

"We must remember, in justice to the suspect, that he might possibly be a laboratory employe, a pharmacist or a farmer who has been handling fertilizer and therefore accumulated chemical deposits on his hands similar to those made by gunpowder gases and yet be utterly innocent of guilt."

The efficiency of the test depends, as in so many other fields of investigation, upon the proper interpretation of results, Mr. Gompert warned.

"We soon discovered that the gunpowder nitrates were deposited in very minute quantities over the back and upper part of the hand in a sort of 'peppered pattern,' he said.

A total of 234 tests of the method gave positive results in every case, Mr. Gompert claims.

The method is not in general use by police departments throughout the country, and, so far, other criminologists have not confirmed the results obtained in Los Angeles. If the method proves to be successful, even for the detection of murders planned so as to look like suicide, it will be of great service to crime detection officers.

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## SEISMOLOGY

## Radio Timing Aids Earthquake Study

**R**ADIO time signals from a powerful central station enable seven seismological observatories in southern California to work as one, thus clocking very accurately the rate of travel of earthquake waves. This is one of the modern refinements in earthquake study now being conducted at the California Institute of Technology, at Pasadena, as described by Dr. Harry O. Wood of the Carnegie Institution of Washington, which cooperates in the research, along with the U. S. Coast and Geodetic Survey and other organizations.

California, being a land of many geologic "faults" or slip-lines in the rocks, is also a land of many earthquakes, most of them small, a few of them great. For this reason it has been selected as a favorable huge-scale laboratory for intensive seismological study.

Many of the seismographs used in this study are of a type designed especially for the recording of the less intense "local" quakes, as distinguished from the long-range instruments that catch the waves from "world-shakers" that occur in distant lands.

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## ARCHAEOLOGY

# Secrets of American History Sought to Aid Unemployed

## Civil Works Funds Will Employ 1,000 Men at Five Sites; Recent Public Works Grants Aid Other Fields of Research

**A** THOUSAND unemployed men will soon be disinterring secrets of aboriginal history in five different states. A new Federal Civil Works project approved by Harry L. Hopkins, Federal Civil Works Administrator, thus provides unexpected opportunities for scientific excavation on a large scale. All but one of the sites to be excavated are in the South, in Florida, Georgia, North Carolina and Tennessee. One is in California.

The sites to be explored are selected by the Smithsonian Institution, and are important to an understanding of America's ancient history. Heretofore, they have been considered projects too large to be undertaken by the Institution.

Scientists who will direct the work have been tentatively selected.

Reconstructing the lost story of what happened in Southeastern United States in the days before Columbus will be speeded by this new research in that section. Matthew W. Stirling, chief of the Bureau of American Ethnology, points out that not long ago the ancient story of the American Southwest was as confusing as that of the Southeast seems today. But today, through systematized research, the story of the Southwest is told in remarkable detail from a time before the Christian era down to the Spanish conquest.

### Amazing Earthworks

One site in Florida, where 229 men will be put to work, consists of a system of prehistoric earthworks built by unknown Indians who lived in the Everglades before the Seminoles came there. These elaborate earthworks were discovered two years ago by Mr. Stirling. So great was the pattern of earthen ridges that he declared it amazing that no one had previously reported their existence.

Mr. Stirling will supervise the exploration of this important site near Lake Okeechobee to see what may lie buried there. He may also supervise excavation at the other two sites where work is to be done in Florida, one in

Brevard County, the other in Manatee.

In Georgia, Dr. Arthur Kelly, formerly of the University of Illinois, will direct the project of exploring the contents of a large mound in the city limits of Macon. The site, believed to be an old Hitchiti village, will call for 205 excavators.

In North Carolina, 104 men will explore a large mound near Murphy, believed to be the old Cherokee village of Guasili visited by the Spanish explorer De Soto. William B. Colburn from the University Museums, Ann Arbor, Michigan, will direct this project.

In Tennessee, Dr. Frank H. H. Roberts, Jr., of the Smithsonian will take charge of a project to excavate and restore Indian mounds in Shiloh National Military Park. The identity of the Indians who built these prehistoric mounds, and the age to which they belonged, have never been discovered.

California, the fifth state chosen for the research, will have 208 men at work opening up the Yokut Indian mound near Taft, in Kern County. Dr. William D. Strong of the Smithsonian is expected to direct the project. The mound is one of the key sites in California's prehistory, with a story extending indefinitely back into the past.

### Public Works Allotments

Among the Federal projects just approved by the Public Works Administration, five allotments indicate a recognition of the value of scientific research as part of the recovery program.

Two allotments were made to the National Planning Board. One of \$35,000 provides for a program to discover, correlate, and study the researches and surveys now being made throughout the country on such projects as natural resources, population distribution and trends, health problems, local planning, and any other field which has a direct bearing on national welfare.

A second allotment of \$250,000 to the National Planning Board is to stimulate the preparation of (*Turn Page*)