

### GREEK TEMPLES AND PILE DWELLINGS.

That the Doric temple of ancient Greece derived its form from the still more ancient pile dwelling inhabited by the lake dwellers of Central Europe, is an interesting theory advanced by Dr. Paul Sarasin, of the Berlin Anthropological Society, in a recent issue of the *ZEITSCHRIFT FÜR ETHNOLOGIE*. Our quotations, below, are from a review by Prof. Alexander F. Chamberlain, of Clark University, in "The Popular Science Monthly" (New York, November). It has been suggested more than once that the Greek temple, once regarded as absolutely unique and original, is really a glorified imitation of some previously existing wooden structure. According to Professor Fuchs, this is the house of the rich cattle breeders of the Central European plateau. Professor Chamberlain, while entertaining no doubt that the marble temple had a wooden prototype inclines rather to the less local theory advanced by Sarasin, which he sets forth as follows:

"According to Sarasin, the Greek temple with columns 'is a highly idealized and conventionalized expression of the original pile dwelling'—the columns are the piles, the ornamented superstructure the dwelling fixed upon them, the triglyphs the window strips, the metope the partition, etc. In order to fully appreciate the merits of Sarasin's theory one must bring up before the mind the wooden forerunner of the Doric peripteros: 'The columns were wooden pillars, the architraves wooden beams, the triglyphs wooden strips, the metopes boards with carved ornament; the wooden roof was covered with mud-thatch, and the wooden ridge ended in a bird made of cut boards (the acroterion).' Reducing the height of the columns a little, and increasing somewhat that of the superstructure, one has a building strikingly similar to, and in many respects identical with, the pile dwelling. The figures of the temple of Poseidon at Paestum and a pile dwelling in Central Celebes show this very clearly. And it should be said that the pile dwellings of Indonesia, occurring on land as well as in water, represent better a 'pile dwelling period' than the 'reconstructed' lake dwellings of Switzerland. During the later stone age and the bronze age, Dr. Sarasin thinks, moreover, pile dwellings of a sort comparable with those to be met with in Celebes were found over a considerable portion of Europe, not merely in lakes, rivers, etc., but also in swamps and on the dry land . . . In Greece and many other parts of the then known world, the original human dwelling was the house on piles, which, therefore, was also the first dwelling of the gods, and the first temple—the orthodox temple, as Sarasin phrases it—was a pile dwelling.

The basis of the Ionic and Corinthian columns, Professor Sarasin thinks, is to be seen in the stones placed under the piles to prevent decay. The so-called echinus, the lower, round portion of the capital, corresponds to a similar dish of stone or wood placed on the piles as a protection against rats, etc. The abacus is a rest piece for the beams on the middle of the disc. The so-called

proto-Doric columns of Egypt which lack the echinus, go back, Sarasin suggests, to a pile dwelling without such protective discs. The perpendicularity of Ionic and Corinthian columns, as well as the slight upper inclination of the Doric, are referred to the various conditions of piles and their arrangement. To quote further:

"The so-called aedicula, according to Sarasin, is derived, not from the tent, as some have supposed, but from the small shade roof seen in front of many Celebean pile dwellings, under which the occupants sit protected from sun and rain. The 'wall temples' and the cellae are easily developed from the open space under the dwelling in the pile houses by building in between the columns—the prototypes are seen in the Celebean houses. The transformation of the upper part of the pile dwelling, when no longer used for habitation, into the superstructure of the Greek temple with its ornamentation (the frieze has its forerunner in the pile dwelling's wooden carvings, etc.) was easily possible with an artistically minded people. The substitution of stone for wood, Dr. Sarasin thinks, may have been an Egyptian invention.

"If the present writer may be permitted to add to the ideas set forth by Dr. Sarasin, he would like to suggest the possibility of the existence of pile dwellings in caves (such have been reported from prehistoric Sicily) having had something to do with the development of the original wooden pile dwelling into the stone temple.

"The theory of Sarasin has the advantage of proposing as the original prototype of the Greek temple something that was more or less cosmopolitan, a building that was common and natural over a large portion of the prehistoric world, and not some merely 'local' model. As Dr. Sarasin points out, the pile dwelling served also as a prototype of the Chinese and Japanese temples (in this case, since they are mostly constructed of wood, the likeness is even more striking); likewise in farther India, Hindustan, Arabia, Asia Minor, Egypt, etc., and even in prehistoric America. Moreover, not merely the 'long temple' but the 'round temple' goes back to the pile house, as may be seen from the round pile dwellings ascribed to the land of Punt, in Egyptian pictures dating from about 1500 B.C., which are practically identical in shape, etc., with pile dwellings still to be seen in the Nicobar Islands and in certain parts of Africa.

"Taken altogether, Sarasin's essay is one of the most interesting and suggestive contributions to the literature of the evolution of architecture that have appeared in a generation, and it illustrates the way in which the anthropological investigator can assist in the solution of many puzzling problems, which meet with no successful interpretation at the hands of the closet student or the biased classicist. Dr. Sarasin has given but another proof of the fact that the highest genius of the ancient Greeks lay not in inventing great or beautiful things out-of-hand, but in idealizing, beautifying, and harmonizing what had already long existed in common and widespread forms and fashions. And to that great art no human race is utterly a stranger; and many of them are much nearer the Greeks than most of us believe."