

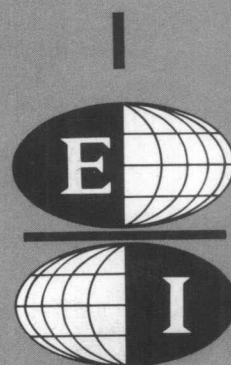


ENCYCLOPEDIA INTERNATIONAL

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Lexicon Publications



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ARISTOTLE

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PREFACE

This encyclopedia is designed to present in convenient and useful form the knowledge necessary for fruitful living in the complex modern world. It is intended to serve both the cultural and practical interests of the whole family as well as the needs of students on the various school levels.

The work contains nearly 30,000 articles written by more than 1,400 authorities, some of them world renowned. (A partial listing of the authors and their qualifications appears in Volume 20.) Some articles simply provide quick answers to specific questions. Others cover major subject areas of the arts and sciences, government and law, world geography and politics. Whether the particular subject is covered briefly or at length, however, the goal has been to present an accurate, concisely written, easily understood account that gives all of the essential facts.

Although this encyclopedia is especially strong in its coverage of the United States and Canada, it has an international point of view. New countries are described in substantial detail and there are long articles on such major nations as the United Kingdom, the U.S.S.R., China, France, and Italy. There are biographies of many contemporary statesmen, as well as of writers, artists, and scientists of many countries.

Attention has been given to matters of practical concern in the home—to Child Care, to Nutrition, to Gardens, to Home Management. Sports and recreation also find their place.

How the Encyclopedia Is Organized. Entries appear in straight alphabetical sequence, letter by letter. This easily used system is explained in detail in the introduction to the index in Volume 20. To aid the reader who wishes to go beyond the information contained in the article which he has consulted, “see-also” references frequently appear. Cross-references also are given in those cases in which an article might have appeared under an alternate title. Thus the reader who looks up Air Pump is told to “See Pump.” In addition to these aids, the index in Volume 20 is a guide to the entire set.

Illustrations. The illustrations—whether diagrams, charts, schematic drawings, or photographs—are regarded as an integral part of the articles with which they appear. Often they give as much information as the text itself—

or occasionally more. A wide variety of maps is published with articles on the areas to which they refer: four-color political and topographical maps for the states of the United States, the provinces of Canada, and the continents of the world; two-color political and topographical maps of the countries of the world, prepared especially for this encyclopedia by the Hammond map company; and hundreds of other special purpose maps which show municipal city plans, historical areas, resource distribution, populations, etc., produced under the direction of the encyclopedia's own map consultant.

Bibliographies. Suggestions for further reading appear with hundreds of articles. The experts who selected these books were asked to keep in mind the needs of the nonspecialist and the resources of the average public or school library. The books are intended for the use of the reader rather than as examples of the works to which the author of the article referred in its preparation.

Study Guides. Major articles are accompanied by study guides which serve a double purpose. They give a brief outline of the article itself and in a systematic way they call attention to many other entries which contain related information.

Career Guides. Articles covering the principal professions and skilled occupations also have guides explaining the characteristics of the field, the preparation required for a position in the field, and the rewards, financial or other, which may be expected of it.

Pronunciation. A pronunciation guide for this encyclopedia was expressly designed by the late Irving Lorge, Ph.D., of Teachers College, Columbia University. It appears at the end of this introductory section.

Continuous Revision. The encyclopedia is published under a program of continuous annual revision. New subjects are added each year and old ones are rewritten where necessary to present the latest information. Data on U.S. and Canadian universities and colleges and world production of mineral resources are provided in a special supplement in Volume 20.

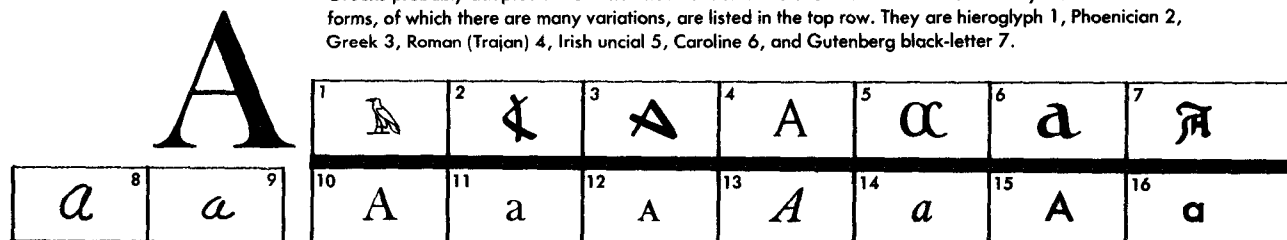
THE EDITORS

GUIDE TO PRONUNCIATION

This pronunciation key was expressly designed by the late Irving Lorge, Ph.D., Teachers College, Columbia University, to present clear and accurate phonetic transcriptions of all entry words and names that might prove difficult for the average user of this work. Since many terms are derived from languages other than English, the reader will find these pronunciations, which appear immediately after the entry word, of considerable value. The pronunciations themselves were prepared by Ramona R. Michaelis, supervising editor of the Funk & Wagnalls Standard College Dictionary.

ă	pat, sad, snack, gas	ō	odd, clock, modern, tomorrow
ā	stay, sail, feign, tape	ō	vote, soak, obey, throw
ā	father, psalm, arch, stark	ô	author, all, war, bought
â	air, fare, heir, where	oi	toy, oil, coin, moist
à	French ami	ōō	wool, book, pull, foot
b	boy, sob, abbot, bear	ōō	moon, through, shoe, moose
ch	chew, church, teacher, child	ou	out, shower, now, foul
d	dandy, dog, date, ended	p	play, apply, soup, lapse
ē	men, said, fell, bury	r	ran, sure, floor, rhombus
ē	seed, field, meat, meter	s	say, scent, cite, lease
f	far, safe, graph, tough	sh	shoot, motion, machine, ash
g	guess, log, ghost, gone	t	tall, stem, sat, caught
h	hurl, harm, who, head	th	thin, path, thigh, throw
hw	when, why, whale, wheat	th	thee, either, smooth, bathe
ĩ	inside, cyst, single, body	ũ	flood, unto, onion, mud
ī	find, cycle, eye, aisle	ū	unite, suit, slew, beauty
j	judge, gem, stooge, age	û	urn, fern, shirt, myrtle
k	keep, crib, lack, skin	ü	French une, German Brüder
kh	German ich, Nacht Scottish loch	v	vain, ivy, wave, of
ks	hex, next, X ray	w	was, went, awake, weave
l	long, well, wheel, stable	y	yet, Yahweh, yacht, yield
m	more, whim, smart, name	z	zero, rose, please, xylophone and as terminal s or -ism (iz-əm)
n	none, own, know, sign	zh	azure, beige, measure, rouge
n	French n-vin, champ	ə	circus, china, around, channel
ng	uncle, ink, angle, bang	'	indicates principal syllabic stress
		-	used between unstressed syllables

Although the letter A probably has stood for a great variety of sounds, it has been the first letter of most alphabets since prehistoric times. The modern letter derives directly from the Greek alphabet, but the Greeks probably adopted it from the Phoenicians. It has been written in numerous ways. Some historical forms, of which there are many variations, are listed in the top row. They are hieroglyph 1, Phoenician 2, Greek 3, Roman (Trajan) 4, Irish uncial 5, Caroline 6, and Gutenberg black-letter 7.



Four of the most common forms of the letter A as it occurs today are illustrated in the bottom row. They are handwritten cursive capital 8, handwritten lowercase 9, roman capital 10, roman lowercase 11, roman small capital 12, italic capital 13, italic lowercase 14, sans serif capital 15, and sans serif lowercase 16.

A, first letter of the English alphabet, whose Semitic ancestor also stood first in its alphabet. The Semitic letter was apparently derived from the ox, of which it originally was intended to be a picture.

In the spelling of words, *a* is always a vowel in any position—as in *at*, *pat*, *villa*—but the pronunciation varies greatly; other letters and letter-groups have the same sound (Nineveh). In words of direct Germanic inheritance (e.g., *that*) *a* usually represents an older *o* (Greek *tode*, “that”). The reverse relationship appears in the Mid-Western pronunciation of *o* (*hot*, *dog*) as a variety of *a*-sound.

In Greek the letter was called *alpha* (Arabic *alif*); the Romans learned to call it *ah* (perhaps as in English *father*) from Etruscan usage. The modern languages of Europe generally still so call it, but in English a regular series of changes has produced *a* (as in *name*).

JOSHUA WHATMOUGH

See also ALPHABET.

AAA. See AMERICAN AUTOMOBILE ASSOCIATION.

AACHEN [ä'kən] (Fr. **AIX-LA-CHAPELLE**), industrial city and resort of North Rhine-Westphalia, West Germany, near the Dutch and the Belgian frontiers. Aachen is in the Würm Valley, surrounded by the Venn Mountains, and on the main railway between Cologne and Brussels. It is important as an industrial and commercial city, but is better known for its historical associations. Its mineral waters attract many visitors annually. There are extensive coal-fields in the vicinity and a variety of industries in the city, notably the production of iron. Other important manufactures are glass, needles, pins, electric motors, bulbs, leather, furniture, chemicals, cigars, and chocolate. Aachen has several educational institutions, of which the most famous are a technical institute and a teachers college. There are also a mining office, five museums, and five libraries.

Aachen was called *Aquae Grani* by the Romans, who knew its hot springs. The place became famous when Charlemagne made it his residence and the capital of his empire in the 8th century. Later Aachen became the coronation city of the Holy Roman Empire. Between 1801 and 1814 Aachen was under French rule. During the

Franco-Prussian War and World Wars I and II, Aachen was a base for military operations and an important center of traffic. In World War II approximately half of the city was destroyed.

Many historical relics survived the air raids of World War II, including the famous cathedral erected during the reign of Charlemagne as a palace chapel in Romanesque style. After its destruction by the Normans it was rebuilt in 983 by Otto III. The cathedral contains the tomb of Charlemagne and many other religious relics. The churches of St. Foillan and St. Paul, the town hall, and the Grashaus are other notable buildings. In the old part of the city are some fine streets, lined by ancient houses, and the squares have monuments and statues, of which that of Charlemagne in the market square is the most famous. The former fortifications around the city are walks and parks, and only two gates, the Ponttor and Marschiertor, remain.

JOACHIM MARQUARDT

AALBORG [ä'l'börg] or **ÅLBORG**, fourth-largest city of Denmark, located on the Limfjord in the north of Jutland. A transportation center, the city serves as a focal center for road and rail traffic in northernmost Denmark. Its deepwater port handles the third-largest tonnage in the country. Aalborg is a major center of cement production. Its other industries include distilling, meat packing, shipbuilding, and the manufacture of superphosphates, textiles, and tobacco products. Chartered, 1342.

AALTO (ä'l'tō), **ALVAR** (1898–1976), Finnish architect and furniture designer and exponent—with his wife and collaborator, Aino (died 1949)—of the so-called International style of architecture. Educated entirely in Finland, he became world famous in the 1930's for his severely functional work there. For a decade after the outbreak of World War II he lived partly in the United States, where he taught, and designed a striking dormitory, at the Massachusetts Institute of Technology. After returning to Finland, he produced increasingly lyrical designs, often incorporating elements of the landscape, culminating in the vast combination symphony hall-conference center in Helsinki called Finlandia Hall, site of the European Security Conference in 1975.



Bucky Reeves—National Audubon Society

The aardvark, an anteater, attains a length of 6 ft (1.8 m).

AARDVARK [ärd'värk], mammal of the order Tubulidentata, characterized by heavy build, sparse hair, and a long piglike snout, terminating in rounded nostrils. The single species, *Orycteropus capensis*, is restricted to South Africa. The food of the aardvark consists primarily of termites, which it catches with a long, sticky tongue. Its strong claws are effective digging tools, employed to construct long underground burrows in which the animal sleeps during the day. It emerges during the evening in order to feed.

AARDWOLF [ärd'wölf], South African carnivore, *Proteles cristata*, a member of the hyena family. It has a striped coat and bristly mane and is rarely more than 40 inches (101.6 cm) long and 20 inches (50.8 cm) high. A creature of the plains and bush country, the aardwolf feeds at night, sleeping throughout the daytime in the abandoned dens of other animals. Its diet consists almost entirely of termites. When frightened, it releases a foul smelling fluid from its anal glands.

AARGAU [är'gau] (Fr. **ARGOVIE**), canton of north Switzerland crossed by the valleys of the Limmat, Reuss, and Aare rivers. These valley corridors, with large villages, arable fields, rich meadows, orchards, and vineyards, contrast sharply with the forest-clad ridges and savage gorges of the Jura Mountains that occupy the northern part of the canton. The chief towns, Aarau, Brugg, and Baden, manufacture shoes, textiles, cement, electric lamps, and scientific instruments. Most of the people of Aargau speak German. In 1415 this region passed from the rule of the Habsburgs to the Swiss Confederation, but the present canton of Aargau was not defined until 1803. The capital is Aarau. Area, 542 sq mi (1 404 km²).

AARHUS [är'hōös] or **ÅRHUS**, second-largest city of Denmark, centrally located on the east coast of Jutland. It

derives its name from Old Norse *ár os* ("river mouth"), referring to the Aarhus River, which bisects the city. A major transportation center, its deepwater port is exceeded only by that of Copenhagen, the capital of Denmark, in the volume of tonnage handled. It also ranks second to the capital in industrial output and employment. Among its leading industries are the refining of vegetable oils for margarine and soap; the manufacture of machinery, including locomotives and refrigeration equipment; and brewing. The city is also a regional cultural center, boasting several museums, theaters, and concert halls. It has several institutions of higher learning, chief among which is the University of Aarhus (founded 1928).

Aarhus is one of the oldest cities in Denmark, having been made an episcopal see in 948. Its early annals consist largely of its history as a religious center, and the city's oldest existing structure is the Church of Our Lady (built c. 1100). The city also has a cathedral, which was begun in 1201 and largely completed during the 14th century. Following the Reformation the city stagnated for a time, but it resumed its growth with the expansion of commerce in the 18th century. Its most rapid growth, however, resulted from the improvement of communications and the beginnings of industry in the 19th and 20th centuries.

Aarhus is the site of a distinctive open-air museum known as *Den Gamle By* ("The Old Town"). Some 50 buildings, many of the late 16th and early 17th centuries, have been assembled there from all parts of Denmark to provide a glimpse into the country's cultural history and handicrafts. Another landmark is the ultramodern Town Hall, whose 200 ft (61 m) marble tower offers a splendid view. The city is pleasantly framed by rolling, morainic hills and wooded groves and has several excellent sandy beaches on Aarhus Bay.

VINCENT H. MALMSTROM

AARON [är'ən], in the Biblical account, elder brother of Moses, and progenitor of Israel's priests. The name is Egyptian and there is no reason to doubt that Aaron was a historical figure, the ancestor of a priestly family serving in the Israelite sanctuary of Bethel, where God was worshipped as riding on a bull. Later Old Testament writers regarded this worship with disapproval and considered it a sin (Exod. 32). Aaron himself may never have been in Bethel, living rather in the south of Palestine, where tradition recorded his tomb on Mount Hor in Edom (Num. 20:22-29). In the growth of Israelite tradition Aaron was linked with Moses and Miriam as their brother, and after the exile of 586 B.C., when Bethel ceased to be an accepted sanctuary, Aaron's descendants were the sole legitimate priests of Jerusalem.

AARON, HENRY LOUIS (HANK) (1934–), U.S. baseball player, who in Atlanta on April 8, 1974, hit his 715th home run to break Babe Ruth's record and become the leading home-run hitter in baseball history. Born in Mobile, Ala., Aaron entered the big leagues in 1954 as right fielder with the Milwaukee Braves, and he moved with the team as it became the Atlanta Braves in 1966. The low-keyed, modest Aaron won the National League's most valuable player award (1957) and its batting championships (1956 and 1959). In his best season for homers, he hit 47 in 1971.



Michaud—Rapho

A child prepares to solve a problem on an abacus in a calculus class in Afghanistan. The ancient device is still widely used in Asia, not only in trade and commerce, but also in teaching mathematics.

In 1958, 1959, and 1960, Aaron received the Golden Glove award for fielding, and from 1955 to 1974 he was a member of the National League All-Star team.

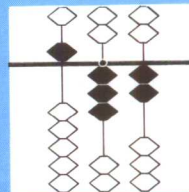
ABACUS [ăb'ə-kəs], calculating device, used in addition and subtraction. Widely used in ancient times by the Hindus, Egyptians, Greeks, and others, the abacus was originally a wooden board covered with sand, upon which numerals were written. The modern Chinese abacus came into being in the 12th century. Called *suan-p'an*, it consists of a rectangular wooden frame with beads or counters strung on parallel wires. A crosspiece separates the beads. Each bead above the crosspiece has a value of five, each below, a value of one. The wires from right to left indicate units, tens, hundreds, and so on. Beads are moved toward the crosspiece in addition, and away from it in subtraction. The abacus is still the basic calculating device used in parts of Asia and the Near East. It is also used in the teaching of arithmetic.

ABADAN [ăb'ə-dăn], city of southwestern Iran, situated on an island of the same name at the head of the Persian Gulf. The island, averaging 2 mi (3.2 km) wide and 40 mi (64.3 km) long, was formed from silt deposited by the Karun River and the Shatt al-Arab; it is a low-lying strip situated between the Shatt al-Arab and the estuary of the Bahmanshir River. Abadan is one of the leading oil centers of the Middle East, a pipeline terminus, and an export center. An international airport serves lines flying between Europe and Asia, as well as a local line to the principal cities of Iran. A 2,000-ft (609.6 m) bridge joins the island with the railhead town of Khorramshahr.

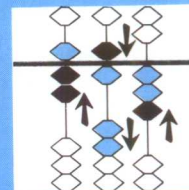
The site of fishing villages in early Islamic times, the island was originally known as Jazirat al-Khidr. Over a period of several centuries the local settlers, by relentless efforts, managed to wash salt deposits from the soil and establish the very extensive date-palm groves which are a striking feature of the island. The discovery of oil in southwestern Iran led to an entirely new development. Pipelines were laid to the island, and the first refinery was completed in 1912. Year after year the size of the refinery was increased, docks for oil tankers extended, and housing

areas expanded by the Anglo-Iranian Oil Company. After 1954 the complex installations were operated by the National Iranian Oil Company and an international consortium of major oil companies.

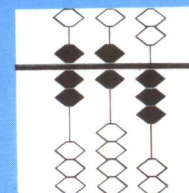
Diagrams of simple addition using three rows only, to show the units, tens, and hundreds, reading from right to left. A bead, or counter, strung over the horizontal bar, counts as five in number when it's slid down from the top; every bead pulled up to the bar from below counts for one. Thus, the beads in black are placed to show 532.



To add 231 to the 532, make four moves as shown by arrows in the middle drawing. Starting with the hundreds row, two lower-set beads move up to increase the five count, already established, to a column total of seven. In the middle row we add three by bringing down one five bead from the top and two one beads from below, getting a six. In the far-right row, one is added by sliding a bead up from the bottom for a total of three. The grand total: 763.



The abacus, in one form or another, antedates the Christian Era, its use extending even to European countries. Today, it still serves many Asian lands.



ABADDON - ABBASID

Abadan has the atmosphere of a boom town, for construction is always going on. The climate is extremely hot and humid throughout much of the year, and many of the houses and administration buildings are air-conditioned. The modern shrine of al-Khidr, local saint of the early Islamic period, replaces an earlier structure and is much frequented on religious holidays.

DONALD N. WILBER

ABADDON [ə-bād'ən] (Heb., "perdition" or "hell"), word used in Job (26:6; 31:12), Psalms (88:12), and Proverbs (15:11) to mean, broadly, "netherworld" and "death personified." Rabbinic and New Testament literatures use the word to designate the second department of Gehenna.

ABAKAN [ə-bə-kän'], city of Soviet Union, in south Krasnoyarsk Territory of the Russian S.F.S.R. It is located on the Abakan River, just above its junction with the Yenisei River in central Siberia. Abakan is the capital of the Khakass Autonomous Oblast. The city is a railroad center at the junction of the South Siberian Railroad leading west to the Kuznetsk Basin and a spur of the Trans-Siberian Railroad. Its industries include sawmilling, the manufacture of furniture and clothing, and food processing. The town was founded early in the 18th century as a fortress, and until 1931 it was known as Ust Abakanskoye. Inc. as city, 1931.

ABALONE [äb-ə-lō'nē], marine mollusk, genus *Haliotis*, having a saucer-shaped shell, up to 7 inches (17.78 cm) across. The shell is often lined with highly colored mother-of-pearl. Abalone is found in most temperate seas except the western Atlantic. The shell protects the animal as it glides over rocks near the shore in search of seaweed, its main food item. When frightened, the abalone clings tightly to a rock and because of its dome-shaped shell it is extremely difficult to remove. The shell is often used in jewelry and craftwork; the animal itself is much sought for as a seafood delicacy.

ABANDONMENT [ə-bän'dən-mənt], in law, means to forsake completely and voluntarily with no intention of ever reclaiming what one renounces and without transferring it to another. Property so relinquished may be appropriated by the person who first takes possession of it. For example, one who abandons his newspaper in a park, gives up his rights to it but not necessarily his duties. He may be guilty of littering. As applied to the relationship between husband and wife, or between parent and children, abandonment is desertion. This is wrongful and generally punishable as a criminal offense. In Anglo-American law an easement, but not a perfected land title, may be abandoned.

ABATEMENT [ə-bā'tə-mənt], a plea which formerly could be asserted by the defendant to raise some hidden defect affecting the maintenance of a lawsuit but not its merits. It did not bar the plaintiff from commencing another action if he could correct the error. Defects subject to such pleas were: prematurity of the action; pendency of another action between the parties for the same claim; wrong place for the trial; disability of a party to sue or be sued; mis-

nomer of a party; the right persons were not made parties to the action. Although the plea is abolished, these defects can be raised by a separate motion or in defendant's answer.

ABBA [äb'bä], (Aramaic "father"), term used in addressing one's human father, and also in prayer to God. In the Garden of Gethsemane, Jesus prayed, "Abba (Father), all things are possible unto Thee" (Mark 14:36). Later, Greek-speaking Christians used "Abba" in their prayers. St. Paul said that this was done in memory of Jesus (Gal. 4:6; Rom. 8:15).

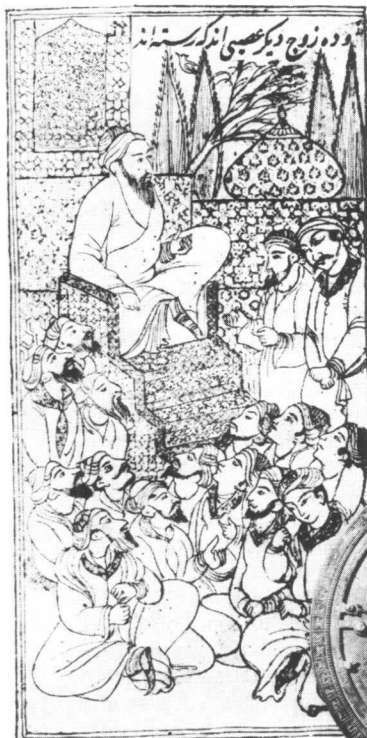
ABBA SALAMAH, "The Father of Peace," title of the head of the Ethiopian (Abyssinian) Church. The Abba Salamah is consecrated by the Coptic Patriarch in Cairo and is under his jurisdiction. The seat of the Abba Salamah is in Addis Ababa, capital of Ethiopia; he crowns the Emperor of Ethiopia.

ABBASID [äb'äsīd, ə-bäs'īd], dynasty of caliphs ruling Islam from 750 to 1258. The name was derived from al-Abbas, the uncle of Mohammed.

Rise to Power. The Abbasids were originally one of several factions struggling for power during the Umayyad caliphate (661-750). Their position was strengthened when they assumed leadership of the extreme anti-Umayyad sect of the Hashimiyya. In 716 Abu Hashim, the sect's leader and claimant to the caliphate, bequeathed his authority to Mohammed ibn Ali, the head of the Abbasids. By utilizing the sect and its propaganda organization, the Abbasids intensified their efforts against the Umayyads. Their task was facilitated by uprisings against the Umayyads by the Shiites and Kharijites, Islamic sectarians, as well as by internal feuds between leading Arab tribes. Directing their operations from the turbulent Mesopotamian city of Kufa, Abbasid leaders concentrated their clandestine propaganda on Persian Khurasan.

In 745 Ibrahim, the son of Mohammed ibn Ali, sent Abu Muslim, a Persian freedman, to Khurasan to direct the Abbasid movement there. Under his leadership the movement spread among the Persian Muslims, the Yemenite Arabs of Khurasan, and even among the Zoroastrians and Buddhist squires who had been converted by Abbasid missionaries. In 747 Abu Muslim led these groups in revolt against their rulers. Defeating one Umayyad army after another, his armies advanced westward. In 749 they captured Kufa, where the jubilant Abbasid supporters acclaimed Abu'l-Abbas, a brother and successor of Ibrahim, as the new caliph of the Muslim Empire. Their triumph was complete with the defeat of the last Umayyad caliph, Marwan II, in the Battle of the Great Zab (750). The Abbasids thereafter consolidated their position by brutally executing their former revolutionary supporters, including Abu Muslim and the Hashimiyya, as well as survivors of the Umayyad regime.

Character of the Abbasid Caliphate. Contrary to the assertions of 19th-century scholars, the success of the Abbasids cannot be regarded as a victory of the Persians over the Arabs. Although Persians played their part in the victory, the Abbasid movement was Arab in origin. It was directed by the Arabs from the Arab city of Kufa, and it

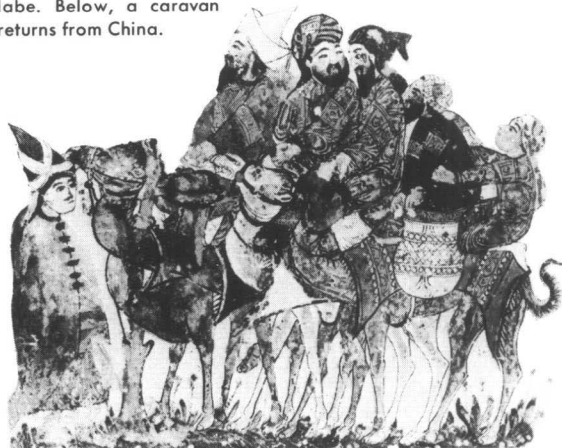


The Bettmann Archive

Above, the scientist and philosopher Avicenna lectures to students. Science was advanced with such instruments as the astrolabe. Below, a caravan returns from China.



Photographie
Giraudon



New York Public Library

resulted in the supremacy of an Arab family over the Muslim Empire. Furthermore, Arabic continued to be the sole official language, Arabian land remained fiscally privileged, and some of the high offices were at first reserved to the Arab aristocracy. Nevertheless, the establishment of the Abbasids was followed by changes in the character of the ruling regime. They shifted the capital of the caliphate from Syria to the new city of Baghdad in Iraq. The result was both a geopolitical and social reorientation in the Muslim Empire. The highly evolved bureaucratic administration of the state as well as court etiquette were molded by Persian influences. Non-Arabs could rise to the high office of vizier, even controlling the affairs of state as in the

case of the Barmecide family. Furthermore, non-Muslims came to exercise considerable power in the economic life.

To maintain their supremacy over this quickly developing, cosmopolitan empire, the Abbasids adopted a new basis for their authority. Whereas Arabism, or rule by the Arabs, was the guiding political principle of the Umayyads, the Abbasids resorted to the idea of Islamism, since Islam could serve as a bond uniting the various ethnic components of the vast empire. In pursuit of this religious policy, they insisted on the co-operation of Muslim theologians, and persecuted Muslim heretics.

History of the Abbasid Caliphate. The Abbasid caliphate evolved brilliantly and swiftly. A series of powerful rulers, including al-Mansur (r.754-75), al-Mahdi (r.775-85), Harun al-Rashid (r.786-809), and al-Mamun (r.813-33), generally succeeded in preserving the empire, which extended from North Africa to Central Asia. An efficient administrative organization permitted Abbasid society to attain a high standard of scientific, cultural, artistic, and economic development. Even during its flowering, however, forces were at work which led to the gradual decline of the caliphate. The need to defend the empire as well as to cope with internal revolts compelled the caliphs, beginning with al-Mutasim (r.833-42), to establish regiments of trained slaves, known as *mamelukes*. After a time the soldier-slaves grew so powerful that the caliphs surrendered their political authority to their military commanders. Moreover, petty dynasties arose in various provinces of the empire, acknowledging the nominal suzerainty of the Abbasids, but weakening the empire with their jealousies and struggles. Egypt and Syria were lost to the Tulunid dynasty (r.864-905) and the Ikhshidid dynasty (r.935-69). The effective political authority of the Abbasids was gradually restricted to Iraq. A succession of internal revolts was even more decisive in reducing Abbasid power. Although some of these were staged by socially underprivileged elements, as in the case of the Zanj revolt in Mesopotamia (868-83), most of them had the character of religious movements. The most extreme and persistent was that of the Shiite Ismaili group, which aimed at the replacement of the Abbasid caliphs by the descendants of Ali and Fatima (the cousin and daughter of the Prophet, respectively). This group succeeded in 909 in establishing the rival caliphate of the Fatimid (q.v.).

By the middle of the 10th century the Abbasids were politically impotent. Their humiliation became complete when Iraq was invaded in 945 by Daylamite troops of the Persian Buwayhids. The religious as well as the political prestige of the Abbasids suffered, since their new masters professed the Shiite creed. The emergence in 1055 of the orthodox regime of the Seljuk (q.v.) sultans restored some of the prestige of the Abbasid caliphate, though none of its political power. Caliph al-Nasir (r.1180-1225) managed to re-establish the caliphate's power over a small state centered around Baghdad. However, in 1258 the Mongols abolished the Abbasid caliphate entirely, and though a shadow Abbasid caliphate was established in Cairo in 1261 by Baybars I to serve the interests of Mameluke (q.v.) sultans, this too was abolished in 1517 by the Ottomans.

ANDREW S. EHRENKREUTZ

See also BARMECIDE OR BARMAKID; CALIPHATE; HARUN AL-RASHID; Umayyad.

ABBÉ – ABBEY

ABBÉ [á-bā'], French term originally applied only to abbots of monasteries, but now popularly applied to any secular priest. A French priest is thus properly addressed as "M. l'Abbé."

ABBE [áb'ē], **CLEVELAND** (1838–1916), American meteorologist and astronomer who established scientific weather forecasting in the United States. He was born in New York City and graduated from the New York Free Academy (now College of the City of New York) in 1857. He later studied for two years in Russia under the famous astronomer Otto Struve. In 1868 he became director of the Cincinnati (Ohio) Observatory, where he compiled weather observations from Midwestern telegraph stations and issued daily forecasts. He was then called to Washington to organize the national Weather Service (1871), forerunner of the U.S. Weather Bureau (1891) where he served until his retirement in 1916.

ABBESS, the superior of certain communities of nuns. The position and function of an abbess are similar to those of an abbot, but being a woman, she cannot perform the functions of a priest. Instead she exercises domestic authority over her community and fulfills such obligations as offering religious council.

ABBEVILLE [áb'ə-vīl], town of south-central Louisiana, and seat of Vermilion Parish. The town's economy is based on rice, sugar cane, cattle, and furs from animals trapped in the nearby coastal marsh. Oil wells are in the vicinity. Inc., 1850.

ABBEVILLE, city of western South Carolina, and seat of Abbeville County. John C. Calhoun, twice vice-president of the United States, was born there. Abbeville is sometimes known as the birthplace of the Confederacy, because a secessionist meeting was held in the city in 1860. Settled in the 1700's, it was incorporated in 1895.

ABBEY, canonical dwelling, enjoying autonomy, governed by an abbot, and housing at least 12 monks. The great abbeys of Europe grew out of the caves, abandoned tombs, and mud huts of the hermits, first established in the desert by St. Anthony of Egypt (3d–4th centuries). The founders of the earliest monasteries were the hermits who attracted disciples, their huts clustering around that of the solitary. St. Pachomius (c.290–346) introduced a simple order by laying out these huts in rows and erecting community buildings surrounded by a wall. He also devised a single, self-contained building, with cells for the monks, as a novitiate community life before attempting the hermitical. Eventually the conventual life superseded the hermitical. Its adoption by St. Benedict (6th century) and the spread of monasticism under the influence of his rule standardized the housing of the monks by standardizing their life. At first the Roman villa, its buildings arranged around a quadrangle, was adapted to monastic life, the form varying with local conditions and customs. The initial buildings included oratory, dormitory, refectory, kitchens, infirmary, and conference room. As the monks also worked the fields, cultivated the arts, and plied various trades, barns, stables, and workshops were added. The large abbeys became self-contained cities. The abbeys became extremely beautiful

The Benedictine abbey church of St. John, at Collegeville, Minn., was completed in 1961.

Marcel Breuer and Associated Architects



and imposing structures, passing from the architecture of the Roman basilica through Romanesque to Gothic. Each bore the place name of its location, whether in the wilderness or in the city; some also bore the name of the founder or of a saint whose relics were there.

Consult Braunfels, Wolfgang, *Monasteries of Western Europe: The Architecture of the Orders* (1973); Hogg, Gary, *Priories and Abbeys of England* (1972); Vale, Edmund, *Abbeys and Priories* (1956); Wright, Geoffrey, *Abbeys and Priories* (1971).

WALTER H. TURNER

ABBAY THEATRE, repertory theater in Dublin, organized in 1904 as a product of the late-19th-century Irish cultural revival. It was inspired by the work of the playwrights William Butler Yeats and Lady Augusta Gregory, and was established with the financial aid of the English theater manager Annie Elizabeth Fredericka Horniman. Its basic aim was to encourage the development of a native Irish drama and a characteristically Irish style, both realistic and poetic. Besides Yeats and Lady Gregory, the Abbey produced works by such leading Irish authors as A. E. (George William Russell); John Millington Synge, whose *The Playboy of the Western World* (1907) had its première at the Abbey; Sean O'Casey, whose *Juno and the Paycock* (1924) and *The Plough and the Stars* (1926) were first given there; and Lennox Robinson, Padraic Colum, and Lord Dunsany. The Abbey acting company has included such leading players as Barry Fitzgerald, Arthur Shields, and Sara Allgood; it visited the United States four times between 1911 and 1937. In 1951 the building housing the Abbey was destroyed by fire. A new home for the company was opened in 1966. Since 1939 the quality of the Abbey's plays and productions has declined somewhat, but it remains as a chief symbol of an impressive dramatic development. Its significance has been recognized by the award of an annual government subsidy.

ALLARDYCE NICOLL

ABBOT, CHARLES GREELEY (1872-1973), American astrophysicist, known for his researches on solar and stellar radiation, especially for his determination of the value of the solar constant, the rate at which a surface receives heat energy from the sun. In 1895 he was appointed assistant at the Smithsonian Institution, Washington, D.C., and in 1907 director of the Smithsonian Astrophysical Observatory, a post that he held until 1944, when he became research associate. Under his directorship the Smithsonian Institution organized widely scattered observatories for the study of solar radiation and the absorptive effects of the earth's atmosphere on this radiation.

ABBOT, the head of a monastery. Derived from the Aramaic *abba* ("father"), the term originally honored old or saintly persons. With the spread of Benedictine monasticism, it became the designation of the superior of a religious community of 12 or more monks, and was intended to express the paternal relationship of superior to inferior. With the growth of monastic wealth after the 11th century came the rise of the abbot's power, until it rivaled that of bishop and baron. Originally elected by his community, the abbot later became the appointee of prince or Pope. The Council of Trent (1545-63) curtailed the abbot's authority.

ABBOTT, GEORGE (1887-), American playwright, stage director, and producer. He began as an actor in 1913; from 1930 onward he concentrated on directing comedies and musical comedies, frequently also serving as coauthor. He directed a memorable series of farces, including *Twentieth Century* (1932); *Three Men on a Horse* (1935), which he wrote with John Cecil Holm; *Boy Meets Girl* (1935); and *Room Service* (1937). Successful musicals staged by Abbott include *Pal Joey* (1940), *Damn Yankees* (1955), and *Fiorello!* (1959). He was coauthor of the last two. One of the most knowledgeable all-round men of the theater, he produced plays that have invariably been distinguished by vitality and astute showmanship.

ABBOTT, JACOB (1803-79), American educator, clergyman, and author of children's books. Born in Hallowell, Me., he graduated from Bowdoin College and studied at Andover Theological Seminary. In Boston he founded the Mount Vernon School for girls, where he discarded the traditional stern disciplinary methods and substituted an approach of kindness and trust. A prolific writer, he was the author of the "Rollo" books (a 28-volume series begun in 1834), the *Franconia Stories* (10 vols., 1850-53), and "Abbott's Illustrated Histories" (1849-61). His books, which were meant primarily to instruct, are stilted by modern standards, but they were much more human and much less priggish than other children's books of the time. Abbott was the most popular children's author of his time.

ABBOTT, SIR JOHN JOSEPH CALDWELL (1821-93), Canadian lawyer and Prime Minister (1891-92). Abbott was born in St. Andrews, Quebec, and educated at McGill University; called to the bar in 1847, he was dean of the faculty of law at McGill from 1855 to 1880. Like others who later became prominent in the building of Canada, Abbott signed the Annexation Manifesto (1849) urging Canada to join the United States. A leading authority on commercial law in Lower Canada (Quebec), he preferred the practice of law to involvement in politics; he played his significant political role reluctantly. His active political career began when he became solicitor general, for a short time, in 1862. Gradually he became involved in Conservative party politics serving as a trusted adviser of the Prime Minister, Sir John A. Macdonald. As legal counsel to Sir Hugh Allan, head of the Canadian Pacific Railway, Abbott gained dubious fame in 1873 when one of his confidential clerks rifled his files and sold to the Liberal opposition the information that was used to precipitate the Canadian Pacific scandal and bring about Macdonald's fall. From 1880 to 1887 Abbott was legal counsel to the second, and successful, Canadian Pacific Railway Company, taking a leading part in the direction of this enterprise on which much of Canada's future depended. By the time he was appointed to the Senate in 1887, Abbott had represented Argen-teuil, Quebec, for 24 years, first in the Legislative Assembly, then in the House of Commons. Macdonald employed him on many delicate diplomatic and financial missions. When Macdonald died in 1891, the Conservative party faced a dilemma in choosing his successor. Abbott emerged as the favored compromise candidate, around whom stronger men in the party could rally. He resigned the premiership in Nov., 1892.

W. S. MACNUTT

ABBREVIATIONS

ABBREVIATIONS represent the arbitrary shortening of words by contraction or by omission (*attorney to atty.*, *Connecticut to Conn.*), or occasionally by substitution (*pages to pp.*). In modern writing the use of abbreviations to save time and space has become extremely common. In fact such forms as FBI, UNESCO, and GOP have largely replaced the original words and phrases.

There follows a select list of abbreviations in general use. Other more specialized abbreviations, especially in science, will be found in the appropriate subject areas. See also ACRONYM.

A.A. - Associate in Arts; Alcoholics Anonymous
AAA - American Automobile Association
AAAS - American Association for the Advancement of Science
A. and M. - Agricultural and Mechanical
AAU - Amateur Athletic Union
AAUW - American Association of University Women
A.B. - Bachelor of Arts
ABM - antiballistic missile
abbr., abbrev. - abbreviation; abbreviated
abr. - abridged; abridgment
AC - alternating current
ACP - American College of Physicians
ACS - American Chemical Society; American College of Surgeons
ACTH - adrenocorticotrophic hormone
A.D. - *anno Domini* (Lat.), in the year of our Lord
ADA - Americans for Democratic Action; American Dental Association
ADC - Aide-de-camp
adj. - adjective
Adm. - Admiral; Admiralty
adv. - adverb; advertisement
ad val. - *ad valorem* (Lat.), according to the value
ae., aet., aetat. - *aetatis* (Lat.), of age, aged
AEF - American Expeditionary Force
AES - American Engineering Society
A.F.A.M., A.F. & A.M. - Ancient Free and Accepted Masons
AFL-CIO - American Federation of Labor—Congress of Industrial Organizations
AFM - American Federation of Musicians
AFTRA - American Federation of Television and Radio Artists
AG - Adjutant General; Attorney General
AIA - American Institute of Architects
AIB - American Institute of Banking
AID - Agency for International Development
AIM - American Indian Movement
AKC - American Kennel Club
Ala. - Alabama
ALA - American Library Association
Alas. - Alaska
Alb. - Albania, Alberta
alt. - alternate; alternating; altitude
Alta. - Alberta
AM - amplitude modulation
A.M. - Master of Arts
A.M., a.m., a.m. - *ante meridiem* (Lat.), before midday
AMA - American Medical Association; American Management Association
A.M.E. - African Methodist Episcopal
amp. - amperage; ampere
amt. - amount
anon. - anonymous
AOA - Administration on Aging
A.O.H. - Ancient Order of Hibernians
API - Associated Press International
APO - Army Post Office
approx. - approximately
Apr. - April
apt. - apartment
ARC - American Red Cross
Arch. - Archbishop
arch. - archaic; architect; architecture
Ariz. - Arizona
Ark. - Arkansas
ASCAP - American Society of Composers, Authors, and Publishers
assn., assoc. - association
ASSR - Autonomous Soviet Socialist Republic
asst. - assistant
Atty. - Attorney
Atty. Gen. - Attorney General
Aug. - August
Aust. - Austria(n)
Austr. - Australia(n)
A.V. - Authorized Version (of the Bible)
av. - average; avoidupois
Ave. - Avenue
avoir. - avoidupois
AWOL - absent without leave
b. - born
B.A. - Bachelor of Arts
Bap., Bapt. - Baptist
B. Arch. - Bachelor of Architecture
Bart. - Baronet
B.B.A. - Bachelor of Business Administration
BBC - British Broadcasting Corporation
B.C. - Bachelor of Chemistry; British Columbia
B.C. - before Christ
B.C.L. - Bachelor of Civil Law
B.D. - Bachelor of Divinity
bd. ft. - board foot
B. Ed. - Bachelor of Education
BEF - British Expeditionary Force
Bel., Belg. - Belgian; Belgium
Bib. - Bible
Bibl. - Biblical
bibliog. - bibliography
biog. - biographer; biographical; biography
B.J. - Bachelor of Journalism
bk. - bank; book
B.L. - Bachelor of Laws
bldg. - building
B.Lit(t). - Bachelor of Literature (or Letters)
BLS - Bureau of Labor Statistics; Bachelor of Library Science
blvd., boul. - boulevard
B.M. - Bachelor of Medicine

B.Mus. - Bachelor of Music
bot. - botanical; botany
BPOE - Benevolent and Protective Order of Elks
Br. - British
Brig. - Brigade; Brigadier
Brig. Gen. - Brigadier General
Brit. - Britain; British
bro. - brother
B.S. - Bachelor of Science
B.S.A. - Bachelor of Agricultural Science; Boy Scouts of America
B.Sc. - Bachelor of Science
B.S. in L.S. - Bachelor of Science in Library Science
B.T., B.Th. - Bachelor of Theology
BTU - British thermal unit
bu. - bureau; bushel
Bulg. - Bulgaria(n)
bur. - bureau
bus. - business
B.V. - Blessed Virgin
B.W.I. - British West Indies
c. - *circa* (Lat.), about; copy; cent
c, cm - centimeter
C - Celsius, centigrade
C.A. - Central America; Coast Artillery
CAB - Civil Aeronautics Board
cal. - calendar; caliber; calories
Calif. - California
Can. - Canada; Canadian
Cantab. - *Cambridge* (Lat.), of Cambridge (University, England)
CAP - Civil Air Patrol
cap. - capital; capitalize
Capt. - Captain
CAR - Civil Air Regulations
CARE - Cooperative for American Remittances to Everywhere
Cath. - Catholic
CB - citizen band (radio)
CBC - Canadian Broadcasting Corporation
C.B.E. - Commander (of the Order) of the British Empire
CCC - Civilian Conservation Corps; Commodity Credit Corporation
CCF - Cooperative Commonwealth Federation (of Canada)
C.D. - Civil Defense
C.E. - Chemical Engineer; Chief Engineer; Civil Engineer; Church of England
CEA - Council of Economic Advisers
cent. - centigrade; central; century
cf. - *confer* (Lat.), compare
C.G. - Coast Guard; commanding general; consul general
chap. - chaplain; chapter
chem. - chemical; chemist; chemistry
chm. - chairman
Chron. - Chronicles (Bible)
chron. - chronology
CIA - Central Intelligence Agency
C.I.F., c.i.f. - cost, insurance, freight
C in C, CINC - Commander in Chief
cit. - citation; cited
civ. - civil, civilian
CO - Commanding Officer; conscientious objector
Co. - company, county
c.o., c/o - care of
C.O.D., c.o.d. - cash on delivery; collect on delivery
Col. - Colonel; Colorado; Columbia
colloq. - colloquial; colloquialism
Comdr. - Commander
COMECON - Council for Mutual Economic Assistance
con. - contra, against
conf. - conference
Cong. - Congregational; Congressional; Congress
conj. - conjugation; conjunction
Conn. - Connecticut
cons. - consul; consolidated
consol. - consolidated
Cont. - Continental
cont. - contents; continent; continue(d)
co-op - co-operative
cop., © - copyrighted
Cor. - Corinthians (Bible)
corp. - corporal; corporation
cp. - compare
CP - command post; Communist Party
CPA - Certified Public Accountant
Cpl. - Corporal
C.P.O., CPO - Chief Petty Officer
C.S.T., CST - Central Standard Time
ct. - cent; court
ctr. - center
C.V. - Common Version (Bible)
cwt. - hundredweight
CYO - Catholic Youth Organization
C.Z. - Canal Zone
Czech. - Czechoslovakia
d. - date; day(s); diameter; died
D.A. - District Attorney
Dan. - Danish
Dan., Danl. - Daniel (Bible)
DAR - Daughters of the American Revolution
D.C. - District of Columbia; Doctor of Chiropractic
DC - direct current
D.C.L. - Doctor of Civil Law
D.C.T. - Doctor of Christian Theology
D.D. - Doctor of Divinity
D.D.S. - Doctor of Dental Surgery
DDT - dichloro-diphenyl-trichloro-ethane
Dec. - December
dec. - deceased; decrease
deg. - degree(s)
Del. - Delaware
Dem. - Democrat; Democratic
Den. - Denmark
D.Eng. - Doctor of engineering
dep. - depot; deputy
dept. - department
Deut. - Deuteronomy (Bible)
DFC - Distinguished Flying Cross
dio. - diocese
dir. - director
dist. - district; distance
div. - dividend; division; divorced
D.Lit(t). - Doctor of Literature (or Letters)
D.L.S. - Doctor of Library Science
D.Mus. - Doctor of Music
DNA - deoxyribonucleic acid
do. - *ditto* (Ital.), the same
DD - Department of Defense
D.O.S. - Doctor of Optical Sciences
DOT - Department of Transportation
doz. - dozen
D.P. - displaced person
Dr. - doctor
D.S., D.Sc. - Doctor of Science
D.S.C. - Distinguished Service Cross
DST - Daylight Saving Time
D.V.M. - Doctor of Veterinary Medicine
E - east; eastern
ECA - Economic Cooperation Administration
eccl., eccles. - ecclesiastical
Eccles., Eccl. - Ecclesiastes (Bible)

econ. - economic; economics; economy
ed. - edited; editor; edition
Ed.D. - Doctor of Education
E.E. - Electrical Engineer
EEC - European Economic Community
Eg. - Egypt; Egyptian
e.g. - *exempli gratia* (Lat.), for example
EHS - Environmental Health Services
ENG - electrocardiogram
elec., elect. - electric(al); electrician; electricity
elem. - elementary; element(s)
Eliz. - Elizabeth; Elizabethan
Emp. - Emperor; Empress
Eng. - England; English; Engineering
eng. - engineer; engineering; engraved; engraving
EPA - Environmental Protection Agency
Eph., Ephes. - Ephesians (Bible)
Epis., Episc. - Episcopal
ERA - Economic Resources Administration; Emergency Relief Administration; Equal Rights Amendment
ESP - extrasensory perception
Esq. - Esquire
EST - Eastern Standard Time
Est. - Estonia
Esth. - Esther (Bible)
et al. - *et alibi* (Lat.), and elsewhere; *et alii* (Lat.), and others
etc. - *et cetera* (Lat.), and others
Eth. - Ethiopia; Ethiopic
ETO - European Theater of Operations
et seq. - *et sequens* (Lat.), and the following
Eur. - Europe; European
evang. - evangelical
Ex. - Exodus (Bible)
ex. - example
exec. - executive; executor
ex lib. - *ex libris* (Lat.), from the books of
Ez., Ezr. - Ezra (Bible)
Ezek. - Ezekiel (Bible)
F. - Fahrenheit
f. - folio; following; franc
F.A. - Field Artillery
FAO - Food and Agricultural Organization (United Nations)
FBI - Federal Bureau of Investigation
FCC - Federal Communications Commission
FDA - Food and Drug Administration
Feb. - February
fed. - federal; federated; federation
FEPC - Fair Employment Practice Committee
f. - folios; following
FICA - Federal Insurance Contribution Act
fig. - figure
Fin. - Finland; Finnish
Fla. - Florida
FM - frequency modulation
F.O.B., f.o.b. - free on board
F.O.E. - Fraternal Order of Eagles
FPC - Federal Power Commission
FPO - Fleet Post Office
Fr. - Father (eccl.); France; French
fr. - franc; from
FRAS - Fellow of the Royal Astronomical Society
FRCP - Fellow of the Royal College of Physicians
FRCS - Fellow of the Royal College of Surgeons
FRGS - Fellow of the Royal Geographical Society

Fri. - Friday
FRS - Fellow of the Royal Society (scientific)
FRSC - Fellow of the Royal Society of Canada
FRSL - Fellow of the Royal Society of Literature; Fellow of the Royal Society, London
FSA - Federal Security Agency; Farm Security Administration
ft. - feet; foot; fort
FTC - Federal Trade Commission
G. - specific gravity
Ga. - Georgia
Gal. - Galatians (Bible)
gal. - gallon
GAO - General Accounting Office
GAR - Grand Army of the Republic
G.B.E. - Grand (Cross, Order) of the British Empire
G.C.B. - (Knight) Grand Cross of the Bath
Gen. - General; Genesis (Bible); Geneva
gen. - gender; genera; general; genus
geog. - geographer; geographical; geography
geol. - geologic; geologist; geology
Ger. - German; Germany
Gestapo - *Geheime Staatspolizei* (Ger.), Secret State Police
GHQ - General Headquarters (Mil.)
GI - general issue, or government issue (U.S. Army); enlisted man (or woman) in U.S. Army (colloq.)
G.M. - General Manager; George Medal (Brit.); Grand Master
GMT - Greenwich Mean Time
GNP - gross national product
GOP - Grand Old Party; Republican
gov. - governor
govt. - government
G.P. - graduate in pharmacy; general practitioner
GPO - General Post Office; Government Printing Office
Gr. - Grecian; Greece; Greek
Gr. Br., Gr. Brit. - Great Britain
grad. - graduate; graduated
G.S. - General Staff; Girl Scouts
GSA - Girl Scouts of America
ha - hectare
Hab. - Habakkuk (Bible)
Hag. - Haggai (Bible)
H.C. - House of Commons
Heb., Hebr. - Hebrew(s)
HEW - Health, Education, and Welfare (dept)
H.I. - Hawaiian Islands
Hind. - Hindustan; Hindustani
hist. - historical; history
H.L. - House of Lords
H.M. - His (or Her) Majesty
H.M.S. - His (or Her) Majesty's Service, Ship, or Steamer
Hon. - Honorable
hort. - horticultural; horticulture
Hos. - Hosea (Bible)
HQ - headquarters
H.R. - House of Representatives
hr. - hour(s)
H.R.H. - His (or Her) Royal Highness
ht. - height
HUD - Housing and Urban Development
Hung. - Hungarian; Hungary
ib., ibid. - *ibidem* (Lat.), in the same place
ICA - International Cooperation Administration

ICAO - International Civil Aviation Organization (United Nations)
ICBM - Intercontinental ballistic missile
ICC - Interstate Commerce Commission
Ice., Icel. - Iceland; Icelandic
i.e. - *id est* (Lat.), that is
Ill. - Illinois
ill., illus. - illustration
ILO - International Labor Organization
ILTF - International Lawn Tennis Federation
IMF - International Monetary Fund
in. - inch; inches
inc. - incorporated
incog. - *incognito* (Lat.), unknown
Ind. - India(n); Indiana; Indies
ind. - independent; industrial; index
inf. - infantry
inst. - instant, the present month
int. - interest; international
introd. - introduction
IOC - International Olympic Committee
IOU - I owe you
IQ - intelligence quotient
IRA - Irish Republican Army
Ire. - Ireland
IRO - International Refugee Organization (United Nations)
IRS - Internal Revenue Service
Is., is. - island(s); isle
Isa. - Isaiah (Bible)
Isr. - Israel
It., Ital. - Italian; Italy
ITO - International Trade Organization (United Nations)
ITU - International Telecommunications Union (United Nations)
JAG - Judge Advocate General
Jan. - January
Jap. - Japan; Japanese
Jas. - James
J.C.D. - *Juris Civilis Doctor* (Lat.), Doctor of Civil Law
J.D. - *Jurum Doctor* (Lat.), Doctor of Laws
Je. - June
Jer. - Jeremiah (Bible)
j.g., jg. - junior grade
Jno. - John (Bible)
Jo. - Joel (Bible)
Josh. - Joshua (Bible)
J.P. - Justice of the Peace
Jr. - Junior
jud. - judicial
Judg. - Judges (Bible)
junc. - junction
juv. - juvenile
k. - carat; kilo
K. - Kelvin
Kan., Kans. - Kansas
K.B. - King's Bench; Knight of the Bath
K.B.E. - Knight (Commander of the Order) of the British Empire
kc. - kilocycle
K.C.B. - Knight Commander of the Bath
K.G. - Knight of the Garter
Ki. - Kings (Bible)
KKK - Ku Klux Klan
km - kilometer
KO - knockout
K.P. - *Knight of St. Patrick*; *Knights of Pythias*; kitchen police (mil.)
K.T. - Knight Templar
kw. - kilowatt(s)
Ky. - Kentucky
L., £ - pound (English money)
L., l. - lake; left

La. - Louisiana
L.A. - Los Angeles
Lab. - Labrador
lab. - laboratory
Lam. - Lamentations (Bible)
lang. - language
Lat. - Latin
lat. - latitude
Latv. - Latvia
lb. - pound(s)
leg. - legal; legislative; legislature
legis. - legislation; legislative; legislature
Lev. - Leviticus (Bible)
L.H.D. - *Litterarum Humaniorum Doctor* (Lat.), Doctor of Humane Letters
L.I. - Long Island
Lib. - Liberal
Lieut. - Lieutenant
lit. - literature
Lit(t). B. - Bachelor of Letters, or Literature
Lit(t). D. - Doctor of Letters, or Literature
Lith. - Lithuania(n)
LL.B. - Bachelor of Laws
LL.D. - Doctor of Laws
LL.M. - Master of Laws
loc. cit. - *loco citato* (Lat.), in the place cited
L.O.O.M. - Loyal Order of Moose
loq. - *loquitor* (Lat.), he, or she, speaks
LSA - lysergic acid diethylamide
Lt. - Lieutenant
Ltd., ltd. - limited
Luth. - Lutheran
m - meter
M. - Majesty; Manitoba; *Monsieur* (Fr.), Mister
M.A. - Master of Arts
Maced. - Macedonia(n)
Maj. - Major
Maj. Gen. - Major General
Man. - Manitoba
Mar. - March
Mass. - Massachusetts
math. - mathematician; mathematics
MATS - Military Air Transport Service
Matt. - Matthew (Bible)
mar. - maritime
max. - maximum
M.B.A. - Master of Business Administration
MBS - Mutual Broadcasting System
M.C. - Medical Corps; Master of Ceremonies; Member of Congress
M.D. - Doctor of Medicine
Md. - Maryland
M.D.S. - Master of Dental Surgery
mdse. - merchandise
M.E. - Methodist Episcopal; Mining, or Mechanical, Engineer
Me. - Maine
M.E. - Mechanical, Military, or Mining Engineer
med. - medical; medicine; medieval
Medit. - Mediterranean
M.E.E. - Master of Electrical engineering
Messrs. - *Messieurs* (Fr.), gentlemen
M.Ed. - Master of Education
memo - memorandum
met. - metropolitan
Meth. - Methodist
Mex. - Mexican; Mexico
M.F.A. - Master of Fine Arts
mfg. - manufacturing
mfr. - manufacture; manufacturer
MG - Military Government
Mgr. - Manager; Monsignor

ABBREVIATIONS

mi. - mile(s)
M.I. - Military Intelligence
Mic. - Micah (Bible)
Mich. - Michigan
min. - minimum; minutes
Minn. - Minnesota
MIRV - Multiple Independently-targeted Re-entry Vehicle
misc. - miscellaneous
Miss. - Mississippi
M.L.S. - Master of Library Science
M.L. - Master of Laws
M.L.A. - Modern Language Association
Miss. - *Mademoiselle* (Fr.), Miss
MM. - *Messieurs* (Fr.), Gentlemen
Mme. - *Madame* (Fr.), Madam
M.M.E. - Master of Mining, or Mechanical, Engineering
Mo. - Missouri
M.O., m.o. - money order
MO - *modus operandi* (Lat.) method of operating
Mon. - Monday; Monsignor
Mont. - Montana
MOS - military occupational specialty (duty classification by serial number)
MP - military police; Member of Parliament
mph - miles per hour
Mr. - Mister (title)
Mrs. - Mistress (title)
Ms. - miz (title)
Ms., MS, ms., ms - manuscript
M.S., M. Sc. - Master of Science
Msgr. - Monsignor
MST - Mountain Standard Time
Mt., mt. - mount; mountain
Mus.B. - Bachelor of Music
Mus.D. - Doctor of Music
MVA - Missouri Valley Authority
N - north; northern
n. - *notus* (Lat.), born; noun
N.A. - North America(n)
NAACP - National Association for the Advancement of Colored People
NAB - National Alliance of Businessmen; National Association of Broadcasters
NAM - National Association of Manufacturers
NANA - North American Newspaper Alliance
NASA - National Aeronautics and Space Administration
NATO - North Atlantic Treaty Organization
naut. - nautical
nav. - naval; navigation
N.B. - New Brunswick
N.B., n.b. - *nota bene* (Lat.), note well
NBA - National Basketball Association; National Boxing Association
N.B.S. - National Bureau of Standards
N.C. - North Carolina
NCAA - National Collegiate Athletic Association
NCCJ - National Council of Christians and Jews
N.D., N. Dak. - North Dakota
NE - New England; northeast
NEA - National Education Association
Nebr., Neb. - Nebraska
Neh. - Nehemiah (Bible)
N.E.I. - Netherlands East Indies
Neth. - Netherlands
Nev. - Nevada
N.F. Nfld., Newf. - Newfoundland
NFL - National Football League
N.G. - National Guard

N.H. - New Hampshire
NHL - National Hockey League
N.J. - New Jersey
N.M., N. Mex. - New Mexico
New Test. - New Testament
NLRB - National Labor Relations Board
No. - north; northern
No., no. - *numero* (Lat.), number
NOAA - National Oceanic and Atmospheric Administration
noncom. - noncommissioned officer
non seq. - *non sequitur* (Lat.), it does not follow
Norw. - Norway; Norwegian
Nov. - November
NOW - National Organization for Women
N.S. - Nova Scotia
NSC - National Security Council
N.S.W. - New South Wales
N.T. - New Testament
Num., Numb. - Numbers (Bible)
NW - northwest
N.Y.C. - New York City
N.Z., N. Zeal. - New Zealand
O. - Ocean; Ontario
OAS - Organization of American States
OAU - Organization of African Unity
Obad. - Obadiah (Bible)
O.B.E. - Officer (of the Order) of the British Empire
obj. - object; objective
ODD - Office of Civilian Defense
OCS - Officer Candidate School
Oct. - October
OK - correct, or approved
Okla. - Oklahoma
Ont. - Ontario
op. cit. - *opere citato* (Lat.), in the work cited
OPEC - Organization of Petroleum Exporting Countries
O.R.C. - Officer's Reserve Corps
Ore., Oreg. - Oregon
O.S.A. - Order of St. Augustine
O.S.B. - Order of St. Benedict
O.S.F. - Order of St. Francis (Franciscan, or Capuchin, Order)
OSHA - Occupational Safety and Health Administration
O.T. - Old Testament
Oxon. - *Oxonia* (Lat.), Oxford
oz. - ounce(s)
p. - page; penny; *per* (Lat.), by
Pa. - Pennsylvania
Pac., Pacif. - Pacific
par. - paragraph; parallel
parl. - parliamentary
Pat. Off. - Patent Office
pat. - patent
PAU - Pan American Union
PBS - Public Broadcasting Service
P.C. - Police Constable; Privy Council; Privy Councillor
P.D. - Police Department
pd. - paid
P.E. - Protestant Episcopal
P.E.A. - Progressive Education Association
Pd. D. - Doctor of Pedagogy
P.E.I. - Prince Edward Island
P.E.N. - (International Association of) Poets, Playwrights, Editors, Essayists, and Novelists
pen. - peninsula
Penn., Penna. - Pennsylvania
Pers. - Persia(n)

Pet. - Peter (Bible)
Pfc. - Private First Class (U.S. Army)
PGA - Professional Golfers Association
P.H. - Public Health
Phar., Pharm. - pharmaceutical; pharmacopoeia; pharmacy
Ph.B. - Bachelor of Philosophy
Ph.D. - Doctor of Philosophy
Phil. - Philippians (Bible); Philippine
Phila. - Philadelphia
Phil. I., Phil. Is. - Philippine Islands
phot., photog. - photograph
PHS - Public Health Service
phys. - physical; physician; physics
P.I. - Philippine Islands
pk. - park; peak; peck
pl. - plural; place; plate
PLO - Palestine Liberation Organization
P.M. - Past Master; Police Magistrate; Postmaster
P.M., p.m., p.m. - *post meridiem* (Lat.), after noon
P.M.G. - Paymaster General, Postmaster General
P.O., p.o. - petty officer; postal order; post office
POE - Port of Embarkation
pol. - political; politics
Pol. - Poland; Polish
pop. - population
Port. - Portugal; Portuguese
P.O.W., PW - prisoner of war
pp. - pages
P.Q. - Province of Quebec
P.R. - Puerto Rico
prep. - preparation; preparatory; preposition
Pres. - President
Presb. - Presbyterian
prin. - principal; principle
PRO - public relations officer
Prof., prof. - professor
prog. - progressive
pron. - pronoun; pronunciation
prop. - property; proprietor
Prot. - Protestant
pro tem. - *pro tempore* (Lat.), for the time being
Prov. - Proverbs (Bible)
prov. - province; provisional; provost
prox. - *proximo* (Lat.), next (month)
P.S. - Privy Seal; Public School; *post scriptum* (Lat.), postscript
Ps. - Psalm(s) (Bible)
pseud. - pseudonym
PST - Pacific Standard Time
psychol., psych. - psychological; psychology
pt. - part; pint; point; port
P.T.A. - Parent-Teacher Association
pub. - public; published; publisher; publication
Pvt. - Private (U.S. Army)
pwt. - pennyweight
PX - Post Exchange
Q. - Quebec; Queensland
Q.B. - Queen's Bench
Q.C. - Queen's Counsel
Q.E.D. - *quod erat demonstrandum* (Lat.), which was to be proved
QM - Quartermaster
Q.M.G., Q.M. Gen. - Quartermaster General
qt. - quantity; quart
q.t. - quiet (slang)
Que. - Quebec
ques. - question

quot. - quotation
q.v. - *quod vide* (Lat.), which, or whom, see
R., r. - river; road; royal
R.A. - Rear Admiral; Royal Academy, or Academician; Royal Artillery
RAF - Royal Air Force
RAS - Royal Asiatic, Astronomical, or Agricultural Society
R.C. - Red Cross; Reserve Corps; Roman Catholic
R.D. - Rural Delivery
Rd., rd. - road
R.E. - Real Estate; Reformed Episcopal; Right Excellent; Royal Engineers
REA - Rural Electrification Administration
rec. - receipt; recipe; record; recorded
ref. - referee; reference; reformed
Ref. Ch. - Reformed Church
reg. - regiment; region; regulation
Rep. - Republican
rep. - representative; republic
ret. - retired; returned
Rev. - Revelation (Bible); Reverend
Rev. Ver. - Revised Version (Bible)
rev. - review; revise; revolution
RFC - Royal Flying Corps
RFD - Rural Free Delivery
R.H. - Royal Highness
R.I. - Rhode Island
RIBA - Royal Institution of British Architects
R.I.P. - *requiescat in pace* (Lat.), let him, or her, rest in peace
R.N. - Registered Nurse; Royal Navy
Rom. - Romans
R.O.T.C. - Reserve Officers Training Corps
r.p.m., rpm - revolutions per minute
RSFSR - Russian Socialist Federated Soviet Republic
R.S.V. - Revised Standard Version (Bible)
R.S.V.P., r.s.v.p. - *Répondez s'il vous plaît* (Fr.), answer, if you please
Rt. Hon. - Right Honorable
Rt. Rev. - Right Reverend
Rum. - Rumania
Rus., Russ. - Russia(n)
Ry. - Railway
S - south; southern; *San, Santa, Santo, or São* (Saint)
s. - second; shilling; son
S.A. - Salvation Army; South Africa; South America; South Australia
S. Am., S. Amer. - South America(n)
S.A.C., SAC - Strategic Air Command
SALT - Strategic Arms Limitation Talks
Sam., Saml. - Samuel (Bible)
Sar. - Sardinia(n)
S.A.R. - Sons of the American Revolution
Sask. - Saskatchewan
Sat. - Saturday; Saturn
SAT - Scholastic aptitude test
SC - Security Council (United Nations)
S.C. - South Carolina; Signal Corps; Supreme Court
Scan., Scand. - Scandinavia(n)
Sc.B. - Bachelor of Science
Sc.D. - Doctor of Science
sch. - school
sci. - science; scientific
Sc.M. - Master of Science
Scot. - Scotch; Scotland; Scottish
Script. - Scripture
SCS - Soil Conservation Service
S.C.V. - Sons of Confederate Veterans
S. Dak. - South Dakota
S.E., SE - southeast