

BUFFALO MUSEUM OF SCIENCE

VOLUNTEER HANDBOOK

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## INTRODUCTION:

This handbook has been prepared for the Volunteers of the Buffalo Museum of Science. Its aim is to introduce the new Volunteer to the Museum's purpose, history, and structure, as well as to acquaint you with the Volunteer Organization. We have adopted a loose leaf format so that additions, subtractions and amendments can be made as needed.

We hope that you will take the time to read the material and welcome your comments, suggestions and questions.

## WHAT IS A VOLUNTEER?

by Robert G. Chenhall

In some museums, "volunteers" are defined as those persons who are willing to make a substantial monetary contribution to the museum so that paid "professionals" can carry on the work. Where this attitude prevails, the idea of an unpaid and paid employee working together toward the accomplishment of common goals is almost unthinkable. In fact, some museum directors, even today, tend to express an obnoxious arrogance about any non-trained "amateurs" being a part of the inner workings of the museum.

At the Buffalo Museum of Science this is not the case. Here, the volunteer is, if not the most important, certainly one of the most important of our assets.

First, from the standpoint of the Museum, it would be impossible for us to raise enough money to carry on all of our program activities entirely with paid staff, and everything seems to indicate that this situation will become worse rather than better in the next few years. In every department and in virtually every activity of this Museum a core of volunteers works alongside the professional staff, and it is only because of these people that the job gets done. You perhaps know about the volunteer efforts of our Board of Managers, our Women's Committee and the Museum Guides who give so much time conducting groups on tours of the Museum. But did you know that we also have individuals who spend many hours as volunteer lab assistants in our curatorial department; that we have several persons who regularly put in a good many hours in our library; or that a few people are finding great satisfaction in helping us produce the Museum's exhibits? We have people working as volunteers in many parts of the Museum now, and in the months ahead we hope to provide additional opportunities for volunteers in other areas. The success of the Museum depends upon it.

When the volunteer effort is viewed from another perspective, it is even more important to those who are part of it than it is to the Museum. Our institution deals with physical objects, to be sure, but our reason for being is people. We serve the people of Erie County by offering exhibits and lectures here at the Museum and by providing an educational program that extends all the way from pre-school children to senior citizens. However, those who are getting the most out of their activities at this Museum are the individuals who in some way are helping to create and pass on to others an understanding of the natural sciences. The satisfaction that comes from doing something which you know is important and doing

it just because you want to rather than because you are being paid is one of the greatest pleasures a person can ever experience.

It is the people who make the Museum run, but it is also the people who get the most out of their association with the Museum.

Your time and efforts are important to the Museum, yes, but in the process of doing your part you will also realize the sense of fulfillment that has been so rewarding to many of our other long-term volunteers.

SHORT HISTORY  
of the  
BUFFALO SOCIETY OF NATURAL SCIENCES  
and the  
BUFFALO MUSEUM OF SCIENCE

by George F. Goodyear

The Buffalo Society of Natural Sciences (BSNS), the agency which operates and administers the present Buffalo Museum of Science, was founded in 1861. Its president for the first twenty-one years of its existence was George W. Clinton, a distinguished judge of the period. He was succeeded in February, 1882, by Dr. George E. Hayes, who served only until his death two months later. Dr. Hayes had been the second president (1838) of the Young Men's Association, parent of the BSNS, and Buffalo's first dentist. The Hayes fund, the Society's most important separate fund and the source of financial support for the present-day popular Hayes lectures, was established under his will. This fund, one-half of Dr. Hayes' large estate, was made available to the BSNS after the death of his widow in 1906. Dr. Hayes was succeeded by a series of short-term presidents, and then by two Smiths - Lee H. from 1899-1903 and 1912-1920, and T. Guilford from 1903-1912. In 1920 Chauncey J. Hamlin was elected president, serving until 1948, the longest period of all. It was during his term, and largely through his efforts, that the present Museum of Science in Humboldt Park was built. He made the Buffalo Museum of Science, and other activities in the museum field, his full-time job. He was at one time president of the American Association of Museums, and in 1948 was a founder, and president for its first five years, of the International Council of Museums (ICOM). Chauncey Hamlin was succeeded, in 1948, by George F. Goodyear, who served until 1965, and the latter by a series of short-term presidents until the present time.

The origins of the BSNS go back to 1836, when the Young Men's Association (the YMA, not to be confused with the YMCA) was founded, mainly "for the purpose of establishing and maintaining a library". Among its collateral activities had been an increasing interest in science, as evidence by the establishment of a Committee on Natural Sciences in 1847. Through this committee, the YMA gradually acquired a collection of natural history objects, particularly shells. Soon after the BSNS was formed, these objects were transferred to the new society.

In 1857, Seth Grosvenor, a former resident of Buffalo, died, bequeathing \$40,000 to Buffalo for a public reference library - \$10,000 for a building and \$30,000 for endowment. Under an arrangement with the YMA this gift was accepted, with the understanding that the libraries and other public institutions would occupy and maintain the new building. Due to the Civil War, the building (called the St. James Building) was not erected until 1864. The old quarters, in the so-called American Block, were evacuated by both the Young Men's Association and the BSNS, and the new building formally dedicated on January 10, 1865. It was a fortunate move, for on January 25, 1865, the American Block burned to the ground.

The St. James Building stood on the corner of Main and Eagle Streets. The second floor was occupied by the YMA, including its library; the third floor was occupied by the BSNS, the Historical Society, the Law Library, and the Grosvenor Library; and the fourth floor by the Fine Arts Academy, the Young Men's Christian Union, the Young Men's Catholic Association, and the Erie County Medical Society. Each society paid a rental, which was applied to payment of the mortgage. The building was not fireproof, and there was agitation for the construction of a new permanent building. After

a long campaign, and many subscriptions from the public, this was accomplished, and construction started in 1885. All the institutions participated, except the Grosvenor Library, which went its separate way. Removal to the new building was completed early in February 1887. Again it was a fortunate move, for a month later the old building, by then called the Richmond Hotel, was destroyed by fire.

The new building, on Lafayette Square and Broadway, was the home of the Buffalo Library (this was the new name, in 1886, of the YMA) and later the Buffalo and Erie County Public Library, until this building was torn down and replaced by the present building in 1964.

In 1887, the BSNS occupied 10,000 square feet of floor space in the basement of the Library Building. When the Historical Society moved out to its new building, in 1902, after the Pan-American Exposition, and the Fine Arts Academy to the newly-built Albright Art Gallery in 1905, the BSNS acquired additional space on the third floor of the Library Building. Nevertheless, there was agitation for its own building. The Rumsey family donated a lot on the corner of Elmwood Avenue and Penhurst Place, upon which a small building was built in 1920, contemplating considerable future expansion. It was not sufficiently large to accommodate all the Society's entire collection, and a considerable part of its collections continued to be housed in the Library building. The expansion was never accomplished, and the building was eventually sold to the Buffalo Fine Arts Academy as a home for the Art School.

Soon after the assumption of the BSNS presidency by C.J. Hamlin, he began a campaign to provide a permanent home for the Society. In 1922 the New York State Legislature authorized the City of Buffalo to erect a building at a cost of not more than a million dollars. The following year, a referendum to approve this project, by the voters of Buffalo, was carried by a large majority. The result was the present Museum of Science in Humboldt Park, which was completed in 1928. The Elmwood Avenue and Library buildings were vacated, and in January 1929 the new Museum was open to the public.

In the long years before the new Museum was opened in 1929, the BSNS was at first an entirely private institution, supported by private funds. Gradually, it increased its services to the community, not only by opening its exhibits to the public but also by sponsoring lectures and other special events. It needed an increasingly larger paid staff, and it paid rent or (in the case of the Elmwood Avenue museum) owned the quarters it occupied. In view of its services to the public, which were usually free, the City of Buffalo in 1903 made the first appropriation in its annual budget towards the Society's operating expenses. These appropriations were gradually increased over the years. When the new Museum (owned by the City of Buffalo) was opened in 1929, the BSNS entered into a contract with the City, under which it agreed to house its exhibits (owned by the BSNS) in the Museum, and to make these exhibits accessible to the public free of charge. In return, the City agreed to pay practically all the operating expenses of the BSNS. This contract has been renewed annually since that time. However, from 1933 to 1936 the City's contributions were drastically cut, due to the Depression, while wartime restrictions reduced the Museum's services during the wartime years, 1941-45.

As the City ran into financial difficulties in later years, the BSNS looked for other sources of support. The County of Erie made its first contribution, also on an annual basis, in 1956, and has gradually increased its share until at the present time (1980) it is the Museum's main source of

support. Other, but irregular, contributions are received from the New York State Council on the Arts and from various agencies of the Federal Government.

The large BSNS staff is headed by the Director. At first the only paid employee was called Custodian, but the first Director, Prof. Charles Linden, was appointed in 1866. He was followed successively by Augustus R. Grote, Prof. Linden again, Dr. Julius Pohlman, Dr. William K. Barrett, and Frederick K. Mixer. In 1900 Dr. Elizabeth J. Letson became the first women director, resigning in 1909 when she married and moved out of town. William L. Bryant then was appointed curator, Henry R. Howland continuing as superintendant, a sort of joint directorship. Mr. Bryant became Director in 1917. He was succeeded in 1926 by Dr. Charles J. Fish, and the latter in 1934 by Dr. Carlos E. Cummings. Dr. Cummings had an association with the BSNS which went back to 1901. In 1906 he was appointed a full-time member of the BSNS staff, and was continuously on the payroll until his retirement as Director in 1948. He thereupon served as acting director until the appointment of his successor, Fred T. Hall, in 1951. Upon the latter's death in 1969, Dr. Virginia Cummings, daughter of Carlos, succeeded as Director. then in turn was succeeded in 1979 by the present Director, Dr. Robert G. Chenhall.

Almost from the earliest days, the BSNS was active in promoting knowledge about natural history. Its scientific bulletins began in 1873, with many papers on various families of moths and other natural history subjects. The years 1873 to 1877 and 1881 to 1883 were prolific. Thereafter papers appeared at somewhat rarer intervals right up to the present time. The latest bulletin to be published was in 1979, on the subject of the Flora of the Niagara Frontier Region. To date, there are 28 volumes in the series, most of them with several numbers in each volume. Besides the Bulletins, a regularly issued periodical or magazine was inaugurated in 1920. At first it bore the title "Hobbies", which in 1958 was changed to "Science on the March", and again in 1976 to "Collections". This magazine generally contains local news articles, and articles on natural history of a more popular type.

The origins of the Education Department of the BSNS go back to 1869, when Charles Linden, Director of the BSNS at that time, was appointed to the position of science teacher at Central School, while still continuing as Director. In 1890, Amanda M. Crawford, Custodian of the BSNS, began lecturing to the children of the public schools on topics of natural history. In 1901 the work with the public schools was organized into a regularly planned program. The following year Dr. Carlos E. Cummings became lecturer under this program. Under the Hayes bequest, the Hayes School of Natural Science was founded in 1907, Dr. Cummings becoming Hayes Professor of Science in 1917. The Roosevelt Field Club began in 1920. In the new museum (1929), educational activities were expanded. A division of Adult Education was formed. William P. Alexander, as Hayes Professor of Science (1931), headed this division for a number of years. Harold T. Clement served as Curator of Education from 1929 until 1943, in charge of all educational activities. He was succeeded by Ellsworth Jaeger, who filled this position until his death in 1962. David M. Bigelow served until the early 70's, and was succeeded by the present incumbent, Dr. Francis J. Bajer.

History of the Buffalo Society of Natural Sciences and the Buffalo Museum of Science.

THE BUFFALO SOCIETY OF NATURAL SCIENCES

The Buffalo Museum of Science is administered by the Buffalo Society of Natural Sciences and Museum staff members are employees of the Society.

The Buffalo Society of Natural Sciences was founded in December, 1861 and was chartered by the State University of New York in October, 1896. The Society is a non-profit, tax exempt educational institution, and donors of cash or property to the Society may treat the value of their donations as charitable contributions for income tax purposes.

Copies of the Constitution of the Buffalo Society of Natural Sciences are available to all members of the Museum staff. The following excerpts from the Constitution define the relationship of the Society to the Buffalo Museum of Science:

Article I

Section 1     The name of this corporation shall be the Buffalo Society of Natural Sciences hereinafter called the Society.

Section 2     The objects of the Society shall be the promotion and study of the sciences and the arts, the establishment, operation, and maintenance of collections, museum, and libraries, the procurement of lectures, and the advancement of knowledge and popular instruction, by such means as shall be desirable and efficient for the foregoing purposes.

Section 3     The principal office of the Society shall be at the Buffalo Museum of Science in Buffalo, New York. The Society shall be empowered to enter into a contract or contracts with the City of Buffalo, the County of Erie, or other governmental authority, for the operation and maintenance of the Buffalo Museum collections in such Museum.

The Buffalo Society of Natural Sciences is a membership organization and Society members have special privileges relative to Museum programs and activities. Museum staff members are encouraged to become members of the Society.

THE BUFFALO MUSEUM OF SCIENCE

The first Museum of the Society was a rented room in a bank. In 1864 the Society was associated with the Young Men's Association and shared its quarters. This Association founded the Buffalo Public Library building.

The Museum was later located on Elmwood Avenue and Penhurst Place for a brief period before construction of the present building on Humboldt Parkway, which was erected in the late 1920's as the result of popular vote on a referendum permitting the City of Buffalo to appropriate one million dollars for it. The collections and activities of the Buffalo Society of Natural Sciences are presently housed in the Buffalo Museum of Science.

FUNDING

Funding for the operation of the Buffalo Museum of Science comes from many sources. Both the building and the land which it occupies are owned by the City of Buffalo. The City

provides major maintenance on the building but it is not otherwise involved in the funding of Museum operations.

At the present time approximately 80% of the cost of operating the Museum comes from Erie County. The remainder of the operating funds are provided by grants from public agencies such as the New York State Council on the Arts and the Institute of Museum services, by grants from private foundations, and by the Society, primarily from member dues, and earnings from a modest endowment fund.

#### THE MUSEUM'S STATEMENT OF PURPOSE

The Buffalo Museum of Science is an educational institution, established and administered by the Buffalo Society of Natural Sciences. It focuses primarily on the natural sciences rather than on modern technology. The general purpose of the museum program is to study, and interpret to the community an understanding of, the physical universe, the planet on which we live, all forms of life, including man, and the essential interdependencies that must continue to exist if man is to survive as a part of the natural environment.

The museum serves all age groups from children to adults, and all levels of expertise from students to professionals. The Niagara Frontier is the primary geographical focus of the community served. Artifacts and specimens from all over the world complement the locally-based collections and are essential to the educational purpose of the institution.

The services performed by the museum staff in carrying out this stated purpose are:

1. to provide taxonomic identification of specimens and artifacts, and consultant services in regard to the handling of natural science related problems.
2. to develop, maintain and preserve collections of natural science objects.
3. to exhibit appropriate collections of natural science artifacts and specimens.
4. to provide outreach services to remote areas within the community by means of satellite exhibits.
5. to provide organized classroom studies both within the museum building and at other locations.
6. to publish both professional and popular journals.
7. to sponsor public lectures on pertinent topics.
8. to sponsor educational field trips.
9. to conduct field trips for the purpose of research related to the development of natural science collections.
10. to provide meeting facilities for organizations related to the purpose of the museum program.
11. to provide facilities, specimens and artifacts for use by students, scientists and others.

## BUFFALO MUSEUM OF SCIENCE

### POLICIES GOVERNING VOLUNTEERS

An active Museum Volunteer is a person who contributes a minimum of forty (40) hours of service for which there is no financial compensation. The services are generally given on a scheduled basis for assigned projects under the supervision of a Museum Staff Member. Hours devoted to training sessions, seminars, and committee meetings are counted as volunteer hours.

The Museum encourages, but does not require, a volunteer to join the Buffalo Society of Natural Sciences. However, membership benefits will not automatically be available to Active Volunteers who are not BSNS Members.

Volunteers are recruited from all available sources.

Volunteers will furnish references upon request.

All candidates will complete applications and have a preliminary interview with the Coordinator in the Volunteer Office. Qualified applicants will be referred to departments for a second interview.

Volunteers may indicate the area in which they wish to work and every effort will be made to assign them to tasks well suited to their interests and abilities.

Training sessions will be scheduled on a regular basis for those assignments requiring special skills and knowledge.

Written job descriptions will be available in the Volunteer Office of all positions open to volunteers.

All Active Museum Volunteers will be issued identification cards after having contributed the minimum number of hours.

Volunteers may be terminated if there is no longer any need for their services, or if their performance does not meet with our requirements.

### PRIVILEGES FOR ACTIVE MUSEUM VOLUNTEERS

Because Active Museum Volunteers give of their time, knowledge and enthusiasm, they are entitled to certain benefits according to the following guidelines.

All Active Museum Volunteers receive a 30% discount at the Cabinet (the Museum gift shop).

Active Museum Volunteers may request a written statement of total hours and days worked. This statement is valuable for supporting income tax deductions.

Active Museum Volunteers may borrow books from the Museum Library for a two-week period.

Active Museum Volunteers may register for any Adult Education course at no charge if space is available after paying students have registered. Full payment must be made for required materials.

Active Museum Volunteers may participate in activities such as Adult Nature Walks, Family Walks, Hikes, etc., at one-half the regular price.\*

Spouses, minor children and grandchildren of Active Museum Volunteers may participate in appropriate Education Department courses and activities at one-half the regular price.\*

All registration for these activities must be effected through the Education Office. Volunteers, their spouses, children and grandchildren will not be included in determining the minimum registration requirements for these programs. Half-price discounts do not apply to such activities as Special Tours, Study Flights, River Cruises or other Museum sponsored occasions where costs of transportation, lodging or meals may be involved.

\*Active Museum Volunteers who are also members of the BSNS will pay one-half the BSNS price, non-members will pay one-half the non-member price.

#### RESPONSIBILITIES OF ACTIVE MUSEUM VOLUNTEERS

An Active Museum Volunteer agrees:

To understand the job commitment and to prompt and reliable in reporting for scheduled work.

To notify the Museum as early as possible if unable to work as scheduled.

To accept and become familiar with the Museum's policies and procedures.

To respect the function of the Museum's paid staff and contribute fully to maintaining a smooth working relationship between staff and volunteer.

To attend orientation and training sessions as scheduled.

To sign the Volunteer Log Book upon each arrival and departure.

To become familiar with emergency procedures and facilities: fire, security, etc..

To become familiar with the Museum's layout: entrances, exits, rest-rooms, exhibit locations, etc..

To clean up and dispose of left-over food and discarded materials when using the Volunteer Lounge.

To keep the Volunteer Office informed of any changes in name, address, or telephone number.

To give as much advance notice as possible if unable to perform an assigned task.

To accept the Museum's right to terminate any volunteer if the Museum feels placement is inappropriate.

SKB:rrb

## VOLUNTEERS (by John Clobridge)

Volunteers can be an effective way to humanize, to amplify, and to diversify the work done by professional staff persons.

However, it will be a rewarding experience for all people involved only if we recognize that volunteers and staff have specific rights and responsibilities.

### THE VOLUNTEER HAS THE RIGHT TO:

- a job that is worthwhile and challenging
- be trusted with necessary confidential information
- be kept informed of what is happening in the organization
- expect that his/her tasks have been planned for
- an assignment that will promote learning and growth
- receive advice and support from one supervisor in work setting
- appropriate recognition, even on a day-to-day basis
- be given a chance for "advancement" with proven worth
- out-of-pocket reimbursements, whenever possible
- be treated as a non-paid staff member

### THE STAFF HAS THE RIGHT TO:

- decline any volunteer thought unsuitable
- know that the volunteer will complete the assignment
- know that the volunteer will not go beyond assignments
- evaluate the volunteer's performance
- be respected and trusted as a colleague
- limit access to specific areas, when appropriate
- give the volunteer a trial or probationary period
- report problems and progresses to person who coordinates volunteers
- demand quality performance
- own opinion on the merit of volunteer's involvement

### THE VOLUNTEER HAS THE RESPONSIBILITY TO:

- not take on too much
- respect confidences
- follow organizational guidelines
- prepare for each work assignment
- use time wisely, not interfere with others' performance
- consult with supervisor when unclear on policy
- give constructive feedback that will improve effectiveness
- accept limits and rate of improvement
- refuse gifts or tips from recipients of service
- be considerate, work as a team member

### THE STAFF HAS THE RESPONSIBILITY

- make all necessary qualifications known ahead of time
- provide for adequate time and training for each assignment
- prepare all pertinent staff members for volunteer
- provide feedback in constructive terms
- respect and trust as one would paid staff
- provide adequate, pleasant work space
- give volunteer periodic conferences to discuss assignment
- keep good communications with volunteer coordinator
- provide necessary preparations for new responsibilities
- not overgeneralize about volunteers

## A Brief Summary of the Sciences

(c) Buffalo Society of Natural Sciences  
Claire DeBus - 1979

### Anthropology

Anthropology is the scientific study of the origins, physical and cultural developments, social customs, beliefs, and racial characteristics of mankind,

Archaeology - the study and systematic recovery of material evidence, such as artifacts, inscriptions, and monuments, remaining from man's life and culture in past ages.

Cultural Anthropology - the study of the development of human culture, including:  
ethnology - the analysis of cultures in regard to their historical development and relationships with other cultures, and the study of the origin, distribution and distinguishing characteristics of the different races of mankind.  
ethnography - the study and scientific description of different cultures.

Linguistics - the study of language, both historical and descriptive.

Physical Anthropology - the study of the evolutionary changes in humans and their ancestors and the classification of modern races, it includes:  
comparative biochemistry  
comparative anatomy  
genetics - the study of the similarities and differences of related organisms resulting in the interactions of their genes with their environment.  
paleobiology - the study of the biology of ancient humans and primates.

### Astronomy

Astronomy is the scientific study of the structure and composition of planets and other celestial bodies.

Astrophysics - the study of the physical and chemical makeup of the stars, galaxies, and the universe as a whole.

Cosmology - the study of the structure and general evolution of the universe.

Radio Astronomy - the study of celestial bodies, by the examination of the radiofrequency energy they emit or reflect.

Solar Astronomy - the study and observation of our sun.

Spectroscopy - the analysis of the spectrum by use of the spectroscope (an optical instrument for producing and observing a spectrum of light or radiation from any source), this aids the study of the composition of the sun and the stars.

### Biology

Biology is the scientific study of living things and life processes.

Botany - the study of plants, includes:

non-vascular plants - plants without a system of conducting and supporting tissues, i.e. mosses, algae, liverworts.

vascular plants - plants with a system of conducting and supporting tissues, i.e. ferns and seed-bearers.

Ecology - the study of the relationships between the plants and animals and their environment.

Embryology - the study of the stages of the formation and development of the embryo in plants and animals.

Morphology - the study of the structure of organisms.

Physiology - the study of the function of organisms.

Taxonomy - the classification of living things.

Zoology - the study of animals, it includes:

entomology - the study of insects.

herpetology - the study of reptiles and amphibians.

ichthyology - the study of fish.

ornithology - the study of birds.

### Chemistry

Chemistry is the scientific study of the composition, structure, properties, and reactions of matter, especially atomic and molecular systems.

Analytical - the determination of the qualitative and/or quantitative composition of substances and materials.

Inorganic - the study of all compounds not containing carbon.

Organic - the study of carbon compounds.

Physical - the study of the physical properties of chemical substances and the relations between energy and chemical change.

### Geology

Geology is the scientific study of the origin, history, and structure of the earth and the life upon it.

Historical - the study of the origin and history of the earth and the life on it, it includes:

paleoecology - the study of the ecology of ancient life and its environment.

paleontology - the study of ancient life.

stratigraphy - the study of rock strata, their distribution, origin, and age.

Physical - the study of the structure of the earth, includes:  
geomorphology - the study of the configuration and evolution of landforms.  
mineralogy - the study of minerals.  
petrography - the classification and description of rocks.  
petrology - the study of the origin, composition, structure, and alteration of rocks.

Oceanography

The science of Oceanography incorporates all the other sciences in itself, but usually is described as the technical and procedural aspects of the exploration and realization of oceanic resources.

Physics

Physics is the scientific study of matter and energy and of the interactions between the two.

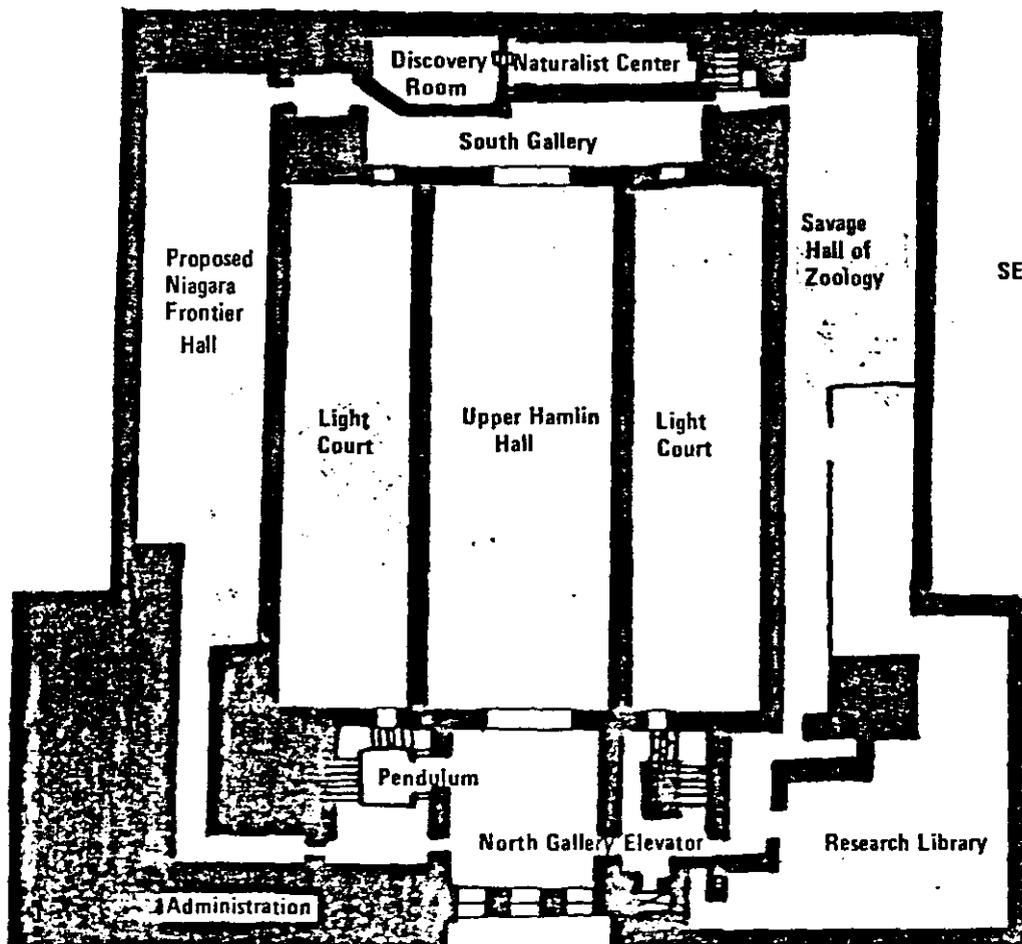
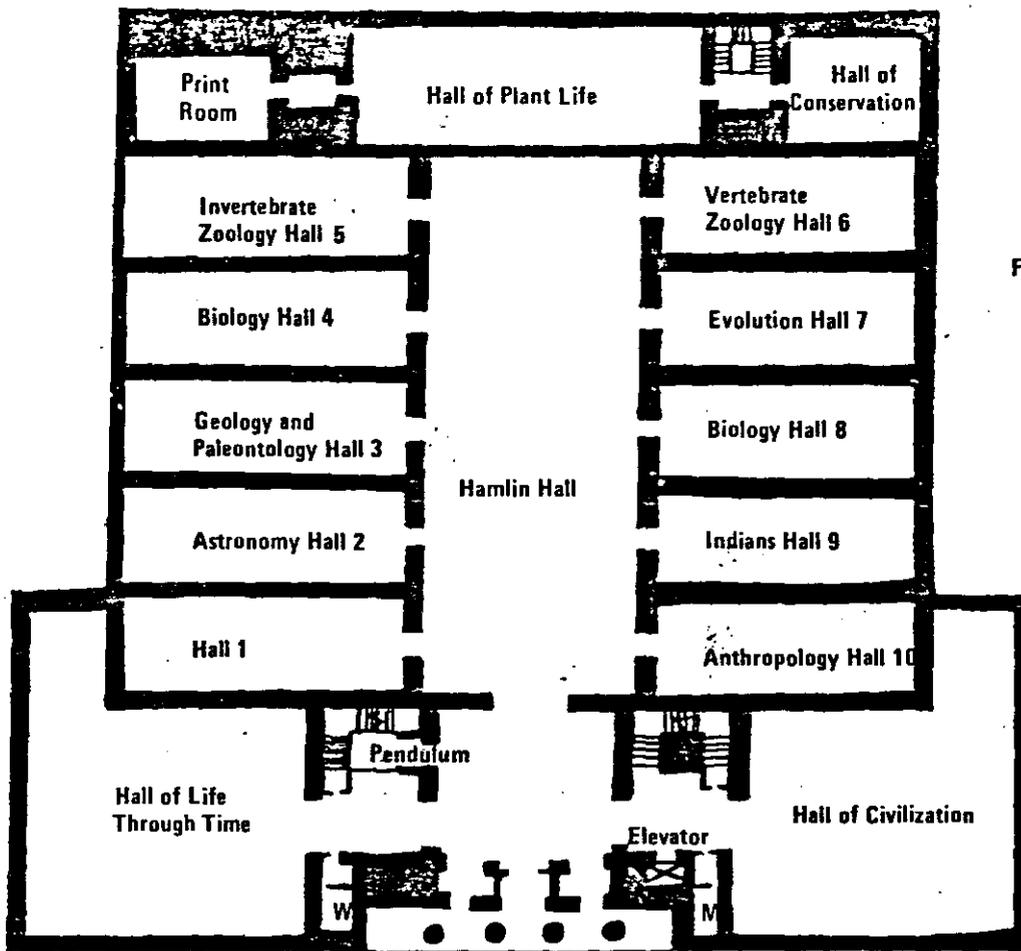
Atomic - the study of atoms.

Mechanics - the study of the effect of forces upon bodies at rest or in motion.

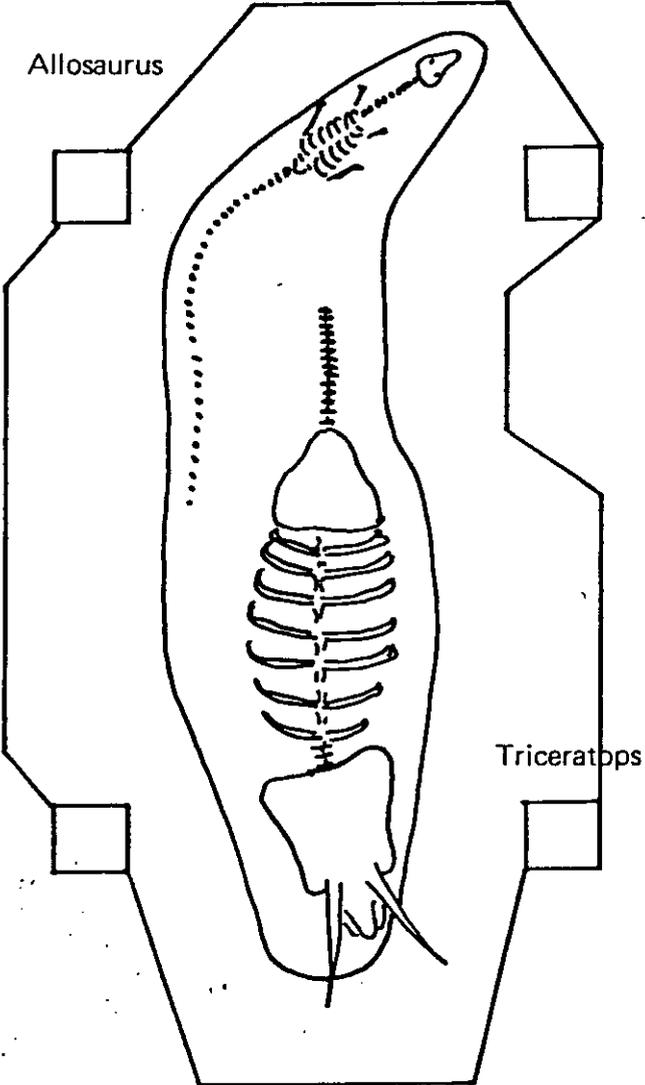
Nuclear - the study of the forces, reactions, and internal structures of atomic nuclei.

Thermodynamics - the study of the limitations of macroscopic systems.

MUSEUM FLOOR PLANS

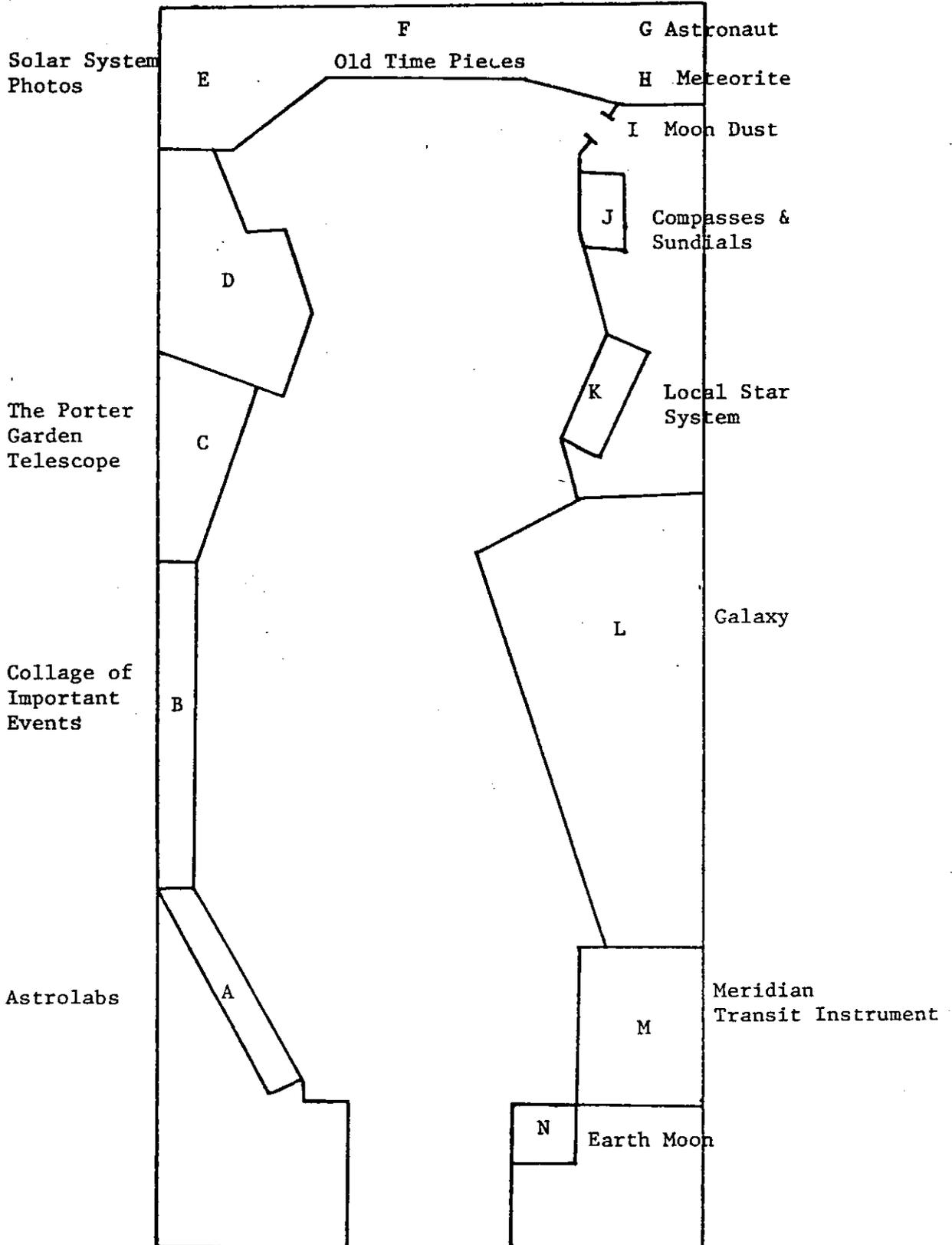
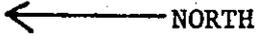


← NORTH



Hall of Astronomy

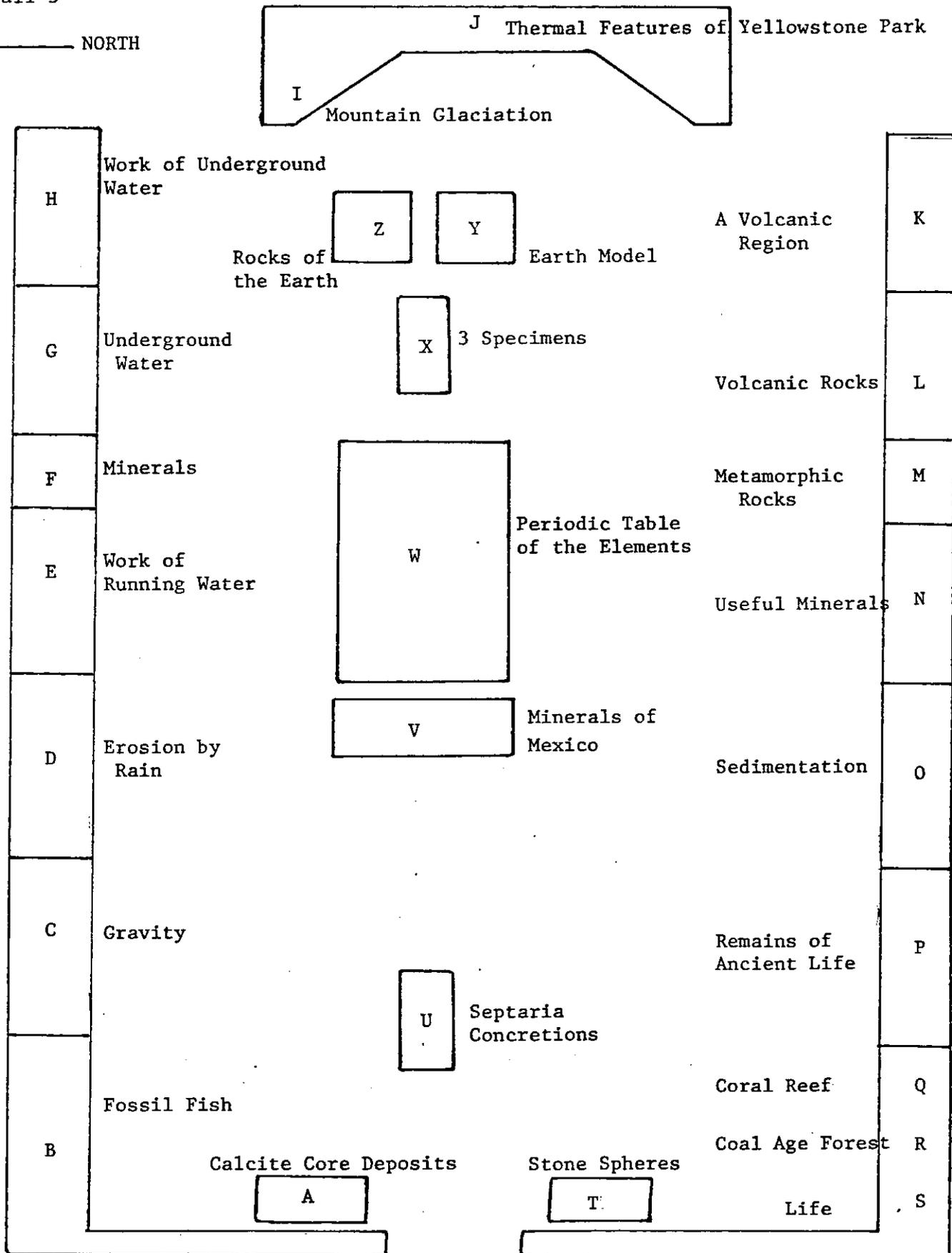
1st Floor  
Hall 2



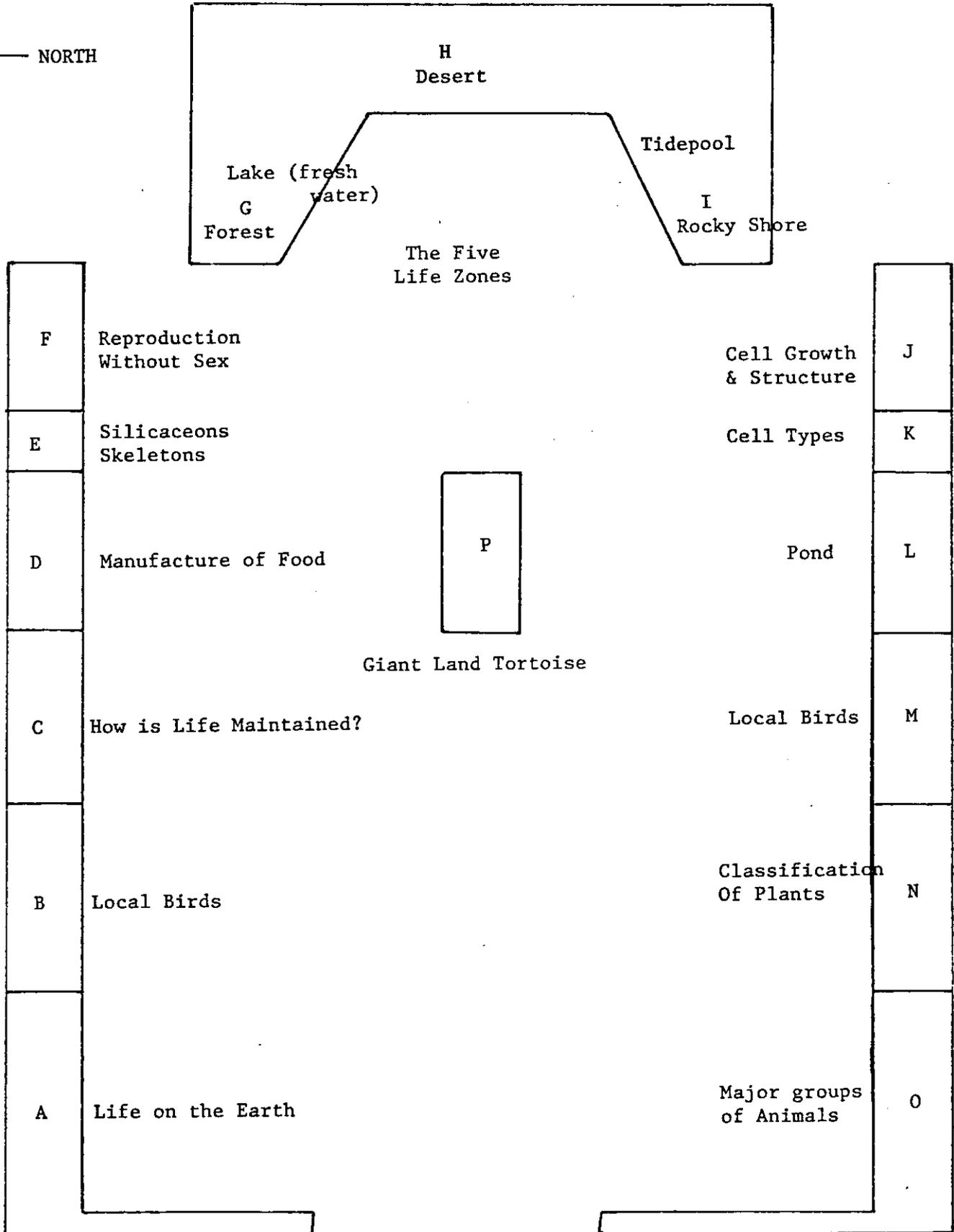
Hall of Earth Science

1st Floor  
Hall 3

← NORTH



← NORTH



Hall of Invertebrates

1st Floor  
Hall 5

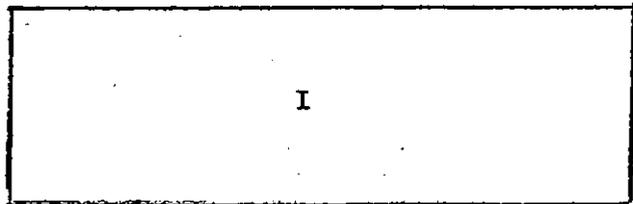
NORTH

9	10	11
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		Upper	Lower				
Relationships	8	Invert.		Life on a Wharf	Bermuda Coral Reef	Squid	
		Relationships		Pile (barnacles)			
				BRACHIOPODA		MOLLUSCA & GASTROPODA	12 Mollusks & Snails
				BRYOZOA			
		7	Some Types of Worms		ANNELIDA	MOLLUSCA & PELECYPEDA	13 Clams & Oysters
				OLIGOCHAETA			
		6	Fluke & Tape Worms		PLATYHELMINTHES		
				ASCHELMINTHES		ARTHROPODA CHELICERATA	14
				NEMATOMORPHA			
	5	Sea Gooseberry		CTENOPHORA	ONYCHOPHORA	15 Spider Crab	
	4	Stoney Corals		COELENTERATA	ARTHROPODA CRUSTACEA	16	
	3	Sponges		PORIFERA & COELENTERATA	ARTHROPODA HEXAPODA	17 Insect Orders	
	2	Common Fresh Water Species		DROP OF POND WATER	ECHINODERMATA	18 Star Fish	
	1	Single Cell Animals		PROTOZOA	CHORDATA	19	
					Invertebrates		Ancestors of Chordates
					A		

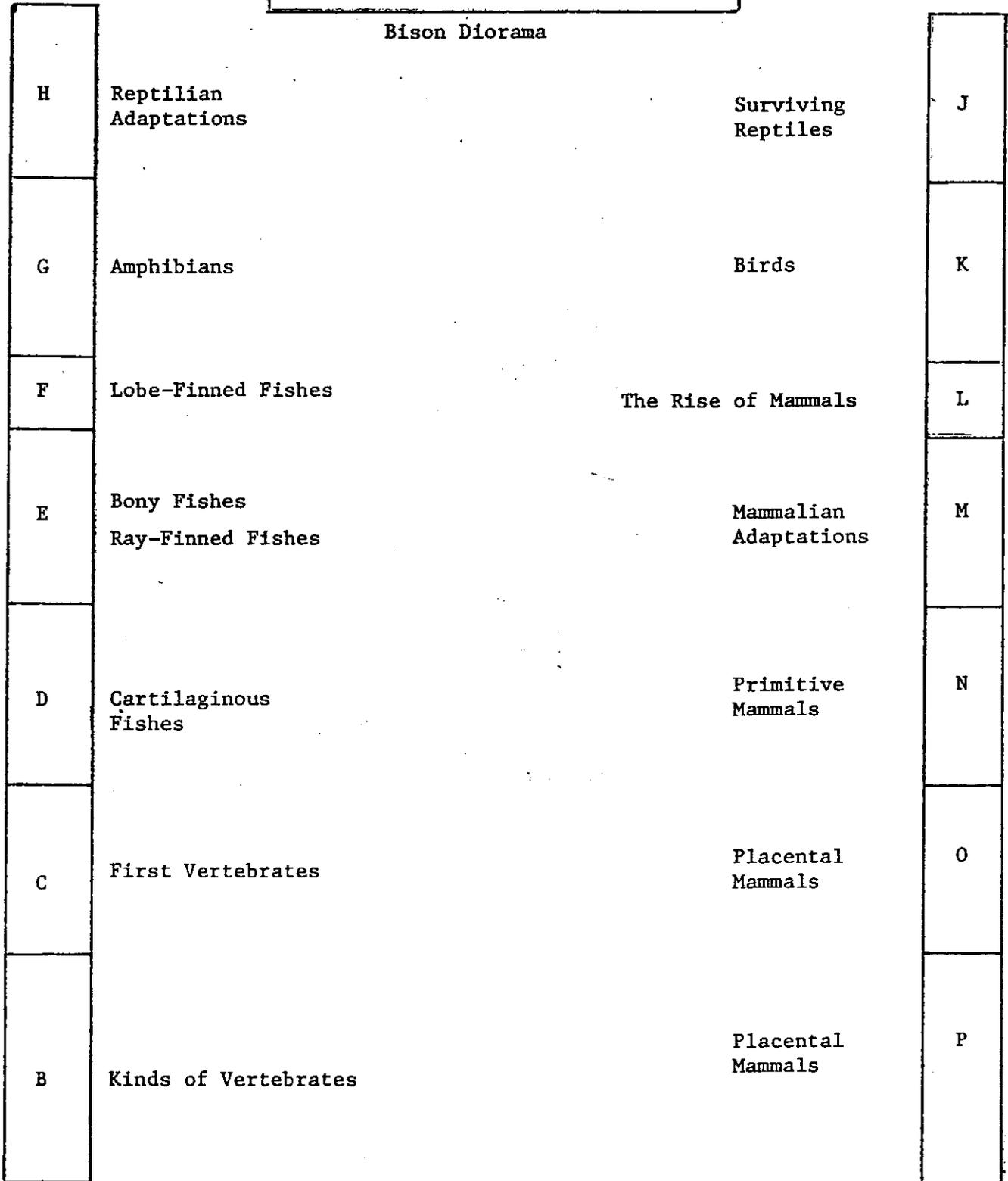
1st Floor  
Hall 6

Hall of Vertebrates



NORTH →

Bison Diorama



H

Reptilian Adaptations

Surviving Reptiles

J

G

Amphibians

Birds

K

F

Lobe-Finned Fishes

The Rise of Mammals

L

E

Bony Fishes  
Ray-Finned Fishes

Mammalian Adaptations

M

D

Cartilaginous Fishes

Primitive Mammals

N

C

First Vertebrates

Placental Mammals

O

B

Kinds of Vertebrates

Placental Mammals

P

A

Elephant Tusk

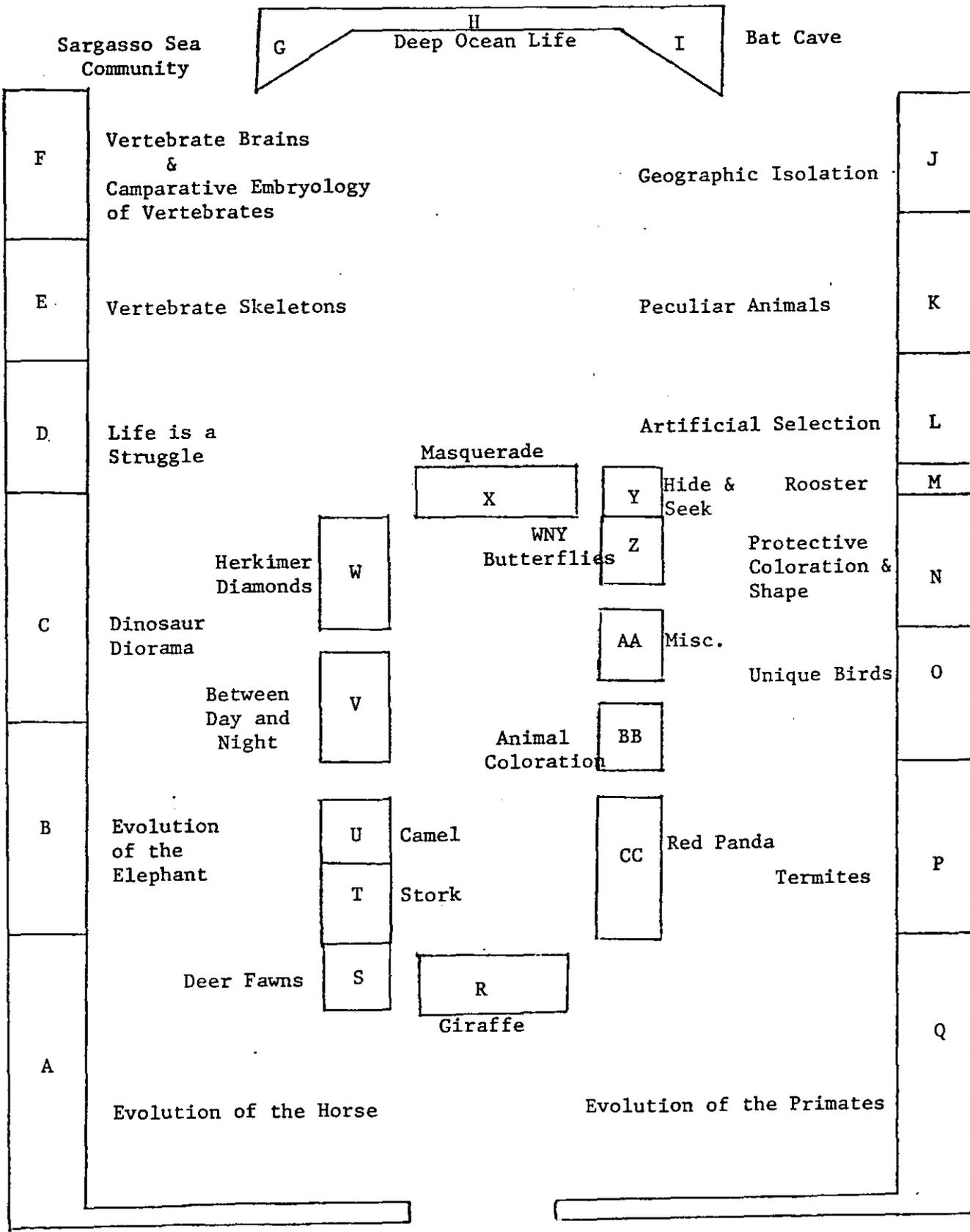
Q

Elephant Tusk

Hall of Evolution

1st Floor  
Hall 7

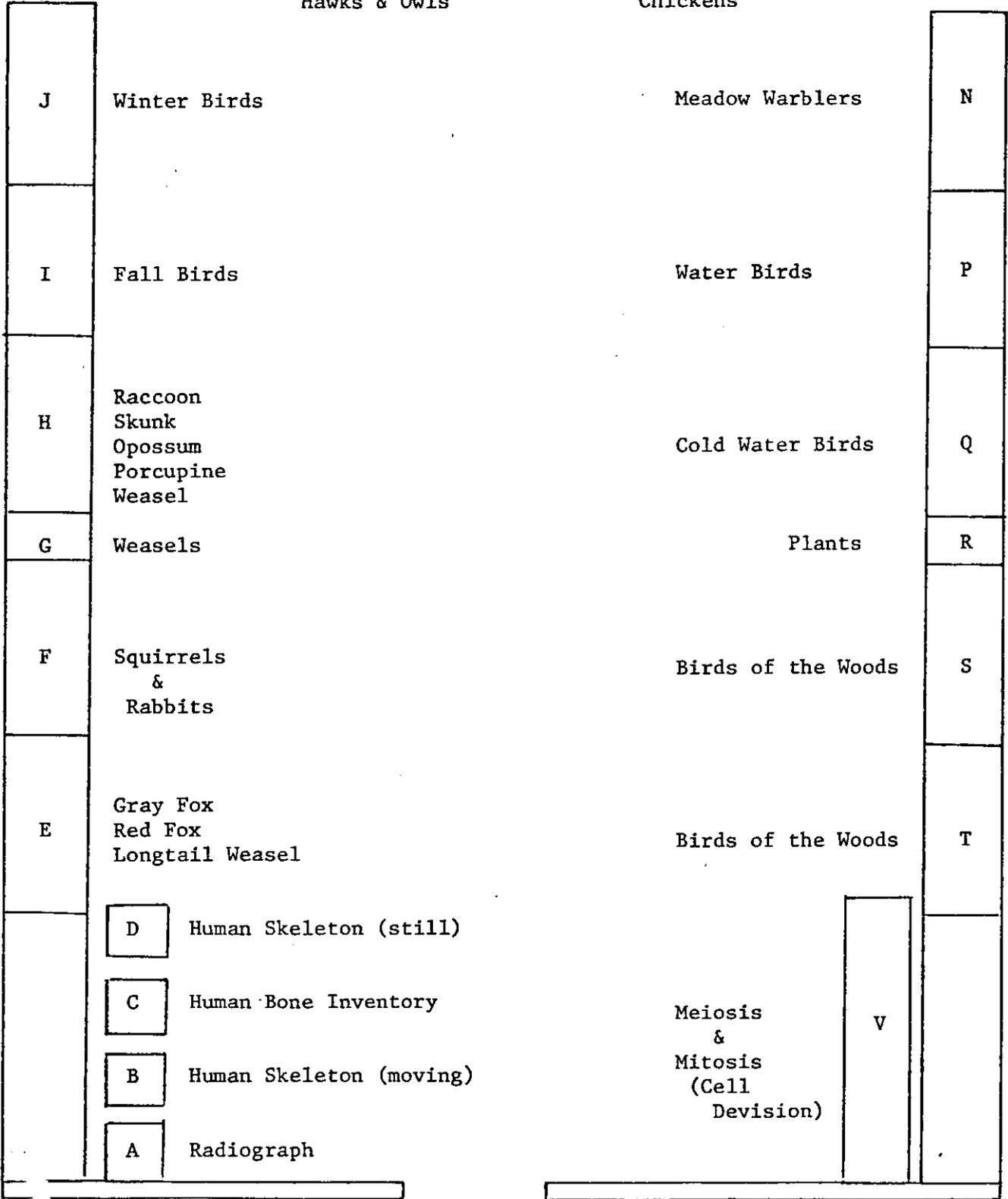
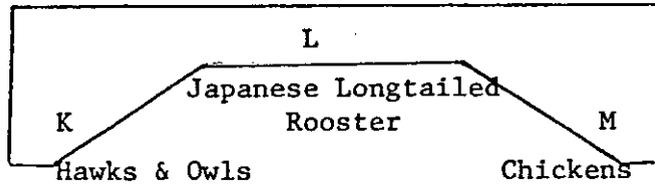
NORTH →



1st Floor  
Hall 8

Miscellaneous

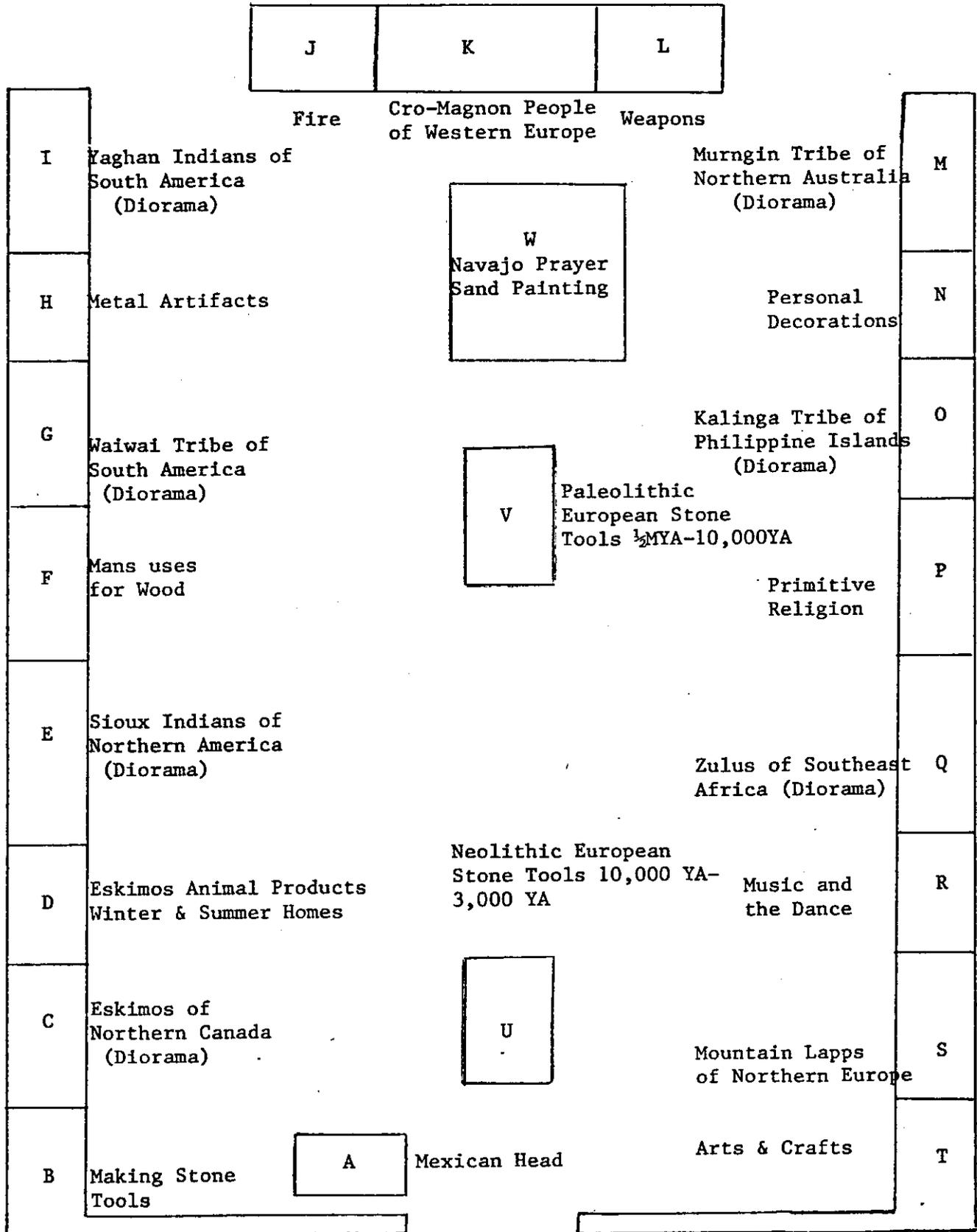
NORTH →



Hall of Ethnology

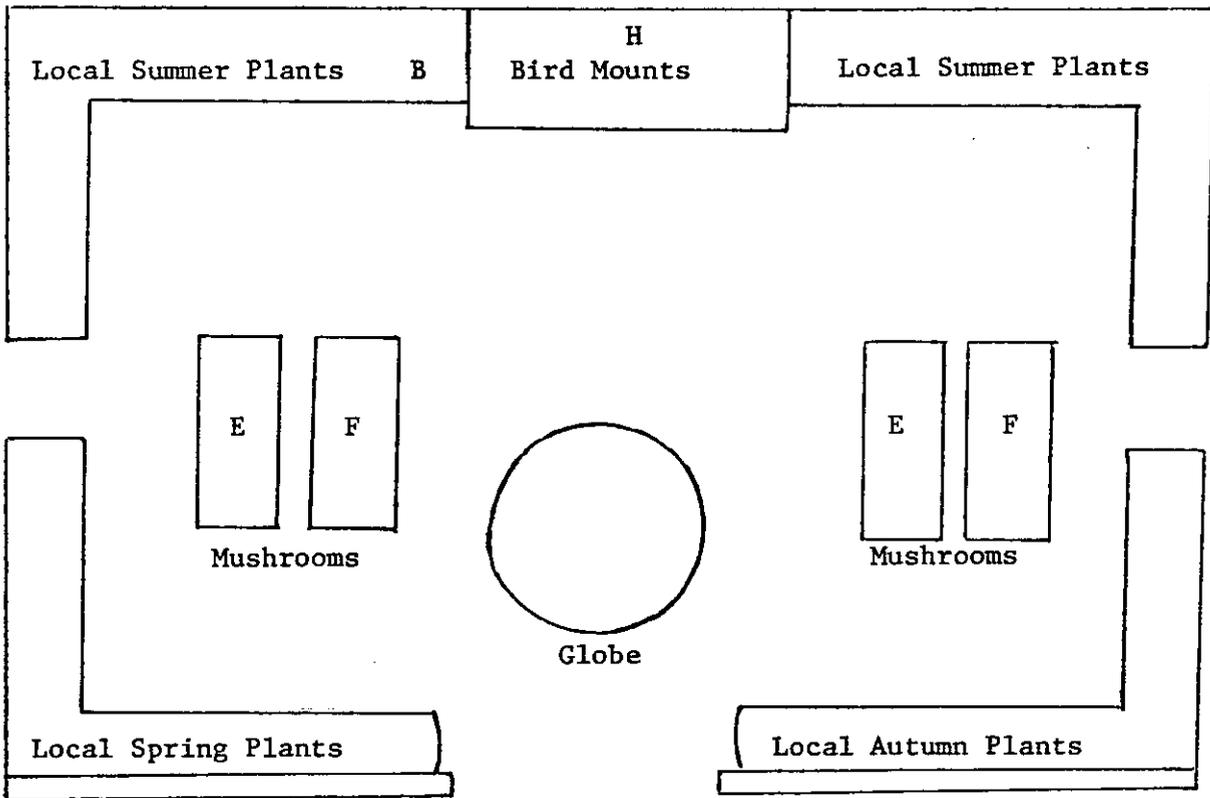
1st Floor  
Hall 10

NORTH →



1st Floor  
Hall 11

Plant Life



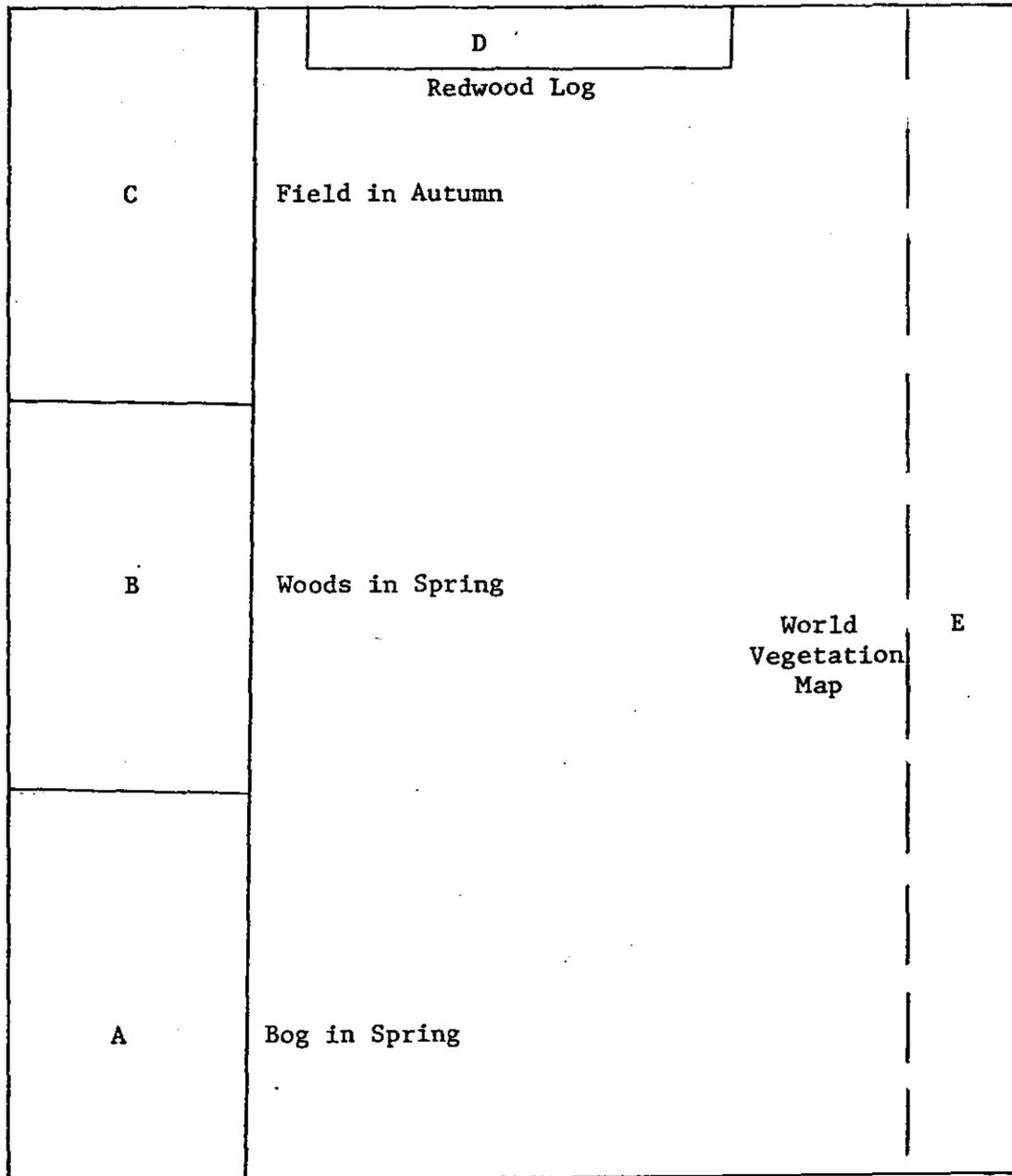
NORTH



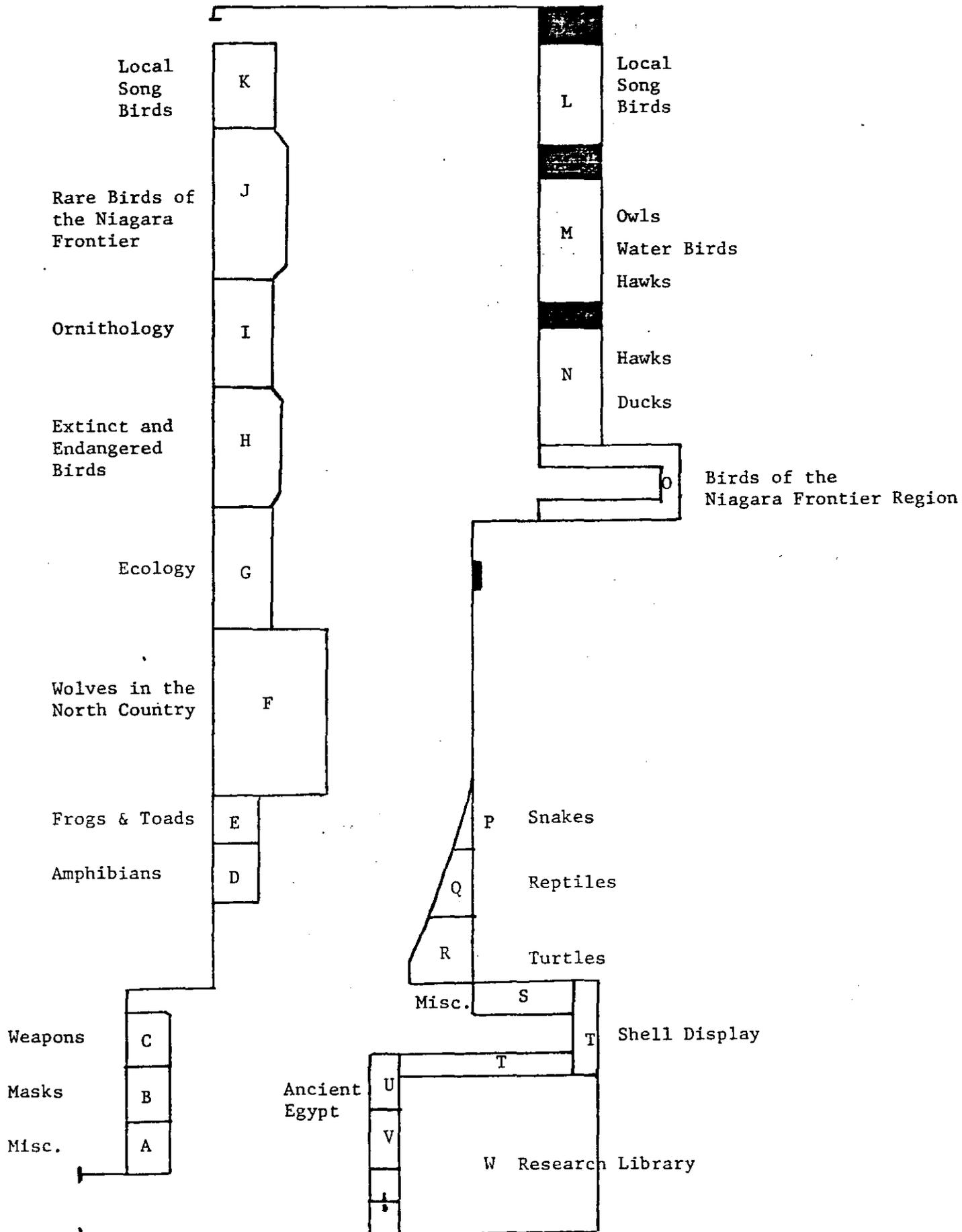
1st Floor  
Hall 12

Conservation Room

NORTH →



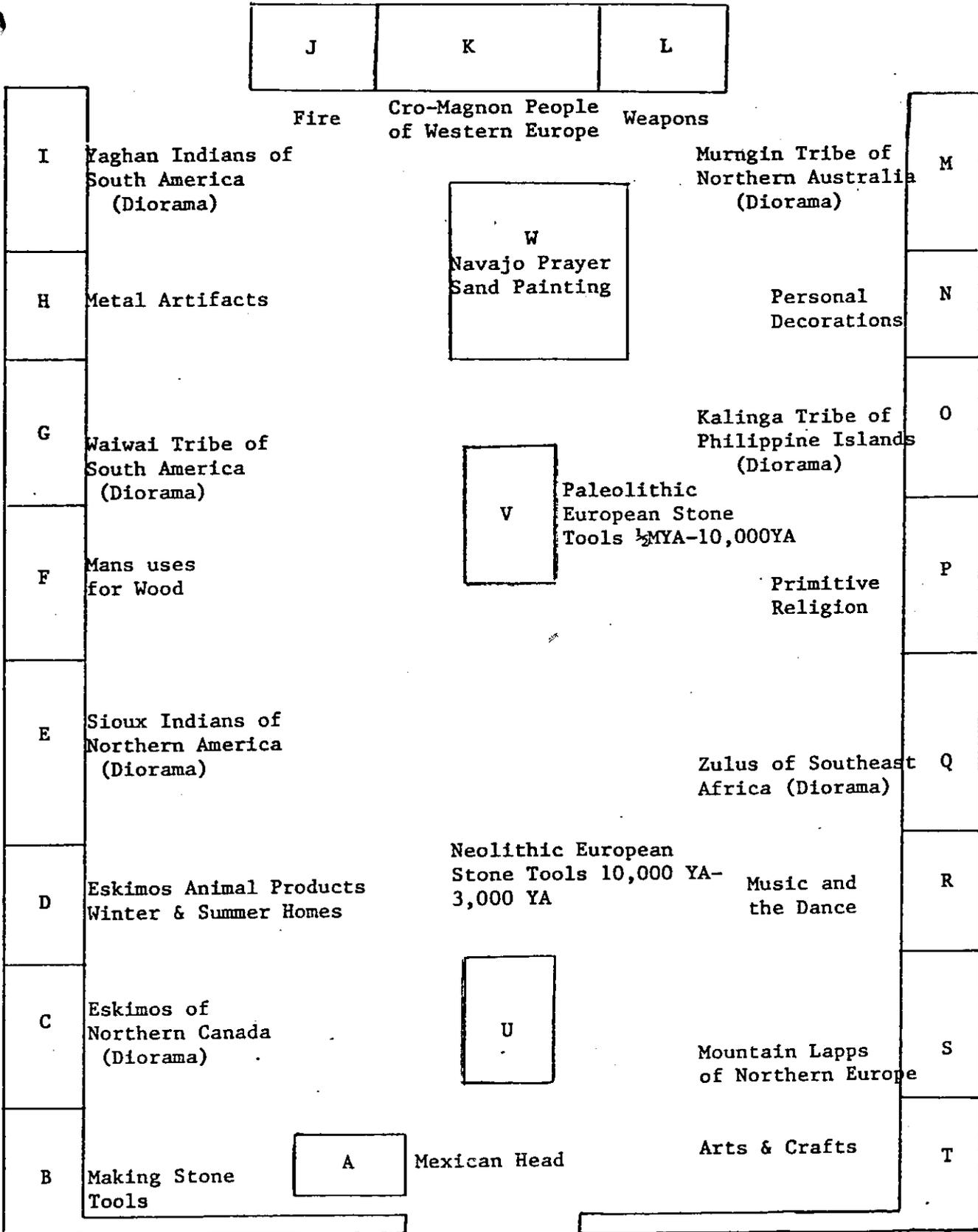
Savage Hall



Hall of Ethnology

1st Floor  
Hall 10

NORTH →



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