

Facts about Arabs and the Arab World

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Who is an Arab?

"Arab" is a cultural and linguistic term. It refers to those who speak Arabic as their first language. Arabs are united by culture and by history. Arabs are not a race. Some have blue eyes and red hair; others are dark skinned; many are somewhere in between. Most Arabs are Muslims but there are also millions of Christian Arabs and thousands of Jewish Arabs, just as there are Muslim, Christian, and Jewish Americans.

What is the Arab World?

The Arab World consists of 22 countries in the Middle East and North Africa: Algeria, Bahrain, the Comoros Islands, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, the United Arab Emirates, and Yemen. Iran and Turkey are not Arab countries and their primary languages are Farsi and Turkish respectively. Arab countries have a rich diversity of ethnic, linguistic, and religious communities. These include Kurds, Armenians, Berbers and others. There are over 300 million Arabs. To see maps of the region [click here](#).

What is the Muslim World?

There are an estimated 1.2 billion Muslims in the world. The Organization of Islamic Countries has 55 member states. The ten countries with the largest Muslim population are: Indonesia (170.3 million), Pakistan (136 million), Bangladesh (106 million), India (103 million), Turkey (62.4 million), Iran (60.7 million), Egypt (53.7 million), Nigeria (47.7 million) and China (37.1 million). Of these countries only Egypt is an Arab country. Most Arabs are Muslims, but most Muslims are not Arabs.

Who is a Muslim?

A Muslim is a follower of Islam. (See the separate ADC information sheet on [Islam](#).)

What is the Middle East?

The Middle East is a loose term, not always used to describe the same territory. It usually includes the Arab countries from Egypt east to the Persian Gulf, plus Israel and Iran. Turkey is sometimes considered part of the Middle East, sometimes part of Europe. Afghanistan, Pakistan, India, and Bangladesh are usually described as South Asia.

Who are Arab Americans?

Arab Americans are Americans of Arab descent. There are Americans with roots in each Arab country, but most originate from Lebanon, Syria, and Palestine. There are also substantial communities from Egypt, Yemen and Iraq. The first immigrants arrived in the late 19th century. A second wave of immigration started after World War II, and still continues. The largest communities of Arab Americans live in the Detroit-Dearborn area. To view a map of the distribution of Arab Americans across the United States [click here](#).

Arab Contributions to Civilization

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Much like America today, the Arab world of the seventh to the thirteenth centuries was a great cosmopolitan civilization. It was an enormous unifying enterprise, one which joined the peoples of Spain and North Africa in the west with the peoples of the ancient lands of Egypt, Syria and Mesopotamia in the east.

It was the rapid expansion of Islam that initially brought this empire together. Alliances were made, trade routes were opened, lands and peoples were welded into a new force. Islam provided the dynamism, but it was the Arabic language, which provided the bond that held it together.

Islam spread to lands more distant than North Africa and the Fertile Crescent, but it was in this area that a common Arab culture emerged.

To be Arab, then as now, was not to come from a particular race or lineage. To be Arab, like American, was (and is) a civilization and a cultural trait rather than a racial mark. To be Arab meant to be from the Arabic-speaking world – a world of common traditions, customs and value – shaped by a single and unifying language.

The Arab civilization brought together Muslims, Christians and Jews. It unified Arabians, Africans, Berbers, Egyptians, and the descendants of the Phoenicians, Canaanites, and many other people. This great “melting pot” was not without tensions, to be sure, but it was precisely the tension of this mixing and meeting of peoples that produced the vibrant and dynamic new civilization, the remarkable advances of which we outline in this ADC Issues.

ARAB CONTRIBUTIONS TO CIVILIZATION

The years between the seventh and thirteenth centuries mark a period in history when culture and learning flourished in North Africa, Asia, Southern Europe, and the Middle East. When one sets aside the vagaries of politics, intrigue, mistrust, and suspicion which have plagued Man’s history, one finds that the Arab world continue to spin out the thread of earliest recorded civilization. It enhanced and developed the arts and sciences and preserved the libraries of the early centuries of the Greek, Roman, and Byzantine cultures. Indeed, during the Dark Ages of Europe, much learning was preserved for the world through the Arab libraries in the universities of Morocco (Fez), Mali (Timbuktu) and Egypt (al-Azhar). From this period of Arab influence, new words such as orange, sugar, coffee, sofa, satin, and algebra filtered into the languages of Europe and eventually into our own. New discoveries were made in the sciences and arts which improved the life and condition of Man, and thousands of Arab contributions have become an integral part of human civilization.

MATHEMATICS

In mathematics, the Arab sifr, or zero, provided new solutions for complicated mathematical problems. The Arabic numeral – an improvement on the original Hindu concept – and the Arab decimal system facilitated the course of science. The Arabs invented and developed algebra and made great strides in trigonometry. Al-Khwarizmi, credited with the founding of algebra, was inspired by the need to find a more accurate and comprehensive method of ensuring precise land divisions so that the Koran could be carefully obeyed in the laws of inheritance. The writings of Leonardo da Vinci, Leonardo Fibonacci of Pisa, and Master Jacob of Florence show the Arab influence on mathematical studies in European universities. The reformation of the calendar, with a margin of error of only one day in five thousand years, was also a contribution of Arab intellect.

ASTRONOMY

Like algebra, the astrolabe was improved with religion in mind. It was used to chart the precise time of sunrises and sunsets, and to determine the period for fasting during the month of Ramadan, Arab astronomers of the Middle Ages compile astronomical charts and tables in observatories such as those at Palmyra and Maragha. Gradually, they were able to determine the length of a degree, to establish longitude and latitude, and to investigate the relative speeds of sound and light. Al-Biruni, considered one of the greatest scientists of all time, discussed the possibility of the earth’s rotation on its own axis – a theory proven by Galileo six centuries later. Arab astronomers such as al-Fezari, al-Farghani, and al-Zarqali added to the works of Ptolemy and the classic pioneers in the development of the magnetic compass and the charting of the zodiac. Distinguished astronomers from all over the world gathered to work at Maragha in the thirteenth century.

MEDICINE

In the field of medicine, the Arabs improved upon the healing arts of ancient Mesopotamia and Egypt.

Al-Razi, a medical encyclopedist of the ninth century, was an authority on contagion. Among his many volumes of medical surveys, perhaps the most famous is the *Kitab al-Mansuri*. It was used in Europe until the sixteenth century. Al-Razi was the first to diagnose smallpox and measles, to associate these diseases and others with human contamination and contagion, to introduce such remedies as mercurial ointment, and to use animal gut for sutures.

The famous scientist-philosopher known in Europe as Avicenna was Ibn Sina, an Arab. He was the greatest writer of medicine in the Middle Ages, and his *Canon* was required reading throughout Europe until the seventeenth century. Avicenna did pioneer work in mental health, and was a forerunner of today's psychotherapists. He believed that some illnesses were psychosomatic, and he sometimes led patients back to a recollection of an incident buried in the subconscious in order to explain the present ailment.

In the fourteenth Century, when the Great Plague ravaged the world, Ibn Khatib and Ibn Khatima of Granada recognized that it was spread by contagion. In his book, *Kitabu'l Maliki*, al-Maglusi showed a rudimentary conception of the capillary system; an Arab from Syria, Ibn al-Nafis, discovered the fundamental principles of pulmonary circulation.

Camphor, cloves, myrrh, syrups, juleps, and rosewater were stocked in Arab *sydaliyah* (pharmacies) centuries ago. Herbal medicine was widely used in the Middle East, and basil, oregano, thyme, fennel, anise, licorice, coriander, rosemary, nutmeg, and cinnamon found their way through Arab pharmacies to European tables.

ARCHITECTURE

As with astronomy and mathematics, the great purpose of early Arab architecture was to glorify Islam. Architects devoted their skills primarily to the building of mosques and mausoleums. They borrowed the horseshoe arch from the Romans, developed it into their own unique style, and made it an example for the architecture of Europe. The Great Mosque of Damascus, built in the early eighth century, is a beautiful demonstration of the use of the horseshoe arch. The mosque of Ibn Tulun in Cairo, with its pointed arches, was the inspiration behind the building of many magnificent cathedrals in Europe.

Arab cusp, tefoil, and ogee arches provided models for the Tudor arch such as those used in the cathedrals of Wells in England and Chartres in France. The Muslim minaret, itself inspired by the Greek lighthouse, became the campanile in Europe. One of the most famous examples of this can be seen in the San Marcos Square in Venice.

Designs from the Islamic mosques of Jerusalem, Mecca, Tripoli, Cairo, Damascus, and Constantinople were borrowed in the building of ribbed vaults in Europe. The Arab use of cubal transitional supports under domes was incorporated into the cathedrals and palaces of eleventh and twelfth century Palermo.

Arab styles were elegant and daring. Arabesque designs, calligraphy, and explosions of color can be seen today in such structures as the Lion Court of the Alhambra Palace in Granada, the Great Mosque of Cordoba, and many of the great medieval religious and civic buildings of Europe.

While we as Westerners are more familiar with the influence of Arab architecture of the Romance countries of Spain, Italy and France, we do not often remember that the Arab empires reached into Eastern Europe and Asia as well. Startling remnants of a once powerful conquest are particularly prevalent in Russia. The brilliant blue tiled dome of the Mosque of Bibi Khanum, Timu's (Tamerlane) favorite wife, catches the visitor's eye in Samarkand. Here, as well as in the complex of tombs called Shah-I-Zinda (the Living Prince), much of the old beauty is being returned to its former elegance through restoration.

NAVIGATION AND GEOGRAPHY

The world's earliest navigational and geographical charts were developed by Canaanites

who, probably simultaneously with the Egyptians, discovered the Atlantic Ocean. The medieval Arabs improved upon ancient navigational practices with the development of the magnetic needle in the ninth century.

One of the most brilliant geographers of the medieval world was al-Idrisi, a twelfth century scientist living in Sicily. He was commissioned by the Norman King, Roger II, to compile a world atlas, which contained seventy maps. Some of the areas were therefore uncharted. Called Kitabal-Rujari (Roger's book), Idrisi's work was considered the best geographical guide of its time.

Ibn Battuta, an Arab, must have been the hardest traveler of his time. He was not a professional geographer, but in his travels by horse, camel and sailboat, he covered over seventy five thousand miles. His wanderings, over a period of decades at a time, took him to Turkey, Bulgaria, Russia, Persia, and central Asia. He spent several years in India, and from there was appointed ambassador to the emperor of China. After China, he toured all of North Africa and many places in western Africa. Ibn Battuta's book, Rihla (journey), is filled with information on the politics, social conditions, and economics of the places he visited.

A twenty five year old Arab, captured by Italian pirates in 1520, has received much attention in the West. He was Hassan al-Wazzan, who became a protégé of Pope Leo X. Leo persuaded the young man to become a Christian, gave him his own name, and later convinced him to write an account of his travels on the then almost unknown African continent. Hassan became Leo Africanus and his book was translated into several European languages. For nearly two hundred years, Leo Africanus was read as the most authoritative source on Africa.

It should also be remembered that in the fifteenth century Vasco da Gama, exploring the east coast of Africa near Malindi, was guided by an Arab pilot who used maps never before seen by Europeans. The pilot's name was Ahmed ibn Majid.

HORTICULTURE

The ancient Arabs loved the land, for in earth and water they saw the source of life and the greatest of God's gifts. They were guided by the words attributed to the Prophet: "Whoever bringeth the dead land to life... for him is reward therein." They were pioneers in botany. In the twelfth century an outstanding reference work, Al-Filaha by Ibn al-Awwam, described more than five hundred different plants and methods of grafting, soil conditioning, and curing of diseased vines and trees.

The Arab contributions to food production are legion. They were able to graft a single vine so that it would bear grapes in different colors, and their vineyards were responsible for the future of wine industries of Europe. Peach, apricot, and loquat trees were transplanted in southern Europe by Arab soldiers. The hardy olive was encouraged to grow in the sandy soil of Greece, Spain, and Sicily. From India they introduced the cultivation of sugar, and from Egypt they brought cotton to European markets. "May there always be coffee at your house" was their expression, wishing prosperity and the joy of hospitality for their friends. Coffee was qahwah that which gives strength, and derivatives of that name are used today in almost every country of the world. They also perfected the storage of soft fruits to be eaten fresh throughout the year.

Arab horticulture gave the world the fragrant flowers and herbs from which perfumes were extracted. Their walled gardens were for the pleasure of the senses – a pine tree standing green and aromatic in the heart of a garden scented with jasmine; a fountain or artificial pool to delight the eye amidst lavender and laurel; a special rose garden blooming in riotous color, the roots injected with saffron to produce yellow, and indigo to produce blue; vines and trees injected with perfumes in the autumn flooding the air with fragrance in the spring; a weeping willow dripping gracefully into the middle of a clear lake; arbors and pergolas constructed where streams of water could bubble through them, cooling the air and giving relief from the heat of the desert. Mimosa and wild cherry lavished color against stonewalls, and cypress grew tall, close and straight bordering alleyways to obliterate from view all that was not pleasing.

Bulb flowers were already in a highly hybridized and cultivated state when the Crusaders carried them home from Palestine to western Europe toward the end of the centuries of Arab power. Rice, Sesame, pepper, ginger, cloves, melons and shallots, as well as dates, figs, oranges, lemons, and other citrus fruits, were introduced into European cuisine via the Crusaders and the trade caravans of Eastern merchants.

The women of Europe borrowed from the cosmetics first prepared by the Egyptians, Syrians, and Phoenicians. Some of these included lipsticks, nail polishes, eye shadow, eye liner (kohl), perfumes and powders, hair dyes (henna), body lotions and oils, and even wigs. A symbol of the vanity of the medieval ladies of European courts was the high peaked, pointed cap with its trailing veil of silk. This fashion of Jerusalem was called the tontour, and noble ladies of both the East and Europe vied with each other on the height of the tontour and the elegance of the fabrics used in the design of the face-framing millinery.

Much of our contemporary jewelry is a result of inspiration from adornments of the ancient and medieval Arabs, and the highly prized squash blossom design was once on the uniform bottle worn by Spanish Conquistadors.

OTHER SCIENCES

Concerning Arab contributions to engineering, one can look to the water wheel, cisterns, irrigation, water wells at fixed levels, and the water clock. In 860, the three sons of Musa ibn Shakir published the Book on Artifices, which described a hundred technical constructions. One of the earliest philosophers, al-Kindi, wrote on specific weight, tides, light reflection and optics.

Al-Haytham (known in Europe as Alhazen) wrote a book in the tenth century on optics, Kitab Al Manazir. He explored optical illusions, the rainbow, and the camera obscura (which led to the beginning of photographic instruments). He also made discoveries in atmospheric refractions (mirages and comets, for example), studied the eclipse, and laid the foundation for the later development of the microscope and the telescope. Al-Haytham did not limit himself to one branch of the sciences, but like many of the Arab scientists and thinkers, explored and made contributions to the fields of physics, anatomy and mathematics.

CRAFTS

Because the ancient Arabs believed that the arts served God, they raised small scale artistries to new levels of perfection. Glassware, ceramics, and textile weaves attest to their imagination and special skills. They covered walls and objects with intricately detailed mosaics, tiles, carvings, and paintings. Syrian beakers and rock crystals were in great demand in Renaissance Europe and the Azulejos. The iridescent luster pottery from the Moorish kilns in Valencia, also enjoyed great popularity. New glazing techniques were developed, and the brilliant blues took on many names. (The Chinese called them Muhammedan blues, and Dutch traders called them Chinese blues).

They were masters of silk weaving, and the Arab cape worn by Sicily's King Robert II on his coronation is one of the best examples of this delicate art. Cotton muslin, Damask linen and Shiraz wool became watchwords for quality in textiles in Europe.

One considers Moroccan leather to be of particularly fine quality. The Moroccan tanners of the Middle Ages developed methods for tanning hides almost to the softness of silk, and they used vegetable dyes that retained color indefinitely. These leathers were used for bookbindings, and the gold tooling and colored panels of the Arab style are still being produced, particularly in Venice and Florence to the present day.

The Arabs further developed the art of crucible steel forging. They hardened the steel, polished and decorated it with etchings, and produced tempered Damascene swords. Other works in metal included intricately cut brass chandeliers, ewers, salvers, jewel cases inlaid with gold and silver, and, of course, the beautifully decorated astrolabe.

LANGUAGE AND CALLIGRAPHY

Because God spoke to Muhammed in Arabic, Muslims venerated the Arabic language. Thus, to Muslims, Arabic calligraphy itself became an art form. It was the chief form of embellishment on all the mosques of the Arab world, and the religious and public buildings of Palermo, Cordoba, Lisbon and Malaga are resplendent with it.

The Arabic language is rich and pliant, and poetry, literature, and drama have left their mark on both East and West. Among the earliest publications of the Arabs were the translations into Arabic of the Greek and Roman classics – the works of Aristotle, Plato, Hippocrates, Ptolemy, Dioscorides and Galen. Some note that the poet Nizami's translations of the twelfth century romance, Layla and Majnun, may have been an inspiration for the later work, Romeo and Juliet. Ibn Tufail's Hayy ibn Yaqzan (Alive, Son of Awake), considered by many to be the first real novel, was translated by Pocock into Latin in 1671 and by Simon Ockley into English in 1708. It bears many similarities to Defoe's Robinson Crusoe. A Thousand and One Nights and Omar Khayyam's Rubaiyat are among the best loved and most widely read of Arab literature. The fascination with Arabic, following the Hellenistic period of Louis XIV, is particularly evident in Shakespeare's characterizations of the Moors (Othello and the Price of Morocco), in Christopher Marlowe's Tamburlaine the Great, and in George Peele's The Battle of Alcazar.

Besides influencing belles lettres, the Arabs developed a system of historiography called *isnad*. This procedure documents all reliable sources and it provides the modern historian with accurate and comprehensive materials. Foremost among these historiographers was Ibn Khaldun, of whose Book of Examples Arnold Toynbee writes: "Ibn Khaldun, has conceived and formulated a philosophy of history which is undoubtedly the greatest work of its kind that has ever yet been created by any mind in any time."

MUSIC

The harp, lyre, zither, drum, tambourine, flute, oboe and reed instruments are today either exactly as they were used from earliest Arab civilization or variations of the Arabs' early musical instruments. The guitar and mandolin are sisters to that plaintive, pear-shaped stringed instrument, the oud.

The bagpipe was first introduced into Europe by Crusaders returning from the wars in Palestine. It quickly became identified with the British Isles. Once the entertainment of the lonely Arab shepherds, the bagpipe returned to Palestine with the British Army. This lost musical art was relearned during the period of Sir John Glubb's reorganization and command of Jordan's colorful Bedouin Corps.

Arab poetry was put to music the subtle delicacy of minor key sequences and rhythm. The modes continue to influence our ballads and folk songs today. Extempore poetry was perfected into musical expression, and Arab wedding and other occasions are still celebrated with extempore versing and musical composition.

PHILOSOPHY

Arab philosophers effectively integrated faith and scientific fact, letting one exist within the framework of the other. The Arab philosophers after Byzantium re-discovered the classic philosophy of Aristotle, Plotinus, and Plato in attempting to find answers to the fundamental questions concerning God's creation of the universe, the nature and destiny of the human soul, and the true existence of the seen as the unseen.

Among the well-known philosophers of the medieval world were al-Kindi, who contributed to the work of Plato and Aristotle; al-Farabi, who made a model of Man's community; Avicenna (Ibn Sina), who developed theories on form and matter that were incorporated into medieval Christian Scholasticism; Ibn Khaldun, who expounded the cycles of a state in his *Muqqadimah* (Introduction).

In discussing contributions to human civilizations of some of the medieval Arab scientists, artists, educators, philosophers, poets and musicians, one must remember that their thought was molded and shaped by many ancient cultures – Greek, Roman, Chinese, Indian, Byzantine, Canaanite and Egyptian, for example. Arab culture, from its ancient beginnings to

the present, has given us three great monotheistic religions: Judaism, Christianity and Islam. In government and law, one refers to Hammurabi (Babylonian), Ulpian and Papinian (Phoenicians). Perhaps the greatest contribution of the Arabs to human civilization has been the phonetic alphabet.

In all aspects of our daily lives, then – in our homes, offices and universities; in religion, philosophy, science and the arts – we are indebted to Arab creativity, insight and scientific perseverance.

This brief survey of Arab contributions to human civilization was written by Mary Macron of Cleveland, Ohio. Mary, one of our first members, was proud of her Arab heritage and she sought to share it with others. She passed away in 1981. Her death has been a great loss to the Arab-American community. We are grateful to Cleveland State University's Ethnic Heritage Studies Program for allowing us to reprint Mary's essay as a tribute to her. The selection was edited for publication by David Hamod.

In compiling "Arab Contributions to Human Civilizations," Mary Macron relied extensively on Rom Landau's *The Arab Heritage of Western Civilization* (The League of Arab States, Arab Information Center, 747 Third Avenue, New York, NY 10017).

For further reading on Arab contributions to civilization, ADC recommends *The Genius of Arab civilization: source of Renaissance* (John Hayes, ed., New York University Press, 1975), *History of the Arabs* (Philip K. Hitti, St. Martin's Press, tenth edition 1970), and *The Legacy of Islam* (Sir Thomas Arnold and Alfred Guillaume, eds., Oxford University Press (1968).

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