concentration they must have had!" says one woman. "Gutsy, but elegant," says someone else. "Very elegant, yet quite strong, exotic," agrees his companion.

Mamluk objects made of metal seem innumerable: candlesticks, lamps, chests to store copies of the Koran, pen boxes, ewers and basins – each alive with decoration: musicians and dancers, drinkers and revelers, warriors and hunters – plus inscriptions and floral motifs and real and imaginary animals, pairing up or hunting prey amid intertwined arabesques.

In the center of the exhibit, a large brass basin made about the year 1300 seemed to

A page from the "Tale of the Horse and the Boar," a very popular animal fable.

From the Automata, *the "Servant's Basin" was a clever device for washing.*

sum up the magnificence of early Mamluk metalwork. Inlaid with silver and gold, the design is carefully composed, representing both the general and specific. Scenes in the medallion depict riders or enthroned figures, while those on the panels show figures, perhaps actual individuals, dressed according to their rank: swordsmen, bowmen, polo masters and servants – all bearing gifts for the ruler. Decorations also include unicorns, leopards, foxes, wild boar, griffins, lions, elephants, gazelles, deer, hares, sphinxes and camels.

In Mamluk metalwork, geometry provides the basis of the design, but occasionally the dominant themes are inscriptions in which sultans and other leaders are praised with phrases such as ". . . defender of the faith . . . warrior of the frontiers . . . champion of Islam . . . victorious . . . triumphant . . . wise . . . learned . . . just."

A society frequently at war, the Mamluks also kept their metalworkers busy making and decorating military gear: helmets, mail shirts, leggings, stockings, boots and spurs as well as swords, daggers, knives, bows and arrows, spears, maces, axes and shields. All of these items were provided with arabesque decoration or inscriptions such as: "Father of the poor and miserable, killer of the unbelievers and the polytheists, reviver of justice among all." Even the military bands needed the metalworkers: to decorate the drums and trumpets and thus add another measure of beauty to ceremonies.

To a large extent, weapons in Mamluk society indicated the rank of the bearer. Swordsmen, for example, were important, followed by bowmen, axemen and mace-bearers. Indeed, metalwork gives scholars a clear picture of social divisions. Objects made for rulers bear honorary and benedictory phrases – "may his glory be victorious" – and so do implements made for anonymous patrons. But the latter are often poorly written, and scholars believe they were mass produced for the middle classes.

Like weapons, textiles reflected rank, the style and color indicating social status, military class and religious affiliation. The sultan wore luxurious silks – with benedictions sewn on with silver and gold thread, along with inscriptions, animals, floral motifs, stars, rosettes and crescents filling vertical and horizontal stripes. But he wore other fabrics too, depending on the season and the occasion. At the beginning of the hunting season, for example, he changed from his summer clothes and distributed wool garments to his court. Different attire, of course, was worn for royal receptions, parades, hunts, polo games and tournaments.

Textiles were also used to decorate mosques, provide tents and saddlecloths – embellished with appliqué – curtains, cushions and banners. They were so popular that Italian and Spanish weavers often copied patterns; indeed, Mamluk textiles – such as striped silks with woven Arabic inscriptions – were frequently copied in the Latin West.

Other categories of Mamluk art – glass, pottery and architecture – are also represented in the exhibition, as well as – surprisingly – carpets. Though very old in Turkey and Iran, the oriental rug was not produced in Egypt until the 15th century, but won instant approval as a form of interior decoration, and eventually became an export. Scholars think this occurred because craftsmen driven out of

DYNASTY OF WARRIORS

BY PAUL LUNDE

The Mamluks — the word means "owned" in Arabic — were originally the trained bodyguards of the Ayyubids, the ruling dynasty of Egypt founded by the great Saladin. They were brought to Egypt from their homelands in Central Asia as young boys, raised as Muslims, and after training in weaponry, horsemanship and tactics, assigned to an elite corps of warriors in the service of the Ayyubid sultans.

As had happened with similar corps of praetorian guards during early Abbasid times, the Mamluks soon realized the strength of their position; in 1250 they rose against the last Ayyubid sultan of Egypt, Turanshah, and seized power.

Eight years later the Mamluks, like the rest of the central Islamic lands, faced extinction when the Mongol hordes captured and burned Baghdad, invaded Syria and headed for Cairo. A confederation of fierce Asiatic tribes, the Mongols had already conquered China and were reputed to be invincible.

The Mamluks, in anticipation of just such an attack, had erected a chain of watchtowers between Iraq and Egypt and had assigned a corps of guards to man the towers around the clock, and, if the Mongols crossed the Euphrates, to light a signal fire to alert the guards in the next tower. They in turn lit their *fire, and in this way the alarm was flashed to Cairo in hours. As a result, the Mamluks, with ample time to mobilize their armies and choose the terrain, inflicted, at 'Ain Jalut in Palestine, the first major defeat on the Mongols.*

For the next 250 years, the Mamluks ruled Egypt, Syria and Palestine and created a strong Islamic state. True defenders of the faith, they offered their protection to the holy cities of Makkah and Medina, commissioned the construction of mosques and other public works, and assumed control of the lucrative Red Sea route to the Far East, thereby amassing tremendous wealth.

As the years passed, each sultan vied with his predecessor in commissioning beautiful mosques and palaces. Nasir al-Din Muhammad, whose three reigns spanned the years 1293 to 1341 — almost half a century — was one of the most ambitious Mamluk patrons of the arts. He built splendid palaces, mosques, and public works, and important officials followed suit, building schools, mausoleums, inns for travelers, fountains, hospitals and mosques. Many of these exquisite buildings may still be seen today, especially in Cairo, the Mamluk capital.

These ambitious building programs brought an abundance of work to artists and craftsmen who excelled in metalwork, ceramics, glass, textiles, and architectural decoration.

In the second half of the 14th century, the Mamluk regime was weakened, first when the Black Death decimated the population, then by the Portuguese discovery of the sea route to India around the Cape of Good Hope. This put an end to the Mamluk monopoly of trade with the East. The Mamluks themselves were no longer the disciplined warriors who had defeated the Mongols. Towards the end of the 15th century, the historian al-Maqrizi reports, the Mamluks were "more larcenous than mice, more destructive than wolves." In January, 1517, the warrior dynasty of the Mamluks was unable to withstand an invasion by the Ottomans, and Egypt fell under Turkish rule.

During the exhibit in Washington, a companion show helped introduce Americans to the Mamluk's artistic legacy.

Iran and Anatolia by Tamerlane took refuge in Egypt.

Mamluk glass is beautiful: brilliant whites, reds, blues, greens, yellows and blacks cast against enameled and gilded glass; medallions bearing lotus blossoms, arabesques, symbols and birds; inscriptions, floral scrolls, flying birds and running animals. As one woman, peering over half glasses, put it: "The iridescence of it and its shape are beautiful. I'm intrigued with the designs on the vases. Every small area is painted."

Mamluk glassware was made for a variety of purposes: ornate serving dishes, enameled and gilded, for sultans and their courts; beakers, elaborately painted; delicately blown glass sprinkles from which cooling rose water or perfume was sprayed on regal brows; transparent or opaque beakers, cups, goblets, flasks, bottles, bowls, basins, vases and lamps – decorated with tooling, thread and colored inlay – for the populace.

All were lovely; artists employed the same creative imagination in decorating glass as they did in metalwork. They made, for example, lamps with high flaring necks and loop handles for use in mosques, with the Verse of Light from the Koran often inscribed on the neck:

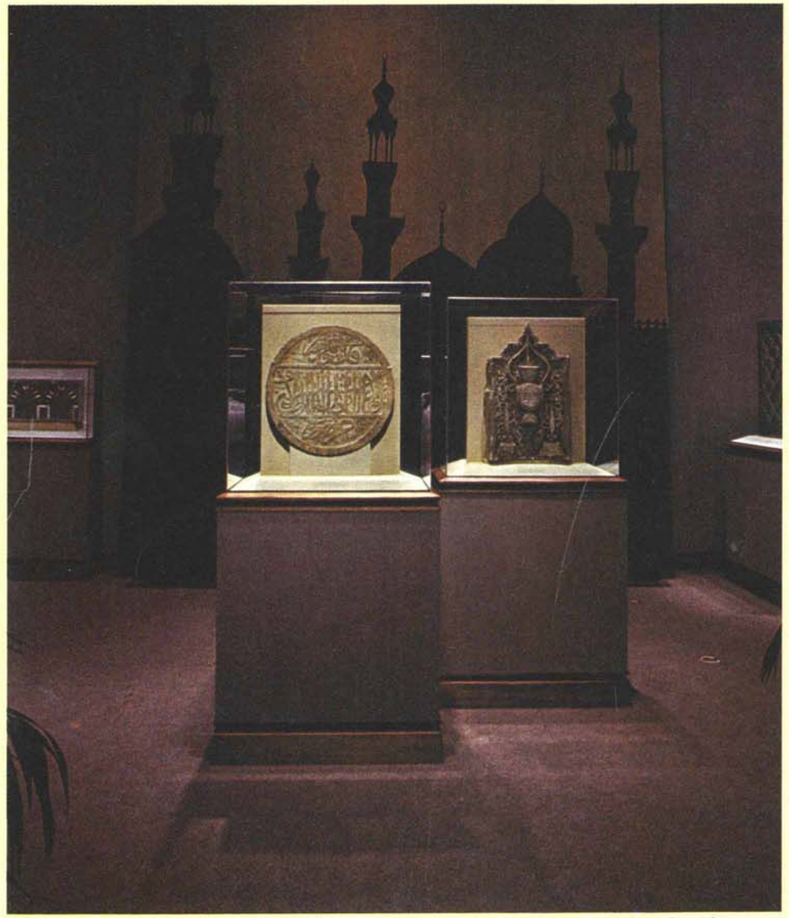
God is the light of the heavens and the earth;
A likeness of His light is like a niche
In which there is a lamp;
The lamp is in a glass;
The glass is as if it were a shining star.

Next there is pottery – sturdy, utilitarian, but impressive nevertheless. "I'm impressed with the variety and richness of the art," said one visitor. "There's a vitality in it, something that communicates with immediacy."

Most Mamluk pottery was for everyday use. Everyone used bowls, vessels, jars and goblets – jars to store oils and spices, pots to store water. But, as with glassware, the artisans of the Mamluk era added more than was necessary: escutcheons, for example, on jars for warriors. Since lustre-painting, under-glazing and slip-painting were common techniques, the decoration is colorful: radiating panels or concentric rings of blues and black against white floral and geometric motifs, and, frequently, animals and figures. At the beginning of the 15th century, imported Chinese porcelain provided exotic floral models for potters: willows, water weeds, fruit-bearing branches, lotus and peony scrolls.

No exhibit, of course, can do justice to architecture – and certainly not to the mosques, hospitals and mausoleums of

Inlaid with silver and gold, this brass basin, crafted around 1300, shows the great skill of Mamluk metalwork.



Mamluk craftsmen were noted for designing elaborate plaques such as these fine examples from the 14th century.

medieval Cairo with their massive stone facades, minarets and domed tomb chambers that produced a skyline still characteristic of Cairo today. But the Mamluk exhibition does capture architectural decoration: scrupulously beautiful wood panels with inlaid ivory, wood grills, stone plaques with epigraphic blazons, marble panels, ivory jars, and the handsome wooden screens called *mashrabiyas* (see *Aramco World* July-August, 1974).

In decorating these architectural accessories, Mamluk craftsmen made use of ivory inlays with arabesques, wishes of good fortune, poetic sentiments and names of patrons inscribed in marble or wood. They also lined pavements and panels with mosaics, and with colored and gilt-glass panels, inlaid with stones and mother-of-pearl.

The Mamluk exhibit, as one scholar put it, "is the cream of what survives." It is, moreover, a tribute not only to the Mamluks, but to Dr. Esin Atil, the woman who painstakingly assembled and brought to the United States the widely dispersed examples of Mamluk art exhibited in Washington.

Dr. Atil, a native of Turkey who earned her doctorate at the University of Michigan, had a particular goal in mind when she began to search public and private collections for examples of Mamluk art. She wanted art that had historical importance, technical and esthetic value – and which represented the entire society. "I didn't want just a feeling of the upper crust, but of the entire society. Art is illustrative of society. It reflects political and economic aspects as well as ambitions and achievements."

Dr. Atil has succeeded. The art exhibition – and its companion show at the Freer Gallery – introduce Americans not only to the beauty of Mamluk art, but to the society as a whole, a society whose craftsmen could infuse basins and banners, lamps and jugs and, perhaps more important, books and bindings, with an artistry and beauty rare in the history of art.

Elizabeth G. Simpson, who now writes for a Texas newspaper, received a degree in journalism from the University of Missouri at Columbia last May.

Back to the Tomb - to prove a point, disprove a curse and renew a controversy...

THE LAST SURVIVOR

WRITTEN BY JOHN LAWTON. PHOTOGRAPHED BY TOR EIGELAND.
EXPEDITION PHOTOGRAPHS COURTESY OF THE ASHMOLEAN MUSEUM, OXFORD UNIVERSITY.
PAINTING COURTESY OF RICHARD ADAMSON.

"If you want my opinion," said Patricia West, a nurse at the home for disabled servicemen, "you're both nuts." By "both" she meant Richard Adamson – last survivor of the expedition that discovered the tomb of King Tutankhamen 59 years ago – and myself.

Mrs. West had a point. For Adamson and I intended to return together to Egypt's Valley of the Kings to defy – and thereby disprove – the legendary "curse" of the exhumed Pharaoh, which has allegedly claimed the lives of 40 people.

As the only survivor of the famous expedition, Richard Adamson would

obviously be tempting fate by returning to the tomb. But there were real hazards to be considered too; Adamson, 80 years old and a diabetic, had recently lost both legs. To go to Luxor he would have to go in a wheelchair.

In addition to defying the "curse," I also hoped that in returning to the tomb after nearly 60 years Adamson might possibly recall some forgotten evidence in the current controversy surrounding the greatest archeological discovery in modern history. Did British archeologist Howard Carter wait for the official opening to enter the burial chamber of Tutankhamen? Or did he, as is now claimed, break in secretly to satisfy his curiosity? And, on the way out, help himself to one or two of the tomb's treasures?

And finally – since 1981 was the United Nations' International Year of Disabled Persons – we hoped to prove that disability did not automatically bar the determined from making even the most difficult of journeys.

RECONSTRUCTION PHOTOGRAPH BY PETER KEEN

The return of the last survivor was the result of a short item in a weekly newspaper in Richmond, England, casually identifying Adamson as the last living survivor of the expedition that found Tutankhamen's tomb in 1922.

I was astounded – and skeptical. Particularly when a perusal of several King Tutankhamen books – including Carter's definitive work – showed no trace of any "Adamson." He was not mentioned in any index. There was not a single photograph.

On the other hand, it was too tempting an item to pass up, so I went to see Adamson – and was quickly persuaded. For one thing, Adamson has given 1,500 lectures on the subject throughout England – and had been the guest of Prince Charles at Buckingham Palace twice – in 1968 and again in 1971 – and once discussed the discovery with the Prince, he says, "from eight in the evening to three a.m." Then there was the fact that one author, Barry Wynne, said that Lady Evelyn – one of those present at the opening of the tomb – had confirmed that she had known Adamson at Luxor. Not to mention his trunkful of clippings, letters and photographs about King Tut.

Mostly though, it was Richard Adamson himself. Though he cheerfully admits that he doesn't seem to exist in any records of the expedition, he insists that he was there. "I was only a policeman after all. But I did guard that tomb for seven years."

So, as soon as we could get an okay from the Royal Star and Garter, the home for disabled servicemen, Richard Adamson, for the second time in his life set off for Egypt with me and Mary Lally, an Irish nurse who, we hoped, would counter the "Curse of Tutankhamen" with the "luck of the Irish."

The son of a Yorkshire tailor, Adamson saw action as an infantryman with the Duke of Wellington's regiment at the Somme, one of the bloodiest battles in the First World War, and later was transferred to Istanbul where the British Empire was supervising what was left of the crumbling Ottoman Empire. There, Lance Corporal Adamson played a small role in history; he arrested Kemal Ataturk, the Turkish army officer who organized the defeat of Allied forces at Gallipoli, and who became the father of modern Turkey.

At the time, Ataturk was simply under suspicion; the British thought he might be fomenting a revolt. When Adamson and his squad spotted him in a car on his way to Istanbul, therefore, they decided to question him. "We stopped his car as he was approaching Istanbul and I asked him to accompany us to headquarters," recalls Adamson. "He was very polite and ordered his followers to hand over their guns. I don't know what happened at headquarters, but they eventually let him go."

By then, however, the British were also facing serious trouble in Egypt and Adamson found himself "volunteering" to join the ranks of the Military Police in Cairo. Three weeks later, wearing the distinctive red capband of the police regiment – and the stripes of a full corporal – he boarded a crowded troop ship and set sail for Port Said.

Adamson's second trip to Egypt could not have been more different: a non-stop, five-hour, British Airways club class London-Cairo flight, on which he was tended to by Mrs. Lally, pampered by smiling airline hostesses, and, in Cairo given the red-carpet treatment by the Hilton hotel: rooms complete with fruit, flowers and a view of the Nile.

At Heathrow Airport, Adamson leaves for Egypt.

Driving into Cairo from the airport, Adamson said it seemed like only yesterday that he had patrolled the city's streets. He easily picked out landmarks, even in the dark, reeled off street names like a Cairo taxi driver, and regaled us with his exploits as a young military policeman 60 years before.

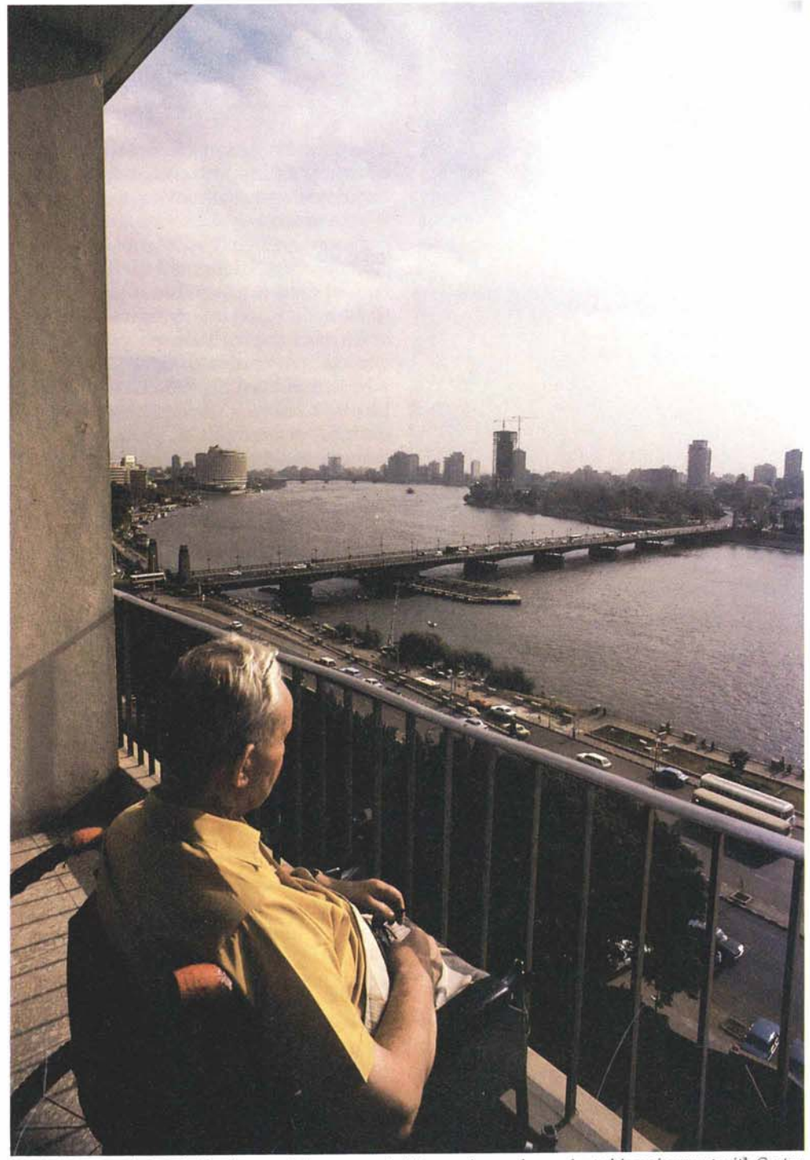
On his first, lone patrol in Cairo, he said, he got lost, and a search party had to be sent out from Bab al-Hadid Barracks to find him. Friday nights, he recalled, were the worst, when British and Indian troops went on a ritual pay-day spree and the entire military police force had to be turned out to control them.

As such rough-and-tumble duties did not appeal to him, Corporal Adamson was more than happy to be transferred to the more sedate atmosphere of the British High Commission, where he met, for the first time, George Edward Stanhope Molyneux Herbert, the fifth Earl of Carnarvon and the wealthy patron of Carter's so-far-fruitless search for the tomb of Tutankhamen – and where he became involved in dangerous "special duties," which eventually led to his assignment with Carnarvon's expedition.

One of these duties was to escort a young Egyptian student named Hassan 'Ali, who was on trial – and later convicted and hanged – for hurling a hand grenade at the prime minister, Nessim Pasha. Later he also served as a bodyguard for Court President General Lawson during the so-called "Cairo Conspiracy Trial" of leaders of the nationalist opposition Wafd Party. That assignment, Adamson recalled, led to his transfer. "Your face is too familiar for your own good," General Lawson said when the trial ended. "I think it would be better if you were posted away from Cairo."

Two days later his name appeared on Regimental Orders to the effect that Corporal Adamson is promoted to the rank of acting sergeant and is to proceed immediately to Luxor and report to Mr. Howard Carter, c/o Lord Carnarvon's expedition, Winter Palace Hotel.

Back then, the trip to Luxor, 400 miles south of Cairo on the east bank of the Nile, was a long train ride. For us it was a fast flight and an uneventful trip except when four helpful Egyptian passers-by spontaneously whisked Adamson, wheelchair and all, right over the hood of a parked car blocking our path. "That wouldn't have happened in England,"



On the balcony of his Cairo hotel room, Adamson recalls his experiences there prior to his assignment with Carter.

gasped a surprised Adamson.

Adamson soon got used to such spontaneity. Although Egypt has none of the special facilities that disabled persons enjoy in the West, there were always plenty of willing hands to hoist Richard up and down steps, through revolving doors, in and out of taxis, on and off planes and boats and, had he wanted it, onto the back of a camel at the Pyramids.

Now and then there were problems. On the Nile ferry there was trouble with the owner when over-eager helpers dismantled a door on the boat to squeeze Adamson's wheelchair through. And we made a less-than-graceful entrance to the Old Winter Palace Hotel at Luxor; we took the freight elevator rather than try the sweeping stone stairs. But to Adamson this was nothing new. When he arrived at the Winter Palace the first time, at the end of October, 1922, his travel-stained soldier's uniform and battered holdall raised so many eyebrows among the wealthy guests that the management quickly hustled him to a "room at the back."

In 1981, however, it was Adamson who was the celebrity and the rest of the guests package tourists, so he got a large suite overlooking the Nile, and that night, sitting in the time-worn bar, he again began to reminisce. "There was a fight in here one night involving Lawrence [of Arabia]. An Egyptian was stabbed, but it was all hushed up. Lawrence was always getting into fights. He couldn't stand losing. Used to cheat at everything. He even cheated Lord Carnarvon at billiards," Adamson said disgustedly.

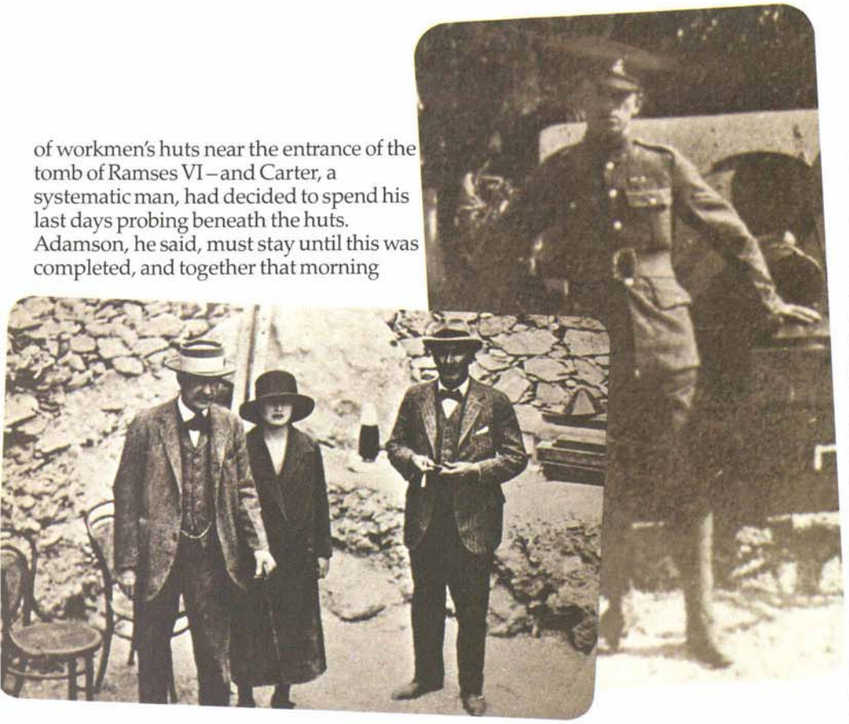
The billiard table has long since disappeared, the manager said, and the whirling roof fans have been replaced by modern air conditioning, but the rest of the hotel, with its high ceilings, marble corridors and floors strewn with oriental carpets, remains basically the same as it was when, the next morning, Sergeant Adamson first met Howard Carter.

Carter was in a somber mood. In six years of searching, the British archeologist had laboriously turned over almost every square meter of the sun-scorched canyon by hand – an estimated 200,000 tons of rubble – and it had been for nothing. "Six full seasons we had excavated there, and season after season had drawn a blank," wrote Carter bitterly in his three-volume account of the discovery. "We had worked for months at a stretch and found nothing, and only an excavator knows how desperately depressing that can be; we had almost made up our minds we were beaten and were preparing to leave."

In fact, Carter said, the reason Sergeant Adamson had been sent to Luxor was to collect and take back to Cairo some surveying equipment the expedition had borrowed from the army. The bulk of their supplies had already been removed; the labor force – bar a six-man clearing up party – had been paid off; and Lord Carnarvon had returned to Highclere Castle, in England, leaving Carter to pack up and, if he had the time, explore one more area.

That area – the only spot in the valley that Carter had not yet investigated – included the foundations of a small group

of workmen's huts near the entrance of the tomb of Ramses VI – and Carter, a systematic man, had decided to spend his last days probing beneath the huts. Adamson, he said, must stay until this was completed, and together that morning



Lord Carnarvon, Lady Evelyn and, right, Carter, outside the tomb. Above, Sergeant Adamson at Gibraltar in 1919.

they left the Winter Palace to go to the valley.

They must have looked an odd pair: a tall young man in military police uniform, and the stocky middle-aged archeologist, who, making no concession to the climate, wore a three-piece suit, a bow-tie and a Homburg hat. They crossed the road to the river bank and descended a rickety wooden catwalk to the quay. Here they boarded a ferry boat and crossed to the west bank of the Nile, where a team of donkeys was waiting at the top of a long flight of stone steps to take them to the Valley of the Kings.

Today, the method of reaching the valley from Luxor remains basically the same – with a few variations for a man in a wheelchair. We avoided the wooden catwalk, for example, by sliding Adamson down the steep sandy bank to the water's edge, myself and two others acting as human brakes. After much argument with the boatman, who wanted to put Richard on the open bow, we managed to get him safely inside. Unfortunately, getting out the other side of the ferry on the west bank of the river proved impossible – until someone wrenched the sliding cabin door right off its rollers, giving us just enough room to squeeze Adamson and his wheelchair through.

The tremendous crash brought an irate boatman running and we had to pay for the door to calm him. Then we carried Adamson up the steps from the quay and, at the top, ran a gauntlet of taxi drivers, each trying to pull the wheelchair towards his own taxi. I resolved the contest by selecting a minibus, and we drove away leaving the drivers scuffling while a policeman tried to restore order.

Soon we left the narrow strip of lush green farmland bordering the Nile, plunging abruptly into barren, bone-dry hills. The still air grew hotter and hotter as we wound our way up a rock-strewn gully that suddenly opened up into a sort of amphitheater hemmed in by towering sandstone cliffs. Here, with the highest peak in the Theban hills standing sentinel – like a natural pyramid above them – 30 pharaohs were buried.

The Valley of the Kings today is neat and orderly, with signposted pathways leading to the different tombs, and an air-conditioned rest house, where visitors can escape the oven-like heat, but when Sergeant Adamson first arrived in 1922 it was quite different. It was, Adamson said, a scene of desolation, littered with piles of excavated debris and with no shelter from the scorching sun save two small tents and a larger marquee.

"You will sleep here," Carter had told Adamson, ducking under the rolled-up flaps of the marquee. There were rush mats on the floor, two stretcher-like cots and a trestle table. "What about food?" gasped the astonished young sergeant, who had assumed he would be staying in Luxor. "I'll have some sent up to you," was Carter's curt reply, leaving Adamson wondering whether he wouldn't prefer the risks of Cairo. His first impulse, he said, was to start walking back to Cairo.

Later, though, he relaxed and began to question Carter about his search of the valley. "Have you worked here long, sir?" Adamson asked. "On and off for 20 years," was the matter-of-fact reply.

He had come to Egypt, Carter went on, when he was 17, the most junior member of the Egyptian Exploration Fund, a private organization linked to the British Museum. A water-colorist, his job was to record the paintings, reliefs and inscriptions in the funerary temple of Queen Hatshepsut. Despite his lack of formal schooling, Carter learned archeology and Egyptology quickly, and at the age of 25 was appointed inspector of the monuments in Upper Egypt, with headquarters in Luxor.

Ever since his arrival in Egypt in 1890, it had been Carter's ambition to dig in the Valley of the Kings. But it was not until 1914 that Lord Carnarvon, for whom he was then working, received the long-awaited authorization from the Egyptian Antiquities Department. Though previous expeditions, including one sent by Napoleon, had already combed the valley, Carter was not convinced that it had given up all its secrets; no one, he pointed out, had yet found the tomb of Tutankhamen, the boy king, who reigned from approximately 1334 to 1325 B.C. and died at the age of 18 under mysterious circumstances.

This was not blind faith, Carter said. Three pieces of evidence – all unearthed at the beginning of the century by American archeologist Theodore Davis – indicated that the tomb was somewhere in the valley. One was a faience cup bearing the name of Tutankhamen that Davis found under a rock; another was a cache of large jars containing what Davis dismissed as "rubbish," but which later proved to be remnants of the Pharaoh's funeral feast; and the third was a small pit tomb containing fragments of gold foil bearing the name of Tutankhamen. On that basis, Davis claimed he had actually found the missing Pharaoh's tomb, but Carter, considering the pit tomb "ludicrously inadequate" for a king's burial, stubbornly insisted that Tut's tomb was still to be found.

"Like to see inside one of the tombs?" Carter asked his unwilling guest as they finished off their packed lunch. "Very well, sir," was the grudging reply. Taking the torch that the archeologist handed him, Sergeant Adamson followed Carter down a long, straight passage into the bowels of the earth. It was, Carter said, the tomb of Ramses VI.

To the ancient Egyptian, Carter explained, it was a matter of vital importance that his body should rest inviolate in the place constructed for it. It was also essential to a mummy's well-being that it should be fully provisioned for every need. But the very magnificence of the monuments and outfits with which the kings provided themselves for their "after life" were their undoing, and within a few generations at most the mummies were disturbed and their treasures stolen.

The early pharaohs tried hard to thwart tomb robbers; they built huge mountains of stone over their tombs to protect them, plugged the entrances with huge granite monoliths, constructed false passages and contrived secret doors. But in every case the tomb robbers surmounted the difficulties set to baffle them, and by the beginning of the 18th dynasty there was hardly a pharaoh's tomb in the whole of Egypt that had not been rifled.

The pharaohs then decided to place all royal tombs within a very restricted area where maximum security could be provided; 30 kings of the 18th and 19th dynasties were buried in a desolate, steep-sided canyon on the west bank of the Nile opposite Luxor, once the ancient pharaonic capital of Thebes.

For a time the mummies remained relatively secure, but then under the feeble monarchs of the 20th dynasty, cemetery guardians became lax and corrupt, and again wholesale looting of the tombs took place.

Throughout those troubled times, however, there was no mention of Tutankhamen and his tomb – which was why Carter believed that not only was it still there, but, more important, was still intact. "Strange sights The Valley must have seen, and desperate the ventures that took place in it," wrote Carter. "One can image the plotting for days beforehand, the secret rendezvous on the cliff by night, the bribing or drugging of the cemetery guards, and then the desperate burrowing in the dark, the scramble through a small hole into the burial-chamber, the hectic search by a glimmering light for treasure that was portable, and the return home at dawn laden with booty."

Ironically, that scene is a scene strangely similar to the one that Carter, long considered the most reputable of archeologists, now stands accused of taking part in himself – in another book on the famous discovery: *Tutankhamen: The Untold Story* by Thomas Hoving, former head of the Metropolitan Museum in New York.

The famous hidden steps, which led them to the tomb.

Hoving's book adds still another version to a long list of King Tut accounts. According to Sergeant Adamson, for example, the King Tut drama began to unfold during the afternoon of November 3, 1922. Having resigned himself to his enforced stay in the valley, and inspired, somewhat, by Carter's stories of tomb robbers and treasure, the young sergeant decided to explore his new surroundings. He was making his way along a narrow path 30 feet above where Carter's Egyptian workmen were clearing away the foundations of the laborers' huts, when suddenly he heard a shout.

Attracted by the buzz of excitement, Adamson picked his way down the steep slope to where the Egyptians had unearthed several large boulders. But seeing no reason to get excited over a few boulders, the young soldier went back to his tent and the workmen covered them up.

The next morning, though, when Carter arrived and found his men not working, he asked Adamson what had happened. "Nothing, sir," replied the sergeant, "They did find some boulders but then they covered them up." On hearing this, Carter ordered them to uncover the boulders again and found, beside one of them, a large stone step. Looking back, Adamson now says: "The workmen knew they had found something. They also knew Carter was leaving and that they could come back and claim the credit themselves."

Carter's own record makes no mention of this. "Hardly had I arrived next morning (November 4)," he wrote, "than the unusual silence, due to the stoppage of the work, made me realize that something out of the ordinary had happened, and I was greeted by the announcement that a step cut in the rock had been discovered underneath the very first hut to be attacked. The manner of cutting was that of the sunken stairway entrance so common in The Valley, and I almost dared hope that we had found our tomb at last."

Yet another version is given by Hoving in *Tutankhamen: The Untold Story.* Quoting Lee Keedick, who organized Carter's subsequent lecture tour of the United States, Hoving says a small boy, whose job it was to carry water for the workmen, discovered the step while playing in the sand, covered it up again so the others would not see it and ran, as fast as his legs would carry him, to tell Carter what he had found.

All the versions, however, agree that from that moment on, excavation proceeded at a feverish pace, and that, as basket after basket of rubble poured out of the pit, more steps were disclosed. Even Sergeant Adamson found himself picking up a shovel to prevent sand from falling back into the hole, and that night, on Carter's instructions, he did his first guard duty over the tomb. Little did he know as he sat out the night on the steps that it was to be his job for the next seven years.

Work progressed even more rapidly next day, and towards sunset, at the level of the 12th step, the top of a sealed doorway was revealed. At this point Carter ordered his workmen to refill the stairway and roll the flint boulders back into place, until he could recall Lord Carnarvon to Luxor. "Had he dug a little further," says Adamson, "Carter would have saved himself three weeks of uncertainty, for a few inches below where he had stopped digging was a perfect impression of the seal of Tutankhamen" – the king he most wanted to find.

On November 6 Carter sent Lord Carnarvon the following telegram: "At last have made wonderful discovery in The Valley; a magnificent tomb…; re-covered same for your arrival; congratulations."

In England, Carter's cable was opened by Lord Carnarvon's daughter, Lady Evelyn Herbert, who, later, was to tell Adamson of her serious misgivings over her father's return to Egypt. According to Adamson's recollection, Lady Evelyn said that Lord Carnarvon, a believer in spiritualism, was with a medium when Carter's telegram arrived and, when he returned home, went straight to his bedroom, without reading the cable or even saying goodnight. Anxious to discover the cause of his unusual behavior, Lady Evelyn spoke to the medium, who told her that "the spirits" had warned Carnarvon never to return to Egypt.

Despite this warning, Lord Carnarvon – when he read Carter's cable next day – insisted on returning as soon as possible to Luxor. Lady Evelyn in turn, insisted on going with him and on November 23 they arrived in the valley and excavation of the tomb was immediately resumed.

By the afternoon of the 24th, the entire staircase, 16 steps in all, had been cleared, allowing them to examine the sealed doorway. They were elated at finding the seal of Tutankhamen, but their hopes were quickly dampened by the discovery that the door had been penetrated twice – apparently by tomb robbers – and re-sealed.

Finally, though, on the morning of the 25th, they removed the door, and saw before them a narrow passageway filled with rubble and, more evidence that the tomb had been plundered, broken jars and vases and numerous fragments of smaller articles. That in itself was exciting, but on the afternoon of the 26th, at the end of the 30-foot passage, they found a second doorway – once again with clear signs of opening and re-closing – and Lord Carnarvon, says Adamson, could not contain his excitement.

Lord Carnarvon had taken up "digging" during enforced winters in Egypt – prescribed by his doctor following a serious motoring accident – and had later become addicted to archeology; eventually he spent the equivalent of $500,000 on the search for Tutankhamen. He was not, however, a professional like Howard Carter, who outwardly, at least, stayed calm and meticulously collected and recorded each of the delicate fragments found in the passage. Instead, Adamson said, he became increasingly excited, as, at last, they were ready to breach the second door.

It was, of course, a highly dramatic moment; behind that door lay the answer to all their questions. Slowly and carefully, Carter made a hole in the upper left hand corner of the door and peered through.

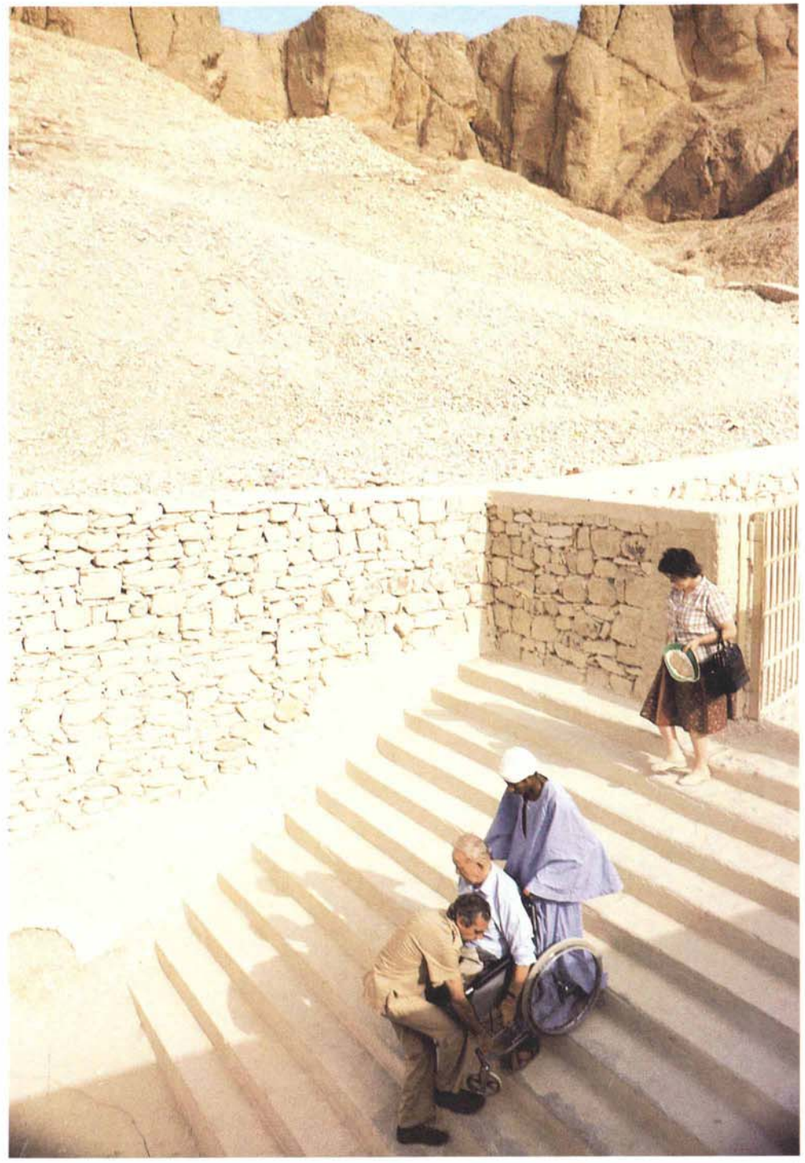
"At first," says Carter, "I could see nothing, but presently, as my eyes became accustomed to the light, details of the room emerged slowly from the mists, strange animals, statues, and gold – everywhere the glint of gold. I was struck dumb with amazement, and when Lord Carnarvon, unable to stand the suspense any longer, inquired anxiously, 'Can you see anything?' it was all I could do to get out the words, 'Yes, wonderful things'."

Probing the chamber again with his flashlight, Carter picked out yet another sealed doorway on the right hand wall flanked by two sentinel statues. "The explanation," wrote Carter, "slowly dawned upon us. What we saw was merely an antechamber. Behind the guarded door were other chambers. We were but on the threshold of our discovery."

Finally, their minds reeling from what they had seen, they re-closed the hole, locked the wooden grille that had been placed over the first doorway, and rode back to Luxor – leaving Sergeant Adamson to guard what we now know were priceless treasures, and wondering what was behind the third door. Had the tomb robbers succeeded in opening the third door too? If so, what were their chances of finding the king's mummy intact? "I think," wrote Carter later, "we slept but little, all of us, that night."

Which is probably true. But not, according to Thomas Hoving, for the reasons Carter gave. "Their lack of sleep had nothing to do with these questions, for they had already obtained the answer to most of them. Carter's published account of his first examination of the antechamber and its contents is highly deceiving – it is a lie."

If they "slept but little…that night," alleges Hoving, it was because they "…spent practically the whole of it physically inside the tomb, penetrating even into the Burial Chamber, moving objects around, and disguising their entry…" Quoting unpublished materials in the Egyptian Department of the Metropolitan Museum of Art, Hoving says that rather than re-sealing the peephole, Carter enlarged it so that first Lady Evelyn, the smallest in the party, then Lord Carnarvon and Carter, and finally Carter's American assistant, Pecky Callender, could squeeze through.



Returning after nearly 60 years, Adamson, with nurse Lally in background, is helped down the steps to the tomb.

The four intruders, says Hoving, "darted from one treasure to the next like scavengers…dimly realizing how close to the feeling of the ancient thieves were their emotions," and "feeling that they should keep looking over their shoulders, lest they be caught." Carter, Hoving goes on, was dismayed to discover that the third sealed door had also been penetrated, and was consumed by the desire to find out if the burial chamber, which he assumed lay beyond, had been plundered. Prying loose some of the stone blocks that had been used to re-seal the doorway, Carter, followed by Lord Carnarvon and Lady Evelyn, squeezed through. Before them stood the doors of a great blue-and-gold shrine, bolted but not sealed.

Carter drew back the two ebony bolts and the great doors swung open, revealing the doors of yet another shrine. To Carter's great relief, the seals of the inner shrine were not broken, indicating that at this stage the cemetery guards had discovered the tomb robbers and the king had not been disturbed. Their curiosity satisfied, the intruders withdrew, re-closing their entry holes behind them. They took with them, says Hoving, a magnificent perfume box Carter found between the first and second shrines, and a beautiful alabaster chalice from the antechamber.

Because Hoving was head of one of the world's greatest museums, and because he seems to have documented everything, his views would seem to be beyond dispute. Nevertheless, Adamson totally disagrees.

"Impossible," says Adamson. "They could not have spent the whole night in the tomb without me knowing it. I slept at the top of the steps all night. Anybody going in or out would have had to have stepped right over me." And as for breaking into the burial chamber, Adamson says, they could never have reached it without first moving hundreds of objects crammed into the antechamber. "You couldn't move a step in there," he insists.

Indeed, Adamson, normally a pleasant, easy-going man, was visibly angry at the suggestion that Carter took the perfume box and the chalice. "I was the only person to stay with Carter during the entire period of excavation. He was abrupt and liable to be quarrelsome. But he was the most correct man I ever knew. It was lucky for the world that it was Carter who discovered the tomb; if someone else had found it things would have been different. He always said to me: 'These treasures belong to Egypt and should stay in Egypt.'"

Author, left, eases Adamson down steps to the tomb.

On the other hand, still *another* source – Lord Carnarvon's half-brother Mervyn Herbert – says the earl and his daughter *did* enter the burial chamber before its official opening on February 16, 1923.

In his diary, which is available at the Ashmolean Museum of the Oxford University Library, Herbert says that while driving to the opening ceremony "Porch (Lord Carnarvon's family nickname)… whispered something to Evelyn and told her to tell me. This she did, under the strictest promise of secrecy. Here is the secret. They had both already been into the second chamber! After the discovery they had not been able to resist it – they had made a small hole in the wall (which afterwards they filled up again) and climbed through. The only others who know anything about it are the workmen." In describing Lord Carnarvon's reactions – in front of Egyptian officials and prominent archeologists at the official opening – Herbert added: "Porch, poor old fellow was nervous, like a naughty schoolboy, fearing that they would discover a hole had already been made."

Hoving, apparently, overlooked Herbert's disclosures; in the introduction to his book, published in 1978, Hoving says that "in all the accounts (of the discovery) published up to now" the facts of the break were omitted. Actually the extracts were disclosed in 1972, six years earlier, by a British author named Barry Wynne, in a book entitled *Behind the Mask of Tutankhamen* – in which Adamson collaborated with Wynne and attempted to verify it. He says he sent a copy of her alleged confession to Lady Evelyn asking for her comments. She replied: "Having read the enclosed very carefully, I have no recollection at all of this incident happening."

To complicate it still further, my research turned up information that does not fit *any* of those versions. No one – not Hoving, not Carter, not Lady Evelyn in her letter, nor Herbert in his diary – mentioned that the *Times* once ran an article by Lord Carnarvon himself openly admitting that Carnarvon, Carter and Lady Evelyn entered the ante-chamber – but not the burial chamber – on the night of the discovery.

In that article – published December 11, two weeks after the discovery – Lord Carnarvon describes their first view of the treasures through the peephole and then goes on to say, "we enlarged the hole and Mr. Carter managed to scramble in." After enlarging the hole still further, he says, "we went into the ante-chamber to examine the treasures more closely." But, he adds, they resisted the urge to break down the "tantalizing wall" leading to the burial chamber because "it would have been harmful and almost impossible to do before clearing the first room of its contents and we must possess our souls in patience until this is done."

So what *did* happen?

Richard Adamson, the only survivor of those who were there, insists that Carter was *not* involved but Dr. I. E. Edwards, former Head of the Egyptian antiquities department at the British Museum, tends to go along with the version written by Lord Carnarvon and published in the *Times* – on the grounds that it would be logical behavior on making such a discovery. He also said he thinks it "likely" that Carter would have at least poked his head into the burial chamber simply to ascertain that there would be something to show the Cairo officials if they came, but at this distance, it is impossible to determine precisely what did happen in what sequence.

And does it really matter?

After all, it was Carter who found, and preserved for Egypt some 5,000 priceless items found in the tomb, including the 22-pound gold mask, countless other statues, chalices, earrings and necklaces, and of course, the coffin: 2,448 pounds of pure gold worth, at 1981 prices, more than $13 million. Could he – and Lord Carnarvon, who put up $500,000 of his own money to finance the search – really be excited by one small chalice and a tiny box?

Furthermore – though this has been overlooked – Lord Carnarvon and Carter had a perfect right to enter the tomb. As Foreign Office records show, articles of the "authorization to excavate," an agreement between the Director General of antiquity services and Lord Carnarvon signed on April 18, 1915, unequivocally gives them that right: "To the permittee himself [Carnarvon] shall be reserved the privilege of opening the tomb or monument discovered and of being the first to enter therein."

Left: the mummy in its gold coffin and mask. Center, above: some of the hundreds of objects that cluttered the ante-chamber. Center, below: Lord Carnarvon and Howard Carter breaking into the burial chamber at the official opening. Right: a watercolor painted in 1923 by D. MacPherson for The Sphere *from Carter's description and photographs.*

In any case, Lord Carnarvon didn't live long enough to enjoy their triumph; in March, just four months later, he was bitten by a mosquito as he left the tomb and the next day, while shaving, nicked the bite with his razor. As a result, the infection spread, blood poisoning set in, followed by pulmonary pneumonia of which, on April 6, 1923, in Cairo, he died.

In the 1920's, of course, death from pneumonia was common. Nevertheless, newspapers around the world began to attribute Lord Carnarvon's death to a "curse" from the tomb when, it was reported, all the lights in Cairo went out and Lord Carnarvon's pet terrier suddenly howled, rolled over and died at Highclere Castle in England 4,000 miles away – both at the same moment that Lord Carnarvon died.

Not everyone accepted the story of the curse, but Sir Arthur Conan Doyle, acclaimed creator of Sherlock Holmes, did – publicly. And even skeptics began to wonder when an investigation showed that there *had* been an unexplained power failure in Cairo that night.

Around the world, as a result, fear spread swiftly. In England hundreds of people packed up antiquities and souvenirs from Egypt and sent them to the British Museum, and in the United States several politicians went so far as to demand an investigation of mummies in various museums to determine whether they presented any medical danger to the public.

In 1930, the "curse" hit the headlines again when Lord Westbury committed suicide following the sudden death of his son, Richard – who had served as Carter's secretary during the opening of the tomb – and when a young boy was run over and killed by Lord Westbury's hearse enroute to the cemetery.

The story was revived still again when two archeologists, one from the Louvre, the other from the Metropolitan, both died – reportedly right after visiting the tomb. In 1967 the press trotted it out still again when the man who had signed the contracts to send King Tut exhibits to Paris was hit by a car and died – as the treasures were being packed – and when a leading antiquarian was killed just after leaving the exhibit. In 1972 Dr. Gamal Mehrez, director of the Egyptian Antiquities Department, suffered a cerebral hemorrhage as the Tut treasures were being packed for an exhibition in London.

In all, some 40 deaths have been attributed to the "curse of Tutankhamen," and as we struggled to get Adamson and his wheelchair down the steps to Tut's tomb I couldn't help thinking it was an ideal time for the pharaoh to strike again. The steps and the passageway plunge at a 45-degree angle into the earth and with only two of us able to get a proper grip on the chair, one slip that day and Adamson could have hurtled down the whole flight.

Adamson, however, was not perturbed. "The curse," he says, "is absolute rubbish."

According to Adamson, the story of the curse started when a British newspaper reported that a curse – on all who entered – had been found inscribed on the entrance to the tomb. In fact, says Adamson, although curses were inscribed on some Egyptian tombs to deter thieves, none whatsoever was found in that of Tutankhamen. But Carter decided not to deny the newspaper report, says Adamson, because, as Carter put it: "It will do wonders for security if this thing gets around."

Furthermore, Adamson says, of the 40 people said to have been killed by the curse, many of them had never been in Egypt at all and only seven had anything to do with the excavation. There was, for example, Colonel Aubrey Herbert, who never visited the tomb, but was confused with his brother Mervyn (author of the apparently incriminating diary). Then there was the workman in the British Museum, said to have fallen dead while labeling objects from the tomb, when, in fact, the museum had no such objects in its collection.

Adamson, also revisited the Cairo Museum exhibits.

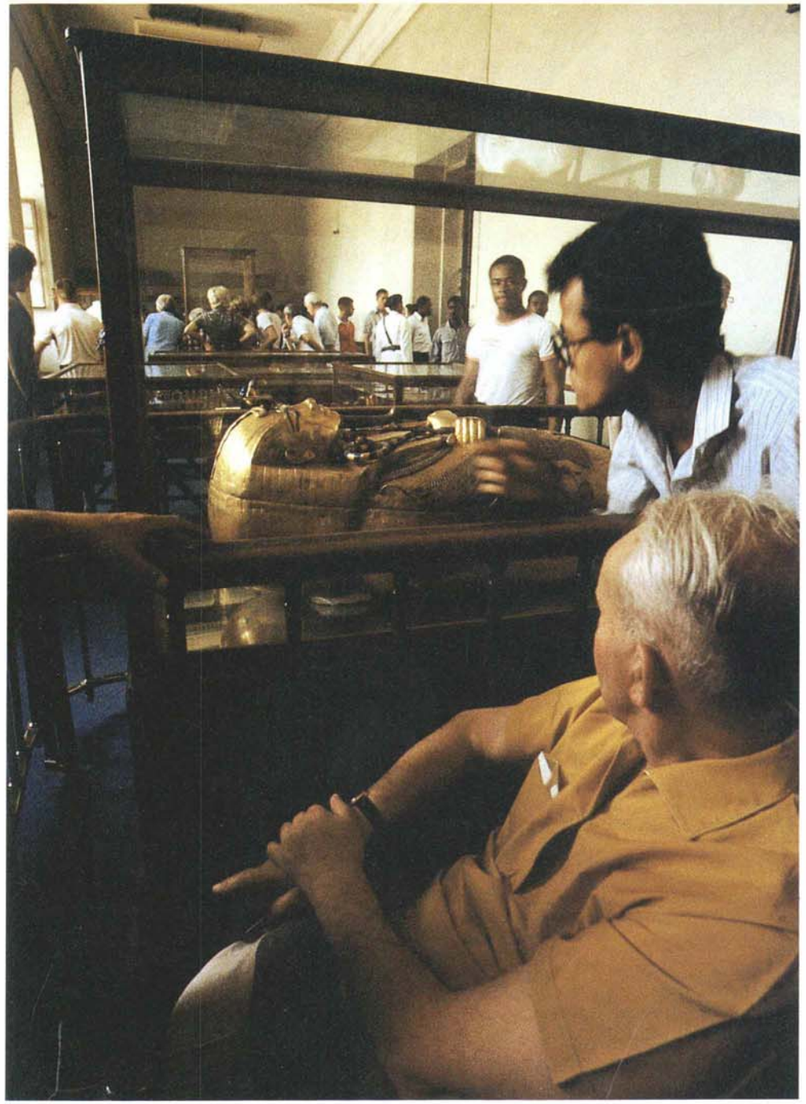
Certainly Tutankhamen took no revenge on Howard Carter, who died in 1939 of natural causes at the age of 66, or on Lady Evelyn Herbert, who lived, until 1980, to the ripe old age of 82, or, for that matter, Adamson himself.

But what of Adamson? Couldn't the loss of his legs be due to the curse? "I lost them," the old soldier says categorically, "through the curse of war, and no other curse." His doctors confirm that he had to have his legs amputated in the mid-seventies because of damage caused to his arteries by gas poisoning in the First World War – before he ever went to Egypt.

Despite his disability, Adamson remains irrepressibly cheerful and not at all self-conscious. In Egypt he amused himself by asking startled shoe-shine boys for a shine, and enroute cracked up the cabin crew by demanding a pair of in-flight slippers like everybody else. Only once during our trip did he get even slightly ruffled: when over-zealous ground staff at Cairo airport tried to put him on a stretcher to carry him off the plane. "I don't need that damn thing yet," he exploded.

That certainly seemed true. Although confined to a wheelchair, Adamson, at the time we began to discuss the discovery, was traveling all over Britain giving lectures on Tutankhamen – and donating the fees to the Royal Star and Garter Home.

As a consequence, Adamson has achieved a degree of fame. When word got around the Old Winter Palace Hotel at Luxor, he was inundated by questions from fellow guests, and one Italian tour group, who recognized him from a recent appearance on Italian television, asked him to tell them of his experiences.



At the museum, Adamson takes one last look at the famous coffin which he helped guard for seven years.

In his talks, Adamson tells how, following the discovery of the tomb, he was seconded by the army to the expedition as security officer, a job he held until 1930 when the last of the 5,000 treasures had been removed from the tomb and shipped to Cairo. For almost seven years, he says, he patrolled the area – unobtrusively dressed in ordinary clothes, his revolver hidden, an umbrella on his shoulder to ward off the sun – and slept each night in the tomb itself along with the mummified pharaoh.

Was he ever frightened? "Not really, but it was a little creepy down there." Particularly disconcerting, he says, were the two life-sized statues that stood guard, one on each side of the door to the burial chamber. Carter told him that these were the Royal Kas, refuge for the pharaoh's soul during mummification and within which, it was believed, the pharaoh still lived. "I'd have got a right fright," says Adamson, "if I had woken up one night and found the blighters bending over me."

When the antechamber had been cleared, Sergeant Adamson moved his army camp bed into the burial chamber, sleeping right next to Tutankhamen's priceless coffin.

Adamson, by then, was not alone. The Government Antiquities Guard and a detachment of Egyptian soldiers watched the valley around the clock, and Sergeant Adamson, locked in the tomb, could throw a switch by his bed and activate a flashing red light above ground in case of emergency.

It was lonely, of course, but Adamson whiled away his vigil by playing opera records on an old gramophone that Carter had provided. The operas, he said, also served another purpose. "The scratchy strains of music coming from the tomb were enough to scare off any robbers."

Returning to his past last April, after nearly 60 years, was a visibly moving experience for the old soldier. At first, he was confused by the changes made in the meantime – the dividing wall between the antechamber and burial chamber has been removed and replaced by a railed platform – but soon got his bearings. "Right there," he said, pointing to the space between the giant quartzite sarcophagus and the wall of the burial chamber, "that's where I had my bed." And for a few moments he sat there in the narrow passage, lost in thought, his head bowed, his eyes half closed and saying nothing.

Unfortunately, King Tutankhamen's tomb is one of the great tourist attractions in Egypt and so, unaware of what was happening, backed-up crowds behind him began to protest the delay. As a result, Adamson, the last survivor of an expedition that spent 15 years finding and excavating the tomb, was allowed less than five minutes in it. Adamson, however, did not complain. "I never dreamed," he said, "that I would ever come back again for even such a brief visit. Thank you very much for bringing me."

I didn't complain either. We *had* proved that it was possible for a disabled person to make a singularly difficult trip without excessive difficulty. We *had* defied the "curse" of Tutankhamen and it *did* appear, as Adamson had said, to be "rubbish." And though we hadn't conclusively proven why and under what circumstances the tomb was entered, we didn't, at the end, mind at all. Somehow, in the dim interior of the tomb, it no longer seemed to matter.

John Lawton is a regular contributor to Aramco World.

IN THE COLORS, A WARNING...

A FLYING TIGER

WRITTEN AND PHOTOGRAPHED BY TORBEN B. LARSEN

Despite its name, the Milkweed Butterfly – *(Danaus chrysippus)* is no milksop. Its other name, in fact, is closer to the truth: the Plain Tiger. This butterfly, though by no means plain, is certainly a killer.

Closely related to the North American Monarch Butterfly, but common to Saudi Arabia, the Milkweed Butterfly is a rich, honey brown color, with jet black tips on the forewings slashed by a prominent white bar – an outfit so bright that coupled with a slow and provocative pattern of flight, it would seem to be wide open to attack from birds.

In fact though, the bright colors are a warning, and the slow provocative flight is designed to make *sure* that birds see the colors. Because to a bird, making a meal of a Milkweed is dangerous and the Milkweed wants the bird to know that; it's the Milkweed's chief defense. The caterpillar of the Plain Tiger, you see, lives on Milkweed plants of the family *Asclepiadaceae,* all of which contain some powerful poisons and the poisons are retained in the body of the adult butterfly. Thus birds stupid enough to eat a "flying tiger" would become seriously ill – and might even die.

Birds, of course, aren't born knowing that and so, scientists think, they have to be taught by their parents. But even if they are not taught, they can learn. I have seen birds catch a Milkweed, release it immediately and then spend considerable time brushing off their beaks on the grass – showing every sign of extreme distaste.

The female Diadem is exact copy of the Plain Tigers (above).

Experiments, moreover, have shown that captive birds quickly learn to avoid eating Plain Tigers and somehow pass on the lessons to other birds. Though a few Plain Tigers get killed, therefore, they are making a sacrifice which will help the rest of their family – since the birds will never touch another Plain Tiger and will undoubtedly pass the word to their friends.

This type of defense mechanism is fascinating enough, but the story does not end there. In fact, the plot thickens. The next entry on the stage is the Diadem or Eggfly Butterfly *(Hypolimnas misippus)* whose popular name refers to the male, a handsome beast whose upperside is jet black with large, white, egg-shaped spots bordered by brilliant purple.

A butterfly which could not be more *unlike* the Plain Tiger, the Eggfly Butterfly belongs to a totally different family of butterflies which does *not* live on poisonous plants, and which, unlike the Plain Tiger, flies fast and furiously to escape.

But that's the male. The female Diadem is something else: a near perfect copy of the Plain Tiger – right to the same slow, measured way of flying. Since even seasoned collectors – and birds – can't tell the difference, the female Diadem gets the same hands-off treatment as the Tiger.

The Milkweed Butterfly, or Plain Tiger, on Oman plant.

This principal, known as "mimicry," is widespread in the animal kingdom; it means that a harmless species imitates, or comes to resemble, a dangerous species to gain protection.

Obviously, one family of butterflies cannot just *decide* to resemble another family. The resemblance comes about by a process of natural selection taking millions of years. Eventually, though, the resemblance becomes almost perfect – and the female Diadem is safe thereafter. Even more incredibly, the Plain Tiger comes in *three* very distinct forms and the Diadem females have come to resemble all three.

Charles Darwin thought that mimicry in butterflies was one of the more powerful arguments in favor of his theory of evolution through natural selection. But since the concept of mimicry was first advanced – some 150 years ago – it has been the subject of considerable controversy. Despite statistical odds that seem overwhelming, other scientists claim that the resemblance between mimic and model was due to chance. And despite experimental evidence suggesting that birds *do* avoid both Plain Tigers and their mimics, these scientists insist that other factors are responsible.

The Calotropis procera *provides poison for defense.*

One thing is certain, however. The argument does not bother the female Diadem. She flies around happily in southern Arabia and benefits greatly from her resemblance to the Plain Tiger. To the birds of Arabia she is truly a sheep in – well, Tiger's clothing.

Torben B. Larsen, a Danish economist, has discovered 12 new species and written numerous articles and two books about the butterflies of the Middle East.

ARTISTS IN DAMASCUS

WRITTEN BY CAROL HOTCHKISS MALT

Looking for artists or poets? Or musicians, perhaps? In Damascus the best time to look is at night and the best place is in cafes – especially the one I saw in 1979. It's exciting and it never seems to close.

If you do go – and you really should – you'll recognise it right away: the walls are lined with paintings by local artists. The food is, well, *ya'ni*, but you won't care because that's not why you go. What you go for is the atmosphere: a jasmine-covered patio open to the sky, a ring of white tables around a central pool with small groups of intensely conversant people clustered round as Beethoven's Fifth swells up the patio walls and spills over into the night.

Rumor has it that the owner once stocked the pool with trout and allowed customers to choose their dinner. But no longer and no matter. Because it's like Paris must have been in the 20's, and how can you beat that? The proprietor, for example, stops by to tell you his views on art, poetry, the country, the future and education, and nearby, at those white tables, you can see that the discussions are as fervent as anything in Paris. You can't hear, of course, but you know they're important because everyone is so intent. And suddenly, when some Arabic overrides the 1812 Overture, you remember where you are. It's not France. It's Syria.

What's it like in Syria? If you're an artist, I mean. Are there any artists over there who really create? Meaning: do the arts flourish as they once did? Judging from what I found, the answers, in order, are Yes and Yes. And since I went there specifically to meet the artistic and museum community – and to explore the possibility of exchanging exhibitions of contemporary art – my findings are at least informed. Despite changes, the traditions and heritage of Syria and the Middle East tend to insure the continuity and continuation of the arts as do such institutions as the Academy of Fine Arts, the Syndicate of Syrian Artists, the Damascus Museum, as well as exhibits sponsored by the Ministry of Culture.

Syrian contemporary art, in fact, is rich. As it should be. It partakes of past splendors – dazzling formats, delicate threads of gold, bold strokes of calligraphy – and messages abound. In Syria there are no statements of artistic boredom or attempts to show the futility of the creative process; they haven't yet begun to mock themselves. In Syria, the artists are still concerned. Concerned with identity, growth and talent.

In their traditions, they find their themes

Take identity. All the artists I spoke with were quick to point out the Middle Eastern themes in their works: the influences of traditional form, substance, balance and design. Of the major artists I visited, not one failed to stress his "Arab-ness" – his identity. Some found it natural. An easy extension of their fingertips. Others had to theorize and adapt ideas from other cultural classrooms. But all were eager to draw upon the Arab land and the Arab experience as their format.

This search for continuity of theme from yesterday to today takes many forms. To some artists the theme is the land itself: the timeless land that insistently demands recording. Perhaps because one knows that tomorrow it will not look exactly the same – yet will always be there.

Certainly the land, and the dramatic way the sun plays with the land, are inspiring. Even the desert. Seemingly unchanging the undulating and stony emptiness is endlessly fascinating.

In many cases the format of pure color and basic geometric design has developed into the shapes and simple letter combinations of Arabic script. To the Westerner, a balanced abstract of the letter *ha* is merely good design. To the artist, it has depth and meaning beyond the two-dimensional – for it's one of the mysterious letters that occur at the beginning of some chapters of the Koran.

Then there's growth. Continuity notwithstanding, the artists of Damascus are striving to grow, too. Almost all of them feel the necessity to "change their style" occasionally and carefully explain that today's style is a development over yesterday's. In some cases it is a completely opposite approach: today's delicate brush work and pastel figures after yesterday's hard-edged abstracts.

The way I understand it, they think an abrupt about-face is often vital to break the shackles of an identifiable, monotonous style. All mentioned it, but I'm not so sure. You can develop "style" by taking exploratory detours. But is it necessary to hop on a bus going the opposite way?

For some artists in Syria the internal problems were simply the latest in their struggle to become artists; years ago, according to several I interviewed – some in positions of authority or in the professions – their desire to become artists was met with derision. Naturally, families in a developing country prefer doctors, lawyers and engineers, so all of them had to go abroad to receive their artistic training. To Egypt, say, where such training was available.

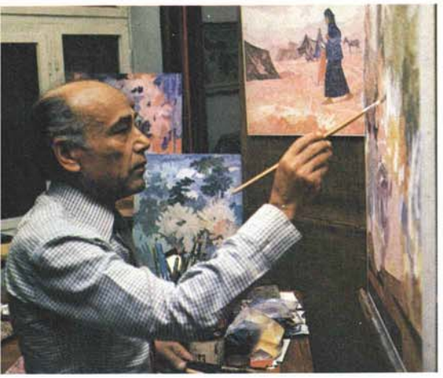
Today this has changed. Between 1962 and 1977 the Academy of Fine Arts graduated more than 900 men and women. And these artists, now professionals with positions in government or the university, laugh about it. But when they speak of the problems they faced, you understand more fully that the life of the creative person is seldom easy, regardless of the country or the times.

In Syria I also learned that the search for the arts and artists is more difficult than, say, in Europe where you start with a quick glance at the local paper's listing of the lively arts, amusements or showings at galleries or openings at museums. Or possibly your hotel will provide a copy of *This Week In…* wherever. But not in Damascus. In Damascus such listings are scant. So you ask around, or go to the university or to the museum.

I learned, however, that those involved in the arts are as eager to develop as the university, the academy, and the Ministry of Culture are to promote development. Before I left, for example, I was asked to stay and help with several projects. One was an English-language magazine of the arts, another was development of the contemporary art gallery at the National Museum into a self-sufficient, autonomous part of the museum – complete with support groups and local patrons. In short, make the museum a popular institution alive with activities of a cultural nature, and not just a repository of art from the past.

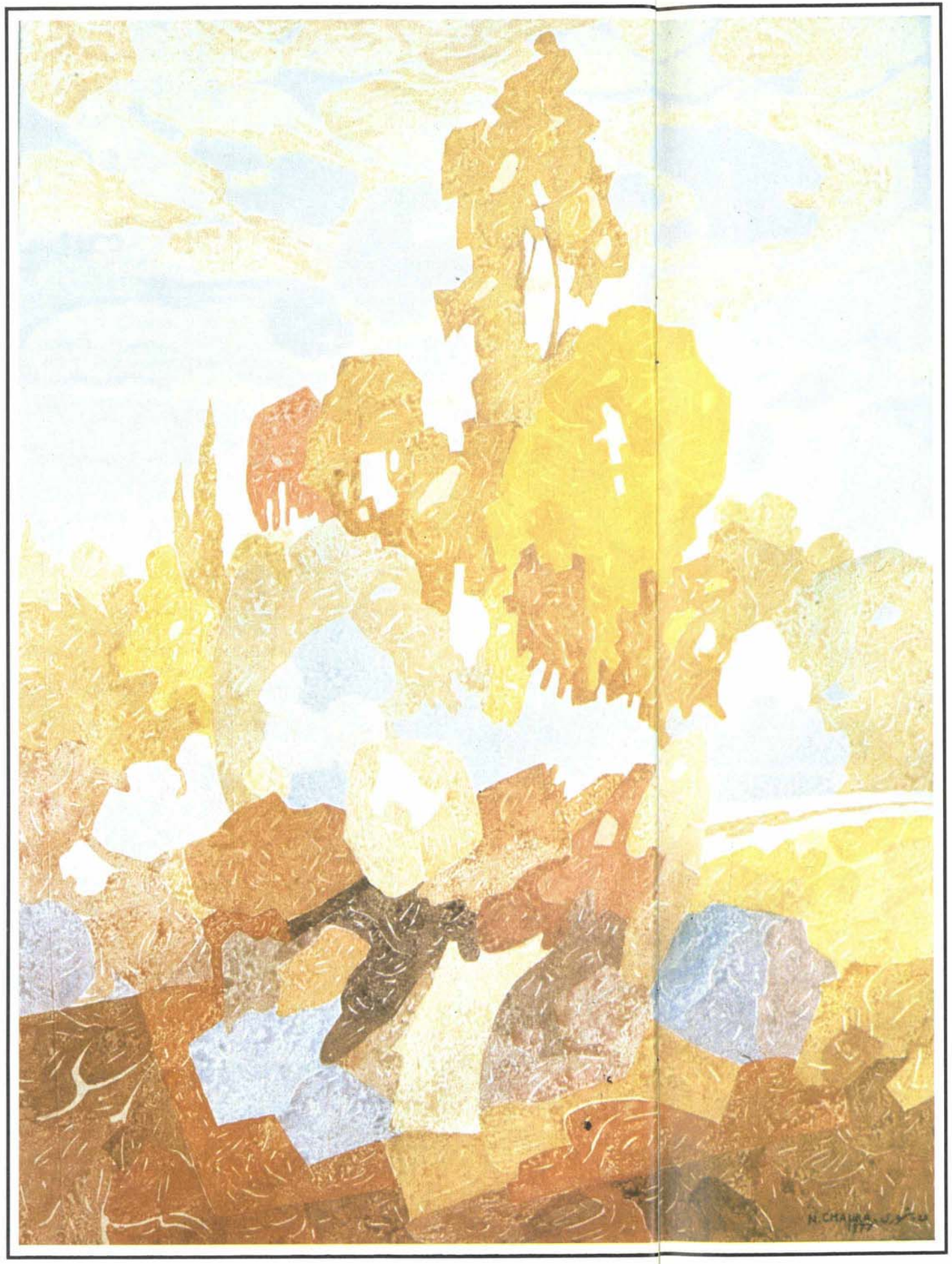
All that will come. For in Syria they still remember their cultural heritage and this memory is a force which will promote the continuation of the arts: folk art, folk dancing and music, yes, but the fine arts, too. There's a place for all of them in Syria, and the Damascenes are receptive. If you don't believe it, go to that cafe I told you about. At night. The artists, the owner and the music are still there, and so, you'll find, is the spirit behind the arts.

Like artists everywhere, the artists of Damascus like to talk almost as much as they like to paint. Of those I talked to, these nine suggest the feelings and commitment I found in all of them — and which were expressed as well in their work.



Nasir Chura – *Patterns of life and patterns created by nature's forms are boldly stated by Chura. He is less concerned with the content of his paintings than with the honest use of nature's patterns – leaves, trees – in either silhouette or subtly shaded dots of soft earth colors. Like many of his colleagues, he feels the need to experiment, to consciously change his style – often radically – in search of that elusive goal of oneness with his land, his people, his time.*

Early on, for example, his work showed a concern for flat defined patterns of people, animals and plants in delicate realistic landscapes, but his later works are reminiscent of Matisse's organic cutouts. Color often creates his perspective as he experiments with form and mass.



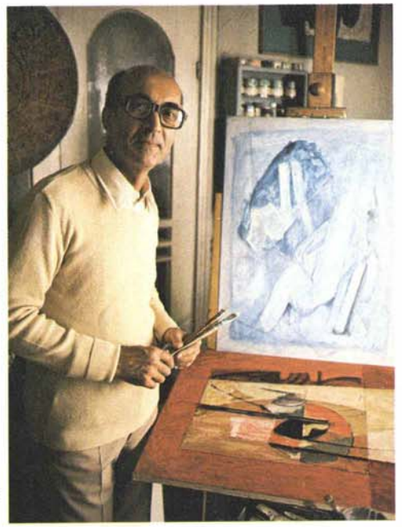
PAINTINGS PHOTOGRAPHED BY THE AUTHOR
ARTISTS PHOTOGRAPHED BY KATRINA THOMAS

Mahmud Hammad – *The balance of composition through negative space and color is part of Hammad's paintings. Many European artists devised their own vocabulary and used its symbols and letters in their art. Perhaps Miró and Klee invented their own symbolic language, to which we have not yet found the key, but there is no question as to the intent and meaning of the comparable forms in Hammad's work. They actually* are *letters – or symbolic letter associations – from Arabic script.*

Hammad is concerned with the relevance of his art to his countrymen, and aware of his influence on younger artists. He, like Chura and many others, has felt the need to change direction, style and technique so that there is less chance of stagnation in his work and more chance for inventive growth.

"Today's art is conscious of historic production – and from it we try to create a style for today. The Arab artist is fortunate to have both the Occident as well as the Orient for his inspiration, as the riches of both created Arab art in the past."

Hammad, born in Damascus in 1923, studied at the Accademia di Belle Arti in Rome and he is currently dean of the art faculty at the University of Damascus. Hammad is well versed in many media – he is a graphic designer, and has his own etching press.



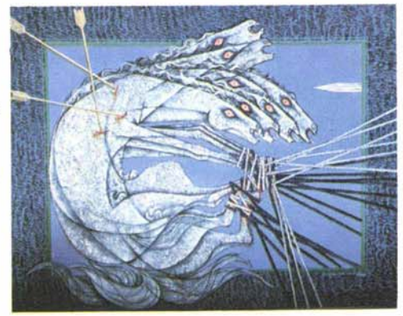
Khouzayma Alwani – *Delicate horrors so exquisite they beguile the viewer into fascination with intricate imagery.*

Humanity, with its justice and injustice, is always the theme in Alwani's work. The format is deceptively simple and the technique straight-forward. Each painting freezes its statement in a border of color which serves also as foreground to the action taking place inside.

Often figures reach outside the borders – trying to enter the main scene or trying to escape it. His themes are universal, yet are drawn from the past and present of the society in which he lives. It may be that he detaches himself from his work by setting the stage in the traditional form of the "miniature."

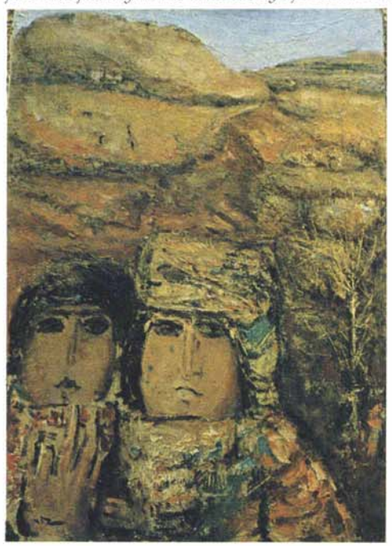
The men, horses, beasts all become impersonally precious, and allow us to pass through his elaborate stage without danger, but with added wisdom.

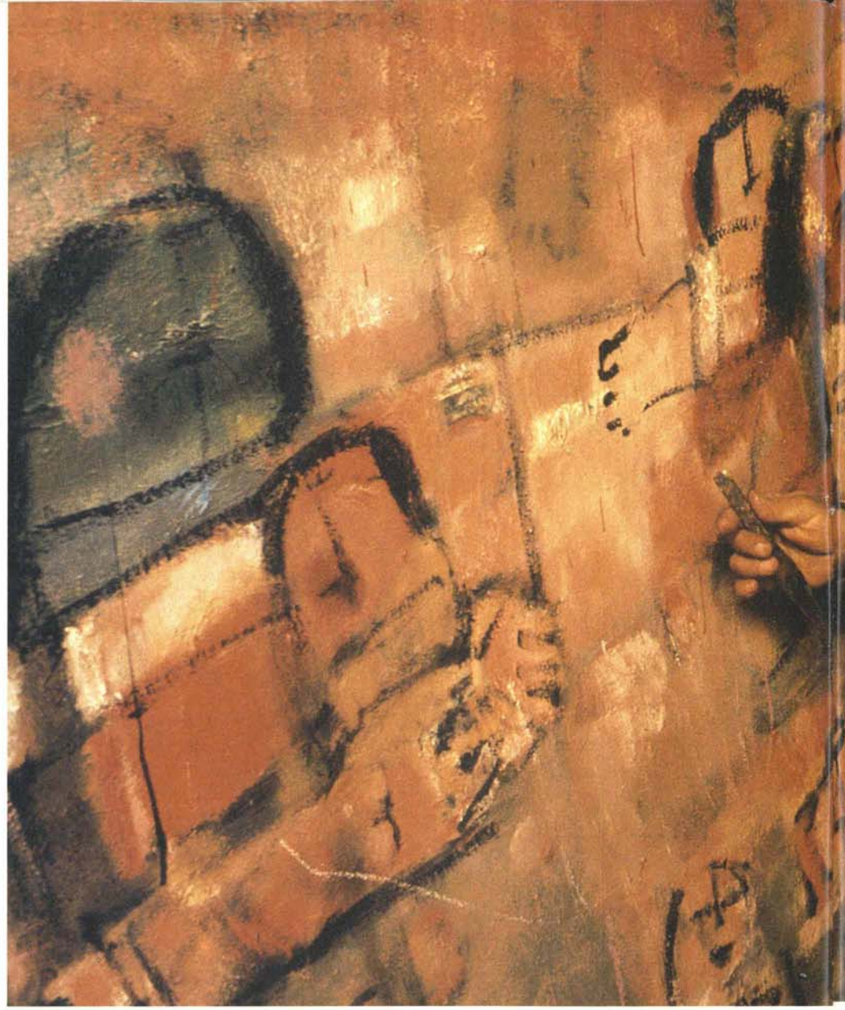
Khouzayma Alwani, born in Hama in 1935, studied painting and theatrical design at the Accademia di Belle Arti and in Paris. He is currently on the fine arts faculty at the University of Damascus.

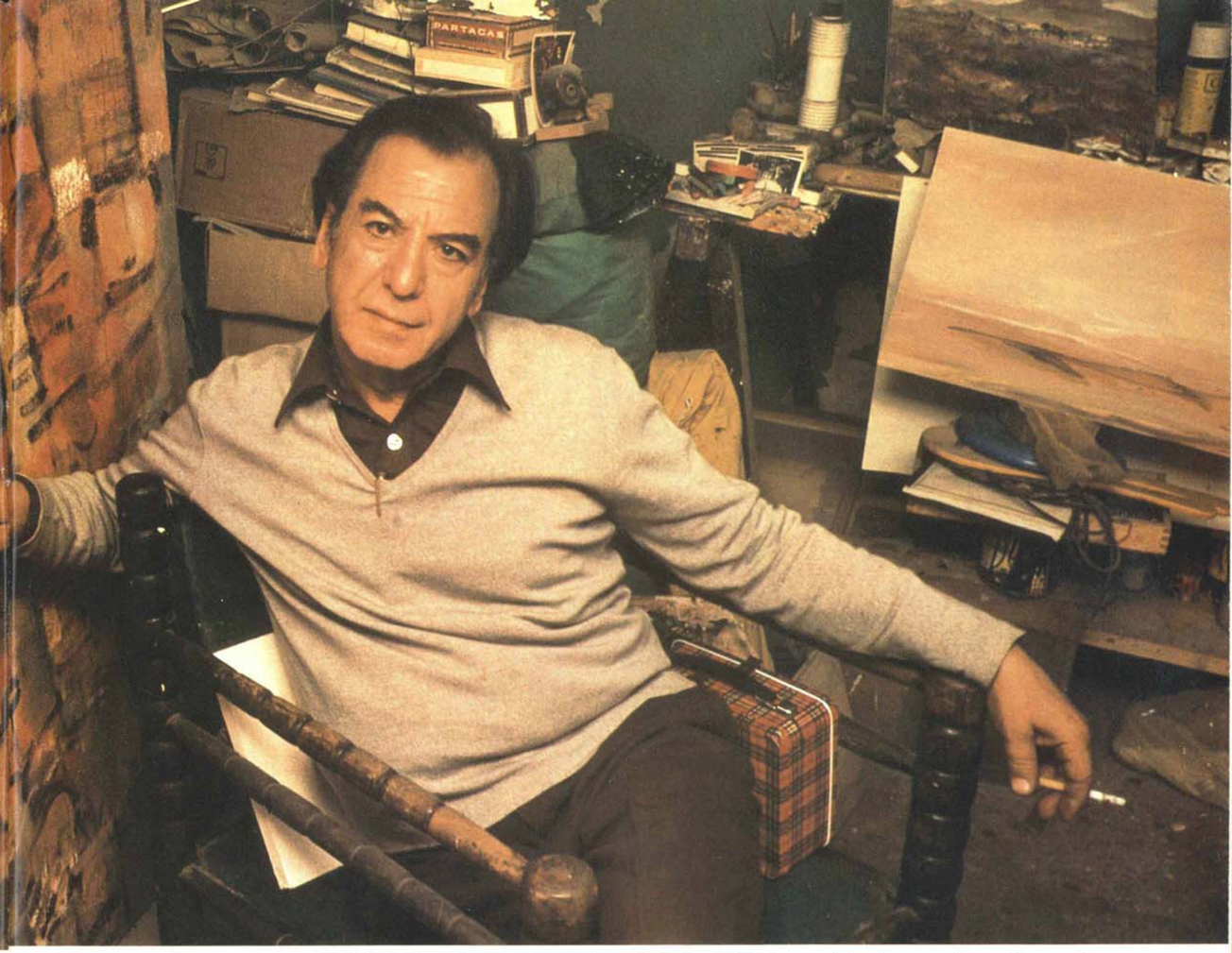


Fateh Moudarres – *The artist defined his art as surrealistic in the past, but now figurative and inclined to abstraction. He is concerned with building a uniquely Syrian style based on folklore. This means the themes of art should start with the land itself. Only a few of his works live up to his goals and when they do, he says, the experience is exhausting. He began painting in his current style, described as "totemistic," in 1950. The squared, stoic, silent faces of patterned totems of women in various costumes fill the entire canvases. The texture looks rich, the women appear regal – yet he wants to show their anger. This inner meaning – a message to the world – keeps his art alive. In his opinion, the secret of good art is originality. Every work of art has a life of its own, a "viewing life." Sometimes the viewer passes over a work in a second; when the viewer feels he understands it or categorizes it then there is no more stimulation and it is dead. If a work of art includes borrowed information, it is already condemned. The influence of the "School of Paris" shows in his works. He is also a composer of music for the piano, the sound of which is reminiscent of recent recordings of whale "talk."*

Moudarres, born in Aleppo in 1922, studied art in Italy and France. He is currently on the fine arts faculty at the University of Damascus.



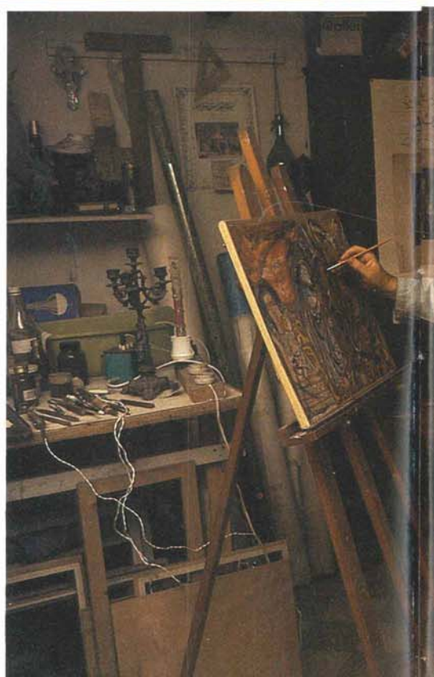




Nazir Naba'a – *Naba'a's delicate canvases not only portray the beauty of woman, but also symbolize woman's eternal strength and power. His women are frozen in some symbolic position of a remembered state of power as in ancient icons and statues. Often the entire background is a textured field of cloth, randomly strewn. His fascination with texture and material is not limited to women's costumes but often portrays the land.*

He seems fascinated with contrast. He juxtaposes stone with draped cloth, flesh with rock. His themes are chosen from childhood memories, although influenced by his training in Paris and Egypt. His early works portrayed a loneliness or isolation of imagery much like that of de Chirico. From this he has developed a unique style in which delicacy of technique and contrasting imagery weave a subtle statement drawn from ancient, Pre-Raphaelite and modern influences.

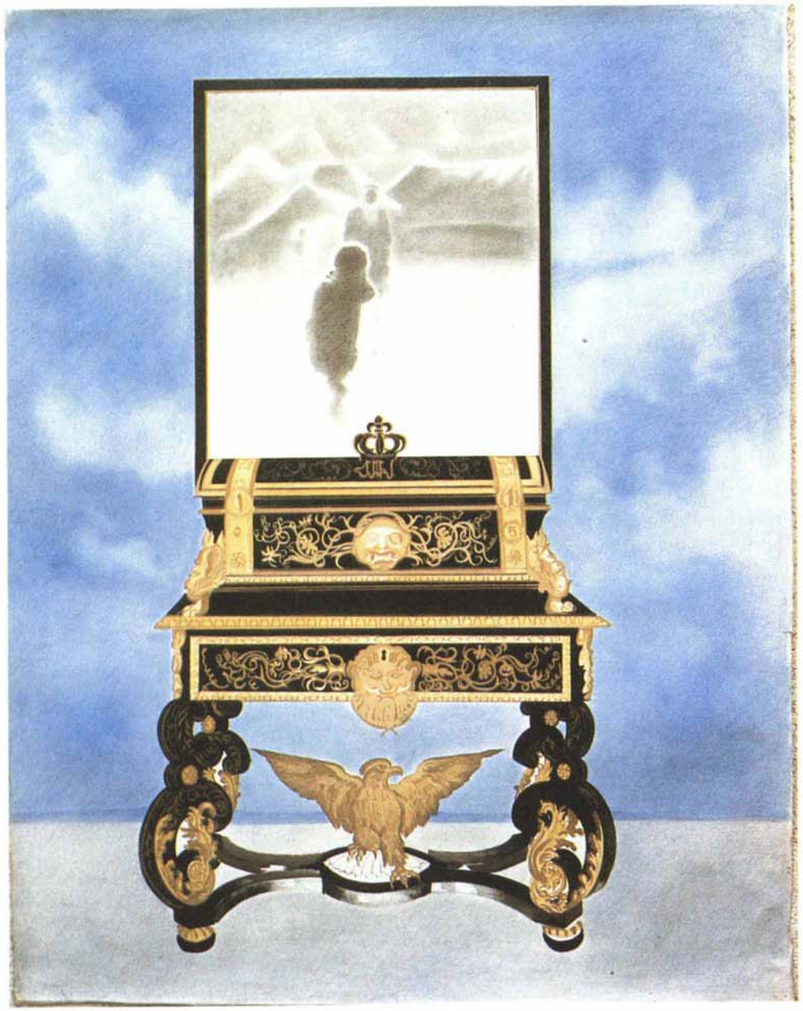
Nazir Naba'a, born in Damascus in 1938, studied at Cairo University and in Paris. He is currently on the fine arts faculty at the University of Damascus.



Elias Zayyat – *Zayyat is figurative, concerned with portraying the drama of mankind's needs and wants. His work is often symbolic yet the underlying story line needs little introduction or explanation. There can be no denying that the artist should speak for mankind – and both social and political themes are traditionally the preoccupation of the artist. Zayyat believes there is no difference between the social and political sphere in life.*

Zayyat's four years of study in Bulgaria have influenced his art. His forms are solid. There is no flight of Dali-esque fancy in his portraits; his palette supports the serious nature of his intent. The artist also creates and restores icons for churches in Syria.
A professor of painting and the technology of printing at the University of Damascus, he uses the same timeless professional technique in the creation of these icons as did previous Syrian masters.

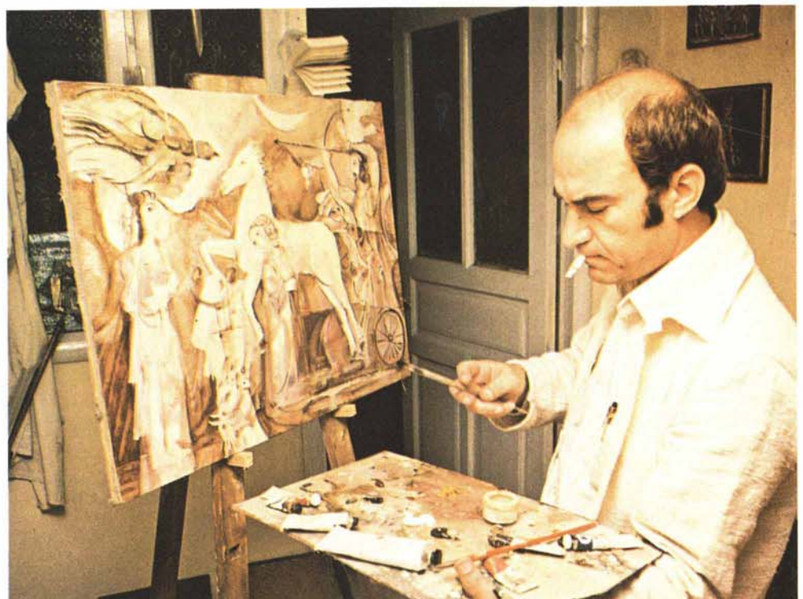
Born in Damascus in 1935, Zayyat studied in Sofia, Cairo and Budapest. He is currently on the art faculty at the University of Damascus.



Ahmad Madon – *Madon feels the artist should discover as he works. It is the physical act of applying paint that creates the challenge and eventually forms the image of a work of art. For that reason he does not sketch first.*

The image is in his mind or in his memory and starts to reveal itself slowly on the blank canvas. He establishes a scientific set with his canvases. Trained in business and science as well as the arts, he says he uses the laws of supply and demand, distribution and scarcity, the rules of economics and of balance in his works. That calculated awareness calls for a touch of scarlet here, of black there.

His style is the subtle abstraction of nature, and seldom figurative. Science and the expansion of awareness through scientific knowledge are often vast challenges to today's artist. Using not only what our eyes perceive of the natural world around us, and adding an understanding of life's basic units, structure and patterns, gained with the aid of microscope, telescope and computer, we have no limit he feels, on future creativity.



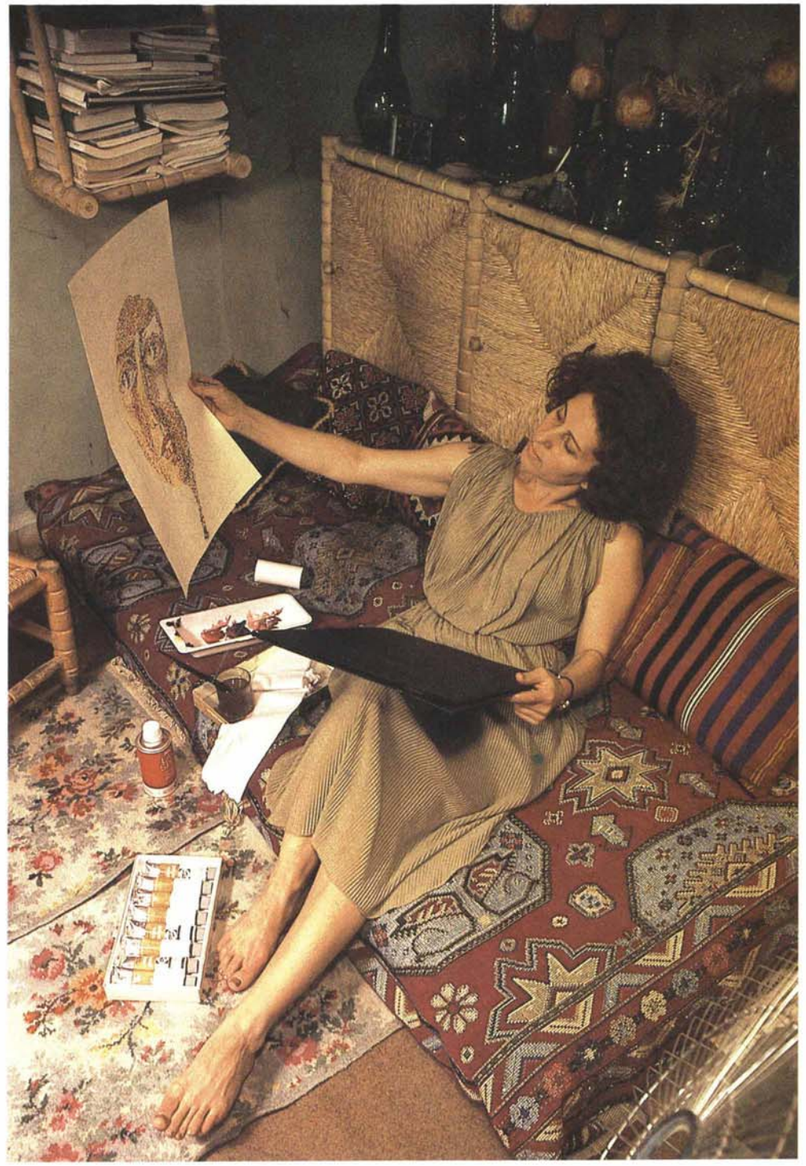
Rida Hus Hus – *Desolate, alone, awkward in a world of their own, Rida Hus Hus portrays our hope — our children — in a sterile world, filled with our products but not our real accomplishments. His faceless children haunt the viewer. They remind us uncomfortably of our own emptiness or our own greed as adults, They say, perhaps, "I have, you have not. Because I do not have, I am no one, I am faceless. I want my name, I don't want my things." These children — his theme during the Year of the Child — are shown at play. Their play is simple — a toy wagon, a stick and hoop — with the excesses of the adult world's toys juxtaposed. Both the technique and the format are subtle; there are no brassy statements, and subdued shading becomes an innuendo of defiance of a product-oriented society.*

Hus, born in 1939, studied at the Academy of Fine Arts in Damascus and in France.

Georges Ganoura – *In his paintings, Ganoura uses light as the scaffolding upon which to create his images. His early desire to paint was reinforced by his own reading. Whenever he could, he would study the works and lives of artists. His style has changed over the years: architectonic, figurative, impressionistic. Throughout these periods, his work describes the land and its peoples, touching on the pride and enthusiasm of new construction, the continuity of life, the bustle of the world. Ganoura also creates icons for local churches in Syria.*

Those nine, of course, provide only a sampling. I could just as easily add others. One who comes instantly to mind is Abdul Kader Arnaout, another member of the University of Damascus faculty. Another is Laila Nseir, 40, a secondary school teacher born in Lattakia who paints in an abstract style with an expressive use of color. But my focus was on the more prominent forerunners of today's artists. Their work, I believe, testifies to the vitality of Syrian art today.

Carol Hotchkiss Malt is director of the Art and Culture Center of Hollywood, Florida.



Amber Forever

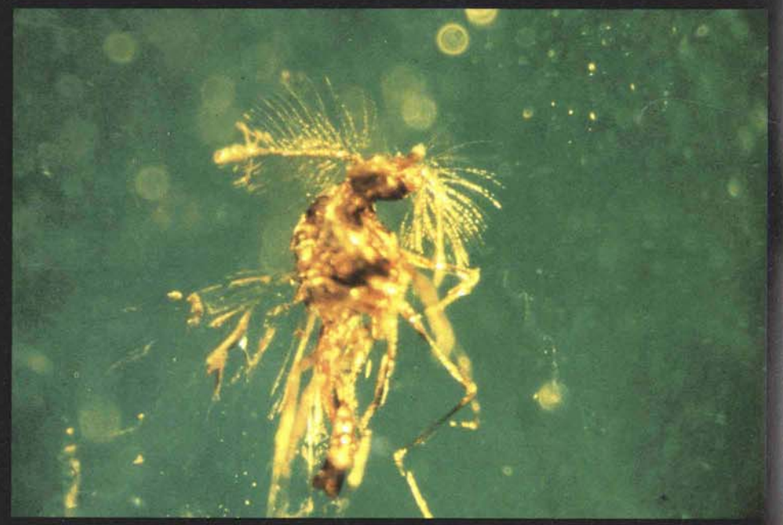
WRITTEN BY JOHN MUNRO. PHOTOGRAPHED BY AFTIM ACRA

When the Greek hero Meleager was born, the Fates decreed that as long as a certain brand in the fire was not consumed he would be immortal. Hearing this, his mother, Althaea, snatched the brand from the fire and carefully preserved it. Later though, when Meleager was a young man, he quarreled with his two uncles over the virgin huntress, Atalanta, whom he loved, and killed them, whereupon Althaea threw the brand into the fire where it was consumed and, as the Fates had decreed, Meleager died; the tears shed by his sisters turning to amber as they dropped from their eyes.

It is a pretty story – rather like amber itself: a tender, warm, honey-colored fossil substance used widely throughout the Middle East for worry beads, amulets and jewelry. Indeed, the word amber itself is derived, incorrectly, from the Arabic *anbar* – ambergris – and its use in the Middle East has been recorded from earliest times. The Elder Pliny in his *Naturalis Historia* describes it as an "exudation from trees of the pine family," and observes that its popularity, especially among women, was such that "a very diminutive human effigy made of amber has been known to sell at a higher price than living men, even in stout and vigorous health." Pliny also noted that a necklace of amber beads was considered to protect the wearer from several poisons, and to be efficacious as a counter charm against sorcery and witchcraft.

Most commentators consider the magical properties attributed to amber to derive from the fact that it becomes strongly electrified when rubbed, and can then attract light bodies to itself. This was probably considered by the ancients as the outward sign of the mysterious virtues that amber was supposed to contain. It seems more than likely that the attractive power revealed by amber when rubbed was the first electrical phenomenon observed by man, and the word "electricity" itself derives from *electrum*, the Latin word for amber. Certainly the Roman Emperor Nero was much enamored of it; he sent an expedition from Rome to the Baltic's amber beds in today's Prussia; it returned bearing 13,000 pounds of the precious substance.

Even today, most of the world's amber comes from the shores of the Baltic Sea, where it has been mined on a large scale



"Found in the Baltick Sea"

When Dr. Johnson wrote his Dictionary of the English Language, *published in 1755, he devoted a considerable amount of space to the word "amber". Asserting the word's Arabic derivation, he proceeds to give the following particulars: "A yellow transparent substance of a gummous or bituminous consistence, but a resinous taste, and a smell like oil of turpentine; chiefly found in the Baltick sea, along the coasts of Prussia. Some naturalists refer it to the vegetable, others to the mineral, and some even to the animal kingdom . . . Some have imagined it a concretion of the tears of birds; others, the urine of a beast; others, the scum of the lake Cephisis, near the Atlantick; others, a congelation formed in the Baltick, and in some fountains, where it is found swimming like pitch. Others suppose it a bitumen trickling into the sea from subterraneous sources; but this opinion is also discarded, as good* amber *having been found in digging at a considerable distance from the sea, as that gathered on the coast . . . Within some pieces of* amber *have been found leaves, and insects included; which seems to indicate, either that the* amber *was originally in a fluid state, or, that having been exposed to the sun, it was softened, and rendered susceptible of the leaves and insects.* Amber, *when rubbed, draws or attracts bodies to it; and, by friction, is brought to yield light pretty copiously in the dark."*

Everything Dr. Johnson knew about amber in 1755 was known by Herodotus in the 5th century B.C.; the electrical properties of amber had been discovered even earlier, by Thales.

The trade in Baltic amber goes back to pre-historic times, and the discovery of amber beads in archeological sites throughout Europe and the Middle East has enabled pre-historians to map ancient trade routes linking the far north with southern lands. Although amber is found in a number of places, Baltic amber has always been the preferred trade article — except by the Chinese, who obtained their supplies from Burma.

Dr. Johnson's doubts about the origins of amber were shared by classical, Chinese, and Muslim authors. Of the classical authors, Pliny came closest to the truth: he describes amber as the resin of pines which has fallen into the sea, been hardened, and then thrown up on the shore. The Chinese, as might be expected, had much more exotic explanations for the origin of the mysterious translucent material. Li Shih-Chen, author of a 16th century encyclopedia, thought that amber was the petrified soul of tigers. Another suggestion was that it was the residue formed from the burning of birds' nest. Not all Chinese authorities, however, were so imaginative. A certain T'ao Hung-Ching, who died almost exactly 100 years before the death of the Prophet Muhammad in 632, said:

> *"There is an old saying that the resin of fir-trees sinks into the earth, and transforms itself into amber after a thousand years. When it is then burned it still has the odor of fir-trees. There is also amber, in the midst of which there is a single bee, in shape and color like a living one . . . It may happen that bees are moistened by the fir-resin, and thus, as it falls down to the ground, are completely entrapped . . . Only that kind which, when rubbed with the palm of the hand, and thus made warm, attracts mustard-seeds, is genuine."*

The power of amber to attract was probably noticed by pre-historic man, and may explain the extraordinary diffusion of Baltic amber in the pre-historic world, for such a characteristic would surely have been regarded as magical. This magical quality is still faintly present in our word "electricity," which is of course derived from the Greek word for amber — electron. *It is curious, and would have given great pleasure to Dr. Johnson, that ancient and medieval uncertainties about the nature of amber are nothing to the uncertainties of modern science with regard to the nature of the particle named after it.*

Just as the Greek word electron *gives us our word for electricity, so is the Arabic word for electricity —* kahraba' *— the same as the word for amber. Al-Biruni, the great 11th century scientist and Indologist, gives this etymology for the word: "The name* kahraba' *is derived from its nature, because it attracts straw, and draws it to itself, as it does feathers, along with any dust adhering to them."* Kahraba', *just as al-Biruni says, is a compound Persian word meaning literally "straw-attracting," was borrowed by the Arabs from the Persians in the 10th century; the Persians formed their word for amber on the pattern of the Sanskrit* trnagrahin *–which means "grass-attracting."*

If kahraba' *is the Arabic word for amber, what of Dr. Johnson's statement that* our *word amber is derived from the Arabic? The answer to this excellent question is that it is, but that in Arabic,* anbar *(pronounced* ambar*) does* not *mean amber. It means "ambergris" — "gray amber" — as distinct from* ambre jaune, *"yellow amber," or amber proper. Ambergris is the oily perfumed substance secreted by the sperm whale and cast up on the shore; the fact that both substances were found on the beach added to the confusion.*

This confusion between yellow amber and gray amber was made all the worse by the Middle Eastern practice of making necklaces of amber-colored wax scented with ambergris. These necklaces are still very commonly sold in North Africa, and are referred to as being of amber!

Very few examples of amber jewelry have survived from the Muslim Middle Ages, although we know from literary sources that amber beads and inscribed amber plaques were worn in the 10th century. For the medieval Muslims, the main use of amber was medicinal. Avicenna (Ibn Sina) in his Canon of Medicine, *regards amber as an astringent and hemostatic, and wholeheartedly recommends its use.*

for more than two centuries, thus giving the area the name "The Amber Coast." In this region shafts are sunk through a superficial stratum of marl and sand, a bed of lignite with light sands, gray clays, and finally a layer of green sand, 15 to 18 meters thick (50 to 60 feet). All these strata contain amber, but in the lower portion of the green sand there is a stratum of glauconitic sand – "blue earth" – one-and-a-half meters thick (about five feet), in which amber nodules occur so abundantly that seven to nine square meters (80 to 100 square feet) yield several thousand pounds. This "blue earth" stratum runs out from the shore under the sea, where, especially in autumnal storms, it works free and is cast up on the shore by waves.

The amber from this region is of a pale yellow, translucent color, but amber found in other regions such as Great Britain, on the coasts of Sicily and the Adriatic, as well as in other parts of Europe, Siberia, the United States and the northern reaches of the Arabian Gulf, tends to be more opaque and of a deeper, golden hue.

Apart from its gentle texture and warm color, amber is also prized by scientists for what it contains. As the British poet Alexander Pope once observed:

Pretty! in amber to observe the forms
Of hairs, of straws, or dirt, or grubs, or worms!
The things we know are neither rich nor rare,
But wonder how the devil they got there.

Pope was not alone in wondering; the fragments of flora and fauna found in amber excited the curiosity of scientists everywhere since they often contained vestiges of extinct animal and plant life, which are capable of informing us about our world millions of years ago.

Among the scientists is Aftim Acra, associate professor of environmental science in the faculty of health sciences at the American University of Beirut in Lebanon, a Jerusalem-born scientist with a master's degree in public health.

Professor Acra's scientific interests range over a wide area – chemistry, biochemistry, sanitary engineering and environmental health – and in 1972 he won the Order of the Cedars from the Lebanese government for his contributions to community health in Lebanon.

But it was by making some remarkable finds of amber that Acra attracted worldwide attention. Professor Acra is modest about his reputation as an authority on amber; he insists that his study of the precious substance – or, more precisely, of the fossils within amber – is more in the nature of a hobby. Even so, during vacations and over weekends he will take off regularly for the mountains of Lebanon, eager to add specimens to his already impressive collection.

His first major find was in 1962, in the vicinity of Dar al-Baidha, on the route between Beirut and Damascus. Since then he has come across other sources, most notably in southern Lebanon, near the town of Jezzine, a beautiful area with underground springs, a huge waterfall 40 meters high (135 feet) and, in the valley below, a famous grotto. As the earth here is relatively moist, digging for amber is easier than in other places.

Altogether, Professor Acra estimates that he has collected nearly 100 kilograms (220 pounds) of amber, some of which was examined by the Natural History Section of the British Museum and found to be between 100 and 130 million years old, and thus some of the oldest ever found.

Indeed, what makes Lebanese amber so significant from the scientist's point of view – rather than the jeweler's – is that it is the oldest known amber to contain Pope's bits of flora and fauna from the past. From the specimens that Professor Acra has submitted for examination to the British Museum, it has been possible to identify 12 orders of insects and three of Arachnida – i.e. creatures with four pairs of legs, such as scorpions, mites and spiders.

By far the most abundant group of insects found in Lebanese amber, however, is the *Nematoceran Diptera*, an order characterized by a single pair of membraneous wings and a pair of club-shaped balancing organs known as halteres. It includes flies and mosquitoes. The next most common inclusion of insects is *Hemiptera-Homoptera*, a high proportion of which are Aleyrodidas. Specimens of the following orders of insects have also been found among Professor Acra's samples: *Thysanura, Collembola, Orthoptera, Dictyoptera, Pscoptera, Hemiptera, Thysanoptera, Neuroptera, Lepidoptera, Hymenoptera, Coleoptera and Diptera.*

Examining samples of old amber is a delicate task, best left to the experts like Professor Acra, who starts the process in his own home laboratory – by photographing and subsequently cataloging specimens – and then sends particularly promising samples to the British Museum for further examination. After more than 20 years of searching for amber, Professor Acra estimates that he has now a color slide collection of more than 2,000 specimens.

It goes slowly, he says, because amber is a rather delicate substance that must be handled gently, particularly gedanite and schranfite, the reddish resin which occurs in the cretaceous rocks of Lebanon; it tends to crack under even fairly light pressure. Other kinds – the brownish black amber called stantienite, the earthy brown "rare" amber, known as beckerite, the almost opaque glessite, and the fossil resin allingite – all tend to be harder. Lebanese amber varies from pale yellow to dark red in color, and in some samples there is evidence of the amber flowing after insects have been trapped in it. In these cases parts of single insects may be separated by several millimeters or more.

Amber may be examined dry or immersed in liquids, but as some organic solvents – such as toluene or xylene – rapidly attack amber, a mixture of 70 percent alcohol and glycerine is preferable though this solution may also fracture the amber, it spreads through the cracks, giving greater visibility.

Satisfactory results have also been obtained by using jewelry burnishing paste to polish the surface, and some of the more fragile pieces of Lebanese amber have been embedded in plastic and then mechanically polished. Such work has to be done slowly and carefully, however, because the amber can disintegrate easily.

Until recently Professor Acra's discoveries were published piecemeal in various scientific journals. Last year, however, the Lebanese National Council for Scientific Research began to show interest in his work, and offer financial support, and at the moment is considering a proposal to finance publication of a study of Lebanese amber to bring the results of Acra's research together with that of other international authorities.

If made, this study would include photographs of the varieties of amber discovered in Lebanon, and would provide scholars with valuable information on secrets of the world preserved, as Francis Bacon said, in "a royal tomb" – of amber.

John Munro, a regular contributor to Aramco World, *teaches English at the American University of Beirut.*