

decoration, today rayon is employed. In the highlands where the mornings and nights are exceedingly cool, wool is used extensively.

In contrast to cotton, which for many centuries has been growing in the New World, sheep were brought to this country by the Spaniards. The proportion of black sheep is quite large as the Indians prefer to use this wool undyed for the heavy garments that the men use in many villages.

Guatemalan costumes are noted for their many bright colors, which nevertheless are never harsh. Those made for the Indian's personal use within the village often differ greatly from those which in recent years have been made for the tourist trade, but these also have a typical Guatemalan flavor. Aniline dyes, preferred by tourists, are beginning to replace the lovely vegetable dyes.

Women in their clothes today still retain

a part of their old, traditional dress. Sometimes it is a hand-woven belt or huipil. Often it is reflected in the way their hair is dressed or the manner in which the skirt is worn.

Men's clothes have undergone a more radical change. Many have substituted factory-made overalls for their picturesque woolen aprons or long over-trousers split up the side.

But raincoats or umbrellas are still fashioned just as they were centuries ago. They are gathered from the woods rather than being purchased in a store. Broad palm leaves are easily sewn together into a cape-like affair offering perfect protection from the storm. Sometimes they are worn as a cape about the shoulders, sometimes they are thrown over the head—just how they are used depends upon the section from which the Indian comes.

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#### NUCLEAR PHYSICS

## Atomic Power Timetable

► **HERE'S** a new timetable for atomic power:

Present power supply of world replaced in any considerable portion by nuclear fuel—20 years minimum, under favorable circumstances.

Fairly practical reactors, useful for special experimental purposes—within 10 years.

Two reactors especially built for power—within two or three years.

The Atomic Energy Commission in its latest report to Congress gives these estimates from an evaluation by its general advisory committee headed by Dr. J. Robert Oppenheimer, director of the Institute for Advanced Study, Princeton.

The possibility was suggested of producing atomic power plants that will actually increase the amount of fuel within them by breeding fissionable material from non-

fissionable uranium and thorium. But the design of such power plants is recognized to be very difficult and slow.

Such production of artificial nuclear fuels is being practiced on a considerable scale at Hanford where plutonium for bombs is made from the inert part of natural uranium. Thorium, a much more common material, can be similarly converted into fissionable uranium 233.

The higher cost of uranium since the war, due to increased demand and higher mining costs of poorer and poorer deposits, seems likely to prevent atomic power from competing with coal power in the United States except where transportation costs of coal from mines is large or where the small bulk and weight of the uranium fuel are particularly valuable.

Science News Letter, August 7, 1948

#### ANTHROPOLOGY

## Influencing Primitives

► **WITCHCRAFT** can be useful to modern scientists, when they are dealing with people who believe in witches.

This was discovered by Cornell University anthropologists who have made a study which might be called, "How to Win Friends and Influence Primitive Peoples."

A five-year program of study which began in Ithaca, N. Y., last October with the aid of a grant of \$180,000 from the Carnegie Corporation of New York has resulted in a set of rules for teaching and doing business with primitive peoples. Research included studies of the impact of western civilization on primitive cultures, ranging from southeastern Asia to the American Southwest.

Dr. Morris E. Opler reported that he successfully demonstrated the theory of

germ-borne diseases to a group of American Indians by tying it up with their own belief in witchcraft. If witches were able to plague their enemies with invisible things, Dr. Opler asked the Indians, wasn't it possible that disease might be transmitted in the same way—in a form too small for the eye to see? The Indians agreed and were persuaded to take precautions against disease.

When the U. S. Office of Indian Affairs attempted to stamp out the Indian custom of abandoning and burning the cabins of their dead, Dr. Opler persuaded some Indians that their old custom of fumigating "ghosts" with burning sagebrush might be used for fumigating the cabins.

As an example of the wrong approach, the Cornell scientist cited the story of an

American scientist in India. The scientist, who was interested in raising the living conditions of Hindu villagers, tried to persuade them to grow vegetables in addition to their crops of rice and corn. The villagers laughed at him. He had failed to take into account the caste system which decrees that vegetable growers are a low and unworthy class, only slightly above the Untouchables. Farmers growing cereal grains rank near the top of the social scale.

Dr. Leonard S. Cottrell, Jr., head of Cornell's department of sociology and anthropology, said that the next four years of the research program will include special courses for American students seeking careers in missionary, agricultural and industrial fields overseas, courses for specialists who will measure the impact of western civilization on the backward areas of the world, and visits to research areas by anthropologists and research assistants.

Dr. Opler is gathering material on village life in the Ganges valley in India and plans to visit the area next year. Dr. R. Lauriston Sharp has recently left for Siam. Two other Cornell anthropologists, Dr. Alexander H. Leighton and Dr. John Adair, are establishing a field station in the Southwest in cooperation with the Office of Indian Affairs.

Science News Letter, August 7, 1948

#### ARCHAEOLOGY

## Relics of Early Indians Found by Archaeologists

► **POTTERY FRAGMENTS** tempered with fiber, which apparently represent the birth of the ceramic industry among the Indians of the southeastern United States, have been uncovered by archaeologists from the Smithsonian Institution in Washington.

These broken pieces of pottery, which are an important archaeological find, were discovered when explorations along the Savannah river in Georgia and South Carolina revealed what must have been a popular Indian camp for perhaps a thousand years.

Indians, from the prehistoric mound-builders to the Creeks who lived in the area just before the coming of the white men, chose this site for a home and left behind them the traces of 150 habitation sites which are now being scientifically investigated for the first time. The Savannah river sites have been neglected by archaeologists until now, when parts of the area will be flooded in the construction of the Clark Hill Reservoir.

A survey of the region is being carried out as a cooperative project between the Smithsonian Institution, the National Park Service and the Army Corps of Engineers. Carl F. Miller and Joseph R. Caldwell of the Smithsonian staff are working to find and mark archaeological sites for possible future excavation before the reservoir is completed and flooded.

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