



Botany: Oldest Science

**B**OTANY is the oldest of the sciences, and not astronomy as is frequently claimed. This thesis was defended in an address before a Washington audience of scientists, by Dr. Elmer D. Merrill of Harvard University.

Astronomy, Dr. Merrill admitted, might be able to make good its claim within a more limited field: it is perhaps the oldest of the exact sciences. But long before the traditional Chaldean shepherds watched the stars while their flocks slept,

".... and tamed them With grave, mysterious, and lovely words,"

the men of the Old Stone Age perforce had to know the plants in the woods they inhabited: which were good for food, which for medicine, and which would kill you if you ate them. Elementary and utilitarian as this knowledge was, it still was botany, Dr. Merrill pointed out; and from it eventually grew botany's daughter science, agriculture.

Agriculture, which is the basis of the settled life that is civilization, probably began more or less by accident, Dr. Merrill believes. In certain places where the wild ancestors of our present-day food plants, especially the grains, grew best, the nomadic tribes stayed longer, and by degrees came to scatter some of the seed, and then to till the soil more deliberately.

These birthplaces of agriculture were not in the places usually assigned to them, he contended. They were not in the great river valleys, neither were they in the tropics. Egypt and Mesopotamia, traditional birthplaces of agriculture, received their grains and the knowledge of cultivation from elsewhere. They gained their credit not by inventing agriculture, but by inventing writing and

making their knowledge a matter of record

That these old observers and early cultivators of plants did their work well is attested by the fact that every important food plant in the world has come down to us from prehistoric times. We moderns have improved and refined,

but we have made no new domestications worth mentioning. The ancients chose critically, too: there are hundreds of thousands of species of wild plants, yet the total list of important plant food sources, ancient and modern, does not add up to many more than a hundred species.

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ARCHAEOLOGY

## Incantations of Babylonia Of Long Ago Read

**B**ELIEF in magic by incantation was widespread during the middle of the first Christian millennium, judging from "magic bowls" that have survived to this day.

Dr. Julian J. Obermann, Professor of Semitic Languages at Yale University, discussed before the American Oriental Society, meeting in New Haven, the incantations that he has deciphered.

The "magic bowls" in the Yale Babylonian Collection were found at the site of Nippur and are terra-cotta jar-like vessels varying in size and workmanship. The inside surfaces are inscribed with incantations.

Regardless of difference in script, dialect and religious affiliation, the inscriptions followed a well-defined, stereotyped formula.

"As a rule," Dr. Obermann said, "they begin by stating the prophylactory purpose of the incantation, and the person or persons for whom they are intended; they continue by enumerating the dangers of black magic against which they offer protection; and they wind up with imprecations against the spirits of evil, and a religious eulogy of a more general character. Nevertheless, each of the incantations betrays a literary and cultural physiognomy peculiarly its own."

## Three Types

His work in deciphering the incantations has led Dr. Obermann to classify them according to three different types of Aramaic script—Syriac, Mandaic and Judeo-Aramaic—and in at least as many dialects of Aramaic speech. Aramaic was the most widely spoken and written Semitic language for about a thousand years prior to the rise of Islam, and it also prevailed in pre-Mohammedan Iraq.

One bowl in the Yale collection is inscribed with a lengthy Mandaic text.

The author appears to wage war against the Princess of Darkness. Yet this incantation, Dr. Obermann said, opens with the solemn Gnostic words: "In the name of the great strange Life, from the worlds of exceeding Light, which transcends all creatures." Another specimen of peculiar interest is Judeo-Aramaic in script and style.

## Brief and Sober

"Its inscription is as remarkable for its brevity, concision, and sobriety as the Mandaic bowl is for its complexity, profusion, and solemnity," Dr. Obermann said. "It is written for the benefit of one Farruch Chusrau, his three wives and his seven children, all mentioned by their names which, with but one doubtful exception, appear to be Iranian in character. If this family was, to judge by the names borne by its members, of Persian stock, or at any rate, of Persian civilization, they must be assumed to have been of Aramaic tongue, or they would hardly have ordered for their magic protection an Aramaic amulet. By religion they may have been Jews, Christians, Mandaites, or some of the other faiths extant in pre-Mohammedan Iraq. The author of the incantation, however, betrays his Hebrew background by using for 'amulet' a technical term found only in Rabbinic literature, and by writing once a common Semitic phrase in peculiarly Hebrew orthography.

This brief inscription, Dr. Obermann said, illustrates importance of the incantation bowls, as authentic witnesses to the spelling and writing of East-Aramaic, but also for the culture and religion of Sassanid Iraq, of which, outside the magic inscriptions, first-hand contemporary documents are strikingly scarce.

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