

Field Research and Expeditionary Mountaineering

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IN RECENT years, American mountaineering parties have become increasingly active in the remote or unexplored mountain ranges of the world. The logistical planning necessary to approach and initiate a final assault on peaks located in such areas is often of considerable scope and complexity. Major efforts of this type are well known to the reader and in this discussion are defined by the writer as "Expeditionary Mountaineering."

Many of the mountainous areas entered by these expeditions have never before been explored by educated man and hold unlimited potentialities for scientific research. Yet, in many instances, climbing groups for various reasons of expediency attempt the mountain and then retreat, giving the surrounding area little more than a cursory examination. Diaries or notes kept by expedition personnel may record observations made of the geology, weather, high-altitude effects, or the culture of the natives encountered en route. Information of this type is of considerable interest to the recreational reader, but unfortunately of little value as a source of data for the scientist. Criticism of this deficiency should not be directed toward the mountaineer, for he is a dedicated individual, primarily concerned with climbing a mountain. His objective has usually been additionally narrowed by financial or circumstantial privation endured in order to make the trip. There have been exceptions, of course, as outstanding research contributions have been made by qualified individuals and groups. It is informative to note, however, that most of these outstanding expeditionary research contributions have resulted

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from well-planned research programs skillfully integrated into the climbing effort and often implemented by European or Asiatic climbing groups.

A very real cause for concern is the growing stigma attached to American expeditions primarily concerned with mountaineering but including research as an associated activity. In recent years responsible research personnel and scientific groups have come to view the quality of research done on such expeditions with decreasing confidence. There is good reason to believe that the distrust voiced by these agencies is justified. Leaders of prospective expeditionary climbing groups have found it increasingly difficult to gain support from government or civilian research agencies and have occasionally been informed that the group was not considered capable of supporting the quality of research encouraged by that agency. This attitude may often cause indignation among expedition personnel. Many of those concerned may be well qualified in a research field. However, a denial of this kind is usually not associated with a lack of confidence in the research ability of the group, but is born of concern that they will not have the opportunity to utilize it. The mountaineer-scientist who is a member of a party assaulting a difficult mountain will find himself severely taxed to divide his efforts between climbing and research responsibilities. This is particularly true of the individual who is a member of a team which demands the ultimate in physical effort and alertness to insure the safety and success of the climb. The man who measures dip and strike of strata when he should be belaying, or writes up field notes instead of pitching the tent, is of course a burden, and can be a hazard. Conversely, the climber carrying his just share of responsibility in a major effort will find little time for the exacting field work necessary for accurate scientific field research.

Does this mean that science and mountaineering are incompatible? If one were to gauge the answer by the inferior research done by some groups and the exclusion of research activities by others, including the proclamation of one group that "No damn science" was the expedition by-word, the answer would be yes. The writer agrees that it is better to forget research if it interferes with the efficiency of the climbing team, and if the research

is of such an inferior nature as to bring adverse criticism upon the group. To exclude field research from such an effort is probably of benefit to both the climbers and the scientific world.

Those of us who have been involved in an expeditionary effort are fully conversant with the vast amount of clothing and equipment, the transportation costs, and other requirements which quickly mount to sums far beyond the reach of most individuals. Outside support is usually a necessity. Therefore, it would be well to consider the difficulties of obtaining support of such efforts and the most constructive and available source of this desired help before widening the growing gap between science and mountaineering. Publicity, while desirable, can be somewhat disconcerting when used as a supporting medium. Most press agencies support such an effort with an accent on danger and make a point of illustrating the hazards and tragedies with great vividness. In contrast to the current A.A.C. efforts to minimize accidents and forestall the growing public opinion that mountaineers are a group of wild men with a strong death wish, this type of commitment frequently ricochets back on the party. If there is a choice between alliances, it would seem apparent that scientific research offers a much better opportunity for a lasting contribution and an accompanying accolade from the public.

During the last thirty years, mountaineering has become increasingly popular, and on a global basis there are large numbers of competent mountaineers. Many of these possess considerable technological ability and in some cases are noted men in their fields. To these men as well as the recreational mountaineers, the opportunity is offered for reinstating mountaineering as a vehicle for field research. Because mountaineering expeditions are usually active in remote regions, their sphere of operations generally coincides with areas of scientific interest. The hardships and technical difficulties encountered in such a region demand that the researcher be trained in travel or survival in a mountainous environment. To the science-mountaineer, then, opportunities are limitless, and with proper organization, both he and the recreational mountaineer can accomplish their aims.

An analysis of past expeditions contributing high-quality research indicates that in most cases there were two separate and

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distinct groups within the effort, the research group and the climbing group. Both groups operated out of a common base camp and often under the direction of separate field leaders. The climbers climbed, and the researchers researched. This was the key to the success of each one of the expeditions concerned. Research personnel were also competent mountaineers and competent to travel without assistance from the climbing group.

Considerable attention should be given to the fact that a group of this type constitutes a powerful mobile reserve capable of offering emergency assistance when mishaps occur to the climbing party. On several occasions in the past, such a reserve has been instrumental in preventing the loss of climbing parties who had become exhausted or injured in the assault.

The advantages of such an organization are numerous. An effort of this type possesses great strength and provides a margin of safety not attainable by small mountaineering groups dedicated solely to climbing.

The same criteria should apply to the formulation of the scientific groups as that governing the selection of a strong climbing team. Members of the research group should be evaluated carefully for previous expeditionary experience, group compatibility, as well as research ability. Contact among the members of the research team should be established well in advance of the actual departure. The prior planning necessary for the proper implementation of a coordinated research program is of necessity quite extensive.

The manpower requirements of an expedition of this scope are of course heavier than those of a pure climbing party. Consequently, the logistic difficulties will be greater. Technical equipment, tentage, communications, subsistence, and transportation requirements will assume additional importance.

The mountaineer may immediately become concerned over these additional responsibilities, having been victimized on previous expeditions in which "going heavy" so hampered the group that the climbing effort was sabotaged by housekeeping or supply activities. Such concern is justified, since many indeed are the mountaineering parties which have been defeated by overpowering logistic difficulties.

Therefore, in the interests of efficiency, supply responsibility

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should be delegated away from the climbing and research groups. The curse of supply responsibility can be just as fatal to a research program as to a climbing effort. The record indicates several research fatalities from the logistic menace. To avoid this difficulty, there should be a supply group, distinct within itself and without the duality of responsibility so often a threat to the effective implementation of both major efforts.

The writer sincerely hopes that the preceding discussion will stimulate the expedition mountaineer to seriously reconsider the opportunities offered to properly implemented expeditions which earnestly desire to support reliable scientific research.

Expeditionary efforts which support and fulfill research obligations in a scientific manner will bring credit to the mountaineering fraternity and gain increased support from agencies active in field research.