

## BERICHTE UND MITTEILUNGEN

## ENVIRONMENT AND MAN IN TROPICAL MOUNTAIN ECOSYSTEMS

International Symposium – Academy of Science and Literature, Mainz, February 24–26, 1983

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The Academy of Science and Literature in Mainz again played host to an international symposium, arranged by its Commission on Geosciences (W. LAUER, Bonn) in connection with the Commission of Mountain Geocology of the International Geographical Union (B. MESSERLI, Bern).

Problems of interaction between nature and man in tropical mountains have increasingly become the object of research of various disciplines. However, publications and programs of research relating to the ever intensifying influence of man in mountainous areas have not always reached all those interested in.

One of the aims of the symposium, therefore, was to bring together scientists of different disciplines and from various countries to meet and to contribute on the topic selected.

It was the fourth symposium on problems of mountain research that was held at the academy in Mainz within the framework of the institutions mentioned.

The last one of its kind had taken place in November 1974, under the chairmanship of CARL TROLL, when the topic was the relationship between the southern temperate zone and tropical high mountains (Erdw. Forschung, Vol. 11, 1978; earlier symposia: 1969 'Geocology of the High-Mountain Regions of Eurasia' – Erdw. Forschung, Vol. 4, 1972; 1970: 'Comparative Cultural Geography of the High-Mountain Regions of Southern Asia' – Erdw. Forschung, Vol. 5, 1973). The 1983 Symposium put the emphasis on the inter-relationship of environment and man in tropical mountains.

After an informal gathering the evening before, procedures began on Thursday, February 24, on the premises of the academy. After welcoming exchanges and a general introduction (W. LAUER, Bonn), the morning session (chairman: U. SCHWEINFURTH, Heidelberg) first turned to Africa: climate in the Kenyan Highlands (J. KENWORTHY, Durham) and climate and land use on Mt. Kenya (M. WINIGER, Bern), followed by two contributions from Asia or, rather, China: YU XIAO-GAN, Nanking, presently at Gießen University, on rice cultivation, especially its upper limits in China referring, in particular, to the Yongnin Basin in NW-Yünnan, where in 2700m rice cultivation seems to reach its absolute altitudinal limit, and B. MESSERLI's (Bern) report on the Hengduan Shan excursion of October 1982, initiated by Academia Sinica, which had invited three foreigners – J. IVES (Boulder), C. JEST (Paris) and B. MESSERLI (Bern) – to join. The term 'Hengduan Shan' is now emerging as the official Chinese name for what used to be called 'river gorge country'. Needless to say that these two contributions from an area, which, since the days of VON WISSMANN and F. KINGDON WARD, i. e. for about half a century have remained virtually closed to any outsider, were met with particular interest.

The afternoon session of Thursday, February 24 (chairman: O. DOLLFUS, Paris) was devoted to the general topic of environment and man. U. SCHWEINFURTH (Heidelberg) reported on the situation in the high valleys of the Central Cordillera of Eastern New Guinea, using *Pandanus*, *Casuarina*, and *Ipomoea batatas* as three prominent examples to demonstrate the intimate relationship between man and his environment in the topographically well-defined high valleys. M. DOMRÖS (Mainz) contributed on Sri Lanka, W. HAFFNER (Gießen) on Nepal. The Himalayas remained in focus, when A. MUKERJEE (Chandigarh) dealt with 'Geomorphologic damages in the Western Himalayas', i. e. landslides and avalanches – and he concludes: 'Ultimately, the main villain' – for the damage caused – 'seems to be the ecology-neutral development activities' – meaning: 'authorities', one may add. This topic was carried further by H. KIENHOLZ (Bern) with particular reference to slope instability, demonstrated by examples from Nepal (Kathmandu – Kakani area and Khumbu).

The morning session of Friday, February 25 (chairman: W. WEISCHET, Freiburg) focused interest predominantly on South America. Dr. M. WARD (London), discussed, from a medical point of view, problems of altitudinal adaptation with reference to populations in South America and, in particular, in Bhutan, where some of the most isolated high-altitude populations in the world are living, never visited by any foreigner before, until Dr. WARD, while being invited to treat the king, received permission to explore these odd corners in 'farthest Bhutan'. O. DOLLFUS (Paris) compared 'l'utilisation de l'étagement' in the Andes with the situation in Nepal. W. LAUER (Bonn) presented the results of research in the Kallaway Valley (Bolivia), which displayed the complexity of a model case of 'environment and man': in the preference given to certain site factors by the local people as, for instance, exposition to sun and precipitation in establishing fields and settlements, the irrigation of the dry valley bottom and the adaptation of the terraces cultivated to a dissected relief, resulting in the use of successive altitudinal belts by different types of cultivation, altogether an ingenious use of the given environment, which provided the Kallaway with virtual economic independence. More on the climatological side were W. ERIKSEN's (Hannover) observations on the eco-climatology of the Bolivian 'puna' country.

The afternoon of Friday, February 25, (chairman: B. MESSERLI, Bern) began with an example by B. RUTHSATZ (Trier) on land utilisation and its impact on vegetation within a small community, Huaraco, situated on the Bolivian altiplano, along the main road from La Paz to Oruro, followed by S. HASTENRATH's (Madison) studies on tropical glaciers and climatic variations, a report on pleistocene and recent glaciation in the Central Cordillera of Eastern

New Guinea (E. LÖFFLER, Erlangen), and J. FLENLEY's (Hull) discussion on 'Late quaternary changes of vegetation and climate in the Malesian Mountains' (with particular emphasis on the Central Cordillera of Eastern New Guinea again). The remaining contributions of the day were devoted to the 'Glaciation of the Cordillera Central (Dominican Republic) and some palaeoclimatic implications' (C. SCHUBERT, Caracas) suggesting the existence of former glaciers and a pleistocene snowline between approximately 2200 and 2300 m and M. LÉA SALGADO-LABOURIAU's (Caracas) paper on 'Late-Quaternary palynological studies in the Venezuelan Andes'.

Saturday, February 26 (chairman: W. LAUER, Bonn) continued the emphasis on South American tropical mountains with M. MONASTERIO's (Mérida) 'Estudios ecológicos en los Páramos Andinos' presenting another extremely interesting example of environment and man in the higher altitudes of South American tropical mountains (Pueblos del Sur de la Cordillera de Mérida) underlining in particular the importance to safeguard local traditions and feelings in all developmental activities. W. GOLTE (Bonn) contributed on the distribution and ecology of the living *Araucariaceae* and their palaeoclimatological significance and J. MARTENS (Mainz) on the vertical distribution of palaeartic and oriental faunistic elements in the Nepal Himalayas. Finally, F. KLÖTZLI (Zürich) reported on *Fagaceae* and *Myrtaceae* in some Pacific mountain areas, amongst which reference to Kinabalu served as the link with the tropical mountains. W. LAUER (Bonn) performed the summing up.

The symposium was attended by 23 'active' participants, i. e. those originally invited to contribute papers and 10 'visitors', mainly drawn from the geography departments of Bonn and Mainz. The languages used were German, English, French, and Spanish, and the easy way the various languages were applied during the symposium served, no doubt, to mutual understanding and to create a truly international atmosphere – perhaps, only possible in a gathering not exceeding certain numbers.

The emphasis proclaimed by the general theme on environment and man was adhered to by the great majority of the contributors; in the cases, where emphasis was laid more on climatology, glaciers, palynology, for instance,

it served as useful and welcome background information. For the first time in these meetings, medical aspects in a geographical context were included, as the topic 'environment and man', no doubt, demands; it seemed fortunate indeed that it was possible to attract Dr. M. WARD (London), as an exponent on 'mountains and medicine', to attend the meeting.

A word of praise must be added to the extraordinary variety of superb slides displayed during the meeting – it would be impossible to single out the one or the other and, perhaps, only stress particular personal interest – the slides were all exquisitely selected and especially those from areas off the beaten track – which were not? – were instructive and served magnificently to understanding, besides being most enjoyable to look at for sheer intellectual pleasure.

The meeting was well-organised (as could have been expected); with lunch served within the Academy premises, there was no waste of time through lengthy breaks. The general atmosphere throughout was most amiable as, perhaps, possible only, when numbers are kept within certain limits – and the particular species of 'migrant participants', meaning those, who come, deliver their wisdom and go, was, fortunately, kept to the, perhaps, unavoidable minimum – needless to stress, that the idea of a symposium is attendance from the beginning to the end to enable that all-important exchange of views 'beyond the classroom'.

The undoubted success of this symposium, the first of its kind without CARL TROLL being present in person, – whose spirit, nevertheless, seemed ever present – augurs well for a continuation – and, let us hope, not again after a gap of another eight years!

The proceedings will be published in English in a further volume of *Erdwissenschaftliche Forschungen* edited by the Commission of Geosciences of the Academy of Science and Literature, Mainz – if at all possible, in 1984.

Last not least, a word of thanks that such a meeting has been made possible to bring together participants from places as far apart as Mérida, Madison, and Chandigarh – making it a truly international symposium on a subject which needs such an inter-national exchange from time to time; – that the participants appreciated the chance and corresponded in kind was apparent in the ease of communication pervading the meeting from beginning to end.

## ZUM STAND DER QUANTITATIVEN GEOGRAPHIE

Ein Bericht über einen Sammelband zur Entwicklung in Großbritannien\*)

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Quantitativ orientierte Analysen bestimmen heute in erheblichem Ausmaß das Bild wichtiger geographischer Publikationsorgane. Dabei wird es dank der fortgeschrittenen Spezialisierung immer schwieriger, einen Gesamtüberblick über die verwendeten Methoden und Modelle und ihren Nutzen für inhaltliche Probleme und Anwendungen zu erhalten. Man sehe sich nur einmal einige jüngere Hefte der beiden führenden internationalen Zeitschriften zur quantitativen Geographie an, nämlich *Environment and Planning A* und *Geographical Analysis*. Daher wird man den Heraus-

gebern und Autoren des Sammelbandes „Quantitative Geography: A British View“ besonders dankbar sein müssen, daß sie einen solchen Überblick ermöglichen. Auch wenn die Entwicklungen in Großbritannien im Vordergrund stehen, wird doch, insbesondere aufgrund der engen Verbindungen zur nordamerikanischen Geographie, die relevante

\*) WRIGLEY, N. and BENNETT, R. J. (Eds.): *Quantitative Geography: A British View*. VI u. 419 S. Routledge and Kegan Paul, London, Boston, Henley 1981, £ 30,-