

in for a \$10,000 boost, and a \$10,000 increase is listed for research on the chemistry and physics of soils. Naval stores research is to have a \$2,500 increase.

The heaviest single item of increase in the entire Bureau of Chemistry and Soils is a jump from the present \$286,000 to \$381,000 in the new budget, toward completion of the national soil survey. This \$95,000 increase, however, represents new money only in part; part of the fund simply replaces an earlier cut made during an economy drive, which had to be made at the time but resulted in slowing down the soil surveying and mapping program.

Science News Letter, January 25, 1936

ARCHAEOLOGY

Stone Age Paintings Show Hunters, Warriors, Game

DID gentlemen of the Late Stone Age entertain "visiting firemen" in their lodge meetings? One picture, lately discovered on a cliff in eastern Spain, might indicate something of the sort. It is a lively, though crudely drawn, silhouette of a man climbing what appears to be a rope ladder. The figure wears only a breech-clout and a headdress of what look like feathers.

More prosaically, the picture probably represents a common means of getting up and down the steep rocky cliffs, in the niches of which the tribesmen painted hundreds of pictures of human beings, game animals, and other living things. The paintings have been studied by Prof. Hugo Obermaier of the University of Madrid. (*Forschungen und Fortschritte*, Nov. 20, 1935.)

The paintings are all in silhouette, usually monochrome, occasionally two-color. Their style is much inferior to that of the earlier art of the Old Stone Age as found in the caves of southern France and northern Spain, but it still represents clearly the kinds of animals the men of the artists' tribes hunted, and shows other interesting facts of their lives.

For one thing, war was probably in the world by then. Some of the scenes show marching armed men—hundreds of them—keeping close, ordered ranks. One individual painting shows a luckless individual transfixed by a spear, kicking in his death-agony. Bows and arrows are common; these weapons were unknown in the Old Stone Age.

Hunting scenes are shown in lively fashion, many of the animals being



REALLY OLD SPANISH MASTERS

Artists of the Late Stone Age, 10,000 years ago more or less, painted these silhouettes on a cliff in Spain. The ladder-climbing figure, upper left, seems to have feathers in his hair; what looks like a tail is probably a loose end of his "Gunga Din" uniform. Opposite him is a figure in an animal mask—possibly a medicine man.

represented as shot down with arrows, or lying helpless with broken legs. Most abundant among the game are deer, ibex and wild pigs. One boar is shown lying kicking on his back, as though mortally wounded.

One exceedingly curious picture is of a fat spider, with flies buzzing about. Prof. Obermaier conjectures that this may be the cave-artists' tribute to the spider as an exceedingly skilled snarer of game in nets.

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PHYSICS

Atoms About You Are Exploding One By One

THE ATOMS of the air about you are exploding one by one and filling the room where you sit with showers of their fragments. Surprised?

Did you know the projectiles causing those atom explosions have traveled millions upon millions of miles across interstellar space?

These facts, almost taxing one's credulity, were established in the latest cosmic ray research in a mountain top laboratory on the summit of Pike's Peak.

Dr. Carl Anderson and Dr. Seth Neddermeyer of California Institute of Technology reported the findings of their mountain experiments to the American Physical Society.

To study the effect of cosmic rays

having greater disintegrative power than those found at sea level, Drs. Anderson and Neddermeyer took, by truck, several tons of apparatus from Pasadena to Pike's Peak. Working night and day they packed a year of experimental measurements into a few months.

Using Dr. Anderson's Wilson Cloud

23 LANGUAGES

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