The "Plasmodesmata" of Held and Paton, connecting myotome and neural tube, are not primary intercellular bridges, but are secondary connections of medullary origin. The "neurofibrillæ" are intracellular differentiations of the neuraxon processes of medullary cells. The methods used in the study of the histogenesis of the neurofibrillæ do not seem suited to the study of the development of the "plasmodesmata."

The Teaching of Zoology and some Suggestions for its Improvement: W. J. BAUMGARTNER, University of Kansas.

The paper showed that many more students take botany than zoology in the secondary schools. Some reasons were cited for this. Universities can help the teaching of zoology by furnishing some material. The teaching of zoology can be improved by assigning the student a special animal to report on to the rest of the class.

Cestode Cytology: R. T. YOUNG, University of North Dakota.

Both in larva and adult new nuclei in many cases arise *de novo* in masses of cytogenic protoplasm. The evidence of this is the appearance of small, densely staining chromatin bodies in these masses. These later surround themselves with membranes (or the membrane may arise first and the chromatin body later) and are then constricted off from the cytogenic mass, together with a small amount of cytoplasm to form new "cells." Some nuclei are typical, consisting of membranes surrounding distinct chromatin nucleoli; while in others the entire "cell" body is filled with diffuse chromatin, as is shown by micro-chemical tests. A count of some 34,000 nuclei showed only fifty cases of possible mitosis. Amitotic division of preexistent nuclei also occurs. It is probable that mitosis is degenerating in the cestodes, corresponding to their general degenerate condition.

Fifty-one Generations in the Dark: F. PAYNE, Indiana University. (Read by title.)

DEMONSTRATIONS

Sections showing the Early Sex-cells of Amia and Lepidosteus: B. M. ALLEN.

Some Parasites of the Sleeper Shark: H. B. WARD.

Hydroids from the Illinois River: FRANK SMITH.

Sections showing the "Plasmodesmata" connecting Myotome and Neural Tube in Squalus: H. V. NEAL.

H. V. NEAL,
Secretary

KNOX COLLEGE

SOCIETIES AND ACADEMIES

THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON

THE 446th regular meeting of the Anthropological Society, held April 12, 1910, was devoted to the retirement address of the president, Dr. J. Walter Fewkes, on "Cave Dwellers of the Old and New World." The full text of this address will be published later.

The unity of the human mind, said the speaker, has come to be one of the most fruitful working hypotheses in the science of culture history. Identities in human culture, under similar climatic and other environmental influences are among the strongest evidences that can be adduced in support of this theory. As human habitations, the most characteristic of racial artefacts, reflect better than all others the effect of environment, the object of the address was to indicate the bearing of a comparative study of cave dwellings from different geographical localities on the theory of mental unity.

A people of nomadic life whose habitations from their mode of life are perishable has little stimulus to construct lasting monuments. Sedentary people, on the other hand, construct habitations of material that will endure; caves when available naturally first afforded shelter for races seeking permanent dwellings.

It is difficult to find a primitive race where human culture has reached any considerable architectural development that has not, at an early cultural period, lived in caves or holes in the ground. Life in caves leads to buildings made of stone or other lasting materials. Permanence of building perpetuates racial traditions, serving as constant incentives to the construction of architectural monuments.

A study of the distribution of prehistoric cave habitations reveals a marked uniformity of cave dwellings in regions of the earth geographically far apart. Prehistoric cave dwellings of similar form may be traced from China across Asia and on both shores of the Mediterranean, in Mexico, Peru and the southwestern part of the United States. This distribution corresponds in a measure with that of great prehistoric monuments and follows closely that of the arid regions.

Caves as habitations are divided into two types, natural and artificial. The address treated more particularly of the latter, but views of both from the old and new world were shown.

The European natural cave as a shelter is prehistoric, having been abandoned in very early times. The natural caves of Cuba, Hayti and

Porto Rico were, however, inhabited by primitive men of low culture and characteristic speech when America was discovered.

Artificial caves in the Verde Valley, Arizona, were shown to resemble those in Asia Minor, the Crimea, Caucasus Mountains and Canary Islands. Exact counterparts of the "tent rocks" or "cone dwellings" of the Otowi Canyon, in New Mexico, occur in Cappadocia near Cæsarea Mazaca. Views were shown illustrating the resemblances of certain cliff houses in Arizona, and monastic establishments in Thessaly. The speaker called attention to an inhabited subterranean village Matmata, in northern Africa, and underground habitations, now deserted, in volcanic cones near Flagstaff, Arizona. The resemblance in architecture of a Berber village in the Sahara to a Hopi pueblo, was incidentally considered.

Views were shown of oriental rock temples, the most striking of which were those of the rock city, Petra, in Syria, which was characterized as the most exceptional cliff ruin in the world.

The 447th regular meeting of the Anthropological Society, held April 26, 1910, was also its 31st annual meeting.

The meeting opened with reading of the minutes of last year's annual meeting. The secretary then read a report of the activities of the society during the last session which, briefly stated, was as follows: The society held fourteen meetings with an average attendance of 64 members and guests. At these meetings twenty papers were presented by sixteen contributors.

The president, Dr. J. Walter Fewkes, commemorated in a few appropriate words the members of the society who during last session departed this life, viz., Professor Enrico Giglioli, of the Museum of Florence, Italy, who has been an honorary member, and Professor Simon Newcomb and Mr. W. C. Whittemore, active members.

The society then proceeded to the election of officers, which resulted as follows:

President—J. Walter Fewkes.

Vice-president—George R. Stetson.

Secretary—I. M. Casanowicz.

Treasurer—George C. Maynard.

Additional members of the Board of Managers (besides the former presidents of the society, who are *ex officio* permanent members of the board)—William H. Babcock, J. N. B. Hewitt, David Hutcheson, Edwin L. Morgan, John R. Swanton.

I. M. Casanowicz,
Secretary

The Michigan Academy of Science
Section of Zoology

The regular meetings of the section were held March 31 and April 1, 1910, at the University of Michigan. The following papers were read:

"Notes on Michigan Reptiles and Amphibia, II.," A. G. Ruthven.

"Some New Light on the Development of Reptilia," E. C. Case.

"Variation in *Lymnæa reflexa* Say, from Huron County," H. Burrington Baker.

"The Crustacea of Michigan," A. S. Pearse.

"Preliminary Report on the Anatomy of *Physa gyrina* Say," H. Burrington Baker.

"Notes on the Distribution of the Unionidæ of North America," Bryant Walker.

"Regeneration in the Nerves of *Cambarus*," H. M. MacCurdy.

"A Contribution to the Theory of Binuclearity" (lantern slides), R. W. Hegner.

"The Origin and Meaning of the Second Polar Body," Chas. R. Barr.

"On Two Abnormalities in the Crayfish," Lucia Harmon.

"The Rotary Power of Extracts of the Bodies of Snails," Elliot R. Downing.

"The Formation of Habit at High Speed," O. C. Glaser.

"Notes on some of the Rarer Species of Michigan Birds," Walter B. Barrows.

"Methods of Photographing Birds" (lantern slides), R. W. Hegner.

"A Simple Cooling Device for Use with the Microtome," O. C. Glaser.

"A Word on Double Embryos," O. C. Glaser.

"The Theory of Mimicry" (lantern slides), Jacob Reighard.

"The Pearl Organs of American Minnows in their Relation to the Factors of Descent" (lantern slides), Jacob Reighard.

"Some Methods of Studying Vision in Fishes, with Demonstration of Apparatus," Crystal Thompson and Mary Axt.

"A Remedy for the Black Fly Pest in the Southern Peninsula of Michigan," Cora D. Reeves.

"Experiments on the Rôle Played by Odors in Determining the Behavior of Bees," Max Peet.

"Mimicry in *Tabanus atratus*," S. D. Niagers.

"The Mendelian Law Demonstrated by the Domestic Fowls," S. D. Magers.

R. W. Hegner,
Secretary

Ann Arbor, Mich.