

Dr. Ernst Frickhinger, director of the Museum of Prehistory in Nördlingen, not long ago dug up some broken pottery vessels at the site of a New Stone Age village in southern Germany. In one of them was a dark, glistening mass that appeared to be of organic nature. Dr. Frickhinger submitted a sample to the noted Berlin microscopist, Dr.

Johannes Grüss, who identified it as the remains of the special kind of bread used as the starting-point of the brewing process by all ancient peoples who knew how to make beer at all.

This find constitutes the first evidence that any people of the Late Stone Age drank beer.

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GENETICS

## 300 Generations Descended From One Pair of Insects

**T**HREE hundred successive generations of descendants of one individual have been reared during the past fifteen years in the laboratories of the Johns Hopkins University. This constitutes the longest single breeding experiment ever carried out, so far as known, Prof. Raymond Pearl, noted Johns Hopkins biologist, stated in announcing its result to the Washington Academy of Sciences. Translated into terms of human generations, it would carry us back to 7,000 B.C., at the dimmest twilight beginnings of the Bronze Age and before the dawn of history.

Crowding 300 generations of a living organism into half a human generation of time was made possible by the use of the little gnat-sized insect *Drosophila*, known variously as fruit-fly and yeast-fly. Its life-cycle can be completed in three weeks, instead of the human thirty years.

The experiment consisted in starting with a single normal male, mated to a female with vestigial wings. Normal males were selected from each hybrid generation, and always bred back to vestigial-winged mates. In the end, the "genes," or hereditary units determining normalcy in wings, were still there, striking evidence of the permanence and persistency of these factors in the reproductive process.

### Longer Persistence

Prof. Pearl then called attention to far longer persistence in hereditary patterns of other organisms in nature. Some of the lower forms of animal life have come down unchanged through tens of millions of years.

Yet for all this demonstration of potency on the part of the hereditary units, the speaker cautioned against too easy

acceptance of doctrines ascribing all importance to heredity as against environment in human affairs.

"The full implications of the reciprocally determinative influences of organism and environment seem to me to have been generally somewhat less than adequately valued in the last century's development of biological thought," he said, "and certainly an extremely inadequate amount of first-rate research has been put upon the matter."

Nor was he willing to subscribe to the doctrine that birth control, in limiting the reproduction of the "upper classes" while the poor continue to breed, is "ruining the race." Making it plain that he supports the idea of birth control, and especially that he believes in checking the increase of the hereditarily defective, Prof. Pearl declared:

### Why are They Superior?

"It is assumed that generally speaking and with negligible exceptions the more fortunate social and economic classes are in that position because they are composed of not only mentally, morally, and physically, but also genetically superior people. But it may be alleged with at least equal truth that these very people who are regarded as mentally, morally and physically superior are that way in no small part only because they and their forebears have been fortunate socially and economically.

"The analogy often drawn between human breeding and livestock breeding is in part specious and misleading. In animal breeding it has been learned that the only reliable measure of genetic superiority is the progeny test—the test of the quality of the offspring actually produced. Breeding in the light of this test may, and often does, lead to the

rapid, sure, and permanent improvement of a strain of livestock.

"But when the results of human breeding are interpreted in the light of the clear principles of the progeny test the eugenic case fares badly. The vast majority of the most superior people in the world's history have in fact been produced by mediocre or inferior forebears; and conversely the admittedly most superior folk have in the main been singularly unfortunate in their progeny.

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ETHNOLOGY

## Iroquois Indians Had Code for Murderers

**R**ULE number one for murderers: The slayer positively must stay beside his victim until discovered.

It sounds nonsensical, certainly. In this day and age, a murderer defies all laws, takes any chances, saves his skin by any wild maneuver he can think of.

Nevertheless, there used to be rules for murder in America. Iroquois Indians in the Great Lakes country and New York State had strict ones, so an ethnologist has discovered. What is more, an Indian murderer kept the rules, if he knew what was best for him.

How crime has changed in America is vividly shown by these Iroquois ideas on murder, reconstructed by J. N. B. Hewitt of the Bureau of American Ethnology, who has long studied the social organization of these Indians.

An Iroquois murderer, Mr. Hewitt finds, would steel himself to stay right beside the body until some one came along and found him—even if he waited a week in that gruesome company. His hope was that whoever discovered him would take him into custody without violence. Then, his kin would pay an agreed amount of wampum to the bereaved relatives. After financial settlement, the murder would blow over and be forgotten.

The murderer tensely waiting beside his victim knew, however, that there could be another outcome, far less pleasant. If he was found first by a relative of his victim, the enraged relative could slay him on the spot. That was right and proper, according to murder rules, and no weapons were barred.

But, of course, if the avenger slew the murderer then he, in turn, became a murderer. He must stay there beside the two bodies awaiting apprehension.