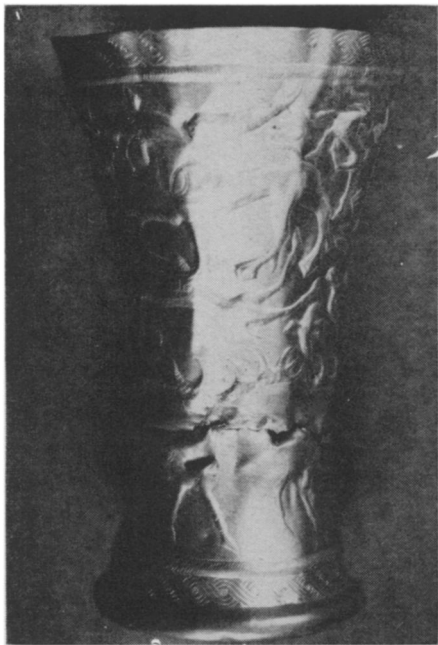


The wide-hipped fertility goddess Ashi, possibly Anahita and other mother-goddesses as well, is unearthed at Kluraz.

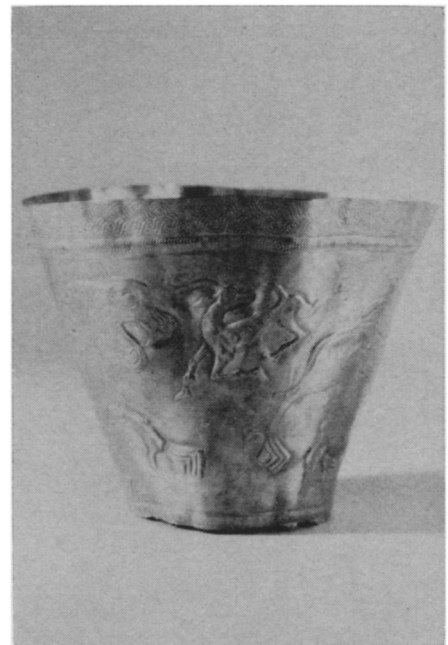


Winged lions circle a golden vessel.

ARCHAEOLOGY

UNCOVERING A CULTURAL LINK

*Artifacts at ancient Kluraz
fill a gap in the knowledge
of ancient Caspian culture*



Goat gambols on half-corroded relic.

Recently-unearthed treasures of gold, and utensils of bronze, pottery and iron, are now providing the first clues to a highly developed culture that flourished on the southern shores of the Caspian Sea some 2,700 years ago. The new finds are the culmination of three years of excavations at Kluraz, or Roodbar, in the province of Gilan about 200 kilometers northwest of Tehran.

The culture of the Kluraz people shows a link to earlier cultures living in the same area as long ago as 2000 B.C., says Dr. Ali Hakemi, acting leader of the Iranian archaeological mission in northern Iran, and former director of the Archaeological Museum of Iran in Tehran. Previous findings on the Iranian plateau, he says, have all been of

dates earlier or later than the ones at Kluraz, making the new discoveries the first from any culture in the area during the thousand years before the birth of Christ.

Some 640 objects have been found by the research team, all of them in tombs in the form of either simple earth pits or hollows lined with stone. About 100 of the artifacts are of gold, but the mines and workshops that might have produced the objects have not yet been located; only a few dwellings in addition to the tombs have so far been found. But, says Dr. Hakemi, the Kluraz culture appears to have been advanced enough to make local manufacture quite possible.

The style of the work on the gold

objects, dating from the seventh Century B.C., indicates that the people had contact, and probably trade relations, with the Scythians then living in southern Russia, a notion which has been postulated, but not proved. To the south, the Kluraz culture seems to have been related to the possibly-Median culture in the Luristan region.

Some of Iran's most notable historical artifacts are the Luristan bronzes, which reached their peak during the period from 1000 to 600 B.C. The Kluraz work, according to Dr. Hakemi, is in no way inferior.

Pottery statues up to 40 cm. high have been found, each with wide hips, hands clasped on the breast and wearing earrings and headdresses. Placed in the

6 july 1968/vol. 94/science news/15

UNUSUAL SCIENCE BARGAINS

CRYSTAL-GROWING KIT

Do a crystallography project illustrated with large beautiful crystals you grow yourself. Kit includes the book "Crystals and Crystal Growing" and a generous supply of the chemicals you need to grow large display crystals of potassium aluminum sulfate (clear), potassium chromium sulfate (purple), potassium sodium tartrate (clear), nickel sulfate hexahydrate (blue-green) or heptahydrate (green), potassium ferricyanide (red), copper acetate (blue-green).
Stock No. 70.336Q -----\$9.50 Ppd.



WOODEN SOLID PUZZLES

12 Different puzzles that will stimulate your ability to think and reason. Here is a fascinating assortment of wood puzzles that will provide hours of pleasure. Twelve different puzzles, animals, and geometric forms to take apart and reassemble, give a chance for all the family, young and old, to test skill, patience and, best of all, to stimulate ability to think and reason.
Stock No. 70.205Q -----\$3.50 Ppd.



GIANT WEATHER BALLOONS

Create a neighborhood sensation. Great backyard fun. Exciting beach attraction. Blow up with vacuum cleaner or auto air hose. Filled with helium (available locally) use balloons high in the sky to attract crowds, advertise store sales, announce fair openings, etc. Amateur meteorologists use balloons to measure cloud height, wind speed, temperature, pressure, humidity at various heights. Photographers can utilize for low-cost aerial photos. Heavy duty neoprene.
Stock No. 60.568Q -----8' Diam.-----\$2.00 Ppd.
Stock No. 60.632Q -----16' Diam.-----\$7.00 Ppd.



NEW WORKING MODEL DIGITAL COMPUTER

Actual Miniature Version of Giant Electronic Brains
Fascinating new see-through model computer actually solves problems, teaches computer fundamentals. Adds, subtracts, multiplies, shifts, complements, carries, memorizes, counts, compares, sequences. Attractive, colored rigid plastic parts easily assembled. 12" x 3 1/2" x 4 3/4".
Incl. step-by-step assembly diagrams, 32-page instruction book covering operation, computer language (binary system) programming, problems and 15 experiments.
Stock No. 70.685Q -----\$5.98 Ppd.
Detailed Programming Booklet For Experiments (50 Pages) -----\$1.00 Ppd.



IT'S HERE—BIG, NEW DIGICOMP III!

Stock No. 70.946Q (Intro. price) -----\$16.00 Ppd.

BUILD YOUR OWN ATOMIC ENERGY LAB

Create cosmic ray showers in the cloud chamber—see atoms explode with the spintharoscope—check ionization and radioactivity of every day materials—these are just a few of the fascinating projects possible with this amazing 43 part kit. Contains everything needed to construct your personal atomic energy laboratory. Absolutely safe. Includes atomic cloud chamber, projector, illuminator, electroscope, spintharoscope 22 page instruction booklet with suggested experiments. Ideal to stimulate students' scientific interest.
Stock No. 70.899Q -----\$8.75 Ppd.



NOW! WATER THAT CLIMBS UP HILL

Amaze your friends—loads of fun—perfect for Science Fair. Water actually flows up side of glass & siphons freely into other container. To stop flow—cut with scissors—watch it snap back. Secret's in special additive with long molecular structure—req. only 1/2 tsp. to glass. Friction reducing additive has all kinds of industrial, agricultural, experimental uses—a pinch even makes fish slide thru water faster. 3-oz. can enough for 24 pints of water. Instr. -----\$2.00 Ppd.
Stock No. 41.086Q -----



"FISH" WITH A WAR SURPLUS MAGNET

Go Treasure Hunting on the Bottom
Great idea! Fascinating fun and sometimes tremendously profitable! Tie a line to our 5-lb. Magnet—drop it overboard in bay, lake, river or ocean. Trawl it along the bottom—your "treasure" haul can be outboard motors, anchors, fishing tackle, all kinds of metal valuables. 5-lb. Magnet is war surplus—Alnico V Type. Govt. cost \$50. Lifts over 150 lbs. on land—much greater weights under water.
Stock No. 70.571Q—5lb Magnet -----\$12.50 Ppd.
Stock No. 70.570Q—3 1/2 lb size -----\$ 8.75 Ppd.



Order by Stock No.—Send Check or M.O. Shipment same day received—Satisfaction or money back.

TEACHERS: Write for Educational Catalog Q-2

EDMUND SCIENTIFIC CO. 300 EDCORP BLDG. BARRINGTON, N.J. 08007

MAIL COUPON for FREE CATALOG "Q"

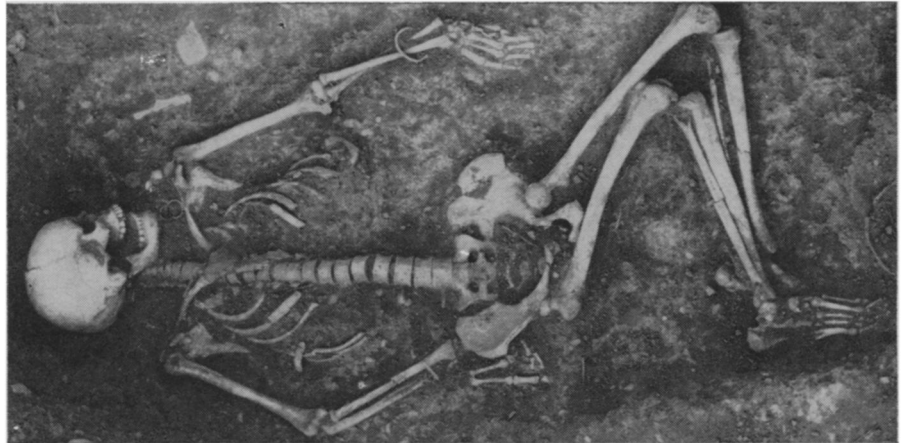
EDMUND SCIENTIFIC CO., 300 Edcorp Building Barrington, New Jersey 08007



COMPLETELY NEW 1968 EDITION. 148 PAGES—4000 BARGAINS. Please Rush Free Catalog "Q"

Name _____
Address _____
City _____ State _____ Zip _____

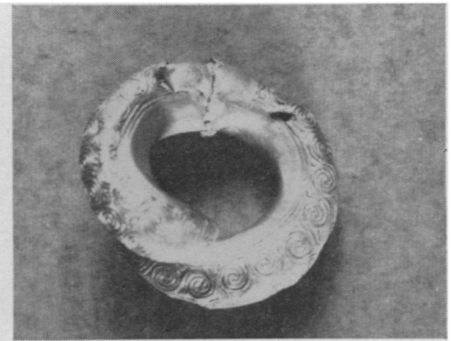
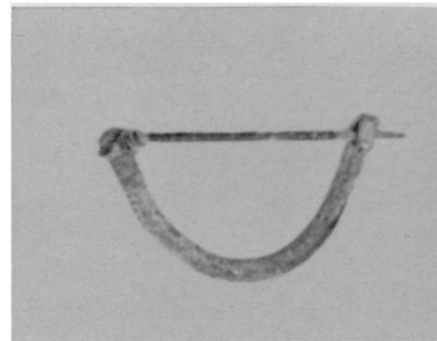
A cultural link



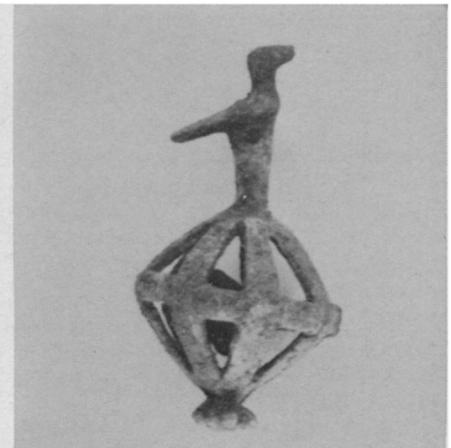
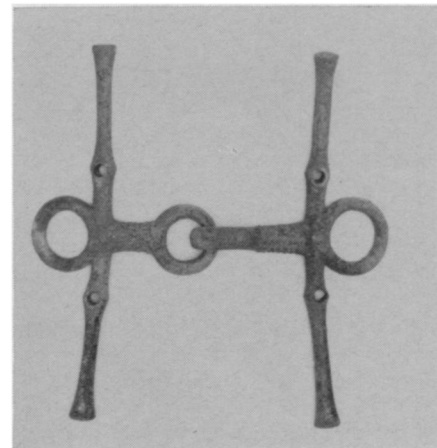
After some 2,700 years, two bracelets still adorn the wrists of their owner.



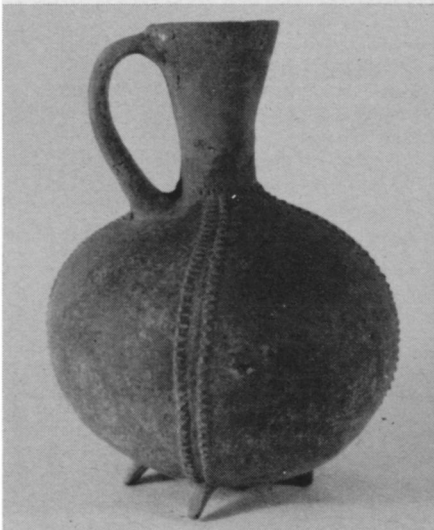
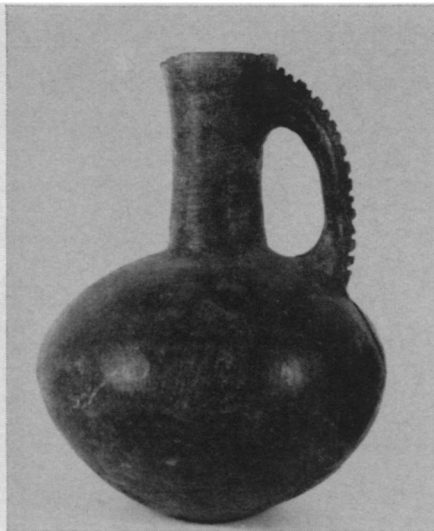
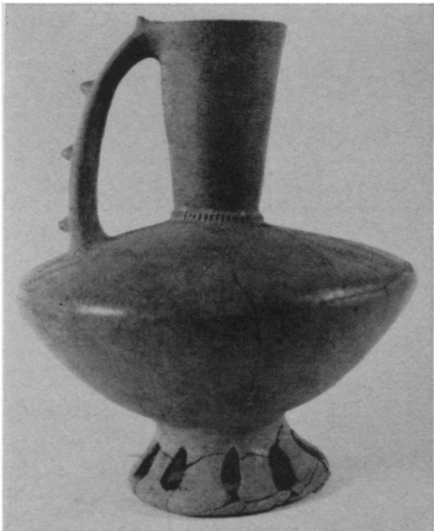
Mounted sidesaddle rider and reindeer may show two sides of an ancient hunt.



Bronze safety pin reveals sophistication, as does an ornate pierced-earring.



Two-piece bit and bell, both of bronze, show mastery of animals in Kluraz.



Well-preserved, fine-handled pottery of unglazed clay was abundant in tombs.

tombs next to the dead, they may represent the fertility goddess Ashi, who, Dr. Hakemi says, was later known as Anahita and may have been a prototype for the goddess Ishtar as well as for mother symbols of later religions.

Knives and swords, as well as bridle bits and other tools, were found in the tombs. Although most of the iron has rusted away, many of the objects are of bronze and still intact. These include slender axeheads, swords with hilts, arrowheads, shaving implements, mirrors, pins (including a type of safety pin) and jewelry.

There are also figures, less than four inches high, representing reindeer, boars, humped bulls and horses with nude riders wearing long knives and sitting side-saddle. Except for the mounted horses, these animals may have been hunting charms.

Peasants in the region still ride side-saddle and wear long knives, and the hump-backed buffalo still roam the area.

The ancient Kluraz residents did not depend solely on the hunt, however.

Decorations and bridles for horses, as well as bells for cattle, sheep and pigs, show that the people tamed and domesticated animals. Some curious bronze hooks have also been found, which may have been weapons, but may also have been used in animal training or herding.

The dead were buried singly, lying on their sides with bent knees. Besides personal and devotional objects belonging to the dead owners, the gravesites contained large jars of unglazed, baked clay to hold food and drink. Remnants of wheat and wild fruits, and, in the more recent examples rice, have been found in these vessels. These findings imply not only that the people of the time believed in a life after death, but that they farmed as well. They used vegetable fibers for such things as strings for necklaces.

The prize pieces among the gold objects are two vessels, each about 13 centimeters high and 7 cm. in diameter at the top. One is entirely of gold, while the other has a silver lower half

which is almost corroded away. Their stylized decorations depict a kind of reindeer, birds, deer, goats and lions. The all-gold vessel also has a frieze of winged lions around the top, whereas the gold-and-silver one shows more naturalistic lions chasing wild goats.

Five necklaces of gold and semi-precious stones, besides being treasures in their own right, also give some important clues to the religious beliefs of the wearers. Ranging up to some 50 cm. long, they are made of gold links, decorated with pinpricks or filigree work and connected by beads of brown agate or a paste made with lapis lazuli. One necklace is of electrum, a silver-gold mixture.

The most revealing parts of the necklaces are the round gold disks, or medallions, suspended from several of them. There are two kinds, one a plain circular disk with a horizontal ridge across it, the other ornamented with a raised star-shape and tiny raised pinpricks between the rays beaming out from the center. The former, Dr. Hakemi says, may represent the moon, and the others the sun.

No writing has yet been discovered to identify the owners of the artifacts, but Dr. Hakemi believes them to be descendants of the people called Caspi, who gave their name to the world's largest lake, the Caspian Sea. The disks on the necklaces, as well as identical ones that were originally sewn onto clothing, could, he says, indicate that the region belonged to the sun-worshippers of the cult of Mithra.

Mithraism was one of the more prevalent religions in the Middle East, and during the time of the Roman empire it spread westward as far as southern France and even to Britain. Before the actual development of Christianity, Jesus was believed by some contemporaries to be Mithra himself, the archaeologist says, noting that many medieval cathedrals are built on the sites of ancient Mithraic temples.

Other gold objects at the Kluraz site included long decorated strips that were sewn onto clothing along with the disks, plus gold bracelets and earrings—both plain and ornate—for pierced ears. Fairly well-preserved silver buttons were also found.

The few preserved dwellings that were found near the tomb sites had stone foundations, but walls and roofs of wood. Fortunately, says Dr. Hakemi, the decomposed plant matter of the forest in this subtropical region has covered and preserved them better than they would have been on the denuded plains elsewhere in Iran. In the next few seasons the archaeologists hope to find more houses, and with luck, perhaps entire villages.

Tove Neville