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Museum and University Data, Program and Information Exchange

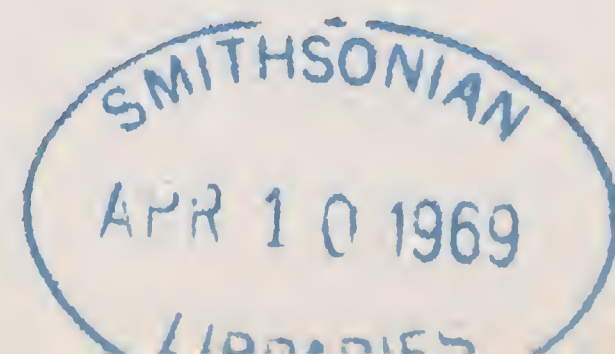
FIRST MUDPIE CONFERENCE

People interested in further development of computer-based exchange between universities and museums are invited to participate in informal discussions at the American Museum of Natural History on June 14, 1969. This date has been selected because it falls between the meetings of the American Society of Ichthyologists and Herpetologists (June 9-13) and the American Society of Mammalogists (June 15-19), and offers maximum opportunity for members of both societies to participate, but it is hoped that others will be able to attend the one-day session. Several time-share contractors have indicated an interest in setting up displays to show what they have to offer, and participants who have not yet started using time-share computing will have a chance to get acquainted with it. We plan to have informal sessions on current programs in computer use within museums; the development of museum networks of shared access (see elsewhere in this issue of MUDPIE); the possibilities of external support in the development of a museum-university network; techniques and applications in the use of time-share in museum research; and anything else people want to talk or ask about. In short, we hope to have a chance to talk about the same kinds of subjects that have been appearing in issues of MUDPIE.

Present planning indicates that the morning sessions, beginning about 9:00 A.M., will be devoted to exhibits of current hardware both by contractors and by the American Museum of Natural History Teletype. A noon luncheon is planned. The afternoon will be semiformal, with a list of subjects around which discussion can evolve. James A. Peters, USNM, will be in charge, so contact him about subjects, questions or participation. If you want or plan to come, please notify R. G. van Gelder, AMNH, at once, by postcard, so he has an approximate head-count, to permit room scheduling and a guesstimate on luncheon.

FIRST GENUINE MUSEUM-NETWORK ESTABLISHED

The American Museum of Natural History and the United States National Museum of Natural History are now linked together via time-shared computer and are actively engaged in a direct exchange of programs, information, and data. This has been possible because both institutions have established a contractual connection with C.E.I.R., a Washington-based firm, and both use the same central computer, the USNM directly through local lines to Silver Spring, Maryland, and the AMNH through a dedicated line from New York to Silver Spring. The contractor assigns a user number to every user, and if users exchange numbers, both have access to the other's storage units. This exchange of user numbers has been made between our institutions, and we now enjoy access to approximately twice as much storage as previously without additional fees. In addition, an area for exchange of information, messages, and data has been established, and is now used rather extensively by some sectors of the two institutions. It is called, appropriately enough, "MUDPIE." The network would be happy to incorporate any other institutions that might



be contracting to C.E.I.R. in the Baltimore, Philadelphia, or New York areas, since all are currently using the Silver Spring facilities. Interested individuals should contact James A. Peters at the Smithsonian.

MORE ON ENNEAMETRIC SYSTEMATICS

The remarks in MUDPIE No. 5 have produced a reply on the part of Dr. Antony Santiago, who writes:

With regard to the comments "that in enneametric systematics I am severely limited in my approach to my commitment to the 3X3 matrix, I should bring to your attention that a character is limited to 3 categories for a 3X3 matrix, but whenever necessary a category is converted into a character and the new character is expanded into three new categories for subsequent enneametric systematics. In effect therefore a character has 3X categories. This situation combining with the infinitely expandable $(3X3)^n$ matrix makes enneametric systematics very practicable.

"As for the review of my use of the statement 'not yet determined' which you have interpreted as clearly a biological unlikelihood, I am thinking of fossils and also about the possibility that in the early phase of evolution a few organisms could have been producers as well as consumers, and also decomposers all at one and the same time and could have been inefficient in an ecosystem which encouraged specialization of functions. This sort of situation could occur with other characters and categories. In the genetical situation the term "lethal" is very likely applicable.

"Enneametric systematics is able to accommodate normal and all these exceptional situations without loss of its intrinsic value of practical information recording, storage and retrieval. I hope you agree with this view."

FURTHER COMMENTS ON "TAXIR"

The remarks in MUDPIE No. 5 concerning the TAXIR program at the University of Colorado have drawn the following reply from Dr. David Rogers, director of the program:

"You have one sentence which begins, 'At the present time, and with the "descriptor states" built in by Rogers' group, it is perhaps solely functional for processing data in the plant genus Manihot, . . .'. The descriptor states are not built in, the descriptor states are supplied by any interested worker and are not confined to those described by us. Therefore the statement that it (TAXIR) is 'perhaps solely functional for processing the plant genus Manihot' is not true.

"We can and are accepting descriptor states described by very different interest groups already; for example, for the Bryophyte collection of the University of Colorado Museum; for the plant chromosome number reports by Dr. Askell Löve; for the USDA Plant Introduction records on Phaseolus species at Pullman, Washington; for weather data gathered by staff members of the

Institute for Arctic and Alpine Research; and for salamanders at the University of Michigan Museum. These indicate the many applications of the system, and are not confined to our own descriptor set."

RECENT LITERATURE

Batschelet, E. Statistical Methods for the Analysis of Problems in Animal Orientation and Certain Biological Rhythms. AIBS Monograph, 1965, pp. 1-57.

Ellin, E. An International Survey of Museum Computer Activity. Computers and the Humanities, Vol. 3, 1968, 65-87. Ellin is the director of the "Museum Computer Network," a group that MUDPIE readers will have to know more about! The paper is a summary of activity on the part of Art Museums, primarily.

Harbaugh, J. W. and D. E. Merriam. Computer Applications in Stratigraphic Analysis. Wiley, 1968. Primarily a summary of the ways computers have been used by geologists, this book really is an explanation of methods and techniques rather than a discussion of computer use. The uniting factor for the material covered is that the techniques are impractical for use unless a computer is available. Programs are not included, but a bibliography provides lists of papers that do include programs, and also a list of sources of programs is given on p. 278.

Jameson, D. L. Information Retrieval for the Working Scientist: A Simple Algorithm. Bioscience, 19 (3), 1969, pp. 232-33.

Rasberry, S. D., M. Margoshes, and B. F. Scribner. Applications of a Time-Sharing Computer in a Spectrochemistry Laboratory: Optical Emission and X-Ray Fluorescence. Nat. Bur. Stand. Tech. Note 407, 1968, 1-55. This paper deals almost entirely with time-sharing, and is of general interest to anyone thinking of setting up the operation. Some of the programs included are equally of interest, since they can be applied outside of spectrochemistry very easily. The program documentation is in a section called "Supplement to NBS Technical Note 407," and both should be obtained.

Santiago, A. Systematics of Knowledge with Enneametry and Data Processing Machines. Amer. Documentation, Vol. 19, 1968, pp. 158-162.

