ANNUAL REPORT
of
URUSVATI
HIMALAYAN RESEARCH INSTITUTE OF ROERICH MUSEUM
1929 - 1930

FOUNDED on July 12th, 1928, the Himalayan Research Institute reached in 1929-1930 its first creative year of research activity. The beginning of this year was necessarily taken up by organization work and preparations for the field programme of the summer of 1930. The fundamental aims of the Institute were outlined by the writer of the present Report in two pamphlets, which were printed by order of the Trustees of the Roerich Museum.

The Institute is an immediate outcome of the Roerich Central Asiatic Expedition, which toured under the leadership of Professor N. de Roerich the countries of the Middle East. The Founders of the Institute realized the urgent necessity of building up a permanent institution for the scientific study of this most interesting region of Asia. With the growing demand for specialization, it has become impossible for one man to cover the whole ground and to face all the innumerable problems which present themselves to the explorer. A new type of expedition organization answering the requirements of modern research has long been a necessity. This new type of expedition tends to enlist a group of specialists, each in charge of his own field of research; moreover, it tends to develop into a moving research station—that is, bodies of scientists spending considerable time in one region, and establishing research bases at various points within the region. This new type of expedition facilitates the accumulation of exact data on the country and provides the scientific workers with a unique opportunity to test and verify their results. It is to encourage and carry out this new aspect of scientific research in Asia, that the Roerich Museum founded the Himalayan Research Institute, which proposes to conduct original scientific research in the countries of the Middle East that still remain an unexplored field for scientists.

The study of the Middle East is the Institute's primary aim, but we can safely add that "the bounds of its investigation will be the geographical limits of Asia, and within these limits its inquiries will be extended to whatever is performed by Man and produced by Nature," the significant words pronounced by Sir William Jones in founding the Asiatic Society of Bengal in 1784. Under the term "Middle East" we understand India and the whole of that desert and mountainous part of Asia stretching from the plateau of Irān in the West to the borders of China proper in the East, and including Chinese and Russian Turkestān, Mongolia and Tibet. Of course, much of this vast territory is now closed for scientific work, but it is

hoped that a more enlightened period may soon dawn on the Heart of Asia, bringing with it a new possibility for scientific research.

The present headquarters of the Institute are situated on land donated for this purpose by Professor Nicholas de Roerich, at Naggar in the Kulu Valley, Western Himālayas.

The Institute is supported by an annual grant from the Roerich Museum, New York, and by voluntary donations.

The Himalayan Research Institute includes the following departments:

A. Dept. of Archaeology, related sciences and arts.
B. Dept. of Natural Sciences and applied research.
C. Research Library.
D. Museum to house the collections of the Institute. We shall record here the different activities of the Institute according to the various departments.

Department of Archaeology, Related Sciences and Arts.

During the winter months of 1929-30 the Director conducted a series of lectures in the United States on the Roerich Central Asiatic Expedition, Tibet and Mongolia. During this period active steps were taken to organize the activities of the Institute. Simultaneously with the fortieth anniversary of Professor de Roerich's activities in the field of art and culture, on the 17th of October, there was opened, in collaboration with the International Art Center of the Roerich Museum, an exhibition of the Tibetan collection brought back by the Roerich Central Asiatic Expedition. A descriptive catalogue of the exhibition was issued, with a preface by Dr. Christian Brinton, and an Introduction by the Director. The exhibition was on display throughout November and December, and several talks on Tibetan art were delivered by the Director.

A significant development was achieved when the Archaeological Institute of America, represented by its President, Dr. Ralph V. D. Magoffin, and the Himalayan Research Institute agreed to mutually support their undertakings in the field of archaeology in the region of the Middle East. Professor de Roerich was elected Vice-President of the Archaeological Institute, and Dr. Magoffin, an Honorary Advisor of the Roerich Museum (Division of Science). Valuable contacts were made with the School of American Archaeology, whose Director, Dr. Edgar Hewett, is a Vice-President of the Himalayan Research Institute and Honorary Advisor of the Roerich Museum. It is hoped that scientific cooperation between the newly established School of Pacific Research and our Institute will open new avenues of scientific research.

On the twenty-ninth of March, a farewell reception was arranged, and addresses were delivered by Professor Nicholas de Roerich, Dr. R. V. D. Magoffin and Miss Frances R. Grant. After the speeches a film, "Silver Valley," was shown

STONE-CAIRN ON ROTHANG PASS.

to the audience. This film was taken by Mr. S. N. Roerich during his sojourn in Kulu in 1929.

On April 4th, Professor de Roerich, President-Founder of the Institute, and the Director left for Europe to negotiate with the proper authorities regarding the various possibilities for scientific exploration. Unfortunately the negotiations with the British Government took much more time than was originally anticipated, and thus considerably curtailed the activities of this Department for the year. During these negotiations the Staff of the Institute received full support from the various Foreign Branches and Representatives of the Roerich Museum who intervened on the Institute's behalf and enlisted the cordial support of their respective governments. It is our pleasant duty to express to them all the Institute's sincerest appreciation of their unselfish efforts. A complete and detailed report of these negotiations is now in the hands of the Board of Trustees of the Roerich Museum.

During this stay in Europe, Professor de Roerich and the Director received full support from the Government of France and French Scientific Institutions, with which numerous and important contacts were made. This enlightened attitude of the French Government and Scientific circles will, no doubt, result in fruitful cooperation between them and the Institute. Plans are being discussed to foster and cement this cooperation.

During their stay in Paris, Professor de Roerich and the Director, accompanied by Dr. Georges G. Chklaver, European Secretary of the Roerich Museum and Secretary-General of the French Roerich Society, had the great honor to be received in audience by His Excellency, the President of the Republic. During this significant interview, Professor de Roerich had the occasion to outline to His Excellency the President, the programme of the Institute's scientific activities in the East. His Excellency graciously expressed his interest in the scientific work of the Institute and assured Professor de Roerich of his good will. Interviews were also arranged with H. E. Monsieur Marraud, Minister of Public Instruction, and H. E. Monsieur Pietri, Minister of Colonies, with the view of establishing cooperation with the French Colonial Scientific Institutions. H. E. the Minister of the Colonies expressed his full approval of the proposed scientific exploration and suggested the possibility of extending the research of the Himalayan Research Institute into French Indo-China and adjacent regions.

Professor de Roerich has been elected Honorary Member of the Yugo-Slavian Academy of Arts and Sciences. The Academy expressed its willingness to cooperate with the Institutions of the Roerich Museum.

Professor de Roerich has also been made Honorary President of the Institute of Higher Oriental Studies, whose President is Baron M. A. de Taube, Fellow of the Institute of International Law.

On the eleventh of October, Professor de Roerich, accompanied by Dr.

THAKUR'S PALACE AT GUNDLA, LAHUL.

Georges de Roerich and Dr. C. C. Lozina, Medical Advisor of the Himalayan Research Institute, left for French India, where they arrived on the fourth of November. The Ministry of Colonies and the Ministry of Public Instruction had previously informed the Governor of French India of their arrival in order to facilitate the stay of the Institute's representatives in the Colony. During this visit to Pondicherry enthusiastic support was received from Professor G. Jouveau-Dubreuil, author of many remarkable works on the history and archaeology of Southern India, and the Rev. Faucheux, a noted archaeologist; both scholars joined the Himalayan Research Institute in the capacity of corresponding members. The Director and Professor Jouveau-Dubreuil outlined plans for an archaeological exploration of South Indian prehistoric sites. Rev. Faucheux very kindly assisted and guided the Institute's representatives in the exploration of several prehistoric burial grounds and urn-fields found in the environs of Pondicherry. The rich urn-fields of the vicinity of Pondicherry were carefully and scientifically explored by the Rev. Faucheux and Colonel Lafitte, of the French Medical Service in Pondicherry. Several thousand urns and clay sarcophagi were excavated, and the rich collection of iron implements, pottery and important human skeletal remains has now been sent to Paris for a careful study by specialists. The priority of publication belongs to Colonel Lafitte and the Rev. Faucheux, and we therefore give here only a brief account of the executed explorations.

The first site to be examined was that of Pakkamodiampeth on the Madras Road, some six miles from Pondicherry. This site represents a plateau of argilliferous sandstone cut by several small canyons, due to the frequent flooding of the site and heavy rains. The water drains have uncovered numerous urns, showing that the site must have been an urn-field. The finds consist of pottery, crude stone celts. hammer stones, hand-axes and flints with traces of chipping. Most of the stone implements were found at the bottom of water drains, having been carried down from the higher levels on which the urn-field was situated. The site was carefully explored by Rev. Faucheux, who possesses a good collection of stone implements and pottery.

The next exploration was made in a large urn-field situated about eight miles from Pondicherry, on the road to the Grand Etang. This important urn-field, which contains both urn burials and clay sarcophagi, was carefully excavated by Colonel Lafitte and Rev. Faucheux. During Professor de Roerich's and the Director's stay in Pondicherry, a visit was paid to this important site and an untouched urn burial was excavated. The excavation yielded several well-preserved specimens of earthenware, fragments of daggers and the well-preserved iron blade of a sword, placed outside the urn. Besides the above mentioned finds, the examination of the argilliferous sand found in the urn revealed fragments of a human skull, well-preserved molar teeth, and fragments of femur.

LAMA DANCES AT GUNDLA, LAHUL

The whole excavation was carefully recorded and the finds are now preserved in the Museum at the Institute's Headquarters in Kulu. Besides this excavation, a sarcophagus was opened, and this last excavation yielded some fragments of pottery and a flat iron celt, placed outside the sarcophagus. Analogous urn-fields and clay sarcophagi have been discovered in various places in North and South Arcot. It is as yet difficult to assign a date to these Pondicherry finds. The local Hindu population continued to bury their dead until a comparatively recent period, but the character of the Pondicherry urn-fields and the presence of stone implements make it highly possible to assign these sites to an earlier period. The study of Colonel Lafitte's collection will no doubt remove the present difficulty of assigning a date. The Director has to thank the Rev. Faucheux for his kind permission to examine his collection and his rich photographic material of the excavations.

On the 11th of December, Professor de Roerich, Dr. Lozina and the Director reached Naggar, Kulu. During the Director's absence, Mme. Helena de Roerich, Honorary President-Founder, and Miss E. J. Lichtmann, Member of the Board of Trustees of the Roerich Museum, had very kindly supervised the administrative activities of the Institute. A severe illness unfortunately prevented Mme. de Roerich from taking a more active part in the work. We take this opportunity to express to them both our sincere appreciation.

In December 1930, Col. A. E. Mahon, D.S.O., joined the Staff of the Institute.

Department of Natural Sciences and Applied Research

The Head of the Biological and Botanical Section of this Department, Dr. Walter Norman Koelz of the University of Michigan, arrived at the Headquarters on the 28th day of May, 1930, and at once proceeded with the botanical exploration of the alpine flora of the Kulu Valley. On July 10th, Dr. W. Koelz left for Lahul across the Rothang Pass. His explorations are described in the following brief report:

"In the middle of July collecting was begun across the Rothang Pass in Lahul District and this work has proceeded through the summer. The Lahul District has been covered from Jupa on the one side to and across the Chamba border, and to the Rothang Pass. Explorations have been made not only in the river bottoms but also on the slopes up to the perpetual snows. The botanical collection now comprises some 10,000 numbers, representing over 1300 specimens. It is believed that 90% of the Lahul flora is included in this collection. Range extension of known species will undoubtedly be revealed by analysis of this material and it is probable that new forms will be discovered.

"The specimens form a basis for the study of the ethnobotany of the region. Wherever possible, information has been gathered regarding native uses of plants and a surprisingly large percentage is used as food, flavoring, medicine and ornament. Particular stress has been given to the acquisition not only of an herbarium

LAMAS AND NUNS AT KYELANG, LAHUL

of the medicinal plants (these are known only by Tibetan names) but also specimens of as many as possible have been gathered so that they will be available for future experimental uses. Information about the medicinal herbs is in the possession for the most part of a few initiated lamas. Every effort has been made and with considerable success, to secure their cooperation in the study of the Tibetan medicines. Their naming of the plants is of course indispensable. The various men have been separately consulted and the information from the several sources compared.

"In addition to the plant collections, a good collection comprising at present some 300 specimens, has been made of the local birds. This number, it is expected, will be raised to 1000 during the year. It will contain many rare specimens and some completely new. Minor collections have also been made of the mammals, reptiles and insects. It will be possible to distribute to foreign institutions at least three complete sets of herbarium material. There will also be a number of incomplete sets available for gift or exchange, besides many specimens of zoological material. It should also be mentioned that seeds of interesting alpine plants will be sent to interested collectors abroad, among them seeds of some species that will certainly be found to be valuable additions to the flowers now cultivated.

"In view of the fact that the study of the medicinal uses of the plants is so important a part of our work, it is suggested that next year collections be made in Spiti and Ladāk.

"The study of the plants from the various aspects: plant ecology, phytogeography, ethnobotany, affords a field of tremendous possibilities. It is much to be hoped not only that the present studies can be continued, but that their scope can be expanded."

The following botanical collections have been forwarded:

1. To the University Herbarium, University of Michigan, about 3000 numbers, representing about 1500 specimens. Also an entomological collection.
2. To the New York Botanical Garden, New York, about 3000 plants, representing about 1500 specimens. Also a collection of seeds.
3. To the National Museum of Natural History, Paris, about 2000 plants, representing about 1200 varieties. Also a collection of seeds.
4. To the Bureau of Foreign Seed and Plant Introduction, Department of Agriculture, Washington, D. C., a collection of seeds.

Dr. E. D. Merrill, Director-in-Chief of the New York Botanical Garden, very kindly agreed to supervise personally the identification of the plants of the collection.

The collection donated to the University Herbarium, University of Michigan, will be identified by Professor H. H. Bartlett.

A complete herbarium of the local flora has been set up at the Headquarters.

On his return from Lahul on October 1st, Dr. Koelz continued his exploration

DR. W. KOELZ WITH HIMALAYAN BEARDED VULTURE AT LAHUL, ALTITUDE 11,000 FEET.

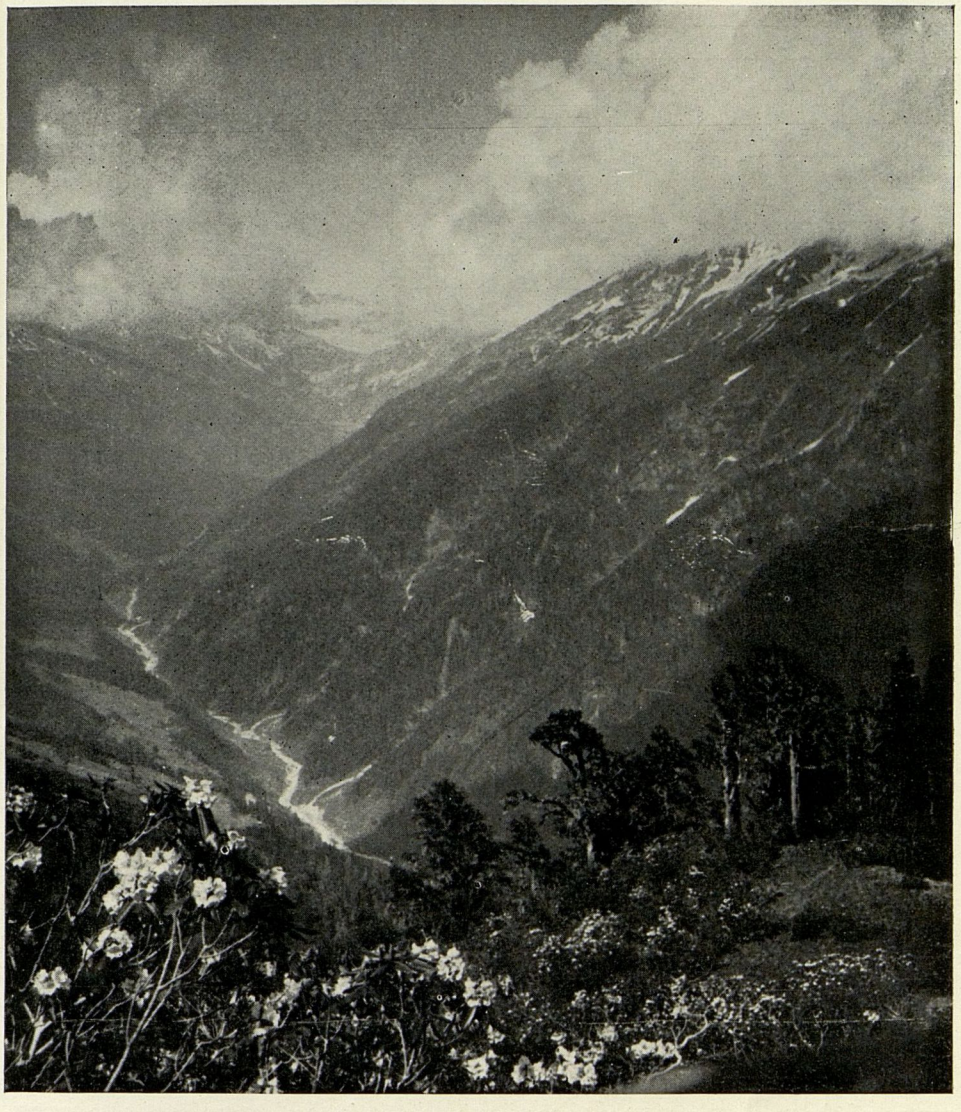
of the 8,000-12,000 foot altitudes in the Kulu Valley, and on the 5th of November left for an extensive trip to Rampur Bashahr and the Upper Sutlej Valley, from which he returned to the Headquarters on the 31st of December.

Dr. W. Koelz's report on the biological survey of the Sutlej Valley in Rampur Bashahr is given in the following:

"The biological and botanical collector was absent from November 5th to December 31st, on an expedition to Rampur Bashahr. The expedition had as its object to survey the Sutlej Valley for future biological collecting and to secure specimens of certain big game animals of which a relatively large number of species occur in this province. Rampur Bashahr borders the districts of Kulu and Spiti on the one side and Tibet and Garhwal on the other, and opens onto the Punjab plains. It was to be expected therefore, that the flora and fauna would show interesting features. The expedition proceeded up the Sutlej from the city of Rampur to within a day's march of the Tibetan Pass, stopping to make collections at alternate stages: Sarahan, Taranda, Urni, Pangi, Kanam and Poo. At Lipe, Shasu and Ropak extensive collections were made. On the return from Sarahan another route was followed that led across the Darughat Pass and opened onto the Sutlej below Rampur. Stops were made for collecting at Darughat, Joggri, Darkali and Noggri. The province shows most interesting and varied habitats. From the semi-arid lower stretches of less than 5,000 feet elevation one may proceed consecutively through the yellow pine, fir, holly-oak and neoza forests to the treeless plateau that adjoins Tibet. At this season most of the plants are dormant, but a few shrubs and trees below 8,000 feet elevation have the habit of blooming before the snow falls. Two species are particularly noteworthy because of their attractiveness: a cherry tree that grows to 30 feet in height and a densely shrubby Viburnum that grows to a height of 20 feet. Both are pink, the latter fragrant, and are so free-flowering that they arrest attention from afar.

"The valley is famous for the neoza, a little pine nut, indistinguishable in flavor or appearance from the American piñon, that grows in the upper stretches; it is gathered by the maund (82 lbs.) and carried on cowback for 100 miles to Rampur and thence sent to the Indian cities. The nuts are laboriously gathered by hand. It should also be mentioned that the apricot grows particularly well throughout the valley, but becomes progressively sweeter as the elevation increases. Above Jangi the fruit is so sweet that it can be eaten when dried, without sugar, and in the area above this point the dried fruit is an important article of food. The seeds of some sweet varieties are also edible. Apples and pears that have been planted in this upper area are of superior sweetness and flavor.

"Rampur Bashahr is rich in animal life. Particular attention was paid to the birds, and over 300 specimens, representing some 60 species new to the Institute's collections, were secured. Many species that range to the east reach their westward



RHODODENDRON FOREST IN LAHUL.

limit here and the study of the collection will undoubtedly show an extension of the known ranges of some species. There is also a variation in some species as the valley ascends and this field is especially fruitful for investigation.

"One of the main purposes of the expedition was to secure specimens of the napo, a curious Tibetan goat that enters India in this region. In addition to the napo (*Ovis nahur*), specimens of ibex, the huge mountain goat with immense horns over three feet long, the black and red bear, and the gorral were also obtained, making a total of eight big game, as well as a number of small fur-bearers: fox, marten, coyote, etc.

"There is also abundant material for the ethnographer in the valley. Here Hindu and Tibetan peoples have met and the product is a culture that is peculiar to the district. Languages, folklore and customs vary not only in this valley, but are unlike the languages and lore of adjoining valleys where, too, the Hindu and Tibetan have mixed. Six dialects are spoken from Rampur to Poo, the outpost of the Tibetan language. They are roughly grouped as follows: (1) lower valley and Sarahan, (2) above Sarahan to Taranda, (3) above Taranda to Kanam, (4) above Kanam to Ropak, (5) above Ropak to Poo, (6) the dialect of the blacksmiths.

"It is strongly recommended that further research should be continued in the Upper Sutlej Valley. The results will not only be extraordinarily rich and interesting in themselves, but will also supplement by comparison and contrast the findings in the adjoining districts in which intensive researches are already under way."

The above extensive explorations of Dr. W. Koelz were assisted through the munificence of Mrs. Henry Ittleson, Chairman of the Patrons' Committee of the Institute, Miss Theodora Palmer, Miss Virginia Palmer, Mrs. Laurette Schinasi and Mrs. Franklin S. Terry. To all these friends of the Institute, we extend here our sincerest gratitude. In the summer of 1931 Dr. Koelz plans an extensive expedition for botanical and zoological research in Ladāk; permission for such an expedition has been received from the authorities. The purpose of this new expedition will be to investigate the flora and fauna of Western Tibet and its plateaus of high altitude.

During his stay in New York (winter, 1929-30) the Director had interviews with prominent scientists and scientific institutions in the United States, with the view of fostering and developing the activities of this Department. Mr. V. A. Pertzoff, M. A., Corresponding Member of the Himalayan Research Institute, and the Director outlined detailed plans for the erection and equipment of the Biochemical Laboratory at the Headquarters in Kulu. This Laboratory will be the center of the medical research of the Institute. It is the Institute's aim to record and study the rapidly vanishing medical knowledge of the local medicine men, and to experiment on medical herbs, for which purpose the Kulu Valley affords special possibilities. Particular attention will be paid to Tibetan pharmacopoeia

DR. KOELZ'S CARAVAN ON THE MARCH. LAHUL.

and it is planned to publish translations with adequate commentaries from Tibetan medical works. At present this department of the Institute's work is in charge of Dr. C. C. Lozina, Medical Advisor to the Institute. An extensive collection of medical herbs was gathered by Dr. Koelz in Lahul and is now being studied and enlarged upon by Dr. Lozina, with the help of native medicine men. All the information collected is carefully catalogued and it is hoped thus to establish a complete inventorium of the local pharmacological knowledge.

Michigan University has offered the use of their clinic at Ann Arbor for experimentation and application of the results of the medical research at the Headquarters of the Institute in Kulu. Extracts from collected medicinal plants are being prepared by Mr. V. Shibayeff, Secretary of the Institute, and are being sent to Dr. Felix Lukin and V. A. Pertzoff, M. A., both Corresponding Members of the Himalayan Research Institute, for experimentation.

The great humanitarian possibilities and momentous interest of this line of research of the Institute are clearly evident to anyone who had the chance of surveying the vast and virgin field presented by the Himalayan highlands. The Institute plans also to undertake research in the field of cancer, for we have reason to believe that new, potent cures can be found in this vast and unexplored domain. It is of utmost importance to begin building the Bio-chemical Laboratory of the Institute, and the Institute's staff will spare no efforts to bring this project nearer to realization.

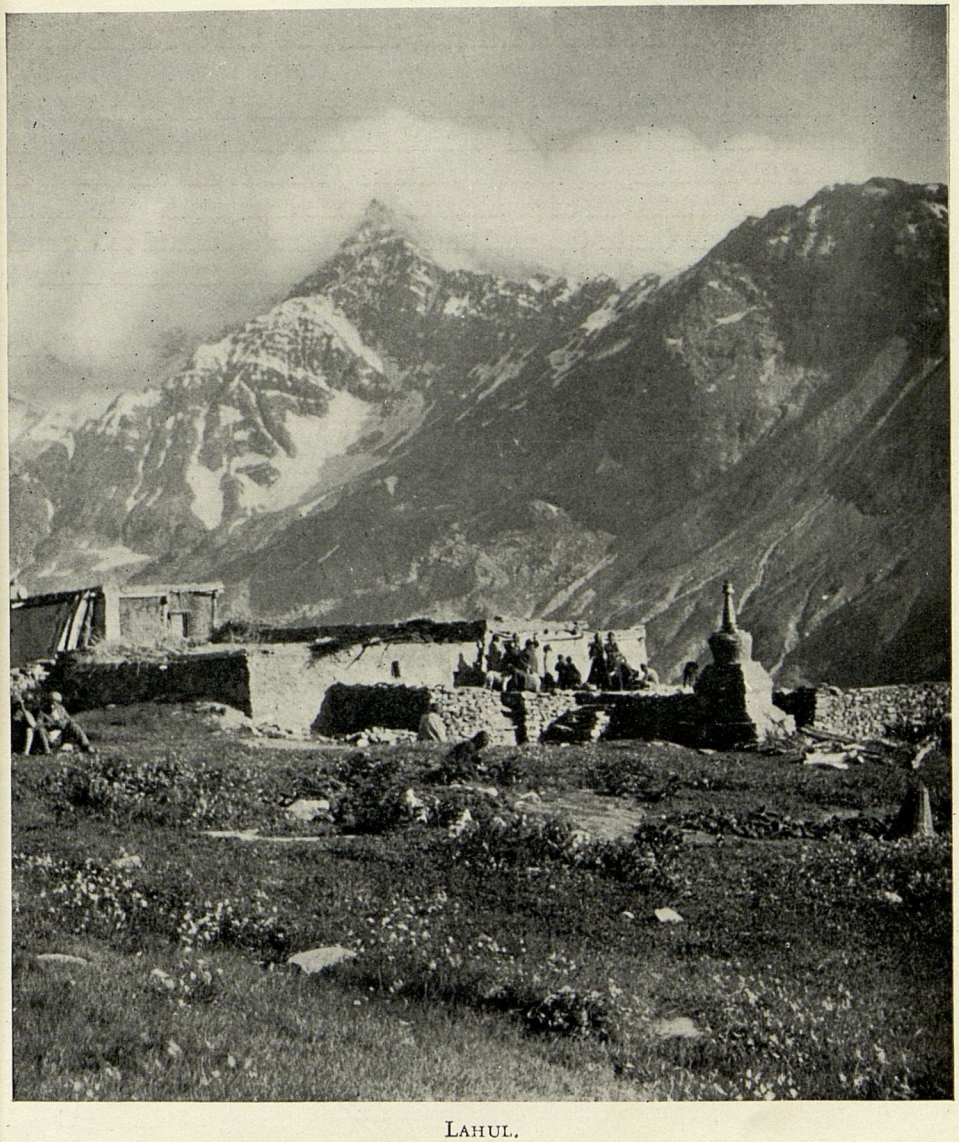
Research Library.

From the very beginning great attention was paid to the Library of the Institute, for it was felt of primary importance to equip the Institute with an extensive Research Library. The Library collects books, pamphlets and manuscripts in the various fields of art and science and will in the future issue monthly lists of Indian and Western scientific publications. It is expected to build up the Library through grants of books and book exchanges with leading scientific institutions and publishers.

During the period 1929-30 the Library of the Institute received grants of books from the following: Carnegie Institution, Washington, D. C.; Professor Nicholas de Roerich; Dr. Felix Lukin; Dr. W. N. Boldyreff, Director of the Pavlov Institute of the Battle Creek Sanitarium, Michigan; the Rockefeller Foundation (through Dr. Homer Swift); Commandant C. J. Cauvet; Prof. H. H. Bartlett, University of Michigan and Dr. Georges de Roerich.

During the past period the Institute established an exchange of publications with the following institutions:

In the United States: Carnegie Institution, Washington, D. C.; Smithsonian Institution, Washington, D. C.; Harvard University; Yale University; Iowa University; Michigan University; Pittsburgh University; Indiana University; Minnesota University;



LAHUL.

Oregon University; Field Museum of Natural History, Chicago; Chicago Oriental Institute; the Metropolitan Museum of Arts; the American Geographical Society; the Nature Association, Washington, D. C.

In Europe: Le Musée d'Histoire Naturelle, Paris; the School of Oriental Studies, London.

The Institute publishes a yearly JOURNAL of its activities in which each department has its section. In addition to the JOURNAL the Institute will, from time to time, publish works of outstanding importance by Honorary Advisors and Members of the Institute. Lengthy articles will be published as separate monographs. The Tibetan studies of the Institute will be embodied in a series *Tibetica*, dedicated to the study of Tibetan antiquity and related subjects. The first volume of this series is now in preparation.

In view of the great interest aroused by archaeological explorations and the importance of scientific methods in carrying out excavations, the Institute decided to publish in its JOURNAL a series of articles on archaeological methods, written by eminent specialists. It is hoped to bring out a manual of archaeological excavations treating the different aspects of archaeology in the countries of the East. The first number of the JOURNAL contains articles by Dr. Ralph Magoffin, President of the Archaeological Institute of America, and Count du Mesnil du Buisson on archaeological methods applied in his excavations in Syria.

During his stay in New York, the Director reconstructed a Tibetan Library and placed in it the complete collection of the Narthang *Känjür* and *Tänjür*, brought back by the Roerich Central Asiatic Expedition. This is the first Tibetan Library to be reconstructed outside Tibet and is now on view in the Hall of the East, at Roerich Museum. The Tibetan collection on display forms a part of the Institute's Library.

The following publications were prepared and issued in connection with the Institute:

M. M. Lichtmann: "Nicholas Roerich and Science" (Article in *Art and Archaeology*, Washington, May 1930).

G. de Roerich: "Les Seize Arhats, Protecteurs de la Loi," *Revue des Arts Asiatiques*, Paris, May 1930.

G. de Roerich: *Trails to Inmost Asia* (a detailed account of the Roerich Central Asiatic Expedition) to be published by the Yale University Press, U. S. A. A French translation is being prepared by Mme. de Vaux-Phalipau, President of the French Roerich Society and Member of the Ethnographic Society of Paris, and will be published in the course of 1931.

G. de Roerich: *Animal Style Among the Nomad Tribes of North Tibet*, Seminarium Kondakovianum, Prague, 1931.

G. de Roerich: "Modern Tibetan Phonology," *Journal of the Asiatic Society of Bengal,* Calcutta, (in print).

G. de Roerich: "Tibetan Tonames," *Sir George Grierson Commemorative Volume,* published by the Indian Linguistic Society, Lahore (in print).

In preparation:

G. de Roerich: *Comparative Grammar of Colloquial Tibetan.* This volume will be published as Volume I of the series *Tibetica,* dedicated to the studies of Tibetan antiquity and related subjects.

Museum.

Mr. V. A. Shibayeff, Secretary of the Institute, has been very active in furnishing the Museum with appropriate glass cases and herbariums. At present the Museum at Naggar is well-equipped with the necessary furniture, and houses the large ornithological collection gathered by Dr. W. Koelz during his trips to Lahul, Kulu Valley, and the Sutlej Valley; the herbarium; and a collection of medicinal plants. Geological and archaeological collections have also been started. All the above collections are being enlarged continuously.

We have to acknowledge with thanks the gift of a projecting lantern and screen—the gift of Mrs. Horch, Miss Lichtmann and Mr. Shibayeff; also a glass case, the gift of Mr. Shibayeff.

In New York the collection of the Institute's Museum was enriched by the Roerich Central Asiatic Expedition's collection of Tibetan banners and sculpture; also by an entomological collection and a mineralogical collection.

A collection of thirty-six lantern slides on Kulu and on the activities of the Institute has been prepared and presented by Mr. Shibayeff to the New York offices of the Institute.

A representative collection of Himalayan flora and fauna will be exhibited in the New York premises of the Institute. It is hoped that this project will be realized in the course of the next year.

Activities in New York.

The activities in New York, since the Director's departure, have been supervised by Mr. Louis L. Horch, President of the Roerich Museum, and Mrs. S. G. Lichtmann, Vice-President of the Master Institute of the Roerich Museum. The office has been in charge of Miss Kathryn Linden.

Mr. Louis L. Horch has moreover very kindly agreed to supervise a financial campaign for the benefit of the Institute.

On the 15th of October the Himalayan Research Institute arranged a lecture by Professor N. Zavadsky, of the Pasteur Laboratory of the Curie Institute, Paris, on "The Biological Bases of a New Conception of Life."

On December 15th, Mrs. L. L. Horch, President of the Roerich Society, delivered a lecture on "The Valley of the Gods." The lecture was illustrated with motion pictures and slides. Mrs. Horch has made recently a prolonged sojourn in the Kulu Valley.

Extensive preparations are being made for a further development of the Institute's activities for the coming year, 1931.

THE DIRECTOR.

URUSVATI BRINGS AMERICA NEW BOTANICAL TREASURES

By DR. E. D. MERRILL

DURING the past year the Urusvati Himalayan Research Institute of the Roerich Museum has entered the biological field with a view to assembling material and data appertaining to the flora of the Western Himalayan region. In this endeavor the cooperation of the New York Botanical Garden was enlisted. The actual field work in India has been done by Dr. Walter Koelz, and his first season's collections are now available for study. The first set of duplicates, approximately 1,000 specimens, has been received and mounted at New York, and the preliminary identifications are being made by myself, as Director of the New York Botanical Garden.

The objectives are to study in the field and in the laboratory those plants of economic and scientific value, particularly as to their medicinal, or possible medicinal uses, as well as those involved in other ways in the daily life of the people; and to assemble other economic information regarding the qualities and uses of plants, their local names for comparative purposes, and similar data that will be of significance to the general field operations of the Roerich Museum and its artistic, economic, and scientific program.

This is a field of much promise, opening up new vistas and broadening the scope of the activities of the two cooperating institutions, the Roerich Museum and the New York Botanical Garden. It is an example of productive work fostered by the Roerich Museum and furthered through the voluntary cooperation of the Garden, to their mutual benefit.

While considerable field work has been done in the past in the northern Punjab, intensive work in any particular area in the region constantly brings to light new forms, and unquestionably a number of undescribed species will be found in the collections available and those being assembled. During the 1930 season, Dr. Koelz operated chiefly in Lahul, at an altitude of about 13,000 feet, and in the vicinity of Kulu. It is his plan to cover all of the botanically interesting regions in the general vicinity of Kulu and in Lahul, extending his field work, as possible, into the more remote and inaccessible areas.

The scientific value of the collections already assembled is very great, and duplicate sets of the specimens will be available for study in various institutions in Europe and in America, supplementing the original collection preserved at Kulu.

The Himalayan flora is a very diversified and interesting one, containing many species of marked beauty, and others of great economic importance. The region is one of an exceedingly diversified topography, with great ranges in altitude, great variation in temperature and in the seasonal distribution of the rainfall, factors that favor the development and persistence of a very rich flora. Few parts of the world can be compared with this particular area in the richness and in the economic and scientific value of its plant life. It is to be hoped that the work so auspiciously initiated in 1930 can be maintained and amplified, not only for the work in itself but also for the prestige of the cooperating institutions.

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ANNUAL REPORT OF "URUSVATI" HIMALAYAN RESEARCH INSTITUTE OF ROERICH MUSEUM , 1929-1930.

Founded in 12 July, 1928, the Himalayan Research Institute reached in the year 1929-1930 its first creative year of research work. The beginning of this year was necessarily taken up by organizing activities and preparations for the field programme of the summer, 1930. The fundamental aims of the H.R.I. were outlined by the writer of the present Report in two pamphlets, which were printed by Order of the Trustees of the Roerich Museum. The H.R.I. is an immediate outcome of the Roerich Central Asiatic Expedition which toured under the leadership of Professor N. de Roerich the countries of the Middle East. The Founders of the H.R.I. realized the urgent necessity of building up a permanent Institution for the scientific study of this most interesting region of Asia.*1 With the growing process of specialization it becomes impossible for one man to cover the whole ground and to face all the innumerable problems which present themselves to the explorer. A new type of expedition organization became long a necessity, answering the requirements of modern research. This new type of expedition tends to enlist a group of specialists, each in charge of his own field of research, ~~This new type of expedition~~ and, moreover, tends, ~~moreover,~~ to develop into a moving research station - that is-

*) And this is, perhaps, the only example of a scientific institution being created round a museum dedicated to a living artist, or, in other words, that Art had kindled the fire of knowledge, and inspired the work of scientists.

bodies of scientists spending considerable time in one region and establishing research bases at various points within the region. This new type of expedition facilitates the accumulation of exact data on the country and provides the scientific workers with an unique opportunity to test and verify their results. It is to encourage and carry out this new aspect of scientific research in Asia, that the Roerich Museum founded this Himalayan Research Institute which proposes to conduct original scientific research in the countries of the Middle East which still remain an unexplored field for scientists. The study of the Middle East is the Institute's primary aim, but we can safely add that " the bounds of its investigation will be the geographical limits of Asia, and within these limits its inquiries will be extended to whatever is performed by man and produced by Nature " - significant words pronouced by Sir William Jones founding the Asiatic Society of Bengal in 1794. Under the term " Middle East " we understand India and the whole of that desert and mountainous part of Asia stretching from the plateau of Irān in the West to the borders of China Proper in the East, and including Chinese ~~Turkestan~~ and Russian Turkestān, Mongolia and Tibet.

Of course, much of this vast territory is now closed for scientific work, but it is hoped that a more enlightened period may soon dawn on the Heart of Asia, bringing with itself a new possibility for scientific research.

The H.R.I. with its headquarters at Naggar in the Kulu Valley of the Western Himalyas, consists of the following departments:-

A. Dept. of Archaeology, related sciences and arts.

B. Dept. of Natural Sciences and applied research.

C. Research Library.

D. Museum to house the collections of the Institute.

We shall record here the different activities of the Institute according to the different departments.

Department of Archaeology , realted sciences and arts.

~~Head: Georges de Roerich, Director of the Institute.~~

During the winter months of 1929-30 the Director conducted a series of lectures in the US. on the Roerich Central Asiatic Expedition, Tibet and Mongolia. During this period active steps were taken to organize the activities of the Institute. A significant developement was achieved when the Archaeological Institute of America, represented by its President Dr.Ralph J.D. Magoffin, and the H.R.I. agreed to mutually support their undertakings in the field of archaeology in the region of the Middle East. Professor N.de Roerich was ellected Vice-President of the Archaeological Institute, and Dr.Ralph Magoffin, Honorary

On the 29th March a Farewell Reception was arranged, and the following addresses delivered: Dr.Ralph Magoffin, Miss F.R.Grant and Professor Nicholas de Roerich. After the Speeches a film " Silver Valley " was shown to the audience. This film was taken by Mr.S.N.Roerich during his sojourn in Kulu in 1929.

Simultaneously with the XL anniversary of Professor de Roerich, on the 17th of October there was opened in collaboration with the International Art Center of the Roerich Museum, an exhibition of the Tibetan collection brought back by the Roerich Central Asiatic Expedition. A descriptive Catalogue of the Exhibition was issued with a preface by Dr.Christian Brinton, and an Introduction by the Director. The Exhibition continued to be opened throughout November and December, and several talks on Tibetan art were delivred by the Director.

Advisor of the Roerich Museum / Division of Science/. Valuable contacts were made with the School of American Archaeology, whose Director.Dr. Edgar Hewett is a Vice-President of the H.R.I. and Honorary Advisor of the Roerich Museum. It is hoped that a scientific cooperation between the newly established School of Pacific Research, and the H.R.I. will open new avenues of scientific research.

On April 4th, Professor de Roerich, President-Founder of the Institute, and the Director left for Europe to negotiate with the proper authorities the various possibilities for scientific exploration. Unfortunately the negotiations with the British Government took much more time, than it was originally anticipated, and thus considerably curtailed the activities of this Department for the year. During these negotiations the Staff of the Institute received full support from the various Foreign branches and Representatives of the Roerich Museum who intervened on the Institute's behalf and enlisted the cordial support of their respective Governments. It is our pleasant duty to express to them all the Institute's sincerest appreciation of their unselfish efforts. A full and detailed report of these negotiations is now in the hands of the Board of Trustees of the Roerich Museum.

During this stay in Europe, Professor de Roerich and the Director received full support from the Government of France and French Scientific Institutions with which numerous and significant contacts were made. This enlightened attitude of the French Government and scientific circles will, no doubt, result in a fruitful cooperation between them and the H.R.I.. Already plans are being discussed to foster and cement this cooperation. During their stay in Paris, Professor de Roerich and the Director, accompanied by Dr.Georges G.Chklaver, European Secretary of the Roerich Museum, and Secretary-General of the French Association of the Society of Friends of R.M., had the great honour to be received in audience by His Excellency the President of the Republic. During this significant interview, Professor de Roerich had the occasion to outline to His Excellency the President, the programme of the Institute's scientific activities in the East. His Excellency graciously expressed his interest in the scientific work of the Institute and assured Porfessor de Roerich of his good will . Interviews were also arranged with H.E. M.Pierre Marraud, Minister of Public Instruction, H.E. Monsieur Pietri, Minister of Colonies, with the view to establish a cooperation with the French Colonial Scientific Institutions. H.E. the Minister of the Colonies exptressed his full approval of the proposed scientific exploration.

On the IIth of October, Professor de Roerich accompanied by M.Georges de Roerich, and Dr. C.C.Lozina, Medical Advisor of the H.R.I. left for French India, where they arrived on the 4th of November. The Ministry of Colonies and the Ministry of Public Instruction had previously informed the Governor of French India of the arrival in order to facilitate the stay of the Institute's representatives in the Colony. During this visit to Pondicherry enthusiastic support was received from Professor G.Jouveau-Dubreuil, author of many remarkable works on the history and archaeology of Southern India, and the Rev.Faucheux,a noted archaeologist; both scholars now joined the H.R.I. in the capacity of corresponging members. The Director and Professor Jouveau-Dubreuil outlined plans for an archaeological exploration of South Indian prehistoric sites. Rev.Faucheux very kindly assisted and guided the Institute's representatives in the exploration of several prehistoric burial grounds and urnfields found in the vicinity of Pondicherry. The rich urnfields of the vicinity of Pondicherry were carefully and scientifically explored by the Rev.Faucheux and Colonel Lafitte, of the French Medical Service in Pondicherry, Several thousands of urns and clay sarcophagoi were excavated, and the rich collection of iron implements, pottery and important human skeleton remains is now sent to Paris for a careful study by specialists.

The priority of publication belongs to Colonel Lafitte and the Rev.Faucheux, and we, therefore, give here only a brief account of the executed explorations.

The first site to be examined was that of Pakkamodiampeth on the Madras Road some 6miles from Pondicherry. This site represents a plateau cut by several small canyons cut in argilliferous sandstone, due to the frequent flooding of the site and heavy rains. The water drains have uncovered numerous urns, for the site must have been an urnfield. The finds consist of pottery, crude stone celts, hammer stones, hand-axes and flints with traces of chipping. Most of the stone implements are found at the bottom of water drains, carried down from higher levels on which the urnfield was situated. The site was carefully explored by Rev.Faucheux who possesses a good collection of stone implements and pottery.

Next to be explored was the large urnfield situated on the 8th mile from Pondicherry on the road to the Grand Etang. This important urnfield, which contains both urn burials and clay sarcophagi, was carefully excavated by Colonel Lafitte and Rev.Faucheux. During Professor de Roerich's and the Director's stay in Pondcherry a visit was paid to this important site and an untouched urn burial excavated. The excavation yielded several well-preserved specimen of earthenware, fragments of daggers and a well-preserved

iron blade of a sword, placed outside the urn. Besides the above mentioned finds, the examination of the argilliferous sand found in the urn, revealed fragments of human skull, well-preserved molar teeth, and fragments of femur. The whole excavation was carefully recorded and the finds are now preserved in the Museum at the Institute's Headquarters in Kulu. Besides this exacavtion, a sarcophagi was opened , and this last excavation yielded some fragments of pottery and an flat iron celt, placed outside the sarcophagi. Analogical urnfields, and clay sarcophagi ~~on several legs~~, have been discovered in various places in North and South Arcot. It is as yet difficult to assign a date to these Pondicherry finds. The local Hindu population continued to burry their dead until a comparatively recent period, but the character of the Pondicherry urnfields and the presence of stone implements make it highly possible to assign these sites to an earlier period. The study of Colonel Lafitte's collection will no doubt remove the present difficulty to assign a date. The Director has to thank the Rev.Faucheux for his kind permission to examine his collection and his rich photographic material of the excavations.

On the 14th of December, Professor de Roerich, Dr.Lozina and the Director reached Naggar, Kulu. During the Director's absence , Madame de Roerich, Honorary President-Founder, and Miss E.J.Lichtmann, Member of the Board of Trustees of the Kulu Museum, had very kindly supervised the administrative activities of the Institute.

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The Department's Accounts for publications for the year were as follows:-

G. de Roerich: Les Sept Erbats, Protecteurs de la Loi, Revue des Arts Asiatiques, May, 1930. Paris.

G. de Roerich: Trails to Inmost Asia, (detailed account of the Roerich Central Asiatic Expedition) to be published shortly by the Yale University Press.

G. de Roerich: Animal Style among the Armed Tribes of North Tibet. Semasiologia Kondakoviana, Prague, 1930.

A French translation is being prepared by Mme de Vaux-Pfaltzpen, President of the French Association of Friends of R.M. and will be published in the course of 1931.

In preparation:

G. de Roerich: Comparative Grammar of Colloquial Tibetan. This volume will be published as the I volume of the series "Tibetica", dedicated to the studies of Tibetan antiquity and related subjects.

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[A severe illness has prevented Mme de Roerich to take further active part in this work.]

and We take this opportunity to express to them both our sincere appreciation.

Department of Natural Sciences and applied research.

The Head of the Biological and Botanical Section of this Department, Dr.Walter Norman Koelz of the University of Michigan, arrived at the Headquarters on the 28th of May, 1930, and at once proceeded with the zoological and botanical exploration of the alpine flora of the Kulu Valley. On July 10th, Dr.W.Koelz left for Lahoul across the Rothang Pass and his explorations are described in the following brief report:- / follows Dr.Koelz's report of August 31st/.

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See reverse.

On his return from Lahul on the 1st of October, Dr.Koelz continued his explorations of the 8000 - 12000 ft altitudes in the Kulu Valley, and on the 4th of November left on extensive trip to Rampur Beshahr and the upper Sutlej Valley, from which he returned to the Headquarters on the 31st of December.

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x/ Dr. Koelz brought with himself his valuable experience in previous expeditions in which he was a member.

The follow Botanical
Collection had been
for to.

entomological

Dr Mein very kindly agreed to
supervise personally the
identification of this class
of the collection
A complete Herbarium
of the local flora has been
equipped at the Headgarden

The above extensive explorations of Dr.Koelz were made possible through the munificency of Mrs. Henry Ittelson, Chairman of the Patrons Committee of the H.R.I., Miss Theodora Palmer, Miss Virginia Palmer, Mrs. Shinasi, and Mrs Terry. To all these friends of the Institute, we extend here our sincerest gratitude.

In the summer of 1931. Dr.Koelz plans an extensive expedition for botanical and zoological research to Ladak, and a permission for such an expedition has been received from the Authorities. The purpose of this new expedition will be to investigate the fauna and flora of Western Tibet and its plateaus of high altitude.

During his stay in New York /winter 1929-30/ the Director had interviews with prominent scientists and scientific Institutions in the United States with the view to foster and develop the activities of this Department. V.A.Pertzoff, M.A., Corresponding Member of the H.R.I. and the Director outlined detailed plans for the establishment of a Bio-chemical Laboratory at the Headquarters in Kulu. This Laboratory will be the center of the medical research planned by the Institute. It is the Institute's aim to record and study the rapidly vanishing medical knowledge of the local medicine men, and to experiment on medical herbs for which purpose the Kulu Valley affords special possibilities. Special attention will be paid to Tibetan pharmacopoeia and it is hoped to bring out translations with adequate commentaries of Tibetan medical works. At present this department of the Institute's work is in charge of Dr.C.C.Lozina, Medical Advisor to the Institute. An extensive collection of medical herbs had been gathered by Dr.Koelz in Lahoul, and is now being enlarged and studied by Dr.Lozina with the help of native medicine men. All the collected information is carefully catalogued, and it is hoped to thus establish a complete inventorium of the local pharmacological knowledge.

The Michigan University, ~~////~~ has offered the use of their clinic at Ann Arbor for experimentation and application of th e results of the medical research at the Headquarters of the Institute in Kulu. Extracts from collected medicinal plants are being prepared by Mrs. V.Shibayeff, Secretary of the Institute's Headquarters, and are being sent to Dr. Felix Lukinsh, and Va.Pertzoff, M.A., both Corresponding Members of the H.R.I, for experimentation. The great humanitarian and momentous interest of this line of research can be clearly seen by anyone who had the chance of surveying this vast and virgin field, presented by the Himalayan highlands. The Institute plans also to go into Cancer research for we have reasons to believe that new potent cures can Be found in this vast and unexplored domain of science. It is with great satisfaction that we mention that Dr. Bernard Reed, of the Peiping Medical College, the author of many important publications on Chinese pharmacopoeia, has accepted his ellection as Honorary Advisor / Div. of Science / of Roerich Museum, and it is hoped that the medical research of the H.R.I. will profit greatly from his expert advice. It is of utmost importance to begin building the Bio-chemical Laboratory of the Institute, and the Institute's Staff will spare no efforts to bring this project nearer to realization.

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From the very beginning great attention was paid to the Library of the Institute for it was felt to be of primary importance to equip the Institute with an extensive research library. The Library collects books, pamphlets and mss in the various fields of arts and sciences and will in future issue monthly lists of Indian and Western scientific publications. It is expected to built up the Library through grants of books and book exchanges with the leading scientific institutions and publishers.

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~~RESEARCH~~ LIBRARY

To include the passage on Library in the N.R.I. Report, Annual 1929.

From the very outset it was proposed to build up the Research Library of the Institute by grants and a book exchange bwetween the Institute and the various Scientific Institutions, both in the United States and abroad. During the period I929-30 the Library of the Institute received the follwwing grants of books:- Carnegie Institution, Washington, D.C.; Professor Nicholas de Roerich; Georges de Roerich Director of the Pavlov Institute of The Battle Creek Sanitarium, Michigan; Dr.Felix Lukinsh; Dr.N.Boldyreff, of the Battle Creek Physiological Laboratory; The Rockfeller Foundation / through Dr. Homer Swift/; Commandant C.J. Cauvet; Prof. Bartlett, University of Michigan; V- D= g d 12

During the past period the Institute established ~~t/h~~/ ~~f/o/l/l/o/w/i/n/g/~~ ex an exchange of publications with the following Institutions:-

In the United States:- Carnegie Institution, Washington, D.C.; Smithsonian Institution, Washington, D.C.; Harvard University; Yale University; Iowa Univ; Michigan Univ.; Pittsburgh Univ.; Indiana Univ.; Minnesota Univ.; Oregon Univ.; Field Museum of Natural History, Chicago; Chicago Oriental Institute; the Metropolitan Museum of Arts; the American Geographical Society; the Nature Association, Washington, D.C.

In Europe: Le Musee d'Histoire Naturelle, Paris; the Scool of Oriental Studies, London; the Kondakov Institute, Prague;

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The Institute publishes a yearly Journal of its activities in which each department has its section. In addition to the Journal, the Institute will, from to time, publish works of outstanding importance by Honorary Advisers and Members of the Institute. Lengthy articles will be published as separate monographs. The Tibetan studies of the Institute will be embodied in a series " Tibetica" dedicated to the study of Tibetan antiquity and related subjects. The first volume of this series is now in preparation.

In view of the great interest aroused by archaeological explorations and the importance of scientific methods in carrying out excavations, the Institute decided to publish in its Journal a series of articles on archaeological methods, written by eminent specialists. It is hoped to bring out a manual of archaeological excavations treating the different aspects of archaeology in the countries of the East. The first number of the Journal contains articles by Dr.Ralph Magoffin, President of the Archaeological Institute of America, and Count du Mesnil du Buisson on archaeological methods applied in his excavations in Syria. In the next number we hope to publish an important article by Professor A.Kalitinsky, Director of the Kondakov Institute, on the methods of escavations of tumuli ~~or qurghans.~~

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During his stay in New York, the Director reconstructed a Tibetan Library and placed in it the complete collection of the Narthang Kanjur and Tanjur, brought back by the Roerich Central Asiatic Expedition. This is the first Tibetan Library to be reconstructed outside Tibet and is now on view in the Hall of the East of the Roerich Museum. The Tibetan collection contained in it forms a part of the H.H.I. Library.

The following publications were prepared and issued in connection with the Institute.

~~Roy. de Roer~~ Nicholas Roerich & Sévéne

M. M. Lochtmann: Roy. de Roerich as archaeologist / Article in the ~~Journ.~~ Art & Archaeology, Washington ~~Dec~~ 1. May 1920.

(2) (see earlier)

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Museum.

Mr.V.A.Shibayeff, Secretary of the Institute's Headquarters , has been very active in furnishing the Museum with appropriate glass-cases and herbariums. At present the Museum at Naggar is well-equipped with the necessary furnitute, and houses the large ornitological collection gathered by D. Koelz during his tripes to Lahul, Kulu Valley, and The Satluj Valley; the Herbarium; Collection of medicinal plants; geological collection and archaeological collection. All the above collection are continuously enlarging.

We have to acknowledge with thanks the gift of projecting lantern and skreen, gift of Mrs.Horch, Miss Lichtmann and Mr.Shibayeff, as well as a glass case, gift by Mr.Shibayeff.

A Collect of 36 slides has been prepared and presented by Mr. Sh. to the N.Y. Off. of the Institute

In N.Y. the collection of the Institute's Museum were enriched by the R. Coats Exp. Coll. further added by Tibetan bronzes and sculpture; an entomological collection and a mineralogical.

A representative Collection of the Himalayan fauna and flora will be exhibited in the New York premises of the Inst. It is hoped that this project will be realized in the course of the next year.

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ACTIVITIES IN NEW YORK:

The activities in New York, since the Director departure, have been supwrvised by Mr. Louis L. Horch, President of the Roerich Museum, and Mrs. S.G. Lichtmann, Vice-President of the Master Institute of the Roerich Museum. The Office was in charge of Miss Kathryn Linden.

On the 15th of October the H.R.I. arranged the lecture of Dr. N. Zavadsky, of the Pasteur Laboratory of the Curie Institute, Paris, on the " Biological Bases of a New Conception of Life ".

On December 15th Mrs L.L. Horch, President of the Society of Freinds of Roerich Museum, delivered a lecture on " The Valley of the Gods ". The lecture was illustrated with motion pictures and slides. Mrs. Horch has ~~spent~~ made recently a prolongued sojourn in the Kulu Valley.

Mr. Louis L. Horch has, moreover, very kindly agreed to supervise a financial campaign for the benefit of the Institute.