we call waking life may be only an unusual and persistent nightmare" and further stated that "I do not believe that I am now dreaming but I cannot prove I am not." Philosophers generally try to resolve the question by saying that so-called waking experience seems vivid and coherent. As French philosopher René Descartes (1596-1650) put it: "... memory can never connect our dreams one with the other or with the whole course of our lives as it unites events which happen to us while we are awake"; or, as Russell stated succinctly: "Certain uniformities are observed in waking life, while dreams seem quite erratic."

Dreams in various cultures

Dreams in

the Bible

Members of many cultures have variously coped with this dilemma; for example, among the Eskimo of Hudson Bay and the Patani Malay people, it is believed that during sleep one's "soul" leaves his body to live in a special dreamworld. Believers often consider it dangerous to wake someone lest his "soul" be lost. On these grounds the Tajal people of Luzon, for example, severely punish for awakening a sleeping person. In other cultures, dream events are held to be identical with reality; thus a Macusi Indian of Guyana is reported to have become enraged at the European leader of an expedition when he dreamed that the leader had made him haul a canoe up dangerous cataracts. He awoke exhausted and could not be persuaded that the dream was not real. There is a tradition in Borneo that if a man dreams that his wife is an adulteress, her father must take her back. A Zulu man is said to have broken off a friendship after dreaming that the friend meant him harm. A Paraguayan Indian, reportedly having dreamed a missionary shot at him, attempted to kill the missionary.

In other instances, dream events are believed to demand fulfillment. Jesuit priests in the 1700s reported that among Iroquois Indians it was obligatory to carry out dreams as soon as possible; one Indian was said to have dreamed that ten friends dove into a hole in the ice of a lake and came up through another. When told of the dream, the friends duly enacted their roles in it, but unfortunately, only nine of them succeeded. After dreaming of something valuable, Kurdish people were immediately expected to take it, by force if necessary. Among some natives of Kamchatka a man need only dream of a girl's favour for her to owe him her sexual favours.

Such interpretations in which the dream is given a status of reality need not imply that the two are indistinguishable. In some instances, the dream may be differentiated from reality, but dreams are accorded a superior status to the banal activities of wakefulness.

Dreams as a source of divination. There is an ancient belief that dreams predict the future; the Chester Beatty Papyrus is a record of Egyptian dream interpretations dating from the 12th dynasty (1991-1786 Bc). In the Iliad, a character named Agamemnon is visited in dream by a messenger of the god Zeus to prescribe his future actions. From India, a document called the Atharvaveda, attributed to the 5th century BC, contains a chapter on dream omens. A Babylonian dream guide was discovered in the ruins of the city of Nineveh among tablets from the library of the emperor Ashurbanipal (668-627 BC). The Old Testament is rife with prophetic dreams, those of the pharaohs and of Joseph and Jacob being particularly striking. Among pre-Islāmic peoples dream divination so heavily influenced daily life that the practice was formally forbidden by Muhammad (c. 570?-632), founder of the Muslim religion.

Ancient and religious literatures express most confidence about so-called message dreams. Characteristically, a god or some other respected figure appears to the dreamer (typically a king, a hero, or a priest) in time of crisis and states a message. Such reports are found on ancient Sumerian and Egyptian monuments; frequent examples appear in the Old and New testaments. Joseph Smith (1805-1844), the founder of the Mormon religion, said that an angel had directed him to the location of buried golden tablets that described American Indians as descendants of the tribes of Israel.

Not all dream prophecies are so readily accepted. In

the epic Odyssey, for example, dreams are classed as false ("passing through the gate of Ivory") and as true ("passing the Gate of Horn"). Furthermore, prophetic meaning may be attributed to dream symbolism. In the Bible, Joseph interpreted sheaves of grain and the moon and stars as symbols of himself and of his brethren. In general, the social status of dream interpreters varies; in cultures for which dreams loom important, their interpretation frequently is a specialized occupation of such people as priests, elders, or medicine men.

Perhaps the most famous dream interpretation book is that of the Greek geographer, Artemidorus (c. 2nd century AD) and is called Oneirocritica (from the Greek oneiros, "a dream"). Dream books remain widely available today. They continue to enjoy profitable sales in Europe, Asia, the Americas, Africa, and elsewhere among people who follow them in affairs of the heart, in

gambling, and in matters of health and work.

Dreams as curative. So-called prophetic dreams in the Middle-Eastern cultures of antiquity often were combined with other means of prophecy, such as animal sacrifice, and with efforts to heal the sick. In classical Greece, dreams became directly associated with healing; ailing people came to dream in oracular temples where priests and priestesses advised about the cures dreams were held to provide. Similar practices, known as dream incubation, are recorded for Babylon and Egypt. In a widespread cult, suffering petitioners came to at least 600 temples of the Greek god of medicine to perform rites or sacrifices in efforts to dream appropriately, sleeping in wait of the appearance of the god or his emissary to deliver a cure. Many stone monuments placed at the entrances of the temples survive to record dream cures.

Dreams as extensions of the waking state. Even in early human history dreams also were interpreted as reflections of waking experiences and of emotional needs. Aristotle (384-322 BC), despite his contemporaries who practiced divination and incubation, in his work Parva naturalia attributed dreams to sensory impressions from "external objects . . . pauses within the body . . . eddies ... of sensory movement often remaining like they were when they first started, but often too broken into other forms by collision with obstacles." In anticipation of psychoanalyst Sigmund Freud (1859-1939), Aristotle wrote that sensory function is reduced in sleep, favouring the susceptibility of dreams to emotional subjective distortions.

In spite of Aristotle's unusually modern views and even after a devastating attack by the Roman statesman Marcus Tullius Cicero (106-43 BC) on dream divination (De divinatione), views that dreams have supernatural attributes persisted vigorously until the 1850s and the classical work of French physician Alfred Maury, who studied more than 3,000 reported recollections of dreams. Maury concluded that dreams arose from external stimuli, instantaneously accompanying such impressions. He wrote that part of his bed once fell on the back of his neck and woke him, leaving the memory of dreaming that he had been brought before a French revolutionary tribunal, questioned, condemned, led to the scaffold, bound by the executioner and that the guillotine blade fell.

The English poet Coleridge reported that he had written "Kubla Khan" as the result of creative thinking in a dream. Having fallen asleep while reading about that Mongol conqueror, he woke to write down a fully developed poem he seemed to have composed while dreaming. Novelist Robert Louis Stevenson said that much of his writing was developed by "little people" in his dreams, and specifically cited the story of Dr. Jekyll and Mr. Hyde in this context. A German chemist, F.A. Kekulé von Stradonitz, attributed his interpretation of the ring structure of the benzene molecule to his dream of a snake with a tail in its mouth. Otto Loewi, a German physiologist, attributed to a dream inspiration for an experiment with a frog's nerve that helped him win the Nobel Prize. In all of these cases the dreamers reported having

Creative dreaming