

than 18 levels of occupation from this long prehistoric era.

In identifying the mysterious early settlers, science is having to depend almost entirely upon archaeological evidence, Prof. Speiser said. Ordinarily language is a valuable aid in tracing careers and identities of racial groups. But Mesopotamia was settled so long before writing began that nothing can be recovered of the languages of the colonists. Nor can the pre-historians derive much help from anthropological material. Comparatively few skeletal remains have been discovered. But archaeological evidence is plentiful, and while it is not the easiest thing in the world to deduce a man's racial identity by examining the contents of his wrecked home, it can be done, scholars believe.

The evidence convinces Prof. Speiser that the founders of civilization in the Near East were a people of the Alpine race who came down from the highlands between the Black Sea and the Caspian. They spread through the Valleys of the Tigris and the Euphrates and west to Syria and east to Persia.

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RESTORED BY ELECTRICITY

The human figure on this Greek vase was invisible beneath a forest of crystals until they were electrolytically removed and the paint redeposited on the earthenware.

ELECTROCHEMISTRY

Electric Current Untangles Salt and Paint on Old Vases

SUCCESS in the uncanny feat of using electric current to sort out a tangle of salt crusts and paint on an antique Greek vase was reported by Dr. Colin G. Fink, professor of electrochemistry at Columbia University, at the meeting of the American Association of Museums in Chicago.

Dr. Fink's success in restoring metal art objects by this method previously attracted wide attention. He has now demonstrated that antique pottery long exposed to action of salts in the earth can be returned to its original beauty by electrolysis.

When the vase was brought to his laboratory, Dr. Fink said, it had a crust of crystals of various salts directly over a human figure painted on the surface. The salt crystals had lifted the particles of black pigment entirely out of their original places.

Paint Particles Entangled

"In other words," explained Dr. Fink, "pigment particles were entangled in the little 'white forest' of crystals.

"Had we proceeded as books on restoration advocated, and used water and a brush, most of the detail of design would have been lost."

To see if the electric method could be used, Dr. Fink made preliminary tests with clay and pigments, and determined to make the experiment.

His technique with the vase depended on electrically attracting the pigments back to their original position. He did this by carefully lowering the vase into a vessel of water. Into the vase he lowered a wire, to serve as the cathode; in the water outside he placed a corresponding wire, the anode.

Walls Stop Pigments

As the water seeped into the vase through its porous clay walls, it reached the cathode wire and the circuit was closed. The pigment particles, attracted toward the cathode, of course had to stop when they reached the walls of the vase. They thus returned to the same positions whence they had been lifted by the forming salt crystals many years before.

After the pigments had been re-depos-

ited, the vase and its surrounding vessel were gradually drained. Then, while it was still slightly moist, the vase was lightly sprayed with white shellac. Then it was thoroughly dried and given two more shellac spray coats to anchor the pigments and reinforce the clay itself.

Dr. Fink believes that this method can be used for the restoration of objects made of gypsum and other porous materials as well as for clay.

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MEDICINE

Heat, Cold or Exertion Cause Queer Reactions

A QUEER condition of sensitiveness to heat, cold, or effort was demonstrated to the American Medical Association in Milwaukee by Dr. W. W. Duke of Kansas City, Mo. He calls the condition physical allergy. The patients have many of the symptoms of sufferers from allergy due to pollens and food proteins.

One patient became frightfully depressed and was reduced to tears by warmth and exertion. With cold applications she got immediate relief from her depression and was seized with uncontrollable laughter. Another patient raised his arm three times and had convulsions. Relaxation and relief followed cold applications.

Terrific headache, asthma, partial blindness and skin eruptions were also caused by slight effort and relieved by cold applications. Temporary relief may be obtained by applying the opposite of what caused the attack. Permanent relief in many cases, amounting to cure, was obtained after six months of treatment. This consisted in applying the causative agent, heat or cold or effort as the case might be. Then just when a reaction occurred the opposite agent was quickly applied. These heroic measures, carefully applied, seemed to reaccustom the patient to the distressing factor causing the attack.

Dr. Duke also reported a case of a woman who got eczema of the face in winter. It was found to be due to fungi of firewood used in winter in her home.

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