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**GLOSSARY**
DEDICATION

This Thesis is dedicated to Dr. Alwyn George Gotting.

'Alwyn' means friend. Dr. Alwyn George Gotting was everyone's friend. With his happy, gregarious personality, ability to listen, skill as a raconteur, and his capacity for hard work together with his professional reputation he became the ideal person to be considered the founder of the medical service in Qatar. He served the government for thirty six years. He worked on at the old hospital long after everyone else transferred to the new hospital. He was the T.B. 'specialist', and was also called upon to practise obstetrics and psychiatry: always in the background ready to help wherever he was needed. When Sheikh Kalifa appointed him to be the first Director of the Ministry of Public Health, in 1972 and after working for twenty years, he stayed on in his house on the Rumailah Hospital compound, this reflected his modesty and self effacement; always avoiding the envy of others. He was given a piece of land by the ruling family; he gave it back on the excuse that he would be envied as the only non-muslim to own land in Qatar. He was of the old school, who never took money or commissions. In those first days only gifts from the ruling family were allowed, in order not to offend. His gratuity on retirement was spent on his children and invested in education endowments for his grandchildren and an annuity for retirement. He had in fact distributed his modest estate in much the same way as muslims, but before his death and not after. He turned down offers of commission from Harley Street specialists and would only send patients to those he had good reports on. He knew the best doctors in the United Kingdom, Europe and America.

Alwyn indeed means friend and the Qatari people more than any other knew him to be their friend.
This Thesis is concerned with the history of health care and medicine in the State of Qatar. I have traced its evolution from the first man, through to the presence of Islam until oil was discovered in 1939. I then continued with close personal interest to follow the development of health and medicine in the more recent "post oil discovery" years, in particular the last decade when Qatar matches it's health and medical care with the pre-eminent services of the Arabian Gulf region (Gulf Co-operation States) and the world.

The historical, cultural and political events that influenced development in the Arabian Peninsula have been many and varied causing intriguing shifts in the evolution of health practice in medicine.

Traditional medicine traversed the trade routes, Islamic medical practices became firmly rooted in the Arabian Peninsula and oil wealth in the latter years empowered the Gulf States as significant buyers of modern medical technology and manpower.

This thesis is organised in logical sequence with early chapters concentrating on primitive, ancient history and the pre-Islamic period. Relevant anthropological, archaeological, cultural and historical information has been outlined and analysed in the early chapters, in an attempt to identify the significant influences on the health and medical practices of the times. Plausible theories and conclusions were sought on health practices and medicine; however, a dearth of factual information necessitated some speculation on how tribal medicine and health practices were derived and disseminated throughout the region.

Less speculation was necessary for the Islamic era. Islam was widespread with the daily lives and cultural practices of Muslims strictly controlled; particularly in terms of morality, marriage, dress, health and hygiene. Certain chapters describe the significant contribution of Islamic medicine to the development of medicine in general and review the impact of Islam on health practices within the Muslim society of the Arabian Peninsula including Qatar. The Arabs themselves had a
profound effect on the medicine of the world, with their translations from Greek to Arabic and other languages.

The remaining chapters look closely at contemporary Arab society in Qatar, from the discovery of oil to the present day. The dramatic development of modern medical establishments and healthcare systems is examined and compared with their counterparts in the Western World. Throughout this section evidence is sought for any residual influence of traditional medicine in the modern, high technology health and medical services so rapidly developed in Qatar.

My personal connections through my husband as Director of the Ministry of Public Health, my own unique experiences and work as a Health Care Adviser in the Primary Health, Households and Hamad Medical Corporation and my acquaintance with Doctors, Administrators, Botanists, Anthropologists, Archaeologists and other scientists, have enabled me to proceed at a considerable pace. My association with the Qatar Natural History Society which started as a leisure pursuit also enhanced my scientific knowledge and many of its members have been an inspiration.

History shows that many different peoples lived in Qatar as a result of not only adventures but also invasions and intermarriages among other nations as they migrated back and forth. Large migration flows took place among the different Arabian tribes who circulated around the entire Arabian peninsula. The discovery of oil attracted workers of many nationalities, who brought with them some of their culture and folklore, these included their ways of curing the sick. The different populations found their own way through wild herbs which grew in the desert, long before the advent of Islam and its system of prevention and cure of disease.
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ACKNOWLEDGEMENTS

Mubashar Abdel Aal
Osman Said Ahmed
Anwar Mohammed Ali
Hamad Mohammed Ali
Dr. Mary Bruins Allison
Ali Ansari
Jean and Michael Assaly
Margaret and Albert Baber
Dr. Abdulla Al Baker
Naim Abdulla Al Baker
Mohammed Balayah
Dr. Ekhlas Abdel Bari
Said Al-Bedeid
Mohammad Said Al Blouchi
Vartouhi Bereiklian
Lesley and Roger Blake
Ann and Ivan Bole
Norma and Ranald Boyle
Jack Briggs
A.R. Bumaid
Sylvia and Brian Camp
Dorata Cattleback
Angela Clarke
Neville Clarke
Penny and Barry Collins
Bina and Niala Darwish
Ahmed J. and Mia Darwish
Yousuf J. and Ainsha Darwish
Dr. 'Hamish' and Elizabeth Davidson
Ibrahim Al-Dirbasti
Alan doleno
Alice Durdey O.B.E.,M.B.E.
Hind Al-dulaimi
Ebeneezer
Robert Ewing F.R.C.S.
David Elliot
Darwish Al-Far
John and gillian Fennell
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Hajar bin Hajar
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Mary Hay
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Kyle Irwin
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Dr. Bahan Eldin Mohd. El-Foheel
France Jack
Saud M. Jaffar
Khalil Al-Jaidah
Nancy Janecece
Robert Jarman
Babs Jarvis
Sami Abdul Jawad
Vernon Jolly
Said Sherida sa’ad Jubran al-Kabi
Kadeega
Mohammad and Josephine Kulaify
Abdullah Kubaisy
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Nasrulla Abdul Latif
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Grace Monis
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Reverend Liz Mordecai
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Dr. Morsi Ali Morsi
Maher Mootassem
Ahmed Muraiky
Kamal Nagi
Ahmed Nasr
Dorothy and Brian Nichols
Ibrahim al-Noami
Sue Nolan
Nasra Al-Noobi
Brian Northcroft
Overseas Development Adminstration Staff
Julie and Ted Ogden
Mary Palmer
Peggy and Philip Pawson
Joy and Owen Philips OBE
Mercy Marykutty Phillips
Vera Porter
Habib Al Rehman
Nahed A. Osman
Ali and Amina al-Sai
Sultan Saif
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George Webster
Roger Webster
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John Willets
Gladys and Ted Wilkins
Hatim Said Ahmed Al-Zain
Prof. Richard and Lola Zind
CHAPTER ONE

HISTORICAL BACKGROUND OF QATAR
HISTORICAL BACKGROUND OF QATAR

There is no concrete evidence as to when Qatar was first inhabited by man. The first Archaeological investigations were conducted by Danish expeditions, between 1956 and 1964. They were followed by a British expedition, in the early 1970's, and by the French, between 1976 and 1978. The Japanese made two expeditions in 1988 and 1990. Digs have shown that it was inhabited during the stone age when the region's climate was milder than today. Very little evidence of habitation between most ancient times and the modern era have been found.

Man's curiosity about the roots of the human species has led to these explorations and excavations. The findings point to the existence of past inhabitants. Burial mounds were found in Qatar but most contained no remains, possibly because of the soil acidity. Wood, cloth, leather, parchment, copper or silver do not survive the test of time as do pottery, gold and stone. The Japanese concentrated on the ones at Umm al Ma'a. They found beads, pottery, remains of an incense burner and a stone mortar with grinding stone.

One theory adopted by some Arab historians is that while Europe was still in the grip of a receding ice age, the Arab region had a temperate climate with plenty of rain to support agriculture, especially in Yemen, southern Iraq and the Gulf. As the ice age left Europe with a temperate climate the Arab region became dry. As the water table fell so the salinity of soil increased, leaving less area for cultivation and making natural water sources unsuitable for human consumption.

It is known that Qatar has had three shorelines. The highest sea level, 120,000 B.P., compared with what is known elsewhere in the world corresponds to the so-called tyrrenian transgression. This old shoreline is outlined by famous hills in Qatar, such as Jebel Jasasiyah and Jebel al Wusail. These hills are previous coastal dunes which have been cemented and have resisted drastic erosion occurring elsewhere in Qatar. At that time it is likely that the Salwa Gulf did not exist or was just appearing. Huwar Island was part of the peninsula. After this, the sea withdrew a little then came up again reaching a level similar to the previous one 80,000 years before the present. The
shorelines were near to the former ones but the Salwa Gulf was probably already made. (When the two explorers St. John Philby and Bertram Thomas explored Arabia they concluded that Qatar was an island). There are a series of depressions that suggest this could be true. The great Wurmian glaciation caused withdrawal of the sea. Geologists say that the sea level 20,000 to 15,000 years ago was 100 to 150 metres below the present level. This means that the whole Arabian Gulf and probably the Shatt al Arab joined the sea in the present Hormuz Strait. So at that time prehistoric people living in Qatar could have walked to Iran. Therefore how many prehistoric settlements are now flooded under the Gulf waters?

When the polar ice melted again the sea came up to a level at 2 metres above the present one, nearly 6,000 years B.P. The sea invaded the Gulf at the speed of about 100 metres per year. The coast was irregular with deep bays. Since then the coast has become more regular because of sedimentation. The sabkhas of Qatari coasts formed and the country increased in size. Sharks teeth may still be found quite far inland in the desert.

The relief in Qatar proves the alternation of the climate. It shows a succession of arid or hyper-arid episodes, contemporary to the interglacial eras. The relatively humid climate was contemporary to the glacial epoch and the pluvial era in North Africa. The red soils in Al-Khor prove the existence of a climate much more arid than the present one.

The anti-diffusionist theory may not apply in the case of Qatar. This theory holds that nobody has to come from anywhere, that there were people already living everywhere and that they forged their own civilisation.

One can imagine people visiting Qatar since the first man. They probably lived on fruits, berries, roots and any wild creatures they were able to capture. Little water is needed when large quantities of fruits and vegetables are eaten. Caverns still exist in Qatar, called duhlan, caused by erosion of the limestone by underground water, where pure surface water is found and two of them are

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1 This information is recorded in the Museum at Khor. It is obtained from the French Archaeology expedition.
nowadays used by divers. Fish has always been bountiful and easily caught from the shore. They made and used implements of stone, there can be no trace of the perishable wooden implements they must have used. They carried large stones with them on journeys to use as weapons and utensils. Qatar as part of the Arab world could be the cradle of civilisation. It certainly became a resting place for people moving from one place to another, and was so until the development of oil, but how far back in time is hard to prove.

Itrabo, who wrote before Aeratosthenes, Alexander's Historian, says that Tyros and Aradus were occupied by Phoenicians. Gosselin says that they first moved from Sidon to Sidonia, a city visited by Marchus to inhabit Bahrain, and from there established themselves on the shores of the Mediterranean. The belief of the Political Officers serving in the Gulf from 1857 to 1914 lead to the conclusion that there had most certainly been a Phoenician occupation.

According to the Greek historian Herodotus, the inhabitants of the area were Canaanite tribes, later known as Phoenicians. He notes that the embalmers of Egypt used the finest myrrh, cassia and all the spices, except frankincense. As the mummies were embalmed a very long time ago, the Indian and Arabian trade must date back to the same period. This confirms that a trade was conducted with India, as Arabia has no spices. The trade route went through Arabia to Egypt, at the time of Abraham's travels and of Joseph's sale in Egypt. The narratives on Abraham and Joseph in Genesis note that about 2000 B.C. caravans of merchants used to traverse Arabia to supply Syria and Egypt with spices and merchandise. These caravans had probably been going on for thousands of years. The indigenous products that were exported consisted primarily of dates, frankincense and pearls. The advantageous position of the Arabs, of being midway between Egypt and India has allowed them to monopolise this trade. As a result, they became the first people to civilise the world, particularly as they were the pioneers of navigation.

2 "In their treatises based on their extensive travels between the 9th and 14th centuries famous Arab geographers such as al-Yacoubi, Ibn al-Faqih al-Hamadhani, Ibn Rastah, al-Balkhi, al-Istakhar, Ibn Hawqal, Abu al-Fida and al-Idrisi, gave elaborate descriptions of such marine phenomena as the fresh water springs flowing from the bed of the Arabian Gulf near Bahrain" according to Captain Rashid bin Fadil al-bin Ali.
Solomon encouraged trade in the Red Sea and this commerce enriched the Muscat Arabs. By 500 B.C., the Red Sea route competed seriously with the Persian Gulf channel. Arabia was the land of caravans and the camel became indispensable.

The Gulf became a thriving area of trade and commerce since the third millennium BC, with the rise of the Mesopotamian civilisation and the founding of the trading centres of Dilmun and Gherra. S.H. Cooke (1963) in his *Middle Eastern Mythology* describes the Sumerian myth of The Flood, mentioning Dilmun. In later Semitic editing of the Sumerian myths Dilmun became the dwelling place of the survivors of the Flood. Dilmun was said to be located in the Persian Gulf. It only lacked fresh water so the God Enki ordered Utu, the sun-god, to bring up fresh water from the earth to water the garden. Recent findings suggest that Qatar participated in the thriving 3rd millennium trading activities taking place in the Gulf. Barbar pottery, associated with the Dilmunite civilisation, was found buried in a site on the Ras Abaruk peninsula.

The French established a chronology and a paleogeographical reconstruction of the quaternary in the Qatar peninsula. One site, dated as 6th millennium B.C. at Shagra, in the South-East of Qatar, contains the 'oldest' building in this part of the Gulf. Remains of fish and marine mollusca have also been found, pointing to the key role that the sea played in the lives of Shagra's inhabitants. Ubaid pottery made approximately in the 5th millennium BC in Mesopotamia has been found in the Eastern Province of Saudi Arabia. Ubaid pottery has been found in several sites in Qatar. One of them, Ubaid 2 or early Ubaid 3 decoration in a site at Al Da'asa, in Western Qatar. It consisted of a small encampment in a sheltered bay. Pottery of Ubaid 3-4 from the latter part of the 5th millennium was discovered at Al-Khor, on the northern coast of Qatar. The site also included a workshop for the manufacture of flake tools and large blocks of flint. Experiments were carried out to re-discover and understand the methods prehistoric men used to manufacture these tools. The mission also excavated the earliest recorded burial site of this period in Qatar. Also remains of fish and marine mollusca were found. They were eaten, cooked over fires made from driftwood. At Al-Khor North Island red pottery characteristic of Barbar culture shows people to have been there around 2,000 B.C. This
pottery is common in Bahrain and the Eastern Province of Saudi Arabia but is rare in Qatar. A number of stone-lined fireplaces were also found. Why people came to this site is unclear as all they left was the pottery and hearths.

Ubaid pottery was also found in two sites to the north at Bir Zekrit and Ras Abaruk. Beatrice de Cardi (1973) suggests that the tools, bones, shells and animal bones, including those of gazelle and squid, show that the camp was occupied by people who lived off the sea and the land. It is likely that the Ubaid pottery came from Sumer. Visits are believed to have been made by sea by means of boats, rafts, catamarans and reed vessels, which were also used on the Tigris-Euphrates and Nile rivers.

An Abbasid fort has been discovered at Murwab, built with 4 angle towers around a quadrangle, similar to the forts of Abbasid, Umayyad, Iranian and Iraqi origin. Other items discovered at Murwab, which lies between Zubara and Umm Al-Ma'a, include a tin-glazed ware of the 9th to 11th centuries and a Mesopotamian splashed ware which were common across the Gulf in the 10th and 11th centuries. Pottery was also found, north of Al-Naman and included T'ang painted stoneware from China. The discoveries at Ruwayda indicates that the sites were occupied from the 10th to the 18th centuries.

At the end of the 10th century Huwailah situated on the North Eastern coast of the peninsula was one of the main urban centres of Qatar. Remains of the buildings show that the city stretched two kilometres along the coast. It included a square stone fort with a tower at each corner. The main occupation of the inhabitants was pearl fishing. Pearl oysters (pinctada margaritifera) were caught for their pearls and also for nacre (mother of pearl). This is proved by the large quantity of pinctada shells found on the site. During internal wars the city was destroyed by a great battle in 1835 A.D. The exceptional deep bay of this fishing port allowed anchorage of trade ships, fostering exchange with neighbouring countries and the Far East. This is confirmed by types of Chinese porcelain of the Qing period found during excavations at the fort. The different materials found are the latest sign of local production as well as of import of ceramics.

Archaeologists maintain that a dual way of life existed, with nomadic and
settled communities. They trace Qatar's overseas contacts with 18th century settlements which edge the coast and the earlier village sites where fragments of imported pottery from Iraq, T'ang stoneware from China and imitation terra sigillata made in Western India during the second and third centuries A.D. were found. They seem unaware of the textile and camel trades and also of the 'oral tradition'. Much reliance is placed on this by Arabs in general and Qatars in particular.

A spiral rock inscription found at al Kharrara, in Central Qatar, bears a Safaitic Arabic inscription. The text is an invocation to the Nabataean High God Mn't. Rock carvings have also been found at Wakrah and Fuwayrat. Those near Fuwayrat are at Jebel al Jussaisiyah and mostly consist of line drawings and bas relief of boats. The rest consisting primarily of cup marks in various sequences of parallel rows and rosettes, have been identified as game boards. Clare Gillespie, of the Natural History Society believes that some cannot be game boards, as they are carved at such an angle that the counters would not stay in the holes. One feels that they may be messages for other visitors expected to come at a later time or could have possibly represented ways of counting the days of the current visit!

The rosettes are known locally as al-ailah, the rows as al-haloosah. Similar games are played throughout the world. In Africa al-haloosah is known as mancala. It was also popular in the coffee-houses of 19th century Egypt. Some of the boat drawings are traceable to pearling fleets, with their rows of oars, and anchors. It is thought that the anchors take the form of both Arabstone and European metal. The European anchors were introduced by the Portuguese in the fifteenth century. In conjunction with the rock carvings, they can be dated to anywhere between the 10th and 16th centuries AD.

The carvings also include crucible shaped indentations which by oral tradition were for collecting rain water. As they are hardly large enough to store much water one feels that they possibly were used for pounding herbs for medicine. Many do grow wild in Qatar and following some rain many sprout up. Their seeds can lie dormant in the sand for very long periods of time, possibly hundreds of years.
Balm, Myrrh and Frankincense, come from Arabia\(^3\). From the earliest times Gherra, or Jura’a which was a port of fabled prosperity probably on the Saudi Arabian coast near Salwa, carried on a trade in spices and cotton with the Phoenicians, Petra and Babylon and in cotton also with al-Bahrain where it had long been imported from India. From the Middle Ages to the early sixteenth century the name Bahrain covered the entire eastern coast from about Basra in the north to the trucial coast in the south. Colonel Samuel Barrett Miles (1966), who at one time served in the Indian Army, in the Political Service and as Consul-General in Muscat and Baghdad, thinks that the Arabian Sea trade must have started with the dawn of civilisation. In their early adventure days, the Arabs rowed from point to point along the shores in small frail boats and beached them for safety on the approach of bad weather. Using their experience on how to guide themselves by the stars, the Arabs abandoned the primitive method of coasting along the shore and struck out boldly for distant lands. Gulf Arabs were the inventors of the three cornered sail.

Historians talk of the people of Qatar as skilled sailors. A favourite legend, thought to have originated in Al-Khor is that of Ghilan and May. May was a woman in competition with a man, Ghilan. She proved to be more competent even in navigation and finding pearl banks. The story goes: "In very old times, there lived in Qatar a most powerful and influential man called Ghilan. He owned many pearl-diving ships crewed by tough sailors and divers. Ghilan ruled over the seas as an absolute master, till one day a courageous woman called May appeared on the scene as a serious competitor for Ghilan. She also owned pearl diving ships, and her men were stronger and more experienced than his. This was too much for Ghilan's pride, and he started looking for ways to overcome this competition". The legend goes on that one day when Ghilan was looking closely at a grasshopper, he was inspired with the idea of the sail by its internal wing. Ghilan developed this idea for his ships without

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\(^3\) All these three are resins. Balm as described in the Bible as the 'balm of Gilead' seeps from the cracks formed in the bark of the tree *Commiphora*. It is used as incense these days but was once used as antiseptic medicine. Another species of this tree yields myrrh, also fragrant and with antiseptic properties. Frankincense comes from the same family as both the other resins but not so closely related. Symbolically all three play a healing role in religious ceremonies, their scented smoke give an atmosphere of sensory harmony. Qatari ladies use them to scent their hair and clothes at celebrations.
delay. It was a big surprise for May when Ghilan's ships this time overtook hers at sea. It was her turn then to hail, 'Tow us, oh Ghilan!' But Ghilan proudly replied 'Towing is in the head of the mast'. When May's ships strongly pushed by her tough oarsmen would overtake Ghilan's on their way to pearl diving banks, Ghilan would hail her, 'Tow us, oh May!' but May would haughtily scoff at him 'Towing is in the head of the oar!''

The etymology of the word "Qatar" suggests that the root may be "Qa Ta Ra". The country is thought to have received more rain than the neighbouring area and accordingly was called Qatar, which means the falling of rain. "Al Qitr" means smelted copper, suggesting that Omani copper ore was smelted in Qatar for commercial use. Gherrah lies at the end of the incense trail. Burnt incense is called "El Qatr" and the name Qatar may refer to the burning of incense, conducted to test the purity of the product. "Al Qatar" means selling and buying without weighing the merchandise, which is a common practice in such a commercial centre to save time and trouble. A file of camels is called "Qitar" and may be the source of the country's name, given that Qatar bred camels for the markets of Arabia. "Qatar" means sewn or stitched cloth and may refer to the famous red garments of Qatar mentioned in the sayings of the Holy Prophet.

Whatever the origin of the name of Qatar, it should be noted that naming the peninsula Qatar is a relatively recent phenomena, which made its appearance on a 19th Century Ottoman Empire map.

There are many historical references to Qatar. In the second century, Ptolemy recorded on his map of Arabia a place called Catarra. It is at the head of a bay, which lies east by half a 'degree' from the fabulous end of the incense-trail of Gerrah, which may be 'El Aqir' in the numerous Arabic references. Al Idrisi drew Qatar on his map in the 12th Century but does not name it. In his "Nuzhat al Mustaq fi Ikhtiraq Al Afaq" he mentions Qatar, as he says "...from Golfar to El Bahrain you come to the port El Sabkha where there is a fresh water spring, then to Shiqab and Bowar on a difficultly passable sea shore. These places are called the sea of Qatar. In this sea there are several islands which are only inhabited by birds of different kinds; the droppings of these birds accumulate to form much dung. When the wind in the sea is fair,
sailors on boats reach these islands and carry that bird excrement to Basrah and elsewhere to sell it as a very high priced commodity, where it is used as a fertiliser for gardens and vineyards. On the shore of the Sea of Qatar, there are no inhabitants".

This name has been recorded in several different spellings over the years. It was once pronounced Qatar and referred to as Barr-al-Qatar. In historical records it is referred to as Kutr, Gutter, Kotr, Katar, Kotar, El Katr and Elcater. It is found as "Cidado de Cater" on the 1563 map made by the Iberian, Lozaro Lewis; "Catarah" on the 1568 map made by Vernae Vaz Douardo; as "Catara" on Langren's Orae Maritimae of 1596 and "Katr" on Bolton's map of 1755.

In his Natural History, Pliny the Elder, mentions the "Nomad Catharrei" and notes that the Phoenicians, when living in Persia used to move about from island to island by means of rafts. Nebuchadnezzar encouraged the extension of the Persian Gulf route to Babylon. Gherra located in the vicinity of Dharan, and its neighbours Bahrain (Dilmun) and Kateef had an advantage over the Omani harbours, as terminii for the Oriental trade, as they were nearer to the cities of Syria and Mesopotamia. In addition, the land routes from Oman were difficult and dangerous.

Al Masoodi, the well-known Arab geographer who died in 956, mentions Qatar. He tells us in his "Murouj Al-Dhahab" "...on the opposite side of the Persian shores there is the land of Bahrain and the (Islands of Qatar) and the shores of (Bani Judhaimah) the land of Oman". He also mentions "the Abyssinian Sea, the land of Kariq and Qatar and Ceylon." In the tenth century, the Arabian geographer Al Hamadhani mentions a watering place named Qatar, in the "region of El Bahrain". The Arabian writers and cartographers applied the name Bahrain, now restricted to the islands, to a whole tract of land which included El Katif and El Katr. One of these writers was Ibn Khaldun who mentions the name in his Muqaddimah.

Yaqut al Hamawi, the famed lexicographer and geographer of the 13th century, called Qatar a village, speaks of a coarse red cloth with stripes from which are made cloaks, shirts or dresses called "Qitriah". However, he gives no
indication as to where they were made, the "Qitriah" are described in several Arabic poems and were carried from Qatar to different markets in Arabia. He wrote of the famous spears. He notes that Qatar was on the shore between Oman and El Aqir and also speaks of thoroughbred camels described in poetry of the Umayyad poet Jarir, as Qatariyat.

In the 2nd millennium BC, Kassites from the Zagros Mountains assumed power in Mesopotamia. The Kassite presence or influence is found in the bay of Al-Khor on "South Island" a more recent site dating about 1,300 or 1,200 B.C. The pottery here is Babylonian, present day Iraq. As in the other site the people here were visitors. They lived in small houses and threw their rubbish into a central dump. These Babylonians seem to have been attracted to make purple dye. A small shell midden was discovered. The midden was found to consist of a single species of sea shell belonging to the Murex family. It is believed that extraction of the mollusc's Tyrean purple dye was the reason for this settlement. Purple dye was very expensive and much sought after by kings and gods. The Ceramics found there are Kassite and suggest a very close association with Babylonia. Ancient texts mention that purple-dyed cloth was used in Kassite and post-Kassite Babylonia and hence it can no longer be assumed that the dye came only from the West.

The dye used for the flag of Qatar is likely to have been extracted from these sea shells, the flag was sent to London in the 1950's for reproduction and caused much comment when it was found hard to imitate the deep maroon, almost purple colour. According to Pliny to extract the dye from these creatures they had to be put in salt and then boiled for several days. Even then, to get a good colour they had to be coated with a special liquor extracted from a certain herb now called *Anchusa tinctora*.

The French identified 147 different species of shells, belonging to 36 families of Gastropods, 21 families of bivalves and 1 family of scaphopod.

Tony Woodward, a member of the Qatar Natural History Society, who, in the 1980's, found an octopus which he believes is the first recorded in the Gulf, also found a small Galeoma, which he sent to the British Museum and knew the location of the Giant Murex which is reported to have become extinct in
the Gulf. He maintains that there are many Mollusca and micro-species. If one takes a scoop of sand from the splash zone (or high tide mark down to the low tide mark), spreads out the wet sand to dry and sifts through the sand with a magnifying glass one discovers many tiny species. These shells are found in such an abundance that they were and still are used as floor coverings and for drive gravel. According to oral tradition this had been done for a long time.

Signs of Graeco-Roman influence in Qatar are found at Ras Abaruk where a temporary fish drying station was established. At another nearby site the findings suggest that pearls and dried fish have for long been the most important commodities traded from Qatar.

During the Sasanid Empire, Qatar participated in the trade between East and West, from the 3rd to the 6th century A.D. It contributed pearls and purple dye to the cargoes in exchange for copper, sandalwood, teak and ebony from the Orient.

When Islam came to the Gulf and the Red Sea, trading routes to the East and West were already well established. The Gulf traded with India, the South Arabian Coast and East Africa and beyond with China. By the end of the Sixth Century, the Iranian Sasanids had extended their influence beyond the western side of the Gulf to Hadramawt and as far as Yemen, where a naval Persian expedition established a political power over Sana, Aden and the ports of the south end of the Red Sea. However, local rulers and chiefs retained their independence in their territories. The same policy was adopted in Oman where the Sasanians had a governor. Bahrain, as the extended area of the Arabian mainland as well as the actual islands of Bahrain, was also governed by a Sasanian Marzuban with an Arab ruler known as Isbadh. This area included Qatif, Aqir and Qatar, then known as al-Khatt. The religion of the Persians, namely Zoroastrianism went with them to Oman, to Iraq, where large number of Aramaean Christians lived and to Bahrain. Christian communities also lived in Hadramawt and Yemen. The Arab Christians belonged to the Nestorian church. There are records of a bishopric of Qatar existing in AD 225 and a bishop of Qatar attended a church council held in AD 410.4 Christians

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4 Evangelical Work in the Orient (Undated work in the library of the Public Records Office, Qatar.)
came to Qatar again from 1916. They were American doctors.

The Iraq Petroleum Company (the parent of Q.P.C) sent Anglican chaplains from Iraq in the 1930's and 40's to Qatar. The company appointed the first resident Anglican Chaplain in April 1951. Also chaplains visited from Kirkuk. The Anglican Archbishop in Jerusalem in whose diocese Qatar lay, visited Doha and Oom Said. His successors have visited regularly ever since. In 1962 an Archdeacon of Eastern Arabia was appointed and established the joint Anglican parish of Qatar and the Trucial States, and became chaplain of the joint parish. He at first visited both parts of the parish regularly from Bahrain, then moved to Abu Dhabi, the chapel in Qatar was so small, even though Qatar had the first resident, because the ruler there allocated land for a church.

Meanwhile the province of Jerusalem and the East has been divided in 1976 into four dioceses and the parish of Qatar and Abu Dhabi came under the diocese of Cyprus and the Gulf. The Anglican Bishop was resident in Cyprus and continued to visit. In the earliest days services were held only in Dukhan and Oom Said, later these were extended to Doha as the Christian population arrived from 1949 and began to grow. The chaplains were kept busy visiting the sick. Lay readers licensed by the anglican Bishops would hold services on days when the chaplains could not be present. Anglican worship has been continuous since the late 1930's. The Catholic priests have also been visiting on a regular basis. Jewish communities had settled before the Christian era, in the Gulf on the Bahrain Islands. Even today some of the family names in Qatar are remnants of this religion, such as Al Sayegh and Al Noami.

Islam swept the Arabian Peninsular in the 7th century. The Abbasid descendants of the prophet's uncle relocated their capital to Baghdad. This entailed political and economic implications for the Gulf and the medical history of the world.

The Prophet first came in contact with the Bahrain province when he became associated with the governor, a Christian who converted to Islam. When he called for financial contributions in the early days of Islam the greatest contribution was sent by the inhabitants of Bahrain, then as always a major trading post in the heart of the Gulf.
As already mentioned, among the earliest tribes to have passed through the peninsula were the Canaanites and Phoenicians who were recorded by the Greek historian Herodotus as inhabitants of the Gulf and went to Palestine and Lebanon, living in Oman during their migrations. According to Kelly (1968), the term "Oman" in mediaeval times was used to designate the whole of the Arabian peninsula to the east of Qatar and outwards to the Indian Ocean. By the eighteenth century the term had come to signify only the south-eastern corner of Arabia, the area today made up of the Sultanate of Muscat and Oman.

Cushites, mentioned in the Bible, are the earliest race known to have spread over the Arabian peninsula. They are believed to have originated in Egypt and to have initiated seafaring. The Cushites were later overwhelmed by a wave of Semites from Northern Arabia and they were expelled or absorbed. Known
as the "Baida" or "Ariba", they are now extinct. The tribes that then spread over Arabia were of two main stocks namely Kahtan and Adnan, derived from Shem's fourth and fifth generations. Kahtan colonized the Yemen, or southern half of the peninsula and Adnan, who descended from Ishmael, occupied the northern part. Kahtan and Adnan are the origin of the entire Arabian race. Over the centuries, they branched into many tribes and spread over the peninsula. Their genealogy was mostly handed down by word of mouth, or 'the oral tradition' and was put in writing only after the death of the Prophet.

Aeschylus is the first Greek writer to mention the Arabs. Eratosthenes who died in 196 B.C. is the first to describe Arabia. Agarthacides, once lived in Egypt and wrote five volumes on the Red Sea and Southern Arabia. Agarthacides notes the existence of Arabian colonists in the ports of India. The Omanis conducted a flourishing maritime trade with India. Whilst westward, the desert isolated them from the rest of Arabia. Their goods were therefore disembarked at Gherra and shipped by merchants of other countries further up the coast. Gherra had a port on the coast opposite to al Bahrain. The Phoenicians loaded their caravans with goods brought by Omani ships. The great Shammal or North Wind, which sometimes blows most unexpectedly, may have forced ships to go to the shores of Qatar for shelter or as shipwrecks. Some tribes also migrated from Yemen, following the destruction of the famous dam at Mareb in about 130 A.D. The Adnani race went to Nejd and Hejaz, while the Azdites moved partly to Hejaz and partly Eastward. Amr bin Ameer Mazeikeya (or Tearer) moved first to the Akk tribe's territory. After his death, his son Talib led the people to Mecca and then to Al-Bahrain. The largest section of the Azdites moved to Oman over a span of several years. Some historians say that Malik bin Fahm led many Azdites to Bahrain and Hera, on the Euphrates. Sixty years later, a second migration to Oman took place. The al-Azd overran the country and went again as far as Al-Bahrain and Al-Hassa. Some of the Benu Tamim also settled in Oman. Under Shapur II, who ruled in Persia from 310 to 330 A.D., the Arabs raided the Persian territory. He landed an army at Kateef, overran Al-Hajar and almost exterminated the Arab tribes. The Tribes dispersed and went back to Oman.

Further contingents of Adnani tribes went in the fifth century to Oman and
Hadramawt. The Nejdean tribes, which two centuries later went to Oman, included the Abs. Following the forty-year war between the Abs and Dhobyan, the Sheikh of the Abs retired to Oman and converted to Christianity. The number of Christians who lived in Southern and Eastern Arabia increased at this time. Three churches existed then in the Yemen empire - one at Zhafier, one at Aden and one in the Persian Gulf, possibly at Sohar in Oman. The conquest of Yemen by the Christian Abyssinians in 525 A.D. and the Roman influence greatly helped the spread of Christianity which would have become the dominant religion were it not for the rise of Islam.

The Julanda (all members of the ruling family took this title) ruled Oman at the time of the Prophet and are mentioned in the Quran. The Roman progress was stopped by Anoushirwan who appointed a governor over the two provinces of Oman and Bahrain. He was probably subordinate to the chief of the Beni Lahm, who controlled the provinces of Oman, Bahrain and Yemama and part of Hejaz. Sixty six years later Islam swept the Persians from Oman and other states. The Prophet is reputed to have written to all the chiefs and princes of Arabia, encouraging them to convert to Islam. It took the Azdites a long time to do so. Their main motive for conversion was to get rid of foreign power. They were subject to no persecution and they abandoned idolatry. They agreed to pay the Zakat, taxes, which had been there from time immemorial and which the Prophet agreed should be distributed to the poor. They preferred the monotheism of Islam to the trinity of the Christians and the idol worship of the heathens. However, they retained some of their pagan customs and when after the death of the Prophet, the Omanis lapsed, the Calif sent a force from al Bahrain. The Emir of Bahrain, Hajar, and Oman ruled once more over the local Julanda and his rule continued for six centuries. In 893 A.D. the Carmathians of Bahrain rebelled against the Imperial Government on account of a Persian, Abdulla Al Kaddah. In 902 A.D., they set siege to Al-Hajar, the capital of Bahrain. They were not loved because they drank wine and did not believe in divine revelation. In 929 A.D., they even attacked Mecca and carried to Bahrain many precious objects and relics, some from Christian churches. They include the famous Yateema pearl, the rod of Moses, the horn of the Ram that saved Isaac or Ishmael from Abraham's sacrificing knife and the gold earrings of the Mother of the Prophet's son. Oman, the last to fall was, however the first to expel the Carmathians. Command over the Indian
trade route passed from the Venetians to the Portuguese, to the Dutch and in the sixteenth, seventeenth and eighteenth centuries to the English. Writing about Arabia, Albuquerque notes that: "Muscat belonged to the kingdom of Hormuz".

A king called Ben Jaber ruled over the interior. He had two brothers, who ruled over a country which extended to Aden, was washed by the Persian sea in the North and from there stretched to Mecca. The Arabs called it the Island of Arabia. One of the Ben Jaber took from the King of Hormuz the Island of Bahrain which had a pearl fishery. To maintain their political and commercial supremacy, the Portuguese built forts all along the Arab coast and controlled the custom house and port in their stations. They did not interfere with the local administration, habits, religion laws and customs. In 1521, they stormed Manama in Bahrain and held power for many years. A concerted insurrection took place that year in Hormuz and along the Arabian shore, from Bahrain to Kilhat, and letters were sent to the Persian governors of dependencies on the Arab coast with orders to rise against the Portuguese on a specific day. Previously, in 1517, the Portuguese had conquered Qatar. They refrained from interfering locally as long as the Gulf officials did not oppose them nor interfere with their trade to India. In 1538, the Turks drove them out. The Turkish presence was not greatly felt in Qatar, although the Ottoman Empire had incorporated large parts of the Arab world.

The first Turkish hostile operations in the Persian Gulf began in 1546, when four ships, sailing along the South Arabian Coast, destroyed Kisheen and Dhofar and bombarded Muscat. The Arabs revolted and pestered many ships on the trade routes. One of the first cases of European piracy took place in 1686, when two corsairs plundered vessels in the Red Sea. An English pirate attacked and plundered the Portuguese settlement at Kong in the Persian Gulf. The Island of Bahrain was taken from the Persians in 1700 by the Imam Saif from Muscat. In 1737, Nadir Shah, then King of Persia, recovered Bahrain.

According to Sultan Muhammad Al-Qasimi (1986), the report on the situation of the Arab tribes in the Gulf in 1756, written by the residents in Kharraq island, T.F. van Kniphausen and J. van der Hulst stated that there were three places on the coast between Kateef and Seer, each of which only had a few
houses, where from Basrah dates and rice were brought to sell to the Arabs of the desert or to pearl-divers: they were Ajir, Qatar and Sharjah.

The territorial crossings of the nomadic people were from the North West to the South. The Naim lived around Zubarah, al-Ghuwairiya, al-Qaiya and Jumailiyah. A main subsection of the Hawajir, the Makhaddabah, lived in the central area of the peninsula, from Umm Al Qahb to Uweyna, Al-Rufiq and Zekrit. Subsections of the Morrah left Jafurah during the winter months and went as far as the southern limits of the country. They came into contact with the al Manasir from Dhafrah and other family groups. Groups often formed up for techno-economic reasons. The main vegetation that grew consisted of thorn bushes, *sidr*, sparse grass, *samr*, and clumps of xerophytes, *amt*. Thus enabled by tradition, the bedouins would breed camels and horses and as a result were high on the social scale.

The Rulers of Qatar, the Al-Thani, trace their ancestry to Thani Muhammad Ibn Thamir Ibn Ali of the Bani Tamim, a large division of Mudar, Nizar, the Northern Arab or Adnan. According to tradition, their ancestors left late in the seventeenth century Al-Washm, in Nejd, and settled in the Jibrin oasis, in Eastern Qatar. In Arabic, 'Nejd' means a high or table land. According to Arabian geographers, El- Idrisi, Abul-Feda and others, it comprised the entire Central Arabian region extending in the south from Yemen to the Persian Gulf, in the north from El Medina to the northern shores of the Persian Gulf and in the west between the Hejaz and Iraq.

The Al-Thani moved to Zubarah, but later moved again to Doha, the present capital of Qatar. They ruled Doha as a fiefdom under the Al-Khalifa, rulers of Zubarah. The Al-Khalifa, a branch of the Utub, had come from Kuwait in 1766, they made Zubara into a flourishing commercial port. The town consisted of about 400 houses, protected by a citadel set back on higher ground. Today it is deserted, except for a fort built later by the Turks.

Around 1760, members of the Al-Khalifa section of the Utub tribe migrated from Kuwait to Zubarah in the north-west of Qatar. The main tribes were the Al-Mussallam, the Sudan, the Ma'adid and the Al-bin-Ali. Bahrain was then inhabited by Persians. The Utub conquered Bahrain in 1783 and the Al
Khalifa left Zubarah. At this time Qatar fell under Wahabi rule, as this Islamic movement, founded by Muhammad bin Abd al Wahhab, spread outwards from Nejd. The Wahabis made their first incursions into Qatar in 1787 and 1788 and the leader of the Jalalahimah formed an alliance with them in order to overthrow the Al-Khalifa. Three other powers appeared on the scene: The Turks were afraid of the Wahabis' power and attacked Hijaz. The Ruler of Oman attacked the Wahabis in Qatar and destroyed Zubarah. British ships were molested by the Qawasim, from Ras al Khaimah, who took refuge in Bahrain. The British fleet consisted of 63 large and 669 small ships. The Qawasim traded with Indian ports. The British wanted all traders to have 'passes' to use the Gulf for trading. They regarded the French ships that attempted to approach the gulf as 'privateers' and the Arabs as 'pirates'. Sultan Muhammad Al-Qasimi believes that several incidents were misunderstood, that pirates and privateers were not all Arabs and the Arabs were not all Qawasim. There were Indian pirates and French privateers, who were never called pirates. There were Arab pirates operating from their base near Qatar under the leadership of the ferocious Rhama bin Jabir, who according to Arab writers wished to rule Qatar, but their attacks against all ships were tolerated as less than a minor irritation. In order to maintain good relations with the British, the Ruler of Bahrain signed a peace treaty with Britain. The British destroyed Ras al Khaimah in 1819 and signed in 1820 a peace treaty with the Qawasim. As the Emirs of Bahrain were also the rulers of Qatar, the latter was assumed to be a party to the agreements.

In 1861 Bahrain signed another peace treaty with the British and once again Qatar was considered part of the agreement. In 1867, tribes from Bahrain and Abu Dhabi attacked the towns of Wakrah and Doha. The British Political Resident in the Gulf, Colonel Lewis Pelly, went to Bahrain and fined the ruler for this incursion, which violated the 1861 agreement. Subsequently, he signed an agreement with Sheikh Muhammad bin Thani of Doha. The Al-Thani had moved to Doha from Fuwayrat soon after 1847, and this agreement strengthened the position of the Al-Thani in Qatar. They still paid annual tribute to the Al-Khalifa of Bahrain. According to Abdullah Yousef Al-Malki (1994), this was supposed to go to Bin Saud, but was given to the Ottoman sultan.
The eighteenth and nineteenth centuries witnessed violent struggles to dominate Qatar. Finally in 1820, Britain imposed the General Treaty of Peace. The treaty was applied in Qatar only in 1841, after the British bombarded Doha. About two decades later, in 1868, the British Political Resident in the Gulf, Colonel Lewis Pelly, recognized Sheikh Mohammed bin Thani as the representative of the people of Qatar.

In 1871 Jassim bin Mohammed al-Thani, the sheikh's son, allowed the Turks to return with a garrison into Doha, against his father's wishes. No further tribute was paid to Bahrain but the Turks later imposed a heavier levy. In 1879 Jassim was named governor of Doha by the Turks but he resisted their attempts to impose their own administration in Qatar. He eventually succeeded his father. The Turks were dependant on the Qataris for their food, as their pay was slow in coming from home.

The Qatari population was described in 1914 as consisting of several tribes which included blacks, free and slaves. Among the black tribes, the Hamaidat and the Mahandah were peculiar to Qatar. In total, the population, including the Turkish garrison counted 27,000 persons. The Bedouins belonged to the Beni Hajjar and the smaller Ka'aban tribe. A large segment of the Naim tribe of Trucial Oman detached itself from the parent stock and roamed between Bahrain and Qatar. Qatar was also visited by Al Morrah from Hasa, the Manasir from Trucial Oman and occasionally by the Ajman. The majority were Maliki Sunnis. The Sudan and Ma'adhid tribes were Hanbalis, the Sadah Hanafis and Shafiis, the Baharinah and Persian Shiahs and the Arabs of Nejd Wahhabis. Beside pearling and fishing, the community also engaged in breeding camels, a few horses and cattle and some sheep and goats.

During the winter months, families moved around. They regrouped in the Spring and settled around wells during the summer months.

There have been other important industries in Qatar besides the making of purple dye, sale of fertiliser, camel and horse breeding, and cloth made from goats hair. The myth that the people of the Gulf lived in abject poverty until the oil industry took off is untrue. From the earliest days of trading the region had times of considerable prosperity and poverty. When the Gulf was rich, it
was very rich.

From Arabic sources we know that the pearling industry in Qatar gained from the maritime trade through the Gulf to India, China and East Africa.

A wealth of information on pearling was obtained by the French when they conducted an anthropological study of the Naim Bedouins of Qatar. They found that in the oral tradition pearlers were known as gawawis, the merchants as saih, and the sellers as towastowas. The creditors, musaqqamin, advanced funds to the boat captain, the nuwahdah who may or may not have been the owner of the boat. The nuwahdah advanced a part of the salary to the divers' families together with food throughout the fishing season, which lasted approximately 4 months. Upon being hired a boy would start as a tabbab or walid, and would help open the shells. Then, he would rise to apprentice, a hatif and then to diver, a gais, or to a diver-puller, a seib. The staff regularly included a cook who was entrusted with feeding the crew and serving coffee and tea. In some ships, he had an assistant. Some larger ships carried men whose only job was to open the shells. The Mutawaa was another regular member of the staff. He attended to the spiritual needs of the crew and attempted, through prayer, to heal the divers who suffered mishaps. The members of the crew would be divers and musicians. The men were typically divided into two groups of broadly the same size, each working two shifts a day. One shift of men rested from diving and drummed up a rhythm for the other shift, the workers.

The diving equipment included a shingle, which consisted of a sack of pebbles or shingle weighing about ten pounds that the diver carried to accelerate his descent. Later, lead was used instead of shingle. The shingle was tied to the end of a rope called Al-Zabeen. Upon reaching the bottom, the diver would signal the man on the ship to haul it up, for use by the next diver. The diver had also a strong Yeda, one end of which was tied to a net like bag in which the diver put the shells he collected on the sea bed. The other end of the rope was held by the man on board the ship, who would pull up the catch after receiving as signal a pull on the rope. The diver placed over his nose during descent a clip made from tortoise shell Al Fatam, to prevent water entering his nostrils. He wore thick finger tip protectors, made of cow hide known as Al-
Khabat to protect his fingers from the sharpness of the shells. Sometimes they wore long shirts to protect themselves from the deadly sting of the "devil fish". They had no protection against sharks. The shells were opened with a metal tool, the Al-Maflagah.

The pearling season consisted of three main periods. The Hansiyah started in April. The sea was then cold so diving was limited to shallow water and the working day was short. It was followed by Glaus or Kebir, which lasted from the end of May to mid-September. It was the busiest part of the season. The men worked from sunrise to sunset, with only 3 minutes between dives and about 2 hours for opening the oysters. The last part of the season Raddah lasted from mid-September to mid-October. The salary paid to the divers was called maund.

For the rest of the year the men engaged in boat building. Other members of the community took their herds and tents inland. More recently some established their dwellings close to their summer residences and their animals pastures and took no part in pearling at all.

Fishing has always been a very important industry and continues to be so today. There are still skilled boat-builders in Qatar and finely crafted dhows can still be seen; the bhoun, the jalbout, the sho'a and the sambuq.

Recreation in the past consisted mostly of music and poetry. Music and singing provided the only respite from the long pearling and fishing expeditions and have become a part of the heritage. A variety of folk songs describe the customs and traditions of life at sea. The music of the desert is different from that of the sea.

According to Toufic Kerbage the crew spent as much time on music as on pearl diving, because of the shift system in their work. From the musical aspect the boat was literally a school of music as much as training for pearl diving, with its training from boyhood to full adulthood. Clapping and beating the rhythms did not stop from dawn until time for sleep. In the day time they only stopped for prayer and to eat, and the shifts broke the mental monotony of work or music.
The instruments used by the group on the boat were originally: the gahlah, the most important percussion instrument, a big jar made of clay, between half a metre and a metre in height and oblong in shape. It was played in the percussion cycle with the 'dum' or bass beat played on the top or mouth with the open hand. (To make a good sound one had to hit hard and the fact that the hands were hardened by pulling ropes for many years was a great help). The 'tak' or the treble beat was played on the sides of the jar's mouth. The melodic beat between the dum and the tak is one octave plus a minor sixth. When the bottom of the jar resonates with the tak beat it generates a 'Rast'. The three tones together make a triad. The drum, or tabl, is longitudinal with two skins. It is beaten with a stick in the right hand, the left hand can be used to beat the skin as well. The hands are an important percussion instrument. The hands are held wide open, held in front of the face, and clapped against each other playing the role of a percussion instrument.

The tasat or tus are tin bowls which are drinking cups. They are played on like copper cymbals.

When pearl diving vanished the instruments were used on shore and others added. The tar is a big tambourine with metal rings, and some have very small bells hanging on the inner part of the frame. The murwas are very small two skinned drums on which can be played a dum and tak. The voices consisted of a number of soloists from one to four. They included the nahhamin, or principal singer of the group. His chant leads everybody in the group, whether in prayer or singing. He is usually a baritone and begins singing with the basses then shifts to one or two octaves higher in a full but very soft register. The rest of the group sing a melodic tone in unison, if they are not basses they are transferred to clapping. The nahham never sang, and he did not dive. Each prayer and each song has a tanzilah or introduction in which everybody participates. There was only one of each instrument played. There are big differences in sea styles and bedouin styles. The styles are: the bahri (mostly a group of prayers), the adsani a long prayer followed by a poem, haddadi, and mohlf. The gib is the name of the small sail in the front of the ship. The divers usually sing the Gib when pulling in this sail.
The folk songs in Qatar are: the labuni, which is believed to have a Kuwaiti origin, hammari usually played by bedouins, samiri played by divers and bedouins, haddadi and dazah played at weddings, sawt which is a sung poem and the ardah which is an attack song used to be played when one tribe attacked another. They are now played on the national feast days such as birthdays of a member of the ruling family or other national occasions.

Pipes, tambourines, drums, stringed instruments and flutes are also played. The dances are still performed today at weddings, religious feasts and special occasions.

The traditional culture is strongly expressed in the folkloric music and poetry. The noble art of poetry and oration whether in the classic Arabic style or in the more colloquial nabati verse, often composed in local dialect, keeps alive the traditional modes in recent Qatari writing. According to Saad Abdullah Sowayan (1985) "A literate Nabati poet would usually collect poems in a diwan which he would inscribe in his own hand. Illiterate poets might have some of their poems put into writing in order to send them to a friend, patron, antagonist, or to whomever the poem might be addressed. Often, illiterate town emirs and tribal chiefs had their scribes write down their poems and poems composed in their honour. Furthermore, there have always been some concerned individuals whose appreciation of Nabati poetry has prompted them to seek it out from oral and written sources and to organise their collections into handwritten diwans." He says that he has seen many manuscripts of Nabati poetry in Riyadh and was told that such manuscripts abound in the towns of Nejd, Al Hasa, Kuwait, Bahrain, Qatar and Abu Dhabi.

Historians say that Al-Bahrain region, including Qatar was a resting place for poets. In pre-Islamic times Tarafah Ibn Al Abd wrote describing the she-camel. Another famous poet of that time Al Mothaqqib Al-Abdi wrote about Qatar. Others were: Al-Mofaddal, Al-Nakri, Al-Mummaziq Al-Abdi, Amr Ibn Jubair, Amr Ibn Assas, Omar Ibn Hanshar, Bazid Ibn Khodaq and more.

In the Islamic first century Qatari Ibn Fuja'ah, the poet, born in Qatar, a member of the Bani Tamim, was a prominent figure in the history of Islam.
Sheikh Jassim Ibn Mohammed Al Thani (1248-1331) the founder of the Al Thani family wrote poetry, one of these was:

"I have emerged free
From the captivity of sultans and Kings
As if I were
A hawk
On peaks of mountains"

Before 1949, when modern public administration and government began to emerge in Qatar, the country was run according to the customs of tribal society, whereby a family or tribe assumed authority. In Qatar the Al-Thani family had assumed that role from about 1850 on. In a tribal society authority is centralised in the person as the head of a tribe or confederation of tribes. Leadership is based on charismatic features such as bravery, wisdom, age, generosity, nobility and size of fortune of a tribe or family. The head of a tribe was respected as leader, arbitrator of conflicts and final authority.

After 1949 when the nucleus of modern government began to take shape, the first government department, Petroleum and Finance was started with a British adviser in 1949. Political leadership remained with the ruler. The role and function of the public sector and of the ruler were one and the same but from 1949 they began to be differentiated. Government departments were established to provide basic public goods and services, mostly financed by government oil revenues. By 1970 a Council of Ministers was formed under a provisional constitution. Also an Advisory Council was formed in 1970 to assist the ruler with recommendations.

The Arabic heritage, dominant in Qatar, is that traditionally there were two social groups: the nomads, or bedouin and people of the oases. Nomads were always on the move because they had to search for water and pasture for their flocks. Through the tribe a social solidarity was maintained known as lax

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5 In the Daily Express dated 24 January 1935 there was an item headed "Pearl King", It described the forthcoming visit of the "richest sheik in the world - Abdullah bin Jassim, sheik of Elcatar, in Eastern Arabia, coming to London for the Silver Jubilee". He was described as being "a devout Moslim, a good friend of Britain and a Commander of the Order of the Indian Empire".
talionis (an eye for an eye, a tooth for a tooth, and a life for a life). Raids were common and random killings were only restrained for fear that a stronger tribe would exact a high price in revenge. In some cases "blood money" was accepted for a killing although this was regarded as an unmanly practice. Attributes such as diyafah, hospitality; hamasah, fortitude and enthusiasm and murruhah, manliness were considered virtues in the desert by the nomads. Water, pasturage and cultivable land were considered common property of the tribe. Each tribe was led by a Sheikh chosen for leadership. The Sheikh was not an absolute ruler but was considered as one among equals. He ruled by consensus and consultation through deliberations in a place referred to as a majlis, where men sit. In certain situations the sheikh consulted with a tribal council made up of heads of different families of the tribe. The nomads had a sense of equality, self-respect and self-confidence.

Before Islam the Arabian Peninsula was dominated by two forces; tribal authority and foreign influences. Islam gave the Arabs a new sense of identity and solidarity that transcended tribal and family relationships. The basic concepts of Islam are: Akaed, faith or beliefs; Ebadat; practising Islam, Muamalat, human transactions. Regarding Akaed acts of righteousness lead to rahamh, mary, and ikha, brotherhood. In Islam, mercy is the basis of progress. Ebadat, "the Pillars of Islam": Declaration of one god, Al-shahada, his Prophet is Mohammed; Al-salat, praying five times a day; Al-zakat, paying alms or poor tax; Al-sawm, fasting during the month of Ramadan; Al-hajj, pilgrimage to Mecca at least once in a lifetime by those who can afford it. Muamalat is based on Justice. There are two main sources of Islamic law Shariah, which covers religion, law and dogma, the holy Quran and the Sunna or tradition of the Prophet. If the Quran is not specific on a certain matter then the Sunna is relied on to establish a specific rule. Complementary to the Quran and Sunna are the agreements of the prophet's companions or Sahabah or Oiyas.

A principle is that the Islamic state must be based on the consent of the

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6 When King Ibn Saud came for a visit, during the walk down the hill, a Qatari Fedowi, stumbled and shot a Saudi dead. The emir of Qatar, in true Arab style offered six Qatari fedowi to be shot by the Saudi's. The Saudi King in true Arab style said malish (never mind).
people. Therefore governance is a trust and the ruler a trustee.

Qatari society is conservative primarily because of its Islamic and Arabic culture but also because of its exposure to foreign peoples, ideas and institutions. Intramariage (marriage between Qatari and non-Qatari) is extremely rare, and intermarriage (marriage between one social stratum and another) is rare. Social status is defined by how much money one has in addition to what family or tribe one belongs.

Qatari society is a highly urbanised one with 88% of the population living in cities.

Prior to the oil boom, the houses, big and small, were built with the available materials of the day. Before the use of bricks and cement, they were built with limestones, gathered in the desert, together with coral mortared with mud. The ceilings were of mangrove poles and woven reeds. Many were built as in Africa, probably by slaves brought to Qatar.

A striking example of the architecture of this period is that of the old emiri palace, now the Museum. The location of the residence of Sheikh Abdullah Bin Jassim Al-Thani, ruler of Doha was affected by events which occurred in Qatar. The Turks used Qatar as the Ottoman frontier and established a garrison in Doha on the higher ground in the centre of Doha. An area on the eastern side of Doha was chosen for the Al-Thani headquarters. This was the Salata district, where the son of Jassim, Abdullah resided as Governor of Doha and overseer of its sea life and as the liaison Officer with the Turkish representatives. He built his family residence and added sections for his sons Hamad and Ali. After the first world war and the departure of the Turks he signed the famous agreement with Sir Percy Fox.

In 1904 the first European to visit Qatar, the German explorer Herr Burchardt wrote of the Ottoman presence in Doha. He was referred to them when he asked permission to take photographs by the ruling sheikh.

Before the first world war, relations with the British improved and Turkish influence ended with the anglo-Turkish Convention of 1913.
After 1914, Qatar became a British-protected sheikdom. In 1916 Abdullah bin Qasim Al-Thani, signed an agreement with the British to abstain from piracy, the slave trade, and maritime warfare. In addition, he undertook to consult with Britain before Qatar would have any relations with a foreign power. The British promised protection against foreign aggressors. He was awarded with the companionship of the Most Eminent Order of the Indian Empire, in recognition of his loyal and friendly conduct towards the British Government.

In 1935 Sheik Abdulla gave exclusive rights over Qatar to the oil companies for seventy-five years. He received a large sum as a down payment. The second world war broke out, so operations were suspended. Food quotas were supplied by the British.

Oil drilling resumed in 1947 and the first shipment left two years later. People who had left began returning back to the homes they had only recently deserted. There was enough work to go round for the first time in thirty years. Sheikh Abdulla did not live to see the prosperity. He survived Hamad, his younger son for two years and died in 1949. During the reign of his successors Sheikh Ali and Sheikh Ahmed Qatar began to change.

But it was only when Sheikh Khalifa came to power that the country began to play a leading role in the affairs of the Gulf. On 1 September 1971 the treaty with Britain ended and Qatar became an independent power. The ambitions of Sheikh Khalifa's great-grandfather Jassim, who was the founder of the country, had at last been realised.

Following Independence the State of Qatar joined many Arab countries' associations and the United Nations Organisations and other international organisations and associations. It joined the Gulf Co-operation Council, after electing to be totally independent when a joint association with the nine Gulf emirates was considered. This is relevant through the operations of the Gulf Organisation for Industrial Consulting with its headquarters in Doha.

The background of Qatari society is traditional, seminomadic and based on the norms and customs of tribal authority. It is seminomadic because Qatar
combines the features of both "mobile" and coastal "more settled" life-styles.

Before 1949, when modern public administration and government began to emerge in Qatar, the country was run according to a tribal society, whereby a family or tribe assumed authority. In Qatar this was done by the al-Thani. The nonseparation of church and state in Qatar results in many overlapping government functions.

The beginning of modern public administration was from 1935. The British adviser oversaw all government routines, and signed jointly with the Qatari Ruler. Prior to 1949 there was only one customs officer who collected taxes on goods imported into the country and issued travel passes to and from Qatar. In 1957, the first ministry in Qatar was established, the Ministry of Education, headed by Sheikh Khalifa. By 1960 the British advisory system had been abolished and a new government post established. That post was the Government General director, headed by Dr. Hassan Kamil. At that time he reported to Sheikh Kalifa bin Hamad Al Thani. Also this year the Ministry of finance was established, headed by Sheikh Kalifa, with the Education Ministry headed by Sheikh Jassim Bin Hammad Al Thani. In 1961 Law no. 1 established the Government Gazette. Laws continued to be made after this. Administration, however, developed haphazardly as a result of an overstuffed public sector.

The Government administration grew because of more demand for public services. Employment in government is almost guaranteed and government work had more social status and prestige attached to it. Qatar was affected by the "Egyptian experience": heavy reliance on the law, use of large numbers of employees and heavy dependence on experts. Another reason for growth in government administration was that higher education was expanded. Graduates worked in fields not related to their education and training. Many departments were forced to accept these graduates. Manual and technical work was looked down on. Foreigners are depended on for these.
CHAPTER TWO

ARABIAN MEDICINE
ARABIAN MEDICINE

According to Cyril Elgood 1951, late physician to H.B.M. Legation Teheran, Persia and physician to the Government of Qatar in 1955, the student of Arabian medicine must be well read in the theory and practice of medicine in general and must know written and vocal Arabic, which has varied in the years since the Prophet's death. He must also study the foundations from which that system grew.

Long before Islam was preached, a system of medicine had evolved and almost expired, but to which Arab genius gave a new life. This system is known as Greek or Hippocratic medicine. It is impossible to study Arabian medicine without the ability to recognise the Greek factors which underlie it and to be able to read at first hand the texts of Hippocrates and Galen.

As the Arab empire broke up and the Eastern Caliphate disappeared, Persian became the vehicle in which Arabian medicine was transmitted. When the Western Caliphate disappeared before the attacks of the Christians, Latin became the medium in that part of the world over which the Cross rather than the Crescent reigned. Where the Crescent survived, Arabic still remained the main language of medical literature. A student of Arabian medicine also needs to learn Turkish, Latin and Persian.

There are very few published texts by writers of the Arabian School of Medicine, whether in print or lithography. There exist scores of manuscripts, scattered throughout the libraries of mosques, palaces and museums, which are still unknown. More texts need translating, especially those written after the Mongol invasion of Persia and Baghdad. Since then, in the 1920's, more have been unearthed.

No Arabian Medicine scientific dictionary has been published, though Elgood started one. He wrote "He who judges Arabian Medicine only by the Latin translations will inevitably under-value it and do it a great injustice. Indeed it is difficult to resist the conclusion that many passages in the Latin version of the Qanun of Avicenna were misunderstood or not understood at all by the translator and consequently can never have conveyed a clear idea to the
A study of Arabian medicine, with its Greek ancestry, is a study of the embryo of modern science. It is a study of the conception of that medicine to which more and more modern thinkers are turning. It is moving in a circle and approaching the point at which the Persians and the Arabs picked it up. Modern discoveries as the microscope, X-rays, and electrical measuring devices have guaranteed the circumference of that circle and will not coincide with the Persians of old. But the views of the modern thinking man are the same as the basic ideas of the Persians, namely that man is a distinct individual, that no two men are exactly alike and that a disease is a disease of the whole man and not a part.

During the first five centuries of the Christian era, barbarian invasions of the West, disasters and the anti-Hellenism of the Christian Church led to the loss of much of the Greek and Roman writings that were the basis of Western civilisation. In the 7th century, the new evangelical religion of Islam preserved classical learning and moved it back to Europe.

The first Arabs to embrace Islam carried the unwritten laws of the Quran in their heads (as missionaries they had no time to write). The literary men were readers who could repeat the Quran and the traditions of the prophet. It was only under Caliph Harun Al-Rashid, that it was decided to write them, to prevent a loss and corruption of the originals. During the 300 years that passed between when they were said and written the Arabic language had undergone many alterations. It was necessary to sift through a lot of evidence to discover the form of the original tradition and the canon. Nine 'native sciences' were called into being by the needs of the Quran and the traditions: quranic interpretation, quranic criticism, apostolic tradition, grammar, jurisprudence, scholastic theology, lexicography, rhetoric and literature.

Under Islam, the Arabic contributions to medicine consisted mainly of the preservation and translation, of the work of Islamic thinkers and that of the Christians, Persians and Jews residing in Muslim countries. They are also referred to as "Arabists" because their writings were mostly in Arabic.

Respect for learning made the Arab conquerors become the "fountainhead" of
Graeco-Roman knowledge in the course of many centuries, during which, Latin Europe had little contact with ancient writings. Through translations and studies of Greek and Roman works, the world of Islam built an enormous body of information in all fields especially in philosophy, mathematics and science - on which the intellectual development of the West depended.

The Arabic world had contacts with Greek culture, including medical theory, well before Islam. Even earlier, when Jerusalem was destroyed by the Romans in A.D. 76, the Jews had fled to Arabia bringing with them much Graeco-Roman knowledge. By the time of Muhammad (570-632) Greek ideas were well known to the Arabs.

Islam had a Babylonian heritage, that is, eating pork was prohibited, lex talionis prevailed, adultery was punishable by death, polygamy was permitted, taking interest on a money loan was a sin, taking a bath after sexual intercourse was a must. Tradition sees Arab pharmacy before Islam as a mixture of remedies and magic. Pre-Islamic civilisations varied much from that of the nomads of Central Arabia and the tribes who lived around Petra, Syria or on the borders of Mesopotamia. The Mediterranean world wanted the perfumes, spices, incense and myrrh produced by Southern Arabia which also gave them pearls from the Persian Gulf, Indian rice, silk, cotton, ivory and pepper, and African ostrich feathers and slaves. Caravans transported precious merchandise along the west coast to Gaza and the shores of the Mediterranean; others went to Gerrha on the Persian Gulf. The Egyptians and Greeks already had ships trading with the Far East. Then Byzantium and Sassanid Persia launched expeditions against Southern Arabia, which fell to Persia in the sixth century. Its economic importance lessened while the nomads took an active part in trade on the west coast. Mecca, at first a watering place, then a trading centre came to the forefront as a shrine. The Prophet gave the peninsula a religious, national and linguistic unity. When it is known that the Arabs played a major role in the history of therapeutics, the birth of the Prophet on the "Incense route", in the tribes of the Koraichites who ruled the trade in drugs and perfumes, assumes great importance.

The earliest dominant centre of Islam was Baghdad, where two of the famous Muslim leaders reigned, Al-Mansur (712?-75) and Harun Al-Rashid (764?-
809). With encouragement and support from the Caliphs, Greek and Roman writings were translated into Arabic from translations which had been made earlier, from the Syriac and Hebrew translations. In later centuries, they were translated into Latin in the West. In medicine and science the works of Aristotle, Hippocrates and Galen were the most translated. Some treatises, including several by Galen, had been completely lost in the original Greek and came down to subsequent generations in Arabic only. Arabic physicians referred back to Greek writings as a basis for their own medicine. Galen was a favourite among Arabic medical writers. The early well-known translators included Hunain ibn Ishaq (d. 767?) and Al-Kindi (796-c. 874). Commentators of influence included Al-Farabi (870?-950), Al-Biruni (973-1048), Rhazes (850-932) and Avicenna (980-1037), the most famous of the Persian Muslim writers.

Hunain ibn Ishaq and three of his pupils rank among the best translators. They produced 106 Syriac and 108 Arabic versions of 50 versions of the medical life-work of Galen and also some of Aristotle. The Syriac versions were made for Christians and the Arabic for Moslem patrons and friends of the translators.

Hunain was born in Iraq, a Nestorian. He studied under Mesue Senior, first translated Galen when he was seventeen and "De Sectis" when twenty, was put into prison by Al-Mutawakkil at the instigation of Bokht Yisho Ibn Jibrail in 858 A.D. The latter was later banished from Baghdad, to Bahrain on the Persian Gulf, after the re-habilitation of Hunain. Hunain travelled to China and the Far East studying climate, diet, beverages and medicaments, among them ambergris, musk and coconut oil.

Abu Yusuf Yaqub ibn Ishaq Al-Kindi, known in the Latin West as Alkindus, was the only Arabic writer of pure Arab stock. He became the physician to the court of Al-Mamun and Al-Mutasim at Baghdad, he had a reputation as a physician, philosopher, astronomer and mathematician and died in A.D. 873. His geometrical prescribing was combined with musical harmony.

According to Hunain, the translators of Galen's books were all Christians (Nestorian), who all knew Greek, Syrian and Arabic, except those like Sergios
who lived before the Arabic invasion. Sergios of Ras Al-Ain, a priest came from the Jacobite sect of Christians. He studied medicine and Greek at Alexandria, translated into Syriac 26 of Galen's and some of Aristotle's works. He was the first to translate to an oriental language. Hunain and some others also knew Persian. Translation was very difficult, as there were highly technical terms and two other foreign languages were needed and some terms had to be created. Helped by the spirit of scientific tradition which existed, Hunain said the Students of the medical school of Alexandria met every day to read and interpret Galen's works. There was a special order in which Galen's books must be read by students even then. They followed the habits and traditions of the Alexandrian school board of Christian scholars and medical men of Baghdad. Hunain corrected other scholars' work. Hunain and his pupils exercised a decisive influence on the development of medieval and specially Arabic medicine by completing the Christians' work and creating a Canon of Galenic medicine into Syriac and Arabic.

Mansur ibn Athanas (b'Anas) belonged to the sect of Sabeans (star worshippers) and is the first translator into Syriac of Galen.

Cordova, in the West, gained prominence in Islam as the caliphate in Baghdad lost influence. The same intellectual feeling that was witnessed in the East came to the Western caliphate.

In the sultanate of Egypt, where great importance was attached to science, the cultured ruler Saladin (1138-93) held court in Cairo and impressed the West with his learning and the Crusaders with his military skill. The Arabists (who included Nestorians, Persians and Jews, and who were not ethnic Arabs) did much more than hold safe the traditions: they established pharmacy and chemistry as a science. Many drugs unknown or little known until then became part of the Materia Medica. Methods of extracting and preparing medicines became a high art and Arabist techniques of distillation, crystallisation, solution, sublimation, reduction and calcination were to become the essential processes of pharmacy and chemistry. Although physicians often continued to prepare their own medications, pharmacy as a separate profession became established under Arabic rulers. The Arabians invented the apothecary and developed modern chemistry and introduced alcohol, alembic,
elixir, syrup and julep. They introduced new medicaments into their materia medica such as; ambergris, camphor, cassia, cloves, mercury, myrrh, nutmeg, senna, and sandalwood. Emphasis was placed on clinical instruction and some Arabic physicians contributed brilliant observations which last to this day. They described diseases that had hardly been seen by the Greeks, such as scabies, and abscess of the mediastinum (a central area of the chest). They knew of tuberculosis and pericarditis (inflammation of the membrane surrounding the heart). Improving on his predecessors, Avicenna even suggested the communicable nature of tuberculosis. The development of efficient hospitals was an outstanding Arabic contribution to medicine. The Roman and occasional Christian hospitals such as the one founded by the benefactress Fabiola, later to become the patron saint of nurses, were crude prototypes compared to the number, organisation and excellence of the Arabic hospitals, after the time of the Prophet. The medical centre at Gundishapur in Sassanian Persia, founded by Nestorians in the 5th Century A.D., may have been a model. It was surpassed under Muslim rule. In some respects, the attitude of Islam toward the origin of disease was similar to the Judaeo-Christian belief that Allah caused illness as punishment for sins. However, it was borne without moral stigma. They treated the insane in a humane way, unlike Europe in the Middle Ages.

Though one might hope for curative miracles through prayer, one could also seek divine help through a physician. Giving aid and succour to the sick was regarded as good work - which counted towards self-redemption as in the Christian world - but Muslims also valued compassion. The Islamic religion believes in an afterlife; the vital spark that remains in the human body after death is re-awakened and rewarded in paradise. So as not to interfere with this re-awakening dissection of the human body was forbidden. Speculation on the nature of the internal organs and on blood flow led to theoretical reasoning. For example Al-Quff suspected that the smaller arteries were connected to the veins through small pores and ibn Nafis hypothesised that a connection existed in the lungs. As these theories were not verified through dissections, Arabic physicians relied on Galen for their anatomical knowledge.

Aladin Ali ibn Abil Hazm al-Qurashi or Ibn Al-Nafis was born in 1210 in Damascus, had his medical education in the Nuri-Hospital, emigrated to Egypt
and became chief Physician of Egypt and Syria. He possessed an enormous theoretical knowledge of medicine, but not much insight into practical treatment. He only prescribed medicine when it was not possible to cure with diet only. When he had to, he used only simple drugs. He angered the pharmacist, in whose shop he prescribed, and was told to sit in a butcher's shop to prescribe. He favoured Greek philosophy and Medicine, in particular the Galenic system. He wrote a commentary on Hippocrates' De Natura Hominis, Aphorisms, Prognostics, Epidemics and an Abstract (epitome) of Avicenna's Canon. The lesser circulation, he believed was the production of the 'vital spirit' as one of the functions of the heart and that the spirit consisted of refined blood with a mixture of an airy substance.

Ibn Nafis argued that the heart has two ventricles, and not three as held by Avicenna, who followed Aristotle. The right filled with blood and the left with the 'vital spirit'. He emphasised that any connection would be harmful and claimed that it is unimportant whether one considers the heart muscle or not. His theory was put forward three centuries before Servitus and Neuberger says that they were both not entirely right, as they clung to the belief that the 'vital spirit' filled the arteries and to the centrifugal movement of the blood in veins. His correct assumption was discovered in 1924 by Dr. Muhyi ad Din at Tatawi, according to Meyerhoff (1984). Ibn Nafis only theorised on the subject, as he was not able to do dissections of dead humans or living animals. A Latin version of Ibn Al-Nafis (1547) relates to the problem of the circulation of the blood.

Saladin had eight Moslem, eight Jewish and five christian physicians, which is proof of the tolerance of this generous Moslem ruler. Two amongst the most prominent Jewish physicians were Musa ibn Maymun, or Maimonides, and Ibn Jami. Ibn Jami, or Hibatallah (Nathaneal) ibn Zayn ibn Hasan ibn Afraim (Ephraim) ibn Jami Al-Israeli (Jewish) wrote the book, titled "Epistle to Saladin on the Revival of the Art of Healing" in 1180 AD which is a history of medicine. The author speaks of physicians and their practice adding his own comments on medical practice and criticised its current state. He won great fame reviving an apparently dead person who was carried past his office on a bier. He had seen that the feet of the man sticking out from the hearse cloth were not relaxed as they should have been. The Sultan put him in charge
of the preparation of theriac, in Arabic Al Faraq. UMER II transferred the Christian school of Alexandria to Antioch, in the north, nearer to Greek science. Ibn Jami said that the Principal of the school had been converted by the Caliph to the Islamic faith. Antioch was chosen because it was on the border of the Byzantine Empire and hence it was easy to find Greek manuscripts. Ibn Jami wrote how the Arabs felt about the origin of Greek medicine and about its transmission to the Arabs, and how Hippocrates revived and spread medical art and its extension by Galen. He was put under house arrest when the Nestorians of Baghdad regained favour by curing Al-Mutawakkil. He travelled extensively in Mesopotamia, Syria, Palestine and Egypt and translated Greek texts into Arabic and some into both Arabic and Latin. He also corrected translations made by Sergios.

Arabist practitioners used the same methods as the Greeks and Romans. Diagnosis was based on six criteria: the patient's behaviour; the excreta; the other effluvia from the body; swellings; the character of pain; and the location of pain. The properties of the pulse were also carefully noted. Even astrology played a role, as the influence of the stars over health and disease was considered a part of natural science. The urines' colour, consistency, sediment, smell and taste helped to determine what was wrong with a patient, to predict his prognosis, and to guide treatment.

Surgery was held in low regard, so much of the cutting, cauterising, bandaging, bleeding and cupping was done by folk doctors, laymen and charlatans. Nevertheless some outstanding physicians practised surgery and wrote about it. The most common surgical technique of the Arabic physician was cauterisation, which he used for internal and external diseases. Anaesthesia by means of a sponge saturated in a narcotic acid (or other soporific drug) dried and moistened when required, held to the nose and mouth was widespread enough to have been communicated to Theodoric (454-562) in the Latin West. Galen's writings were interpreted to advocate formation of pus in wounds in order to induce healing, and salves were therefore commonly applied. This unfortunate doctrine of "laudable pus" influenced surgical thinking throughout Christendom as well as Islam. The special aspect of Arabist therapy was the wide employment of drugs of all kinds. The herbal Materia Medica of Dioscorides (1st Century A.D.) was carefully studied. New medications
including minerals, vegetable and animal substances were added to make up a huge Arabist materia medica. Ambergris, camphor, cloves, myrrh and senna and preparations of syrups, juleps, elixirs were introduced. Some of these originated in China or India and were carried by the Silk and Spice traders. In the early years of Islam, medical practice was still carried out by Christian and Jewish physicians. There was little prejudice against non-Muslims, and the Prophet himself was treated by non-believers. Muslim physicians became popular when Alexandria, Gundishapur and other cities became centres of Muslim intellectual life. A physician was trained in a teaching centre and received certification from his teachers. Untrained and self-proclaimed healers practised until the early 10th century when the Caliph of Baghdad required all who wished to practice, except those of unchallenged reputation, to take an examination. The Western Caliphate followed. The Arabs were the first to introduce legal control of qualifying examinations for admission to the medical profession. They were the first to introduce systematically arranged illustrations in their medical writings and gave the West their system of numbering. They developed the science of chemistry as applied to medicine and improved the art of dispensing by the introduction of rose and orange water. Donald Campbell 1926 says that the great interest of Arabian Medicine and Science centres on the fact that while Europe was in its Dark Age, the Caliphs of Baghdad and Cordova financed and encouraged education among their subjects (Muslim and "unbeliever") to the extent that in the latter city, which enjoyed its "golden age" corresponding to that of Ancient Greece, every boy and girl of twelve was able to read and write, and at a time when the barons and ladies of Christendom were scarcely able to write their names.

Although women occupied a secondary place in Muslim society, the reluctance of Arabic physicians to violate social taboo and touch the genitals of female patients left obstetrics and gynaecology to midwives. As in Greek and Roman times, however, the seriously ill were treated by physicians.

Academies, schools and libraries as separate institutions or attached to mosques or to hospitals were found throughout the world of Islam. Medicine was usually only one of the disciplines taught. Philosophy and the sciences were combined.
Gundishapur was a fusion of Arabic, Nestorian, Byzantine, Indian and Jewish medicine. There, in the 8th century, the Bachtishua family who were Nestorian Christians became prominent physicians and included influential translators and teachers. Among them Ben Mesue the Elder (Yuhanna or Janus Damascenus) and Johannitus or Hunain ibn Ishaq (Abu Zeid ibn Ishaq al Ibadi) must be mentioned.

Among the many physicians in the Eastern Caliphate, Avicenna, Rhazes, Haly Abbas, and Isaac Judaeus (832-932) were outstanding. In the Western Caliphate, the Spanish area of Islam, the prominent physicians included Abul Qasim (Albucasis in Latin), Avenzoar and Maimondes.

Simply known as Avicenna in Latin, Ibn Sina, equivalent in Islam and Christendom to Galen. Avicenna, who also was a philosopher and a poet, made the most influential Arabic contribution to medicine. Born near Bokhara, Persia, he was a boy prodigy and could recite the Quran by the age of ten. The Nestorians in Baghdad were his main teachers. He learned grammar, poetry, theology from Ismail the Sufi, logic from Abu Abdullah Al-Natali, geometry from Mahmud, astronomy from Abu Al-Hasan Koshayar. At sixteen the Christian physician Yahya Al-Masihi advised him to study medicine. He was tutored by Abu Mansur Hassan bin Nuh Al-Qamari and at twentyone, he wrote a scientific encyclopedia. He read Aristotle's writings and went forty times over his 'Metaphysics' without understanding it until he read Al-Farabi's explanation. He handled the Greek sources in an Islamic way of thinking. His father was a middle class country man: a tax collector. His career was spent in the service of local dynasties, the Samanids and Buwayhids. As a doctor, he specialised in psychology, and yet his main contribution to medicine was as a compiler and commentator. The most famous of the one hundred books that he wrote was The Qanun (Al-Qanun) which he arranged by order of letters.
of the Abjad system, that is in order of their numeric values. A for one, B for two, J for three, D for four. Many translators, teachers and students used this book for centuries. He also invented note symbols for musical sounds which he described in his book "The Science of Music". Till the seventeenth century, the medical curriculum of the Christian universities, including those in the British Isles, was based on his writings, though he never travelled outside of central Asia. Aristotle's ideas intrigued him and he also studied the writings of commentators, such as those of Al-Farabi, the famous philosopher. He died before the age of 60 and 600 years later William Harvey compared him to Aristotle and Cicero, as "the fountainhead". The following is a well known quote from Avicenna's writings: "In the case of man, He has bestowed upon him the most befitting temperament possible of all in this world, as well as faculties corresponding to all the active and passive states of man. Each organ and member has also received the proper temperament requisite for its function, some he has made hotter, others colder, others drier and others moister".

Avicenna did not condemn drinking wine and gave remedies for harmful effects. He advised that the best wine to take be "clear, white, tending to a red tinge of good bouquet and neither tart nor sweet in taste, neither old nor new."

He explained the purposes of cupping and claimed that it cleansed a particular part of the skin more effectively than venesection. However it is not very useful for coarse, bulky bodies and it produces weakness in the member on which the glasses have been applied. The proper time to apply was in the middle of the month (when the humours are in a state of agitation) during the time when the moonlight is increasing (when the humours are also on the increase) during the second and third hours of the day, and one hour after a bath. He listed the points of application, which are equivalent to those of venesection. Cupping would be hot and cold, wet and dry but not to be used on persons under three or over sixty. He prescribed pomegranate juice with the seeds, endive juice with sugar, lettuce and vinegar, one hour after being cupped. He recommended Scammony (convolvulus) to evacuate yellow bile saying it would be improved by the addition of quince to neutralise its harmful effects on the liver and stomach. Other purgatives to evacuate yellow bile are Aloe combined with Bdellium (Commiphora - common name: myrrh tree) or
tragacanth gum, yellow Myrobalan, Cassia pith and Indian Tamarind. To evacuate black bile, Senna, Fennel and dodder, black Myrobalan bark Fumaria and Borage. Among the drugs which cool down and are astringent he counts Myrtle, Sumac (Rhus, used in North America to shrink haemorrhoids, as a mouthwash in Tanzania) Myrobalan, iron slag, coral, Armenian clay, Bramble, dragon's blood, nutmeg gall, or Pomegranate flower mixed with the ashes of burnt ivory, cinnamon with Plantain. Among the drugs which warm but are not purgatives are Soapwort, incense, pepper, Cardamom, Pimento, Mint, Cinnamon, Mugwort, Origanum, Lichen, amber, Melilotus (sweet clover) with Dodder, Ginger, Gentian, Peony, lac (dark red resin produced on trees in the East by a coccid insect), Dill, Corn Poppy, common Star-Thistle etc. Medicines which bring diseases to a point are warm and viscous like fat, pitch, pine resin, oil and wax mixed, oil beaten in hot water or wheat cooked in oil. Emollient medicines warmer than the organ to be treated are Galbanum, Bdellium, gum ammoniac, Storax and the marrow of an antelope's tibia. Blacknightshade or Foam, cold and wet, are medicines which harden. Roots of Lily and Narcissus, natron, caper and Lupin open the pores and vessels. Broad bean, honey and sweet almonds are cleansing medicines. Castor oil, Camomile, Rue and Fennel distend. Garlic and onion open the orifices of the vessels. At first, he treated patients not for fees but for his own instruction.

As Galen looked to Hippocrates, so Avicenna looked to Galen.

Muhammad Ibn Zakariyya another great Persian physician is better known by his Persian name of Rhazi or his western name of Rhazes. Referred to as the second Hippocrates, he was born in 865. He studied first music and then philosophy under Ahmed bin Sahl Al-Balkhi. He worked as a Banker and Money Changer and at 30 went for a visit to Baghdad, he visited the Muqtaduri Hospital and had a conversation with the old pharmacist. He returned the next day, and met a physician who showed him a two headed foetus. He decided to study medicine and later was appointed the administrator of the hospital in Ray. Between 902 and 907, he returned to Baghdad and took charge of the Muqtaduri Hospital, and attended to most of the nobles and princes of the minor Persian courts. He was outstanding in his generosity and always willing to treat and help the poor. Thus despite the large fees and honours he received his generosity to the less fortunate left him poor at the time of his death. Students and practitioners thronged to his
lectures and he was reputed to be a brilliant bedside teacher. He revered learning and based his knowledge on the books of the authorities, was also an independent thinker, and was not afraid to rely on his own observations when they contradicted the past.

Of his 237 books, including alchemy, anatomy, physiology and ethics most have been lost. A large part of his work was a compilation of the theories of Hippocrates, Galen and others. Through his influence over students and contemporary physicians Greek medicine was brought to the Arabic world. His most celebrated work, Al Hawi (Liber Continans) summarised the medical and surgical knowledge of his time.

He followed Galen's humoral pathology, practised bloodletting, saw a place for precious stones in medication, gave the first accurate descriptions of smallpox and measles, advised proper food in preference to drugs in treatment, opposed mathematical formulas of Al Kindi in therapy and recommended simple rather than complex remedies. Rhazes was the first to use mercury as a purgative, animal gut as a ligature for surgical operations and first to recognise the reaction of the pupil to light. Excessive study ruined his eyesight and he became blind in his last years. Avicenna and Rhazes were made popular by the translation of their writings into Latin.

In the late 10th Century, in the Eastern Caliphate, Haly Abbas (Ali ibn al-Abbas d.994) wrote highly popular commentaries on Hippocrates, Galen, Oribasius, Paul of Aegina and Rhazes, whose writings were standard texts before Avicenna's Canon. Early Christian translators introduced Haly Abbas's works to the West, especially his writings on surgery.

The Jewish Physician MASARWAIH, also known as Judaeus and whose mother tongue was Syrian, translated into Arabic for the Caliph Umar bin Abd Al-Aziz a compendium for Muslim physicians. He passed on in it his knowledge of Greek, Oriental and Indian drugs and aliments.

Nestorians, some of whom had Jewish-sounding names, translated Greek and Syriac texts into Arabic. The main centres of Greek learning were found in the many Syriac convents of Mesopotamia and Persia.
Ishaq bin Sulayman Al-Israeli (Isaac Judaeus) born in Kairouan in Tunis, practised as an oculist in Cairo. Then he was nominated as physician in ordinary at the court of Ziyadat-Allah III the last Aghlabid ruler of Tunisia. When the Fatamids took over in A.D. 909, he kept his position under the next three caliphs, because of his skill. He studied under Ishaq bin Imran, a Muslim physician in Tunisia, where he introduced the Greek medicine that he learned in his home town, Baghdad. His four books are considered classics and are quoted by Rhazes, and Maimondes said that he was a good physician but a poor philosopher. There were many Samaritan physicians at this time.

Judeaus wrote in Hebrew a collection of aphorisms, some of which were probably inspired by Rhazes. The following quotations are from this collection: "Most illnesses are cured without the physicians help through the aid of nature". "If you can cure the patient by dietary means, do not turn to drugs". "Do not rely on cure-alls, for they mostly rest on ignorance and superstition". "Always make the patient feel he will be cured when you are not convinced of it, for it aids the healing effort of Nature".

Albucasis (Abu Al-Qasim Khalaf ibn Abbas Al-Zahrawi Al-Ansari 936-1013) was the major Muslim writer on surgery and contributed to found the art of modern pharmaceutics. He wrote a thirty volume medical encyclopedia, Kitab al Tasrif u-man Ajiza an Al-Tasrif. This book literally translated means "enabling him to manage who cannot cope with the compilations". First came 'the elements and mixtures' (the various sorts of temperament) the compounding of drugs and anatomy. Second 'diseases and their symptoms and instructions for their treatment' were dealt with. The twenty sixth section dealt with 'diets for the sick and healthy, arranged according to diseases'. The twenty ninth section dealt with the naming of drugs in various languages; how one can be used in place of another; the stabilisation of drugs, compounded and otherwise; the explanation of the compound names, occurring in medical books; and weights and measures'. The twenty fifth section dealt with Materia Medica, the preparation, storage and use of drugs, pills, ointments, plasters etc. The twenty eighth section dealt with 'the improvement of medicines; the burning of mineral stones and the medical uses of them'. It was translated via Hebrew into Latin at the end of the 13th Century. He founded
the art of modern pharmaceutics. His writings greatly influenced the Christian West. His Al-Tasrif contained a section on surgery which was the first illustrated, systematic text on this subject. Most of the content was a repetition with modifications of the earlier contributions of Paul of Aegina, a great Byzantine surgeon of the seventh century, who travelled among the Arabs and was in great demand because of his obstetrical skill. He devoted part of his Synopsis of Medicine to simple and compound medicines. However, Albucaasis's careful descriptions and advice revealed a cautious, ethical and thoughtful approach. Surgery was hardly practised in tenth century Spain. However, he taught cauterization of cuts and ligature of arteries, cauterization for epilepsy and apoplexy, how to use haemostatics and gave precise details of operative techniques. He wrote on surgery, the longest section dealing with its extensive use for: anal fistula, ascites, cancer, femoral hernia, haemorrhoids, sciatica, sinusitis, wounds, etc. He illustrated with figures of cauterizations and instruments. He made no reference to anatomical dissections and this is thought to be due to the Prophet having forbidden the reproduction of the human figure. Fame came to him posthumously. As a doctor he allowed patients to come to his house at any time of night or day and worked half a day without charging fees.

Avenzoar (Abu Marwan Abdul Malik ibn Zohr 1113-1162) was an Arabist physician born in Seville. The son of a Jewish physician, and an important family of doctors, he rejected much of Aristotle and Avicenna, condemned astrology and mysticism in medicine and disagreed strongly with some of Galen's teachings. His clinical acumen led to accurate descriptions of scabies, pericarditis and mediastinal abscess, a disease from which he himself suffered. He wrote on the preparation of drugs, on the practical uses of diets and on alchemy. His reports on tracheotomy (cutting into the windpipe) suggest that he may have practised surgery. He recommended reliance on one's own experience rather than traditional doctrines. Through translations of his works into Hebrew and Latin he exercised great influence over the medical and alchemical teachings of mediaeval Europe. He was chosen to prepare the theriac for the Caliph.

Averroes (Abul Waled Muhammad ibn Ahmad ibn Mohammed ibn Rushid 1126-98) a pupil of Avenzoar, was a philosopher, who also studied law and
medicine and who wrote a medical compendium based on Aristotelian theory, *Collegiate*. A practising doctor, he was born in Cordova of a wealthy family, and studied theology according to the Ash'ari orthodox system and law according to the Maliki rite, dominant then in Muslim Spain. His grandfather was a famous jurist. He is best known for his criticism of established religion and authority. Both Avicenna and Averroes were admirers and followers of Aristotle. But while Avicenna reconciled Aristotilianism with accepted religious views, Averroes held that religion should not be a branch of knowledge and that there was no personal immortality but rather a merging of the soul with nature and the universe. This interpretation of Aristotle was condemned by Islam and the Christian Church. Averroes, who held high political positions in Cordova and Morocco for many years, eventually had to go into hiding among the Jews, helped by his pupil Maimonides. His philosophy was spread throughout Europe by Jewish intellectuals following their expulsion from Spain. Averroes and Albucasis had a great influence over Roger Bacon and Guy de Chauliac and many other Arabists. It was through the Arabic writer Averroes "the perfect and most glorious physicist" that Christian scholastics acquired much of their knowledge of Aristotle, while Albucasis and Avicenna interpreted Galen to Latin Europe, and the Moslem Geber (Jabir ibn Hayyan) acquainted Europe with the alchemy of the East. He discovered nitric acid and aqua regia. The Arabic words *al-kimiya* and *al-iksir* were originally the same and used to mean the agent by which baser metals could be changed into gold or silver. Later al-kimiya meant the art of transmutation (alchemy) and al-iksir meant the medium by which the change was effected. (elixir). The philosopher's stone was first heard of in the Latin West in the twelfth century. The 'universal medicine' and the 'elixir of life' were products of a later age. It was believed that there was an occult connection between the planets and metals, as well as between the various parts of the human body.

The cult of Tao was early associated with a search for the Elixir of Life and the Philosopher's Stone. The evidence of the communication between the Greeks of Byzantium and the Moslemised Arabians of the early Middle ages with the Chinese, explains the striking resemblance found between the jargon of the Taoists of China with the writings of the alchemists of Western Europe; separated as the Chinese and European alchemists are by time, and the
evidence of the influence of Arab writings on the alchemy and the art of healing of Mediaeval Europe. Alchemy, the parent of modern chemistry, can be regarded as having its source among the Chinese, who date their science of medicine from the time of the legendary Yellow Emperor, Houang Ti. The oldest of the books attributed to the Yellow Emperor which are still available, and provide a summary of medical knowledge accumulated from the remotest past, were compiled several centuries before the Christian era.

Ibn Rushd was influenced by Ibn Bajja and wrote on the same subjects, such as The Union of the Intellect of Man. He became Qadi of Seville after being introduced to the Almohed ruler in 1169, later Qadi of Cordova, the Spanish capital, successor to Ibn Tufayl as medical adviser to the sovereign Abu Yusif Yaqub, in Marrakesh in 1182. He first favoured Ibn Rushd, but later succumbed to Ibn Rushids' enemies and removed him from his judicial post. His books were burned, and he was forced to live in Lucena, which was Jewish, like others persecuted at that time. He survived exile and after the return of the Almohedes Caliph to Africa was restored to favour. He retired to Marrakesh and died aged 72.

The most famous Jewish physician in Arabic medicine, Maimonides (Abu Imran Musa ibn Maymun Abdullah 1135-1204) was born in Cordova, left in 1148 and settled in Fez, Morocco. When the orthodox Muslim dynasty of the Almohedes began to harass non believers, he went to Palestine. The war between Muslims and Crusaders prompted him to go to Cairo. He studied Hippocrates and Galen, and made medicine a career to support his family when father and younger brother died. His reputation grew rapidly and he was appointed physician to the court of the last Fatimid Caliph. He knew Sultan Saladin and his son. Richard the Lionheart tried to take him to work in England. To him preventive medicine was very important, to try diet before resorting to medicines, and practical therapeutics. He recognised the Galenic doctrine of the four humours and followed the general methods of Arabic medicine. He died at the age of 69 and left 10 writings in Arabic, which included 3 extracts from Galen's works, a commentary on Hippocrates and his own aphorisms, which included asthma, haemorrhoids, the life of the couple and poisons of reptiles and their antidotes. He translated the Canon of Avicenna into Hebrew but his collection of the aphorisms of Hippocrates and
Galen was written in Arabic, as was his popular Book of Precepts, which consisted of a collection of letters to Saladin. The translations of his writings into Hebrew and Latin were widely read throughout Christian Europe. Although the Morning Prayer of the Physician is attributed to him, he was probably not the author. He gave sage advice on diet, hygiene, first aid, poisons and general medical problems. He concentrated on philosophy and he tried to reconcile scientific reasoning and religious faith. As he advanced the "heresies" of Averroes, orthodox Jews of the time were sometimes hostile. Recognition of him by Jewish intellectuals as a great medical and philosophical sage came posthumously.

Jewish doctors were employed by Kings and Princes and influential statesmen. They rose to positions which shielded them from the persecutions inflicted on their countrymen. But they often met with the enmity and jealousy of their non-Jewish colleagues and had difficulty in conducting their studies.

The botanist Abu Mohammed Abdullah ibn Ahmad ibn Al-Baytar (Ibn Baytar) died in Damascus 1248, wrote a Collection of Simples, after travelling and studying medicinal plants in Greece, Egypt and Asia Minor. It has been described as the most complete and extensive left by the Arabs. It comprises 2330 paragraphs in alphabetic order. Around 200 were new medical plants. He used the work of 150 other authors among them Greek, Arabic, Persian, Syriac, Indian and Chaldean doctors.

In mediaeval times the general health of the people and its hygienic conditions were probably the same in Latin Europe as in the Muslim world. Medical writings of the era were about the same diseases, both acute and chronic. A special interest in eye treatment suggests that ocular afflictions were common. The excellent Arabic descriptions of epidemics marked by skin eruptions may indicate that such diseases were as prevalent in the world of Islam as in Christian lands.

Orthodox Muslims apparently accepted epidemics as part of the lot of mankind. The streets and homes were dirty. Sewers probably existed in some cities but they often emptied into local streams which provided people with drinking water. The rich chose to live upstream from the city. In Cairo, for
example, relatively unpolluted water was available above the point where the Nile entered the city. Thereafter it became spoiled with sewerage and garbage.

Medical care by reputable physicians was mainly limited to the rich and noble. The generosity of Rhazes in treating the poor free of charge was not common. Hosts of lay healers, mountebanks and magicians practised. Even when medical care was available, the deeply devout often resented the ministrations of physicians as an infringement of Allah's will.

General health care under Islam outshone Christian care in at least one respect - the hospital system. Those built by the Christians in the West were few, rudimentary and greatly inferior in terms of sanitation, care, facilities and medication. Christians emphasised the salvation of the soul rather than the restoration of the body. Though the famous hospital and school at Gundishapur had been established by Nestorian Christians, the support it received later from Muslim rulers stamped it as a hospital of Arabic medicine. The best known among the great hospitals in the Middle Ages were in Baghdad, Damascus and Cairo. They existed in Baghdad in the 9th Century, but the most magnificent was founded in the 10th century. In keeping with the principles taught by Rhazes, who taught and practised there, the clinical reports of cases were collected and preserved for teaching purposes. The hospital and medical school in Damascus had elegant rooms and an extensive library. Healthy people are said to have feigned illness in order to enjoy its cuisine. Probably the largest and most magnificent was the Mansur Hospital in Cairo, founded in the 13th century and built by workers and artisans who were ordered by the Sultan to devote all their time to its construction. Even the Sultan himself took a physical part in the project. Separate wards were set aside for different diseases, such as fevers, eye conditions, diarrhoea, wounds and female disorders. Convalescents had separate sections. On discharge each patient received 5 gold pieces to support himself until he could work.

The familiarity of the Jews with Syriac, Hebrew and Arabic gave them the opportunity to bring Greek writings (much of which had been translated into Syriac by the Nestorian Christians) into the Arabic world. Jewish writers were instrumental in returning Greek works to the Christian West through their translations. Contacts between the Muslim and Christian cultures
occurred, especially in Spain. When Jews at the time of Maimondes fled persecution by the Almohades dynasty in Cordova, they dispersed to European centres of learning, including Salerno and Montpelier, to which they brought Arabic science and medicine. By the middle of the tenth century Arabic had replaced Aramaic as the speech of the Jews. It was through the Spanish Jews that the Spanish Muslims were brought into contact with the philosophy of the East and it was they that when persecuted first by the Moors and later Christians of Spain led them to the Iberian peninsula and took with them the works of Aristotle and Averroes to the Latin west.

The spread of medicine to the Persian World is important as at one time Qatar and parts of the Gulf were part of Persia. Persia lies between the Tigris and the Indus. Its northern border is the Caspian Sea, and its southern border is the Persian Gulf and the Gulf of Oman. In Antiquity Persia and Iran meant the same thing.

Archaeologists have discovered that people lived in this part of the world as early as 8000 to 10,000 B.C. They lived in mountain caves. Remains of neolithic man were found in the Zagros mountains in these caves. In the soil around the skeletons were found traces of twenty-eight species of pollen from plants. Seven were grouped in clusters indicating that they had been woven into the branches of a pine-like shrub. This proved fragments of a wreath and that they had burial rites. The flowers all had medicinal properties. They were groundsel, yarrow, cornflower, Centaurea solstitialis (St. Barnaby's thistle), grape hyacinth and hollyhock. The seventh, a type of horsetail from which ephedrine is derived, was not in the wreath but, under the body as bedding. Yarrow is also called Achillea, after the Greek hero Achilles, who is said to have used it to heal the wounds of his soldiers. Hollyhock is known as the poor man's aspirin, useful for arthritis from which neolithic man is known to have suffered.

The plateau became settled about 500 B.C. There were clashes between these populations and those of Babylon 300 B.C. There was a great Indo-European immigration at the end of the second millennium B.C. and the creation of a great Iranian empire in the first half of the first millennium. The fight against sickness is known after the arrival of the Aryas, the Aryans or even Iranians,
as Iran owes its name to Aryana Vaejo.

From the earliest times to the death of Alexander, people in Persia could join a priestly caste and rise above their lowly birth and move to a superior rank by entering the medical profession. They had to go through a special study of theology and medicine and learn the medicinal qualities of herbs and plants. They were priests, known as Magi who could practice theology or medicine. Training was theoretical and practical and graduated three kinds of practitioners: healers with holiness, healers with the law (Athravans) and healers with the knife. The spiritual healers were regarded as the most important. The Athravans, were of two kinds: some did only exorcism and the other treated the disease as it appeared. Healers with the knife were inferior to priest-physicians and some were attached to doctors as assistants or servants. The priest-physicians practised in an official, capacity; anyone else was a charlatan. This training survived into the days of Islam. It took place in Ray, Hamadan and Persepolis, where hospitals existed, as it was the rulers, the Caliphs, duty to found them and provide them with doctors and medicines.

A book on Zoroastrian civilisation notes that a doctor had to keep his profession untarnished. He must study well, know all the organs and functions, listen to his patients, treat them conscientiously, generally be gentle, kind, friendly, Godfearing, not greedy for money, and be careful in diagnosis.

A licence to practice medicine was required and granted by the Hakim-bashir. The Caliph in Baghdad had also a general control over all the faculty and, as part of the Safavid system, delegated to his chief physician and an official called Muhtasib or inspector-general. Among the Muhtasib’s duties, was to administer the Hippocratic oath, which meant: swear never to administer nor prepare any poison; give no abortions for women; or contraceptives for men; never betray a confidence from a patient. He also had to ensure that practitioners had the instruments necessary for the branch of medicine they practised.

If they were not employed by nobles, they allied themselves to an apothecary who made up his medicines and recommended patients. Some became more proficient in the treatment of certain diseases eg. Avicenna and psychology.
Very few took up surgery. European surgeons were believed to be far superior.

The Arabs, after 642, commanded all Persia but did not enforce Islam upon the population. This was left to time. In theory, to embrace Islam meant to join the brotherhood of Islam. In practice the Arabs still looked at the Persians as an inferior class, though they were polished and refined.

Sutures of many kinds were used, such as fine gold thread, ants (they were made to bite the two sides and then decapitated, the body thrown away and the head left holding the skin together) cotton or silk. Rhazes introduced sheep-gut sutures which he got from harp players, for fine suturing, like eye operations. Women's hair was also used.

After the death of Alexander and before the advent of Islam, Persian medicine stagnated. When Christ was born in Bethlehem, three priest-physicians assisted. According to Christian and Zoroastrian tradition, these three wisemen were Persians. They are referred to as Magi in the Bible. This indicates the importance given to Persians as scientific teachers and shows that Jews had modified their views because of this teaching.

Christian missionaries went to Persia frequently in the first century and were firmly established by the second century. In Mesopotamia sickness was viewed as the work of evil spirits. In Babylonia sickness was exorcised. Persians believed that there were 99,999 diseases created by the Devil. Persian lore was modified by its passage through Mesopotamia and became linked with the superstitions of Egypt, the chief source of views on sickness and death in Palestine, at the time of Christ's birth.

The Seleucids were influenced by Greek opinion, used the Greek language and were educated on Greek ideals. Parthians, in 150 B.C., were affected by the Seleucid culture. They worshipped Asaces, the founder of their empire, adopted Iranian names, adored Zoroastrian angels, and called themselves Philhellenics. They retained Seleucid officials in political office and the Magian religious duties.
In A.D. 226, Ardeshir deposed the Parthian ruler, Ardawan, and reformed the Zoroastrian religion. He called all the Magi, (80,000) and one of them, Arda-viraf, was given wine. After a deep sleep, he told a story of a journey to heaven and talks with the Deity. The faith of Zoroaster was governed by this event. This was the Avesta.

Ardeshir's administration was directed by the Magi. All other worship was forbidden and a persecution of the Jews and Christians began. Shapur murdered Chosroes, King of Armenia, conquered Rome and ordered his men to collect all the Avestan works on secular subjects, namely on medicine, astronomy, geography and the arts, which had become scattered in India, Greece and other countries. The Avestan language had survived only through the books of Zoroaster during the Alexandrian conquest. The language had been changed by the Medes and Persians to Pahlavi. A body of scribes, called Gashtagh-Dafteran wrote in a secret code all the sciences of which medicine was a large part. In A.D. 820, the religion was once again threatened, when Tahir a governor of Khorasan ordered the books burned but the few that remained kept the indigenous medicine of Persia alive until it was replaced by Graeco-Arab systems. It was also affected by the Medes, Persians, Parthians and Sassanians.

Persia occupies an important place in the world's history of medicine. Arab medicine experienced a steady advance in Persia from the days of Islam to the 1920's, when the Persians became Europeanised and Western learning took over from the ancient medicine.

Gundishapur was a cosmopolitan centre with a long history. It was first called Genta Shaprita "Beautiful Garden" and settled by Roman and Greek captives after the defeat of Valerian in 260. It was then refounded by Shapur I and named Veh-az-Adur-i-Shapur (Shapur is better than Antioch) He married Aurelian's daughter who brought in Greek doctors. The city became known as Gondi or Jundi Shapur.

In the 3rd century B.C., Shapur II founded a university. It was controlled by the Nestorian Church authorities. From the beginning of the 8th Century, the learning period of the Arabs started in Alexandria, Egypt and Gundishapur,
Persia. In following centuries, it was developed by Greek philosophers from the Platonic academy and by Nestorian scholars from Edessa, exiled by Byzantine emperors. At the time of the Prophet's birth it was at its height of glory, with Greek, Persian and Indian scholars. The Chief teacher was Theodosius or Theodorus Priscianus, whose "System of Medicine" is mentioned by the Fihrist as Persian translated into Arabic in Islamic times. Shapur had a church built for him as a mark of respect. Syriac was the language of instruction and the medicine taught was not purely Greek and depended on the political power at the time. According to Al-Qifti it developed a method of its own, with treatment along pharmacological lines superior to that of the Greeks and Hindus. Nushirvan, also known as Anushirwan or Chosroes or Kisra (in Arabic) is believed to have founded the medical school. In A.D.531, he made a treaty of peace with Rome. His father had been treated successfully by a doctor named Stephen of Edessa and Nushirvan brought him to serve at the Persian court. After his first year, Stephen was offered anything he wished as a reward for his services, and he requested the release of 3,000 Romans who were prisoners in Persia. Many translations into Persian were made during Nushirvan's reign, such as Plato, Aristotle and the Fables of Bidpai. In the middle of his reign, a general meeting of physicians was held under the presidency of Jibrail Bokht Yishu, the royal doctor, a representative of the Sophists, and Yuhanna ibn Masarwaih.

Besides conquest, commerce and individual adventures, Greek culture flowed to Persia, through another source, namely the Nestorians. Edessa, where they went, was situated between Greece and Rome on East and West between Greece and Egypt North and South and on the caravan route between China and Europe. They learnt Greek in order to translate the Christian Scriptures into their own language, and thereby came in contact with the Greek scientific writings. The scriptures existed in Greek and Hebrew.

In the fourth century B.C., Greek philosophers went to Gundishapur when Justinian closed the Academy in Athens.

While Edessa was under the Roman Empire, a town close by, NISIBIS, was under the Persian Empire. In the Persian school of Edessa, theology and medicine was the main faculty; pure Hippocratic and Galenic medicine was
taught. Their religion made them exclude all Babylonian and pagan practices.

The Nestorians made the university their headquarters. In this great capital, St. Ephraem (c.306-373) had established a hospital. Originally of a Semitic or Aramean race, they had migrated north from Arabia into Syria and then into Mesopotamia. Conquered by Alexander, they remained Greek in thought and culture, when the people around them had become Asiatic once more. In 489, Zeno closed the University in Edessa and the Nestorians went to Nisibis, then under Persian rule. They re-organised there a philosophical and medical school which later, in the early sixth century, moved to Gundishapur, in Persia, where a Zoroastrian school was also established. There they found Greek physicians, whose forebears had been in the East since the time of Alexander's empire in the 4th century B.C.

Greek philosophers also had gone to Gundishapur when Justinian closed the Academy in Athens in the 5th century A.D. The city was a meeting ground for Greek, Syrian, Persian, Hindu and Jewish scholars and doctors were invited by the sovereigns of Iran and enjoyed their protection.

Yuhanna ibn Masarwaih (Janus Damascenus or Ben Mesue) born in A.D. 777, in Gundishapur, was the third son of Musarwaih, the famous oculist. Originally an ecclesiastic turned to medicine, he was personal physician to Al-Mamun, was appointed head of the medical school at Baghdad, was called to the court of Harun Al-Rashid to translate Greek medical manuscripts and went to Greece for more material. He served four caliphs - Al-Mamun, Al-Mutasim, Al-Wasiq and Al-Muttawakkil. Because of him, the family of Musarwaih was more famous than that of Bokht Yishu's. Musarwaih and Jibrail were rivals. He dissected an ape, a gift from Caliph al Mutasim, and was able to write a book on anatomy, the first in Islam. His work "Medical Axioms" was translated into Latin in the Middle Ages, by Constantine Africanus and Gerard of Cremona. It includes chapters on dietetics, pathology, diagnosis and therapeutics. His approach was Galenic and included the four humours, the elements and the four seasons of the year, which played a part in the system and were taken into account in treatment. Since the humours become morbid and morbid matter must be eliminated he stressed the importance of purgatives and emetics in Galenic therapy. He did not believe in
branding, superstition or magical remedies.

Abu Said Ubaid Allah bin Jibrail bin Ubaid Allah bin Bokht Yishu bin Jibrail bin Bokht Yishu bin Jurgis bin Jibrail, was the last descendant of a famous family that provided court physicians for three centuries. His ancestor Jurgis bin Jibrail Bokht Yishu was chief physician of the medical school and hospital at Gundishapur in 148 and a personal doctor to Caliph Al-Mansur. Jibrail owed his position at the court to curing Nushirvan's favourite wife, Shirin, of infertility. A Nestorian Christian by birth he converted to Monophysism and used his post to interfere in ecclesiastical matters.

His famous book *Ar-Rauda At-Tibbiya* consists of fifty chapters, each explaining a philosophical term so as to facilitate the learning of its meaning. The seventeenth chapter is on THE SPIRIT, "a thin airy body which circulates in the organs and specifies the rules for their function or activity". The three spirits are as in the Galen system, namely the natural, the animal and the physical. The eighteenth chapter on THE SOUL (Nafs) is according to the school of ARISTOTLE and its function is the production of a natural body endowed with vital energy, the origin of all sensation and motion. According to Plato's school, it is a simple intellectual substance which possesses its own motion. According to the school of Pythagoras, it is a luminous substance. According to the school of Thales it is a physical substance in perpetual motion. According to the school of Dicearchus, it originated from the four elements. Galen said the soul follows the complexion of the body. The school of Anaxagoras held that the soul is a hot spirit and called it air, like Plutarch. The school of Heraclitus held that it springs from the vapours of the humours. Ubaid Allah concludes that the soul is a substance, because it is the bearer of qualities and unexpected occurrences and is self-sustaining. The twentyfirst chapter on LOVE cites several Ancient's differing opinions. He himself believed it to be a corruption, caused by the influence of the senses, especially the sight, on the rational soul, which is subdued by the morbid passion "like a great king, when he becomes an instrument in the hands of a vile slave"

In A.D. 636 Jundi Shapur surrendered to a Muslim general who left it undisturbed. It continued to be the greatest centre of medical teaching in the Islamic world, until the new capital Baghdad took its best teachers. The
written information on the state of medicine in Arabia at the time of Mohammad is scanty. Medical biographies and tradition became later the only evidence, beside scattered references in the works of the poets. On health itself, the Quran says "Eat and drink, but not to excess". Tarafat ibn al Abd who died seventy years before the Prophet speaks of tar and solitude, which can mean that disinfectants and isolation were used for contagious diseases. Maymun ibn Qays refers to oil and gauze drains for wounds. The Prophet's actions and sayings were collected and written into TIBB AL-NABBI or Medicine of the Prophet. Six were known to exist. The most popular was translated into Persian by Muhammad Akbar Arzani for Alamgir, the Emperor of Delhi.

The Tibb Al-Nabbi was more important in the moulding of Persian practices than the Quran. Traditions and the Law are complementary. The Law gives very few directives on health while tradition gives many. The most are for cure rather than for prevention. The Prophet's method of cure was both natural and supernatural.

He stated that God gave no disease for which there was not a cure. Cure was based on honey, scarification and cautery. Headaches and fevers were to be treated this way. Cupping at the nape of the neck was forbidden, as it affected the memory. (This is the site of the cerebellum). He practised faith healing. Refusing to work miracles, he wanted to be a Prophet without miracles. Honey was the most important medicine, but he did not bar cinders of papyrus as a haemostatic. Urine was used internally for dropsy, henna for gout, and senna appeared for the first time in a Pharmacopoeia. He believed that excessive eating of meat was as harmful as wine. He forbade eating lizards and killing ants, bees, hoopoe and the shrike. The Arabs were healthy so did not need a system of medicine. Haris bin Kalda, an Arab contemporary of the Prophet, from the Thaqifi family of Tayf on the caravan route, went to Gundishapur to study medicine. He met Anurshwan and they discussed hygiene and methods of health preservation. Haris maintained that an excess of diet caused disease and he recommended a simple life, plain diet, water in preference to wine, salt and dried meat in preference to fresh meat and fruit. He treated with enemata and cupping, the latter when the moon was on the wane. On his return to Mecca he became the foremost physician. He was the
first Arab doctor and practised the medicine of the Prophet which had great therapeutic value apart from its religious value. The Medicine of the Prophet contains maxima, beliefs, advice, observations, practice and examples left behind by the founder of Islam and preserved by tradition. Simple medicines are preferred and then only when true illness is established.

Ophthalmology was one branch of medicine that the Arabs excelled in. It was not highly developed among the Greeks and Romans. The oculist was honoured in the days of the Caliphs and occupied an important place in the royal household. Pannus was first described by the Arabs, and the operation for the relief of the chronic form was borrowed from them. Glaucoma was first described by them, also the white ulcer of the cornea and distinguished it from corneal ulcer. Retina and cataract are both Arabic words.

The most important was Abu Ali Muhammad bin Hasan bin al Haysam of Basra. He moved to Cairo and his book on optics exists today only in the Latin translation. He proved that objects are seen by rays passing from the objects toward the eye and not the opposite. Al Biruni and Avicenna both agreed with his unusual views. He came very close to inventing spectacles.

In Egypt and Syria hospitals are called Bimaristan or Maristan which means in Persian a place for sick people. There were two kinds - the fixed and the moving. The movable was carried on beasts of burden and erected where required. Similar moving hospitals went with the armies in the field. They were also used by prisons and the general public, mostly in times of epidemics.

Greek works which came to light through translation into Latin from Arabic, were found not to be in complete agreement with the Arabic versions. A first reaction was to criticise the Arabs as translators of the Greek texts. A second reaction was to assess the extent to which the Arabs had misrepresented Greek thought. Research in the literature began therefore to shake the supremacy of the Arabs. Variations occur between the Arabic written by the Moors, in Spain, and that written by the Indians, in Delhi. And between them are all the variations of North Africa, Egypt, Syria, Iraq, and Persia. Arabic can be interpreted differently depending on the context in which the words are used.
as in any other language. However, through minute differences secret messages could be sent in Arabic, as a famous story quoted by E.W. Lane (1987) illustrates. The famous poet Al Mutanebbee, who was in disgrace after commenting on the Governor of Egypt, was sent a note promising him a pardon. However, the scribe, who was his friend, conveyed to him that he would in fact be punished. Just by a punctuation mark he was able to change the promise into a warning.

Among the translators of Arabic to Latin was Gerard of Cremona (1114-87). The Toledan translations despite not being too accurately translated were the sources of the High Scholastics Albertus Magnus and St. Thomas Aquinas. The fact that these translations being three or four removes from the original Greek texts, having passed through Syriac and Arabic versions explains errors and misunderstandings of these great mediaeval thinkers.

When an Arabic word was encountered for which there was not a Latin equivalent, the former was transcribed bodily, with the result that such words as alcohol, alchemy and cypher have been passed on to us as from the Persian - lazhaward - azure. Dr. Donald Campbell, a Captain in the Royal Army Medical Corps, and formerly Indian Army Reserve of Officers, Infantry Branch, says "instances of the mediaeval translation of the Latino-barbari will illustrate the contention that these renderings did not truly convey Arabic thought to the mediaeval mind of Latin Europe. In the Latin translation of the Qanun of Avicenna the Arabic as Ishq (love) is rendered as De Ilixi with Alhasch as a close variation, and in "Sermo universalis de Soda" the Arabic suda means a splitting headache. It will thus be seen to what controversial depths the top-heavy mediaeval scholastics with their love of wordy dialectics must have gone in their disputations on love and soda."

With the Mongol invasions in 1258 the libraries were destroyed and rare manuscripts, on which the Caliphs spent so much in time and money, were thrown in the Tigris River. This was the end of Arab medicine and Greek medicine, as interpreted by the Arabs became Persian. In 1555 the lecturers at Montpellier ceased to use the textbooks of Rhazes, Avicenna and the two Mesues.
Leonardo da Vinci, the Italian artist (d. 1519), helped to overthrow the Avicenna system of anatomy more than any medical anatomist. Finally, Harvey published his De Motu Cordis in 1628.

The translations made by Constantine, the Benedictine monk, affected all those who trained in the school of Salerno. He retranslated Hippocrates and Galen and used his knowledge from the East to introduce Arab works into Europe. A Persian physician, Haly Abbas also became indirectly the source of European scientific knowledge, through Galen. His translations of the anatomical portions of the al Malki or Liber Regis which he introduced to the Latin world as Pantegni, hold an important place in the history of the growth of anatomy. Like Mesue, the men of Salerno proved or disproved what the ancients had said by animal dissection. While Mesue used monkeys, they used pigs.
In the 12th century, Al-Jurjani wrote anatomical descriptions which were no better than Avicenna's, a century before. Even non-medical writers included a chapter on human anatomy in their works. For example when the naturalist, Al-Qazini, wrote about the wonders of the world he had a long dissertation on the greatest of wonders: the human body. The theologian, Fakhr Al-Din disserted at length on how the human being provides a proof of the supreme wisdom of God. To be uneducated in the anatomy of the day was tantamount to having an incomplete education. Anatomy was also considered a branch of theology.

For pharmacological experiments, Rhazes used apes, Ghiyas Al-Din cockerels, Baha al Doula dogs. In AD 975, Abu Mansur Muwaffaq of Herat wrote the first pharmacological monograph in Persia, noting 585 drugs collected from Greek, Syriac, Arabic, Persian and Indian sources. The greatest Arab pharmacologist, Ibn al Baytar, influenced Persian writers who followed him. He never visited Persia, but his work formed the foundation of Persian Materia Medica. Ali bin Husayn Al-Ansari the greatest of the Mongol period was born in Shiraz in 1329.

At this time, Indian medical practice and remedies were well known and Manka had translated into Persian an Indian book on poisons. Sanjahl translated Charaka into Persian which had been retranslated into Arabic. Avicenna quoted Indian opinions on leeches, and mentions Charaka's name in connection with therapeutics. In his book titled "Fidaws-al-Hikmat", written for the Caliph Al-Mutawakkil, Ali ibn Rabban Al-Tabari devoted the seventh part to Indian medicine using the works of Susruta, Nidan and Ashtangahradya. In Safavid days, which mark a period of Persian renaissance, Indian views and physicians seem to have been popular. India was a patron of Persian writers by printing their work as that of Nur al din Muhammad Abd ullah bin Hakim ayn Al-Mulk, of Shiraz, titled 'The Vocabulary of Drugs'.

This westernisation process was helped along by the establishment of Christian medical missions and particularly by the Church Missionary Society in different parts of the country. The Jesuits and Carmelites had been established but had retired many years before the Protestant missions even
began to think of evangelising Persia.

In 1871, the American Congregational Mission became part of the Presbyterian Board and started medical work. By 1880, Dr. Cochrane was in charge of the first American Mission Hospital in Persia, at URUMIA. Rev. Robert Bruce, who built the first British Mission Hospital, had gone from Punjab, for a one year visit and stayed the rest of his working life. In 1879, jointly with Rev. E.F. Hoernle, an Edinburgh medical man, they established a medical mission. The first hospital was in Julfa, an Armenian village two miles south of Isfahan. Two dispensaries were opened by Miss Mary Bird. In 1897, a hospital for women was opened in Julfa by Dr. Emmelina Stuart and in 1902 Dr. Carr built in Isfahan, a hospital for men and women and staff housing. Hospitals were built in 1898 in Yezol, in 1901 in Kerman and in 1923 in Shiraz.

The mission hospitals in the provinces provided young Persians a grounding in anatomy and physiology, equal in quality to that of Teheran. In view of this quality, gaining training and education in these hospitals was recognised by the central licensing body as the only method of graduation in medicine in the whole country outside Teheran. Being provided by Christians the work met with the hostility of the mullas, the Islamic clergy. This was short lived as in less than twenty years these same mullas, begged to be admitted and treated. The Persian practitioners followed this lead and began to ask the mission doctors to see cases in consultation. The upper classes, who at one time, would not even come close to a hospital, now approached without hesitation. Finally, in 1914, the Persian Government made a grant out of public funds to the hospital in Isfahan. This changed outlook in the provinces was the reflection of what the Central Government was planning, for a series of laws regulating the practice of medicine and pharmacy was approved by the Sanitary Council and ratified by the Majlis.

In 1911, the public vaccination service was revived, and 15,000 people in Teheran received it free of charge. Fifty years of education under foreign professors had produced an urban generation whose outlook was entirely different from that of their forebears.
By 1928, the medical services became nationalised. The oil company, once known as the Anglo-Persian Oil Company, had employed British doctors at three ports: Abadan, Mohammerah and Basra. The Budget Commission refused to pay the British doctors, so the takeover was abrupt.

Nearly all races and cultures wrote in their religious tomes of their methods of medicine and displayed their attitudes towards it. Illness was uniformly viewed as a punishment from God.

The descriptions of the circulation by Ibn Nafis and Harvey are proof that people in different parts of the world can have the same theories.
CHAPTER THREE

TRADITIONAL MEDICINE
TRADITIONAL MEDICINE

It is well documented that before 'Western' medicine people in Qatar depended on Folkloric medicine for treating disease and injuries, as they did anywhere else in the world. Arabian Folklore has been handed down by oral tradition for many centuries. It has been inherited from the "Ancients" such as Rhazes, Avicenna and Ibn Al-Nafis. Who had a very strong influence on the medicine of the West, as did the Arab translators Hunain Ibn Ishaq, Al Kindi and Gerard of Cremona. They had added to the Greek ideas.

Folkloric medicine is still much in evidence in Qatar now. It is used in the form of herbal medicine, Ashab, and bought from a herb seller hawaj in dried, liquid or natural state; cautery or wasm, used by a hawai for epilepsy, jaundice and back pain, with hot nails. Cautery is only used as the last resort as in ancient times; bloodletting was used for headaches, fevers and dizziness; massage is used for women suffering from general fatigue, dysmenorrhoea and for children with tonsillitis; and for men and women with cholic. The doctrine of signatures is still believed in. The Quran was also used for cure and still is to this day.

According to a Social Anthropology for Doha, written in Arabic; there is a long list of remedies to cover many illnesses. They can be used alone or with other ingredients or elements, ground and mixed together. The most popular is Zattar, which is used for problems of the digestive system, also for treatment of gums and teeth. By adding salt and dissolving it, it can be used for constipation, and fever. It is believed to expel poisons from the body. Another popular remedy is Ishrig for constipation. Water from boiled rice can be used for diarrhoea. Henna is used for headaches and cardamom for jaundice and vertigo. Camel's meat delays delivery for pregnant women if eaten in the ninth month. Black pepper, flour with henna and salt mixed into a paste with tea is applied to painful backs, several times a day. For hair treatment; grape vinegar, castor oil can be applied twice a week.

Jassim Mohammed Abdullah Bin Abbas Al-Khuzaei, is over 100 years old, and does not look it. He claims his longevity to be through good living and eating dates, the traditional yogurt and drinking milk. He was born in Al Jasra. He has five sons; Ahmad, Abdullah, Mohammed, Mohammed Haider
"Bin Abbas"

"Bin Abbas" with Family
and Abdul Aziz. They have all learned his skill in Medicinal Herbs as he learned from his father, by oral tradition. However, only two of them now practice this art; Ahmad and Abdullah.

He retired five years ago and up till then had practised. Now Ahmad runs the shop which still has the father's name and Commercial Registration number on it. This shop is in the old Souk Wagif. All the herbs are imported from Iran, Syria, Saudi Arabia, China, India and Yemen.

All the male members of the family were present at the meeting in the Majlis. The answers to questions came mostly from the two eldest sons, but Jassim who was alert and seemingly tireless answered too; occasionally so did the other brothers and the grandsons.

Ahmad had talked to us some time before and this was the chance to verify some of the facts noted at the first meeting, which was in the Souk, when he had been busy with customers.

It was a privilege to have this meeting, which was arranged by Mohammed Said Al Bloushi, a young Archaeologist from the Gulf Arab States Folklore Centre.

The following is the information they gave, in no particular order:

**Shambar** seeds soaked for 2-3 hours in water, are given to children for colic. **Habut al Baraka** seeds are soaked in water, and the fluid drunk for heartburn, and as a tonic. **Halbe** (Fenugreek) seeds are boiled in water and the fluid drunk for kidney stones. **Zattar** (Thyme) leaves are boiled to make a tea and taken with milk and sugar for cough and cold. This comes from Jordan and Egypt. **Habut al Hamra** (Red Cummin) seeds are made into a broth mixed with sugar and eggs. It has a soothing effect for women after delivery of a child, and can be given with **Housa** as a tonic and to regain strength. **Leboon**, is a chewing gum from Basra, Aden and Oman, is given as a laxative and for backache. **Helalia** a laxative not as strong as Ishrig, is given to clean the stomach. **Jadah** (Teucrium) the whole plant is cooked with three cups of water and the fluid drunk, for Diabetes and Hypertension. It's colour is yellow, and is put aside
in a Thermos and taken three times a day for forty days. **Teen** (Fig) is used as a shampoo for the hair and a lotion for the body, for Seborrhoea, nappy rash, itchy skin and general fatigue. **Miswak** the Tooth cleaning stick, comes in two colours red for women as it also gives colour to the lips. White is for men. Also it can be used for inflammation of the gums. **Tasheer** soaked in a little water. It becomes milky and is used for headache. It should be inhaled or applied to the head as a lotion. **Henna** is used as a shampoo for headache, as well as to colour the hair. It is also used on the feet by men and women when the skin of the heels becomes cracked. It is used for special occasions to decorate ladies hands. **Sabur** is cooked and put on heels when they become cracked, as well. This comes from Yemen. **Mismaar** (Clove) can be used for headache, boiled in a little water and the liquid applied to the head. Also it is used with **Dihan** for Rheumatism. It is made up with oil of the clove and rubbed into the inflamed area. **Jilda Rommaan** (Pomegranate) is mixed with honey for the stomach. It has astringent properties, and is used for massaging the tonsils by folkloric practitioners. **Astral dous** from Mecca, is boiled in water. The body is covered with a blanket and the patient inhales the vapour. He can drink one cupful and sleep. It makes the patient perspire. It can be either drunk for three days or used as an inhalation for two days. **Barees** cooked with butter is used for earache. It should be applied to a small clean cloth and inserted into the ear twice a day. The ear should be better after one day. It is also good for coughs. **Helalia Asfaar**, which is good for red and tired eyes, should be well washed, with water, crushed into three pieces in a clean cloth, immersed in water, and the water squeezed out over the eyes twice a day. **Harmal** leaves and stalks are boiled and the fluid drunk morning and evening as a tonic. This is also good for sheep to keep them in good condition. **Hooshba** from Morroco is good for allergic rash. It has to be boiled in water and drunk three times daily for forty days. **Moomyan** is mixed with milk and drunk twice a day. Helps in the healing of wounds. Very good for Falcons when they have broken wings or another injury. **Anzaurut** is a herb like sugar but yellow in colour. It is sticky, should be mixed with eggs applied to a wound and bandaged. Also good as a local application for Arthritis. It was associated with a Johnson plaster. **Argasous** root is like tamarind. Made up with water and drunk three times a day it is good for infections and coughs. **Lesanthoor** flower is boiled to make a tea. The colour is blue or purple. It is very good for flu if taken three times a day. **Agool** is for the treatment of
Jaundice, (busfaar). It grows in the desert in Qatar. The leaves are boiled and taken three times a day for ten days if the disease is treated early. If the disease is of long standing then the treatment should be for forty days.

There was one herb that he said he would like to keep secret. It is for the treatment of Haemorraghe, external or internal. It also helps menstruation. Sabur is for constipation if taken internally, for mumps as an external application. It should be taken in water and has a sour taste.

When I asked what was good to make one sleep I was told to have a good dinner. Leban or buttermilk was also recommended. For indigestion, heartburn or ulcers Brehou a tiny seed from China, which swells when soaked in water mixed with sugar to taste.

Misk, from the musk deer and Shabah, ground together is nice for people who sweat a lot to wash with. For washing a dead body Sidr and Kafoor which comes from a tree is ground and the body washed all over.

Mashroom (Basil) is very important for weddings for its perfume. It is picked in large bunches and spread around the marriage bed. If rubbed in the hands it will heal any little cuts acquired from manual work. Ainab (Grape) the fruit is cooked and after cooling is drunk three times a day for heartburn. Markadoush is used for children for stomach ailments.

Miriam Al Sowaidi or Oom Abdullah, uses herbal medicine at home and gives advice to her friends and neighbours. She buys all her supplies from Muktaar, known as a Doctor of Herbs in the Iranian Souq. Habit al Hamra (Lepidium) which is like tapioca, is given to pregnant women to make the baby healthy, and also after the birth of the child, to encourage mother's milk. It is boiled in water and given with sugar. A soup made of Tumeric Karkun with ginger and blackpepper taken with eggs is good for chest pain. Ginger, Ganzabeel is a good winter drink, powdered in milk or tea, for indigestion, and arthritis, rubbed into joints. Also for flatulence. Helba is for diabetes. Myrrh (incense) is good for aching limbs, it is ground and used with oil. The best comes from Yemen. She has some mixtures of herbs for cures. Myrrh with Helba, Hamra and Soda can be given morning and evening for diabetes.
Subar with Myrrh and Keel is a good tonic for strength. Helalia with Zattar and Ishrig cooked with lemon, filtered and drunk with sugar or salt is given for a laxative. She uses several different incenses which are burned and inhaled, or used as perfume. Some incense is called Bakoor which is brown and Misk which is white. Keel is for worms. Zattar or thyme is also used to flavour bread and is very popular for problems of the stomach or digestive system. It is easily available as a herb tea, such as Nana or mint. Alooch another gum from a tree is used for cough, cleaning teeth and as a mouth deodorant. Sabra tastes very bitter and is used to wean babies off the breast, by applying to the nipples. Helalia comes in two colours yellow for the eyes and black to combine with Ishrig as a laxative. Girfaa or cinnamon, as the bark from the tree is used to enhance the contractions for women in labour.

All herbalists use similar recipes.
Some Europeans have used traditional medicine, in the form of cautery. In the 1950's the wife of the Chief of Security, Ron Cochrane, Margaret tried it.

Ghanim Ali al Sowaidi still practices cautery at his home when patients come to ask for treatment. His instruments were two long nails. One bent like a hook and one straight. Both were set into wooden handles. He spoke also of using scissors. These instruments would be heated in a fire of burning coals until the required heat. This depended on the treatment required. He learned from his father how to practice cautery and had to watch for many years before he could do it himself. He also had to at first learn how to hold the patients and keep them from moving during the treatment. He would not allow anyone to watch whilst he treated a patient. There were special points to be used for cautery, depending on the complaint. He spoke of women cauterists who would treat female patients and children. Usually men treated male patients. The opposite sex would only treat under unusual circumstances. Also cauterists would wash and lay out the dead. Fees would be charged according to what people could afford. He thought that cautery was still popular even with the modern hospitals and special doctors. The most popular reasons for choosing cautery was jaundice, arthritis and sciatica. But it was still used for epistaxis albutannan(nose bleed) headache, especially migraine alsha-aab, fatigue (taban), haemorrhoids aлистirwах, pleurisy abu jnaib, recurrent miscarriage al kashma, abdominal pain al radhakh and skin diseases al naddas.

For treatment of Epistaxis, the patient would have a nosepack of powdered garlic and ghee (clarified butter) mixed with several herbs applied to the area. If this did not stop the bleeding then a site between the eyebrows was cauterised with the head of the nail.

For jaundice which was obvious by the patient having a yellow tinge to the skin, sclera of the eyes or bright yellow urine, cautery was done with the nail being heated until red and dabbed once on the wrist of the left hand and between the little and ring fingers. If the patient were young then the tip of the nail would be used making a small circle.

Following cautery patients do not eat spicy food, for ten days. Only rice and
laban (a liquid yoghurt), Kurkkan with turmeric, no lemon. Maybe fish, or meat but no oil.

For headache the area over the odontoid peg is branded.

For stomach ache a circle is drawn with a hot nail around the umbilicus.

For gallstones the side opposite the pain on upper abdomen is branded.

For sciatica and muscular pain a hook shaped instrument is used on the rump.

For arthritis two dabs on the area affected with a bent nail or handle of a pair of scissors is used.

Saeed al Bedeed, an old Qatari, is retired, but has been retained to look after the dhows at the museum, and to give advice and tell stories of the past. He lives in Salata, is a monogamist, and only re-married after his first wife died. He has one son and three daughters. He talks willingly of the old days especially when he was at sea on the pearling boats. He had been at sea since he was six years old but did not work at first. He was a tabbab until he was ten. He became a gheiss or diver at eleven and worked as one until he was twenty three, when he bought his own boat, with a loan from Abdullah Darwish. He never worked as a nahham, whose role was to encourage the others by singing. He was also a gheiss or seib but had more rest than the others. He says that the nahham was as necessary to the crew as a mechanic to a machine. They sang religious hymns in the morning and evening and others during the day. Saeed remembers practising cautery and giving herbal remedies to the sick on board. He learnt it from watching others and from what his mother told him. Necessity forced invention.

He is famous in Qatar. Whenever anyone asks about the old days with reference to folkloric medicine or any subject under the sun, the answer is "See Saeed Al Bedeid". He goes abroad with Cultural Exhibitions from the Department of Antiquities to Spain, Egypt, and elsewhere to pass on stories of the old days in Qatar. He remembers how wells were dug for water in the old days. If water was found, the wells were commonly owned by the tribes who
built their camps around them. The water was shared by all the members of the camps. The water was scooped out with buckets and ropes, then it was transported to the camps on a camel or a donkey's back. He remembers that it rained so much in the winter and spring that Doha was all green, just like a big garden. The water from the wells was pure and soothed an upset stomach. He remembers when water tanks were built to store the water. Every Sheikh - and sometimes - every tribe had its own tank, before the desalination plants were installed.

He receives men in his majlis every night. Young and old alike believe him to be gifted and revere him. He is calm, serene and always smiling. He is also a poet. His poems were collected in 1982 by the Department of Culture and Arts of the Ministry of Information. His grandfather was the great Qatari poet Saeed bin Mohammed Al-Badeed. His family is part of the Manaa, a well known tribe in the Gulf, who were pearlers. He was orphaned at two years old and was brought up by relatives. He learnt reading and writing with a Mutawaa brought from Nejd by one of the dignitaries of Salata, a Farig which was outside of Doha in those days. He started writing poetry at eighteen, and had the chance to meet and associate with great narrators of folk poetry in Qatar, and many Qatari bards. He used his own wide experience of pearling and the discovery of oil to enrich his poetry. His love of folk singing helped his diction, imagery and music. Besides being the most celebrated Qatari bard in improvising and writing Nabati poetry, Al Badeed practised folk medicine since his youth and is famous throughout the Gulf region.

He does not want to keep all his remedies secret. He has great faith in the Quran, especially that someone should read to the sick person and blow on him at the same time. He recommends hejabs, pieces of paper with excerpts from the Quran written on them. He still practices cautery. He does it anywhere at home, office or in the Mosque. He sometimes takes hot coals in a pot with him for this purpose. He practised this on an old man who was working with him in the Museum, who had brought his own instrument. He says any piece of wire or nail will do. A needle, usually used for stitching leather, was heated over a gas burner in the pantry, (Saeed says that a wood fire is better) then Saeed held it momentarily on the man's ankle, twice to the same spot. This was for the cure of Arthritis in the hip. Several days later the
man swore that he was cured. For epilepsy he brands with a nail in the middle of the eyes above the nose. For jaundice the wrist is branded. Tuberculosis calls for branding on the neck, as does fever. Children were branded for displaced muscles. For a cough he uses cautery with one touch of the brand on the back. For Tinea, branding is done on the left side of the head. For stomachache and vomiting one brand is made above the umbilicus and one below. Divers were branded below the ear lobe after depressurising. For hernia, one brand in the groin is the cure. For infertility in men one brand with a burning date pip between the testes is the cure. For muscular pain the hooked end of a hot needle is used below the muscle. For backache, one brand is used at the base of the spine and one at the atlas at the top of the spine.

He remembers an Englishman who was ill for some years and had no appetite. His mother told him to go to the Arabs. He was given Keel, which is herbal treatment for worms.

His way of treating a fracture is with a splint and bandage, putting soap and egg white boiled together under the splint.

Saeed never practised cupping or bloodletting. He recommended the time for cleansing the stomach, as 7 or 8 every morning. Also this gave strength. For cleaning the stomach zattar, ashrig, and shih, (artemesia). His toothbrush was mishwak imported from Saudi Arabia. Garlic was good for cuts, squeezed over the injury. It burned but cures in five minutes. Onions for several ailments. Ground and applied to the chest for cough, on the back for lower back pain. A poultice can be made to draw out pimples. For some eye diseases a slice of inion kept over the eye overnight. Also the juice of an onion with honey for eye drops. Crushed onion with oil for cracked nipples, cuts and cracked heels. Eaten raw cleanses the mouth. Cucumbers were used by him for heartburn. For worms he recommended keel from Iran. For cough soak frankincense without boiling, drink for several days. Or the ginger root boiled with honey. Honey was also good for indigestion, hyperacidity and with Ghee (clarified butter) for constipation.

A patient in his Majlis asked for a cure for dizziness he was told to read
Quran. Saeed never charges anyone. Sometimes he receives gifts from grateful patients.

Thabia Mohanadi is a folkloric healer. She treats women and children. She is very famous in the Gulf, people come from other Gulf countries to visit her. She does not tell her secrets. A lady who she once treated told me that when she was expecting her third child she went to Thabia, because she did not want to have a caesarian section. Thabia gave her some exercises to do and manipulated the baby into a good position for delivery. This was done three days in succession and the baby was born naturally. She treats tonsillitis in adults and children by massaging the throat externally and internally. She uses dates and pomegranate with her massage. She learnt her art from her mother. She can use cautery if it is necessary.

One of the methods of massage is called Soqat. It is used in three ways. One is massaging the neck with oil or fat with upward movements, and is known as Mrabek. Another method is the Tarfiq the practitioner wraps a scarf round the neck and draws it upwards three times. Qamz is used if the first two methods do not work, by the woman dipping her fingers into a mixture of herbs and massages the tonsils directly.

Isqat is a form of treatment whereby the practitioner hold the patients head between her knees and sucks the shaved head, three times in succession. The head is then covered with a herbal mixture. This is another tonsillitis treatment.

The Evil Eye Al-Ayn was the belief that someone could unwittingly cast an evil spell on somebody whose good fortune they envied. After the 'eyer' had been located, the sick person could remove the spell by inhaling smoke from a burning piece of cloth which belonged to the 'eyer' or by drinking from the remains of water which the 'eyer' had used.

Plants of the Quran: Manna (Alhagi Mauroram), Date, Olive, Grape, Pomegranate, Fig, Tamarisk, Camphor, Henna, Ginger, Lentil, Onion, Garlic, Cucumber, Banana, Gourd, Mustard, and sweet basil are all mentioned in Quran as to be beneficial for health and are included in the diet of many people.
Quran is used to keep away the devil. Sick people still bring the muttawah for illness. One man tells the story of his young son thought to have been visited by the devil. One day when he was two years old the little boy was crawling round laughing and suddenly cried out and seemed afraid. He was blowing and tentatively holding his hands out as though someone or something hot were near him and he was blowing to cool it down. The father took the child to his grandmother, who read from Quran. But the child would not settle down and wanted to be outside. They had a relative who was the father of his sister's husband. His name was Abdullah, a good man who was famous in Saudi, Bahrain and Qatar as a Muttawah. He was known to talk to good and bad jinn. The boys father took his son to Abdullah at 6 in the morning. He was told to go to where this experience happened and drop an egg on the spot and to repeat "Bismillah". He went again to Abdullah who read from Quran. The child still would not eat, drink or sleep and only opened his eyes. The father saw the childs face drop on one side as he watched him. His sister-in-law fainted when she saw this. Both parents took the child to the Muttawah again. He said go again sit with the child in your lap, drop an egg on the spot and repeat "Bismillah". They were all crying. Abdullah put his hand on the childs face, read Quran, until the face became normal again. The child suddenly screamed, but went upstairs and began to drink his milk. He slept for two days and nights. Abdullah gave an amulet for the child to wear as protection from the bad jinn. Abdullah was very famous for his premonitions. One day whilst eating his lunch he stopped suddenly and said "my cousin has died". Ten minutes later the telephone rang and the message came that indeed the cousin had died.
CHAPTER FOUR

MEDICINAL PLANTS OF QATAR
MEDICINAL PLANTS OF QATAR

Although most books describe Qatar as a barren desert, the writers have obviously not been out in the desert after some rain has fallen. Just a few drops and the desert becomes a carpet of green and many wild flowers and herbs flourish. Some are ephemeral and have remained in their dry state waiting for water to revitalise them. Others have had their seeds preserved in the sand for such an occasion, some for many years. Others again have very long roots and are able to survive.

Also in the Spring season, truffles are to be found just below the surface of the ground. This delicacy is much sought after nowadays for food, but have been used in folklore medicine.

The seeds of these plants are supposed to have come to Qatar by migratory birds, the wind or as in the case of Fennel cultivated, and brought here by the immigration of the Persians. In recent years they have been imported in soil, brought from Pakistan and other countries as topsoil in public and private gardens.

The kinds of plants that grow here are the same as other countries in the Saharo-Arabian Desert region in the interior and also the Sudanian and sub-Sudanian region along the coasts.

The Arabs were thought to be among the first to use medicines of plant origin especially as they were the first travellers and traders. There is evidence that Qatar played a role in the thriving 3rd millennium trading activities in the Gulf.

The Bedouin's survival was dependent on his curiosity, his desire to examine by trial and error all aspects of his environment, and decide which materials were remedial and which harmful and also which gave him nourishment.

Modern Medical Research has ignored this experience and delayed the application of potential benefits. Rauwolfia, the tranquilliser, did not come into general use until 1952, even though it had long been used in Ayurvedic
medicine in India, or Cromolyn, the miraculous prophylactic drug for asthma, which was introduced in the 1970's, though its use in the form of Ammi seeds has been part of Bedouin Folk Medicine for centuries.

Professor Rizk and Professor El-Ghazaly of Qatar University have just published a book entitled *Medicinal and Poisonous Plants of Qatar*. Their work was sponsored by the Scientific and Applied Research Centre at the University of Qatar, which was set up by Sheikh Kalifa bin Hamad Al-Thani, to study the constituents of the desert and marine plants. This was a programme in three phases beginning with Professor Batanouny's study of *Ecology and Flora of Qatar* in 1981. The chemical analysis of these was done by Professor Rizk and to investigate the possibilities of treatment, economic importance and source of natural compounds that could be used in Pharmacology and other industries. They are described in his book *Phytochemistry of the Flora of Qatar* 1986. The third phase, a biological survey of wild plants especially those in stage two shows the possibility of use and results. Some can be used for treatment and were not known before, some can be used as anti-inflammatory, for renal colic or even some types of cancer.

In recent times there has been a growing interest in the use of medicinal plants because of the side-effects of chemical medicine. The World Health Organisation have warned against some as several countries are going back to the use of natural herbs for the treatment of many diseases such as Africa and Asia, poorer countries have always used them.

This selection contains some of those which mostly grow wild and may be of interest and are used by folk practitioners. Some are from a Calendar issued by the Environment Protection Committee. Some are from the Quran. I have referred to a British Herbal, an American Medical Botany, and a Middle Eastern Geobotanical. They appear in alphabetical order.

These plants are used for medicine, food and charms.

It is not recommended that you experiment with these herbs, especially when you discover how readily available some of them are. See a traditional
ACACIA EHREBERGIANA (Mimosa)

**ARABIC NAME:** *Salam*

Named from the Greek *akakia* a name in Dioscorides meaning a point or thorn. A spiny shrub not exceeding 3m. Flowers in April and May. Common in Qatar, grows in depressions and wadis receiving run-off water. Two species of Acacia grow wild in Qatar and another three species have been cultivated as hedges in streets or reafforestation programmes by the Ministry of Industry and Agriculture.

The plant contains terpenoids, coumarins, flavonoids, tannins and saponins. The ethyl acetate extract of the plant has molluscicidal activity of schistosomiasis-transmitting snails (*Bilarhzia*).

Used as an anti-inflammatory by local folk medicine practitioners.

AIZOON CANARIENSE (Ficoidaceae)

**ARABIC NAME:** *Gafna or Shafna.*

Woody herb flowers March and April, found in compact depressions and runnels, common in Qatar at Shahania.

Contains coumarin compounds.

Eaten by camels and the leaves in salad by man.

ALHAGI MAURORUM (Papilimacea)

**ARABIC NAME:** *Akool,* as in other Arab countries.

Eaten by camels, known in English as 'Camel thorn' or Pea Plant. The roots
reach fifteen to twenty feet into the ground. The exudate, a saccharine white substance is termed 'Manna', a term which is very old and refers to the saccharine exudate of a number of plants: Tamarisk gallica var. mannifera, Quercus Vallones and persica (Oak Manna) and Larix Europaea (Briancon Manna). The Manna of the Bible seems closest to the Tamarisk Manna exuded in June or July in the form of honey-like drops which in the cool mornings are found in a solid state. This secretion is caused by the puncture of an insect called Coccus manniparus, or Cochineal insect. The arabs in the Sinai valleys collect and sell it to the monks of St. Catherine who give it to the pilgrims visiting the convent. In arabic it is called Gazanjabin. In 1927 it was stated that the 'Manna' came from the insects themselves and the Bedouins claim that a man can collect nearly three and a half pounds in a day. Manna has also been described as resembling coriander seed, white in colour and sweet to taste and had to be baked to preserve it. Identified as a small fungus, but because baking destroyed its structure could not be identified. It is mentioned in the Quran in Sura’s II, VII, and XX. The word in arabic means fresh honey. Farooqi (1989) claims that the Manna referred to in the Quran was in fact obtained from two different plants. One Akool or Alhagi maurorum (Turanjbin) the other Tamarix gallica var. mannifera (Gazanjabin) and both are still traded in certain parts of the world and used medicinally. The references in the Quran are used with Salva i.e. the bird Quail. Meaning that carbohydrate and protein was provided for the Children of Israel. In the Bible no reference is made to quail. Farooqi quotes references to infer that the Manna was a Lichen which when dried is very light and can be blown long distances and settle down like rain. In the book of Exodus the phrase "when the sun waxed hot it melted" indicates the possibility of some algae type of Manna. He goes on to quote that in one Hadith, Manna has also been described as al-Kamat or mushroom. So as the Semitic word Mann means what or who, it is probable that when they saw the white substance they wondered what it was and called all strange edible substances Mann.

Shrubby perennial pods after flowering.

Found in Qatar at Ras Ushairij, Al-Magda, Abu Samrah, Zekrit and the salines of Umm Bab.
Contains several phenethylamine alkaloids.

Used as a heart tonic in folk medicine. The plant has been reported to possess anti-inflammatory effects, also laxative, diuretic, purgative expectorant and used to cure rheumatic pains, bilharziasis, haemorrhoids, opacities of the cornea and antipyretic activity has been established in 1985. The manna (exudate of leaves and branches) soothes small pox eruptions, asthma and haemorrhoids. The extract of stem and roots are used as refrigerant, antipyretic, stimulant, laxative, diuretic and bronchitis. In Bahrain the leaves are used for jaundice and migraine.

AMMI MAJUS (Apiaceae)

ARABIC NAME: Killa-shitany. Kheel.

Same family as Fennel. Known in Europe as Bishops weed, because it grows wild near ecclesiastical ruins. Used for sciatica and gout as a local application. Eaten as a salad in Sweden and Switzerland.

Annual herb, with ovoid oblong fruit. A weed in cultivated land, in Qatar.

It contains coumarins and essential oil and flavonoids. The seeds are used as a diuretic, carminative, tonic, digestive, stomachic and for asthma and angina pectoris. Cromolyn developed in the 1950's was hailed as a miraculous prophylactic drug for Asthma, but had been part of Bedouin Folk Medicine for centuries.

ANAGALLIS ARvensIS (Primulacae) Scarlet Pimpernel.

ARABIC NAME: Ain el kot. Which means cat's eye referring to the fruit.

An annual herb. Fairly common in Qatar flowers February and March in the shade of Acacia and Ziziphus trees. Grows in north and north-eastern Qatar.

Contains saponins, cucurbitacins, flavonoids and several other compounds.
ANASTATICA HIEROCHUNTICA
An expectorant and anti-rheumatic and used for treatment of some diseases of the urinary system. Used as a gargle to relieve toothache. Also has dermatology uses.

Implicated in sheep poisoning in Australia.

ANASTATICA HIEROCHUNTICA (Cruciferae)

**ARABIC NAME:** *Kaf-mariam.* English The Palm of Mary or Rose of Resurrection.

An ephemeral. (It dries up when there is no moisture available and becomes green when rain falls).

An annual herb, grows in Qatar in shallow sandy depressions. Flowers from February to April. Common in Qatar.

The dry plant is used in Arabic folk medicine and sold in the souk. Infusion of the dry plant is prescribed in folk medicine to ease uterine haemorrhage, to facilitate expulsion of the child, used as a charm at childbirth as the opening up of the plant has psychological effect on the mother, and is also soaked in water and the liquid drunk by the expectant mother.

It contains glycoside and flavonoids used as an anti-epilepsy. Is anti-microbial and anti-biotic, purgative, parturifacient and emmenagogue.

ANETHUM GRAVEOLENS (Umbilleferea) Apiaceae

**ARABIC NAME:** *Shapat.* English name: Dill

Mentioned in The Bible. The original Greek name Anethon. Mentioned by Dioscorides. Well known in Pliny's day and also mentioned by writers in the Middle Ages. The word Dill comes from the old Norse word dilla (to lull). Used in Europe for pickling, especially cucumbers.

Annual, aromatic, cultivated in Qatar and used in green salad. It escapes
cultivation and grows in land cultivated with vegetables. Flowers from March to May.

It contains sesquiterpene lactones. The leaves contain flavonoids and coumarins. The volatile oil of the plant consists of carvone. The essential oil from the roots contain many compounds such as apoile and myristicin. The fruit are emmenagogue, condiment, stimulant, carminative, stomachic, digestive, diuretic, antispasmodic, antiemetic, sedative, galactogogue, emollient and anti-poison. The tea made from boiling the seeds is used as laxative for newborn babies. The plant is used for bruises, colic, cough, haemorrhoids, insomnia, jaundice, sclerosis and scurvy.

ASPHODELUS FISTULOSUS (Liliaceae)

ARABIC NAME: Barwag.

Known in France as Asphodel. Hippocrates, Dioscorides and Pliny said the roots were cooked in ashes and eaten. The Greeks and Romans used them in several diseases.

Annual in Qatar, can be perennial. Flowers mainly in the Spring. Common in Qatar, especially in Shahaniyah, growing in depressions.

Contains anthraquinones, flavonoids and sterols.

The leaves are used as a diuretic. The seeds have diuretic properties.

ARTEMESIA INCULTA (Compositae)

ARABIC NAME: Al-Sheekh.

A herb, perennial, very rare in Qatar, found on the road to the North. Flowers May and June.

Contains an essential oil, several flavonoids.
The plant is used as an anthelmintic. The leaves and flowers are used as febrifuge, carminative, anti-rheumatic, tonic, sedative for the emotions, stomachic, bronchitis, diuretic, antiseptic, and wound healer. Also used in Arab Folk Medicine as anti-diabetic.

AVICENNIA MARINA (Avicenniaceae)

ARABIC NAME: Quirm.

Large shrub or tree up to 3-4 m high. Flowers from June to August. Found in muddy, shallow coastal water. Qatar was once surrounded by it, but pollution has reduced it to the eastern coast at Al-Zakhira and Umm El-Hul.

Contains several compounds.

The bark is astringent and used for smallpox. The roots are aphrodisiac. The leaves are used as a poultice. Unripe seeds are used to accelerate suppuration of boils and abscesses. The stems were once used for roofing houses.

BLEPHARIS CILIARIS (Acanthaceae)

ARABIC NAME: Begheil or Showk-eddhab.

A perennial thistle-like spiny herb. Flowers from March to May. Grows in Shahania, Dhukhan and Umm Bab.

It contains alkaloids, flavonoids, sterols and tannins.

The seeds are used for wound healing, anti-inflammatory, anti-haemorrhoidal and emollient. Ashes from the root are used as "Kohl" (eye powder) for feeble eyesight in Egypt. Leaves are used for aphrodisiac and diuretic. Roots are used for diuretic and cough. Flowers used to soothe the stomach.
Blepharis capensis another variety grows in Africa and the herb is used by the natives.

CAPPARIS SPINOSA (Capparidaceae)

ARABIC NAME: Kabar, Lasaf, Safalah. (Caper plant.)

Identified as the Hyssop of the Bible which grows in the Jordan Valley, Egypt, and the desert in the gorges of Lebanon in the Kedron Valley.

Shrub, very common in rodat in northern Qatar. Flowers from March to May.

Contains glucosinolates, flavonoids and sterols. The plant is abortifacient. The root is emmenagogue, aperient, expectorant, anthelmintic, analgesic, diuretic, appetizer, astringent, anti-rheumatic, toothache. The leaves are used in Bahrain as diuretic and analgesic. The leaves and fruits are carminative and aphrodisiac. The flower buds are stimulant, slightly diuretic used for sciatica internally. The flower buds and roots are diuretic, tonic and used in compresses for the eyes. The seeds are used for feminine sterility, dysmenorrhoea, ulcers, scrofula and ganglions.

CASSIA ITALICA (C.SENNA) (Caesalpinaceae)

ARABIC NAME: Al-Ishrig

Senna is an Arab name and was first used by Arabian physicians Serapion and Mesue. Achiarius was the first Greek to use it, he recommended the fruit. Mesue preferred the pods. Over time it has proved that many countries use Senna for the same purpose.

Senna Pods or the dried ripe fruits are official in the British Pharmacopoeia. They are milder in their effects than the leaves. It is often called séné de la palthe in the French Pharmacopoeia because of the duty formerly put on it by the Ottoman Porte. There are many varieties, Livingstone took some from Southern Africa to Britain.

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CITRULLUS COLOCYNTHIS
Under-shrub fairly common in Qatar, grows on rocky and gravelly habitats all over the country in Sudanian regions. Flowers in Summer until autumn.

Has been sited on the waste ground beside the Hamad Hospital. The dried leaves and pods are sold in the souk as a laxative. Contains anthrones glycosides. Plant powder is taken orally for elephantiasis. The leaves and pods are a strong laxative. Crushed seeds are used for ophthalmic diseases.

CITRULLUS COLOCYNTHIS (Cucurbitaceae)

ARABIC NAME: Shary, known as Al-handal or Hanzal in other Arab countries. English: Bitter gourd or Desert Apple.

Annual or perennial, trailing or climbing herb. Common in Qatar and grows on sandy compact soils. Flourishes in summer. Flowers from May to July.

Fructus colocynthis is still official in several pharmacopoeias due to their cathartic value: Egyptian, French.

Contains sterols, alkanes, aliphatic alcohols and alkaloids. The peel contains a volatile oil. Cucurbitacins have been identified in the leaves, fruit, seeds and stem. The leaves are used as a diuretic and treatment of jaundice, the root is useful in inflammation of the breasts, amenorrhoea, jaundice, rheumatism, joint pains. The fruit is pungent, cooling, purgative, anthelmintic, antipyretic, carminative. The fruit pulp is purgative, diuretic, anti-epileptic, and is used for gonorrhoea. Has some poisoning effects as its action is very violent and should never be given uncombined. If taken in an overdose causes death by general peritonitis. Used in local folk medicine and sold in folk medicine shops. The dried fruits can be broken and used to keep moths away from clothes.

COCCULUS PENDULUS (Menispermaceae)

ARABIC NAME: Gurdhi.
CUCUMIS PROPHERATUM
Woody climbing shrub. Red fruit, similar to Laurel. Flowers March and April. Found climbing in ziziphus or Acacia trees. Rare in Qatar, found in Al-Karaana and Al-Karrarah. Found in Sudanian regions.

Contains several alkaloids, which possess hypotensive and anticancer activities. The plant extract possesses significant analgesic and antipyretic activities. The plant is used in the treatment of intermittent fevers.

CUCUMIS PROPHERATUM (Cucurbitaceae)

**ARABIC NAME:** *Sharry*, known in Arabia as *Hadaj*.

Perennial in Qatar, climbing or trailing with tendrils. Yellow flowers, fruit fleshy, many-seeded, spiny or prickly, rarely smooth. Found occasionally in gravelly soil. Flowering April and May. Found in Sudanian regions.

Contains cucurbitacins B, C, D, G, H, and Q, propetosterol, alkaloids and saponins.

Used in Folk medicine with the whole plant as laxative and emetic. The fruit cures fevers.

CYMBOPOGEN PARKERII (Gramineae)

**ARABIC NAME:** *Al-eskabr*. Grass.

*Cymbopogon* from the Greek *kumbe*, a hollow vessel, cup or boat, *pogon*, beard.

Perennial aromatic grass. Has male, female, neuter and hermaphrodite flowers. Smells strongly of lemon, densely tufted grass with woolly or sparsely hairy basal leaf-sheaths. This plant is very common particularly in central and northern Qatar. Found at Al-Shahania and Al-Zubara. Flourishes in Spring and flowers March to June. Grazed by sheep.
Contains sesquiterpenes, flavonoids and a volatile oil. Pharmacological studies showed that the plant possessed antispasmodic properties due to its cryptomeridiol content, a compound which was proved to be capable of expelling uterine stones.

**CYNODON DACTYLON** (Graminaceae)

**ARABIC NAME:** Najm or Najil. English: Bermuda Grass.


Contains sterols and flavonoids.

The plant is used for expectorant, diuretic, vomiting, hallucinations, epilepsy, leprosy, scabies, fevers, epistaxis. The rhizomes are used for renal and urinary problems, emmenagogue, diuretic, emollient, blood purifier and disinfectant. The juice is applied to fresh cuts and wounds.

**CYPERUS ROTUNDUS** (Cyperaceae)

**ARABIC NAME:** Al-saad.

Perennial herb, sending long slender stolons bearing black tubers producing long rows of small leaf rosettes along the ground. Flowers all the year. Common in gardens and cultivated fields.

The plant contains essential oil, several compounds and flavonoids.

The plant is an abortifacient and used for uterine haemorrhage. The tuber is used as a paste in heart disease. The root is cooling, astringent, appetizer, stomachic, diaphoretic, anthelmintic, diuretic, emmenagogue, vulnerary, useful in leprosy, thirst, fevers, blood diseases, biliousness, pain, vomiting, epilepsy, ophthalmia, erysipelas. The tubers are tonic, stimulating and stomachic and also analgesic, antispasmodic, antitussive, carminative, emmenagogue, litholytic, sedative, stimulant, tonic, liver remedy, malaria remedy, headache
cure, relieve diarrhoea and to treat bronchitis.

**DACTYLOCTENIUM AEGYPTIACUM** (Graminae)

**ARABIC NAME:** *Najm.*

From the Greek *dactylos*, finger, *ktenion*, a little comb.

Annual or perennial grass with flat leaf-blades. A very common weed in shady places along irrigation channels in date groves. Flowers from May to October.

Seeds used as food and the plant used for coughs in children. In Bahrain the leaves are used for ulcers. The seeds are used in Africa for renal pain.

**EMEX SPINOSUS** (Polygonaceae)

**ARABIC NAME:** *Hinzab and himbaz.*

Annual herb, common in Qatar on fine sandy soils in depressions and along the margin of cultivated land. Flowers March to April. Grazed by animals. Eaten fresh or roasted by bedouins.

Contains anthraquinones flavonoids, coumarins and alkaloids.

Used as digestive, treatment of colic and appetizer. Used in Saudi as purgative and diuretic by traditional medicine practitioners. In Bahrain the leaves are used as a laxative, diuretic and for jaundice.

**EUPHORBIA HIRTA** (Euphorbiaceae)

**ARABIC NAME:** *Labna* (Milk).

Annual erect herb, densely hairy. Flowers April to August, fairly common in gardens and agricultural land.
Contains many compounds.

The plant is used as a stomachic, diuretic, purgative and a remedy for gonorrhoea, oxyuris, bronchitis, asthma, thrush, as a febrifuge, as an enema by women to increase the flow of milk. It is antispasmodic, hypoglycaemic and used for flu, fever, hypertension and measles. The root is given to allay vomiting. A decoction of leaves and skin of the stem is used to promote virility and potency. The plant juice is used for cuts and wounds. In Nigeria the decoction of the leaves is used as a purgative and haemostatic.

EUPHORBIA PROSTRATA (Euphorbiaceae)

ARABIC NAME: Labna (Milk).

Prostrate dark green annual herb. Very common garden weed in Qatar. Flowers from March to November.

Contains flavonoids, sterols and other compounds.

Used against flu, dysentery, diarrhoea to purify blood, improve the milk of nursing mothers, as an anti-inflammatory, a diabetes remedy and the latex applied to sores and snake bites.

FOeniculum vulgare (Umbelliferae)


Named by the Romans from Latin word for Hay. Indigenous to the shores of Mediterranean, from where it spread eastward to India. It has followed civilisation. It flourishes well on limestone soils. Cultivated for medicinal use in Europe, Russia, India and Iran.

Green aromatic herb, smells like aniseed when crushed. Seeds official in British pharmacopoeia. Flowers May to June.

Cultivated in Qatar used in salads or stewed.
Contains many compounds and coumarins. The volatile oil of the leaves contains high percentages of anethole and fenchone.

The herb is used as a condiment, as a poultice for mammary inflammation and as a remedy for jaundice and for menstrual complaints. Fennel oil is used for hookworm. The plant has been reported as abortifacient, anodyne, aphrodisiac, balsamic cardiotonic, carminative, diaphoretic, digestive, diuretic, emmenagogue, expectorant, restorative, stimulant, stomachic, tonic and vermicide. It is also a folk remedy for aerophagia, amenorrhoea, backache, cholera, colic, dyspepsia, enteritis, enuresis, flux, flatulence, gastritis, gonorrhoea, hernia, nausea, nephrosis, parturition, snake bite, spasm, splenosis, stomach ache, tenesmus, toothache and virility. The root is diuretic. The plant is used as a vermifuge and also for liver ailments. The fruit is used as aromatic, carminative, stomachic, emmenagogue, galactogogue, abdominal pain, backache, nocturnal enuresis, cholera, cold, colic, dysmenorrhoea, dyspepsia, gastroenteritis, hernia, nausea, expectorant, stimulant, antispasmodic, digestive, aphrodisiac, appetizer, tonic and carminative.

FRANCOEURIA CRISPA (Compositae)

**ARABIC NAME:** Guthgath, the name also given to Pulicaria undulata or Thyme. Zatar tea.

Perennial bush desert plant. Very common in Qatar. Grows mainly in habitats known as Mangaa where water collects after rainfall and the soil is fine textured. Flowers all the year round.

Contains several compounds, volatile oil and a neutral triterpene.

Used in Saudi on bruises to enhance healing. Used in Qatar for various purposes in folk medicine. The leaves are used in Bahrain as a diuretic. The flowers are used to prepare a sneezing powder.

GLOSSONEMA EDULE (Asclepiadaceae)
ARABIC NAME: *Atra, Kerbish, Loz Al Nabi.*

A small prostrate spreading herb. Stem has milky latex. Flowers March and April. Fruit ovate covered with soft spines, become buried in the ground. Found in sandy soils on slopes of hills. Common, especially in southern Qatar.

Its fruit and seeds are eaten by man. They are cooked or pickled. Also eaten by animals and the whole plant used as fodder.

HELIANTHUS ANNUUS (Compositae)


Thought to be named from the greek *helios* (sun) *anthos* (flower). The English name given on the supposition that their heads follow the sun during the day turning towards its direct rays. Another explanation being that it resembles the radiant beams of the sun.

An annual herb, with a rough, hairy stem, grows 3 to 12 feet high, the circular flowers sometimes a foot wide. Flowers in Qatar from July to October. Habitat garden soils. Distribution in Qatar fairly common in gardens and rodat.

Said to have originated in Mexico and Peru. It has been cultivated so long worldwide its exact origin is unknown. There are at least 2000 varieties. The Jerusalem Artichoke (*Helianthus tuberosus*) is also a member of the genus.

In Peru this flower was revered by the Aztecs, and in their temples of the Sun, the priestesses were crowned with Sunflowers and carried them in their hands. The early Spanish conquerors found Sunflowers wrought in pure gold.

The sunflower is valuable economically as well as ornamentally. Every part of the plant can be used. The leaves for feeding rabbits, horses cows and other...
stock, stems for fibre and to make paper, seeds are rich in oil and food for poultry, oil cake for stock, useful for its semi-drying properties in paint, varnish, candle and soap industries. The Russians have big bowls of the seeds in restaurants and railway stations for people to eat. In the Arab world they are used as a nutritious snack and called Hab Shams. The seeds can be roasted in the same way as coffee and make a very nice drink. In some countries the seeds are baked in bread. Even the stems and seedless heads can be used as litter in chicken houses. They make a very good silage crop in Britain where beans and maize do not adapt well. They can be used as fuel because when the stalks are dry they become as hard as wood and make an excellent fire. The ash can be saved and as it is rich in Potash can be used as a good manure. As a soil improver the growing herb is useful for drying damp soils. Swamps in Holland have been dried up by cultivating extensively. The Chinese grow this plant extensively and use its fibre mixed with their silks. The Sunflower is a good bee plant as it provides the hive bees with large quantities of wax and nectar. It is used as a vegetable with the unexpanded buds boiled and served like artichokes.

Its medicinal properties are many. The flower is a tonic, emmenagogue, has dermatological uses, ulcers, leprosy, fever, biliousness, asthma, bronchitis, urinary problems, anaemia. It is an anti-inflammatory, cures kidney diseases, given in insanity and liver complaints. The seeds are diuretic also reported to be an anodyne, antiseptic, bactericidal, emollient, insecticidal and malaria preventive. It is a folk remedy for blindness, catarrh, colds, colic, coughs, diarrhoea, dysentery, epistaxis, fevers, fractures, inflammations, malaria, menorrhagia, rheumatism, scorpion stings, snake bites, whitlows and wounds. The flower is emmenagogue, the plant an abortifacient.

A Russian remedy for malaria is for the leaves to be spread on a cloth moistened with warm milk and the patient wrapped in them. Perspiration is produced and this process is repeated every day until the fever stops. It has been used instead of quinine as a tincture prepared from the seed added to spirit of wine in Turkey and Persia. The leaves are used in herb tobaccos. The pith of the stalk is used as moxa in moxibustion because of its nitre content.

HERNIARIA HIRSUTA (Caryophyllaceae)
ARABIC NAME: *Esh Shawla and Rabla*.

Tiny herb, leaves hairy on both sides. Grows in compact and gravelly soil. Found at Jebel Dukhan and Al-Zubarah. Flowers from February to April.

Contains coumarins, saponins and flavonoids.

Used in Qatar as a diuretic, astringent and anti-spasmodic. Used in Africa for sore throat. Used in India as powerful narcotic and diuretic.

**LIPPIA NODIFLORA (Verbenaceae)**

ARABIC NAME:

Belongs to the verbena family which is planted in gardens in Europe to deter insects.

Perennial procumbent herb, rooting at nodes. Flowers from May to September. Rare in Qatar, recorded in the shade of a palm tree, where water spilled continuously from a tap at Ras Ushirij.

Contains compounds and flavonoids, steroles and glucosides.

Used for an aphrodisiac, stomachic, vulnerary, anthelmintic, diuretic. It is useful in diseases of the heart, the blood, the eye, fevers and cold. Can be used for ulcers, wounds, asthma, bronchitis. An infusion of the stalks and leaves is given to children suffering from indigestion and women after delivery in India. The plant is also regarded as an anodyne, bactericide, and is used in adenopathy, arthritis, furunculosis, erysipelas, ischuria, neuralgia, spasm and vertigo. In Bahrain the leaves are used as diuretic and antipyretic.

**MEDICAGO SATIVA (Papilionaceae)**

ARABIC NAME: *Jatt*, as also in the rest of Arabia and Iraq.
Known in Europe as Lucerne, and used to increase milk production in cows. Its origin is Medea then old Spain, Italy, France and cultivated in Persia and Peru.

A herb, cultivated in Qatar as a fodder as it tolerates drought and salinity. Flowers from May to July.

Contains saponin, steroids, flavonoids and rich in vitamins.

Used as aperient, diuretic, emetic, cardiotonic, emmenagogue, stomachic, stimulant and tonic. It is said to aid peptic ulcers, urinary and bowel problems. The expressed juice is emetic. The root is prescribed for fevers. The fruits are diuretic and the juice as a muscle inhibiting factor. In Columbia the mucilaginous fruits are used for cough. Also used for arthritis, boils, cancer, dysuria, fever and scurvy.

MOLTKIOPSIS CILIATA (Boraginaceae)

ARABIC NAME: Ghabsha and Halama.

Small annual shrubby herb, common on sandy saline soil deposited by wind in southern Qatar and on the sand accumulations between Dukhan, Fuwairat and Umm Bab. Also in Northern Arabia. Flowers from March to May.

Contains alkaloids and flavonoids.

Used as Haemostatic with plugs made from fresh plants. Has some toxic effects.

PHRAGMITES AUSTRALIS (Gramminae)

ARABIC NAME: Ghab, Boos, Hagana and Gassab.

Phragmites from Greek name of a reed grown in hedges. A stout rhizomatous perennial swamp grass. Flowers March to May. Fairly common in Qatar
Phoenix dactylifera
growing along ditches of brackish water and in moist waste places in cultivated areas. A vast area to the south of Doha is occupied by a dense growth due to the continuous spilling of sewage in that area. Used for thatching, fodder and firewood.

Contains alkaloids, flavonoids and terpenes.

Used in China for leukaemia. The shoot is antidote, anti-emetic, antipyretic, refrigerant and used for Cholera. The root is anti-emetic, antipyretic, diuretic, febrifugal, sialogogue, stomachic, and used for arthritis, cough, earache, hiccups, haematuria, nausea, sore throat, sunstroke and toothache. The rhizome is diaphoretic and is used for acute arthritis and jaundice. The flower is used for cholera and fish and shrimp poisoning.

PHOENIX DACTYLIFERA (Arecales) DATE

ARABIC NAME: Nakl.

A dioecious tree with unbranched stem. Has small white flowers, April and May. The plant is cultivated in Qatar, but some spontaneous growth is found on the shores in the south of Qatar.

All parts of the plant contain condensed tannins. The stem contains compounds. The leaves contain luteolin. The pollen contains oestrone and a glucoprotein. The fruit is very nutritious containing sugars, proteins, pectins, gums, vitamins, carotenoids, flavonols and flavones.

Fruit is reputed to have great medicinal value. It is demulcent, an emollient, a tonic, diuretic, fattening, anti-fatigue, used for tuberculosis, fevers, vomiting, laxative, aphrodisiac, a heart stimulant and helps check loss of memory. Also useful in respiratory disorders in general and asthma in particular. A plaster of powdered date stone helps cure eye diseases Keratites and ophthalmia. Dates have been given importance in the Quran.

PLANTAGO CILIATA (Plantaginaceae)
ARABIC NAME: Rubla, Widhania and Quraitah.

Small stemless herb flowers March and April grows in sandy soils and runnels in Southern Qatar.

Contains alkaloids and sterols.

Eaten by animals and used for constipation by local folklore practitioners.

PLANTAGO CORONOPUS (Plantaginaceae)

ARABIC NAME: Rubla and Widhania.

Annual stemless herb, flowers March and April and grows in gravelly soils. Rare in Qatar, found at Dukhan.

Contains sorbitol and mannitol in its leaves. The seeds contain a mucous substance with essential oil, alkaloids and sterols.

The roots are used for haemorrhoids, malaria and fever. The leaves are astringent, analgesic and applied locally to all sorts of wounds, burns, abscesses, bites and inflammation. In Bahrain the leaves are used as diuretic and analgesic.

PUNICA GRANATUM (Punicaceae)

ARABIC NAME: Romman. English name Pomegranate.

A plant of the Quran.

Erect branched shrub. Flowers March to May. Fairly common in rodats and gardens.

Contains alkaloids, tannins and its oil contains punic acid.
The plant is grown for its fruit and is widely used medically. The root is an external vermicide. The bark is astringent, anthelmintic, emmenagogue and is useful in bronchitis, colic and dysentery and is also an abortifacient. The leaves have been used as an external application to sores and inflammations. The flowers are vulnerary, styptic to the gums, check vomiting, useful in epistaxis, biliousness, sore eyes, ulcers, sore throat, applied to hydrocele, stomachic and cough. The flowers are also astringent, tonic used as vermifuge and gargle. The fruit is tonic, laxative, diuretic, fattening, astringent to bowels, aphrodisiac, enriches blood, allays thirst, used in sore throat, stomatitis, fever, heart diseases, spleen complaints, scabies, bronchitis and earache. The unripe fruit is a good appetizer, and useful in vomiting. The peel of the fruit is anthelmintic, anti-diarrhoeic, astringent, haemostatic, used for colic, colitis, leucorrhrea, menorrhagia, oxyuriasis, paralysis and rectocele. The plant has contraceptive properties. Used in folkloric medicine in Qatar.

RICINUS COMMUNIS (Euphorbiaceae)

ARABIC NAME: Kharwaa. English: Castor oil plant.

Shrub with hollow stems usually cultivated in hedges. Flowers during the summer. Common in Qatar in gardens and cultivated rodats.

Contains several compounds, coumarins and the seeds contain up to 54 percent castor oil.

Used as an abortifacient and uterine stimulant. The root is diuretic, carminative, useful in inflammations, pains, ascites, fever, asthma, eructation, bronchitis, leprosy, diseases of the rectum and head. A root decoction is used for rheumatism, chronic enlargements, skin diseases, abdominal pains, diarrhoea, nervous disorders, toothache, lumbago, sciatica, jaundice, kidney and blood disorders. The root bark is purgative, and good for skin diseases. Decoctions of the roots and leaves are antitussive, discutient, expectorant and used for anal prolapse, arthritis, constipation, facial palsy, lymphadenopathy, strabismus and uterine prolapse. The leaf is used in a poultice for stomach ache, erysipelas, fly, inflammation of uterus, emmenagogue, emetic in
poisoning. It is used on the abdomen to promote menstrual flow and on breasts to help the secretion of milk. The leaf is aphrodisiac, galactogogue and a local application for rheumatism. The flowers are useful in glandular tumours, anal troubles and vaginal pains. The pollen cause allergies. The seed is cathartic and aphrodisiac. The seed and oil are useful in liver troubles, body pains, lumbago, boils, haemorrhoids, ringworm, paralysis, inflammations, ascites, asthma, rheumatism, dropsy, and amenorrhoea. The seed is used for scrofula and several skin diseases. Powdered seeds are applied externally to abscesses, carbuncles, prescribed in small doses for persistent constipation, used to treat buccal and pharyngeal inflammations, gastrointestinal haemorrhages, headaches, dizziness, stupor and hypothermia. In Nepal the seeds are used for leucorrhoea. Used by local folklore practitioners.

**RUMEX VESICARIUS** (Lanitae)

**ARABIC NAME:** *Humaid, Hamed and Humaz.*

Annual herb, found in sandy soils, common in cultivated fields. Flowers March to April. Used in salads or cooked in stews.

Contains flavonoids, and other compounds.

Used and eaten fresh for jaundice, hepatic conditions, constipation, calculus, and bad digestion. The plant is cooling, laxative, stomachic, tonic and analgesic. It is useful in heart troubles, pains, tumours, constipation, diseases of the spleen, hiccough, flatulence, asthma, bronchitis, dyspepsia, vomiting, haemorrhoids, scabies, leucoderma and toothache. It promotes appetite. The leaves are cooling, aperient and diuretic.

**SALVIA AEGYPTIACA** (Labiateae)

**ARABIC NAME:** *Noaim, Ghbeisha.* European varieties known as Sage.

Perennial low under-shrub, very common in Qatar, aromatic leaves, found on coarse and fine textured soils in various habitats, particularly depressions. Flowers from March to June. Grazed by animals.
Solanum nigrum
A sub-sudanian variety found in Egypt and Iraq, in wadis, depressions, limestone rocks with small patches of soil, in Qatar.

Contains volatile oils and flavonoids.

Used as anti-diarrhoea and haemostatic and some eye diseases. Is antiseptic, cicatrisant, antispasmodic and stomachic.

SOLANUM NIGRUM (Solanaceae)

ARABIC NAME: Inab al deeb. Known as Blacknightshade in Europe and regarded as poisonous.

Annual herb found in cultivated soils east of Qatar, flowers March and April, grazed by animals. Fruits are edible when fully ripe. Occasional weed in irrigated gardens and fields.

Cosmopolitan plant found almost worldwide.

Contains steroids, alkaloids, saponins and the fruit contains more Vitamin C than lemons and oranges.

The plant is diuretic, febrifuge, used for abscesses, cancer of the cervix, diarrhoea, and sore throat. It is also carminative, emollient for burns and its decoction is used for burns and vaginal infection. The plant is also used as an emetic, antispasmodic, diaphoretic, emollient and sedative. The plant juice is considered cathartic, diuretic, hydragogue, alterative, emollient and used for enlargement of the liver, haemorrhoids and dysentery. The root bark is laxative, useful in diseases of the eyes and nose, good for inflammation of the liver, chronic fevers and griping. The young shoots are eaten as a pootherb and considered tonic for virility in men and for dysmenorrhoea in women and used for dysentery, sore throat and whitlow. The leaves are expectorant, diaphoretic and used for eczema. The leaves, root and stalk are used for cancerous sores, leucoderma and wounds. Ripe berries are edible. They are
eaten as a remedy for diarrhoea. They are also expectorant, laxative, alterative, aphrodisiac, tonic, diuretic, narcotic, analgesic if used externally and sedative. The berries improve the appetite and taste and are useful in heart disease, eyes, haemorrhoids, inflammation, leucoderma, itch, worms in the ear, dysentery, hiccough, vomiting, favour conception and facilitate delivery, useful in erysipelas, and used for diarrhoea and hydrophobia. The red ripe berries are laxative. The seeds are laxative, useful in giddiness, gonorrhoea, thirst and inflammation. The plant has anti-microbial activities. Unripe berries are poisonous.

SONCHUS OLERACEOUS (Compositae)

ARABIC NAME: Odeid.

Annual or biennial herb, common in Qatar. Grows as a weed in cultivated land as well as in moist habitats. Flowers February to May. The word sonchus comes from the Greek word for hollow in describing its stems. The Latin name oleraceus refers to its use as a vegetable. Pliny recorded its use. The ancients thought them to be wholesome and strengthening and used them medicinally for many disorders, considering them to have the same properties as Dandelion and Succory. In Europe it is still used in salads and soups.

It contains flavonoids, coumarins, and vitamin C.

The plant is used as a cathartic, sedative, tonic, a therapeutic agent in ascites, asthma and hydrothorax and should be administered with care as it produces colic and tenesmus. The juice is used for cleaning and healing ulcers and as eye drops. The herb is used for liver troubles and jaundice and as a blood purifier and the root is vermicide. In Bahrain the leaves are used as anti-dysentery and laxative. The brownish gum produced from evaporating the plant juice is said to be a powerful cathartic and has also been used in the treatment of opium addiction in the United States. The latex of the stems is used for warts.

TAMARIX APHYLLA (Tamaricaceae)

ARABIC NAME: Athl or Tarfah.
Tree or high shrub, grown as shade or afforestation tree, and shelter belt around farms, also around cultivated rodat, in Qatar. Propagates readily from cuttings. Flowers from August to November. Found in Iran on steppes, deserts and saline sands.

Contains several compounds.

Its tannins used for tanning leather. The galls and the bark are astringent. The bark is applied in eczema capitis and other diseases. Decoction of leaves and young branches are used for oedema of spleen and mixed with ginger for uterine infections. Infusion of the galls is used for enteritis and gastralgia. The wood has been used to treat syphilis, scaly skin conditions and locally for eczema and other skin affections.

Plant of the Quran. Its shade used in the old days for burials in the desert by the bedouin in Qatar.

**TEUCRIUM POLIUM (Compositae)**

**ARABIC NAME:** *Yaad.*

Also grows in Syria, Cyprus, Iran, Iraq, Crete, Anatolia and in the Lebanon hills and mountains in rocky outcrops.

Perennial aromatic herb common in central and northern Qatar, found at Jebel Fuwayrat. Flowers from May to July.

Contains volatile oils, flavonoids and other compounds.

The boiled leaves are used in Qatar as a cooling draught in fever. Used for stomach disturbance, anthelmintic, central nervous system stimulant, appetizer and reported to have anti-inflammatory, antipyretic and antibacterial properties. In Egypt it is used as an appetizer, expectorant and hypoglycaemic. Hot infusion of tender plants is taken for stomach and intestinal troubles. Also eaten by sheep. Claimed as a treatment against
TERPEZIA
cholera and malaria. In Bahrain the whole plant is used as an analgesic, antibiotic, purgative and antipyretic.

TERFEZIA

ARABIC NAME: Faga'a or Kamah.

Desert truffles are common in Qatar. They are an excellent food. Some are found in association with the roots of Helianthemum. It is not known if they are parasitic. They are usually harvested in late January after an early and suitable amount of rain, which is a month or two previously. There are two types, one white and one dark. The white "Zobaidi" is more in demand. It belongs to the termania group. The dark coloured one is Terfezia.

Used in folkloric medicine for eye diseases.

It is a plant of the Quran.

TYPHA DOMINGENIS (Typhaceae)


Perennial herb grows to 3m. Flowers in May. Found in Qatar at Ras Ushirij near a tap and at Al Wabra a water reservoir.

Contains flavonoid, tannins and coumarins and steroid.

The ash of the rhizome is used as haemostatic. Eaten by cows and goats. Used in Folk medicine for burning micturition and stomatitis.

ZIZIPHUS SPINA CHRISTI (Rhamnaceae)

ARABIC NAME: Nabka.

A large tree. Flowers March and April. Common in Qatar especially in the
North. Grows in deep silty soils.

Contains alkaloids, tannins and other compounds.

The plant is used as an anodyne, astringent, demulcent, depurative, emollient, laxative, pectoral, refrigerant, stomachic and tonic. The Lebanese use the powdered seeds with lemon juice for liver complaints, the flower infusion as an eyewash and febrifuge, the boiled bark for venereal diseases, the cathartic raw root juice for arthritis and rheumatism, the fruits for bronchitis, coughs and tuberculosis. The leaves are astringent, anthelmintic and anti-diarrhoea.
CHAPTER FIVE

FORMAL MEDICINE IN QATAR
FORMAL MEDICINE IN QATAR

Formal medicine in Qatar began with the discovery of oil in 1939. After two reconnaissance parties had been sent in 1926 and 1932 by the Anglo-Persian Oil Company, oil was struck. The company had obtained exploration rights from the Ruler, and a concession in 1935. In 1936 this was handed over to the Iraq Petroleum Company and a subsidiary company called Petroleum Development (Qatar) Limited. It worked in co-operation with the Iraq Petroleum Company in Bahrain, which was known as Petroleum concessions Limited. In 1935 Petroleum Development changed its name to "The Qatar Petroleum Company Limited". The Shell Overseas Exploration Company applied to the Ruler for the off-shore concession. At the end of 1935 a company called the Shell Company of Qatar Limited was incorporated in the United Kingdom.

A camp was built at Jebel Dukhan and a landing jetty at Zekrit on the West coast of the Peninsula, the two were connected by a road nine miles long. The camp had electric light, an ice plant and a Marconi wireless, but no water, it had to be imported from Bahrain. Due to the outbreak of war, there was no production of oil until 1946.

A British Government Doctor from Bahrain wrote in 1945 of a visit he made to Qatar. He treated Sheikh Abdulla the ruler, and his brothers Sheikh Ali and Sheikh Jassim. They were then living temporarily at Wajbha, as was their custom, for three months after the rains each year. 8

Dr. Steele, found Doha fairly clean, and when he asked about epidemics was told that Malaria was very bad, smallpox appeared from time to time, dysentery was fairly prevalent, a few cases of Typhoid fever but possibly many were not diagnosed as such, and there were few cases of tuberculosis. There was a private medical clinic, but most of the people could not afford the fees. Dr. Steele recommended the vaccination of the population of Doha by

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8 There is an old fort still there to this day and considered to be the oldest in Qatar. It was built in the 19th Century and witnessed the famous battle against the Turks in 1893.
doing a certain number from time to time. He ran out of medicine and people had to go without treatment.

Dr. Steele wrote that Sheikh Abdulla was greatly interested in medicine as was one of his ancestors Sheikh Mohammed bin Thani, who in 1860, was chief of Al Bida.

William Gifford Palgrave, a British Army surgeon, had visited Qatar early in the 19th century, on his way to Oman to collect herbs. He wrote of Sheikh Mohammed as being an intellectual, who had studied and become proficient in literary and poetical knowledge. He took great pleasure in discussing topics and had some medical skill. Which consisted mainly of herbs and natural remedies. Some of these were probably gathered at Wajba. The others were imported from Persia and India.

In those days, pearling was still the major industry. The pearlers would set out to sea in their boats with a crew of fifteen to twenty men, depending on the size of the boat, for the entire season, from May to September. One of these members would rise above the others in his skill to administer medicine, which consisted usually of herbs and cautery and was supposed to cure almost all illnesses. He would have no formal training, but would have picked up his skill by watching others. The herbal remedies were usually handed down by word of mouth over the centuries by women.

The ruler of Qatar, Sheikh Abdullah, wrote in 1946 to the British Political Agent in Bahrain, Lieutenant Colonel A. C. Galloway, requesting help to get cement and other building materials to build a hospital. In turn, the political Agent wrote to Colonel C.J. Pelly, the Political Resident, inquiring about the availability of funds to provide drugs, equipment, building materials and a medical doctor. Lieutenant Colonel W. R. Hay, Political Resident in the Persian Gulf, wrote then to the Secretary to the Government of India, in the External Affairs Department, New Delhi with a copy to the India Office, London, and another to Lieutenant Colonel A.C. Galloway passing on the request. He also drew attention to a clause in Article VIII of the Qatar Treaty of 1916, by which the Sheikh had agreed to receive an agent of the British Government. He suggested that it would be useful to appoint that Agent then.
In case the Sheikh would object to this appointment he probably would be happy to receive a medical doctor, who might also work as political agent. This doubling of roles was destined to be common in the history of the health and other government services in Qatar, especially as things had to be tightly budgeted in those days.

New Delhi replied that, until the separation of the British Government and India's interests in the Persian Gulf region had been cleared, it was not possible to plan anything which involved expenditure from Indian revenues. The reply from London noted that there needed to be further proof that the political work to be done could not be handled by the existing authorities, which were then in Bahrain. If a real need for both political and medical supervision could be shown a good case might be put up to the Treasury. Sir Rupert Hay replied that the Agent in Bahrain could supervise Qatar affairs but that the main concern was to provide the medical assistance. In his opinion, shortly thereafter modern conditions would prevail and then an agent would be needed.

By this time, in September, 1947 the Ruler wrote to the Political Agent in Bahrain, informing him that he had arranged a hospital to be built, as "a philanthropic project, behind which we aim to afford medical facilities to those who are patient and needy. The Hospital has now been constructed in accordance with the advice given by the doctors who visited us, notably Dr. Storm ... the building of the Hospital has been completed and implements, medicines and the doctors have been provided. We would like to have it run, but in the meantime we feel that we cannot dispense with your advice in this respect. We request that you would allow Dr. Storm to proceed to our side in order to supervise the operation of the hospital". The Bahrain Political Agent, Mr. Jackson, gave permission for Dr. Storm to go to Qatar, as Dr. Steele, the Government doctor was very busy. He also wrote again to Galloway urging the appointment of a government doctor in Qatar. Dr. Storm promised to report on the progress of the hospital. In one of his reports, he noted that all the expenditure was paid for by the Sheikh, who wanted them to run the hospital, on the understanding that patients be charged what they could afford, as was the case in their main hospital in Bahrain. He also undertook to pay one thousand rupees a month for the staff, including an Indian doctor and nurses, and asked the American doctors to work at least a month a year in the
hospital. Storm noted that the money raised in fees would pay for the medications and operating expenses. The report was also signed by Dr. Harrison. The hospital consisted of only one floor, but it was planned to add a second floor. More than 75 patients were treated per day, and the doctor in charge noted that patients were at first a little shy of coming to the hospital.

It was thought that the Mission were doing good work especially as the Government doctor could not cope with Bahrain and Qatar, but that they should not be giving advice to the Sheikh of Qatar on details of his local administration as this was a political function, and that the Agency should be sufficiently staffed with doctors to be able to perform this function with the help of its own Agency or Residency Surgeon. At that time the Agency Surgeon and Quarantine Medical Officer was officiating as Residency Surgeon in addition to his own duties and was acting as Chief Medical Officer for the Bahrain Government.

In 1948 Sheikh Abdullah requested that a Political Officer be appointed to Qatar to help him deal with the sharing of the payments under the oil concession, and that he be able to abdicate in favour of Sheik Ali. It had been agreed at the time of signing that provision of a Political Officer mentioned in this 1916 agreement be postponed. By August 23rd 1949, at the time of Sheikh Abdullah's abdication in favour of his son Sheikh Ali, a British Political Officer established headquarters in Doha, the emphasis on rapid development of the State's infrastructure of Water Supplies, Roads and Health services began.

Great difficulty was experienced finding a suitable candidate for Adviser in Qatar but eventually Group Captain P.L. Plant was selected. He took over his duties in February 1950. He resided in Doha and worked nominally under the supervision of the Political Agent. Sheikh Ali requested the appointment of an Adviser when he accepted to respect the 1916 Treaty with Britain.

In 1951 Abdullah Darwish, a business man with interests in Qatar and Bahrain and a close friend of Sheikh Ali, paid a visit to the Political Agent in Bahrain, Sir Rupert Hay. The items that he requested included the construction of a powerhouse, a hospital and roads.
Sir Rupert Hay felt that a powerhouse was urgently needed together with a resident engineer who would also run the public works. He pointed out that a different doctor in charge every few days was not welcomed by the people and that a permanent doctor be appointed urgently. A State Engineer also needed to be appointed, to administer the roads and town planning measures had also to be adopted.

By October of 1951, Sir Rupert Hay wrote that Plant, the Adviser, was not proceeding fast enough with the improvements and was antagonising the local population. He suggested that a Mr. Alexander, who already worked for the oil company, be appointed as Assistant to Plant. Sir Rupert Hay also urged for the appointment of a medical doctor. It became evident that a port would have to be built at Doha to accommodate ships needed for the materials called for by all the new developments. He also recommended that an aerial survey of Doha be conducted similar to the one conducted in Kuwait.

The engineer, recruited to supervise the installation of the generators and to run the Power House, arrived in that year. He was temporarily assigned to the maintenance of the power supply to the buildings connected to the Qatar Government's generators. A large number of houses had already been connected to an inadequate supply system which produced an average of 165/185 volts instead of the intended 220/250 volts.

A Medical Services Department was first established that year as a Government agency, responsible for medical care free of charge. Health was regarded as a major priority as the infant mortality was very high, and that first hospital could not cope. The American Mission in Doha was losing its medical staff due to retirement and death. As a result, the Mission stopped assigning medical doctors to the hospital and in February 1952 handed over the administration of the hospital to the Government of Qatar.

In the early days of development of the medical services, the native Qatari population was around 17,000 people although there were probably an equal number of Qatari people who had emigrated to work in Bahrain and Saudi Arabia, where the oil generated more work than was available for their own
people. The Senior Medical Officer reported directly to the British Adviser, Mr. Hancock.

The picture in Qatar was therefore a country with numerous small fishing villages along the coast, with predominantly women, children and older men. This distribution of people dictated the course of medical and public health projects.

From the beginning the expatriate oil company enjoyed a certain degree of autonomous freedom within the oil-field area of Dukhan and the oil terminal town of Oom Said. As the work was highly technical the supervisory senior technical staff were of European and Asian origin. These towns were the principal dormitory areas of the QPC company and independent of direct government control and assistance, they formed complete and separate communities with their own shops, market place and medical services. Two cottage hospitals with adequate facilities were built in these two towns, with expatriate doctors and nurses for oil company personnel exclusively, but also served for compassionate reasons the bedouin tribes who lived in their immediate areas. The conception of unified medical services began to take acceptance in 1955 and it was hoped that the oil company hospitals would close on the opening of Rumailah Hospital. This dream was not realised for several years as the increasing immigrant population placed an increasing strain on the additions to the First Hospital.

Colonel A.E. Kingston O.B.E. was appointed in March as State Medical Officer, but he only stayed a few months. He was replaced by a British Surgeon Mr. W.H.J. Weston BSc. MBBS., FRCS. At first, Mr Weston had been a schoolmaster. Later he qualified at Guy's Hospital, in London, and in 1947 joined the Anglo Iranian Oil company. The medical work was then conducted in the 'old' or Mission hospital, which was known as Mustashfa Al Jasra, where conditions were not very good and, in September Mr. Weston left Doha. (Two years later he suffered a coronary but survived until 1975) and as there was no resident Medical Officer, the doctor of the Shell Oil Company depot ship was made available, pending the arrival of Colonel G.R.C. Palmer, a surgeon who worked in Durna, Libya, North Africa in December of that year. Early the following year his assistant Dr. A.G.
Gotting, a physician and tuberculosis specialist, was also appointed from the same hospital. Colonel Palmer preferred to keep the assistant that he had previously worked with and had come to know and trust. He felt that they made an excellent team. Dr. Gotting was fourth generation British, born of Prussian, Armenian and Irish stock in India. He had won a scholarship to study medicine for the Indian Medical Service and qualified as MBBS at Grant Medical College, Bombay, and was sent to Iraq as Lieutenant three weeks before war ended. He went to the U.K. to specialise in Tuberculosis, joined the Foreign Service and was sent as assistant to Colonel Palmer in Durna. They had applied to work in Qatar together, but only Palmer was chosen, whereupon he refused to accept unless they took Gotting too! On appointment they were asked if they were British and could they socialise! A foretaste of the multiple roles they would play in their service for Qatar.

Dr. Gotting described the hospital in 1953 "The hospital had 15 in-patient beds, a rudimentary casualty room and one smaller room which served as an operating theatre. It was situated on the sea shore in Farig al Jasra. It is interesting to describe the actual facilities in the theatre as much work was done under primitive conditions. The theatre light was one 6 foot neon tube, all the available surgical appliances were accommodated in one small glass fronted cupboard. Sterilisation of dressings and instruments was done by boiling them in a pan on a Kerosene Primus stove.

"This description is wholly truthful and as one would expect they had numerous ghastly post-operative problems of sepsis and gas-gangrene. The theatre staff apart from the surgeon and his assistant was one Indian nurse who doubled as the pharmacist. The in-patients were cared for by four Sisters recruited in the U.K. and 6 Indian nurses. The domiciliary cleaning of the corridors was done by temargis, migratory Iranian workers."

In the State Engineering Department a similar pattern evolved. T. Leftgange Satchwell brought men who had worked with him in Poonah, India, to be on his team. He not only worked as an Engineer but became responsible for the Government Hostel. Alan Jack the Director of Public works, brought men from Sudan, to form a working team. C. Tennant, Sons and Company Limited, the Government Purchasing Agents recruited other staff who were also
interviewed by the heads of departments and the British Adviser. It was so difficult in those days to attract well qualified men that extra benefits were introduced. There was no public transportation and hence everyone, in the highest to the humblest post, was provided with transportation. The vehicles ranged from cars and jeeps for the Senior Staff suitable to their work. Doctors had cars, Shell company senior staff had jeeps and the junior staff were transported to Ras Abu Aboud by the company bus. The Contract labourers were transported in trucks. The same applied to the Qatar Petroleum Company. The oil company officials had modified Humber desert pick-ups. Bicycles were provided for the messengers and farasheen (men who made the tea and coffee). By 1956 because of the number of cars needed, a Car or Bicycle loan scheme was started, whereby employees obtained a loan, bought transport and received an allowance to cover re-payment and running costs. This scheme still runs today at a modified level.

Ron Hart, the hospital administrator, whose wife Barbara worked as secretary to the British Adviser, had requested the then Overseas Nursing Association in England, to recruit four British nurses. Work started on a nurses home, in the Government staff compound, in Rumailah, a suburb of Doha. In 1952 Ron Hart was asked to also supervise Public Health measures and organise a suitable Public Health Service. Up to then it had been the responsibility of the local urban council. It served primarily for garbage collection and disposal. The Medical Officer of Health an expatriate English Health Inspector Mr, John Gething arrived in 1956.

Qatars who had gone to work abroad began returning as opportunities for a better living and secure future for their families were available in Qatar. There were not enough facilities to support a growing population. An International competition was announced, and organised by the Royal Institute of British Architects for the best designed Hospital of 120 beds with all paramedical and diagnostic facilities to bring the curative side of medicine and surgery as quickly as possible in line with what was available in Europe. A design was approved at the end of 1953 and work started almost immediately.

Colonel Palmer insisted that the medical service could not wait for the new hospital and being a man not to be denied, after all he was a Brigadier in the
Long Range desert group, during the North African war that liberated Libya, his blue eyes and gritty personality finally made the Adviser relent and permission was given to expand the existing facilities by building annexes to house four additional wards, giving 60 extra beds, a kitchen, laundry, pharmacy, laboratory, x-ray, physiotherapy unit and operating theatres. Work was done by the Civil and Government Public Works Department and was accomplished at record speed by 1955. Staff was recruited from Armenia, India, Pakistan and Egypt.

Many of the Senior Government staff worked so hard to keep pace with the rapid rate of development that they became ill. In particular, Mr. Ronald Cochrane, suffered a nervous breakdown. He was the Chief of the Qatari Security Forces, a personal bodyguard to the Ruler and Deputy to the British Adviser, also 'acting up' in between appointments of new Agents. He had come from Bahrain to form a separate military wing which was to be 200 strong, and a British Officer, four non-Commissioned Officers and four armoured cars were made available for it. In 1952 the State Police took over complete responsibility for guarding Petroleum Development (Qatar) Ltd's camps and installations in accordance with an undertaking given by the Ruler.

In 1953, a British State Engineer, Mr. H. T. Hale, was appointed and a number of other British engineers joined his staff, mostly people that he recruited himself. Following Mr. Plant's departure from Qatar, Mr. Hale acted as adviser to the general administration, and Mr. Cochrane held an independent post, in charge of law and order. Mr. G. M. Hancock, O.B.E., was selected as the next British Adviser, and his appointment was accepted by the Ruler. He arrived in November 1952. In this same year, the post of Political Officer was raised to Political Agent, subordinate to the Political Resident in Bahrain.

The Political Resident's major objectives included to: (a) maintain the existing relationship between Her Majesty's Government and the Ruler of Qatar based on treaty usage; (b) ensure stable conditions for the production of oil; (c) ensure that the revenues accruing to the State be disbursed, or invested; (d) build up the authority and influence of the British advisers; (e) create a sound administration in the State; and (f) create friendly relations between Qatar, the neighbouring British-Protected States and Saudi Arabia.
With the change of Rulers there was also a change of advisers. Up to Sheikh Abdullah's abdication, Saleh Al Manai represented the Ruler with the oil company. By 1953, Abdullah Darwish, the new Ruler's adviser, took over as the representative with the oil company. Abdullah Darwish was also appointed by the Qatar Government as their purchasing agent and he in turn contracted with C. Tennant, Sons and Company Limited, to the effect that all of the Qatar Government purchases in Europe, were made through them. He also worked on the establishment of a cement factory in Qatar, being convinced that most of the raw materials were available in Qatar.

With the appointment of Mr. Hancock, development gathered momentum. He initiated and organised many improvements, including facilities to bring goods from Oom Said Port by lighter. Doha was not considered an appropriate place for a port as ships, of more than 15 feet draught could not get nearer than 7 miles and had to anchor in an exposed position. He made wise policy recommendations to Sheikh Ali bin Abdulla Al Thani K.B.E. They included: (a) that the large amounts of money spent on treatment abroad be stopped and used to improve the facilities in Qatar; (b) that the Qatari youth be educated and trained to take over the jobs held by foreigners; (c) that a Department of Labour be set up; (d) that user fees for Electricity and Water be charged to make the operation economical and (e) that the Police Department be able to function without 'fear or favour'.

The airport, which was the landing strip, which had been marked out by the Royal Airforce in 1932, by dropping bags of chalk from the air, was abandoned. Instead the oil company's landing grounds in Qatar were used. They had been built at Dukhan, Oom Said and Doha. In 1950 the Gulf Aviation Company (the forerunner to Gulf Air, which is owned in equal shares by Qatar, Bahrain, the UAE and Oman) established a regular air service between Bahrain and Doha. It used initially the old Royal Airforce landing ground, but abandoned it the following year as it was no longer serviceable. They used instead the oil company landing-ground at Doha. The Qatar Government took over this airfield in 1952 and built on it the needed facilities. Civil Aviation was then under the control of His Majesty's Government. The first purpose built Airport was in 1963, the runway measured 2,481 metres in
1968 and was extended to 4,572 metres in 1972. In 1979 it was upgraded to accommodate the concorde.

The first and only bank to operate in Doha was the Eastern Bank (nowadays The Chartered Bank), which opened a sub-branch of it's Bahrain office in 1950, but later in 1953, made it an independent branch. The Government funds and the British Political Agency accounts were deposited with it. Later in this same year, the Imperial Bank of Iran, the forerunner to the British Bank of the Middle East, and the Grindlay's Bank opened branches in Doha. There are now several Qatari and foreign banks. The Qatar National Bank holds the government's accounts.

The Post Office began operations in 1950, in the Political Agency. Mail was handled by the normal staff until a postal-clerk was appointed, in 1952. The Adviser arranged for space to be allotted for a proper Post Office in the Town Building Programme.

Cable and Wireless Limited was granted a licence by the Ruler in 1951, to establish telecommunication services between Qatar and the outside world, to provide for a telephone service and establish a public telegraph office in the country. The company agreed to provide one telephone free of charge and transmit for the Ruler, free of charge, private telegrams up to a limit of 1,000 words a year. There are now two earth stations at Mukhenis linked to Intelsat satellites over the Indian and Atlantic Oceans. A submarine cable connects Qatar to Bahrain and the Gulf states. In 1975 local calls were operated by Qatar National Telephone Service, with international calls still operated by Cable and Wireless. The communications system was amalgamated and fully nationalised in 1987 under Qatar Public Telecommunication Corporation (Q.Tel).

The technical schools of Oom Said and Dukhan were well attended. In 1955, an average of 178 Qatars attended the literacy classes and 77 were registered in full time technical training classes, which covered a variety of trades.

The new State Hospital was opened in 1957 and the al-jasra hospital was converted to cater for Maternity Services, chronic diseases, Psychiatry and
Tuberculosis, with Dr. Gotting in charge. Dr. Elizabeth Oomen, who had been the obstetrician had gone with her husband for further studies. Until a Lady Obstetrician was recruited, he used the skills he learned from the Italian nuns in Derna. Dr. Gotting also acted as veterinary surgeon for the oryx herds. By this time, Colonel Palmer had resigned because of slow improvements in pay and conditions.

The new wards in Rumailah became inadequate almost as soon as they were built. For a period of two years patients were accommodated in bunker beds on two levels. A sight probably not seen in any other hospital in the world!

Out-patients rapidly grew from a handful to several hundred patients daily and to cope with this a new outpatient clinic, dental clinic and pharmacy was established to the East of Doha, known as the East Clinic, in a building owned by Sheikh Jassim bin Jabor Al-Thani, and attendance there rapidly reached uncomfortable proportions around 200 per day, causing impossible demands on the 2 doctors and one nurse who were available. This building still stands today near the Museum, but no longer in use as a clinic.

An outpatients department opened for dentistry. A Dental clinic was opened in the old Mission Hospital, in 1953, with Dr. Kaumji in charge. Two rural clinics opened, one at Rayyan and another at Al-Khor. A Medical Board committee was established and entrusted with the responsibility of treatment abroad, in order to cope with the population explosion. A team of husband and wife doctors, from Lebanon, were recruited as domiciliary. A mass mobile x-ray campaign, the first of its kind in the Gulf, screened the entire population and diagnosed 550 cases of tuberculosis.

In 1958 the Department of School Health was established and attached to the Ministry of Education. Previously this aspect of health care had been covered by sending a Medical Officer from the Hospital.

In 1959 the State Hospital sent out a medical team each Friday to the desert to treat trachoma, and to distribute medicines. Danish researchers at that time noticed that the general health of the bedouins was quite good. They noticed many colds, swollen glands and bad knees. There were also eye diseases.
They noted that women's hands were black. This could have been from the henna applied. The women took deep inhalations of incense under their headcloth after taking coffee. They noticed the very white teeth and no caries. These same researchers investigated the music played by the bedouin.

A new hospital was built for tuberculosis, in 1959, but at the last minute, it was taken over and used as a Maternity Hospital, by the Lady doctor employed as an obstetrician. It became nicknamed after her as the "Hamdi" Hospital. Another T.B. or Isolation Hospital was later converted from the Airport building which had been built in 1945, and opened in 1972. It was converted yet again to be the Al Matar (Airport) Health Centre.

In 1964, a decree re-organised the health services by grouping the Public Health and Medical Services, into one unit, known as the Ministry of Public Health. Qatar joined the World Health Organisation and subscribed to a programme designed to train nationals in nursing and administration. Qatar adopted an attitude of Health for All, this well in advance of the world Health Organisation.

In 1965, a Forensic Medicine Department opened and five Egyptian Consultants were recruited for Medicine, Paediatrics, Ophthalmology, Ear, Nose and Throat and Anaesthetics. This was arranged between the Qatar and Egyptian governments. Most of these doctors stayed in Qatar and worked for many years.

In 1966 the School Health Department was taken back to the new Medical and Public Health Services Department with joint responsibility with the Education Ministry.

In 1967, an outpatients clinic, known as the Polyclinic, was opened in the grounds of the Rumailah Hospital. It included specialty clinics for Surgery, Medicine, Paediatrics, Ophthalmology and Ear, Nose and Throat.

In 1968, a clinic was opened in Al Wakra. It was staffed by a team of doctors, husband and wife, who also worked in a domiciliary capacity.
The Municipality took over the responsibility for rodent and insect eradication, the disposal of refuse and community sanitation.

A new food and drug inspection laboratory was planned with help from the United Nations Food and Agricultural Organisation. This establishment was prompted by a food poisoning scare, following an 'Endrin' contamination of flour, in the ship which brought it from the U.S.A. in 1967. Also this was the reason for the Flour mill being built at Oom Said.

A visiting Consultant Programme was introduced in 1969, whereby international consultants in all branches of medicine were invited to examine and treat patients in Qatar and give advice to the administration and on ways to improve services. A start was also made this year on the construction of a small rural hospital in Al-Khor. However it only operated as a health centre and was completed in 1972. The World Health Organisation opened a Health Training Institute and Nursing School as a joint project and sent a resident representative to act as director of both. Decisions were made to budget for improvements by building a new Central Laboratory that would serve clinical needs as well as for control of food and drug quality. The x-ray and physiotherapy units were expanded. A decision was made to build a new 350 bed Maternity and Paediatric Hospital.

In 1970 the first Minister of Public Health was appointed. He was H.E. Sheikh Abdul Aziz bin Ahmed Al-Thani.

To develop human resources to the full, Qatar has realised the benefits of an advanced social development policy based on the guidelines of the Emir's decree of 22 April 1972. The majority of the population are immigrants. Most manual labour is done by labour imported from India and Pakistan and semi-skilled and, skilled and managerial posts are taken by Europeans and non-Qatari Arabs. There is a large number of Iranians who are mainly self-employed and have lived in Qatar for some time. The majority of Qataris in employment work for the government.

The heavy influx of foreign workers had placed a heavy strain on the traditional conservatism of the Qataris. Most of them follow the Wahhabi
interpretation of Islam which gives Qatari life a strong streak of puritanism. Qatar is not as strict as Saudi where Wahhabism originated. Liquor can be sold under licence to non-Muslims. Qataris have learned at their own pace how to reconcile association with highly sophisticated technology, commercial and financial techniques with the conventions of Arab patrimonial existence; they have become increasingly at ease in a Western style conference environment as in the Majlis, with its hospitality over coffee, a custom that will never die. A sense of statehood, of Qatari patriotism, is deepening in time with an awareness of political and commercial community with the Arab world as a whole. Sheikh Jassim the Foreign Minister has categorically stated that Qatar wishes to be on good terms with every country.

Education became free from primary to University stage for boys and girls. Grants are awarded to needy students by the Ministry of Labour and Social Welfare. The University has a Scientific and Applied Research Centre and a Documentation and Humanities Research Centre. The Qatar National Commission for Education, Culture and Science translates Arabic classics into English, and is a centre for Muslim Contribution to Civilisation.

Social Welfare is carried out in the form of monthly pensions paid by the Government to the elderly, widows, orphans and divorcees. Residential care is provided for the mentally retarded and others in need.

The Ministry of Labour is responsible for seeing that all Qataris are employed in suitable positions where they can be self supporting. Besides the Government centres for training of the young there are centres for re-training others.

Interest-free housing loans are granted to Qataris according to their means and are repayable over a 25 year period. In cases of personal misfortune, 40 per cent of the loan may be waived. Water, sewage and power facilities are connected free of charge and furniture loans are also available. Medical facilities are provided free by the State for anyone in Qatar.

Qatar now takes an active part in many international organisations including the Arab Labour Organisation, the world Labour Organisation, UNESCO,
UNICEF, the World Child Care Organisation and the World Population Organisation.

Upon his accession, Sheik Khalifa bin Hamad Al-Thani, made a number of new appointments and named Dr. A. G. Gotting, as Director of the Ministry of Public Health. (He kept this title until his retirement in 1984, but was retained as a Medical Adviser to the ruling Family in London).

It was realised that also important for the Health of the Nation were Ancillary departments, such as Preventive Health, Public Health, Recreation, Gardens, Clubs and other leisure activities. One of these clubs is the Al Jasra Club initially started as a sports club in 1961, as the oldest Qatari Club. It became, ten years later, a place for intellectual Qataris. Members have different hobbies including theatre, music, chess and indoor sports. Lectures and seminars are organised at which Qatari scholars speak on different topics. Dr. Abdullah Al-Baker is a frequent speaker. The gardens are the famous Montaza Park, the Corniche, West Corniche Park, Al-Matar Park and several others throughout Doha. People enjoy a stroll on balmy evenings or spend the Friday holiday with a picnic accompanied by their families. Children enjoy the chance to run freely, frolicking on the lawns and use the joy rides.

On the first anniversary of his accession, Sheikh Kalifa announced several reform and improvement measures. They included ones which had important bearings on the physical and mental health of the population and provided for the setting up of the Ministry of Municipal Affairs and of Municipal Councils in other towns. The following excerpts from this speech are relevant. "In the field of public health, we shall start at mid-year the construction of a new 600 bed hospital in Doha. We shall also build a number of fully equipped hospitals in the various major towns in the country. This is in addition to the medical centres which will be set up in different towns in order to make medical care and necessary health treatment readily accessible to all citizens. .... Because of our interest in youth welfare and our concern that their time be filled with a variety of useful sports, and so as to create a strong generation that can assume the responsibilities of the future, we decided to erect a complete sports complex equipped with all the facilities for the pursuit of various sports activities".
By August 1972 the projects at hand were nearing plans for a new hospital, 189-bed extensions to Rosetta Hospital and a Central Laboratory. By 1973, £600,000 had been raised, and the construction of the new children's hospital in December 1973.

In 1972 the British government, under Margaret-Dean Weston-Walker, were appointed to design the new hospital, and carry out a feasibility study for the Ministry of Health. Tenders were invited for construction of the new E.D. Hospital, with a ward for infectious disorder, ophthalmology services at Rosetta Hospital and an intensive care, a Burns Unit and a children's ward.

The first Quaid-Dotto, Dr. Abdal Hakim Al-Ilahi, joined as Consultant in General Surgery at Rosetta Hospital.

In 1974, a further ammunition trade agreement was reached with the British government, providing for a B-52D Stratofortress, F-111 Aardvark, and 72 ships for the protection of 1,000,000 Egyptians, 100,000 British, and 80,000 American soldiers.

In 1975, a Senior Government School was opened, The Quaid Club was established, and...
By August 1972 the projects in hand were: outline plans for a new hospital, 150 bed extensions to Rumailah Hospital and a Central Laboratory for £250,000.

A pharmaceutical factory was also under consideration.

That same year a British consultancy firm, Llewellyn-Davies Weekes, Forestier Walker and Bor, in the field of health were engaged to carry out a study of the country's health needs. Their recommendations focused on re-organising the health services, on establishing a Primary Health Care department, on building health centres all over Qatar and on re-organising the Preventive Health Services.

Veterinary Medicine was taken from the Ministry of Public Health in this year, and entrusted to the Ministry of Agriculture and Industry. There are now veterinary centres in Doha, Rayyan and Al-Shammal providing free curative services for rare animal species and domesticated birds. The centres have treated a total of 300,000 rare species cases. Veterinary clinics also ascertain that imported sheep are free of epidemic or contagious diseases and issue veterinary health certificates for exported animals. The veterinary health care section acts to protect the herds of rare oryx and gazelles.

In 1973 the British consultancy firm Llewelyn-Davies Weekes Forestier-Walker Bor, were appointed to design the new 660 bed hospital, and carry out a feasibility study for the Ministry of Public Health. Tenders were issued for a new T.B. Hospital, with 125 bed unit for infectious diseases, extensions to Rumailah Hospital and an Intensive Care, a Burns Unit and a childrens ward.

The first Qatari Doctor, Dr. Abdullah Al Baker started as Consultant in General Surgery at Rumailah Hospital.

In 1974, a further consultancy team from Llewelyn-Davies Weekes, Forestier-Walker and Bor started the foundations of Hamad General Hospital.

In 1975 a Senior Government Staff Club, The Doha Club, was budgeted.
contract had been awarded in 1974. A Ministry of Public Health building was also budgeted, and there were plans drawn up. John S. Bonnington Partnership, Architect, Designers and Engineers, St. Albans, England submitted a sketch report in 1981. The 660 bed Hospital contract was awarded to Bernard Sunley. Doha Isolation Hospital was put to tender for early 1976. Upgrading of the Engineering Services Department at Rumailah Hospital was due. A new kitchen and a Maternity Hospital extension were also planned.

During 1975, The American University of Beirut and Dr. William L. Pereira Associates then town planners in San Francisco, were requested to review the plans of the ground floor and of the general services of Hamad Hospital. The Women's Hospital had ultra-sound diagnostics services added, a Chairman of Obstetrics and Gynaecology and a consultant in neonatology were appointed. The neonatology consultant's wife was also appointed as an Obstetrician. Graduates from the nursing school were sent to Ireland to gain experience and certification from the Nursing Board of Ireland. Two more extensions were added to the Rumailah Hospital and the old Mission Hospital was transferred to a new location, in a Sheikh's palace in Bin Mahmoud prior to its demolition in 1976. Dr. Abdullah Al Baker became the Head of the surgical Department at Rumailah Hospital. He had acted as Director of the Hospital for three months in 1974.

In 1976 the Intensive Care Unit contract was awarded to Swedevlop. Also contracts were given for a New Operating Theatre, Labour Room and Delivery suite at the Women's Hospital, staff accommodation consisting of 7 blocks of Nurses Rooms and Doctor's flats.

The five bed Surgical Intensive Care Unit was opened in 1977. It was purpose built by the Swedish company, which also provided the operating requirements from Staff and equipment, down to the last teaspoon.

Another 32 bed extension was added to the Women's Hospital and a medical records department was established. An additional extension was made to Rumailah Hospital. It included 76 surgical and medical beds, a theatre suite and an 8 bed Coronary Care Unit together with a non-invasive laboratory for
stress echo cardiography and coronary catheterisation, under Dr. Hajar bin Hajar. A Burns Unit with 12 beds and closed circuit monitoring television was opened, under Dr. Abdullah Al-Baker. This was the first in the Arab world at the time. These units were administered by Qatari doctors.

The Renal Dialysis Unit was under consideration. Hank Reinhardt, an American, was appointed as Administrator for the Hamad Hospital. Upgrading of Rumailah Hospital was considered by adding a six floor tower block for women, in place of the Isolation ward and also total upgrading of the existing premises.

1978 witnessed the development and upgrading of the Accident and Emergency Services of Rumailah Hospital, with the appointment of a Senior Surgical Consultant as Director, an Egyptian, and the establishment of a day bed area of 7 beds. A Primary Health Department was established under the leadership of Dr. Dejani, who had been a board member of the "Master Plan'. Shahaniya Health Centre opened 30 kilometres West of Doha. It was followed by three more the year after at Nuijah, a suburb of Doha, and Jamiliya, 35 kilometres West of Doha.

In 1980, another Intensive Care Unit, this time for Medical cases, was opened in Rumailah Hospital. A neonatal Unit with 20 cots was opened in the Women's Hospital together with a delivery suite of 4 rooms in the Labour Unit. The Department of Public Health created Occupational Health and Mother and Child care sections. These, in turn opened clinics at the existing Health Centres. A nutritional research programme and an Environmental Health Section and the "National Committee for Environmental Protection" were formed. The latter was operated by the Ministry of Public Health jointly with members from other Government Departments concerned with the environment. An agreement was signed with the French Ministry of Health to plan and establish a computerised Health Register programme for the Primary Health Department. An agreement was also signed with the American University of Beirut to establish an in-service training programme for Medical Officers working in Health Centres. Most importantly Hamad General Hospital was officially commissioned, the keys being handed over by the Ministry of Public Works to the Ministry of Public Health, and was then due
for opening in February 1981.

In 1977, the National Health Board of Denmark was asked to participate in the "Master Plan for Medical and Public Health Services of the State of Qatar". Equally the University Associates for International Health, of Boston, Massachusetts, participated in the establishment of the Primary Health care section.

In 1979 Dr. Mohammed Ali Al-Harami became the second Qatari Surgeon to take up a post at Rumailah Hospital, he had obtained his MBBCh from the University of Cairo in 1963, Diploma of Surgery in 1970 and his FRCS from the Royal College of Surgeons in Ireland in 1978. He is at present Chairman of the Department of Surgery, has been Consultant General Surgeon since 1988, after being Consultant Surgeon from 1979. That same year Dr. Hajar bin Hajar became the first Qatari Cardiac Physician to take up a post. He became Chairman of the Department of Medicine in 1981.

Several other major developments took place in 1981. These included the establishment of a well-baby clinic, at the Women's Hospital, a 4-bed Haemodialysis Unit at Rumailah Hospital and of a purpose-built Prosthetics and Orthotics equipment section. Six additional Health Centres had their foundations dug at Madinat Khalifa, Rayyan, Oom Gwailina, Al-Saad, Montazah, within Doha and at Oom Salal Mohammed outside of Doha. The Ghowairiya Health Centre opened 70 kilometres North of Doha. Two rented villas were adapted as health centres at Al-Garafah and Al-Salata Al-Jadeed. The Australian Overseas Projects Corporation signed an agreement whereby it undertook to provide assistance in Rehabilitation and Geriatrics, inservice training for paramedical staff in the Health Centres, services for mentally handicapped children and in Dental inservice advice and training programmes. 1981 also witnessed the appointment of the first Qatari Undersecretary for Health at the Ministry of Public Health: Dr. Hajar bin Hajar, the addition of 60 beds at the Women's Hospital, with their support services, including a theatre suite and a new kitchen and catering department, and the transfer of services to Hamad Hospital from the Rumailah hospital, namely Laundry, Stores, Central Sterile Supply, Radiology and Outpatients.
1982 witnessed the Official Opening of the Hamad Hospital and the implementation of the overall plan to transform the outpatients department into a specialist referral centre for the Health Centres, with the availability of all diagnostic and treatment facilities. It also witnessed the unification of all the patient care facilities in one organisation, with Dr. Hajar bin Hajar as the Managing Director, called Hamad General Hospital Corporation. The latter had responsibility for: Hamad General Hospital, with 660 beds, where all supporting services were centralised; the Rumailah Hospital, with 303 beds for Geriatrics, Rehabilitation, Handicapped children, Psychiatry and Chronic diseases including Tuberculosis; the Women's Hospital, with 177 beds, and the Isolation Hospital, for communicable diseases and the deportation centre for infectious expatriate patients.

The Medical Records and other administrative systems, used in the other hospitals, were introduced at Hamad Hospital.

The Ministry of Public Health Building site was confirmed, a preliminary design ordered, but as there were no funds it was shelved. A new Women's Hospital was awarded for completion in 1985. An extension was approved for a Hamad administration building, bakery, haemodialysis unit, and a laboratory extension was under consideration. Housing schemes at Rumailah and West Bay were announced unlikely to proceed. Dr. Hajar bin Hajar was appointed as Undersecretary of Health.

Four additional Health centres were opened this year, bringing the total to 18.

Hamad Hospital did not rest on its laurels; progress continued with the opening of the Open Heart Surgery unit. A CT scan non-invasive diagnostic aid for head and body was installed. The Renal dialysis Unit was expanded. A participation programme was developed. It was designed for consultants in gynaecology and obstetrics at the Women's Hospital, in the Antenatal and Postnatal Care Section for the Department of Primary Health Care Centres. A comprehensive round out of the health care system of the Ministry of Public Health was effected and a new neonatology care unit was established. Its equipment included ten intensive care incubators, three isolation and fourteen intermediate care incubators.
In 1984, two Assistant Undersecretaries were appointed to the Ministry of Public Health, Dr. Abdul Jalil Salman for Technical Affairs and Ahmed Al Asiri, for Administrative and Financial Affairs, both Qatari. This year also witnessed the opening of the Special Care Baby Unit, at the Women's Hospital, and the Commissioning of the Medical Commission under Dr. Sayyed Ahmed Tajeldin, responsible for the screening of foreign workers on entering the country. Dr. Khalifa Al-Jabor became the Head of Preventive Health Care, on his return from studies abroad.

The 1987 Budget provided funds for a Ministry of Public Health Building, an extension to the Hamad Hospital, and a new Women's Hospital, a Dermatology Clinic and a Health Training Institute. So far the Ministry building has not been started. A building opposite HGH is rented and the Minister's office is situated in the White Place, as are also the two undersecretaries.

The Medical Records and other administrative systems, used in the other hospitals, were introduced at Hamad Hospital.

Four additional Health centres were opened this year, bringing the total to 18.

In 1993-94 the Hamad Medical Corporation had been given approval for capital projects in the Budget with an implementation period extending to the end of 1997. Dr. Hashisho, Assistant Hospital Director and Planning Coordinator released a list of the projects. The Women's Hospital had requested an extension to the Neonatal Intensive care Unit for the IVF babies from the assisted-conception unit which opened early last year. The Facility Master Plan for HMC and the Ministry of Public Health will be submitted to the Minister of Health, for his review and approval. The plan will then go to the Supreme Council for consideration and comment and then in the final stage it will be referred to the Cabinet of Ministers. These projects include: Landscaping outside the Psychiatric Unit and Phase 3 of Rumailah Hospital. Renovation will include the construction of a new building and refurbishing of some of the old. Works will provide for a laboratory, occupational therapy, nursing and administration offices, an 80 bed male geriatric unit and
hydrotherapy facility for physiotherapy. External works include roads, parking and landscaping. There will be a new building for the EMS/Transport at Rumailah, a two-storey building for vehicle maintenance, staff training and communications to enable provision of country-wide rescue service. In addition a two-storey, new Dental Referral Centre building will be built in 1996, to make available 40 dental chairs, full dental specialties, dental laboratory/workshop, training facilities and two x-ray rooms. External work includes visitor parking and landscaping. Hamad General Hospital Outpatients Department will be extended and a four storey building with 118 consulting rooms which will provide subspecialty diagnosis and treatment, a pharmacy, 3 x-ray rooms, 2 ultrasound examination rooms and special area for orthopaedic patients will be constructed. The CSSD and laundry at HGH will be relocated outside the main building. This will free space for clinical services. Laundry will have smaller space but more efficient machines. The new children's Hospital is still on hold, but drawings have been completed and the project is now at tender stage. The eight storey hospital well have 350 beds, an Outpatient clinic, an emergency room, full diagnostic and treatment facilities and an annexe for the rehabilitation of handicapped children. These will be supplied from the central laundry, CSSD, catering, engineering and stores.
CHAPTER SIX

REFLECTIONS OF THE PIONEERS

KHADESJA AND A.I.D.N. MAERA AL NOOBI.
CHAPTER SIX

REFLECTIONS OF THE PIONEERS
REFLECTIONS OF THE PIONEERS

Jassim Behzad, who is now nearly 80, opened a Pharmacy in Doha in 1950, and later added a pharmaceutical house selling medical equipment. His Father had come to Qatar in 1929 as a doctor to treat Sheikh Abdulla bin Jassim Al-Thani, the grandfather of Sheikh Kalifa at the request of Darwish Fakroo the father of Jassim Darwish. He lived in tents at Charana. He had his training in the Mission Hospital in Bahrain with the Dr's Dane and Harrison where he worked for fifteen years. He had been born in Bahrain in 1894. He opened a medical clinic in Doha, in a private house owned by Bin Zaid and Bin Nasser next to the Darwish house. He was here in 1935 when the war of Zubara raged between Qatar and Bahrain. Jassim remembers that in 1954 there were only 44 expatriates. He worked in the hospital built by Sheikh Abdulla on his own land. In the days of Sheikh Ali there was no charge in the Mission Hospital. There was a mission clinic, Jama Majid, before the hospital was built. Jassims' father died in 1976 during his time in Qatar he had treated Sheikh Abdulla bin Jassim and his son Hammad, and accompanied Sheikh Abdul Aziz when he went to Karachi. He also worked in the Government Hospital in Bahrain and had been on the Government boat which accompanied pearl diver boats in search of pearls. Jassim himself took medical training from 1937 to 1942 in Delhi Medical College, worked in Saudi Arabia and opened clinics with branches in Doha and Bahrain. He owned a hospital in Dubai but sold it in 1960.

Kadeega is a Qatari 'nurse' and has worked for forty years. At present she works in the Rumailah Hospital. She remembers the first deliveries of babies in the Old Hospital in Al Jasra. She started to work there two years after she left school, without any training except what she had learned from the Quran. She remembers the American Dr. Storm, the Drs Oomen, Dr. Gotting and Matron Edwards. This Matron, who wore very soft shoes, if she caught the nurses asleep, would tie bandages round their legs. She remembers Dr. Gowani's wife doing midwifery. She also remembers Dr.'Hamdi' locking up two male doctors who had slept against her orders. Kadeeja went to work in the Farig bin Mahmoud hospital when they moved out of the old building which was demolished. She recommended to speak to Bin Abbas the herb doctor who had a shop in the Souk.
Jack Briggs, the Superintendent of police, from 1951 until 1963, has impressions of the hospital at that time. He first saw the American Mission Hospital when he visited in 1950. He is British, and had been in the Middle East since 1949, having served in the Army, the Palestine Police and the British Police. He described the hospital as a small one storey building and until the Government took it over had been very basic. He married his wife Kathy here in 1953, in Cochrane's house. They felt that they could not really claim to be the first christian marriage here as the Umayyads, who ruled the Arab world, including Qatar, from 661-750, were Christian. In 1953 the hospital had six rooms for patients and an operating theatre and some other minor facilities. The permanent staff consisted of a male nurse and his wife, also a nurse. He relates his own admission as a patient after being stabbed by a runaway. "The rooms were unfurnished. The system was that when a patient was seen by the nurse and deemed to warrant admission, to be seen by the visiting doctor, were allocated a room, would move in with the whole family, including carpets and cooking pots. When all the rooms were full then a doctor would come from Bahrain where the American Mission Hospital was more extensive. Generally the visiting doctor was a surgeon. One of these was Dr. Oomen, whose wife was also a doctor". They were first employed by the missionaries and later became resident in the Qatar hospital. They recruited Mr. and Mrs David a husband and wife nurse team. He also remembers the British, Qatar Government Surgeon, Bill Weston, and Ron Hart the hospital administrator and his efforts to recruit British nursing sisters. He remembers the hospital being on the sea front, not far from the Palace, the Advisorate and the Political Agency. Jack was the right hand of Ron Cochrane, and was on the committee of the first issue of the Doha Newsletter. He went to Dubai when leaving Qatar, and still works even though he has passed retirement age.

Barbara Hart, the wife of the Secretary\Administrator followed him out to Doha in 1953, where they stayed until 1955. She became secretary to the Adviser, and had to take the Secret Acts oath. The Harts and Gottings shared a house on the Seafront owned by the Al Mana family. She could not remember the reason for her husband resigning but knew that he and Dr. Palmer got on very well together. She feels that he enjoyed the work but felt there was very little future for him in Qatar, so applied for a job in Bahrain,
without realizing that's where it was. Being just an adventuress in the Daily Telegraph. She kept a letter from Dr. Cyril Bignold to the point. She couldn't remember what she wrote about the resident in Qurne. He still could work here so his family was still healthy. She thought that the Yellow fever did more than just spread the Yellow Fever. She remembers Dr. Rady Mathews and Mr. Alexander O'Brien as a delightful person, although his health was great. She watched with great interest as the family watched the family. There was a story that the Government decided they did not want their servants any longer and there was a campaign to show them the benefits. However, they were not allowed to publish the story in the Press. John Guthrie is the Chief Public Health Officer.
without realising that's where it was, being just an advertisement in the Daily Telegraph. The pay was much better in Bahrain. She kept a letter from Dr. Cyril Elgood all those years. News quickly spread about the resignations in Qatar. He still came to work here so his fears must have been soothed. She thought that Dr. Gotting nearly did resign. Street, was the Public Health Officer. She remembers Dr. Ruby Mathews and Dr. Elizabeth Oomen as a delightful person, she and her husband were good doctors and very much liked by the ruling family - especially Elizabeth by the women of the household. There was a story that the Government decided they did not need their services any longer and there was a rumpus led by Sheikha Hassa, Sheikh Ali's first wife and her entourage together with other wives. I was told that they gathered in the Sheikh's majlis and complained that they would have no one else but Elizabeth to attend them at the births of their children - they won the argument and the Oomens stayed. "I don't know how much longer they stayed but it did show that the ladies in the palace had a say". In 1993 she met once again Father Connelly who is the Catholic Priest who used to come to Doha and who she first met at the wedding of Jack and Kathy Briggs at the house of Ron Cochrane. They had special permission to have the service and Father Connelly had flown in from Bahrain.

George Webster was in Qatar from 1954 to 1978 in the State Engineers Department. He was at first under Hugh Hale. Later he became Director of Public Works. Everyone worked 18 months, then had 18 weeks holiday. Dr. Palmer changed this to two months every year. All appointments to Qatar were vetted by the Foreign Office. Murray-Johnston was the Political Agent when he first arrived. Tennants and Company were the Government Agents. He mentioned an Airport building that had been built in 1945 and converted to a hospital, and used as a quarantine centre. The S.E.D. built the polyclinic in 1965, and added extra parts later. Hutchinson was seconded from the State Engineers Department to be the Hospital Maintenance Engineer. (There is to this day an S.E.D. section at Rumailah Hospital).

John Gething came to Doha in 1955 as the Chief Public Health Officer. Dr. Alwyn Gotting was here then, with Dr. Kingston as the State Medical Officer, and Dr. Abdul Latif who most people believed to be a Licentiate. John was in charge of Preventive Medicine. The biggest problem was T.B. John Lock was
here in the Police and they had known each other before in Nigeria. Ted and Kit Howe, who worked for Tennants in London used to meet the children who went to boarding school in the U.K. and make sure they arrived safely at school and put them on the plane to return home for the holidays. He remembered a post-mortem, that he had to attend with Dr. Kingston, Dr. Gotting and Sam Evans a policeman, done on an Englishman from the electricity department at the old airport building, the body was sent to Dubai for burial. (George Webster was instrumental in arranging non-muslim burial grounds at Umm Said and Dukhan). Sheikh Ali's Summer Palace was off the Dukhan Road at Rayyan. He remembers Ogden at the State Engineers Department. His wife Liz did not stay long as they left soon after their marriage.

Professor Hassan El-Ma'aergy, presently the Secretary General of the Scientific and Applied Research Centre of Qatar University has been in Qatar for forty years. He knew Dr. Alwyn Gotting in Derna in Libya. He remembers that when the first British Doctors and Nurses came to Qatar in the early fifties they were banned from taking gifts from the patients. The British Adviser accepted gifts, only from the ruling Family so as not to insult them, but he collected them up and regularly sent them to London where they were stored in the Archives. The Senior Medical Officer of Health was answerable to the British Agent. One British Matron was sacked because of taking too many gifts.

He assisted, in his capacity of Microbiologist in 1967 during a food-poisoning scare. This was the 'Endrin' scare. He remembers well the symptoms that people presented with, especially heartburn. This caused them to drink water and so this led to the first impression that the poison was in the water. He went to Dahran to analyse contents of the dead people's stomachs. Post mortems were allowed for criminal cases. Some were sent to Britain for analyses by the Shell Oil Company laboratories. He is a devout muslim and believes that the Quran is effective in Medicine in its preventive capacity. The Islamic way of life is preventive with cleanliness, praying, fasting, no alcohol, halal, etc. Cleanliness is promoted by washing several times a day, especially before praying, with a special wash before Friday prayer. Hygiene is important, clean clothes, and cleaning the mouth with mishwak before prayer
DR. ABDUL LATIF, GIVING A SPEECH

Dr. Abdul Latif was a distinguished doctor and a renowned English-speaking physician. He was a public servant and a valued colleague in his field, with a reputation for integrity and dedication. His patients and colleagues admired his dedication to duty. For fifteen years, he worked under difficult conditions, often working beyond his normal hours to meet the needs of his patients.

He was decorated with the top military award in Qatar in 1946 after his distinguished service in the Army, where he served as a medical officer in the 1st Indian Casualty Clearing Station posted at the Qurna railway station in Egypt, and was awarded the Malaria Medal in 1945.

"After his service from the Army, he joined the Petroleum Exploration Trust in Bahrain and worked as a Medical Officer to the Qatari Petroleum (QPC) in Qatar until June 1961."
(the Swiss now make a toothpaste with extract of mishwak). Praying with its special method of bowing and standing in his estimation, keeps people supple well into old age as a special exercise. Fasting teaches humility as does praying. Voluntary fasting is always welcome as well as before feasts and Eids. With the Halal method of killing meat it keeps the meat clean, blood is unfiltered and if kept in the meat it deteriorates quickly. If animals have an accidental death they cannot be eaten, also not meat from sacrificial deaths. Fish and all sea products are halal. Pig is to be eaten only if a person is starving and there is nothing else available. He believes that eaters of pig are not jealous, so therefore are not affected by adultery of partners. Non-pig eaters are jealous. Eating should be in a group, do not overeat, stopping before satisfied. Alcohol kills the senses. The Mother of crimes is to sell, accompany others in drinking and to make money from it. The money obtained in this way is unclean money. No stealing, cheating, lying or any misbehaviour, especially not adultery. Suicide is prohibited. God gave our bodies and we should not dare to take away what God gave. Arabs are good at learning by rote and good at recitation. Quran given by Angel Gabriel. He once wrote a verse from the Quran on a piece of paper, folded it up, so that his wife could bite on it when she had a toothache making it go away.

Dr. Abdul Latif was a Pakistani doctor who worked in Qatar for thirty years. He was described in an article in the Gulf Times the local English Speaking Newspaper, ".....as a slight and beaming physician. He won a place in his patients' and colleagues affection with his devotion to duty. For fifteen years at a stretch he worked from 7 p.m. to 7a.m. Spending many nights beside's the patients beds. No one could ever remember him having missed a duty. He always did his job himself. Often he pulled stretchers in the wards himself. He was decorated in the war and came to Qatar in 1946 after a six-year stint in the Army, where he served as medical officer in the 2nd Indian Casualty Clearing Station posted at El-Daba railway station in Egypt, and attended to soldiers wounded in western deserts.

"After his release from the Army he joined the Petroleum Concessions Limited in Bahrain and worked as Medical Officer in the Qatar Petroleum (QPC) in Dukhan until June 1949.

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In 1950, he became the personal physician of H.E. Sheikh Abdullah bin Sa'ud Al-Tai, the ruler at that time.

"After three months I went back to Riyadh. He returned later as a doctor to the Delma Hospital. This was the small hospital at that time. Dr. Latif was chief medical officer of the hospital. He worked there as a night staff. Dr. Latif was..."

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"In 1950, he became the personal physician of H.E. Sheikh Abdullah bin Jassim Al-Thani, the ruler at that time.

"After three months he went back to Pakistan. He returned later as a doctor at the Doha Hospital. This was the small hospital situated near the Chartered Bank, with a team of four doctors, with Dr. G. Palmer as chief medical officer.

"Dr. Latif was moved to the Rumailah Hospital when it opened in 1957. He worked there as night duty Casualty Officer continuously until the Polyclinic opened in 1968, when he was shifted to day duty.

"Dr. Latif has seen every facet of Rumailah Hospital growing from a Royal Clinic to a giant medical centre.

"At the outset the hospital was manned by a half dozen doctors. Now it has a battery of specialists with all areas of medical and health care. Experts from various developed countries visit every now and then and lecture on advances in medicine.

"H.E. Sayed Khalid al-Mana, Public Health Minister gave him a farewell party. Members of all medical and paramedical staff attended the function at the White Palace, at which glowing tributes were paid to his services. He wrote An Army Doctor's Story in 1959 and proposes to write memoirs of Thirty Years in Qatar during his retirement".

One story told of Dr. Latif is that he often got taxi drivers to take him as a passenger in return for a sickness certificate instead of the fare.

Another is that he had a letter from the ruler to guarantee him a position as a doctor for life, in Qatar. This was carried around in his briefcase wherever he went.

Dr. Ruby Mathew worked for the missionaries Dr's Harrison and Storm, in Bahrain from 1952 to 1954, coming to work in Qatar in 1954. She was a Syrian Christian from Kerala. Her sister was a nurse who had trained in North India with a British Mission. She and Dr. Malekal Mathews were married by
the Political Agent in 1955. Their son Allen Sebastian was born in 1956. She remembers the Lady Egyptian Doctor 'Hamdi'. They left in 1968 to further their studies. He is now a Senior Psychiatrist at a University in Indiana, she is a Senior Obstetrician at a Leading Hospital in St. Louis also she has her own private practice. They wrote that they thought "that Dr. Gotting was our best friend and 'guide' in our careers in Doha from the 1950's - Alwyn was so loving with no malice and always sporting" they have many happy memories of Dr. Gotting and his family.

Mary Hale nee MacNamee worked in Doha from 1955 to 1967, with the first two years in the Mission Hospital, which was next door to the Eastern Bank. She was recruited as a specialist theatre nurse. She remembers the sisters quarters being used for Ibn Saud's visit, whilst they slept in one of the Shell company houses. She later married Hugh Hale, the State Engineer, when they met up in later years in Kuwait in 1978. She transferred to the new State Hospital when it opened. Hugh helped design the clock outside the Diwan. The workings were bought by Jassim Darwish and had to have a special foundation to support it. Hugh Hale, when he first arrived in 1951, had shared a house with Ron Cochrane for six months. The Hales eventually retired to the Isle of Wight where Hugh survived his first coronary, which happened in 1954, until 1991. One of the surgeons she worked with was Dr. Redmond Prendeville, (known as "Red") an Australian, he was in Doha many years on three separate occasions, the first in 1957 for six months as a locum surgeon, again 1970's as senior surgeon, then again in the 1980's, and became Head of the Orthopaedic Department at the Hamad Hospital. One story told is that Sheikh Khalifa asked him to return after "Red" had sent a congratulatory telegram on his accession. He still works as a G.P. in Western Australia, after giving up Surgery. He still visits Doha on occasion, at the invitation of the Ruling Family. Mary had been recruited by the Crown Agents.

Another nurse, who had been in Qatar for two years 1954 to 1956, Sister Evelyn Godfrey, wrote of her experiences after a trip back to Qatar recently. She had been recruited in the U.K. but was in fact, Australian. She had to go before a panel of Matrons from St. Bartholomews, St. Thomas's and Westminster Hospitals. She had convinced the selection board that, despite the fact that she had polio in her youth, her experience in the desert of Australia, where they had used camels as transport to go to school, would
ADDITION TO THE FIRST HOSPITAL
stand her in good stead in Qatar. She had also nursed a patient from Qatar, Ahmed, in Sir Archibald McIndoe's Plastic Surgery Unit in East Grinstead. Ahmed she says, was one of Sheikh Ali's principal advisers. He had lost his thumb when being electrocuted by opening an unearthed refrigerator just installed in the Palace. He arrived back in Doha a week after she started work, and he, it seems, not only saved her from many a faux pas, but in her words "...was the greatest ambassador for the progress of modern medicine in Qatar.

"Every afternoon at 4pm Sheik Ali held "court" and any Qatari with a grievance could line up at the Palace gate and, in turn, his need or grievance was attended to. Whatever needed attention was dealt with immediately. Six Fedowi - the Sheik's Personal guards - and the appropriate adviser would be despatched to right the wrong".

At this time an operating theatre and surgical ward and kitchen had been added to the old Mission Hospital, but most medical cases, mainly typhoid and meningitis which affected men from the dhows, were housed in single rooms around a central courtyard. Much building was in progress to accommodate expatriates and obstetrics and at the back, medical wards, for the future.

"When patients were admitted the whole family came plus small Kerosene stoves! They would set up camp and cook. The result was dangerous chaos, but the staff were helpless. The children would pull out the intravenous lines, drink from them and do terrible things on the floor".

She could not understand the reasons for the cooking stoves outside each room, or the need for family around the sick. After finding a smouldering mattress one day, she "cleared the lot out", but the families went to the Palace and put in a complaint. The Sheikh sent Ahmed with six fedowi to investigate the "angry Englesia". She showed him the burnt proof, so he arranged the end of the stoves. He helped her out of many other similar situations.

She wrote of the shortage of blood for transfusions, especially for the women who needed Caesarean Sections. She maintained that the reasons for these usually for the birth of a second child, was because they had put rock salt in their vaginas after the delivery of the first child, to reduce it to normal size,
SISTER GODFREY MALE MEDICAL WARD

M. R. OOMEN FIRST HOSPITAL.
thereby caused scarring of the vagina preventing a normal delivery in further pregnancies. Several women came to the hospital with a ruptured uterus. At first the medical staff had to rely on the expatriate community to give person to person transfusions of blood in the theatre. People with group O Rh negative gave many. Ahmed was told of this difficulty and as a result Sheikh Ali offered 100 rupees a pint to Qataris to donate blood. This produced amazing results. Was this the forerunner of the present Blood Bank?

There were strict rules concerning theatre. A female patient had to go to theatre with her betula on, it was removed for the anaesthetic, but replaced before she left theatre.

Any limb or appendage removed from a patient had to be given to the relatives for proper burial so that, in the future, when the patient finally died they would go to paradise whole.

Because of the need for the nursing sisters to give antibiotics at night, she convinced Ahmed to arrange with Sheikh Ali, to let them be licensed to drive. She herself got one of the drivers to teach her to drive and was the first to obtain her driving licence. Previously they had to depend on a driver, who often would not turn up in time to take the nursing sisters from the nurses home to the hospital. As more trained Indian nurses arrived and could take charge on night duty this made things easier.

Meningitis and Typhoid were the main diseases, with expatriates suffering from Tetany, if they did not have their salt tablets regularly. In those days there was no air-conditioning, only overhead fans.

Tuberculosis was always there and difficult to treat in the very hot and inadequate conditions. So arrangements were made to send Qatari patients to Bhannes Sanatorium in the hills outside Beirut in Lebanon. She made many trips to escort patients, travelling over the Saudi desert, through Amman. She was very impressed with the sanatorium run by Sister Gabrielle the Mother Superior, set in beautiful mountain country.

One of her favourite stories was of a child found in the desert by a Shell work
DR. KINGSTON WITH SALEM

LUNCH FOR PATIENTS "WARD C"  CURRY AND RICE
team, in November 1955. He was thought to be about eleven years old. His eyes were badly damaged and he was blind. No one could understand the dialect he spoke, but he very quickly learned English. Dr. Kingston arranged for Ahmed to speak to Sheik Ali about the boy, whose name was Salem Abdullah, so he was taken to the famous school for the blind in London. She often wondered how he had turned out.

The front lower floor was mainly for expatriates and the upper floor for women and obstetrics. A 20 bed ward for men was at the back. The new wards had fans and air-conditioners. Dr. Cyril Elgood was the Senior Physician with Dr. Malekal Matthew as his assistant, helped by a team of Indian male nurses. On Monday 27th June there was great drama when twelve men were rushed to hospital with shocking burns. They were the crew of a road oiling party. During their tea break someone had thrown a lighted cigarette causing a dreadful fire. Nine were successfully restored to health, thanks to the new facilities.

Expatriate deaths were hard to deal with as there was no non-moslem burial ground. The bodies had to be flown out in lead lined coffins, for cremation in Bahrain, where BAPCO had an incinerator, or back to their country of origin. The coffins, in pre-fabricated form were kept in the Material Department for emergencies. They were made up with lining when required. At one time they had to ask the hospital staff how to put the lids on. All the expatriates took a turn at being pall-bearers.

She went on to describe post-mortems. They could not be done in the Hospital, so borrowed transport would be used to take the body to the old airport building for autopsies to be done at 4 a.m. "When a body was "seen off" all the expatriates gathered at the airport and sang "Nearer My God To Thee" as the little Dove took off into the black, velvety sky ablaze with stars".

Once a member of the hospital staff contracted Diphtheria, so Dr. Palmer was sent to Bahrain for vaccine to enable every expatriate in Doha to be immunised. Which was well worth it as no other cases occurred.

She remembers vividly the falcons left on a rail when patients visited the
Another duty in general was carry and also to be in a different context to Mary Walnut the wife of Colonel Parker the Director of Medical Services from 1934 to 1956. To her it was the other doctors and nurses the small handful of people we used at a mission like the social club. One of the best abled being the woman at the center of the group was great due to

**Patients First Hospital.**

**First Hospital Ward Staff.**
hospital. She like many others of those early pioneers never forgot the weevils in the rice and maggots in the potatoes. Their main diet was curry and rice, and the milk was powdered or tinned.

She remembered those two years in Qatar as the happiest of her life. She left just as the new State Hospital was nearing completion, but says the thought of the transfer did not really appeal as the old hospital held a special place in her heart. She made two trips back to Qatar in 1993, bringing plenty of lovely photographs of those pioneering days, and donated them to the Ministry of Information. She made contact with old friends at Oom Salal Mohammed and was given wonderful hospitality. She was saddened by the deterioration of the 'Castle', but would be pleased now to see the renovations and restoration and preservation work being carried out. She could not find any of the old places in Doha, she was impressed with the roads and boulevards which have replaced the oiled roads that she knew. She was most impressed with the parks and trees along the roads. Sadly she passed away in November that year, her son wrote of how much those trips had meant to her. One of many who loved Qatar and kept fond memories.

Another lady to remember curry and rice but in a different context is Mary Palmer the wife of Colonel Palmer the Director of Medical services from 1954 to 1956. To her it was the curry lunches and suppers the small handful of expatriates used as a nucleus for their social life. One of the best chefs being Dr. Gotting. She remembers his sense of humour, that he was great fun at parties and how her husband Geoffrey really appreciated working with him. She remembers that when they first arrived the hospital was in such a bad state that raw sewage ran down the walls of the operating theatre. Dr. Ewing operated on her daughter, removing her appendix, she is now a doctor in Canada. She remembers that donations of money were channelled into a library and other facilities for the hospital. They had a Hillman Humber car. There were many government employees recruited from the ranks of British serving abroad.

Colonel Palmer wrote that they arrived in Doha in mid-1953, and he was much impressed with the plan for the new hospital being put out to international competition re-architecture, and considered the chosen young architect (he
thought aged 23) both an excellent one and most receptive. As an aside he was fascinated by the fact that, whilst a Japanese Prisoner of War, and still a student, this young Architect had received as a Red Cross present, a classic of Architecture, corresponding to Grey's anatomy for a Medical student. This rather heavy tome he studied in a way he would never have done, unless restricted like a P.O. W. To this chance, and quite remarkable happening, he attributed largely his success in winning this highly lucrative international competition in hospital design.

Colonel Palmer insisted the siting of the hospital be changed from the original site which he maintained was in a dreary part of Doha overlooking a graveyard. He wanted it over on the Residential side overlooking the harbour and with a "grand, lively view". He was assured that a change of site was out of the question, especially by the British Adviser and Chief Engineer, both very worthy types. "But being of an obstinate nature, I found out from the Arab (Persian) adviser, that the Father of the ruler was one person who could change this decision". He therefore approached him and "al humdulillah" the site was changed. He also suggested that the Autopsy block be used for Radiotherapy, he believed to be the first in the Gulf, as post-mortems were not required more than once or twice a year, because of strong local feelings.

Some of his personal impressions were: astonishment at how they managed with so little (In Derna, Lybia, where he did all the surgery he had far more than he realised, nuns running an operating room corresponding to Devonport, Canada, in efficiency. In fact, in Doha he was so shaken that he attempted very little surgery). He was sad over how much Dick Ewing had changed, since he first knew him. He remembered being rather anti-receiving presents but accepted, because it would be an insult, apparently, not to receive one from a member of the ruling family. Such a present he received for his wife, and decided to send it home for Christmas. The Adviser's wife warned him that it would be a very costly Christmas present, when it had gone through Customs - it was, a pearl necklace worth about $300 dollars.

He was much impressed, adversely, by the way that Sheiks and their retinues carried Tommie guns, set away from the safety catch - in fact, the State Engineer had assured him that he preferred to bump over the desert in a Jeep
DR. PALMER

OPERATING ROOM  FIRST HOSPITAL
than be in an air-conditioned cadillac with a Sheik so accompanied.

One day in the old hospital, he had heard a loud commotion and found that a Sheikh had been shot and died almost as soon as admitted. He had little effect in controlling the bitter consternation, but the chief Fedowi of the Father of the ruler arrived and there was a quite remarkable calm after the storm when he delivered his message "a tommy gun had gone off by accident and caused the death" at a big coffee party. This particular party was for the military Governor of Saudi Arabia, whose entertainment was preceded by one day with a courtesy visit by a Royal Naval Frigate, invited by the Arab Adviser. (Another tale told is that the Ruling Sheik offered the lives of some of his men in return, but the Saudi replied "malish").

Colonel Palmer had been hopeful of forming a 'Persian Gulf Consultant Group' in order to share adequately local expertise, and brought it up at a Medical Conference in Bahrain, but failed to get support, he felt through lack of lobbying enough beforehand.

He found that his family adapted to the intense heat without turning a hair. He and his wife Mary found the dry heat of 120°F, more bearable in Doha than the wet heat of 107°F in Toronto during a heat wave in 1955.

He was fascinated by the effect of excessive fluoride on the local water supply resulting in very sturdy teeth and bones, with incredibly low incidence of dental caries and of fractures of long bones, particularly hip. Both observations proved in extreme contrast to observations in Southern Alberta, with a fluoride deficient water supply, and when teenagers were losing all their teeth at nineteen, not 70 years later, and fracturing their long bones with relatively little injury.

He had memories of the Shell oil rig being badly damaged in a storm. The development of roads, schools and the hospital, the result of oil money impressed him a great deal.

Looking back he thought that he had been wrong, acting high handedly, when he had insisted he would resign, if the hospital Secretary cum Administrator
DR. PALMER'S FAREWELL.
Government of Qatar and Senior Surgeon to the Qatar Medical Service. He originally worked in the Old Hospital on the sea front close to the Palace and later moved to the new State Hospital in the Rumailah District of Doha. He was the sole surgical specialist between 1954 and 1957, in those days he had the responsibility for all branches of surgery in the entire country besides acting as a consultant to the Medical Departments of the two oil companies who used to refer their major surgery to him. His time was so occupied that he had no leisure or social activities. He spent three whole days a week for elective surgery, three whole days a week for ward rounds and seeing surgical outpatients with the rest of the time for emergency surgery. His chief surgical assistant was Dr. David Oomen, who after obtaining an M.D. in Malta, obtained both parts of the FRCS in the U.K. went to Kuwait, where he had worked in his pre-Doha days in 1955, with his wife, Elizabeth who ran the obstetrics in the old hospital until Dr. 'Hamdi' came. They always called him for their new-born surgery, largely congenital. His anaesthetist was Dr. Feni Taraperwala. Nancy Janece was his ward sister and Mary MacNamee his theatre sister. Margaret Edwards was the Hospital Matron. They were among the nurses recruited in the U.K.

He came to work in Doha because Colonel Palmer, the then Chief Medical Officer wrote and invited him to work in his team. Colonel Ewing was at that time Chief Medical Officer of the state and Secretary to the Government of Bahawalpur, West Pakistan in the Department of Health, at the same time Consultant Surgeon to the Victoria Hospital in the capital. They had been together in Egypt and the Western Desert, in the 11th Indian Infantry Brigade which left India in July 1939. He remembers that Colonel Palmer, Kingston and himself were the only I.M.S officers in Qatar.

Social life and recreation for these pioneers was difficult. France Jack the wife of Alan, the Director of Public Works, started a drama group and called it The Doha Players, the nucleus of to-days' association. They held their productions in the workshops at the State Engineering Department or large villas in the Government housing section, or at the end of their garden of their villa. Also they built a little chapel, in the grounds of their house in Rumailah district, where they had Christian services on Sundays, and Father Connolly would come from Bahrain. She remembers desert picnics where the camels...
finished off their meal and not the servants. Many people took on jobs when there was no one else suitable. Many doubled up. She also remembers one of the doctors Colonel Ewing, having to act as a vet and refusing to put down a dog with distemper.

Her favourite story was the one about Jassim Darwish telling the Ruler that he had a dream that Doha would be flooded unless a dam was built. This dam was constructed but turned out to be the wrong way round so her husband had to reverse the shape. The day the dam was finished the rains came, the worse for many years! But Doha was safe! She remembers being friendly with Naila Darwish. France often arranged the flowers in the Guest Palace. Alan had come from Sudan and brought people over who had worked with him there. One of these was Bryn Mordiciea, whose wife acted as the schoolteacher. Later when he went to work in Kuwait he had to change his name to Evans. France, sadly died last year after a prolonged illness, which she bravely suffered without modern treatment.

Dr. Pervine Morai was in Qatar with her husband Philipe, from 1955 to 1967. He became the Chief Medical Officer. She was a paediatrician, but she also practised obstetrics and did domiciliary work. There were no roads, so she often had to follow the pipeline on an oiled section of desert, to reach her destination. She thought that she and her husband must have been the first Arabic speaking Doctors. They were both Lebanese. They were founder members of the Beach Club even before the Oasis Hotel was built. There were Qatari midwives and most of the babies were home deliveries. She tried to encourage them to use another astringent, Alum solution, rather than salt to shrink the vagina back to normal size, also this was as antiseptic. Dr. 'Hamdi' arrived whilst they were there, the second Arabic speaking female doctor. The first childrens' ward opened in 1966, until then room was made in the Female medical ward. When they first arrived the British Political Agent was named Carden, then Moberley came after him.

Matron Aisha Rashwan came to Qatar from Egypt in 1967. She worked first

\[9\text{Liz Mordecai is now an ordained lady priest, after being a deaconess for many years after the death of Bryn.}\]
at Rumailah Hospital, then became involved in recruiting Qatari girls to become nurses. She visited their homes convincing their parents that Nursing was an honourable profession. In those days they planned to have a three year training course. That first intake of nurses are all now in administrative posts, after going on to read for Degrees in Nursing subjects. They started off with basic nursing care, feeding, behaviour with patients, deportment, and practical procedures. She had no books then. Lectures were given by Doctors from W.H.O. English lessons were given by the Education Department. Some went to evening classes to reach intermediate level, as only one girl had matriculated. She taught them how to deal with male patients without fear, respect and to guard reputation. She chaperoned them at all times, especially on the bus to take them home after lectures. They had no models and used other nurses to practice on. She had no equipment either and had to get condemned beds etc. repaired by the maintenance department. She found some old instruments not wanted by anyone else. In 1969 they moved into a building converted from nurses quarters and the Tutors were English. In 1972 she moved to the Women's Hospital as Assistant Matron to Matron Sabah. She started records for nurses and regular evaluations. The nurses then were controlled by the Matron of Rumailah. All staff were on 24 hour call and had to be on standby. The staff increased from 25 to 250. She worked first in the operating theatre, Labour room, Room 6 which was special care like high dependency, before going to the office. She did not get on with Dr. Iqbal Abdul Wahab Hamdy, (Dr.'Hamdi') Dr.'Hamdi' would not accept her as theatre sister as she said she looked too glamorous. Dr. 'Hamdi' came from the U.K. before finishing her obs. and gynae. She was subsidised by the Egyptian Government. She would only sign the overtime sheets for nurses who were loyal to her.

Matron Aisha took over running the Nurses Hostel in 1986, and tried her best to make it as much like 'home' as possible. Many comforts and recreational activities were introduced in her time there. She retired this year. The Assistant Directors of Nursing made a big fuss over her, having her as quest of honour at the International Nurses Day and other celebrations.

Julie Ogden wrote, when asked about the first hospital in Qatar; "I presume by the first hospital you mean the one that was down by the vegetable market near the sea - before the Corniche Road was put in? This was indeed an
extraordinary place.

"My first memory was on my arrival in Doha in 1956 when I was taken by Honor Hancock (wife of the then British Adviser to the ruler) on a visit to the hospital. At that time I had no children and the families of patients camped in the hospital with them - usually under or round the bed. Several of the ladies could not understand why I had a wedding ring but no children.

"My only experience of being a patient came a year later. I had my first baby in 1957 in the Rumailah Hospital and she was one of the first English babies to be born there. I spent Christmas there - the only non-Arab inmate. It was a strange experience and I think the soft toys brought in by friends for our Kathryn were a delight to all the ladies there.

"By 1960 when our son, Christopher was born there were a lot of Egyptian medical staff and a feeling the we British should not have the facilities of the "new" hospital. So I went into the old hospital. Unfortunately my baby was late and a friend's baby early so we both finished up together in a room which would just take two beds and two cots, but we had to take turns to get up! Also there was no hot water - just a cold tap. I had a very frightening time there as I had a haemorrhage and other complications. However we both survived despite the lack of facilities. I had a Lebanese Midwife who was marvellous - but the doctor really was not interested. The hospital at that time was still very basic and the facilities were very limited.

"The general medical services were "interesting" at that time. The ante-natal clinic was a case of going along and if you were lucky you could be seen by the doctor behind curtains by yourself but you were quite likely to have all the other ladies present as well. There was, of course, no post-natal advice for care of babies so we all asked each other as more people had children in Doha. My husband had a very nasty appendix operation in the Rumailah Hospital at the time of a visit from King Saud. I remember that he could not eat the food provided and I (very pregnant at the time with Christopher) used to drive round the perimeter fence of the hospital to the only open gate to take him a plate of dinner kept wrapped in towels to keep it warm! He had to have a different mattress found for him as he was on a very hard basic thin affair.
which he found impossible - but he survived to tell the tale- with a large scar to prove it.

"We lived for a time in a flat next to the old British Agency building and then moved to the luxury of a Peeman bungalow. All is now much changed of course. Ted designed the clock tower among other things - we now find it a treasured "antique" in Doha history.

"We were sorry to hear that Alwyn died. When we visited in 1973 we saw him - he greeted Ted with "Ah the clock tower man". He and the family were always great friends of ours. I remember his boys as being excellent ball players. Now grown men with their own families I imagine".

Dr. S.M Siddiq Bhatti came to Qatar in 1956 to join the surgical team at the Old Doha Hospital, after graduating from medical school in Pakistan. He said that many of the patients who came to the hospital in those days came with acute problems such as burns and traffic accidents. Most of the people in Qatar then thought of hospital as a last resort. By the time he retired in 1984 they had come to accept hospital care as routine and expected a high standard of service. He became Superintendent of the Rumailah Polyclinic when it was established for outpatients in 1981. He became the Acting Director of Rumailah Hospital when the Hamad General Hospital was being commissioned.

Liz Mordecai writes that she and Bryn were in Qatar between 1957 and 1962. "He was Clerk of Works in the Civil Engineering Department under Alan Jack, with whom he had worked in Sudan and was collecting several of his former staff together, ie. Ted Spice, Gilly Gawan as well as Bryn. I arrived in September a few months after Bryn, and was immediately roped in to teach at the English Speaking School (although trained for secondary work). The Shell company had temporarily withdrawn after a rig disaster the previous winter but allowed the parents use of the school and its equipment, if they could find a teacher. So I ran the school for an academic year until July 1958. There I had several four and a half year olds' new to school, including Stephen Gotting. He was brought along by his Mother, Bunty, with an infant, Alan, in tow. The top age was nine years."
"We were hoping to start our own family and I had two miscarriages that year but successfully produced a son Huw, in August 1959, followed by a daughter Jane, in November 1960.

"For Huw's birth (and ante-natal) I was under Ted Kingston, at the new Rumailah Hospital - Dr. Peters an Indian lady doctor was with me at the birth.

"The next year they were using the old hospital for maternity work and Jane was born down there with the help of an Egyptian lady doctor. There was a French Sister, married to a Lebanese in charge of the Maternity Hospital.

"All this is from memory, of course. I am very happy to recall those days".

Ron and Pam Lock were in Qatar from 1963 to 1976, he was in the Police. They came from Cyprus where he had been awarded an OBE. Ron Cochrane by that time had embraced Islam and become Mohammed M'adhi. They felt that most expatriates in those days liked to live in modest housing and not to raise too much envy from others. He played Golf in Oom Said, where the greens were known as browns as the ground was oiled. In those days it was not feasible to have lush green lawns, as it is now, with the desalination plants. They remember Dr. Chinchinwalla a Parsee, being the gynaecologist, and that she had been a pupil of the famous Josephine Barnes. Dr. 'Hamdi' arrived during their stay and she married an Anaesthetist.

Ray Herron was in Qatar from 1963 for several years, her husband worked for Mannai. She remembers the nursery in the Old Hospital where the orphans lived. Dr. Alwyn Gotting asked the ladies who used to visit the children to make them clothes from rolls of white lint, which he gave them for the purpose. She wanted to adopt one of the children, but this was not allowed. The British women were stopped from visiting in 1965.

Gerda White, whose husband Jim, was Clerk of Works, left Qatar in 1976. "I was a patient on three occasions in the General and Women's Hospitals under the excellent care of Mr. Prendeville and Dr. Chinchinwalla as well as a very
competent nursing staff under Matron Edna Reid.

"We were befriended with most hospital senior staff and I was privileged with a single room which was probably due to the infectious or serious nature of my illnesses. Other patients were often not so fortunate and were quite unhappy with the standard of hygiene. Local patients were accustomed to having their families and household facilities around their beds which didn't help for cleanliness.

"The hospitals were infested by a special species of cockroach, quite resistant to Public Health treatment. They took over in masses at night time, not only the floors but walls and ceilings and lustfully dropped on the beds as well! Particularly sanitary facilities were "out of bounds" after dark.

"Nevertheless, I recovered thanks to the above mentioned care and am still grateful for the skill and personal attention of the doctors and nurses. I trusted them completely with major operations.

"Towards the end of our stay Qatari girls were being encouraged to be trained as nurses under the supervision of Mrs. Jean Wyatt and it was planned that they replace foreign staff".

Sir John Moberley, who is now a Consultant at Chatham House Institute of Oriental Studies, was the British Political Resident from 1959 to 1962. He remembers that Group Captain Plant had come from Sudan and that Hancock had succeeded him. In his time it was arranged for non-muslim expatriates to obtain a liquor licence through the Agency, before that they had to go to Bahrain to collect supplies. He remembered how important the Oryx were and that one was sent to the London Zoo. He sent a telegram to the British Falconers Club to arrange for falcons to be brought to Qatar. In his time Dr. McCrae who had worked in the Indian Medical Services was attacked by a former patient. He was stabbed in the back with a butcher's knife which missed the aorta by half an inch.

His wife Patience was a paediatrician. She worked gratis domiciliary, as she felt that as her husband was the Resident it was wrong to take money. She
remembers Dr. 'Hamdi' locking a visiting Professor in the lavatory because he failed her in the examinations. Sheikh Ali's first wife Hussa was very fond of Dr. 'Hamdi'. She also remembers Dr. Elgood, Dr. Khouri in Lebanon and the Cedars of Lebanon Sanatorium.

Both of them remember the church services which were then conducted by a visiting minister from Bahrain. The Reverend Jenkins was the Anglican priest in 1955. He baptised Sally Gray and Roger Webster.

Alan Walker-Gray wrote, "I can remember pointing out to Sally the room where she was born, after being delivered by the Indian Dr. Mrs Oomen with Jean Dean, a British nursing sister, who later married a Shell Marine Engineering Superintendent.

"At that time, this new wing of the Hospital, had only recently been completed, and building work was continuing on other departments. The Gottings lived in an Arab house, just around the corner, on the then sea front road.

"The State Medical Officer was Dr. Palmer, Ron Hart was known as the Medical Secretary (Admin) and there was a British Public Health Officer. There must have been other doctors, but Alwyn seemed to do everything. In 1955, a doctor joined who was ex-Sudan (Brit) and Dick Ewing came from India to replace a previous British Surgeon, I did not meet. Ewing was white, Anglo-Indian. There was also "Dr" Abdul Latif, a Pakistani, unqualified, who had been the Palace doctor who had to be kept on. He was kept permanently on night duty and known as 'The cockroach'. He was also an easy touch for sick leave and a very nice little man.

"Until Dr. Kioumji arrived as Dentist, Ralph Gibson (Anglo Indian) the dental technician carried out dental work. There was a small Path. Lab in the hospital and one operating theatre, which became the Dirty theatre when the new one was built adjoining. I remember the first amputation in December 1954. The patient had haemoglobin of 37% as measured at that time against normal 75% because of general malnutrition. He had to have blood before they could take off his leg. We were all on the blood donors list so were called out from a
party for blood matching and cross matching. A Pakistani charge hand and Jack Collins, the Distillation Plant Engineer, were suitable so their blood was used. We could see the theatre team's heads as they worked over the table, from the Path. Lab window. Next day the donors were presented to the patient as the men who saved his life, but he was not amused.

"I recall that there were four British nursing sisters. Margaret Edwards - Matron, Bibi O'Keefe later to marry an Eastern Bank Manager - John Lawrence. Jean Dean and Evelyn Godfrey. Mary McNamee (Now Hale) came later as Theatre Sister.

"The reason for extending the Mission Hospital was that the new Rumailah Hospital was being built, and at the end of 1954 was still just a steel framework, but the old hospital was in such a bad state with patients so many, extensions were a must. I cannot remember when it was completed, probably early 1956 but remember moving my Pathan workshop superintendent, in bed, in traction with a leg, on the back of a pick-up, to the brand new hospital.

"When I arrived in Doha, in September 1954 serious cases were either sent to Bahrain or to the UK. QPC wives had their babies in BAPCO Bahrain, British wives from Doha went to the UK.

The first British children born in the Mission hospital were Alan Gotting and his twin, in I think January 1955, followed by Roger Webster then on 5 April 1955 my daughter Sally.

"I do not remember clinics as such. The Mission Hospital was always crowded with noisy out-patients clamouring for attention. I think that Dr. 'Mike' Makar (Amoun Farouk Fuad Makar) and Dr. Goweni, both young Egyptians, joined in 1955.

"I think that Dr. Palmer, Ron Hart and the Public Health man, left in 1955, after having their bluff called by resigning over a pay issue. Ted Kingston, a previous SMO was brought back. By then, the medical staff was expanding, an hospital engineer arrived for the new hospital, but as it was not my field, I do not recall names, dates and so on. However, Anwar Mohammed Ali was
MOBILE T.B. UNIT.
there from the start and took over Administration, after being evacuated from the oil rig when it was badly damaged. Records in those days were sketchy and no doubt thrown out long ago.

"It was in 1955 that I built the X-Ray van, on an old chassis from QPC, with a towed generator, a heavily framed body. The equipment was installed by the supplier.

"T.B. was rife so Alwyn, assisted by Bunty, travelled all over the peninsular to every small inhabited location, carrying out a T.B. survey after having to convince people to accept the tests. The roads at that time went from Doha to Rayyan, Doha to Umm Said, and Doha to meet the Umm Said to Dukhan road. No other roads existed. After the survey, the X-Ray van, was kept at a static location near the old power station, to be used by Alwyn and Bunty for T.B. screening of expatriate labour.

"In those days non-muslims could not be buried in Qatar. When the Wimpey Manager, working on modifying the Shell off-shore rig in the bay was badly injured in an accident, he was flown to the road in front of the Mission Hospital by helicopter - another first - we were all called in as blood donors, but he was DOA (Dead on Arrival). Steel coffins were unsuitable for air transport so I had to make up a coffin with lining to meet regulations. Time pressed for the BAPCO crematorium in Bahrain, a flight stood by and to save time, the body was placed in the coffin in my engine assembly workshop, before being sealed. Thereafter we became the undertaker for expatriate's - fortunately a rare event.

One of the Armenian nurses still in Doha today, Vartouhi "Rose" Bereiklian came in 1956 with Arpene, Sylvia, Asdchig, Kavarik, Lydia, Sirvart, Asnif (who died and is buried in Dukhan) and Arseve. She remembers Margaret Edwards, the Matron, taking a real interest in these Armenian nurses. She wrote to them personally telling them what shoes to bring and gave them the feeling that as she was British, everything was going to be okay. They were Gregor orthodox Christian, they lived in a hostel, in the Rumailah compound, and had to be in by ten each night. She remembers being met at the Airport by the driver Abu Faisal. Mr. Oomen was the Charge Nurse in Male Medical.
Mr. Kevorkian was the Hospital Administrator and the right hand of Dr. Kingston. Mr. Haig was the Reception Clerk. Their cook slept on the roof and bought all their food. Sometimes Qatari ladies would send them fresh vegetables and presents of gold rings and lengths of material.

She assisted the Gottings in their T.B. survey and travelled in the specially built van. In those days she earned Qatar Riyals 800 per month. She had British training in Aleppo. They had three months leave every three years.

They worked in the old hospital at first, for three or four years. There was Dr. Cyril Elgood in charge of the medical ward. He was respected as an authority on Middle East Medicine. She worked in the Medical clinic in Rumailah, where she came in useful for translating several languages for the doctors. Her marriage to Mr. Vartan Bereiklian of Darwish, on 3rd November 1959, was announced in the Doha Newsletter. She remembers Dr. Gotting boasting about his Armenian blood. There was once quite a large Armenian community in Doha, which has now shrunk to about 20, mostly because of retirement.

A Nurse relates the story of Dr. Iqbal Abdul Wahab Hamdi. She was very beautiful and came to work in Qatar in the 60's. At first she worked at the old hospital and took over the obstetrics from Dr. Gotting. When the new hospital built especially for Tuberculosis was ready for occupation, she broke in with some boys and moved the obstetric patients in. She took stores and promised to send the requisitions later. She had become a favourite of Sheikha Hassa, the first wife of Sheikh Ali. When Sheikh Ali asked her to account for 'hi-jacking' the hospital she convinced him that the Ladies need was more worthwhile than T.B. so he acceded to her actions. She once set fire to her own house in order to get a better one. She caused one of the Matron's to resign as she insisted on punishing nurses and interfered with nursing administration at every opportunity. She was warned by the Superintendent of the Hospital about this and went to the Ruler, who arranged an increase in salary for her. She was so confident of her support by the Royal Family that

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10 Dr. Cyril Elgood had already written his books A Medical History of Persia and the Eastern Caliphate - From the earliest times until the year 1932, and Medicine of the Prophet.
she circulated a letter telling of her triumph. She was proud of being Egyptian and Arabic speaking. Many thought her to be eccentric, some thought highly of her and would have no one else attend them, some were afraid of her. She once tied a dead foetus to a woman and chased her around the compound because she had not attended the ante-natal clinic on a regular basis for check-ups.

This same nurse remembers how Dr. Palmer had arranged an increase in salary for the Indian nurses. Also she remembers how the nurses 'stock-piled' stores, as the ships came so infrequently and they hated to be without anything. Often stock went beyond expiry dates because of this.

Babs Jarvis was in Qatar from 1958 to 1971 with her husband Ken, who was the Air-conditioning Engineer at the Rumailah Hospital. They had been in Abu Dhabi before for 5 years. They had first gone out to the Middle East for three months but ended up staying for 20 years. He was, for a while, the editor of the Doha Newsletter with Kit Burgess, whose husband was in charge of the Electricity Department. She remembers that their vegetables came from Beirut, as soon as word got around that fresh ones had arrived in Darwish Coldstores everyone rushed over to get some before they ran out. This shop was next to the Diwan until the early 1980's. She remembers that when they first arrived, a Sheika who kept the refrigerator door open to keep cool, before air-conditioning was installed everywhere, also had fans going and dresses and petticoats would fly up. She thought that it was Adam Scott who designed the clock in front of the Diwan. She used to keep the wardrobe for the Doha Players and remembers the productions being held in the Engineering Workshops with France and Alan Jack and Ted and Nicky Spice, or on the Verandah of one of the bigger houses. Otherwise they had an open-air cinema at Oom Said. They had to get their liquor ration from a bonded store in Bahrain every three months. The aircraft were the Dove, taking 12 passengers and the Herron with twin engines. They went to Bahrain to do their Christmas shopping. She thought that the steel inset in some of the Qatari betulas was from the days when the pirates raided the trucial states and slashed the women's faces. Her memories of Qatar were all happy ones.

Abdul Rauf was honoured twice by the government of Qatar. He was awarded
with two gold medals and a service certificate. A Pakistani, employed by the Mechanical Equipment Department in the Ministry of Industry and Public Works he was one of the pioneers who organised the department and MED activities as far back as 1958. He was an expert in handling heavy mechanical equipment.

He gratefully remembered that he once was sent to Austria for treatment of an eye disease, staying there for one and a half years until he was recovered at the expense of the government of Qatar. Mr. Rauf said "As long as I am alive I will continue to visit Qatar, a country which I regard as my second homeland".

Major A.O. McGinley, who had been awarded the MC and Bar in the North African campaign when serving with the 7th Battalion, Royal Tank Regiment, was in Qatar 1954 when he applied to run the armoured car troop for the Qatar Government. He had been described as "... the best squadron leader in the Regiment, a born leader of men and had the knack of getting them to follow him anywhere. This was mainly due to his character, both in the technical and tactical field, was fearless and never asked them to do anything he was not prepared to do himself". He and his wife had very fond memories of Qatar and were very sorry to leave after an unfortunate misunderstanding with a Palestinian language teacher. She remembers that every expatriate went to Dr. Gotting when they were sick, and were free to call him at home at any time of day or night. "Jock" McGinley died in 1993.

Owen and Joy Philips came to Qatar in 1956, he worked at the Electricity Department, under his Father-in-law Mr. Burgess, as an engineer. "He was actively involved with many major projects, including the construction of the Ras Abu Fontas power station. Later, he became the Ministry of Electricity and Water Engineer and Manager. With Qatarisation of the Ministry, he became Consultant engineer until June 1989 when he retired. He was chairman of the Capital Projects Committee in the Ministry until 1988. He was awarded an OBE in Queen Elizabeth's New Years Honours list announced in 1989. As a long time resident he was actively associated with British community events and made many friends in the country, including Qataris and other expatriates".
He at one time organised the Doha Singers, and was on the Anglican Church Council. His wife Joy, a Catholic had a christian service in their house regularly. They remember when the country became independent and the Resident Political Agent at that time Edward Henderson became the first British ambassador, and later went to Abu Dhabi. Hassan Kamal, an Egyptian Legal Adviser became the Emirs' Senior Adviser.

They knew that Qataris depended on herbalists in the past for treatment of illnesses. They knew Sultan Saif and his wife Sherifa, he was the official translator at the British Agency. The old Airport building was made into a quarantine station, mostly dealing with tuberculosis. The first kindergarten was held in the sisters' Mess in the Rumailah Hospital Residential compound in 1960. This is where some of the Anglican Church services were also held. Her mother was Kit Burgess of D.N.L. fame. They remember the health services well, Joy was sent abroad for treatment and she said Alwyn Gotting saved her life by "giving it to me straight", telling her to have treatment or else!

Ennis Amin, came to Doha from Egypt in 1959. She worked first at the Women's hospital. She went on escort duty several times with Sheikh Suhaim to Lebanon to Dr. Berbir's clinic. She also worked with Dr. Mrs. Gowani and Dr. Zubaid Negib. She worked a short time in the old hospital with Dr. Gotting in T.B. and Psychiatry, then went on probation as head nurse to the Rumailah Hospital. She worked in Male Medical with 60 beds. She then worked in Paediatrics with Dr. Mrs. Morai. When Dr. Makar was in charge of Rumailah he promoted her to Assistant Matron. She opened the new Polyclinic built in the grounds of Rumailah Hospital. In the 1970's until she transferred to the new Hamad Hospital she worked as assistant to Matron Edna Reid in Rumailah. She became staffing co-ordinator under Rosemary Gilbert, the American Chief Nursing Officer, at the Hamad, until she resigned in 1987.

Jean and Dougie Wyatt came to Qatar in 1960 from Zambia. He worked as a steam and gas turbine mechanical engineer for the Water Department. At first they thought that they would be here for five years, but he was so well liked by his employers were loath to let him retire, even when he reached retirement age! Jean worked first of all gratis as a domiciliary midwife, then as
a tutor in the School of Nursing. She was retired when it was decided to use Arabic as the language of instruction. They remember the camping and picnics and the wonderful Qatari hospitality. When they first arrived all the expatriates knew each other.

Ann and Vic Lynch came to Qatar in 1963. He was a Civil engineer. They knew Alwyn Gotting well, they had seven children, and were very grateful to him that he told them about the Devon County School grant. In those days boarding school fees were not provided by the Qatar Government. They knew Liz Beanland the founder of the Infant English Speaking School, which had to be combined with the Junior school as the Hamad Medical Corporation wanted the building for expansion of their premises. She also was awarded an OBE by Queen Elizabeth. The British Council Library was then near the old hospital on the sea front. They remember when falcons were sold in the souk. They remember the Political Agents being Philip and Pam McKearney, Commander Tom and Pam Pooley OBE. RN. who was succeeded by Ranald Boyle and his wife Norma. Ranald still works for the ruling Family.

An Hospital Administrator writes of the move from the 'old' hospital to new quarters. "I first saw the Old Mission Hospital in Doha on a hot humid day in 1976. I had been sent as a member of Llewellyn-Davies Weekes three-man team, contracted to help with the reorganisation of Qatar's Ministry of Health. The intention was that we should investigate the running of the Ministry, develop solutions to the various problems which beset it whilst helping with their implementation. The reality was somewhat different. The Ministry operated a relentless system of crisis management, to which it was apparently addicted, and no amount of persuasion, discussion and sometimes downright rudeness could shake them from this habit.

"The result of this was that we, the team members, became not consultants to, but rather administrators of the Ministry, carrying out many of the day-to-day tasks of management in default of any willingness on the part of Ministry staff to tackle these jobs themselves.

"One of our aims was to examine the possibility of moving the Old Hospital, which dealt with psychiatric patients, to better accommodation. This involved
searching for a new site (which was to be in an existing building so as to minimise construction costs) and specifying the alterations which would have to be carried out to provide adequate patient accommodation. In the event, a small palace not far from Rumailah Hospital was offered by a kindly sheikh, after examining it we felt that it could be made into a hospital which, though not ideal, would provide facilities infinitely better than those under which patients had to try to survive in their existing accommodation.

"Llewellyn-Davies Weekes had an architectural team in Doha at the time, busily engaged on the construction of the new Hamad Hospital. We were able to call on their help with the replanning of the Sheikh's palace, which took some time because of the difficulty of obtaining agreement about what should go where. Even the simplest change had to be argued out with all concerned - doctors, senior nurses and senior Ministry staff, all of whom were adept at changing their minds from day to day - but once this had been agreed the building work which followed, carried out by the Engineering services Department, was finished with uncharacteristic speed. The new hospital was ready in no time.

"While all this was going on, we had been looking at the old hospital and working out how its patients were to be moved. When we first looked at it we had been appalled by conditions there. There was rubbish everywhere, no air-conditioning except a few rattling window units, very little light accompanied by a terrible smell. Patients, many of whom were old and disoriented, lay listless on their beds or wandered aimlessly about the hospital like a collection of lost ghosts, but worst of all was a small colony of children, deformed, mongoloid or palsied. Their quarters were simply cots in a dark part of the hospital. Some looked like cages as the children had to be prevented from falling out, so wide gauge chicken wire was stretched across the tops of their cots.

"There was no special equipment for them or occupational therapists. The only bright spot in the lives of these unfortunate children was the weekly visit of a group of expatriate wives, who banded together to take those fit enough to the beach at the Oasis Hotel and play with them on the sand for a couple of hours. The danger was of course that these children, not having much
affection, were only too eager to attach themselves to anyone who showed interest. Several wives had wanted to adopt one or more of these children, only to be told that it was not possible. There was a feeling among the Qatari ladies that the European ladies were usurping a function which was properly theirs, even if they were not fulfilling it themselves, so after the hospital moved this activity ceased. (The children however, became the subject of official interest, and later on were moved again to the Rumailah Hospital into a proper re-habilitation unit organised by an Australian team).

"The new hospital was built on three floors around a central court-yard. All the rooms had windows looking out into the surrounding town, and were entered from an enclosed corridor whose windows overlooked the central garden area. There were adequate toilet facilities and the air-conditioning worked. New beds and furniture was purchased and proper kitchen equipment installed. We were able to design reasonable service areas and, all in all, felt that the new hospital was something of an achievement. It remained only to move the patients across.

"Moving day at the old hospital began early and finished late. Ambulances had been ordered from the central transport pool at Rumailah Hospital which went first to the old hospital to load up. At the new unit there was a shortage of linen so an emergency supply had to be obtained from the laundry at Rumailah Hospital. By the herculean efforts of porters and staff the new quarters were reached before nightfall".

The Millards, Tom and Phyllis who lived thirty years in Qatar, were with the Department of Electricity and Water. Their first fifteen years were in Dukhan where there was a small hospital in the camp. It was easier for them to fly to Bahrain than to go to Doha as the roads were not like they are today.

Bill Walker, who was a policeman in Qatar for many years, wrote from Australia his land of origin: "I think we were lucky to have had such an efficient service, staffed by proficient doctors and nursing staff, and can say nothing but praise for them all. The treatment my wife and I had (both of our children were born in Doha) was without exception well carried out."
"There were all sorts of stories circulating about the hospital whilst we were there, but I think most of them were exaggerated figments of imagination, or needed to be taken with a pinch of salt!"

Sultan bin Sultan, Sheikh Kalifa's Head of Security, relates a story of his first son: The boy was 18 months old and very sick. They took him to Dr. Gotting who was relieving in the Rumailah Hospital. He was admitted and checked daily. After fifteen days he was still not eating and losing weight. Dr. Gotting said that he was dehydrated and gave him half an hour to live. Sultan took Dr. Ra'ad (Abdul Rehman Darwish's private doctor) to see the child. He checked the child and gave fluid, and 'cleaned' his stomach. That afternoon Sultan got a Qatari lady who was a 'midwife', her name was Mariam Abdul Malik Ali, (Darwish married her daughter). She put her finger down the boys throat, she cleaned with cotton and pomegranate leaf, pulled down the alvula and cleaned the throat twice in the night. In the morning, the child was recovered and left hospital that afternoon!"

The Sailing Association was started by Hugh Hale the State Engineer who arrived in Qatar in 1951, and George Webster in his department, George's son, Andrew now carries on a tradition to this day 1994! The Sailing Association is nowadays host to sailors from all over the world with its Annual International Regatta. In those far off days it was one of the few places where they could get a drink, sometimes "Home Brew", and let their hair down, and relax after a hot, hard days work.

One expatriate wife blames this on the start of her husband's alcoholism. The tension and stress from his job caused him to turn to alcohol. She remembers baking her own bread, the isolation and dreadful culture shock she experienced when first arriving in Qatar. She had never been abroad before.

Two Qatari Nurses, Najia Khamis al-Ali and Sharifa Al Malki remember when they graduated from the school of Nursing, "Some were to work at the Women's Hospital, but nobody wanted to go, a Qatari female should not see pregnant women, labour or delivery before marriage. So the names of the Qatari Nurses were put into a hat, and the unlucky ones had their names drawn". They struggled to become nurses. First they had to convince their
families that they should be allowed to study at the Nursing School. "This career choice was questionable and then the uniforms were a problem, we had to work with the public and deal with difficult things". It took perseverance and commitment to convince their families. "There were four or five of us living in the same area and a hospital car would come to pick us up and take us home each day. We supported each other". They were well supported by the Government in their studies. They were selected to do General Nursing Studies in Ireland. In 1977 they became R.N's. Returning to Women's Hospital they became Head Nurses and continued to thoroughly enjoy working with the female population of Qatar. They were next sponsored by the government for studies in Scotland for Administration, and in 1980 they were sent for another year to Ireland for a diploma in Midwifery. "It was such a good chance to learn new schools and improve our language. But you can understand how someone from our culture felt when we experienced how the Western husbands are so involved in the labour and delivery experience; we were shocked! From this, however, we realised the value of some support for the expectant mother and now we encourage having a relative there for the woman in labour". They remembered that the old Women's Hospital was not designed as a women's hospital and they think that the ladies of Doha appreciate the new beautiful purpose built hospital. Sharifa and Najia are two Qatari ladies who, amongst others, are the backbone of Nursing at the Women's Hospital. Their stories reflect a commitment to change and challenge, an ability to be at the forefront of society. Today society appreciates the work they do and this is reflected in a growing increase in the number of applicants to the school of Nursing. All this, reaps positive benefits to the Qatari patients, who feel comforted in being nursed by their own culture.

In his reminiscences Dr. Gotting recalled that when air-conditioning did come, each government staff house was allocated one only. The decision was usually to put it in the Master bedroom, hence if any entertaining was done it was in the Master bedroom! (This is still done by some of those pioneers!) The Gottings first house was the Al Mana house on the sea front not far from the 'old' hospital. They shared with Ron Hart and his wife Barbara who was secretary to the Political Agent. They later moved to a doctors house in the Rumailah Hospital compound.
Ruby Mathews in fact saved his life once when he dosed himself with expired chloromycetin. She had the presence of mind to inject antihistamine I.V. to save him from anaphylactic shock. He never forgot this, and spoke of it often.

He once resigned, but was asked to reconsider at the eleventh hour. His belongings had to be rescued from the jetty at Oom Said, where they were ready to be loaded onto a ship for the U.K. He once went without leave for ten years so that he could use the money for his children's school fees. They had to go abroad as there were no schools in Qatar at first. He was also sent for from Ireland, where he had gone to further his qualifications. He was needed to sort out a particularly difficult problem involving members of the ruling family. He remembers assigning Dr. Omar Hashisho as a domiciliary doctor so that he could handle difficult problems with the sheikhs, as he had a conciliatory manner.

Dr. Omar Hashisho recalls the first private hospital in Doha. It was in a house owned by Sheikha Hamda, wife of Sheikh Ali. It was rented to the Al-Attiayah by family who employed Dr. Khouri to run it. It is now owned by the Youth Council. It has been empty so long that it is known as the 'haunted house' by British expatriates.

The Doha News Letter was "the only non-subsidised English-language publication in the Gulf" it started as a typewritten and roneoed magazine, just a few pages but eventually graduated to a bound off-set printed magazine by the Ali bin Ali Printing Press. It was run on subscriptions and eventually advertising from local businesses such as Ali-bin-Ali, Darwish, Al-Baker Pharmacy, Ahmad Al Uthman, Mannai, Nasser bin Khalid and Nasir bin Abdulla and Mohd. Siddiq Trading.

It was non-official, non-profit and had several notables as its Editor over the years. The news was sent in by correspondents. The subjects covered were many and varied including: Tidal predictions, Children's Corner, Doha Sailing Association, Doha Regatta, Omm Said and Dhukhan sailing news, Doha Players productions, the Oil Rig Disaster in 1957, Cricket, Doha Women's (International) Charity Organisation, Women's Page; including recipes, The
It began in 1954 and folded up in 1966 because of lack of volunteers. Over the years it demonstrated that several nationalities came and went. The women’s page had recipes contributed by Australian, American, Swedish, Italian, Indian, Lebanese contributors. Shell Company had several Dutch employees. The Public Gardens at Rhaudat-El-Khail were developed in 1964, and later became known as Montazah Park.

The Political Agent announced the arrival of H.M. ships and requested for members of the community to offer the crews hospitality. (McKearney in 1964).
CHAPTER SEVEN

THE FIRST HOSPITAL IN QATAR
THE FIRST HOSPITAL IN QATAR

The circumstances of the opening of the first hospital in Qatar came about because of visits of the American Missionary doctors, in 1916 they had been discouraged by the Turks, who were at that time in residence. But in 1919 because word of their good medical work had spread they were invited by Sheik Abdullah bin Jassim with a personal invitation to a Dr. Harrison, along with the Reverend Pennings, who wrote of it later. The population of Doha was then approximately 10,000. The locals were pearling, with trades and businesses being mostly run by Persians and Baharin (described by the missionaries as Shi'ites living in Bahrain, but by J.B. Kelly (1968) the historian as mixed Arab and Persian stock) who were not considered as foreigners. All other foreigners were forbidden in Qatar and in 1910 Sheikh Abdullah bin Jassim, Governor of Doha, had sent criers round forbidding his subjects to deal with the Germans. There was also fishing. The souk had about 200 shops and was rather busy as it supplied not only the people in the city but also many villages and thousands of Bedouins who came from the surrounding desert for their yearly stock of supplies. Whilst off in the desert on their dirahs (pasture districts) always near a well in summer, and wandering during the cooler winter. They relied on their camels, goats and sheep for most of their needs. These animals provided food, clothing housing and a means of trade. The women wove tents from goat's hair. The bedouin owned horses, managing to breed thoroughbreds which were a valuable means of trade.

This visit only lasted ten days as the doctor realised that he would be tempting the patients to interrupt Ramadan by taking doses of medicines when they should be fasting. Trips to Doha from Bahrain were not easy in those days as they had to be made by sail boat and winds would spring up to take them off course. Whole days were spent at anchor unable to make any headway, rocking in storms with sails furled. The fare was 2 Rupees without food and 6 Rupees with food whether the trip took a day or a week depending on the wind. The sailors were mostly negroes, runaways or slaves, a multitude of nationalities, Indian, Baluchi, Persian, Omani, Zanzibari or Bedouins from the interior of Arabia. Among the passengers were Persians on their way to conduct business or to visit relatives. They formed the artisan and labouring
classes but several managed to amass considerable wealth through trade. There were Bedouins from the interior; some were Ikhwan\(^{11}\) coming from Ojeir by sea and transhipped to Bahrain and Baharinas themselves.

The "Mission" was first known as the Arabian Mission of the Reformed Church in America. They sent out doctors, nurses and teachers from America to serve the people of the Arabian Gulf region in whatever ways they could. They first arrived in Bahrain in the 1890's. Dr. Sharon Thoms and his wife Marion also a doctor, arrived in Bahrain in 1900. They were followed by Drs Mylrea, Louis Dame, Paul Harrison and Harold Storm. Some died very young of the diseases they had come to treat. A wealthy family DeWitt Mason, donated the money for building the first hospital in Bahrain. It was called the Mason Memorial Hospital. The money to run the hospital was donated by Americans, and an extension was made possible as a joint gift from the Overisel Church and a Jewish pearl merchant, Mr. Rosenthal. Treatment was free of charge or what people could afford. Records show that a delivery of a baby could cost as little as 2 Rupees. Dr. Storm performed Caesarean deliveries for as little as 4 Rupees.

There were 200 pearling boats sent out each year from Qatar. The money realised from the pearl formed the capital on which business was conducted for the remainder of the year.

The missionaries found the pearling industry in decline because of the manufacture of cultured pearls by the Japanese, and to partly substitute the depreciation in pearls Sheikh Jassim Bin Thani inaugurated the maintenance of a custom house in Doha under the management of one of his slaves with an Arab acting as treasurer in 1907.

The people of Qatar had resisted this before in 1890 when the Turks had tried to do the same, but did not resist now in sympathy for the Sheikh’s financial needs.

\(^{11}\) The Ikhwan were the "Brethren" united in God, a fighting brotherhood for the service of God, created by Ibn Saud with the help of the descendants of the original Abdul Wahab, the man who in the late eighteenth century preached a revival of Islam, and was protected by Mohammed Ibn Saud the great uncle of (Abdul Aziz) Ibn Saud by marriage. They colonised Artawiya and other villages, eventually becoming fighting men for Ibn Saud.
embarrassment. Several pearl traders had to go bankrupt. Dr. Dame came regularly for three weeks at a time and also visited Sharjah, Riyadh invited by King Ibn Saud, and Northern Nejd. He had already been accompanied by his wife at the request of Abdullah bin Jiluwi, the Emir of Hasa the year before. King Ibn Saud also asked for medical help for women so a party consisting of Dr. and Mrs. Dame and seven other helpers went to Riyadh in the same year. During a visit to Qatar in 1928, the Reverend Gerrit Pennings had put up a windmill in the Sheikh's garden. Dr. Thoms and Dr. Dame came to Doha for three weeks in 1935, the same year that they had been part of a ten month tour of Arabia sponsored by the World Dominion Movement and the British and International Leprosy Associations. This tour, mostly made by camel caravan, included Saudi Arabia and Yemen. The missionaries believed that Bahrain would be the main medical centre of the Gulf. They were called to Dubai to treat the ruler and also treated over 800 members of the public. For several years they visited Qatar building up a background of friendship and confidence. Dr. Chandy visited in 1943 and other years, from Bahrain where he was assisting Dr. Harrison. He was an Indian from Madras, qualified in General Medicine and Surgery. Dr. Storm often worked at the oil camp hospital, whilst Dr. Kennedy held eye clinics in the Mason Memorial Hospital. Dr. Barney, a lady, went to Riyadh for six months. The mission doctors always took a clergyman with them on tour to Saudi Arabia, sometimes doing only specialised work such as eye clinics. King Ibn Saud invited them to come on an annual basis. Also patients from Saudi, and Qatar visited the hospital in Bahrain.

According to Samuel Zwemer, a co-founder of the Arabian Mission, who went to Bahrain with his wife Amy, an Englishwoman from Wolverhampton, in 1896, and toured all the Middle East, people practised traditional medicine, which involved the use of herbs and cautery. They consulted a hakim when they were sick. The hakim was supposed to know by simple observation what their illness was, also the cure. He was not a true hakim if he had to be told what ailed them, also it would be an insult to his wisdom. The common diseases then were el kibd, the liver, or all visceral infirmities; er rihh, the wind or rheumatics and neuralgias; humma, fevers; tahal or ague; el hasa or stone; ophthalmia; fascination or hysterics as when a man has a jinn or a child has been looked at by the evil eye; leprosy; phthisis; dropsy, and ulcers. All
medicine, except, charms and exorcisms were called dawa. Their pharmacopoeia was not large; in addition to simple herbs of the desert that the women collected and dried they used things that were haram (forbidden) and unclean. Cautery was a favourite for all sorts of diseases. Even children were burned to cure diseases of childhood. Sometimes they resorted to words written on paper either from Koran or, by the law of contraries, words of evil. These the patient would either swallow, paper as well, or drink the ink-water in which the writing had been washed off. Blood-letting was also a remedy for many ailments. Zwemer found the science of medicine in the towns much like that of the desert. The Arab barber was a phlebotomist, cauteriser, and dentist. A disease must be connected with one of the four temperaments or "humours of Hippocrates". Medicines were hot and cold, wet and dry and the same fourfold classification distinguished all ailments. There were only four elements, and the stars must be favourable to induce a rapid cure. Whatever was prescribed had to be solid and material; if it were bitter so much the better. Rough measures were believed to act more strongly on the imagination, a faith cure was a reality in such cases.

One favourite prescription was: "Bees honey, cinnamon and album gaecum of each half a part and mix with the honey from boluses, each bolus the weight of a Mithkal and of it let him use every day a Mithkal on the saliva, that is first thing in the morning before breaking the fast. Let him abstain from flesh, fish, vegetables, sweetmeats, flatulent food, acids of all descriptions as well as the major ablution and live in perfect quiet."

Some of the common household remedies were coriander seeds, pepper, mint, cinnamon, senna, iris root, saffron, aloes, nitrates, pomegranate rind, date syrup and vinegar. All women had a knowledge of herbs and the art of healing so that the hakims often engaged in other trades such as watch-maker, gunsmith, distiller of perfume, as well as silver-plating and dealing in old coins to keep themselves occupied. He was also believed to be able to transmute the base metals and write powerful charms.

Amulets were sometimes a small Koran suspended from the shoulder, a chapter written on paper folded in a leather case; some names of God or a numerical value; the names of the Prophet with his companions; green stones
without inscriptions; beads, old coins, teeth, or holy earth in small bags. Amulets were not only worn but were put on camels, donkeys, horses, fishing boats and sometimes over the doors of houses. He discovered the use of rock salt used by the midwives, and assumed it to be against puerperal haemorrhage. Gunshot wounds were treated by poultices of dates, onions or tamarind.

An American Registered, missionary nurse wrote of a trip to Qatar in 1940. The Sheikh of Qatar had requested for a lady doctor to come, but as there was not one available she was accepted as a substitute. The request had been sent through the oil company (Petroleum Concessions Ltd.) who passed it on to Dr. Storm in Bahrain. Permission was granted by the Political Agent in Bahrain, and she went by the oil company launch from Sitra Island to Zikrit, where the oil company had a camp. The journey took six hours. She was then taken by saloon car, after spending the night at the camp, to the other side of the peninsula to Doha. She was given hospitality in the Darwish Fakhro house. The oil company sent her letters to Dr. Storm asking for advice on how to treat some of the cases. She used the house of the Director of Customs to treat the lady patients. In two weeks she treated 800 patients. She mentioned that there was an Indian doctor at Zikrit but as it was sixty miles away he could not cope with both, even though he made regular trips to Doha. She wrote of how the Qatari were very hospitable to her and that she was entertained in twenty houses whilst making medical calls in about ten more. Three cars were put at her disposal, so that if one broke down another would be available. She visited the Sheikh's summer palace at Rayyan.

Sh. Abdulla, who she remembers was very fond of icecream, praised the work of the Drs. Harrison, Dame, Thoms and Storm, who had made various tours to Qatar. The Qatari ladies encouraged her to wear Arab dress. She took all her meals in the Darwish house, only sleeping in the oil company house. The Sheikh spoke to her of having a hospital in Doha.

During a trip to Qatar that same year, Dr. Storm and a clergyman were asked by the Sheikh why they did not come more often and if he built a hospital would they come? They agreed to have a resident Indian doctor and run it as an out-station of the Mission Hospital in Bahrain. The Sheikh asked them to
draw a plan, which they did at once. He started construction straight away,
even though cement was twenty times its former price. The site for this
hospital was in Muharraq near to the Sheikh's palace. He also gave them
money to order beds, an operating table, surgical and medical supplies
from Liverpool.
In 1946 he requested the British Political Agent in Bahrain, Lieutenant
Colonel Cadman Galloway, to help him get cement and other building
materials. By September 1947 the Sheikh wrote to the Political Agent in
Bahrain, reminding him of the need of cement that had been requested many
weeks before this.
draw a plan, which they did at once. He started construction straight away, even though cement was twenty times its former price. The site for this hospital was in Al Jasra near to the Sheik's palace. He also gave them money to order beds, an operating table, surgical and medical supplies from London. In 1946 he requested the British Political Agent in Bahrain, Lieutenant Colonel Galloway, to help him get cement and other building materials. By September 1947 the Sheik wrote to the Political Agent in Bahrain, reminding him of the need of a hospital, that it had been constructed upon advice from the visiting Mission doctors, also for permission for Dr. Storm to "proceed to our side in order to supervise the operation of the hospital".

The Bahrain political agent, Mr. Jackson, gave permission for Dr. Storm to go to Qatar, as Dr. Steele, the Government doctor was very busy. He also wrote again to Galloway urging for a government doctor in Qatar. Dr. Storm promised to report on the progress of the hospital. This he did, with the information that everything had been paid for by the Sheikh, adding that the Sheikh wanted them to run the hospital on the understanding that patients would be charged what they could afford, as in their main hospital in Bahrain. Also that he would pay them a thousand rupees a month for the staff, including an Indian doctor and nurses, and that he would like the American doctors to spend at least a month a year working in the hospital. Storm said that the money raised in fees would pay for medications and running expenses. This report was signed by Dr. Harrison also. The Sheikh must have been very happy to have at last opened his hospital, after all the delays of 'red-tape', the need for medical treatment was so great that he did not mind who ran the hospital. The missionaries thanked God for their chance to help humankind. At first the hospital had only one storey, with plans to add a second storey. At least 75 patients were treated per day. The doctor in charge felt that people were a little shy of attending at first.

It was built for twenty patients, as the population then was twenty thousand, as the pearling industry had diminished because of the cultured pearls produced by the Japanese. There were plans to provide a laboratory and x-ray plant later. At the official opening they were invited to have a "Sunday morning service so that Qatar might see what a Christian service was like". According to Dr. Harrison they did this every Sunday for the rest of their
time visiting the hospital and whoever was resident there. They felt very privileged to do this as Qatar had been Muslim, followers of Islam, since 630 A.D. The doctors who first worked in Qatar were elated at the first outstation to the main hospital in Bahrain. The first patients were treated for malaria, trachoma, and some surgery. The men attended outpatients in the mornings and the ladies in the afternoons.

The mission hospital was regarded as a "Government Hospital" as the Sheikh subsidised it with 15,000 Rupees. In 1951 a Department of Public Health was set up, which included everything pertaining to health.

Cornelia Dalenberg wrote in 1952 of Christmas spent in Qatar, with all the patients and relatives invited upstairs to the living quarters to join in singing hymns. She was very sad when the missionaries stopped going. She remembered in particular a slave woman who had been taken from Africa to Dubai, Abu Dhabi then brought by boat to Qatar.

The mission gave up working in Qatar in 1952 because some of the doctors developed tuberculosis and had to go home to America, some went to work for King Ibn Saud in Saudi Arabia. So there were not enough doctors to do the usual tours.

There was also an American "Mission" hospital in Sharjah, run by Dr. Sarah Hosman. She had been asked to help with the delivery of a baby of the ruler of Sharjah's wife. Afterwards she was given a large house to open as a hospital, for women and children, in 1952. The original house is now protected by the Archaeology Department but the Sarah Hosman Hospital was in a new building, still running in the same way until 1994 but closed because of lack of staff and funds. Doctor Hosman first came to the Gulf in 1911 to work with the Arabian Mission of the Dutch Reformed Church in America, but left them to work for the Independent Board of Presbyterian Foreign Missions in 1941. She felt God had called her to do this. She worked in Muscat and Ajman. She had to travel by camel in the desert to visit the oases. She was given a piece of land in Muscat to start a hospital by the Sultan, but had been unable to raise funds to build a hospital on it.
Her hospital in Sharjah was run on the same system as the first in Qatar, with a room for each patient, around a courtyard, with the catering facilities consisting of a kerosene stove outside each room, where the family of the patient could cook the food for their sick. This would be a different menu for each family as all nationalities came to have their babies there. Also relatives could stay all through the day, conforming to the rules of Islam, that is to have another adult in attendance in a supportive role, especially for the birth of another member of the family. (Regarded as an innovation today in Western medicine).

The Mission Hospital still continues its work in Bahrain, however, with the Emir of Bahrain as its patron.
RUMAILAH HOSPITAL
CHAPTER EIGHT

RUMAILAH HOSPITAL
RUMAILAH HOSPITAL

His Highness Sheikh Ali bin Abdullah bin Jasim Al-Thani, K.B.E., the ruler of Qatar gave instructions for the building of a new State Hospital in 1952. The project was part of the programme being planned for the development of the country.

After the production of oil started the Ruler, who was at first assisted by Group Captain P.L. Plant and in 1952 by Mr. G.M. Hancock O.B.E. and the State Engineer, Mr Hugh Hale, T.D., B.Sc.(Eng.), M.I.C.E. laid down plans for the development programme aimed at raising the standard of life for all.

It was Hugh Hales' suggestion that to obtain the best results the architect should be selected by an open architectural competition. The International Hospital Federation was approached and agreed to organise the competition. It was run under the rules laid down by the Royal Institute of British Architects, who also appointed the assessor. The assessor was Mr. Alexander S. Gray, F.R.I.B.A. who prepared the competition schedule and conditions after consulting with certain members of the Government namely; Mr. Hancock, Mr. Hale, Mr. Weston, F.R.C.S., State Medical Officer, and Mr. R. Hart, the Medical Secretary. Previously Colonel A.E. Kingston, O.B.E., M.B., B.S., M.R.C.S., L.R.C.P., D.Obst.R.C.O. had given initial advice concerning the hospital project and he later returned to the appointment of state Medical Officer prior to completion of the project.

The competition was widely advertised and aroused interest around the world. Three hundred and thirty-five architects entered from as far apart as Aden, Australia, Ceylon, Ethiopia, Hong Kong, India, Kuwait, Singapore, South Africa, Sweden and the United Kingdom. Seventy-four designs were finally submitted and adjudicated in September 1953.

Mr. Alexander S. Gray awarded first place to the design prepared by Mr. John R. Harris. He commented "I have no hesitation in awarding first place to design number 58. Of all the designs submitted this offers the best solution to the problem. The ward units are particularly well planned to afford good supervision and economy in working, while they are sufficiently compact for
air-conditioning without detriment to good cross-ventilation. The planning of the single-bed wards to avoid sun and glare is ingenious..." (This particular use of reflected sunlight has subsequently been adopted by other architects in many parts of the world for solar control and solar gain.)

The secretary of the Royal Institute of British Architects, telephoned John Harris on September 8th, 1953 with the news that Mr. Hugh Hale was in London and would like to meet him that day for lunch. Mr. Hale suggested John Harris depart for Qatar at once so that he could see how hot the temperature could get before the cooler weather started. Four days later the architect took the first of hundreds of flights to Qatar, and which still continue to this day.

His Highness, Sheikh Ali, was surprised at the youth of his architect. He wanted to know why more time would be needed to complete working drawings for the new hospital. He said his own Palace had been marked out in the sand and work had started as soon as he had given the order. His people had been waiting a year already for the new hospital. John Harris devised a separate foundation contract to enable work to start on the site within the next six weeks. The drawings and contract documents could be done to run parallel with the progress on site. The use of separate foundation contracts has subsequently become a characteristic of major construction in the Middle East, where speed is often an important factor.

After the Ruler inspected the plans on September 26th 1953 and held discussions with the Government, minor amendments were made to the competition drawings. These revisions and the final siting of the hospital were approved by the government on 17th December 1953. The site was not then in the inner City of Doha. The architect was given instructions to proceed with the preparation of design drawings, working drawings and specifications for the execution of the project. The Government agreed to appoint Widnell and Trollope as the Quantity Surveyors, Scott and Wilson, Kirkpatrick and Partners as Civil Engineers and Matthew Hall and Co. Ltd. for Services.

The site of the State Hospital was chosen half a mile to the West of what was then Doha, at Rumailah. The site had a good view north to the sea. The site
contained 11 senior houses, 4 self-contained flats, 12 nursing sisters' flats, a matrons' flat with sisters' dining room and 56 nurses' quarters in addition to residential dining blocks and servants' quarters. The residential accommodation was on the western side of the site. Games could be played to the west of this area.

The planning of the hospital had the following principles in mind: to keep all main blocks to two storeys to reduce the need for lifts for running the hospital in an emergency; to keep male and female wards totally separate, male wards were on the ground floor and female on the first floor; a separate isolation block; the wards were to be all facing north to face the sea and catch the prevailing breeze; the verandahs of the single bed wards faced east or west so as to be pleasantly lit from the verandahs; the need for cross ventilation in case the air conditioning should fail; the building was to be framed to a standard grid to give flexibility to changing requirements within the building; the kitchen and servants' area were planned on the south-west of leeward side of the hospital; some roofs were to be paved for the use of patients and staff, with stairs to the roofs to serve the dual purpose of access and of fire escape; the frame and foundations were designed in the case of two of the one-storey blocks to receive first-floor extensions at a later date, so as to form two additional complete ward units; the air-conditioning was designed to accommodate further extensions when required; the roofs and the first floors are constructed of prestressed concrete; the flat roofs for use of patients and staff are insulated by lightweight concrete and sand in addition to the surfacing of precast white concrete tiles; and the external cavity walls were insulated; copper-lined teak rainwater chutes discharge rainwater from the roofs over the canopies; the steel windows were side hung to form a scoop to the breeze and are fitted with locks with a master key for locking during air-conditioning; the external walls were designed with concrete vertical fins and canopies with teak and pine subsidiary sun-breakers; light to the medical and surgical single-bed wards is controlled by aluminium sun-breakers with the pitch capable of being altered from within the building; the external wall surfaces were to be kept light in colour; floor finishes were mainly Qatar terrazzo tile; anti-static tiles were used in the theatres, quarry tiles in the kitchens with steel faced tiles used in loading bays; ward corridors were surfaced in Rhodesian teak; special precast terrazzo components were used for staircases and coving for the skirtings; the
THE ROYAL SUITE.
walls were plaster painted in light colours, with glazed tiles in theatres, kitchens and bathrooms. All the bathrooms faced away from the East.

There was a mosque in one of the courtyards. There was a separate suite for the use of the Ruler and his family at the end of the single bed wing. There was an office for the Minister of Health. Later this wing became the offices for the Preventive Health Department. Many other alterations would take place over the years.

The major problem was that most of the major building materials had to be imported. To keep freight costs down local materials were used whenever possible. Local limestone rock was suitable, after crushing, for coarse aggregates and the dune sand for fine aggregate. The water supply was still being improved by the Government. All these ingredients were chemically tested and showed a higher than normal sulphate content. The weathered limestone pebbles on the surface of the desert were found to be superior in strength and chemical content to quarried limestone. Sand from a dune on the Dukhan road was the best of all the samples tested. After specifying the water source all local materials were used for the reinforced concrete. Stone crushers were set up on the site to provide aggregates, as were precast concrete blockmaking machines, with the object of stockpiling supplies of both. Concrete mixing plants were set up at strategic positions close to the main frames. Mono-rail trucks transported the concrete to points of delivery.

Because of marine conditions combined with high humidity the protection of steelwork was necessary. Because when it does rain it can be a heavy fall, all foundation work in contact with the ground was protected with a membrane.

Main runs of pipework for the services were mainly concealed but accessible by means of false ceilings and removable casings. There were three plants for the air-conditioning: the main hospital plant, operating theatre plant and independent refrigeration, ventilation and cooling equipment not associated with the two main plants. Independent refrigeration, ventilation and cooling plants were provided for the: Mortuary body rack, animal room, chilled drinking water, meat room, fish store, ice cream freezer conservator, therapy plant cooling water. Ventilation plants were provided for: the main kitchen,
central sterilising, disinfecting, surgical minor theatre, eyes minor theatre, main refrigeration plant room, laundry, oxygen store, spirit store and delivery room.

The electrical supply was obtained direct from the State Electricity Departments' substation adjoining the hospital. Emergency supplies could be obtained from a diesel alternator. The fire alarm system was interlocked with all fans so that as soon as a fire call was made all fans were automatically switched off.

Steam was made available in the central boiler house for water calorifiers, sterilisers, autoclaves, bedpan washers, kitchen and laundry equipment and air-conditioner heater batteries. An oil-fired incinerator was installed in the central boiler house. Medical gases were piped from a central control room with oxygen, nitrous oxide, and vacuum points in operating theatres, anaesthetic rooms and surgical wards.

The main contractor, Darwish Brothers Engineering Department, achieved a remarkable feat of finishing the project within two and a half years. Jassim and Abdullah Darwish kept a personal interest in everything. The labour camp was kept supplied with fresh fruit and vegetables. Technicians from fourteen different countries were engaged in the building. John Harris was impressed with the team spirit among the workers of whatever creed, nationality or language.

At the start of the building the State Medical Officer was Doctor Palmer. Under the organisation of the State Engineer's Office other departments gave assistance. Mr. A. J. Jack the Civil Engineer, Mr. R.H. Glue the Mechanical Engineer and Mr. S.L. Burgess of the State Electricity Department. The imported building materials needed much organisation especially as at this time there was a world shortage. Messrs. C. Tennant, Sons and Co. Ltd. were the Government Purchasing Agents and gave much assistance on shipping.

The establishment of this hospital brought medical facilities and help, unique at the time, in this particular area of the world. This project led to the establishment of further major hospitals in neighbouring states.
It attracted a vast amount of publicity at the time. Articles appeared in several British publications, such as: The Lancet, Civil and Structural Engineers Review, The Sphere, British Medical Journal, Hospital and Health Management, Anglo Arab Trade, Nursing Mirror, The Industrial Heating Engineer, in 1957 and Journal of Medical Womens Federation in 1965.

It also won first prize at the Berlin Trade Fair.

This hospital was the first large framed building to be constructed in Doha.

John Harris certainly whilst applying international standards paid due respect to prevailing conditions not only of weather but also the habits and traditions of the people. Qatar can be humid, the heat intense and the shamal (North Wind) cooling, or very hot and dust laden. Walls have to be thick and light penetration kept to a minimum. Qatars' social background was considered, allowing large areas for families to wait, who had accompanied the sick patient. Islam provides for moral support in time of illness. Always at Rumailah visitors were allowed at any time and the patients brought their carpets, televisions for comfort and sweets and coffee so as to be able to offer hospitality to their visitors.

The architect is very proud of the fact that to this day this hospital, renamed Rumailah Hospital in 1972, is still in good structural condition. So much so that twenty-five years after completion when a renovation programme was implemented a proposal to redevelop it as a specialist Women's Hospital was put forward. This was abandoned in favour of a new one, which was built on a site adjoining the Hamad General Hospital.

An Australian Medical Team came to Qatar to study the problems of rehabilitation, geriatrics and extended care within the existing services of the state of Qatar. In close collaboration with the Doha office of John R. Harris Architects, the State's Ministry of Public Health and the Ministry of Public Works it was recommended that Rumailah be redeveloped into a sophisticated Rehabilitation complex, to the same high standards of the Hamad and Women's Hospitals, opened in 1982 and 1987 respectively.
Among the changes made over the years were: a staff room obtained by putting up a partition in the entrance hall and a telephone exchange built in the front of the hospital. In 1967 a new outpatients clinic, known as the Polyclinic, was built in the grounds of the hospital with specialty clinics for Surgery, Medicine, Paediatrics, Dermatology, Ophthalmology and Ear, Nose and Throat. A special Burns unit was built and also a purpose built Intensive Care Unit by Swedevlop, next to the operating theatre suite. A Coronary Care Unit was built in 1979.

As extra wards were added courtyards became available for garden areas. Also the Residential compound had Acacia trees planted along the roads. One Hospital Engineer Mr. "Bill" Adams had sweet soil spread around the compound for further landscaping, but this was shelved after his departure from Qatar. Different residents over the years tended the gardens enclosed by walls. Extra accommodation was built to house nurses recruited from the Philippines. Also apartments were built for Consultant Doctors. Some of these now house the expanded Preventive Health Department, temporarily until their own premises are expanded in Farig bin Abdul Aziz. Several of the original staff houses have been demolished to make way for apartment blocks to accommodate hospital staff to be built in the future. Some nurses blocks were taken over in 1979 to provide a Nurses Training School. A further two blocks have been renovated to house the Tuberculosis Department, now requiring a different capacity since Tuberculosis is being kept under control.

When the transfer of staff and services to the new Hamad Hospital took place all the uniforms, soft furnishings, furniture etc. were all ready made. In Rumailah they had been tailor made or hand made by skilled carpenters.

The Burns Unit at Rumailah were requesting a campaign to prevent burns. Out of the 8923 patients admitted from 1979 to 1983, 433 or 49% sustained injuries from flames. At least 409 or 46.3% of the total admitted were for injuries ranging from scalds due to exposure to hot water and liquids. The Qatari method of burns treatment was developed by a team of Qatari Physicians headed by Dr. Abdulla Al-Baker chairman of the surgery Department. From 1977 to 1982 the mortality rate from burns was 5.35%.
In 1986 Dr. Abdulla Al-Baker published an "Atlas of the Qatari Method for Treatment of Burns". This method was to bath wounds in a solution of 450 gms. table salt and 100 ltrs. of tap water. His next work would be a book on sleep in arabic.

Dr. Abdulla A. Al-Baker obtained his M.B.B.Ch. in 1966 and his D.Ch. in 1968, both at Cairo University. His F.R.C.S.Ed. in Edinburgh in 1973 and his F.R.C.P.I.Hons in Ireland in 1979. He started in General surgery in 1973 and became the Head of Surgery in the Rumailah Hospital in 1975 and transferred as such to the Hamad Hospital. He was a Member of the Hamad Medical Corporation Board from 1979 to 1985. He became chairman of the Burns Unit in 1981 and remains so. Chairman of the Qatar Medical Journal 1980, Chairman of the Research Committee, Chairman of National Committee for training Arab Board doctors from 1988 to date, Chairman of General committee for Training, Medicine, Education and Scholarship from 1994, Member of Executive Board of the Red Crescent from 1977, Chairman of Antismoking Committee. Member of the Supreme Council of Youth. On many committees and councils in the Arab Medical Specialty, Pan Arab Association of surgeons, WHO Executive Board, International Society of Burns, and other International Societies, as well as being an examiner for the royal College of surgeons of Ireland, and external examiner and visiting professor in different Arabic and Foreign Universities. He has Published 14 medical papers, six lecture notes for physicians in surgical physiology, delivered many lectures for public in Qatar and abroad. His fame is known more abroad than at home.

Members of the Australian Medical Team, which had arrived in 1981, were completing the last phase of the co-operation agreement with the Ministry of Public Health which expired in 1987. It was as a result of a health co-operation agreement between the governments of Australia and Qatar. Two main areas were covered; the services for geriatric health care and services for upgrading the primary health care system.

Starting in late 1982 a three-phase re-development programme involved the renovation of the male and female wings added in the 1960's as a Psychiatric
hospital; second renovation of the old Paediatric and Traumatic Wards as Development, Disabilities and Tuberculosis Centres; and the third to follow on, refurbishment of the other facilities. Structural alterations were kept to a minimum and most of the work involved replacing electrical, air-conditioning, plumbing and drainage systems.

In 1982 sixteen multiple handicapped children were transferred from Doha Hospital to the Rumailah Rehabilitation Centre where institutionalised care was provided. A day care clinic was opened in 1984 to provide physical rehabilitation, stimulation, motivation and socialisation for elderly patients and some younger ones. Transport was provided and lunch given at midday.

The Special Education Section of the Childrens Rehabilitation Unit have special outings for the children and parties in one of the central gardens. In 1991 the famous Qatari singer, Ali Abdul Sittar, sang for the children and invited guests. The guests were supporters and donors and voluntary services and the Media. The directors of the Sheraton Gulf, Oasis, hotels and the Falcon, Al-Ghazal Clubs and other leisure centres in Doha which were visited by the disabled children as part of the hospital recreational programme of outings. One V.I.P. visitor to this unit was Princess Anne of the United Kingdom in December 1991.

Every year several institutions in Qatar help Rumailah Hospital celebrate Eid Al-Fitr and organise entertainment activities for the benefit of elderly and disabled patients. The Qatar Red Crescent Society are very active during the Holy Month of Ramadan and during Eid Al-Fitr. They give henna to the female patients, and clothes. The Qatar Society for Handicapped Welfare and Rehabilitation social and Cultural Section organise entertainment for the male patients on the second day of Eid. During Ramadan the Al-Jasra Social and Cultural Club organise traditional trick and treat visits on the night of the 15th and distribute sweets. They also give new clothes to the male patients before the end of Ramadan. Al-Muntaza Co-operative Society give new clothes to inpatients of Rumailah Hospital. The general Manager of Salam Group donated three tables and chairs to the Special Education Unit for the use of the handicapped children. The Public Relations Department gives parties for the children on the second day of Eid. A Bubble Ball Recreation system donated
By the Rayyan Road Runners to the Joy. Time Unit at Baraish is very popular with handicapped children. The Rayyan Road Runners, a group of British expatriates, regularly give gifts to the unit.

There is an annual "Love and Care Week" to focus attention on the need for better care for the elderly and disabled in Qatar. It is organized jointly by the Qatar Christian Society and the Special Service and Public Relations Department.

The Department has shown an interest in the work and success of the nursery schools in 1991, they have a possible leading group and a stock familiar with the needs of the children and the elderly in 1991.

A special feature was an extensive exhibition by the establishment which demonstrated the importance of the special education needs of people with special needs and the importance of support for the children in Qatar. Psychiatry was an important feature in the issue. Qatar in May 1991, with a need of more facilities and a need to support psychiatric care. Facilities for Psychiatry were improved with the cooperation of the Medical Faculty at Baraish Hospital. Since the State...
by the Rayyan Road Runners to the long Term Unit at Rumailah is very popular with handicapped children. The Rayyan Road runners, a group of British expatriate joggers often gave gifts to the unit.

There is an annual "Love and Care Week" to focus attention on the need for loving care for the elderly and disabled in Qatar. It is organised jointly by the Red Crescent society and the Social Service and Public Relations Department.

Starting with 28 beds and caring for 20 patients who transferred from the Doha Hospital when this closed, the Geriatric and Rehabilitation Unit provided hospital services to elderly and chronically disabled Qataris. The completion of Phase I of the redevelopment programme made available these 28 beds and an activity room. It built up to 61 beds for male and 60 for female. Phase II would provide at least 100 more beds to care for patients at that time in Cairo. The majority of admissions were stroke, head injury and spinal injury cases from road traffic and industrial accidents. The unit introduced day care facilities in 1984 to improve physical function, delay deterioration and provide the elderly with the opportunity to socialise in groups. Some nurses are assigned to provide home care for terminally ill cancer patients. Home visits are made by hospital staff and the need for more domiciliary support service is being felt. Exercise equipment to improve muscle function is available and also occupational therapy.

The American Embassy has shown an interest in the unit and donated specialised equipment in 1989, they were a portable bowling ramp and a balance beam.

Wives of several ambassadors accredited to Qatar visited Rumailah Hospital for a look at hospital services for the disabled children and the elderly in 1992. A Paediatric Psychiatrist with an extensive experience in establishing community based services for developmentally disabled people was recruited in 1982 for two years, from Sydney, Australia.

Psychiatry was still in the Doha Hospital until May 1983, with a team of consultants and Resident doctors. Facilities for Psychiatry were improved with the renovation of a 60 bed facility at Rumailah Hospital. Once the State
Hospital was opened in 1957, the 'old hospital' was used for maternity, psychiatry and T.B. with Dr. Gotting, who was still Assistant Director of Medical services, in charge. Prior to the inclusion of psychotic cases in Doha Hospital the mentally ill were restrained and fed at home or in prison according to their family status and resources. As care became the concern of the health services an annexe known as the 'mental centre' was provided in the Doha Hospital, to house the chronic and act as an asylum for those unwanted by their relations.

Dr. Mohammed Fakhr El-Islam consultant psychiatrist was appointed Chairman of Psychiatry Department in June 1991. He came from the University of Cairo, where he was an Assistant Professor of Psychiatry. A former professor of Kuwait University, Dr. El-Islam joined the department in December 1990. This was his second time in Qatar. He was here from 1971 to 1980 to plan, initiate and organise the psychiatric service in Qatar. He took over the psychiatric patients from Dr. A.G. Gotting who had been responsible for them until then. Dr. El-Islam obtained his MBBCH from Cairo University in 1957, his DPM (England) in 1961; his LMSSA (London) in 1983; his MRCP (Edinburgh) in 1964; his MRCPsych (London) in 1971; his FRCP (Edinburgh) in 1975 and his FRCPsych (London) in 1977. An internationally recognised authority in his specialty, Dr. El-Islam has presented over 60 scientific papers at conferences prior to their publication in international journals. He opened the first psychiatric outpatient clinic in Doha soon after his arrival. He stayed in Doha until 1980, when he went to Kuwait, but returned to Doha in 1990. He maintains that at least one third of all patients presenting for treatment have had illnesses of psychiatric origin over the last twenty years. He has written papers on Psychiatry in Qatar, Transcultural Aspects of Psychiatric Patients in Qatar, Culture Bound Neuroses, Intergenerational conflict, and Traditional Interpretation and Treatment of Mental Illness. He describes the Qatari culture to be religious and parareligious, having beliefs attributing some symptoms of physical and mental ill-health to possession by spirits, e.g. Masters or Jinns, sorcery, the evil eye and general physical weakness. He believes that the traditional means of cure - Muttawe treatment by amulets or cautery, zaar ceremonies, ritual sacrifices and sorcery-undoing rituals, so much used in past times are diminishing nowadays. Patients like to receive injections and tonics on the
assumption that this promotes their health and vigour.

According to Dr. El-Islam, Qatar unlike some other countries, does not have problems of identity. "When a person says he is a Qatari, he really is one and not some person who is not sure of his roots or where he belongs. Qatars have a strong sense of identity, of belonging to a nation. This strong sense of cultural identity is the result of education and upbringing".

The Social Services department organises party's for the Psychiatric patients from time to time.

In 1986 this department organised "Electro Acupuncture" for the treatment of Psychosomatic illness. This department also organised an Anti-smoking Clinic and used acupuncture as part of the aversive treatment.

An Assistant Director of Nursing for Psychiatry, Ahmed Younis, received his Bachelor of Science in Hospital Adminstration degree from Kennedy Western University, California, USA. He completed his Phd thesis in 1992. He joined the Ministry of Public Health in 1972 and transferred to the HMC in 1982.

The Department of Psychiatry started a residency training programme with the Arab Board of Psychiatry on 2nd October 1993. Dr. Mohammed Fakhr El-Islam is also chairman of the board of the Arab Board Scientific Council for Psychiatry which is based in Damascus, Syria. The unit was once more transferred in 1995, to another facility behind the Medical Commission and Walk-in-Clinic (former Women's Hospital) It expanded from 36 to 56 beds which gave accommodation for inpatient treatment of men and women. More than 700 patients are admitted every year. But most of the treatment is provided on an outpatient basis. The most common ailments that merit admission are morbid anxiety and depression. These are equally common among both nationals and expatriates, with male patients outnumbering women on 2:1 ratio, because of the large number of bachelor expatriate workers.

There was an occupational therapy programme to help the patients actualise their potential, help them to socialise and interact with others and strengthen their contact with reality. There is a Day Service for patients to come in the
morning, see their doctor, have some occupational therapy, socialise with staff and friends and leave in the afternoon.

The numbers attending the outpatients clinic have gradually increased over the years. Many of the patients admitted for treatment are expatriates of several nationalities, who have been separated from their families and consequently develop psychogenic psychosis due to stress and severe depression. When treated in the hospital these patients recover quickly. Only a third of the patients admitted for schizophrenia to the hospital were able to recover fully from their mental illness. Care of the patient was focused on the active involvement of the family in their care, to hasten cure, minimise relapse and prevent chronic disease. Hospital treatment consisted mainly of psychotherapy and physical treatment. Medication are mainly tranquillisers. If necessary, electro-convulsive treatment is administered under anaesthesia. This is usually for patients with endogenous depression. Social workers attempt to improve the patients external environment.

In September 1983 the Doha Hospital was closed with the transfer of the chest patients to Rumailah Hospital extension. The T.B. Unit will transfer again to renovated premises within the compound to make way for Phase III of Rumailah. It is now under the Directorship of Dr. Lawrence N. Jarikre, Consultant Physician on Chest diseases who joined the staff 1st July, 1988. He is Nigerian and is Consultant Physician and University Lecturer on tuberculosis and chest diseases with the University of Benin Teaching Hospital. He received his MBBCH from the University of Wales School of Medicine in Cardiff, U.K., his postgraduate training at Hammersmith Hospital in London, and at the University of Edinburgh, Scotland. He received his MRCP in 1976 and his FWACP 1985.

The Prosthetics and Orthotics department began making, fitting and adjusting artificial limbs and braces in Qatar. Even with shortage of staff they were making 12 limbs, 40 callipers and additional appliances each month. This department is situated in the Rumailah Hospital compound, near the Rehabilitation Unit.

The Dermatology Clinic did not transfer to the HGH, it was at first one room
in a portacabin, in 1981. Eventually the Portacabin, which was the Consultant's Medical Outpatients, was extended to 22 rooms, and when the other Consultants transferred to Hamad, Dermatology took over the whole building. Dr. William George who first came to work in Qatar in 1981 to commission the clinic, was the Director and campaigned for better premises, on which building commenced in the Rumailah Hospital compound in 1990. It was built by the Ministry of Public Works. In May 1991 Dr. Hassan Ali Al-Abdulla, Consultant Dermatologist was appointed as Head of Dermatology, Department of Medicine. He is the first Qatari physician to be appointed to this post. He received his MBBCH in 1977 from Cairo University, Egypt; his masters degree in Dermatology and Venereology in 1980 and his Doctorate Degree in 1987 both from Cairo University. He obtained a Fellowship in Dermatopathology in New York University in 1982. He took up a post as Registrar in Dermatology in 1987, was promoted to specialist in 1988, and became a Consultant in 1990. He has been Acting Director of Hamad Hospital. His M.D. thesis was Nosologic Status of Lichen Planus Actinic, which is one of the common skin diseases in Arabian countries. He is an Associate and Member of several international societies in Dermatology and a board member of the Arab society of Dermatology. He has written 4 scientific papers on dermatology and 2 on Acquired Immune Deficiency syndrome which were published. Qatar was host to the 2nd Conference on Dermatology and Venereology in 1994, where 19 doctors were honoured for their contributions by the Minister of Health H.E. Sheikh Hamad bin Suaimi Al-Thani. One of the participants was Professor P.N. Behl Director, Skin Institute and School of Dermatology, New Delhi, India. His main interest was herbs in Dermatology.

The Ministry of Public Health opened a Staff Health Club in the grounds of the Rumailah Hospital. A vacated doctor's villa was taken over and tennis courts, a swimming pool a library and table tennis and billiards were installed.

The third anniversary of the HMC's opening saw the appointment of a Dental Consultant Dr. Richard Stallard, his main objective was to introduce the implantation of teeth in dental patients for the benefit of those who lose their teeth early in life. The Dental clinic is in the Rumailah Hospital compound. Dr. Stallard started a new internship program for training Dentistry graduates.
In 1987 three graduates were doing their internship. Dr. Aisha Ali-Yacoub was the first female Qatari dentist, she studied in the college of Dentistry in Riyadh, Saudi Arabia. Dr. Somaya Sh. Al-Chris was a volunteer dentist intern. She received her DDS from Damascus University in Syria. Another volunteer intern was Dr. Ghada Qassim also from Damascus University.

Rumailah Hospital is always on standby for emergency admissions of the latest world disease scare such as Plague and the Abola Virus.
CHAPTER NINE

HAMAD HOSPITAL
HAMAD HOSPITAL

In 1973 the Government of the State of Qatar appointed Llewelyn-Davies Weekes-Forestier and Bor to design a new hospital to meet the health care demands of the rapidly increasing population of Qatar. A site had been allocated on the Rayyan Road 3 Kilometres from the city centre close to the existing Rumailah Hospital. Through consultations with the Ministries of Public Health and Public Works, the design was approved in October 1973. Contract documents were then prepared and the project was internationally tendered in mid-1974. Bernard Sunley and Sons Limited of the U.K. were accepted as the Main contractor, and work commenced on site on 8th October 1974. The Reliant Company of Doha were appointed as the principal sub-contractor for the engineering services.

The Hamad General Hospital was designed to fulfil a central role in the health services of the State of Qatar, and its importance is reflected in the design and the scope of its facilities. The hospital has been planned for efficiency and economy, and designed to respond to climatic conditions by orientation and by the use of sun-breakers, which assist in reducing the mass of building by exploiting the strong light and deep shadows.

Camps were set up on site to accommodate the construction workers, and the labour force at times exceeded 1200 men. Many had been trained by the Main Contractor, and this contributed to the achievement of a very high standard of workmanship.

The contractors established on site a team of 40 expatriate managers and supervisors throughout most of the construction period. The Contract was administered and supervised throughout by the architects, who at the commencement of construction established a multi-disciplinary team of architects, planners, engineers, quantity surveyors and building inspectors under the overall administration of the direction of Ministry of Public Work's Engineering Services Department.

Close liaison was maintained with the Ministry of Public Health's Planning Co-ordinators in order to ensure the provision of support structures and
service connections for medical equipment.

The buildings were arranged on a large area of land provided by the Government for the project, and the zoning of the site was influenced by the available means of access. The Main approach is via a broad tree-lined avenue leading from the roundabout on the "C" Ring Road extension at the rear of the White Palace. This approach gives access to the visitor's car parking area, and the hospital's Main entrance and Outpatient's entrances. A secondary entry to the site, for emergency vehicles is provided from Rayyan Road, and gives direct access to the Accident and Emergency Department. A third site entry gate is provided on the north boundary for service vehicles.

The hospital consists of three interconnected groups of buildings: a single storey 'podium' containing diagnostic, treatment and support services, two 5-storey blocks of inpatient accommodation to a central link block of stairs and lifts, services building including laundry and bulk stores.

Planning the medical departments and support services in a single-storey unit provides great flexibility for future expansion. It was these diagnostic and treatment facilities which in future were most likely to need to respond to changes in medical technology and trends in morbidity patterns. Experience of hospital planning indicates that each department should be able to expand independently of other areas, and the Hamad General Hospital is planned on that basis. The service areas of the building are separated from the clinical areas so that they would not restrict further developments, and an open space was retained to the west of the main buildings to allow future construction of additional health care facilities, easily linked to the Hamad by extending its main communication corridors.

The main diagnostic and treatment departments for both inpatients and outpatients were closely grouped each side of the main corridors, to achieve maximum economy of engineering services. The departments are planned around a series of landscaped courtyards which bring natural light and a pleasant outlook to internal areas. A mosque was built in the courtyard nearest the main entrance.
The Outpatients, Pharmacy and Radiology departments have separate waiting and communication spaces for men and women, and the Outpatients Department also has separate entrances and consulting/treatment rooms.

The two bed lifts have an independent lobby on the ground floor from which patients are transported to the Radiology and Operating departments. The operating theatres have separate corridor systems: 'clean' for patient and staff movement and 'dirty' for disposal. The theatres are linked directly to the Intensive Therapy Unit and are situated adjacent to the Central Sterile Supply Department.

In the inpatient accommodation, patients are grouped according to their degree of illness and dependence on nursing staff. General Acute beds on levels 4, 5 and 6 are in groups of 72 beds per floor arranged in two nursing units of 30 beds each, with a shared high dependency unit of 12 beds. This area can be adjusted in bed numbers according to the requirements by borrowing from or lending beds to the adjacent units. Levels 2 and 3 provide special accommodation for children and Ear, Nose, Throat patients. In addition the ward areas contain Coronary Care Units for men and women and a Paediatric Intensive Therapy Unit.

The superstructure is a reinforced concrete frame and the flooring system is designed to enable changes in services and partitioning requirements to occur throughout the life of the building with the minimum of disruption. All walls are constructed in solid concrete blockwork and external walls consist of a double skin with an insulating infill. The roof has an insulating light-weight screed and the roofing membrane is covered with white stone chippings giving a high degree of solar reflectivity. External wall finishes are mostly of glazed ceramic tile giving a maintenance-free finish, and all windows were shaded with white pre-cast sun-breaker units which were cast on site. The window frames are anodised aluminium throughout and contain a bronze-tinted solar control glass.

Internal finishes have been selected to reduce maintenance: corridors and general purpose rooms have vinyl floor coverings, in wet areas and rooms of heavy use unglazed ceramic floor tiles give a hard wearing surface, and in
laboratories and other areas where chemicals are used, a seamless epoxy-based floor has been specified. Internal walls are of sand/cement render with a PVA filler applied to provide a smooth surface. Wall finishes are generally painted or glazed ceramic tile, and the operating theatres are treated with a special sprayed-on elastic coating for the maintenance of aseptic conditions. The kitchen has special self-cleaning ceramic tiles on the walls.

The main engineering plant supplying chilled water and steam is centrally grouped and services are distributed to the hospital via the link bridge. The air conditioning system generally uses a combination of fresh and recirculated air, except for the operating theatres and other critical areas which operate on a total fresh air system, which is filtered to 5 microns and controlled by individual environmental controls in each theatre. The distribution of conditioned air to a greater part of the ground floor area is from air handling units located in an interstitial floor under each of the two ward blocks.

The boiler plant supplies steam to laundry and kitchen equipment, sterilising machines, and to calorifiers, where the steam is converted to low pressure hot water for distribution throughout the building.

The site is supplied with 6MVA of electrical power through 5 transformer stations, and power distribution is by a combination of cables and busbar trunking. Standby generators provide 3MVA of power to essential services, which includes maintaining air conditioning at all times to the Operating Department and other critical areas, retaining two of the eight lifts always in operation and providing emergency lighting throughout the hospital.

Oxygen and vacuum services are provided to 70 per cent of the hospital beds and compressed air to those departments where life-support and special equipment is to be provided, theatres and anaesthetic rooms are also supplied with nitrous oxide.

Each of the inpatient beds is provided with examination/reading light, radio terminal, telephone point and nurse call. Each patient room has a telephone.

Most of the building's mechanical and electrical plant and all of the essential
INTENSIVE CARE UNIT.

CORONARY CARE UNIT.
services are monitored by a computer controlled Supervisory Data System. At the operator's terminal, alarms signify the breakdown of plant, losses in pressure and reduction in temperature. This system also provides the capability to stop and start the air handling plant and assist in the planned maintenance of engineering services.

Hamad Hospital became fully operational by 1982, with Dr. Hajar Ahmed Hajar, as the Undersecretary of Public Health, Managing Director of Hamad Medical Corporation and Head of Cardiology in Hamad General Hospital. Dr. Hajar received his Doctor of Medicine degree from the University of Colorado, USA in 1973. He did his internship from 1973-74 in the University of Missouri Kansas City General Hospital, his postgraduate training in internal medicine in 1974-76 and Fellowship in Cardiology 1976-78 both in the University of Oregon, Portland, USA. He became a Fellow of the American College of Cardiology in 1980, Fellow of the International College of Angiology in 1985 and Fellow of the European Society of Cardiology in 1990. He started a campaign in Qatar against smoking in 1978, and has done much to make the public aware of its hazards. The Qatari Cabinet prohibited smoking in the Ministry of Public Health buildings and hospitals and it was decided that no new employees who are smokers would be employed by the Ministry or Corporation. In a 1991 special issue of the staff Bulletin of the Ministry of Public Health and Hamad Medical Corporation he appealed in particular to all health workers to stop and encourage patients to do so. He attends many cardiology conferences, in U.S.A and Australia and worldwide and has been instrumental in putting Hamad Medical Corporation on the map in the Gulf, with many 'firsts' in all fields of medicine and surgery. In 1992 he was awarded a medal by the World Health Organisation for his personal efforts to promote a tobacco-free society. The following year he was presented with the Shusha prize in Medicine from the World Health Organisation.\textsuperscript{12}

Dr. Hajar presented the "Arab History of Cardiology" in April 1993, both in Cairo and in Qatar. He got the idea for the lecture from many references in

\textsuperscript{12} Dr. Ali Tawfiq Shusha of Egypt was the first Director of the WHO Regional Office, whom the prize is named after. It is given every year to a doctor from the East Mediterranean region in recognition of his services. The prize is also intended to encourage doctors to undertake scientific research.
classical Arabic poetry. The heart was the subject of poetry 200 years before the Prophet. Some of the poems referred to heart conditions such as angina, myocardial infarction and heart failure. In the Quran the same word is used for heart and mind. He traced the development of Arabic medicine from the Egyptians and Babylonians.

Dr. Hajar also holds other government appointments such as member of Board of Regents for Qatar University and Vice Chairman of the Qatar Environmental Protection committee. Regional appointments include that of Member of the Arab Board for Internal Medicine Specialty (1981-82); Member of the advisory Committee for the establishment of the School of Medicine at the Gulf University in Bahrain (1983) and Examiner in Internal Medicine at the School of Medicine, Gulf University, Bahrain (1989). On August 4th 1993 his resignation from the Ministry of Public Health as Undersecretary of Health, and from Hamad Medical Corporation as Vice chairman of the Board of Directors and Managing Director, was accepted. He remained the Chairman of the Cardiology and Cardiovascular Surgery Department.

Among other educational programmes, one was started in the cardiology Department by Dr. Hajar in November 1994, to continue into January 1995. The lectures include ones for nurses and doctors in cardiac catheterisation, bleeding after bypass surgery and Congenital heart diseases.

The first ward to be officially opened on 22nd February 1982, was on Fifth floor, with 5 patients transferred from the Rumailah Hospital. The nursing staff were transferred and new staff recruited from overseas, America, and the Philippines. Slowly other wards became operational.

Nursing Adminstration was initially directed by Rosemary Gilbert, then Mary Reace from 1982 to 1988, both from USA. Over the years Qatari Nurses have taken up key posts in the Ministry of Public Health and Hamad Corporation. These include Abdul Razk Al-Kubaisy, RN, BHA, Acting director of Nursing HMC; Nabeela Al-Meer, RN (Phd. in progress) Amina Hilal, Senior Assistant Director of Nursing, Cardiology; Fawzia Al-Naimi, Phd. Director School of Nursing, Wasmia Dalham Masoud, RN, BA, Senior Assistant Director of
For the first time in the history of Nursing in Qatar, two Qatari nurses graduated from the University of Jordan with a B.Sc. in Nursing. They both received a certificate from the University of Qatar in a graduation ceremony held for 542 female graduates during this year. The two nurses are Miss Badriya S. Al-Ali in and Miss Aisha Al-Zeyara.

The Accident and Emergency department opened on the 18th September, 1982. Patients had to learn that Primary Health Centres should handle minor ailments, and that this new department was for life threatening conditions only.

A Public Relations Department was set up to meet information requirements for patients, public and staff, using printed publications, photography, graphic arts, audio-visual and television media. There are media co-ordination, tour guide and visitor reception sections, a patient information and education section and a social services and complaints section. A primary goal of the Public Relations Department was the development of public understanding and awareness of the Hospital's role as a referral centre in the Public Health Care system instituted by the Ministry of Public Health. The role was different from that of Rumailah Hospital and was misunderstood by the public.

The photography division provided clinical and surgical photos, educational, training and medical research photos. The Audio-visual section provided
synchronised, single and multi-image slide\tape productions, audio tape productions and duplication special effects slides, overhead transparency production and maintenance of audio-visual equipment as well as training staff in utilisation. In-house television for Hamad General Hospital patients was implemented in 1983. The Public Relations Department prepared the inhouse video programs consisting of cartoons, health care information and feature films, in both Arabic and English. The Director is Mr. Salim Al Muhanadi.

In co-operation with the emergency Medical Services and Nursing Departments they have produced video programmes to be used in training staff in para-medic and nursing skills. The nursing video was designed to demonstrate the correct technique of patient mobilisation, the objective being to help prevent injuries to the patients and to the nurses. They can now generate slides by computer. They have acquired a Macintosh multi-media system which captures video images, produces animation and high quality graphics on video and slides, all in living colour.

The Director of Public Relations, Mr. Salim R. Al Muhanadi, represented Qatar at the WHO inter-country consultative meeting on planning and production of health education materials for urban health development held in July 1993, in Sana'a, Yemen. He was elected chairman of the meeting. He reported on Qatar's "Development of Water Resources" utilising the desalination of sea water from the Arabian Gulf. He said that the urban demand for drinking water is provided by two desalination plants, while water for rural areas comes from eight deep wells. The surveillance of water quality, sanitation and hygiene remains the responsibility of the Ministry of Public Health. Qatar possesses a well-managed treated waste water reuse scheme to treat almost all the municipal waste water with proper health safeguards. The treated waste water is used for agricultural projects.

The publications section of Public Relations prepares editorial text for books, brochures, bulletins, pamphlets and other publications. The technical sections of Public Relations (Photography, AV/TV, Graphic Arts and Publications) at the third floor south have been moved to the newly finished offices on the ground floor of HGH. The move will free the third floor south for patient care. Public Relations had been on the third floor since the hospital opened in 1982.
The Medical Records Department was set up according to a numerical system called ICD-9 CM, which means International Classification of Diseases, 9th Revision, Clinical Modifications. In the past Qatari patients preferred to keep their own medical records. Now Hamad published this new system. The Data Processing Department processes the information and provides computerised reports containing the information programmed. Records of patients with a particular disease can be retrieved without names. This is very useful for research, particularly in teaching hospitals like Hamad Hospital, and for preventive actions programmes.

The Central Sterilisation Supply Department was started in 1981 and staff training began in preparation for the arrival of the supplies and instruments. Mr. Matthew Newton was the director. A special tray system was started initially covering the Accident and Emergency Rooms. A Qatari is now the director. His name is Hassan Al-Shabani.

The Hamad Engineering services were a merger between the Ministry of Public Health Engineering (Services Engineering) and the Engineering and Bio-engineering staff of Hamad General Hospital. They were responsible for the maintenance and repair of all inpatient facilities in Hamad, Women's, Rumailah and the Isolation Hospital, as well as the urban and rural health centres, operated by the Preventive and Primary Health Care Departments of the Ministry of Public Health and all the offices of the health ministry. Until adequate staff were recruited Engineering Services based in Rumailah Hospital managed only breakdown repair. The repair of staff housing was also their responsibility. Mr. Neville Clark was the Head of Engineering from 1979, until Ahmed Fodaily, a Qatari took over, he remains in an advisory capacity. There are several Qatari engineers now in this department.

Hamad Laundry took over the laundry for all the Hospital and Health Centres. By 1983 a new water filtration system was installed to soften the water and thus improve the quality of the linen. Extra flatwork ironers were installed and collection and delivery were improved by the acquisition of electric pushcarts. Hassan Al-Shabani is also in charge of this department.
An Occupational Therapy unit opened providing programmes for children and adults who needed assistance in mastering activities essential for work and leisure.

The Laboratory outgrew itself in the first year. It was organised into two operational divisions, those of laboratory medicine and the division of histopathology and morbid medicine.

The laboratory had four sections: Blood bank, Clinical Chemistry, Haematology and coagulation and Microbiology. New areas were added; specimen receiving and report control, Immunology, R.I.A., Medical Microscopy and Haemoglobin Electrophoresis. The workload increased by 150% from 37,695 cases handled in 1981 to 97,462 cases in 1982. In 1985 the Chairman Dr. Bahram Azadeh, became Acting Chairman of the department and by 1990 announced the realisation of most of its objectives which satisfied an increased demand for laboratory tests and blood products. He phased out expensive unneeded equipment and stock of expired items. Economies were made, such as technicians making their own suspension of glucose for the tolerance tests, instead of buying 30 ml containers packages. There had been advances in the Immunology, Biochemistry, Cytogenics, Histopathology, Blood Bank sections. The HMC Laboratory became closely involved in the academic preparation of Qatar University Biomedical Science students. Dr. Azadeh was appointed a member of the Biomedical Science Committee of the University of Qatar Faculty of Science. The postgraduate training programme continued to support staff researching for their projects, and 100 scientific articles were published in international publications. He has published unique papers on “Rhinosporidiosis”. In 1993 the latest automated equipment for microbiology and immunology was acquired to cope with the huge demand for laboratory test results. A computer with a data bank on the human immune system is now used by staff to update their knowledge of immunology. An automated blood culture system is also in operation.

Another re-organisation took place in 1993 into five divisions, each one consisting of several sections and concerned with a specialised area of pathology. They were Anatomical Pathology, including Histopathology, Cytology and Forensic Pathology; Chemistry; Haematology with Blood Bank
and Cytopathology, Microbiology, including virology and immunology. Dr. Donald Radner had been recruited for Forensic Medicine in 1985. Plans are being made to recruit consultants in specialised areas such as Virology, Parasitology, Molecular Biology and Genetics, and to improve the performance of the Department to cope with the increasing pressure in science and technology. The Department represents the clinical laboratory.

**Male Medical Mankad Hospital.**
and Cytogenics; Microbiology including virology and Immunology. Dr. Donald Rushton had been recruited for Forensic Medicine in 1985. Plans are being made to recruit consultants in specialised areas such as Virology, Parasitology, Molecular Biology and Genetics, and to improve the performance of the Department to cope with the international progress in science and technology. The department represents the central laboratory serving the whole country, and receives specimens from primary health centres as well. Dr. Azadeh teaches dermatology to resident doctors. He has resigned the chairmanship to devote more time to teaching. There are now 6 consultants in the department. The new Director is Dr. Kamal El-Haq.

The Admitting and Reception Department had amongst its objectives when it opened in 1981 the establishment of an appointment and registration system that would support patient data needs and medical record requirements. Its main goal was the establishment of a computerised admitting system that would provide current and complete bed availability reports immediately to departments possessing a computer terminal with inquiry capability. In 1984 the department issued hospital identification cards, in order to facilitate the retrieval of files and to prevent duplication of hospital numbers.

The Pharmacy was able to provide a strictly controlled drug distribution system that was efficient, economic and guaranteed the right drug to the right patient at the right time. A drug Committee headed by Dr. J.C. Davidson made the first steps at establishing a Formulary and Intra-venous Solutions standards. The Formulary controls the number of drugs that should be made available in the Hospital. Doctors requiring new medications which are not in the Formulary must get approval from the Drug committee. By 1984 there was a dramatic increase in the number of prescriptions dispensed. To help the Pharmacy cope, computerisation was introduced. A monthly list of available drugs for the medical and nursing staff was published. All satellite pharmacies had a controlled inventory system which registered all drugs received and issued. Miss Nura Nasser Obeidan received her Masters Degree in Pharmaceutical Chemistry from the college of Pharmacy of Cairo University in Egypt, after completing her Bachelors Degree at the same university. Before joining the Hamad Corporation she had worked for 18 months in the Women's Hospital and 3 months in the Outpatient Clinic of Rumailah hospital. She was
promoted from Pharmacy co-ordinator to Acting Director of the HMC Pharmacy in December 1993, and became the Director a few months later.

In 1992 Total Parental Nutrition and preparation of intravenous chemotherapeutic agents was introduced into Hamad Medical Corporation. It was introduced into the Paediatric Intensive Care Unit in 1991 and later the surgical Intensive Care Unit. Chemotherapy agents were prepared for the treatment of cancer patients in the Outpatient Department of HGH.

The Radiology Department was commissioned by Dr. S. Mohsen Kalantar, Chairman of Radiology and Mr. Lawrence Walker, Technical director, and had sections in Hamad, Rumailah and the Polyclinic. It supervised nine main sections, at Accident and Emergency, Ultra-sonic at H.G.H. and Women's Hospital, CAT(Computerised Axial Tomography) scanning from 1984, Nuclear Medicine, Rumailah, Polyclinic, Women's Hospital and the Doha Hospital section.

Mr. Walker was responsible for quality assurance, development of clinical programs, staff recruitment and evaluation, equipment and supplies under the direction of the chairman. There were plans to set up Radiation Therapy for cancer treatment in the future. Patients had to be sent abroad for this. In 1991 Magnetic Resonance Imaging, the most modern diagnostic image modality available in the world, became available in HGH. MRI signals are obtained when the patient is placed in a magnet and is subjected to radio waves of appropriate frequency. The signal is converted into images by computer analysis. The patient is not subjected to ionising radiation as in ordinary x-ray examination. It is especially useful in the examination of patients central nervous system, skeletal system and cardiovascular diseases. It provides greater detail than any other modality existing. Where computerised tomography scanning will provide images of the body slice by slice the MRI will create an image of many slices of the body at the same time. The present Chairman of radiology is Dr. Ahmed Muzrakchi.

The Housekeeping Department was responsible for both the Hamad and Rumailah hospitals. They supervised a small army of cleaners contracted to supply cleaning services. When required they cleaned nurses quarters, senior
OPERATING ROOM

HAMAD HOSPITAL.
staff villas and junior staff apartments to permit occupation as and when they were vacated and re-occupied. The porters were controlled by this department.

At the end of its first year of operation the Administrative Director, of the team of hospital administrators who commissioned HGH and made it functionally operational, Mr. Craig Kippels, was amazed at what had been achieved. He also announced the opening of extra beds contingent on the recruitment of nurses from Korea, Ireland and Mauritius. There has always been a policy of recruitment from different countries each year. There were 440 beds available then. A new renal dialyses unit was planned. The outpatient department would be expanded by addition of an extension built to the south of the existing clinics.

The Social Services Department was set up by David Rhodes an Australian Adviser, who arrived in January 1983. He concentrated first on the Accident and Emergency Department, the Outpatient Department and the medical and surgical floors. Social service assistance of a specialised nature was developed later in the Renal Dialysis Unit, Paediatrics and Surgical Intensive care. Research and education were to be integral parts of the programme. Staff were to be 8 social workers, a bi-lingual assistant director, senior social worker and 3 Qatars who would be trained in medical social work. Existing social workers and Qatar University students assigned to Rumailah Hospital, Doha Hospital and the Women's Hospital would be incorporated into the H.G.H. Social Services Department.

In 1984, 21 students in Social Work at the University of Qatar finished their practical training course at the Hamad General Hospital Department of Social Services. At first it came under the Public Relations Department, but it has been based at Rumailah Hospital since the return from the U.S.A. of the Qatari Director, Jaber Al-Murri in the early 90's.

Social events were organised for the employees of the Hamad Medical Corporation, including participation in the Qatar Half Marathon in February 1983. They competed under the slogan "Run for your Health". Safety contests were inaugurated, and a poster competition was organised. There is a
bowling team, volleyball team, football team and many other activities. The teams take part in mostly all local tournaments. HMC members of staff usually participate in the annual Car Rally as drivers or marshals. There is a strong chess team who compete in games organised by the Qatar Chess Association.

The Hamad Hospital female hostel formed a Recreation Committee to plan social activities for nurses and other female staff. The Committee was headed by Mrs. Eloisa Khoury, Head Nurse at the Women's Hospital with Daisy Groom, Rosario Sanga, and Carolina Clef completing the committee. A games room, library, tailoring shop, and beauty saloon were made available. Daily aerobics was started and continues to this day. In 1989 improvements were made to the hostel, by adding a laundry in a central area near the swimming pool, opening a beauty parlour and making plans for a cafeteria, which have not yet been implemented.

Dr. Ali Hijazi, a cardiac surgeon, conducted two operations using a heart-lung machine on 27 July 1983 during open heart surgery. The 12 bed Coronary Care Unit had been under the supervision of the Acting Chief of Cardiology Dr. Bernard Hocking, an Australian. He served 19 months in Qatar, having extended his initial 12 months contract. He equipped the Section with the most modern haemodynamic pressure monitoring systems and the heart-lung machine. The Cardiology section has a Cardiac Catheterisation Laboratory where all invasive procedures can be performed utilising biplane cineangiographic equipment. Special procedures performed include taking x-ray pictures of the arteries supplying blood to the heart and of the heart itself. On his departure Dr. Hocking said "The Cardiology Services offered at Hamad Hospital are as good as anywhere in the world." (He still visits Qatar on occasion). Dr. Rachel Hajar is Director of the Non-invasive Laboratory. She is a Fellow of the American College of Cardiology. She takes an active part in educational activities of the college and in the election of candidates.

In 1989 Dr. Hajar Ahmed Hajar gave a State of the Art lecture on the history of Cardiopulmonary Resuscitation entitled "500 Years of trials and errors in Reviving the Dead". He began his lecture with a brief history of the development of the Cardiology service in Qatar. In 1978 when he arrived back
in Qatar after completing his medical studies in the United States, only Rooms 9 and 10 at Rumailah Hospital were used for male cardiac patients. In September 1979 a proper Coronary Care Unit was established in the new extension of Rumailah Hospital. In June 1980 a special CPR team was established to respond to all cardiac arrests. With the opening of Hamad General Hospital, all Cardiology services were moved to this new facility. The years of struggle to obtain equipment and staff have resulted in a large and well-developed cardiology section in Hamad Medical Corporation. (At one time the cardiology out-patients was held in a temporary builders site-office). Throughout the lecture he reminded staff of the dangers of tobacco use on the heart.

In 1989 Hamad Medical Corporation organised the first Qatari Cardiovascular Symposium on Current trends in Cardiovascular Diseases. The venue was the Doha Sheraton Hotel and the Ibn Al-Nafis Auditorium at the Women's Hospital. The distinguished, invited faculty of this symposium included Dr. T. J. Ryan of Boston University, USA; Dr. Jane Somerville of the UK National Heart Hospital; Dr. Jos Roelandt of Erasmus University, Netherlands; Dr. John McAnulty of the Oregon Health Sciences University, USA; Dr. George J. Reul Jr. of the Texas Heart Institute, USA and Dr. Galal El Said of Cairo University, Egypt. Another visitor that year was the British Minister of State for Health, David Mellor. His visit was private but he reviewed with Dr. Hajar health co-operation between the two countries.

Every year Hamad Medical Corporation honours its Best Teachers of the Year, Best Residents of the Year and winners of scientific awards. The highest honour bestowed by Hamad Medical Corporation on its medical staff was given to Dr. James Cross Davidson, Senior Consultant Physician, when he retired in 1991. This was the title of Emeritus Consultant Physician in recognition of his long service to patients in Qatar. He was 20 years in Qatar, the last nine at Hamad General Hospital. He set up a Diabetes Clinic at Rumailah Hospital in 1970, soon after service in Zambia, Central Africa, where he spent 13 years. He specialised in diabetes at St. Alleges Hospital in London and took his MRCP in Edinburgh in 1957. He became a FRCP in Edinburgh in 1968. He was at one time Head of the Medical Department in Qatar, but stood down for Dr. Hajar in 1980. He started the consultants'
outpatient department in 1981, along with Dr. Methat Reda, Paediatrics; Dr. Smith, Chest Disorders; and Dr. Berbir, Rheumatology. He kept his own patient records.

Hamad General Hospital has affiliations with the American University of Beirut, the University of Jordan, the University of Kuwait Medical School and the Gulf University in Bahrain. Medical education programs were established early for the training of young physicians in the secondary and tertiary care setting. It was deemed important to keep physicians in place where they accomplished specialty training. Also it enables self-sufficiency in terms of health manpower, and qualified Qatari and Arab nationals manning Hamad General Hospital.

The 25th July 1983 saw the opening of the Ibn Sina Hall, named after the greatest Arab physician, thinker and philosopher. Later in the year the first Grand Round was held on 17th October. Dr. Hajar Ahmed Hajar encouraged all aspects of education for practising staff. Grand Rounds were introduced as part of the educational program at the Hospital. Several Hamad medical staff published their research findings in the Qatar Medical Journal as well as other international scientific journals in Europe and United States. The Qatar Medical Journal was started in the 1970's and had Dr. J.C. Davidson and Dr. Showky El-Serafy as co-editors in chief, with Dr. Abdulla Al-Baker as chairman. Many surgeons and physicians attend the Scientific Surgical Meeting held every Saturday. These meetings are part of the post-graduate education programme of the Hospital and allow consultants to share their expertise with their colleagues. In January 1986, 27 physicians sat for the first part and final part of the theoretical examinations in Internal Medicine for the Arab Medical Board of Specialties. It was hoped that Hamad Medical Corporation would host a major scientific meeting once every year. Many distinguished visitors have visited Hamad Medical Corporation, among them Lord John Butterfield, who was the former Vice-chancellor of Cambridge University in the United Kingdom. He gave a lecture at Qatar University on "Modern Education with special Reference to Diabetes".

The First Gulf Conference on Intensive Care Medicine was held at the Doha Sheraton Hotel in November 1991. It was the first ever to be held in the Gulf
area under the patronage of the Minister of Public Health H.E. Sheikh Khalid bin Mohammed bin Ali Al-Thani.

"The computer "bug" has infected Hamad Medical Corporation and has been very contagious!" Fifty people attended the first meeting to organise a club for interested staff members. Initial activities of the club were the sharing of software and manuals, ideas, experience and information, acquisition of personal computers and programs as a group, the planning of lectures about computer utilisation and communication with other computer clubs in Qatar to exchange information and experience. "The HMCCC will keep computer viruses out, but welcomes all computer bugs in."

The HGH Corporation took steps to develop the overall resources available for the training of Qatari in administration and technical posts within the Corporation. By the second year of operation there were 300 Qatari employed and the numbers were increasing. The Medical Records and Laboratory had special programmes to encourage female Qatari graduates to seek employment in the Corporation. Dr. Rafael Almanza, admitting director, developed a program for administration trainees and admitting personnel. This included typing, English, Medical Terminology, admitting procedures and the registration process.

Male Qatari have taken up all the top posts in administration among these are Ahmed Naama who is the Administrative Director of the Hamad Medical Corporation and the most senior Qatari. Others are Sultan Al-Abdullah, Women's Hospital; Mohammed Zaal Al-Naimi, Information Systems; Mohammed Ali Jassim, in the Outpatients Department; Ali Al-Janahi, Rumailah Hospital; Abdullah Al Malki, Hussain Al-Hadad all have administrative qualifications having been abroad to obtain these.

The Hamad Health Sciences Library was extended in 1984 to accommodate the periodical section which consists of monographs, yearbooks and current periodicals. It had transferred to the second floor of the hospital in August 1982. It was open to health professionals and physicians in the Ministry of Public Health, the Qatar Armed Forces and the Qatar General Petroleum Corporation since it had opened in October 1981. In 1985 Mr. Saad Al-
Mohandi, the Qatari Senior Librarian attended a British Council in-service conference on medical library management at the College of Librarianship in Wales, United Kingdom.

In September 1983 a Blood Donation Unit was established near the Accident and Emergency Department. Processing of local blood could now be done in the Blood Bank Laboratories. They organise Blood Donation Campaigns on a regular basis. By 1984 the donors consisted of friends or relatives of prospective elective surgery patients or persons who responded to on-going campaigns for blood donations. There were a contingent of University students who also gave on a regular basis. All donors are carefully screened.

As a life-saving measure the Hospital developed a list of staff members with O Rh Negative blood who may be invited to donate blood in cases of extreme emergency. This group can be given in extreme emergencies to people of other blood groups without making a crossmatch to test for compatibility. Several Embassies to Qatar donate blood, among them the Omani and Japanese Embassies.

In October 1983 the Red Crescent Society opened a flower shop in the lobby. This society has a very active Women's branch. A group of ladies who believe in the necessity of helping others in society. It was established in 1982 and inaugurated officially with the attendance of women delegations of other Gulf Co-operation Countries. Their aims are to communicate with the women in society, to educate in basic medicine by organising first aid courses, to teach ladies typing, tailoring, domestic economy, flower arranging and handicrafts. They publish information on medical matters, encourage volunteers to visit hospitals and take disabled adults and children out on trips. Ladies experienced in teaching different skills are encouraged to give their time in teaching. Amongst the membership there are deaf, dumb, mentally retarded and hemiplegic ladies. A summer school is organised every year.

The Department of Infectious Diseases was in operation since the hospital opened. The chairman of HGH Infectious Diseases Committee was Dr. James E. Milder and the Infection Control was under the Nursing Department. Because the hospital was keeping track of the communicable diseases
diagnosed in the hospital, it appeared from the data collected that the five most common infections were measles, gastro-enteritis, chickenpox, malaria and salmonella infections including typhoid fever. Community-acquired infections and infections acquired overseas are major problems in terms of the number of patients involved. Many patients with tuberculosis and viral hepatitis are being seen. Because of the diverse nationalities in Qatar and their extensive travels, patients are being seen with diseases like schistosomiasis and some forms of filariasis which are not endemic to Qatar. Isolation policies were developed. Immunisation against viral hepatitis is being completed in high risk areas of the hospitals.

The HGH Warehouse or Material Management had to expand its storage capacity by 1984, especially to provide space for the food and provisions to be transferred from Rumailah and to store all the housekeeping, catering and other items of that Hospital. The responsibilities of this department were expanded to supply and distribute to all hospitals, clinics and health centres of the Ministry of Public Health, also to the Police and Armed Forces of Qatar. The inventory was controlled with a computer installed in 1983. There was an Exchange Cart system supplying the Accident and Emergency and Critical Care units. Priority was given to Qatari Staff training. Three Qatari staff completed basic functional training and were sent on training courses. Mr. Michael Griffin came as the Director of Materials Management in September 1984. He hoped to develop the existing professionalism through training, selection and the demonstration of qualification. He was made Chairman of the Commissioning Team for the new Women's Hospital.

Materials Management have always had a policy of being cost conscious and in 1986 a nursing sister was seconded from the Department of Primary Health to be the Standards Co-ordinator. Her functions were to co-ordinate with clinical users and materials management, and as many supplies staff at all levels who were not familiar with patient care items and therefore not able to help with alternatives, she had to establish a catalogue library as a teaching aid for purchasing officers, to distribute equipment not used in other hospitals, and to push slow moving items. Faisal Al Sayegh, head of warehouse instigated a system whereby surplus medical and surgical items would be
displayed for Hospital Staff to view and suggest usage before their obsolescence.

The Ophthalmology Clinic at the HGH Outpatient Department is open four days a week while eye surgery is performed two days per week, the General Eye Clinic at Rumailah Polyclinic is open every day and no appointment is required to be seen on the same day. Many eye defects can be corrected by surgery at the Hospital, including retinal detachment. Laser equipment has been installed to replace detached retinas.

In 1984 the Department of Paediatrics had a new Chairman, Dr. Robert Ganelin, from Arizona. Previously the Chairman had been Dr. Methat Reda, who had joined Rumailah Hospital with a team of other Egyptian Specialists in 1965. This team was arranged by Anwar Sadat when he was Secretary General of the Islamic Congress. Dr. Methat's father was a colleague of Anwar. Dr. Ganelins' goals were to have a more effective working relationship with the Primary Health Centres, reduce the number of days sick children stayed in the hospital, and to work more closely with the Accident and emergency Department to deal with the large numbers of children who are taken there for treatment. In 1986 to relieve pressure on the accident and emergency department a separate Children Urgent Care Centre was opened, by taking over the Al-Saad Health Centre. It has its own Radiology Section, is open 24 hours a day, an observation room and pharmacy. The most difficult problem at first was to educate the public that it was not a regular health centre and only treated children for minor complaints after 7 pm when the other Health Centres were closed.

Dr. Aisha Al Kuwari of the Paediatrics Department was seconded to the Ministry of Public Health as Head of Maternity and Child Welfare at the Primary Health Care Department in August 1987. She graduated in 1980 from Cairo University. She joined Rumailah Hospital as a paediatrician and later transferred to the Hamad Hospital. She obtained her Master of Public Health Degree from Harvard University in Boston, U.S.A. and in 1985 received a post doctoral fellowship in maternal and child health from the Harvard School of Public Health.
She has special plans for her department: ante-natal clinics will be on special days only, and there will be afternoon clinics for working women; well baby clinics for assessment and immunisation will be increased; Health education lectures will be given by a Social worker and nurse; psychological aspects will be covered as well as nutrition and breast feeding. The name of the proposed post natal programme is "Safe Motherhood". Home visiting will be encouraged, to help with problems after delivery.

Hamad Hospital was the first in the Gulf to use the operation "Percutaneous nephrolithotomy". The operation entails very little trauma for the patient. The patient needs to stay in the hospital for only two days. In this procedure, x-rays are used extensively to locate the position of the stone in the urinary system, and to monitor the progress of the flexible wire inserted to draw out stones in the kidney. In December 1993 the Minister of Public Health H.E. Sheikh Hamad bin Suhaim Al-Thani opened the new QR3.8 million Lithotripsy Unit at Hamad General Hospital. The new unit uses acoustic sound waves to crush stones in the kidneys and urinary system painlessly without anaesthesia. It will decrease the number of patients to be treated by surgery for the removal of stones.

H.R.H. Prince Richard of Gloucester who visited the Hamad Hospital in 1985, in his capacity as President of British Consultants Bureau and as he is also the President of the Cancer Research Campaign, President of Christ's Hospital and St. Bartholomew's Hospital and Head of the anti-Smoking Campaign in the United Kingdom, gave a lecture on the dangers of the habit.

Mr. Robert Brannigan was recruited to develop a comprehensive Emergency and Ambulance Service. The Emergency Medical Services Unit of HGH started practice drills in November 1985. The most important part of the drill was to locate the patient. Until a street naming and house numbering system was implemented EMS required the callers to give location of well-known landmarks to find their way. The E.M.S. went from strength to strength by 1993 there was a fleet of 30 vehicles and ambulances, kept in top running condition by a maintenance service team. A program of staff education, acquisition of communications equipment and aggressive maintenance of ambulances and other EMS vehicles has rapidly raised the quality of the
service available at EMS. Mr. Richard Shomo, EMS Director said that a
tremendous quantity of new equipment was added in the past two years
including new ambulances and a radio communications system linked to the
"999" emergency phone number. This radio system covers the whole state
using transmitters located at six sites: Al-Khor and Zubara, Doha, Fahaheel in
Dukhan, Um Sa'id and Saudi Nathil near the border, the 24-hour console is
located at the EMS Communications Centre.

In January 1986 Dr. Hajar A. Hajar requested all employees including
physicians, technicians and administrators to refrain from smoking during
working hours, the ban was enforced on all Ministry of Public Health
buildings, clinics, health centres and hospitals.

A team of orthopaedic and vascular surgeons successfully repaired and re-
attached the forearm of a worker which was cut at the elbow by the chain of a
cement mixer at a factory in Doha. Dr. Saad El-Ekiabi, consultant Plastic
Surgeon, made a skin graft on the third day to complete the treatment.

In June 1986 Dr. Ali Hejazi, head of the surgical transplant team announced
the transplant of two kidneys to two patients. Another twenty patients were
waiting for suitable donors.

Hamad General Corporation changed its name to Hamad Medical Corporation
in that year.

The Ear, Nose and Throat Department upgraded the audiological facilities of
the Hospital. This was announced by Dr. Showky El-Serafy, Consultant
Head of the Department. They were also expecting modern computerised
equipment for testing hearing ability in developmentally disabled infants and
children.

In 1988 a main frame computer was installed, providing an integrated and
comprehensive Health Information system, with 432 work stations. It was
planned to be used by Finance, Administration, Personnel, Materials
Management, Engineering, Laboratory and Medical Records. A later phase will
join up Pharmacy, Laboratory and Radiology. During phase 3 an on-line
Medical Records system would be installed with terminals linking all nursing units to the main frame. This computer linkage would enable nursing units and support departments to facilitate communication of lab test results, x-ray reports and drug orders.

The Renal Dialysis Unit which had moved over from the Rumailah Hospital was given new premises in 1988 at a cost of 5 million riyals, to accommodate the growing number of kidney patients. This unit could treat the 48 patients who required chronic haemodialysis. Many were waiting for transplants.

In 1988 plans for a new extension to the outpatients department would be tendered. It was planned to have double the number of rooms available which was 42. This building was to have four levels.

The Manpower and Training Section of the Personnel Department, headed by Turki Al Kater, announced in 1988 that a further 53 Qatari staff had been confirmed in their posts, bringing the total of Qatari staff employed to 533.

Ibrahim Hussein Al Zubeidi of Health Information Systems graduated with a masters degree in Computer Sciences for Northrup University in Los angles, U.S.A. He planned to develop appropriate programs for the new main frame computer. He had joined the HMC in 1981 as a computer programmer and was sent on a scholarship to USA to study computer sciences.

Staff Development, has worked tirelessly since the inauguration of Hamad General Hospital to train and keep up to date all staff. They are accountable to Nursing Administration to structure and provide courses for Nursing staff at all levels. Mrs. Hoda Riad is Senior Assistant of Nursing and head of Staff Development in the Nursing Department.

A new Health Minister was appointed in 1989 Sheikh Khalid bin Mohammed bin Ali Al-Thani to take over from the retiring Health Minister H.E. Khalid Al Mana.

In 1990 The Hamad Medical Corporation Board was reconstituted. The board had members representatives of the ministries of defence, interior, municipal
affairs and agriculture and education. Dr. Abdul Jalil Salman, Deputy Managing Director of HMC in addition to his post of assistant Undersecretary of Health Technical Affairs would, in the absence of the Managing Director or the vacancy of the post, exercise the powers of the Managing Director and be a member of the HMC Board.

In 1990 the Kuwait Minister of Public Health H.E. Dr. Abdul Wahab Al-Fozan visited Qatar. Dr. Hajar gave this distinguished visitor a tour of the facilities of Hamad General Hospital. Senior corporation staff gave a warm farewell to Kuwait doctors, administrators, therapists and other specialists who worked in the hospitals on a locum basis. Dr. Abdul Jalil Salman expressed to Kuwait Ambassador H.E. Ahmed Marshid Al-Suleiman the gratitude and appreciation of the Corporation for the services rendered by the Kuwaitis during this period. Responding, the ambassador expressed the gratitude of his people for the strong support and hospitality extended to them during the crisis. HMC Administration Department gave a farewell party in honour of locum administrators from Kuwait who returned to their liberated country. The Ministry of Public Health and Hamad Medical Corporation organised teams of doctors and nurses from the medical, surgical and paediatric specialties to provide emergency medical services to the people of Kuwait following the liberation of their country. The medical aid sent by Qatar included a quantity of medicine, ambulances and medical equipment.

In 1992 work began on a Personnel Consultancy exercise carried out on behalf of Hamad Medical Corporation by the Management Consultants, KPMG Peat Marwick. The exercise involved: the analysis and evaluation of the full range of posts in the corporation covering Medical, Corporate, Nursing and administrative support services, conducting a survey of salaries and benefits amongst healthcare organisations and major employers in the Gulf region and other countries, and reviewing the Corporation personnel policies and practices. Their job was to provide the Corporation with an objective system for grading jobs and present recommendations on the appropriate salaries and benefits needed to attract and retain good quality staff at all levels within the corporation.

The Bio-medical Engineering Department of Hamad Medical Corporation
began ensuring the safety of the environment for both staff and patients from 1981, is now headed by Ali Al Muftah who is Qatari. It looks after all medical and ancillary equipment, maintaining these according to international standards. Its anaesthetic and life support section modified the old critical care ventilator of Respiratory therapy by adding an SMV mode of ventilation. The section also modified all transport ventilatory equipment for the evacuation of patients to overseas medical centres. In addition technical assistance was provided to Oman and the UAE in transport ventilation management. The section also designed a compact fibrillation unit for Cardiothoracic Surgery for the fibrillation of the hearts of patients prior to surgery. The Clinical Laboratory section maintained the modern and sophisticated laboratory equipment of HMC. This section provides calibration, maintenance and a check-up of all equipment prior to its acceptance. It has overhauled and calibrated all the renal dialysis equipment saving the Corporation the cost of expensive outside maintenance. All electrocardiography and catheterisation laboratory monitoring equipment is calibrated, some redesigned a machine to measure simultaneous waveform display. A permanent power supply unit has been redesigned and installed to an ultrasound machine. All physiological monitoring equipment is selected and commissioned. It services all Dental and Health Centre x-ray equipment in Qatar and makes regular maintenance, as well as installing and designing dental units in Rumailah Hospital and health centres. The integration of the Electronics Workshop into the section has further strengthened its capabilities. It is now planning to create an Instrumentation Section that could develop powered prosthetics together with the Orthotics and Prosthetics Department.

In 1992, H.E Sheikh Ahmed Bin Saif Al Thani, Minister of Justice and Acting Minister of Health was elected President for the year of the GCC Ministers of Health council during its conference at Doha Sheraton Hotel, he said that the focus for the year was the unified strategy for joint health co-operation since our national duty requires us to intensify our efforts for the interest and welfare of our people.

H.E. Sheikh Hamad Bin Suhaim Al-Thani was appointed as Minister of Public Health in late 1992. The first nutrition conference to be held in Qatar to
discuss the state of child nutrition in Qatar and other GCC states as well as how proper nutrition may cure certain disorders and diseases.

A quality improvement campaign initiated by Quality Management Department drew strong support both from the medical and administrative sectors of Hamad Medical Corporation. Dr. Hassan Abdulla opened a one-day seminar as the first stage of a five-year programme to implement quality improvement. Mr. Ahmed Naama, Administrative Director and Dr. Abdulla Al-Malki, Ph.D., Assistant Hospital Director were among the speakers. One of the aims is to reduce the volume of paperwork done by nurses in the units and clinics. At present there are 160 HGH nursing forms, 30 have been deleted and a further 56 will be combined.

Quality Management Director Sandra McGivern as Director, asked all quality improvement representatives from each department to ask for closer monitoring of all expense items. She stressed the need to be cost conscious and efficient at the same time. Several ideas were discussed including: Better control of supplies, control of patient registration, better management of drugs, tests and exams., re-use of more items, develop other sources of funds, everyone to monitor costs, and more sharing of ideas. In February the HMC budget for Financial Year 1994-5 will be QR20, million less than that current years budget. This was in sharp contrast to the last two years when the budget was QR55 million. This seminar, as with most seminars and symposiums, was sponsored by local and foreign businesses. There was a good response to the Cost/Quality project contest. Respiratory Therapy saved QR100,000 a year, by sterilising equipment to prolong its life. Pharmacy expected to save QR 3.2 million by computerisation. Bio-Medical Engineering saved QR 119,390 a year by service maintenance of ventilators, defibrillators and physiotherapy equipment, instead of maintenance contracts to other companies.

At The 2nd Quality Improvement Seminar Dr. Hassan Al-Abdulla, Acting Medical director welcomed the participants. Dr. Abdullah Al Malki, Assistant Hospital Director spoke on the Cost of Quality, adding that an increasing number of patients had to be served with fewer funds. A tally board was kept and prizes given for the Department saving the most.
Dr. Mohammed Hamoudeh, has returned to Qatar as the Medical Director of HMCC. Many welcome his return.

Safety education had always had a high priority in Hamad Medical Corporation, and continues in the HMCC. Competitions are held regularly. In 1983 there were 73 entries by 39 contestants representing 11 hospital departments in a Poster competition. The Safety Committee of the Hospital organised an adhoc committee on radiation safety. This committee had representatives from Radiology, Laboratory and Bio-engineering.
NEW WOMEN'S HOSPITAL

The New Women's Hospital was formally opened by His Highness Sheikh Khalifa bin Hamad Al-Thani, Emir of Qatar, on 3rd September 1988, Independence Day.

This hospital brought in a new era in Qatar of Maternity and Infant care. The new building is sited adjoining the Hamad General Hospital and near the Rumailah Hospital, the whole forming a complete medical complex. There is a tunnel under the road between the Rumailah and Hamad Hospitals for easy access for staff and maintenance, a suggestion put forward by Dr. A. G. Gotting during the planning of the Hamad Hospital.

The New Women's Hospital was designed by John Harris Qatar, Architects, with the A.E.D., Ministry of Public Works, Mr. Peter Reyniers being the Project Manager. Hospitalia International, a German firm of medical and planning consultants were retained to advise on equipping and furnishing the New hospital.

The first Women's Hospital in Qatar was part of the Al-Jasra Hospital, after the patients had been moved to the new Rumailah General Hospital. There were forty beds in the Obstetric and Gynaecology Section. In 1959 this was moved to the new Tuberculosis and Infectious diseases Hospital. This had 80 beds. It had to be expanded in 1965, with extensions for extra beds and a neonatal unit supervised by the Paediatrics Department of Rumailah Hospital.

In 1976 the first ultrasound machine was used at Women's Hospital with a Qatari doctor, Dr. Salman, as the specialist.

A new wing was added in 1977 and a new outpatients department opened. Medical records were begun.

Planning for a new Womens Hospital was begun in 1979. The first plan to have a six floor women's block at Rumailah was shelved. This was the year that Hamad Medical Corporation was established by Emiri decree.
In 1980, 20 cots for neonatology were created and a Special Care Baby Unit was established.

Comprehensive services for women, special care for high risk neonates, and the management and treatment of problems peculiar to women were provided by the Department of Obstetrics and Gynaecology and Paediatric Neonatology at the Old Women's Hospital. In 1984 there were 7 consultant gynaecologists and obstetricians with the support of a consultant anaesthetist, a specialist in cytopathology\textsuperscript{13}, and a specialist in ultrasonography. Reductions in the outpatients attendance was greatly reduced as the result of a shared antenatal programme throughout the Primary Health Care Centres which now care for normal pregnancies. Six consultants from the Women's Hospital rotate once a week through the health centres to teach doctors and solve obstetric problems while they are there. If a woman needs a specialist she is referred to the Women's Hospital.

Training for resident doctors and registrars for higher degrees is in progress. Practical training was provided in the clinics, wards, labour rooms and operating theatres. The problem of space was expected to be solved with the anticipated completion of the new Women's Hospital in 1985.

The layout and organisation of the New Women's Hospital was designed to provide the utmost in privacy, comfort, convenience and excellent medical care to each woman who is a patient there.

Over the podium is a tower of five storeys for inpatient care. The three sets of lifts providing service for the floors consist of: two lifts for patient transportation, separately located in the critical care area; three lifts in the main lobby for visitors and walking patients being admitted or discharged; and three lifts for services of supplies, food, and waste disposal. Level 2 has three patient units. Two units of 26 beds are low and intermediate dependency care

\textsuperscript{13} The Cytologist was the wife of the Head Of the Primary Health Department, it has been more than a tradition for husband and wife teams to be employed in the Health Services in Qatar. Certainly when Dr. Gotting was recruiting he was instructed to employ husband and wife teams, the husband stood a better chance of getting a post if his wife could come too.
NEW WOMEN'S HOSPITAL.

DELIVERY ROOM.
units for antenatal care. The third unit of 12 beds is for high dependency antenatal care. Levels 3, 4 and 5 have two 27 bed units for postnatal care. Level 6 has three patient units. Two 26 bed units are for low and intermediate dependency gynaecology and post-caesarean section postnatal care. The third central unit of 12 beds is for high dependency care of post-operative gynaecology and Caesarean section care. A total of 359 beds for women and 34 beds are in the special Care Baby Unit.

This hospital has inpatient rooms on the upper five levels. Large windows give an airy feeling to each room. Each room has its own toilet and shower room. The four-bedded rooms have two bathrooms. Lifts for patients and public are totally separate. The Emergency Room with its own Delivery Suite, the Labour and Delivery suites, 16 assessment suites, two main operating theatres and a minor surgery theatre, the Special Baby Care Unit and all outpatient clinic services are on the ground floor. All are supported by Administration, Medical Records, Admitting and Outpatient Clinical Services. Birth registration has an office on the ground floor run by the Preventive Health Department.

The Emergency Room has a separate entrance for easy access from outside. Its location assures utmost safety for patient care and it gives easy access to the acute critical care areas such as labour and delivery suites, operating theatre, special Care Baby Unit and inpatients lifts. Also, there is easy access to the diagnostic areas such as ultrasound and laboratory.

There is a waiting area for patients' escorts plus a control desk. There is a special suite where an emergency delivery, car deliveries, home deliveries, severe shock or haemorrhaging cases of a gynaecological or obstetrical nature can be treated quickly. This room functions 24 hours every day.

The 16 Labour and Delivery suites are located in the central area on the ground floor. Each suite is private and has a bed which is easily converted to a delivery bed. The suite is equipped with monitoring equipment, medical gases, a resuscitation table for new-borns and a transport incubator. All the monitoring equipment is connected to a central display at the nursing desk for optimum observation of the patient in labour. Eight of the suites have
NEW WOMEN'S HOSPITAL.

ADMINISTRATION BLOCK.
telemetry equipment to allow the high risk patient free movement during labour while the condition of the patient and child are carefully monitored by remote control. In 1989 Dr. Hartmut Bobeck, Chairman of Obstetrics and gynaecology made it policy that the expectant mother could be accompanied by female relatives in the delivery units. This practice had gone out of use. A new Colposcopy Clinic started and also a new Diabetic/Obstetric Clinic. An Infertility Clinic (Endocrine and Reproductive Clinic) is held six days per week. In 1993 Qatar's first IVF baby, a healthy, 1850 gram baby girl was born at the New Women's Hospital.

The operating theatres are equipped with the most sophisticated equipment. There are 8 recovery beds. The theatres have direct connection with the Special Care Baby Unit and delivery units.

One theatre is designed for Gynaecological surgery and one for Obstetrics. The third theatre is near the Emergency Room.

The Special Care Baby Unit is in a separate, quiet area on the ground floor at the back of the hospital. It consists of three sections with 19 incubators in the Intensive Care Unit, 26 incubators in the Intermediate Care Unit and six incubators in the Isolation Unit. A special Respiratory Therapy Unit is close by. The Unit has been designed to offer maximum mother/child interaction. A mothers' room for breast feeding and counselling has been provided. The nurses in the SCUBU are specially trained for this area of nursing. They are certainly innovative. They use face masks as pampers for the tiny babies!

There is a laboratory located in the Outpatient Department which provides general laboratory tests. The Cytogenic Laboratory and a Blood Bank Donation Unit are also located here. The Pharmacy is in the outpatient area. The Unit Dose System is used. A Physiotherapy Unit is located in the Outpatient Area and provides treatment for all female patients within the Hamad Medical Corporation. A gymnasium is available and antenatal exercises as well as instruction for labour is provided. The Ultrasound unit is within the Radiology Department. There is a special programme for detection of hip joint problems in the newborn.
Medical Records are completely computerised.

One hundred nurses were recruited from the Philippines to staff the new hospital. Two of the Assistant Directors are Qatari, Najia Khamis Al-Ali and Sharifa Al-Malki.

Dr. Omar Hashisho, who had 16 years of work experience in managing health care, as Assistant Hospital Director was responsible for the New Women's Hospital. Soon after receiving his medical degree in 1959 from the Friedrich Wilhelm University in West Germany, he came to Qatar. He worked in the first private hospital in Qatar. When first joining the Ministry of Public Health he was domiciliary to members of the Ruling family. Later he became involved in the management of Rumailah Hospital and became Acting director of the Ministry of Public Health. He worked as an adviser in the Primary Health Department before joining Hamad Medical Corporation in 1982. His objectives for the Women's was that Administration continue close coordination of maternal and infant care with the Primary Health Department of the Ministry, the expansion of consultant support and exchange of doctors. A practical clinic appointment system communication links between PHC medical and nursing staff who are responsible for antenatal, postnatal and gynaecology services.

There are 10 doctors, five men and five women. There is an allocation to induct 40 more specialists at various levels. There is a resident training programme for younger doctors under the Corporate Mandate.

In November 1988 there was a Symposium on Obstetrics, Gynaecology and Neonatology held at the New women's Hospital in the Ibn Nafis Hall and at the Doha Sheraton Hotel. It was attended by professors and consultants from the United Kingdom, the United States, Austria, France, and Saudi Arabia also doctors from Hamad Medical Corporation and the Ministry of Public Health. Dr. Hajar was proud to be able to announce that the perinatal mortality rate had been brought down from 40 per 1,000 in 1974 to 12.7 per 1,000 in 1987 and 11.9 per 1,00 in 1988. The maternal mortality rate had been 0.10 per 1,000 in 1974 and was now 0.094 per 1,000.
Also located in this hospital is the office suite of the Undersecretary for Health, the Medical Science Library, Nursing Administration, Staff Development, Infection Control and other administrative offices that had been housed in villas and other temporary accommodation.
PREVENTIVE MEDICINE

So much attention was given to the curative side of medicine that the Public Health Department of Preventive Medicine was not given its proper due. In 1952 Mr. R. Hart, who had originally been engaged to administer the hospital in Doha was asked to supervise Public Health measures and organise a suitable Public Health Service for Doha. Up to then it had been the responsibility of the local urban council, but results had not been satisfactory. It commenced to serve at first primarily for garbage collection and refuse disposal. The Medical Officer of Health and an expatriate English Health Inspector Mr. J. Gething, were appointed in 1956. It was then that the various preventive measures were systematically built up. The department was responsible for immunisation, port health, insecticidal spraying, refuse collection and disposal, bacteriological and chemical testing of drinking water supplies, sewage removal from household cesspits, inspection of slaughterhouses, inspection and control of meat, fish and vegetable markets, inspection of hotels and restaurants, control of a quarantine centre, anti-malarial spraying, inspection of imported food, condemnation and destruction of bad food and expired or spolit drugs, setting up of food standards and food laboratory, mass inoculation and vaccination campaigns during emergencies, burial of the dead and supervision of grave diggers and cemeteries, registration of births and deaths, and rodent control.

The department was established in the town of Doha which attracted an ever-increasing number of immigrants and illegal immigrant workers from the nearby Gulf States, Iran, Pakistan and India.

Aerial communication with Doha in the very early days was by the small de Havilland Dove aircraft carrying around 20 passengers from Bahrain and Dubai. Larger aircraft were unable to land in Doha due to the small size of its airport.

The main entry points into the State were the ports of Doha and Umm Said, and at these points of entry Port Health Inspectors were located primarily to inoculate and vaccinate immigrants or check that they possessed valid health certificates. In addition to this work immigrants were screened for
VACCINATION CAMPAIGN.
communicable diseases such as tuberculosis and leprosy.

Those suspected of some illness on arriving from an endemic area of cholera or smallpox were physically penned into an open quarantine compound for subsequent deportation.

These rather draconian measures were necessary as the floating immigrant population, ie 'in' and 'out' of Doha was rising steeply to around 5,000 per month and the fear of a major epidemic necessitated this action. Much to the credit of the Department of Preventive Medicine the State of Qatar has never had an outbreak of cholera or smallpox, although on several occasions they were at risk because of the prevalence in neighbouring countries.

From time to time the department with the co-operation of school teachers and nurses carried out mass small-pox vaccination of the whole population planned for completion in 3 days. The public were co-operative and on several occasions 80% to 90% of the public participated. This was confirmed by placing two health inspectors in the Casualty and Outpatients departments immediately on completion of the vaccination campaign. Arms were checked for fresh vaccination marks and the number related to the total attendance for the day. This gave a fairly accurate ratio and reflected on the larger community outside as a presumption that those attending the Outpatients Department were a true reflection of the ratio of the overall population.

It also helped to assess the total population at a given time by simple arithmetical deductions on the assumption that 1 per 100 attended some doctor daily, ie. an out-patient attendance at all centres of 1500 daily would roughly equate with the presumptive figure of 150,000 population.

There were three principal pests that the department of Preventive Medicine was concerned about in order to protect the public: body lice on incoming immigrants, common house-flies as carriers of disease and mosquitoes breeding in stagnant water.

Body lice were invariably present on the labourers who entered at the ports and entry was not permitted until DDT powder was sprayed onto their bodies.
by using hand operated blowers. Body lice apart from being a personal nuisance could be a potent carrier of typhus and other tropical diseases.

In the early days one visited the local market place to see meat, fish and fresh vegetables almost totally hidden by squatting flies which may have come from an open cess pit or freshly extruded excreta of humans and animals. As there were no public latrines and proper toilet facilities available in some housing, it was a common sight to see people utilising the foreshore for their early morning ablutions and incidently providing thereby ideal feeding matter for the flies and breeding grounds for their larvae.

It was not until 1958 that the first public latrines were established but even these could not hope to cope with the demand of several thousand immigrants. Illegal immigrants who lived in makeshift houses made of cardboard boxes and sheets of corrugated iron known as barastis continued to despoil the surrounding area.

The fly became such a menace and carrier of intestinal bacteria and parasites that virtually nobody could escape having diarrhoea at least once a month. Whereas this is not a difficult ailment in the adult it constituted a real killer with the infants. One would expect to find at least 60% of all paediatric out-patients and in-patients suffering gastro-enteritis in varying degrees of severity. The infant morbidity and mortality from this disease was far too high and tragic. The Department of Preventive Medicine therefore recognised the importance of spraying DDT in fine oil droplet haze form through a variety of hand operated and motorised sprayers. This was done on a daily basis throughout the length and breadth of the town. These measures were helpful but could not eradicate the problem without the health education of the people.

Many immigrants arrived from malarial endemic countries and therefore it was inevitable that sooner or later there would be malarial parasite carriers among them on whom the female Anopheles mosquito which was naturally prevalent in Qatar would feed and then transmit the malarial parasite to other people.

Two squads known as "anti-malarial" sprayers visited all the known places of
stagnant water and other breeding grounds of the mosquitoes in nearby farms. They collected samples of mosquitoes and sprayed oil on all stagnant water holes and farm drains and water channels.

This work helped to reduce the risk of incidence of malaria and Doha, unlike neighbouring Dubai and Sharjah, is not considered a malarial zone for the purpose of prophylactic anti-malarial drugs.

Before the arrival of properly designed refuse collection vehicles, garbage collection was quite simple as the town population was fairly small, there were no proper roads and several of these were only wide enough to permit a donkey cart to enter. These were used frequently and efficiently and the establishment of the Department had six obedient donkeys to house and feed in payment for their services. It has to be mentioned here that all refuse was dumped in previously dug trenches and covered with earth. These trenched areas served to provide excellent fertiliser for the first gardens of Doha.

The few principal roads within the town and those connecting the principal town of Doha with the other two important oil towns of Dukhan and Umm Said were oiled on the surface by tankers, and steam-rollered. These roads were quite satisfactory for light traffic and one should mention the historic fact that on one hot Summer afternoon the freshly oiled road in Musherib area caught fire, from the spark of a back firing vehicle, and burnt from one end to the other causing consternation and confusion as no fire brigades existed at that time. This blaze caused the English Police officer, to suffer heat exhaustion. The inferno was gradually brought under control through the natural process of evaporation and the active contribution of pouring desert sand on top.

Another tale told of the oiled roads is when in 1953, the Bishop of Jerusalem was on his way to Doha and his car completely overturned because of an excess of oil in one particular place. He was miraculously not hurt, and driven on to Umm Said and later Dukhan.

Garbage and refuse increased in direct proportion to the growing numbers of the population, and since the population was increasing faster than the ability to provide adequate main roads, the inevitable happened. Almost every street
and barasti encampment were becoming open rubbish dumps. Large vehicles were not yet imported to deal with this problem for the simple reason that the roads were too inadequate for Heavy Duty Vehicles. The secondary and only method available to the Public Health Department was to abolish this nuisance by oiling and firing the rubbish dumps. This worked satisfactorily provided the winds were strong enough to quickly evacuate the smoke.

At about this time the public health were losing the battle of refuse collection, the rodents who always existed in large numbers in the "Covered Souk" were now able to flourish on the easily available and plentiful nourishment lying around, thus causing the birth of the rodent problem. Rattus Rattus was amongst the large and increasing rat population, with devastating effects on such an overcrowded immigrant population.

This problem generated the decision to form a Rodent Control Unit which exclusively served to try and restrict the growth in the rat population. Several fairly effective measures were adopted.

Payment was made to the public of half a Rupee for each batch of 12 rat tails that were brought to the public health office as evidence of a kill.

Rat poison baits were laid down each evening near rubbish tips and drains and recollected the next morning together with any dead rodents. Warfarin which was a gradual killer by causing internal bleeding was much favoured as it had no smell or taste and could therefore be easily mixed with milk to form an effective rat poison.

Cats were encouraged as pets with dubious results as very often both would be sitting near dust-bins waiting their turn to eat. The rodents were so large and aggressive that they were invariably the first at "table".

Only recently have the authorities controlled this rodent menace and it would be true to say that it would be a brave man who would walk through the souk at night and not be scared at the sight of large numbers of rodents each the size of a large cat. It seems therefore that this pest is only controlled when absolute hygiene and rat-proof food storage is properly designed and used.
The earliest supplies of drinking water came from deep wells. On analysis this well water contained a very high proportion of fluorine, somewhere in excess of 5 parts per million. That is why the older people who were obliged to drink from this water source had stained teeth and brittle bones. Fluoride in water at 1 part per million is beneficial but in excess it is a potent tissue poison and this was one natural hazard for the older inhabitants of Qatar.

This was recognised early and distillation plants to obtain pure water from sea water were quickly established in 1954. Power stations were built to generate both steam to drive the turbines and the condensate to provide distilled water. Sufficient pure water was soon available in 1955 to enable the newly established water department to blend with the well water so diluting the fluorine and using the other natural salts of well water to make it potable and of a standard approaching the London Water Supply in quality ie. the total dissolved solids were 1500 parts in 1,000,000.

The blended water was stored in large water storage tanks where gaseous chlorine was added to ensure that all organisms were killed and the water safe for drinking free from fear of any contamination.

Distribution water pipes were deliberately not put down to houses in the early years, as the authorities were naturally fearful of water wastage and so in the early days of development the water was distributed on payment, by water tanker.

Deliveries of household water were made to ground tanks and the water pumped up to a roof tank by a hand operated lever which was replaced in the course of time by electric water pumps.

The progress and availability of copious supplies of water grew in association with the development of bigger and more efficient steam powered turbines. A point was soon reached when every household could use as much water as in Europe and have sufficient left over to irrigate small gardens.

The responsibility of maintaining an accepted standard of good potable and
bacteriologically free water fell upon the Water Department Laboratory. However, the Public Health Department had the secondary responsibility of taking random water samples from various points in the town to test for the presence of free chlorine thus ensuring and confirming its safety for drinking. Bacteriological sampling was at the same time carried out in the Hospital Laboratories.

Large water mains began to be laid throughout the prosperous town of Doha in 1956 and connections gradually given to every house. The waste water or effluent from each house went into the cess-pit which also collected the household ablutions and excreta.

These cess-pits were full from time to time and it was one of the duties of the Public Health Department to send cesspit clearing trucks to suck out the effluent from the numerous cesspits and deliver this to farms for use as a rich liquid fertiliser or empty it into the desert.

More recently a sewage system has been laid throughout Doha and the need for cesspits abolished. The effluent was carried in these sewers by a series of pumps to a main sewerage farm where the standard processes of aerating and producing a safe effluent soon nearly equated with the volume of water distilled and instead of running to waste it was brought back by tanker to water and nourish the ever increasing government gardens and the many planted trees that lined the road verges.

One cannot leave the subject of water without mentioning the menace of "death" that lurked in old disused water wells. These contained Methane gas which being heavier than air settled at the bottom of each well. In high concentrations it was odourless. On several occasions immigrant labourers were tempted to go down the wells in order to clean the bottom of them to bring them into use and were instantly killed by the Methane gas. Helpers who went down to save the first victim unwittingly fell into the same trap and were in their turn overcome by the Methane gas.

After the Alma-Ata Conference in Russia in 1979, the philosophy of health care in Qatar changed and all previous recommendations, from the Danish,
British and others submitting feasibility studies, were ignored, although some of their suggestions had already been implemented.

Nowadays the Preventive Health Department is housed in several buildings. It started partly in the Farig bin Abdul Aziz building, in 1954, and then expanded into the old 'Ministry' offices in the Rumailah Hospital, and thence to renovated premises, which were apartments for consultant doctors in the early 1980's. Also in the Rumailah compound, this is hopefully a temporary measure until the Farig bin Abdul Aziz premises are re-built, and partly in the 'old' Women's Hospital. They are responsible for the Medical Clinic at the Airport, which deals with emergency cases, screening and domiciliary visiting.

They have offices at all ports of entry, the Airport, Doha Sea port, Oom Said, Ruwais, and the border posts at Saudi Nathil, and Abu Samra. These offices are responsible for inspecting all ships and vehicles for imported food, although the Ministry of Municipal Affairs and Agriculture are responsible for this. Their departments include: communicable Disease Control, health education, vital statistics, environmental and occupational Safety, food control, co-operating closely with the Municipality who control food in Doha; a Laboratory which tests nicotine and tar levels in cigarettes, a Medical Commission screening expatriate labour, (Once a disease is traced the cases are sent to Hamad hospital for treatment and the follow-up is done by the Preventive Health Department), Radiography for radioactive material. If after going through the initial x-ray machine the officers are in any doubt, another instrument is used take a specimen, and if there is further doubt it goes to the University to be tested by more sophisticated instruments. If drugs are suspected they are sent to the Pharmacy of Primary Health. The vaccination department deals with the new-born at the Health Centres, and travellers, food handlers, and children entering school.

The Ministry of Municipal affairs and Agriculture is responsible for health-related activities and is called the "Health affairs Department" It is responsible for keeping the environment hygienic. The administration was leased to a German company (B.E. Berlin) their activities are: general cleanliness: the monitoring of standards, rubbish disposal and sewerage installations
maintenance. The Ministry of Health Laboratories are used for food monitoring. There is an insect control section. Natural fertiliser is made by plants recycling household rubbish into natural fertiliser. Income from sale the sale of this is QR671,922 per year. There is a graveyard section. Other income is derived from scrap metal collected from the streets, amounting to QR1,235,025. Penalties for ignoring regulations concerning cleanliness amounted to QR120,250.

There has been an increase in manpower in several departments. The Vital Statistics Department has three units. One for the registration of births and deaths, one for surveys of child health and another contains archives for storage of microfilm and permanent records.

The earliest Register was started in 1958 but registration was only covered by legislation in 1984.

There is a special unit for the estimation of age, which is done by x-ray of the bones of the hand.

Road safety accidents are the second cause of death, the first being circulatory system diseases. Radar for speed control was introduced in 1994.

Population statistics are still not accurate concerning Qatari and foreigners. A large number of Qataris are naturalised. There was a census done as a sample in 1981. The first proper census was in 1986 and a further one is planned for 1996. Age is a difficult variable, and up to now the reliability is not certain as people tend not to tell the truth about their ages, mainly giving a round figure, with a decrease for women and an increase for men. Because the handicapped get pensions, they also prevaricate about income. There are no Qatari beggars, those that do beg are not nationals. They beg mostly at the Mosques. The census however should be more accurate in 1996, because of registration of the people for health centres, which was organised by the French Ministry of Health in 1979. At first there was great difficulty with names as so many are similar. But the Ministry of Interior has been co-operating to help correct them. There have been several staff training programs, and deletion of duplications. Change of name is possible if people change their minds. Under
certain regulations put down by the Ministry of Interior, within one month of age of the child and not over two years.

Adoption is only possible by the same family and to keep the name, or by a Judge in the case of an illegitimate child and then he gives a vague name so as not to connect with the family.

There are diverse nationalities employed. At one time Medical Commission had 94 nationalities on the register.

In 1993 H.E. the Minister of Public Health Sheikh Hamad Bin Suhaim Al-Thani was able to tell the World Health Organisation in Geneva about the great strides in health that Qatar has made. Among these achievements was the eradication of diphtheria, tetanus, poliomyelitis and pertussis. These were achieved through a vaccination and immunisation programme implemented through the health centres and hospitals of the Ministry. The program immunised children against six diseases and the Hepatitis B virus. New-borns continue to be immunised against haemophilic influenza B. Vaccination against tuberculosis has achieved coverage of 98.7 percent and 84.1 percent have been vaccinated against measles. The third dose vaccination against diphtheria tetanus and pertussis was 88.2 percent of children. Vital statistics in Qatar show that mortality in Qatar from disease has gradually declined between 1982 and 1990. There were no maternal deaths due to childbirth from 1981 to 1992. Perinatal(new-born) mortality went down from 17 per thousand in 1981 to 12 per thousand in 1990. A national plan was worked out with the WHO in November 1992 to monitor the vaccination programme. A modern health information system on vaccination would be created to follow-up compliance with the programme. He outlined the well-developed services provided by health centres and HMC hospitals in Qatar. The number of health centres doubled in the last decade, and these were distributed throughout the country according to population density.

According to the Qatari Dr. Mohammed Ghanem Al-Ali (1991), Qatar had no comprehensive health plan, either short-term or long-term, as health officials believe that the Alma-Ata objectives have already been achieved, as pointed out on the Ministry of Health report to the ministerial cabinet in 1988 (MOH
report of WHO 1990). In the later years of the 1980's, the trend was toward
the improvement of the efficiency of the existing health services, eg. the
elimination of duplication of services established in the boom years by
different ministries. For example, the Ministry of Education's health centres
were incorporated into the Ministry of Health centres, and the Ministry of
Defence's clinics with those of the police. The trend is now administering
these services. The only proof that "Health for all by the Year 2000" has been
achieved is value judgements. A planning office exists in the MOH, but it is
grossly undermanned and underutilised. Its function is primarily data
collection and tabulation, not planning. The head of planning told him "We
gather data, we tabulate them, then we shelve them. The only consolation is
that WHO ask for them".
CHAPTER TWELVE

TREATMENT ABROAD
TREATMENT ABROAD

Problems arise during the development of a Medical Service. The pressures of an uncontrolled immigration policy, due to the shortage of labourers and skilled craftsmen and engineers in the indigenous population, overwhelmed the very limited medical facilities that existed in the State before the discovery of oil. Subsequent wealth and the desire to provide everything for everyone as soon as possible, put pressure on the Higher Authority to act quickly to local demands.

The local hospital in the 1940's and 1950's was built with limited resources to provide the facilities of a relatively small population, which was then about 23,000. The Ministry of Public Health was then known as the State Medical Department and the first State Medical Officer was Col. A. E. Kingston with an Indian couple the Dr's Oomen as his assistants.

The British Adviser to the Government was then Mr. Plant, who had the task of trying to budget the slowly increasing resources fairly between the competing departments. Inevitably the Hospital and the newly formed State Medical Department were generally near the bottom of the list as regards priorities.

It was not surprising that Colonel Kingston resigned almost immediately.

There was a short interval before the next British Adviser, Mr. G. Hancock, persuaded Mr. "Bill" Weston, who was a senior surgeon with the Anglo-Iranian Oil company to come over and take on the responsibility of surgeon and State Medical Officer.

In the early days of development the population was not able to discriminate between an administrator, a general physician and a surgeon, and demands were made on the services of Mr. Weston FRCS in all three specialties notwithstanding the demands to visit patients far into the desert for trivial medical reasons. This work load and the lack of modern operative facilities soon sapped the enthusiasm of Mr. Weston to continue his service in Qatar
and he departed in late 1954. Patients still insist on having a particular doctor, even if he is a specialist!

H. H. Sheik Ali bin Abdulla bin Jassim Al Thani was now convinced that some interim arrangements were necessary urgently. Serious cases that could not be treated in Doha should be given the opportunity for treatment abroad as well as Qatari nationals and expatriate contractual Senior staff, if treatment for their particular complaint was not available in Doha.

This latter permission was activated by an unfortunate accident that occurred in early 1954, an employee of H. H. Sheikh Ali's son Sheik Ghanim bin Ali, suffered a severe electric burn and charring of the muscles of the thumb and forearm by a short electrical circuit from the metal door of his refrigerator, and through his arm. This unfortunate patient needed urgent treatment for his third degree burns and further specialised plastic-surgery in order to restore reasonable usefulness to what was left of the muscles of the arm and hand.

With his departure to London for treatment the first case for treatment abroad commenced and opened the way for an avalanche to develop which will be described in the pages that follow.

The one and only Doha Hospital, in Al Jasra, was in the beginning of 1955 completely overwhelmed by an increasing immigrant population and its medical problems. Nothing could solve the problem of improving treatment facilities and at the same time enlarging the hospital to accommodate more in-patients unless the project of rapid local expansion was approved. This decision opened the gate for considerable difficulties to follow as patients were now demanding treatment abroad for trivialities which somehow presented more acutely the closer one came to the summer months. In this way patients were also able to get away from the heat and humidity of Doha.

Something had to be done to stem the tide of summer travel and therefore another decision was made for the formation of a Medical Board for treatment abroad.

This committee was composed of the State Medical Officer as Chairman and
the Advisory Board was composed of the Physician, Surgeon, Gynaecologist, Ophthalmologist, Paediatrician and one other from the remaining Specialties.

Rules and regulations were drawn up defining the parameters within which recommendations could be made for treatment abroad and this required unanimous approval from the committee. It soon became evident that the Committee was going to be a very active institution for the next two decades.

Two centres for treatment abroad were selected, London and Beirut. The choice of centre was left to the discretion of the Board, bearing in mind the standard of facilities that were available in the two cities. Beirut was chosen for two reasons. The American University Hospital was modern and could provide adequate treatment for most problems. There were several Tuberculosis Sanatoria in the mountains with ideal climatic conditions for Tuberculosis patients, and suitable mental hospitals with Arabic speaking psychiatrists.

Beirut was a popular choice for accompanying relatives who quickly appreciated that they would also benefit from spending a vacation in an Arab country with similar cultures and no language barriers. Therefore, for fifteen years, Beirut was the country of first choice, until the civil war disrupted this regular arrangement. Patients then went to Egypt or India as well as London.

Before the establishment of the Embassy of the State of Qatar in Lebanon the patients were cared for by Dr. Berbir and his hospital on a contractual basis of professional costs plus a percentage fee for administration. This was a satisfactory arrangement for Beirut as the economy of Lebanon also profited from the strong spending power of the relatives and accompanying escorts, many of whom loved the country so much that many Qatars bought land and property in order to spend their Summer months there from June to September.

London was selected by the Board for difficult tertiary cases such as open heart surgery, neuro-surgery, malignant diseases and obscure medical conditions. London however was not a popular choice as the cold, wet weather, language difficulties and a foreign culture were not liked by the older
patients.

In London the Medical Office was run by the Government agents, Messrs. Tennant Sons and Company from an office in Montagu Square, they had been employed as purchasing agents for the government in 1953. Mr. and Mrs. Howe looked after all the non-medical affairs of patients such as airport reception, departures, hotel accommodation for relatives, accounts and other socially related problems, such as meeting children at the airport and ensuring they arrived at their boarding schools safely. The medical management of in-patient care was left to Dr. Bremner.

Messrs. Tennant were also paid all costs plus a percentage fee for management. The total number of patients with relatives averaged around 50 at any given time and towards 1972 the figure rose around 200.

The most feared illness in the early 1950's was Pulmonary Tuberculosis, and this was widely prevalent. Qatar being a small country with a small indigenous population lent itself ideally to a survey by Mass Miniature X-ray and BCG campaign.

It was decided that the quickest and safest solution would be to x-ray persons over the age of 14 years and Mantoux test children under 14 years, thereby identifying all infectious cases.

All open cases of pulmonary tuberculosis would then be sent to Sanatoria in the Lebanon and the early and moderate cases treated on an out-patient basis unless an admission was a very urgent necessity. This policy was generally applied to all residents irrespective of nationality.

To prepare for this survey Dr. Gotting and his wife, a nurse, were sent to the Medical Research Council's Static Mass Miniature x-ray unit in the U.K. to be trained in the use of the Mobile X-ray Unit and the photographic development of Miniature-x-rays. It was essential to know the extent of the problem as estimates of the total population varied and no census figures were available. To obtain this information a team of eight health inspectors and assistants, systematically went round calling on every household. The total family group
by sex and age were recorded and every household numbered.

By this means a total of 17,000 dwellings were visited in 1956 and it was now known that there were in Doha Town 42,000 persons over the age of 14 years to be x-rayed and 10,000 children between the ages of 9-14 years for Mantoux testing and subsequent BCG vaccination of negative cases. The population target in the smaller towns and villages in the rest of the peninsula was estimated at about 5,000.

The Mechanical Equipment Department converted a vehicle on a three ton chassis in order to accommodate the X-ray facility. It was built by the Head of the Mechanical Engineering department, Mr. Alan Walker-Gray. He obtained the chassis from Qatar Petroleum Company. It also towed a generator. This was a creditable feat of engineering and the powerful diesel engine vehicle ultimately proved its value when it successfully visited every village and town in the Qatar peninsula before the advent of roads. After the survey the x-ray van was kept at a static location near the old power station and used for tuberculosis screening of expatriate labour.

In this way benefits came out of treatment abroad, which helped primarily to isolate and cure 300 infectious cases by sending them to excellent centres abroad, but also saved an embarrassing situation where there were not enough hospital beds locally to solve the acute medical and surgical problems.

The years 1954 to 1957 before the new State Hospital at Rumailah was commissioned were years of extreme difficulty and hardship for patients and medical staff alike. The reason for this was the inadequacies of the Old Doha Hospital which even though it was being refurbished and enlarged at record speed was unable to match the demands of an ever increasing foreign immigrant population.

There was therefore the obvious political necessity to please the local population and ensure that no Qatari in need of a hospital bed would suffer. This policy helped solve the acute hospital bed shortage and at the same time allowed Qataris both the privilege of specialised treatment at Government expense and the advantage of a holiday for the accompanying family escorts.
One can therefore state quite categorically that Medical treatment abroad up to 1958 was fully justified due to non-availability of hospital resources at home.

The hospital was projected to serve a target population of 120,000 people by the year 1980, on the basis of 1 hospital bed per 1,000 of population. This proved to be completely wrong as the population of Qatar reached this figure almost as soon as the hospital was commissioned in 1957.

This meant that the Higher Authorities who were keen to terminate treatment abroad in 1957 were now faced with the problem of building a new hospital for Tuberculosis, this was taken over on completion, to be a Women's hospital in order to provide adequate facilities for the ever pregnant community of young couples.

The demands for professional care and hospital accommodation were always several steps ahead of what was being made available. It is simple to allow in thousands of labourers and artisans for the rapidly expanding projects in a developing country and equally impossible to keep the infra-structure of essential services such as Public Health, Electricity, Education etc. in pace with requirements.

The completion of the new Rumailah Hospital and the opening of the Women's Hospital added an extra 200 beds to the existing "old" Doha Hospital and one would therefore assume that adequate in-patient beds were now available.

On this assumption an attempt was made in 1960 to tighten the numbers of patients demanding treatment abroad. Politically this proved difficult as entrenched privileges are always difficult to withdraw.

The doctors felt that the natural tendency of a human being was to exploit whatever situation develops in his favour and support this claim with innuendoes such as that the quality of the doctors and nurses was inferior in Doha and therefore the privilege for foreign treatment should continue.
The situation thus induced a very low morale in the doctors owing to constant and unfair comparisons which the public were making. This above all else was the most adverse aspect of treatment abroad.

The doctors began to insist they could cope. One particular incident involved Sheikh Hamad bin Abdul Aziz bin Hamad, grandson of Sheikh Ali, who had serious injuries to his right arm and leg, caused whilst he was playing with a battery and wires which exploded. Dr. Prenderville, an Australian Surgeon, backed by the Acting State Medical Officer Dr. Sami, an Egyptian, insisted that the boy not be moved to Beirut, but agreed for them to visit. These Lebanese doctors returned again a few days later, but once again Prenderville and Sami were adamant that he stay in Doha as the treatment available was better than in Beirut, but that he could convalesce in the Lebanon. Sheikh Ahmed agreed to this. This was the first time the hospital doctors had been able to insist that a patient of theirs be treated in Doha. This did much to bolster the local opinion of the hospital's capabilities, particularly that of the staff.

The Medical Board now acted firmly and only very difficult medical and surgical cases were permitted to go abroad. The actual number who had the legitimate right for further specialised treatment abroad sharply fell to around 10 per week.

This firmness brought a new train of events as dissatisfied patients and relatives kept pressing their claims to go abroad at the Higher Authority of the Diwan. This was further complicated on the appointment in 1970 of the first Minister of Public Health who felt that it was his own privilege to decide who went for treatment abroad.

At this stage the Medical Board had lost its authority and was superseded in all its decisions at ministerial level. What was controlled in the 1960's to a trickle now became a stream and the whole problem got quite out of control.

It must be said at this stage that though numerous patients continued to go abroad all hospital beds in the three hospitals were again filled to capacity as the population increased and the frequency of industrial and road traffic.
The point was again reached when there were too many patients for too few beds and the need arose for enlarging the Rumailah Hospital and even using hospital corridors as wards, in order to accommodate acute emergencies.

By 1972 a new era opened with the accession of H.H. Sheikh Khalifa bin Hamad Al Thani who quickly realised the importance of providing the fullest possible hospital facilities with every modern investigative and curative apparatus. The good health of his subjects was to take a pre-eminent place in all planning.

The foundation was now laid for the new Hamad General Hospital of 660 beds, and this took 10 years to complete. One decade to complete a hospital was too long as existing facilities were now totally inadequate. Again as had been with the "old" hospital, history was repeating itself. It had been 15 years since the Rumailah Hospital was completed and there had been no new development or additional facilities during this period. Ambitious schemes of the New Town Plan required thousands of immigrant workers and so the difficulties continued.

It was fortuitous that this decade saw a tremendous increase in oil prices with the quadrupling of Government revenues. This affluent era permitted large numbers of patients to go abroad. The cost per patient per day was an acceptable alternative to having disgruntled patients waiting for hospital beds.

Further Medical Offices were now also available in Vienna, Cairo and Bombay and one might say that the freedom to travel was once again in "full flight".

The new Hamad Hospital was commissioned in 1982 and this marked the turning point for patients clamouring to go abroad. Modern facilities equal to anything abroad were now available in Doha supported by the most excellent specialists in all fields of medicine and surgery. Hamad Hospital had 660 beds, Rumailah 303, the Women's Hospital 177 and the Isolation Hospital 50. Reflecting on the principle of treatment abroad it would be appropriate to mention that even in the U.K, the National Health Service was unable to
physically cope with the incidence of pulmonary tuberculosis in the period 1945 to 1950 and solved the problem by sending their patients to Sanatoria in Switzerland for treatment.

The problem of Treatment Abroad is not endemic to Qatar alone but is also the privilege extended by other Arab Gulf States whose subjects reap the same benefits and for the same aforesaid reasons.

Once the State of Qatar established its own Embassies in countries abroad, it became a matter of national pride that the representative of Qatar in the person of H.E. The Ambassador was responsible for the welfare of Qatari subjects abroad.

The administrative side was taken over by the Embassy in 1972. The responsibilities of the sick Qatari patients in London had been with Frank O'Shanahun Associates who were up to then independently responsible through agreement with the Ministry of Public Health, for the social care and treatment of those Qatari patients sent to London for treatment.

This agreement applied only to those patients carrying a formal letter from the Ministry of Public Health. The total number in August 1972 was around 270 patients and escorts.

The Medical Office of Frank O'Shanahun Associates occupied two rooms in the basement of the Eden Hotel and it was from this office that the organisation arranged to interview patients, arrange medical appointments, have families met at the airport or arrange ambulances to pick up patients for direct admissions.

Being a commercial company with a rigid agreement and fixed parameters of authority they were not allowed to digress from this contract and permit treatment for other ailments unrelated to the original disease for which the patient was sent to London. Therefore dental treatment, spectacles, general check ups and second and third medical opinions were not allowed and therefore not requested. The patient or his relative had no higher office to whom they could press their request, relatives were not treated at all except
for major acute emergencies.

It was therefore possible to spend on an average something bordering on £100,000 per month for treatment in London.

The decision to replace all commercial offices with Embassy Medical sections was implemented in August 1971. The Director of the Ministry of Public Health was sent with instructions to take over and set up an independent office which was established at 22 Harrington Gardens.

The original establishment was a Director, Acting Medical Attaché, Nursing Sister, Accountant and Assistant, two Airport Reception Clerks, one Appointments Clerk, five hourly paid temporary interpreters, three Medical Office Car drivers with full-time drivers for appointments.

The figure of 270 comprised approximately 150 escorts and 120 patients.

Escorts in 1972 had no privileges whatsoever except a weekly living allowance which was paid to the patient/escort once weekly at a rate of £15 per head per day.

The 120 patients could be further analysed into In-patients, recently discharged Out-patients and Out-patient only.

The In-patients numbered a fairly constant 40 with an average In-patient stay of 14 days, in acute hospital beds.

Chronic, long stay patients such as hemi-plegics, paraplegics, handicapped children and patients suffering from malignant diseases were not acceptable beyond a few weeks in the central Private Hospitals and were therefore almost semi-permanently in cheaper Nursing Homes.

This left a balance of 80 patients that were ambulant and either on their way home to Qatar awaiting a final check-up or patients awaiting an in-patient bed or an out-patient consultant appointment. This meant that the average "to and
fro traffic" of patients from the office rarely numbered less than 40 per day (20 in the morning and 20 in the afternoon) These were easily dealt with by the appointments clerk, the nurse and the doctor.

These 40 visits per day were for social and medical reasons and therefore the number of actual medical appointments rarely rose beyond 20 daily and this number was managed by the three office cars and the four hourly paid, temporary interpreters.

It might be true to say that in 1972 patients and escorts were not at all keen to prolong their stay in London as the level of living allowances was inadequate and personal resources to supplement their living very limited.

Summarising one might say that the problems of office management were minimal. The time had not yet arrived when people wished to use London for their summer vacation. Almost all were then habitual summer visitors to the Lebanon and Cairo and for these reasons life in the London Medical Office was comparatively free of patient and family stress.

However, several new factors kept creeping in to change the picture described above. Erosion of the basic rules was beginning. Escorts and patients were approaching the main Embassy, requesting treatment that was not previously authorised by the Ministry of Public Health.

The Main Embassy acted on instructions from Higher Authority in Qatar to vary the privileges of treatment and other social benefits, thus disabling the workload within the office.

The degree of variation of privileges rapidly became larger and gradually created the necessity for a second set of unwritten rules and privileges which became the prerogative of the Embassy.

After a few months the Medical Director returned to his post in Qatar leaving his assistant in charge of the office management. The medical aspect was managed by the nurse.
It was desirable that a medical attaché be appointed and in 1973 a young Qatari doctor was sent to fill this post. His arrival was soon followed by the Civil War in Lebanon and this led to an increasing workload, as patients had been sent there for treatment, since the days of Sheikh Ali, especially patients with T.B. who went to the Bhannes Sanatorium in the hills outside Beirut. It was in mountain surroundings, considered more beneficial than the humid conditions of Qatar in those early days before central air conditioning, and run by Nuns of whom Sister Gabrielle was Mother Superior.

The premises at 22, Harrington Gardens were not large enough and so the office moved in August 1974 to 3, Harrington Gardens. This accommodation had five rooms and was temporarily adequate for the increasing volume.

After about 18 months the Medical Attache was replaced by the Medical Director Dr. Gotting, on a permanent basis. By 1975 the attitude of the Higher Authority in Qatar was to encourage patients to go abroad for treatment on the basis that the expanding local population could not be provided with adequate facilities in the existing hospital in Qatar. There were far too many patients for too few beds.

The years from 1975 onwards were years of increasing activity. More and more patients and escorts were arriving and to this must be added an increasing volume of summer visitors.

The rules and regulations were so eroded that everyone holding Qatar Nationality claimed medical privileges of every description from routine medical check ups to refined and expensive prosthetic dentistry to spectacles and even cosmetic surgery.

These were halcyon days for the private hospitals, doctors, dentists, hotels, shopkeepers and landlords. The Embassy was indirectly benefitting from both direct medical expenditure and the shops from the vast purchases that the Qatar public were making in London.

As is well known the oil revenue quadrupled and this allowed a large financial cushion to permit the Government of Qatar to spend freely for their subjects
The impact on the office management was intense. What was once an office dealing with primary and almost exclusively sick people rapidly became a social centre. The office became an organisation and the organisation became an empire.

It was now imperative to define clear areas of responsibility and provide adequate acceptable documentation in the sea of confusion so that expenditure on a vast scale could be properly audited.

To adjust to this situation the Medical Office had to divide into several self-contained administrative cells. Each cell contributed to the efficient running of an office which was now dealing with an annual input of 8,000-10,000 persons (so administrative cells were formulated).

The work involved needed a large organisation due to the several thousand patients and visitors covered each year, and the multiplicity of service accounts rendered.

The above establishment was only adequate because the logistics of providing a service, from the airport, the appointments, admissions and other numerous activities, were greatly facilitated by the introduction of the very first computerised programming of all office movements and accounts.

The computer became the unseen helping hand and memory that enabled this office to survive and perform so efficiently that it was the envy of all other similar establishments.

The Government rented larger premises as a temporary measure pending the refurbishment of the purchased freehold office at 30, Collingham Gardens, London. This is a magnificent building located in Earls Court which is the heart of the main dormitory area for the majority of Qatari visitors and patients to London.
SUMMARY

Tradition, Folklore and Islam have emerged as significant influences in the evaluation of the health care practices of Qatar and the Gulf region, and as this thesis progressed I attempted to analyse certain aspects of these influences more deeply.

The History of Qatar, Arabic Medicine, anecdotes of traditional medicine, the medicinal plants of Qatar, the Philosophy of Islam, building of hospitals, reflections of pioneers, modern preventive measures and treatment abroad were explored.

In recent times past influences waned with the development of modern health services which were attempting to keep pace with the intensive construction of the health infrastructure in Qatar; this frenzy of development during the late 1970's and early 1980's was inextricably tied to the level of oil production and its associated profits; these profits were considerable; from 1972 to 1980 the capital expenditure on health services increased by an amazing forty fold.

With the decline in oil revenues from 1985 and in the aftermath of the Gulf War such impetus could not be sustained; a shift back to traditional values is apparent. Revival of fundamentalism is exemplified by dress; wearing of the hijab, stricter adherence to prayer times; in the health sector separate sections are strictly controlled for male and female patients waiting areas, the elderly are firmly encouraged to be cared for at home.

The impressive health system of Qatar which owes acknowledgement to the foreign experts who have been and gone after bullying or cajoling into running things their way is now being run by Qataris. Qatar has now evolved its own unique style with the help of WHO and other governments. Qatar stands tall by standing apart. It has reverted to Islamic values but other religions and cultures are still respected.
GLOSSARY
Abortifacient: A drug or material that causes the expulsion of the foetus.

Allergy: Hypersensitivity of the body cells to specific substances as antigens and allergens, resulting in various types of reactions.

Altering: Agent presumes to correct a disordered bodily function.

Amenorrhea: Abnormal suppression or absence of menstruation.

Anaemia: Lack of red blood corpuscles.

Analgesic: Pain reliever that does not induce loss of consciousness.

Angina Pectoris: Severe though temporary attack of cardiac pain, an induction of coronary insufficiency.

Anodyne: analgesic.

Anorexia: Loss of appetite.

Anthelmintic: Agent that expels worms from intestine.

Antibacterial: Agent that inhibits or destroys bacteria.

Anticonvulsant: Agent that stops or prevents convulsion.

Antidote: A remedy for a drug or poison.

Antifebrile: Antipyretic, a substance that reduces fever.

Anti-inflammatory: Against inflammation.

Antipyretic: Antifebrile.

Antiseptic: Agent used to counteract putrefaction.

Antispasmodic: Any measure used to relieve spasms occurring in muscles.

Antitussive: Agent that prevents or relieves cough.
**Aperient**: Laxative.

**Aphrodisiac**: Agent that stimulates sexual desire.

**Aromatic**: Fragrant (perhaps spicy fragrant); also refers to chemicals containing or patterned after benzene rings.

**Arthritis**: Inflammation of joints.

**Ascites**: Free fluid in the peritoneal cavity.

**Asthma, bronchial**: Chronic hypersensitive respiratory ailment caused by exposure of the respiratory epithelium to allergens.

**Astringent**: Agent contracting organic tissue, thereby lessening secretion.

**Bilious**: Excess in bile.

**Biliousness**: Popular term used to describe conditions marked by general malaise, giddiness, vomiting, headache, indigestion, constipation, etc.

**Boil**: A small tumour of cutaneous tissue.

**Bronchitis**: Inflammation of the bronchi.

**Bronchus**: One of two tubes that is a division of the trachea or wind pipe and conveys air to the lung.

**Bruises**: Leakage of blood into tissues caused by injury with a weapon or hard body.

**Calculus**: Calcified accumulation of salivary proteins, bacterial deposits, stain, and plaque on a teeth surface.

**Cardiac**: Cardiovascular. Pertaining to the heart.

**Cardiotonic**: Having a tonic effect on the heart.
**Carminative**: Substance that relieves excessive amounts of gas in the stomach or intestine (flatulence).

**Catarrh**: A cold with increased discharge of secretion from mucous membrane.

**Cathartic**: Purgative.

**Central Nervous System (CNS)**: The brain and spinal cord.

**Chronic**: Condition of gradual onset, long duration and usually with progressive course.

**Cicatrisant**: The process of healing over.

**Colic**: Severe pain resulting from periodic spasm of abdominal organ, it may be biliary (related to gall bladder), intestinal (related to small intestines), renal (related to kidney), uterine (related to uterus).

**Constipation**: Chronic condition of infrequent and often difficult evacuation of faeces due to insufficient food or fluid intake or sluggish action of the bowel musculature or nerve supply.

**Decoction**: A solution of the active principles of plants obtained by boiling them in water.

**Demulcent**: A slippery fluid which allays irritation and soothes inflammation, especially of mucous membrane.

**Depurative**: Cleaning or purifying (of blood, wound etc.)

**Diabetes (mellitus)**: Metabolic disorder affecting insulin production and resulting in faulty carbohydrate metabolism, giving rise to sugar in the urine.

**Diaphoretic**: That which promotes perspiration, especially when it is profuse.

**Diarrhoea**: Abnormal frequency and fluidity of stool discharge.
Discutient: A medicine capable of dispersing swelling or effusing.

Diuretic: Agent that increases urine flow.

Dizziness: Swinging of the head, giddiness.

Dropsy: Oedema.

Dysentery: Inflammation of the bowel with evacuation of mucus and blood in the stool, accompanied with tenesmus and colic.

Dyspepsia: Indigestion.

Dysuria: Painful urination.

Eczema: Skin inflammation often due to nerve irritation, more generally, a rash.

Emetic: Agent that induces vomiting.

Emmenagogue: Drug or agent that stimulates menstrual flow.

Emollient: A substance applied externally to soften the skin, or internally to soothe an irritated or inflamed surface.

Enema: A liquid preparation injected into the rectum resulting in complete emptying of the large bowel in minutes.

Enteritis: Inflammation of the intestines.

Enuresis: Incontinence of urine.

Epilepsy: Disorder characterized by severe muscular spasms, loss of consciousness, and abnormally large discharge of electricity.

Epistaxis: Bleeding from the nose.

Erysipelas: An acute inflammation of the skin and subcutaneous tissues,
characterized by serious toxic symptoms of high fever and great prostration.

**Expectorant**: Agent that ejects sputum from respiratory passages.

**Febrifuge**: A fever reducing drug.

**Fever**: Elevation of body temperature above normal.

**Flatulence**: Intestinal gas.

**Flux**: Any excessive discharge of a fluid from the bowels, or other organs, watery or bloody.

**Furunculosis**: Condition of having skin boils.

**Galactogogue**: Substances which promote the flow of milk.

**Ganglion**: A mass of nerve tissue.

**Gastralgia**: Pain in the stomach.

**Gastroenteritis**: Inflammation of the stomach and intestines induced by bacteria, viruses or toxins.

**Gastrointestinal**: Pertaining to the digestive tract, especially the stomach and intestines.

**Gonorrhoea**: A venereal disease that causes specific inflammation of the mucous membranes of urethrum and adjacent cavities, due to Gonocci bacteria.

**Gout**: Painful disease involving joint inflammation and chalky deposits as a result of the disturbance of purine metabolism (high blood levels of uric acid).

**Gravel**: Crystalline sediments deposited in the bladder from the urine.

**Griping**: Feeling colic pains in the bowels.
Haematuria: Haemorrhage from the bladder.

Haemorrhage: The escape of blood from a vessel.

Haemorrhoid: Dilation of veins around the anus.

Haemostatic: Agent that arrests bleeding.

Hepatic: Pertaining to or occurring in the liver.

Hydragogue: An agent effective in eliminating excess internal water (fluid) accumulation from the body.

Hypertension: Abnormally low tension in blood vessels characterized by capillary permeability and fragility, revealed as blood pressure.

Inflammation: Reaction of the living tissue to injury, infection, irritation characterised by pain, hotness, redness, tenderness and loss of function.

Infusion: Extracting the medicinal properties of vegetable substances by pouring hot or cold fluid.

Insanity: Derangement of intellect, madness.

Insomnia: Sleeplessness.

Ischuria: A stoppage of urine.

Itch: To feel an irritating sensation on the skin, with the desire to scratch.

Jaundice: Condition characterised by a raised level of bilirubin (breakdown product of haemoglobin) producing a yellowness of mucous membranes, including the eyes, because of deposition of the pigment.

Lactagogue: Inducing the secretion of milk.
Laxative: Drug which stimulates evacuation of the bowel.

Leprosy: (Hansen's disease), chronic contagious disease characterized by defective whitish pigmentation, especially a congenital absence of pigments in spots or bands and tubercles on the face or extremities.

Leucoderma: Congenital absence of pigmentation of skin in patches.

Leucorrhea: Whitish vaginal discharges.

Lumbago: Lower back and buttock pain associated with poor blood circulation, such as terminal aortic occlusion.

Menorrhagia: (hypermenorrhea) Excessive menstrual flow.

Molluscidal: Agent that kills bilharzia and similar diseases.

Moxibustion: Powdered plant placed on the skin in small mounds and burnt to raise a blister.

Narcotic: Pain relieving and sleep inducing through depressant activity on central nervous system, sedative.

Nausea: A feeling of sickness at the stomach, with an urge to vomit.

Nephrosis: Degenerative disease of the kidney affecting the renal tubules.

Neuralgia: Nerve pain.

Oedema: Swelling occasioned by infiltration of serous fluid into the cellular texture.

Ophthalmia: Inflammation of the eye.

Oxyuris: Nematodes, commonly called thread worms.
**Palsy:** Paralysis.

**Parturition:** The expulsion of the foetus and its appendages from the uterus (childbirth).

**Peptic:** Relating to digestive tract.

**Plaque:** Mixed or pure colonies of bacteria and their products on the surface of teeth that adhere tenaciously to tooth surfaces.

**Poultice:** A soft heated mass of bread or kaolin etc. applied to an inflamed or sore area of the skin.

**Pruritus:** Itching.

**Purgative:** Cathartic, laxative, aperient, that stimulates peristaltic action and bowel evacuation.

**Renal:** Pertaining to the kidneys.

**Restorative:** Having the property of renewing vitality.

**Sciatica:** Pain along the course of sciatic nerve radiating from the back of the buttock, back of thigh, calf and foot.

**Scrofula:** Constitutional condition with glandular swellings and a tendency to tuberculosis.

**Sedative:** Agent that is used to relieve tension and anxiety.

**Sialagogue:** A medicine which excites a preternatural flow of saliva.

**Spasm:** Morbid contraction of muscles.

**Stimulant:** Agent that excites or stimulates.
**Stomachic**: Substance that stimulates appetite, it promotes the functional activity of the stomach.

**Styptic**: A drug or agent that checks haemorrhage by causing contracting of the blood vessels.

**Syphilis**: A venereal disease, characterized by a variety of lesions, caused by Treponema Palladium.

**Tenesmus**: Straining at passing stool or urination.

**Thrush**: Infection of candida species of the oral mucous membranes, usually in children.

**Tonic**: A state of continuous muscular contraction.

**Tuberculosis**: Primary pulmonary infection caused by Mycobacterium tuberculoses; may also be found within the skin, lymphatics and kidney.

**Ulcer**: An open sore.

**Vermifuge**: A drug or agent that kills or expels intestinal worms.

**Vertigo**: Illusion of movement, often synonymous with dizziness and giddiness.

**Vesicant**: A blistering agent.

**Vulnerary**: A drug or agent that heals wounds.
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AL-MA’THURAT AL-SHA’BIYYAH, A scientific Quarterly for Folklore Specialists, Practitioners and Advocates. The Gulf Co-operation Council

The Women's Hospital Produced by the Public Relations Department of Hamad Medical Corporation.

The State Hospital, Doha Government of Qatar Published by John Harris Architects.


