

THE VICOS RESEARCH PROPOSAL

Submitted by

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1. Justification for maintenance of village in the long
2. What is good for people and what is not!
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THE VICOS RESEARCH PROPOSAL

I. THE PROPOSAL IN BRIEF

As part of its program in Culture and Applied Science, supported by the Carnegie Corporation of New York, Cornell University has been carrying on an action research program in Peru in collaboration with the Peruvian Government and the Institute of Indigenous Affairs. The focus of the project has been on the observation of, and field laboratory experimentation on, the human and social effects of the introduction of modern technology into an Andean Indian hacienda, called Vicos, over which the university has maintained administrative control for the past four years.

During this period, a variety of technological changes has been introduced and the effects of these studied. At the same time, attempts have been made to prepare the community for a more independent way of life and for broader participation in the regional and national society. The certainty of reaching these goals, however, has been limited by the hacienda system which circumscribes almost all phases of community life.

An opportunity has now arisen to alter this structure radically and initiate a large measure of local autonomy through offering the Indians control of their own lands and freedom from hacienda domination. This change will inevitably be a highly significant one for the future development of the community and possibly for other Indian communities of Peru as well. For this reason, we wish to embark on a new phase of the research program involving two basic aspects: A) the investigation of the effects on the community of the changed system of land tenure,

and B) the experimental guidance of the community through ideational (educational) intervention to a new kind of internal integration and linkage with the regional and national society.

A. The Observational Program

Because the alteration of the land tenure system of the hacienda is crucial, this change is certain to have far-reaching effects on other aspects of community life. We believe that the study of these effects is likely to yield significant scientific results. We are in an excellent position to study these effects because studies conducted during the first phase of the project give us a firm basis for careful description of the results of the innovations. On the basis of the observation carried out in the past, we have drawn up a set of predictions of what may be expected to occur in the light of alternative developments and on the basis of trends now visible. These hypotheses, examples of which are found in the following sections, will enable us to structure clearly the continued observation of change.

The procedure for this observation will be largely further replication of studies done earlier so that we may test the effects of interventions in the community. These studies will be repeated at the initiation of the second phase of the project and again at the end of the program. The techniques that have been utilized and will be employed again are those of participant observation, scheduled interviewing, case studies of particular individuals and repeat censuses of the community.

B. The Plan for Ideational Intervention

This aspect of the program is based on the fact that the alteration of the hacienda system is insufficient in itself to bring

about the independent development of the community in a way that will be beneficial to the majority of the residents. The change of the power structure will place the community in a position from which it may be able to pursue the course of growth that independent villages have followed for some time but, because of external threats and internal weaknesses, this is unlikely to occur in a smooth way without some kind of guidance during the transition period. Previous experience has led us to the conclusion that the introduction of technology alone is insufficient to bring about independent growth. Some kind of ideological intervention, with the aims of educating the members of the community to direct their own development and of creating an internal dynamic that will carry on the process after the withdrawal of the project, is necessary. Therefore, we now propose to bring about changes in knowledge, values and behavior through the introduction of ideas in selected areas of the culture which appear to be the key areas for the independent growth of the village. Through such an approach we expect to realize these scientific aims:

- 1) To increase understanding of behavioral change in the community context through the administration of a controlled program of education
- and 2) To test the utility of several methods of inducing such change.

The specific research design is summarized here.

1. Leadership and Unity

In this key area, we find a situation in which local leadership does not have popular support and factionalism increasingly splits the village.

Aim Our aim is to halt the process of community disorganization by identifying individual prestige with the welfare of the whole group.

Method The procedure will be to organize a program of activities:

- a) to unite the community along lines of common interest by:
 - the organization of groups to deal with land problems
 - the institution of organized recreation and sports
 - the initiation of a small newspaper to improve local communication
- b) to stimulate local pride through:
 - recreational activities that will draw outsiders to the community
 - the encouragement of improvements in the physical appearance of the village
 - direct competition in athletic contests
- c) to strengthen the leadership position of the authorities by:
 - widening the range of their activities to interest all villagers
 - clearly attributing to them those programs which they initiate
 - stressing the prestige of office through ritual and other means
- d) to increase the number of responsibility positions and broaden local participation by:
 - instituting committees to handle special functions
 - encouraging the selection of office holders on a functional basis

Observation Measurement will be made in the form of a panel study to test both participants and non-participants in the activities with respect to;

- a) extent, nature and motives of participation in the experimental program through the use of:
 - questionnaires
 - records of participation
- b) degree of identification with the community as measured by:
 - observable behavior
 - goals and attitudes indicated in response to survey questions

2. Indian-Mestizo Relations

Relations between the Indians of the village and the Mestizos of the nearby towns are marked by a high level of social distance that creates an obstacle to the participation of the Indians in the larger society and

places them at a disadvantage in their functioning in the local area.

Aim Our purpose is to create greater equality in Indian-Mestizo interaction and lower the barriers to communication between the two groups.

Method The procedure will be to create a series of unpatterned voluntary contact situations between the village Indians and the residents of the nearby town along the lines of interest common to both:

recreational programs
 school activities
 religious celebrations
 campaigns to obtain government support for joint local projects

These situations are varied in terms of:

joint participation
 official endorsement of equal status contact
 the need for active cooperation between the groups

Observation Measurement will be through the administration of questionnaires to discover attitudes toward members of the other group, both before and after contact, in order to determine the relationship between attitudes and behavior. Observations of the behavior of the respondents will be made for several of the unpatterned situations in order to discover those factors important in determining action, and then these will be compared with behavior in patterned situations to get at the degree of consistency of behavior. Observations will be made for both majority and minority groups.

3. The Establishment of Channels of Communication

Contact between villagers and the outside world has been extremely limited. Few outsiders or communications enter the community and the social and language barriers which surround the Indian when he travels outside limit his incorporation of new experience. We propose to deal with three

aspects of this problem:

a) Aim One purpose is to extend the meaning of literacy by teaching the Indians to utilize a variety of new communications media.

Method The procedure will simply be to employ as many of these media as possible—films, radio, photographs and dramatic presentations—to give the villagers practice in dealing with them.

Observation Measurement of comprehension will be carried out through questionnaires administered at intervals during the program to those receiving instruction before the presentation, a group receiving no instruction and those who do not participate.

b) Aim Another aim is to encourage the utilization of the educational media, particularly written materials.

Method The pupils in the adult class will illustrate the concrete value of literacy by giving public demonstrations of practical knowledge gained through written materials (e.g. agricultural information).

Observation The evaluation of the effectiveness of the program will be made through before and after questionnaires administered to those who attend the presentations and through the observation of behavior indicating the degree of participation and interest in the literacy program.

c) Aim The third goal is to increase perception of and interest in the outside world on the part of those travelling away from the community.

Method The procedure will be to guide outside contact by making specific assignments to the travellers before they leave. One group will be asked to answer general questions when they return, another will be given explicit questions to be dealt with and the third will receive no direction.

Observation Upon their return, all travellers will be given questionnaires to determine what specific information they have acquired and what general concepts about the outside have been altered. Their subsequent behavior will also be observed to see what new items and practices they have adopted.

4. Health Education

One of the areas of life which we do not expect to change with increased outside contact is health.

Aim Once some familiarity with communications media has been established, we plan to conduct a directly informational program to increase knowledge of sanitation and nutrition, taking account of some of the factors that have been shown to be important in the communications situation.

Method The procedure will be to give instruction in these areas through various media, concentrating particularly on the effect of the communicator and varying this factor both in terms of his status and his affective ties in relation to the audience.

Observation Measurement of the effectiveness of the communication will be carried out through a questionnaire administered immediately after the presentation and an interview conducted at a later period to discover retention of information over time as well as behavioral changes induced by the communication.

II PHASE ONE OF THE PROJECT

The Setting

The location of the project is Vicos, an hacienda in the highlands of northeastern Peru, inhabited by Quechua-speaking Indians who have had a minimum of contact with modern industrial civilization. Vicos is located in a valley, the Callejon de Huaylas, which is now entering upon a process of industrialization because of heavy investments by the Peruvian Government in smelting plants, transportation systems and hydroelectric power. Other, less dramatic changes have begun to affect the people of the area. Contact with the outside world is increasingly being established through local people who go to the coast as a seasonal labor force and men who are drafted into the army for two-year periods. These people, returning to their villages with new ideas and experience of the outside world, are the advance guard of the various aspects of modern civilization which must inevitably affect the Andean villages with greater scope and intensity.

In this respect, Vicos and other communities of the valley are not radically different from isolated rural villages throughout the world which are beginning to feel the impact of modern civilization with accelerating force and to participate increasingly in the affairs of the national society.

Since 1952, under an unusual arrangement with the Peruvian Government, Cornell University has administered the hacienda through the Cornell-Peru Project, the director of which has occupied the role of patron or boss of the operation. This means that Cornell has maintained control of a labor force of more than two hundred and fifty men (an adult member of each family) for three days of each week in addition to other prerogatives

traditionally associated with the status of patron.

The Aims

The aims of the Vicos program, as outlined in the initial proposal, were to study the effects of technological change upon the community; to attempt to raise the standard of living of the villagers and to foster self-reliance in Vicos so that the community would be able to take over the control of its land and direct its own development as a functioning part of the nation. The method of achieving these aims was that of introducing modest innovations in various areas of the culture and observing the results. In this program, cooperation was successfully maintained with various branches of the Peruvian Government and with international agencies operating within the country.

Accomplishments of the Applied Program

The practical results of the program have been varied and, we feel, impressive in view of the dormant state of the community at the initiation of the project. The agricultural program, carried out with the technical assistance of the Institute of Inter-American Affairs, introduced new seeds, fertilizer, insecticides and improved methods of cultivation that have since been accepted by a large proportion of the community. Fruit trees were planted and reforestation initiated. A system of branding cattle was introduced and almost universally accepted, thus ending a long-standing source of disputes in Vicos.

The educational program, with the aid of the Peruvian Ministry of Education, involved the building of a new school in Vicos. Aside from the construction of the physical plant, this entailed the introduction of latrines to the community, a hot lunch program for the students and the use of new teaching materials. Several new teachers came to Vicos. In addition

to the new school for girls and the two schools organized for male pupils (Primary and pre-vocational), an evening school for adults was initiated and a compulsory educational program instituted for the men who drill weekly in the plaza of Vicos.

In the area of health, the participation of the United Nations and the Peruvian Ministry of Health meant the inauguration of a clinic in Vicos, functioning twice weekly, and a new familiarity, on the part of Vicosinos, with modern medical practices.

Cornell, in collaboration with the Peruvian Government, entered the field of military affairs and arranged for Vicos men to do their compulsory drilling within the community itself. In addition, the matter of draft registration of Vicosinos was straightened out, ending an area of confusion that had caused the men to pay large amounts in graft to the authorities in order to replace lost draft cards.

The hacienda system itself has been the object of various changes on the part of the project. The custom of requiring free personal services of the hacienda residents has been abolished and paid workers now perform these tasks. The mayoral organization, formerly a set of straw bosses for the hacienda administration, has been modified in an attempt to make this a body of leaders to represent local opinion. Weekly seminars were conducted with these six men representing differing interests in the community, and project policy was decided upon in the course of these discussions. The following day, decisions were discussed with the assembled work force. Thus, for the first time, local wishes have been taken into account in planning hacienda policy. Furthermore, local leaders have become familiar with the problems and procedures involved in managing an hacienda.

The changes briefly summarized here have been accepted in varying degree by different sectors of the population. Some of the innovations have produced material improvements in Vicos life. Less tangible changes have also been brought about. Education for one's children has become a possibility and a goal for many Vicosinos. A more hopeful attitude toward sickness is beginning to replace complete fatalism in some degree. The physical presence of the new school and hacienda buildings has created considerable feeling of local pride and a sense of the possibility that Vicos may eventually catch up with the more developed towns of the area. In sum, for many Vicosinos, there has been an awakening to the potentiality of changing existing circumstances, although not, as yet, an awareness of their own responsibility for change.

Research Results

We have not only been concerned with these practical accomplishments. Scientific aims have also been given due emphasis by the project. Since the basic study of Vicos, done before the initiation of the project, there have been several specialized studies of the community. In 1952, a complete census and household inventory was taken in this village and in all the villages of the surrounding district, and a repeat census is now in progress. Studies have been made of the progress and effects of all the innovations—the clinic, the school, the meetings with local leaders and the agricultural program. With respect to the last, a panel study has been under way over the last four years to trace out factors in acceptance, the utilization of the new introductions and the effects upon the community. A parasitology survey and two nutrition surveys (in time of scarcity and in time of plenty) have also been carried out. In addition, for purposes of comparison, studies have been made in several other villages in the area

and there has been an economic survey of the valley.

Some Conclusions Emerging from this Data

A few of the conclusions derived from these studies may be mentioned here. We have clearly seen that change is something desired by many people and that useful innovations will be accepted. We have learned a good deal about the mechanisms of change and more important, perhaps, that technological change is not sufficient for the development of self-reliance on the part of the community. It has also become apparent that only a minimum of change in accordance with the aims of the project can take place so long as the hacienda system is maintained. The evidence for this comes from various aspects of the study--the comparison of Vicos with neighboring independent communities, the feelings of the Vicosinos themselves and the history of the community which records several futile attempts by the Indians to gain control of their land. These data indicate the way in which the operation of the hacienda system inhibits the functioning of those forces for change which affect independent communities. Thus, the obligation of working three days a week as rent for the use of the land means that Vicosinos cannot go outside the area to work and in this way, are kept from an important source of new experience that has functioned to change the other villages of the area over a period of time. The fact that land cannot be bought and sold means that few outsiders marry into the community and the innovations that might be expected with some turnover in population are absent here. Even more important, the fact that the lives and well-being of all the members of the community have for so long been subject to the decisions of one man, the patron, has meant the development of a feeling of complete dependence upon this paternalistic figure. The hacienda system is one which thoroughly inhibits the feeling that the individual can do

anything to change or improve his situation. Nor has it been in the interest of the patron to change the system and thus lose a constant labor supply.

III PHASE TWO

A. The Crucial Change

Inevitably in these circumstances, the logical next step must be that of ending the hacienda system as it now operates and turning the control of the land over to the Vicosinos themselves. As we have stated above, it appears to us that there is no possibility of developing a self-reliant and active community within the framework of the national society while the practical and psychological limits imposed by the hacienda system continue in force. In undertaking the Vicos project, Cornell assumed a commitment to work toward a situation in which the community could take over the control of its own development along more democratic lines. It is our feeling that the way to attain this goal is to take the necessary step of altering the land tenure system now, rather than trying to postpone the move until the residents of Vicos are "completely ready" for the change.

The procedure for initiating local control has been indicated by the recent passage of a law in Peru. This legislation gives preference to the tenants when an hacienda is available for rental. While the residents of Vicos may not be ready yet to take over control of the entire hacienda, it would be possible for them to rent directly all the lands they occupy (about ninety per cent of the total), thus freeing them from the restrictions of the hacienda work system and giving them management of their own land.

The remainder of the land, we feel, the Vicosinos are not yet

properly organized to administer without injustice being done to certain of the less powerful Indian groups within the community. But we do feel that the administrative and legal responsibility for operating the hacienda lands should be returned to Peruvian hands rather than be held by Cornell. Thus it is our plan to establish a small group within the Peruvian Indigenous Institute, of which the director of the Cornell-Peru Project is a member, for the purpose of administering that part of the land that is not occupied by Vicosinos, and with the goal of returning control of the entire hacienda to the local community within a three year period. Under the terms of the original agreement with the Peruvian Government, Cornell has been cooperating with the Institute and excellent relations have been maintained. Our goals are similar and the administration of the hacienda by this group would mean continued cooperation in both the areas of research and action.

In view of the opportunities for change presented by this possibility and because of the practical and scientific results of the Cornell-Peru Project so far, with the prospect of continued results, the following research plans are presented.

B. The Observational Program

One of the chief aims in desiring to continue the project is a scientific one. We feel that by continuing the program for three years more, we can obtain a rich scientific "pay-off", given the period of earlier operations and studies.

1. Continuation of Phase One Research

First of all, we feel that it is important to continue the study of the effects of the innovations introduced over the past five years. It will be possible to see to what degree these changes are retained and modified over a longer period, and the gradual effects on other aspects of the culture

may be observed. Furthermore, we will be able to study the effects of these innovations in changed circumstances—when the community is on its own more than it has ever been.

One aspect of these investigations will be the repetition of some of the basic studies carried out at the beginning of the first phase of the project in order to see what changes have taken place during this five year period. These will be repeated again at the end of the second phase.

a) The first of these studies is the census which is composed of a complete household inventory as well as detailed data on each individual—education, travel, dress, specialization, participation in the civil and religious hierarchy, etc. The repeat census permits us to measure change over time in all these areas and in the field of material culture. Furthermore, it provides the means of sampling for all other studies and supplies the necessary background data for their analysis.

b) The second study to be repeated now and at the end of the second phase is the survey on attitudes to innovations. The first survey was conducted by the Cornell Methodology Project.

Another type of investigation will be the continuation of studies of the actual processes of change.

c) The first of these is a program of intensive observation of the three major innovations introduced into the community—the school, the agricultural innovations and the clinic. Careful records have been kept of all the participants in these programs and the nature of their participation. Observers have studied the direct effects of these interventions and their results in other areas of life.

d) We will continue fairly intensive participant observation over a broader area to get at changes in various areas of life—religion, the

economy, the political structure, the family.

e) Detailed observation will also be made of the army veterans.

Because they are the most important source of change, aside from project interventions, it is essential to investigate the ways in which they differ from other villagers and their changing role in the community.

2. Study of the Crucial Intervention

In the second place, we also wish to study the change itself. Our conclusion, as stated above, is that the hacienda system with the obligations involved in it, is the key factor in the development of the community. With its removal, we expect a number of forces to be set in motion and a variety of effects to follow. On the basis of our knowledge of Vicos and of other communities of the area, we have drawn up a set of hypotheses, predictions for the various aspects of the culture, which we foresee as the results of this and alternative, but not all mutually exclusive, courses of development:

- a) a return to the old hacienda system at the end of the project
- b) the termination of the hacienda system with its labor obligations
- c) the initiation of a directed program of village development through outside intervention
- d) substantial development of the economy of the valley

We feel that by testing these predictions, which are formulated in terms of the Andean area, but may also have wider applicability, we can add materially to existing knowledge of culture change. Essentially, we are presented with an experimental situation. We have comparable data on an hacienda community which has undergone little change and also on independent villages which have been changing at a faster rate. We can now observe what happens when an hacienda community becomes independent and, if our hypotheses are supported, study the initial steps in the change process that will place

the community on the road to national incorporation.

In the measurement of this change, the hypotheses will be tested through specific behavioral and attitudinal indices. Thus, for example, one prediction stated is that if the hacienda system is terminated, there will be a shift in the status of women in the direction of greater authority. The end of the hacienda labor obligations will mean that the villagers will be free to go to the outside to work and we expect more men than women to leave. In the case of absence of the men, women will come to exercise more authority within the family with respect to the administration of property and the raising of children, and in the community as a whole in terms of participation in public activities. This type of change will be reflected in the censuses for the village as a whole through such indices as the percentage of women who are heads of household, the number of women holding land and the extent of female participation in fiesta activities as officials. Records of attendance at communal functions, such as those described below in the action research program, will enable us to discover the degree to which women, in comparison with men, are taking on responsibility for matters of concern to the community. School attendance records will give an indication of the possibilities of future changes in the role of women by reflecting interest in education for girls, something which has been minimal in the past. With the utilization of similar indices found in such records and continued participant observation, the hypotheses drawn up for other areas of the culture may be tested in comparable fashion.

From the point of view of our research aims, our position in the community is a good one. Our relations with the Vicosinos are friendly so that no time need be lost in becoming acquainted or establishing rapport. The fact that censuses have been taken in the community and in neighboring

villages makes sampling procedure extremely easy. The experience gained in several years of observation, the administration of questionnaires and in non-structured interviewing in the area means that we are methodologically well equipped to deal with the local culture.

In sum, we feel that we are in a position to reap a rich scientific harvest by continuing work in a direction in which we have already made considerable progress.

C. The Plan for Intervention

1. Intervention in the Transition Phase

It should be pointed out, however, that the process of altering the hacienda system involves certain dangers and we must be prepared to cope with these if the project is to continue at all. Our knowledge of the present situation includes an awareness of the internal lack of unity of the village. As we have pointed out, the hacienda system has produced a feeling of dependence upon a paternalistic authority on the part of the Vicosinos. We believe, therefore, that selective guidance and intervention may be called for in the transition from the hacienda system to independence, both to foster the development of local democracy and leadership and to help Vicos defend itself from the threats which exist in the area, externally from those who have previously employed Vicosinos and from neighboring landlords, and internally from a few ambitious villagers. While we do not wish to assert complete control over the course of future development in Vicos, it is our responsibility to see that the community does not founder, i.e., that it does not fall under a new domination and that it is securely headed in the direction of self-reliance.

2. Ideational Intervention

Beyond simply observing the effects of the changed land tenure situation and guiding the community through the transitional period in a limited fashion, we would also like to continue a modest experimental program with a changed emphasis. During the past phase of the project, stress has been laid on the introduction of new patterns of technology and a great deal has been learned about the processes involved in culture change. But at the same time, we have become increasingly aware that technological change is insufficient to produce the kind of independent development which we have stated as our goal for Vicos. This aim requires the creation of an internal dynamic that will maintain channels of communication with the outside world and stimulate self-conscious leadership. The feeding of material items into a society is not enough to bring about this end.

It has often been assumed by technical aid programs, such as TCA, that technological change will carry with it a broader outlook on the part of the villagers and that it will aid in incorporating the community into the nation. Our Vicos experience does not show this to be the case. It has become increasingly apparent that the acceptance of technology does not imply anything about its use or the broader development of the community or a change in values on the part of its members. On the other hand, it is our hypothesis that a more general educational program directed at self-help and independence may provide the tools by which people become aware of the opportunities for technical improvements and the means of taking advantage of them. The approach of ideational intervention rather than material intervention is the one we propose to follow.

Concretely, in Vicos we have observed the acceptance of technical

change and seen that this acceptance does not necessarily result in self-reliance or the development of community leadership. Instead, it may and often has resulted in an expectation of receiving more technical help from the hacienda patron and the development of a highly opportunistic attitude on the part of many individuals. In part, this is due to the past history of hacienda domination of the community, but we do not expect that the process of turning over the land to local administration will automatically bring about a change in outlook. As we have indicated, the termination of the hacienda system is a necessary condition for the incorporation of the community into the nation. We do not, however, regard it as a sufficient condition for the ideal development of Vicos or of other villages. For the kind of development consistent with self-help, an improved standard of living and the effective functioning of the community within the larger environment, some sort of educational program is essential. In outlining our predictions for the future of Vicos, we have tried to indicate the direction of developments if no intervention occurs. For example, we foresee the drawing off of leaders to the coastal area as they become aware of the possibilities of upward social mobility that exist on the outside, unless there is a conscious attempt to develop leaders identified with the future of the village itself. We predict changes in the diet of Vicosinos, but changes which are harmful nutritionally, unless there is some attempt to impart information about food values. It seems probably that the additional income gained from the use of improved seeds and fertilizer will be spent largely on the purchase of other items or in gaining prestige through the elaboration of fiestas, and that little importance will be attached to the development of sources of income, e.g. the improvement of cattle herds or the prevention of soil erosion.

IV THE ACTION RESEARCH PROGRAM

in these circumstances, a selective educational program can contribute to the development of the community; enable us to discover the extent to which the trends we predict (and those we have not predicted successfully) may be altered; and test the effectiveness for community development of various types of educational techniques.

For the purposes of this project, education is broadly defined to include the change and development of attitudes and values as well as simply the imparting of information. It is our intention to focus upon local goals and attempt to broaden them so that the achievement of these aims will also involve the attainment of knowledge, skills and attitudes that will aid in the democratic growth of the community.

Obviously, we cannot expect to conduct a program of education that will deal with all phases of community life. Our plan, therefore, is to intervene in those areas of the culture which appear to be crucial in the future development of the village and which require directed change. These have been selected on the basis of our earlier study of Vicos and our knowledge of the course of change in other villages of the area. The program itself, coupled with the observational plan, should serve to test the assumption that these are indeed the key aspects of the culture.

A. Community Integration

The first of these key areas to be dealt with is the problem of community cohesiveness and leadership. For a majority of Vicosinos, there is considerable prestige attached to the positions of authority within the local politico-religious hierarchy. Still, these officials, generally the older and wealthier men, are not primarily concerned with the welfare of

the village as a whole and the disunited community does not actively support their functions. The growing body of army veterans, furthermore, is highly critical of the role of the traditional authorities. These young men, who have had considerable experience with life on the outside, have taken on many of the values of the national society and these goals cannot be realized within the traditional hierarchy. We may expect that these men, the potential source of future leadership, will leave the community at an increasingly rapid rate. This has been the case in many of the nearby villages as contact with the outside has increased.

It is our hypothesis that this process of community disorganization may be halted if individual prestige can be identified with the welfare of the village as a whole. Given the circumstances of Vicos life, we are aware of four aspects of a broadened perception of the community and its leadership:

- 1) There is a need to create an internal unity that will cut across the lines of neighborhood and kinship groups and stimulate a realization that the welfare of the individual is related to that of the whole community.

Method

- a) The new system of land tenure will require some coordination of each head of family who will now rent his own land. Through the creation of a small committee to carry out this coordination, either within the traditional political hierarchy or in collaboration with it, there will be instituted a group dealing with an issue that is of concern to every family in the village, regardless of local affiliations or status.

- b) In a community which is as physically dispersed as Vicos, communication is not easy and many individuals are isolated from news of what is taking place locally as well as on the outside. The initiation of

a mimeographed local newspaper, preferably in Quechua, will mean the provision of a channel of communication that will enable all Vicosinos to keep abreast of current developments. This paper can also serve as a means of diffusion for propaganda to stimulate interest and participation in the other activities of the experimental program.

c) There is a need, felt by most members of the community, for some form of recreation. The movies that have been shown so far have been received with a great deal of enthusiasm (if not understanding). The plan is now to arrange frequent showings of films or slides that will bring together the community as a whole. Athletic events are another form of recreation that may be able to draw attendance from the entire village. These events and others (i.e., dramatic presentations) can be linked up with the large annual religious fiestas, public attendance at which appears to be decreasing currently.

2) Another aspect of village unity which, we believe, must be cultivated, is a view of Vicos as an entity in relation to other towns and villages of the area.

Method

a) The last two programs described above should also serve to develop local pride in the possession of something which other communities do not possess. The recreational program and the newspaper are features that would appeal to members of more acculturated towns and cause them to express a certain amount of envy of Vicos.

b) Another element of Vicos life which we plan to utilize in our attempt to develop community cohesion is pride in the physical appearance of the village. The new buildings that have been constructed, particularly

the school, have given Vicosinos a channel through which they can compete actively with other towns. We wish to strengthen this competition by encouraging the authorities to initiate action to install electric lights in the Vicos plaza and to improve further the buildings adjoining the school.

c) A more direct form of competition will be stimulated by extending the athletic program to include contests with other communities. The few such events which have taken place in the past have shown that Vicosinos can hold their own in these activities.

3) A third element in fostering cohesion in Vicos is that of strengthening the leadership positions to make them representative of the community as a whole.

Method

a) We believe that it is important to widen the range of activities of the authorities so that their functions will include activities of importance to all members of the village. The action program described above is intended to serve this purpose. Since the plan involves elements of outside relations and preparation for dealing with the larger society, our expectation is that it will attract the interest and participation of the more acculturated members of the village, especially the army veterans. Concentration upon traditional activities by the local authorities has not maintained the support of those who have developed ties with the outside world.

b) It is essential that the responsibility for all new activities be clearly attributed to the village authorities, as the one group which represents the entire community. They should be present at all public

functions and they should initiate all activities.

c) The previous step is related to the need to build up the prestige of holding office for all Vicosinos. Within limits, we expect that this may be achieved through ritual activity that stresses the dignity of office. More important, it is anticipated that the placing of responsibility for a variety of activities upon these men will enhance their stature, both in dealings with the outside and in relations within the community.

4) The final aspect of local unity that we intend to encourage is that of widening the positions of leadership to draw in a larger proportion of the village. While it is important to stimulate the growth of activities that concern the welfare of the whole group and to strengthen the relationship between these functions and a respected leadership, it is also important to stress the concept that authority is the responsibility and the privilege of all, not the right of a small group representing particular interests.

Method

a) The plan is to encourage an increase in the number of positions of responsibility, in order to gain this wider participation. If the number of offices cannot be increased, there can be instituted a system of committees to handle particular activities in cooperation with the traditional authorities, thus pulling in a larger number of individuals and providing a greater number of prestige positions.

b) Whether there is an increase in the number of authority positions or the institution of ad hoc committees, we plan to encourage the selection of officeholders on a functional basis. Until now, the authorities have taken their positions on the basis of prestige that

rests largely on wealth. This has meant the exclusion of many individuals with wide outside experience because these tend to be people of lower economic status. By emphasizing the need for the selection of officials on the basis of their qualifications for particular work, we expect to obtain the participation of those whose experience has been ignored by the traditional hierarchy. The changed nature of the functions of the leaders would appear to require this shift in the qualifications for office.

Observation

Our problem is to test the effects of the action program upon identification with the community as a whole and with its leaders as representatives of the community. The plan is to carry out this measurement in the form of a panel study. The groups to be observed will be both the participants and those who do not enter any of the activities. Because participation is largely a voluntary matter, we are aware that the former group may enter the program with an initial bias toward change. Therefore, it is planned to administer the same tests to all respondents before the initiation of the experiment, which will divide them into the two groups.

The observations will cover both: 1) the extent and nature of participation in the experimental program and 2) the degree of identification with the community as measured by specific indices. With respect to the first, it will be possible to keep records of who participates in each type of activity and to what extent (as leaders or less active participants). Background data are already available with respect to socio-economic status, past participation in community activities, contact with the outside, and so forth, for all individuals in the community. Those who enter the program can be compared with those who do not in terms of these criteria as well

as on the basis of a questionnaire designed to elicit motivation for participating or not and perception of the nature of the program.

The indices for measuring community identification include both observed behavior and verbal responses. For the first we will be concerned with recording who leaves the community for what purposes and for how long during the course of the program. (We expect an initial rise in travel when the hacienda work requirement is abolished, to become more selective later on.) Other indices of local integration include retention of local dress, marriage within the community and attendance at communal work activity. The questionnaire will attempt to get at the personal goals of the respondents and their goals for their children to see to what extent these are ambitious that can be realized within the community and to what degree these goals are related to the welfare of the whole village. It will also survey what concepts of the community are held, the extent to which the development of Vicos is a factor in evaluating the activities of the program and the presence of other community-wide goals. The area of leadership will be investigated through the respondents' evaluation of those in authority positions and the bases for this evaluation; their own desires to occupy positions of leadership in Vicos; and their concepts of the relationship between leadership and the development of the whole community.

The behavioral and verbal measurements of community integration will be made for the whole universe at the initiation of the program, during it and at the termination of the project.

B. Inter-Group Relations

The second key area to be dealt with in the program of attitude change is that of the relations between the Indians of Vicos and the Mestizos of the surrounding area. In the first place, the barriers to communication that exist between these groups have meant the isolation of the village from the influences of the outside world because such forces are mediated through the Mestizo group. Even a limited reduction of these barriers will mean increased participation of Vicosinos in the national society. Second, we cannot justify plans to develop the village and keep leaders within the community if remaining in the area means staying at the bottom of the social heap for these people.

There is a body of evidence, largely gathered in the United States, on the effectiveness of various approaches to the improvement of inter-group relations. One of these stresses change in the behavior of the minority group with the expectation of changing the attitudes of the majority. The assumption here is that these attitudes stem from the behavior of the minority and that alteration of this behavior will be followed by a change in the prejudices of the majority group. It can be argued on strong grounds, however, that the unfavorable attitudes of the dominant group are often learned without reference to the actual situation of interaction between the two groups and that it is futile to suppose that "improvement" of the minority group will create a more favorable attitude toward it. Another argument against this approach is that the placing of emphasis upon the improvement of minority group status only serves to make the dominant group feel that its position is being threatened and that it will therefore react more negatively than before. Our experience during the

past four years in Vicos gives us some indication that this is the case in the local situation.

A second approach to the bettering of inter-group relations is that of attempting to change the attitudes of the majority group. A variety of techniques has been studied, ranging from education programs based on different appeals to the creation of situations in which contact takes place between members of the group, voluntarily or under some compulsion (e.g., under FEPC legislation). Many of these methods have created more favorable attitudes toward the minority group. The objection may be raised that in the measurement of the effects of these programs, almost no measurement has been attempted of the results on behavior in the inter-group situation. Furthermore, little attention has been paid to changes on the part of the minority. Our concern in the Vicos project is change in the behavior of both groups.

A third approach, partly growing out of evaluation of the second type, is suggested by a mounting body of evidence, some of it stemming from the research of the Cornell Inter-Group Relations Project. Data from these investigations indicate that attitudes toward the minority group, as expressed in verbal responses to questionnaires and interviews, are often not accurate reflections of behavior in the actual contact situation. This is particularly so in new situations for which there are no set behavior patterns and in which the person must decide how to act. In making this decision, he takes into account the variety of factors present in the situation, aside from his general attitude toward the minority group. These elements include the appropriateness of patterns of discrimination used in other situations, the existence of a need for the cooperation of

the person involved, the relevance of laws or strong values forbidding discriminatory behavior, and the presence of other persons who would disapprove of such conduct.

The implication we draw from this material is that knowledge of inter-group relations could be increased considerably through a research program that emphasizes the study of actual contact situations. Our research plan stresses the investigation of this behavior. At the same time, it is inevitable that aspects of other other types of programs will be involved. Other areas of project plans include the intention to improve the status of the Vicosinos in various respects. We are also concerned with attitude change in so far as its relevance for behavioral change can be demonstrated.

Method

Our specific research plan is to create a series of new, or unpatterned, voluntary contact situations between Vicosino Indians and Mestizos of the neighboring town of Marcara in order to discover what factors are taken into account in deciding upon the course of action. Only a few of the possible situations can be listed here.

1) In line with the program of movies and athletic events described above, we plan to invite the people of Marcara to attend these activities in Vicos. We expect a reasonable attendance because the lack of recreational facilities is felt even more in the Mestizo town than in Vicos. For the first time, these Mestizos will go to Vicos for an essentially social purpose. Furthermore, we plan to have no seats. Generally, when mixed events occur, the Mestizos take the few seats and the Indians get the floor or the ground. In this situation, everyone will have the same facilities available for the same purpose.

- 2) A similar situation can be arranged by having the Vicos school put on a program to which Mestizos of the neighboring towns are invited. The drawing card in this case would be the coincidental visit of a high government official, since these individuals have high prestige in the area. (Such persons do make occasional inspection trips to the Vicos project.) Again, the same facilities would be available to all and have to be shared.
- 3) A variation on the previous situation might be arranged if the cooperation of the visiting dignitary could be enlisted. That is, if the visitor takes refreshments along with Vicosinos, endorsing social contacts with them, this would set a model for those Marcarinos anxious to ingratiate themselves with him.
- 4) Another type of endorsement of such contacts by an authority figure can be a request by the local priest or by the bishop that all the settlements in the parish participate in a religious project, e.g., making a couple of people in each town or village responsible for collecting funds or arranging a religious procession and coordinating all these people in a committee to plan common strategy.
- 5) If the collaboration of the religious hierarchy cannot be obtained, similar cooperative projects might be initiated by the Inspector of Education of the province with the object of improving the local school facilities or program.
- 6) A type of situation requiring the cooperation of both Indians and Mestizos, but without official pressure, would be an attempt to obtain the help of the government for a local construction or repair project, if this can be handled on the basis that aid is more likely to be

forthcoming if several communities band together to make themselves heard in Lima. The possible objects of such requests could be either to obtain help in the construction of facilities to harness the power of the Marcara River to provide electricity for the two communities or to urge government contractors to finish draining the glacial lakes above the valley to eliminate the constant danger that these will overflow and wipe out both Marcara and Vicos. These are both realistic needs felt by local residents.

7) Another area, in which contacts may be manipulated more easily, is that of the relationships between school children of the region. Once a week, each school visits or plays host to the students of another school. These excursions have only been put into practice recently for the Vicos school. In this situation, several factors may be varied, including: joint activities or unorganized recreation; direction of the situation by the teacher or unsupervised activity; and appeals to hospitality or complete lack of pressure in this direction.

Observation

The use of several measuring instruments is involved in this research plan. The first step would be the administration of a questionnaire to as large a sample as possible of both Vicosinos and Marcarinos to get a picture of the verbal responses or expressed attitudes of each group toward the other. The questions involved will be concerned with stereotypes, social distance and hypothetical contact situations. We expect that at least some of the respondents in these samples will be included in the subsequent contact situations. Observers will be assigned

to record the behavior of these persons in the unpatterned situations. (This is feasible because past studies carried on in both communities have made the project personnel a familiar sight to most residents and vice versa.) Recording will be in terms of behavioral indices of discrimination or lack of it. These indices include the form of greeting, the language used, who initiates action, who utilizes available facilities when these are limited and the extent to which joint, rather than sequential participation takes place. The same respondents will be observed in other situations, patterned and unpatterned, in order to see how their behavior varies with the situation. Finally, those who have been involved in the unpatterned situations will be given a more intensive interview, including repetition of the earlier questions, in order to determine changes in attitudes and their own perception of the factors operative in the contact situation.

Obviously, given a limitation on the number of respondents who can be observed, this research will end up with a small sample. However, we believe that it can serve to point out:

- 1) those factors which are important in determining inter-group behavior in the unpatterned situation
- 2) the extent to which these factors have significance in the patterned situation (or the relationship between change in behavior in one situation and interaction in another)
- 3) the role of verbal responses in predicting behavior
- 4) the behavior and attitudes of minority group members, as well as majority group members, in response to the contact situation.

If resources permit, we intend to apply the resulting knowledge to the improvement of relationships between Vicosinos and Mestizos, and

at the same time, test further the role of those situational factors which appear to be important.

- 1) We plan to conduct experiments to vary these factors in the new contact situations and in the old patterned relationships—economic interchange, political activities, the godparent relationship and certain areas of fiesta activity.
- 2) We expect to try a small scale educational program that stresses the significance of those elements which are significant for inter-group contact, in order to test the effect of this type of selective propaganda on changing behavior as well as attitudes.

C. Communication

A third broad area that appears to be highly significant for the future development of the village may be described as the establishment of channels of communication with the outside world. This is essential to enable the village to prepare to deal with and take part in the larger society; to utilize the resources of the outside world for local development; and to make the community independent of outside intervention for help.

At present, these channels of information are highly circumscribed. Orders and communications of various sorts reach Vicos from the district and provincial offices without producing any important effect and the officials themselves almost never visit the village. Relationships with the residents of the nearby towns are frequent but, whether in terms of economic activities or for fiesta participation, the interaction is highly structured in terms of the social distance existing between Indians and

Mestizos. Vicosinos are kept in an inferior position in these contact situations and almost entirely prevented from learning anything.

Travel to the coast has taken place with some frequency but, for the most part, the villagers have absorbed little in the course of these trips. Many have gone to the outside to work along with other Indians from the area and in staying together, they have carried their own society with them—they continue to speak Quechua and do not seek other than superficial contact with coastal residents.

In sum, Vicos has remained an isolated segment of the national society, although some changes in this situation have begun. In the last couple of years, the local school has functioned actively and a large group of men has been drafted into the army for two-year periods. We now plan to expand the lines of contact of the community, stressing three aspects.

1. Communications Media

We intend to extend the meaning of literacy to cover the ability to assimilate information through various media of mass communication. In many village development programs, there has been an emphasis on teaching the people to read and write. This has also been stressed in Vicos through the establishment of the new school three years ago. In this situation, however, literacy also involves the problem of learning Spanish, since it is the language barrier that isolates the village in many respects, both as an obstacle to communication and as a symbol of low social status.

We are, of course, concerned with the spread of literacy and knowledge of Spanish but we feel that it is also important to demonstrate the use of sources of information other than printed matter. As we have

mentioned in connection with the program outlined above, we plan to utilize films and slides for several purposes. The use of photographs, radio programs and dramatic presentations is also planned.

Here the problem is not simply that of imparting information effectively but, more basically, of teaching the Vicosinos to utilize the media. Our experience so far has shown that many villagers have not learned to look at photographs and distinguish the images. A study of the results of showing a public health film revealed that no message was obtained from the picture but rather, each scene was understood as a discreet incident. The audience was completely unable to relate the film to their own lives and misunderstood any features that were not completely realistic, i.e., if insects were depicted as larger than usual, the conclusion was that these were a different species from local lice. With respect to dramatic presentations, no Vicosinos have ever seen any, as far as we know. The functioning and purpose of radios are not known, except to a few individuals.

The Cornell India Project in Senapur has had a similar experience but they have continued to show films, particularly of the villagers themselves, and they have discovered that over a period of time, the people have learned to understand them and assimilate the features peculiar to the medium.

Method

Our plan, therefore, is simply to utilize as many of these channels as possible—radio, films, dramatic presentations, pictures and the local newspaper—to give people the necessary practice in dealing with them.

Observation

The problem is to test comprehension of the operation of the medium, the message, the story, the unity of the presentation, the relation to reality, etc., of communications administered through each of the media. The testing will be done through questionnaires given at the start of the program and later, after it has been under way for some time. We plan to divide the population into two groups for testing. One group will be exposed to the picture, film, radio broadcast or other medium without any additional instruction. The other group will be given explanations of how to observe the material presented, before the demonstration takes place, so that we will be able to see the extent to which the process of becoming familiar with the media may be speeded up by explicit instruction. Those who do not participate in the program will serve as the control group.

2. The Uses of Literacy

We want to encourage the utilization of these educational media, particularly written materials. This is essentially a matter of broadening the meaning of literacy in another sense. For some Vicosinos, literacy, knowledge of Spanish and general familiarity with the ways of the outside serve to help them avoid being cheated in economic and legal transactions with outsiders. For some, these abilities appear to be prerequisite for obtaining a higher income. For a very few, they mean a general ability to get along effectively outside of the community. Our purpose in this case is to show the practical results for all members of the community of learning to read. Village development programs such as the UNESCO Fundamental Education Centre in Mexico have found that it is hard to sell

literacy as such without convincing people that it is good for something.

Method

The plan is to conduct a program of demonstrations of the value of literacy, emphasizing in this case, the ability to read and write. The procedure will be to introduce into the adult classes now in operation simple materials dealing with practical problems of local concern, e.g., techniques of improving wool production or the means of dealing with crop blights or how to comply with the law with respect to draft regulations. The class will then serve as the object lesson and the pupils give short talks or show practical demonstrations of the subjects they have learned in class. The presentations can be given along with film showings or other public activities.

Observation

The testing of the effectiveness of this program will be carried out in two ways. Interviews will be conducted first to determine current concepts of literacy and intentions of learning to read and write. Those who attend the presentations will serve as the experimental group, the other portion of the sample serving as the control group. Both will be interviewed afterward to discover changes in concepts of literacy and intent to acquire it. The groups will also be followed up to assess behavioral changes in terms of such indices as the following: attendance at the adult classes, attendance of the respondents' children in the day school and acquisition of written materials.

In this case, the control group is particularly important because we expect other influences than these demonstrations to be operating at the same time to encourage literacy, e.g., the newspaper mentioned previously.

3. Perception of the Outside World

The final aspect of the plan to widen the channels of communication with the outside is that of increasing awareness of and interest in the outside world on the part of those who travel away from the village. As we have mentioned, travel to the outside has generally not meant any close interaction with that environment. Our plan is to guide this contact in order to make it a more conscious process by requesting travellers to fulfill specific tasks while on the outside.

Method

Of those who are about to leave the community (most go either to work or as draftees), one group will receive no direction. Another group will be asked to look for practices and items they would find useful to bring back to Vicos and to record their most important experiences. They will also be given inexpensive cameras and requested to take pictures of what they consider the interesting sights they see during their travels. A third group will be given a specific list of questions to be answered—a checklist of items to be evaluated with regard to their usefulness for Vicos—and factual and opinion questions about experiences they have while on the outside. They will be asked to take pictures of specific sights.

Observation

All three groups will be tested upon their return to determine what they have learned in terms of general information about the outside (concepts of the nation and of other peoples and customs), what awareness they have gained of specific things and practices, and most important, what views they have developed with regard to the outside in general. These would include whether or not the outside is seen as a source of

useful knowledge, whether curiosity about the area exists, whether the events that take place on the coast are viewed as having significance for life in Vicos and in what respects the Vicosinos view themselves as comparable to the people encountered during the trip. Our aim, after all, is to increase general awareness rather than to accumulate specific factual material. After some time has elapsed, the travellers will be interviewed to see how many have put into practice knowledge gained during their trips--how many new items and customs are utilized by them in Vicos--in order to determine the effectiveness of such contact for behavioral change in the community.

D. Health Education

The fourth and last aspect of the Vicos program differs from the other three in that it does not deal with a single crucial area of Vicos life. The other project plans focus on putting the community in touch with existing facilities and enabling the villagers to guide themselves. There are several areas of the culture which will change with increased outside contact but, if our predictions are borne out, will not change for the better or will create new difficulties for the villagers as they take on the ways of outsiders. Perhaps the most important of these areas is that of health, including especially sanitation and nutrition. It is extremely likely that increased contact with Mestizos and their way of life will result in the adoption of these ways for prestige and other reasons. Thus, dietary shifts will occur and food will become more varied in Vicosino meals but important elements now present in the diet will be eliminated.

It appears to us that a directly informational type of program is required to handle change in such areas. Because other aspects of the project are concerned with the development and evaluation of the effectiveness of different channels of communication, an informational program can be built into these plans. As we have indicated above, there must first be a period of creating, and testing the use of, a variety of channels of communication. Once their practicality has been demonstrated, a more conventional program of studying mass communication and attitude change can be instituted, using the areas of sanitation and nutrition as the content.

With respect to this type of program, we are aware of existing research, largely carried on in the United States, which indicates the factors which are important in the communication situation. Because of our applied aims in the community, we are interested in carrying on cross-cultural testing of these factors in order to create an effective educational program. Therefore, we are concerned with measuring the effects of variations in such elements as those listed by Hovland, Janis and Kelley: The communicator, the content, the predispositions of the audience, the responses made by the audience, the medium of transmission and the situation in which the communication is made.

We cannot carry on experiments that will investigate the effects of all these factors but will, instead, focus on a selected number of them. The medium as an influence in communication has already been mentioned as the first subjects to be studied. With respect to this, we are concerned not only with the relative effectiveness of different media but also with the processes involved in educating people to utilize them. The role of

the communicator in an informational situation is of particular interest in the program because of the way in which the stratification system of the area has affected Vicosino communications.

Method

Much of the research that has been done on the influence of the communicator has dealt with the effects of the prestige and the credibility of the communicator. To a certain extent we are interested in these elements. We plan, therefore, to exhibit films on sanitation at several different times to separate groups. At one showing the film will be introduced by an army veteran (a low prestige individual in terms of traditional values) and, at another, by a former mayor of Vicos. The third showing will have no commentary. We can measure the differential effects of the communicators on what is learned through questionnaires.

We expect to find, however, that in a community in which two prestige systems are coming into being and conflicts resulting, there will be disagreement concerning the status of the communicator. Given the lack of unity in the village, we may find that for purposes of persuasion, and to the extent that the communicator affects the outcome, it is necessary to reach different segments of the community through different means. Thus we also plan to investigate the differential effects of conducting the information program separately for neighborhood kinship groups (castas, the most important reference groups in Vicos) and for groups of unrelated individuals. In the first instance, a member of the casta will serve as communicator.

In other words, we will be investigating an additional dimension of the role of the communicator. Aside from prestige and credibility, we

plan to study the importance of affective ties with him, an area that has attracted little research.

If, however, we find that it is impractical to carry on an educational program separately for different sections of the population, and this may well occur, we plan to focus on a search for a communicator whose presence can exert positive influence on a larger proportion of the community members. Instead of looking to members of different sub-groups within the village, we will examine the communications role of individuals occupying varying statuses within the larger society of which Vicos is a part. We will test the differential effects of utilizing as the communicator a member of another community who is also considered Indian (with whom Vicosinos can identify themselves but who is not allied to any one faction in the community); an American member of the project staff who is outside the local social system but is presumed to have specialized knowledge; or a local person of high status who is not Indian (for example, the Marcara parish priest).

Observation

In all cases, control groups will be used and both the experimental and the control groups tested through the administration of questionnaires following the presentation. These surveys will be repeated after some time has elapsed in order to investigate the effects of the communicator over a longer time period. In addition, the later interview will attempt to discover what behavioral changes have occurred following the presentation of the particular film or talk.

If time and resources permit, other factors in the communications situation will be investigated in similar fashion. In all instances, we

are interested in studying the behavioral effects of the educational program as well as the verbal responses to questionnaires. The expansion of this informational program will most likely depend upon the extent to which it may be dovetailed with the plan to encourage the development of new channels of communication, so that the same measuring instruments may be applied to both ends.

E. Other Areas for Consideration

There are other aspects of Vicos life which are of significance for the development of the community as a whole. We have not designed plans to deal with these specifically because we believe that growth in these areas will follow the effects of the program outlined above. Thus, with respect to the economy of the village, it is our hypothesis that an increase in contact with the outside world will bring about development through an increase in knowledge about outside markets, more effective technology, available resources and the possibilities for the employment of special skills. With regard to participation in the national political structure, we expect that a process of widening the channels of communication with the outside will also serve to make Vicosinos aware of the government facilities that are available to them and encourage them to play a more active role in relations with the national government. Concerning another area of life, that of recreation, an attempt to fill this gap has been involved in the program we have described. There is one aspect of Vicos life that we have not considered in our present plan--the development of artistic expression. This is an area of activity that might well be tied into plans for creating channels of communication, for developing

activities that involve joint participation with Mestizos and for stimulating local pride. If resources permit and personnel is available, the teaching of various art forms will be included in the program and the function of art studied in the achievement of these aims.

V FURTHER CONSIDERATIONS OF THE PROGRAM

A. Facilities and Personnel

Local facilities, both the physical plant and activities already organized, will be utilized to the fullest in the program. Thus, that part of the plan which involves the extension of literacy will emphasize attendance at those schools already functioning in the village. The school plant itself, including an auditorium, can be used for meetings, the showing of films, and so forth. Many thousands of feet of film on Vicos can be used for teaching purposes. Lodging for personnel already exists.

With respect to personnel, the emphasis of the program, as we have indicated, will be upon enlisting the cooperation and participation of members of the village or of other communities in the local area. For example, we have described the utilization of some Vicosinos as examples for others in stimulating the spread of literacy or serving as sources of information about the outside world. We have also mentioned the participation of outside personnel in the local area--the priest, the teachers, the Inspector of Education, etc. In specific instances in which technical advice is required, we hope to maintain our collaboration with national agencies for guidance and instruction. This would be particularly relevant in the areas of nutrition and sanitation. Finally, we want to

be able to bring in, for varying periods of time, specialists who are unavailable locally, when it appears that their services could be utilized to particular advantage. This would mean, perhaps, the use of a specialist in recreation or drama, or the employment of an art instructor.

While it is expected that regular project personnel would participate to a limited extent in the applied aspects of the program, they will function primarily as scientific observers. They will carry out the research of the observational program and of the plan for intervention. In this group we hope to maintain a balance between personnel familiar with the area and those trained in research on attitude measurement and attitude change. These will continue to include both Americans and Peruvians.

In addition, we expect to maintain collaboration with Dr. John Kennedy of the RAND Corporation and Professors Lindblom and Lasswell of Yale. In the course of the year 1954-55 at the Center for Advanced Study in the Behavioral Sciences at Stanford, these scholars participated with Professor Holsberg in a review of the results of the project to date. The present proposal is an outcome of their joint experience which included a field inspection of Vicos in the spring of 1955, and an earlier collaboration between Professors Suchman and Holsberg on the Cornell Methodology Project.

B. Significance of the Educational Program

In our opinion, the advantages of such a program as we have described are twofold. First, it is our belief that we can contribute to existing research on behavior and attitude change. The testing in another culture of generalizations that have emerged from studies done in this country should serve to sharpen and define hypotheses more clearly and we, in turn, hope to develop new hypotheses to be tested further. Because of the applied aims of the project, we must develop behavioral indices for measurement, rather than relying solely on verbal responses to questionnaires for evaluating particular educational efforts. We feel that this, too, can be an important contribution to existing research.

The second opportunity offered by such a program is that of contributing to the effectiveness of applied programs of education at the village level. While we can take over specific techniques from such programs as those of the UNESCO Fundamental Education Centres, we can strengthen their use by testing and analyzing them in practice, and evaluating their effectiveness in other circumstances.

Finally, we feel that our aims are furthered by the fact that we can carry on the action research program in a natural laboratory situation, one in which the physical and social isolation of the community and of its various sectors makes it possible for us to maintain sight of and direct the flow of almost all communications that affect the village.

C. By-products of the Vicos Program

The fact that Vicos is, in many respects, a natural laboratory situation brings up a further point which should be made with reference to the proposed new phase of the project. By this we mean the benefits which can be derived without the contribution of personnel or funds on our part, by maintaining our base of operations in the community. The fact that we can supply sufficient background data on Vicos to use as a basis for specialized research, the existence of housing in the community and the practical advice that can be offered by project personnel (e.g., with respect to interpreters or more general methodological problems) mean that other researchers can initiate and carry on their studies with comparative ease. For these reasons, the Cornell Methodology Project used Vicos as the scene of its first field study. This month, the Smithsonian Institution will begin research in physical anthropology in the community. If the facilities of the project continue to be available, the Cornell Medical School would like to carry out a medical study there.

It might also be mentioned that another by-product has emerged from the Vicos project during the past years and can be expected to continue in the future. The program has served as a training ground for personnel working in the social sciences and for those seeking area training in Latin America. Many have come with their own financial resources. Aside from the Americans, several Peruvian students have gained research experience in Vicos, acquiring a broader outlook on social science in general and on research methods and techniques.

Two subsequently came to the United States for further training and will continue behavioral science research in Peru. The provision of a training ground for such personnel can continue to be an important function of the project.

D. Summary

To sum up, we are proposing a new phase of operations in Vicos with the aims of:

- 1) carrying through studies of the technological change program
- 2) following up an important change in a situation on which we have abundant data
- 3) guiding the transition of the community being studied, and
- 4) conducting a selective program of education with the goals of aiding the development of the village in an area wider than the purely technological and of contributing to existing research on communication and attitude and behavior change.

We see as important by-products of a continued project the maintenance of facilities for outside research and the training of personnel. The feasibility of the project is indicated by the amount of basic data and experience that is available, the excellent relations which have been established with the Vicosinos, and with the national government and its agencies, and the possibility of utilizing personnel already trained in the area.

VI. BUDGETFirst YearPersonnel

Director	\$ 7,000
Area specialist and observer	4,000
Interviewing staff	8,000
Consulting and technical specialists	5,000
Data analysis (including analysts)	7,000
Secretarial, clerical, and office	3,500
Travel	4,000
Equipment and materials	3,000
Cornell University overhead	<u>6,225</u>

TOTAL \$ 47,725Second YearPersonnel

Director	\$ 7,500
Area specialist and observer	4,500
Interviewing staff	6,000
Consulting and technical specialists	5,000
Data analysis (including analysts)	7,000
Secretarial, clerical and office	3,500
Travel	4,000
Equipment and materials	1,000
Cornell University overhead	<u>5,775</u>

TOTAL \$ 44,275

Third Year

Personnel

Director	\$ 8,000		
Area specialist and observer	5,000		
Interviewing staff	3,000		
Consulting and technical specialists	3,000		
Data analysis (including analysts)	7,000		
Secretarial, clerical and office	5,000		
Travel	4,000		
Cornell University overhead	<u>5,250</u>		
		TOTAL	<u>\$ 40,250</u>
		GRAND TOTAL FOR THREE YEARS	<u>\$132,250</u>