exercised. This is all the more true when the interview teams may be in a community for as few as 3-4 days or up to three weeks to a month at a time.

The general field work procedure should be briefly outlined here, since it affects the quality of the data. The first step in field work was for the Field Director to make initial contact with formal and informal leaders in each community. The purpose of this contact was to explain the goals of the research, to discuss the interview schedule with them, and to obtain permission to collect the data. Usually a copy of the forms and the new map compiled by the research team was left with these authorities. Second, depending on the community, room and board facilities were found and contracted. This latter was often a problem in more isolated areas since adequate facilities were not readily available. It can not be stressed strongly enough that to maintain a "roving" field team over a three year period in a developing country which has recently experienced a disaster, living facilities and concomitant morale are of paramount importance. If local facilities were not available, then options had to be found and evaluated against the time and travel costs necessary to return the field team each day to Guatemala City, guaranteeing loss of interview time and delaying the general work plan.

Once these decisions concerning accommodations for the field team were taken, then "normal" interviewing would begin. Teams of two interviewers were assigned sectors or clusters. However, as noted above, even with the pains taken in mapping there were always some anomalies.

"Hidden houses" suddenly appeared; the function of the "house" structure would have changed from dwelling to store; families would have moved, etc. These problems had to be resolved by the Field Director, based on a general set of rules that had been previously developed. Once these factors were resolved, the normal problems of interviewing had to be coped with: locating the appropriate informant (i.e. usually the male or female head); defining who constituted the household being interviewed (defined as who shared the same hearth); gaining confidence and permission to interview (including reading a statement to protect human subjects); and, finally, conducting the interview itself.

The time taken to complete interviews varied considerably due to several factors including: the level of education and comprehension of informant; the household size and complexity; the nature of household economic activities; the amount of damage sustained due to the earthquake; and, the complexity of the reconstruction/restoration process of that household.

The policy of "call backs" for absent informants was set at two. However, this was modified at the discretion of the Field Director depending on several criteria. Basically these included the number of interviews already obtained versus the number still required; information that the family had migrated temporarily and would not return for some time; justified suspicion that the informant(s) were "hiding out" to avoid the interview; and similar factors. Except in urban areas, there were no week-end or evening interviews, and only in the urban areas when it was apparent that both household heads worked and thus could not be available during normal working hours.

It will be instructive at this point to evaluate the reasons for not completing some interviews during the first phase. Of a total of 1,853 interviews planned, a total of 1,473 were actually obtained, yielding a loss of 380, or 20.5 percent. Table 2-8 categorizes the reasons for this loss by absolute frequency and percent.

Table 2-8

Reasons for Not Obtaining Interviews - Phase I

Reason	Frequency	Percent of Those Missed in Orig. Sample of 1853 (base 380)	Percent of Total Sample Drawn (base 1853)
House Under Construction, not occupied	3	0.8	0.2
Unknown	4	1.1	0.2
Informant Incapacitated	6	1.6	0.3
Not Visited	11	2.8	0.6
Structure Not a Dwelling	31	8.2	1.7
Duplicate House*	40	10.5	2.2
Refusal	60	15.8	3.2
Unoccupied Structure**	75	19.7	4.0
Principal Informant not available	150	39.5	8.1
TOTALS	380	100.0	20.5***

* Duplicate house means that while mapped as separate units, the same family (household) was occupying two separate units and both physical units fell in the sample.

** Structures perhaps suitable for housing but used for other purposes, e.g. stores, warehouses, etc.

*** This represents the percentage of the original 1853 households drawn, which were not interviewed for the various reasons stated in the table.

An analysis of Table 2-8 will show that 56.9 percent of the reasons for not completing the interviews had to do with the informants' absence, refusal or incapacity; and that 30.2 percent related to "duplicate houses" and unoccupied structures - those which showed up on the map as houses but were actually used for other purposes. Such an analysis underscores the difficulty of field operations in the aftermath of a disaster of this sort and emphasizes the critical importance of interviewer training, mapping and supervision.

In Table 2-9, attrition from Phase I to Phase II is examined. It will be recalled that Phase II was basically a convenience sample based on interviews obtained in Phase I.

Table 2-9

Attrition Phase I to Phase II

Reason	Frequency	Percent
Informant Moved*	13	26.5
Principal Informant Unavailable	31	63.2
Informant Incapacitated	2	4.1
Died	1	2.0
Refused	2	4.1
TOTALS	49	100.0

*Usually from the community.

Table 2-9 simply emphasizes the difficulty of obtaining informants, even if they have been previously selected for certain qualities and have been previously interviewed. It is also worth noting that 42 percent (13) of the category "Informant Unavailable" came from one zone in Guatemala City.

Table 2-10 presents the categories of reasons for attrition between Phase I and Phase III. It will be recalled that a total attrition rate of 15.1 percent (222) obtained.

Table 2-10

Reasons for Attrition from Phase I to Phase III

Reason	Frequency	Percent
Formed part of other group in Study	1	0.4
Died	4	1.8
Informant Incapacitated	9	4.1
Refused	36	16.3
No Response*	43	19.1
Principal Informant not available	53	23.9
Moved	76	34.4
TOTALS	222	100.0

* No one home after two call-backs.

Most of the categories in Table 2-10 are quite self-explanatory. The issue of refusals, however, can be elaborated on. In some cases, this was the third interview by the same team and people just had no time for it. In other cases, the rapidly changing political climate made people not only suspicious, but fearful, of being interviewed. Similarly, although it was clearly stated that people would receive nothing for their participation in the study, this may have been misunderstood and interviewees may in some cases have expected to be paid for previous interviews. This is all the more possible because of promises made and broken by other agencies which had worked in or studied in some of the communities.

In terms of migration, of the 76 families who moved, 30 percent changed residences out of the squatter settlements in the City. Another 32 percent (25) changed residences in the larger towns: Chimaltenango (11), Sanarate and El Progreso (7 each). Thus, 62 percent of the migration took place in four of the five largest communities included in the study.

Quality Control Measures

A very real problem in research of this nature is the maintenance of the quality of the data collected. In this study this was particularly important since by using the cluster sampling method a risk of automatically increasing sampling error was being run. Because of attrition, the risk of errors may also have been increased. Especially because of the number of refusals (3.2 percent) and informant inavailability (8.1 percent), the degree of self-selection involved in the entire process is difficult to estimate.

While the above factors are largely beyond the control of any ethical research unit, another issue is critically important and can be controlled. This is the issue of interviewer training, fatigue, boredom and interpretation of informant's response. In order to minimize these factors every effort was made to fully integrate the interviewers in the construction of the instruments and the instruction books. Heavy emphasis was placed on interviewer standardization and inter-rater reliability. Nevertheless, each interviewer is an individual personality and will and must seek his or her own interview style. This is all the more true when one is interviewing illiterate or semiliterate populations. In addition, after 50 or 100 two-hour interviews, a number of ego-disolving refusals, thousands of "probes" and "re-phrased" questions, hours of sitting in the sun and sloshing through the mud, the interviews and coding predictably will tend to become somewhat sloppy.

To guard against this as much as possible,the Field Director selected about five percent of the households for partial re-interview. These re-interviews usually consisted of 15-20 critical questions, some subject to interpretation and others more directly factual. These responses were then compared to those of the interviewer for correspondence, usually on a daily bases. Further, throughout the course of the study each interviewer either taped at least one interview per week, or did team interviewing in order to reduce coding errors. At least two days per month were spent discussing proper code categories, and in the field this was often carried on into the evenings. If a response did not seem to fit a precoded category it was noted verbatim

on the form and discussed with the group and the Field Director. This was particularly important as the team moved into new areas and unanticipated responses arose. This process also provided the opportunity to add new codes if necessary.

A second quality control feature involved the item-by-item review of each code after the questionnaires had been key-punched and verified. This was because errors had been discovered even after key-punch verification. As a consequence, the data were listed and each line was proof-read by two interviewers reading column-by-column from the forms to the printout list. A further check on the data were "range-checks." Once verified by the interviewers certain variables were machine tabulated to verify ranges. If, for example, the valid range was "0-7," and an "8" appeared, it was possible to sort on that variable for "8" and re-check the original data for the correct response. If that variable had in fact been coded "8," the score was reassigned a "missing" value.

Instrument Design

The construction of an appropriate instrument for data collection requires that the investigators be a single slave to many masters. Of primary importance is the operationalization of the central questions of the research, and the adaptation of these to the population(s) to be subjected to the task of providing meaningful responses. Any instrument must be a stimulus that provides relevant responses to a series of fragmented "questions" that ultimately provides meaningful data that can be abstracted to the level of the research questions posed. In cross-cultural research, the operations must be standardized

in such a fashion as to "mean" the same thing to all respondents. Issues of time/cost efficiency must be considered. How long can an interviewer spend with an informant? How long will an informant tolerate uninvited questions regarding his personal life and view of the world? How long before informant/interviewer fatigue distorts the question-response-probe-response-coding process?

The longitudinal design of this study called for interviews to be conducted at intervals over the three year study period. The research questions require data on households:

1. Before the earthquake.
2. Right after the earthquake, before reconstruction began.
3. Approximately two years after the earthquake.
4. Approximately four years after the earthquake.

The instrument, therefore, required the application of retrospective questions as well as current observations.

The development of the instrument required approximately four months. First, a preliminary instrument was elaborated in broad terms in English. This was translated into Spanish and then subjected to pre-test and revision on a systematic basis. When the forms were in a semi-completed state, a team of eight interviewers was employed. A decision was made to complete the instrument development jointly with the interviewer training. This system had the advantage of finalizing the language used with native Spanish speakers actually using the form in pre-test situations. Perhaps more importantly, it served to include the interviewers directly in the development of the form and to secure their active cooperation and interest in the research. They therefore not only were trained to administer and code questions, but understood the purposes of the research and the basic rationale behind each question.

After completion of the preliminary interview form, a basic instruction book was prepared by the principal investigators. This was detailed and

revised by the interviewers under the supervision of the Field Supervisor and the Senior Researcher Resident in Guatemala, as pretesting proceeded, to make it reflect what was actually being done in the field, as well as what was intended by the principal investigators.

Pretests

In its original form the household interview schedule contained a mixture of open-ended and forced choice questions with answer categories specified in advance. One of the objectives of the pretests was to develop precoded answer categories to be used in recording responses to open-ended questions. It was felt that the interview schedule would require a great deal of time to administer and that the time required could be reduced if interviewers' rewording of data could be expedited by the use of precoded categories. This would also allow an increase in cross-interviewer reliability and it would speed up the analysis process. Accordingly, the pretest was oriented towards testing the utility and wording of individual items and toward developing precoded response categories. The objectives were to generate all possible responses to various questions so that the schedule could be precoded. In other words, interviewers were not attempting to obtain responses from this first cadre of informants that could be statistically analyzed, but rather to determine the range of possible responses which would be encountered in the field.

Once these data were accumulated, a new revised form was designed for testing on selected populations. This second pretest was carried out on a sample of 30 individuals in Guatemala City, Palencia (Ladino), Mixco (Indian and Ladino), and San Juan Sacatepequez (Indian). As

anticipated, the basic portions of the instrument - those dealing with household composition, socioeconomic status and general household characteristics - worked fairly well. The major problems encountered were with questions requesting information on people's immediate responses to the earthquake during the emergency period and their experiences with the provision of emergency relief materials and assistance. One problem area was determined from the initial pretest experience. This was the homogeneity of responses to the trauma of the disaster itself. That is, everyone reported that he did basically the same thing. In conjunction with this problem of homogeneity was the difficulty of determining accurately the sequence of activities. People simply did not recall the sequence of events; or, cognitively they did not order their recollections along a temporal dimension. The conceptual scheme used in this schedule for understanding their behavior right after the earthquake was based on a time ordered pattern of events. Subjects apparently could not report their behavior this way. While the cognitive ordering of events on the part of the affected populations is of great interest, the instruments and time necessary to determine along what cognitive dimensions victims order their experiences was not available. The preliminary pretest does show, however, that earthquake victims in Guatemala do not seem to order their memories of the event in terms of a temporal sequence. As a consequence of this experience, a redesign of that portion of the interview dealing with the immediate post disaster period was necessary.

Most of the pretesting was done in cumulative fashion. That is, each section of the schedule was tested and revised until it was

determined to be satisfactory. The next section was then begun, but preceded by the finished portion. This provided ongoing training in the use of the instrument as well as refinements of minor points in the interview schedule.

The fundamental issues surrounding the pretest data were:

1. Information load of the items.
2. Intelligibility of the phrasing to informants (especially Indian translations).
3. Relevant responses and correspondence to coding categories.
4. Standardization of coding by interviewers.
5. Format of the schedule for: (a) organization of items, (b) ease of coding, and (c) retrieval for keypunching and verifying.
6. Feedback for adherence to basic research questions.
7. Development and revision of the Instruction Booklet.
8. Administration time.

In total, 262 formal pretests were done. An additional 100 were conducted on an informal basis in preliminary testing and interviewer training. Table 2-11 shows the locations and quantity of pretests distributed by ethnicity.

Training

As noted above, interviewers were hired and trained in conjunction with instrument construction and pretesting. This procedure proved fruitful in numerous ways. First, interviewers became intimately familiar with all aspects of the study and its rationale. Second, they were able to contribute actively and substantively to the instrument

Table 2-11

Pretest Distribution

Community (Department)	Ladino	Indian	Total
Parramos (Chimaltenango)	10	17	27
Palencia (Guatemala)	30	-	30
San Andres Itzapa (Chimaltenango)	6	18	24
San Lucas Sacatepequez (Sacatepequez)	2	22	24
Subinal (El Progreso)	16	-	16
Santa Lucia and Casas Viejas (El Progreso)	79	-	79
El Florido (El Progreso)	11	-	11
El Paso de Las Jalapas,El Jicaro(El Progreso)	21	-	21
Various Indian Communities	-	30	30
Totals	175	87	262

design for phase two of the survey which focused on attitudes and beliefs, community activities, etc. Third, over the course of the study only one person resigned -- to take advantage of a chance to travel to Europe; and no one was dismissed. As a consequence, a source of error in the data which would have been introduced if interviewers were constantly changed, was avoided. This section will describe the selection and training process for the field interviewers.

After considerable discussion, it was decided to employ female interviewers. The principal reason was that the interviews would be conducted during the day and thus the principal formant would most often be the female household head. In addition, a sub-sample would be requested to

provide fertility histories, requiring a line of questioning culturally inappropriate for nonmedical male interviewers. Finally, the instrument basically deals with information available to most female household heads, with only a small portion devoted to specific economic questions involving land tenure and production. Experience in similar surveys indicated that in either the case of male or female informants, economic facts are usually under-reported.

The eight interviewers finally selected were interviewed by the Guatemalan INCAP staff members with a combined experience of about 21 years working with interviewers, the Field Supervisor and the Senior Resident Researcher. The criteria for selection included a willingness to work in rural areas and to spend the work week there; previous living or working experience in rural areas; and "objective" interest towards the earthquake and the reconstruction processes; a "personality gestalt" suitable to interviewing; and an acceptable education level (such as primary school teacher, home educator, e.g. U.S. high school equivalency). It was decided not to attempt to select on a basis of ethnicity or language facility in a Mayan dialect since a great number of interviews would be in Ladino areas. One "ladinized" Cakchiquel speaker was selected, however.

To cope with language difficulties arising in Indian villages, it was decided to hire local female translators to work with interviewers as necessary. In three of the most isolated (thus non-Spanish speaking) communities, another project was in process under the direction of the Senior Resident Researcher. Although the design was less sophisticated,

many similar data were being collected, and the training was similar to that provided to these interviewers. Arrangements were made to assign work to this team as required. Thus, it was decided that local translators, supervised by the interviewers, would be adequate in the less traditional communities.

Interviewer training was begun in October, 1977, and consisted of four basic phases. Phase one, orientation, included an introduction to INCAP, the global objectives of the project, a classroom introduction to interviewing, and an introduction to data processing. Tests were administered on the principles of interviewing, dictation (i.e. ability to take notes while listening), and legibility of numerals (for later key punching accuracy). Throughout this process, the objectives of the project were stressed, as were the kinds of data to be collected.

Phase two consisted of classroom orientation to the preliminary instruments and instruction booklet. Presentation of these documents was done with the understanding that modifications would be made, but that most of the substance would remain the same. Initial training in this phase consisted of memorization of many of the code categories, role-playing, and discussions of the rationales behind many of the operational questions.

Phase three consisted of doing actual interviews. The interviewers were first assigned to conduct interviews with family or neighbors. The purpose of this was to permit them to concentrate on the substance of the questions rather than on the other techniques of interviewing, e.g. gaining rapport, redirection, etc. This was done - as was the rest of

this phase - with segmented portions of the instrument. Time is obviously a factor with this instrument and it was decided not to burden both interviewer and informant with excessive material until the interviewers had gained a high degree of facility with each segment of the interview. This also allowed pretesting and revision of each segment of the schedule.

This phase also included training in the techniques of standardization so that both the questions and the coding would be accomplished in as near an identical fashion among interviewers as possible. This was done through two techniques. First, a single interview was tape recorded and then coded by the entire group and the responses and coding were evaluated for discrepancies and errors and discussed with the group. A second technique used was to have two interviewers call on a single informant, with one asking the questions, and both recording the responses independently for subsequent comparison. Discrepancies in coding were analyzed to determine if differences were due to interviewer error or to unclear definitions of the code categories. When unclear categories were discovered they were reworked. If it appeared to be interviewer error or carelessness, more classroom time was devoted to drilling on questions and codes.

Phase four was a sophisticated extension of phase three. Much more time was spent in field activities aimed at strengthening the instrument in terms of its comprehension to the informant and its ease in administration for the interviewers. Additionally in phase four, the interviewers participated actively in the final design of the instrument and instruction

booklet[3] so that these would be accurate documents reflecting how the questions were actually phrased and responses coded.

The Interview Instrument

The final instrument was designed to be used in two waves of interviewing of the same households approximately two years apart. It contains five principal sections organized by conceptual homogeneity:

1. Household composition and characteristics.
2. Agricultural and other economic activity.
3. Housing characteristics and level of living.
4. Disaster, relief and reconstruction experience.
5. Health, fertility and nutrition.

The following paragraphs briefly outline the types of data contained in the five sections of the schedule. Each question in the schedule was stated in Spanish and accompanied by precoded answer categories obtained from pretest experience.

Household Composition. This section collates data on the personal history of individual members of the household, such as age, education, ethnicity, occupations, dress, wages earned, relationships to household head and so forth. It also includes a series of questions on individuals who were living in the household at the time of the earthquake but no longer form part of the contemporary household. After determining the composition of the contemporary household, the informant was asked to name all those who lived with her/him in January, 1976. The names are then recorded along with sex, relationship, age in 1976, current residence if known, date of death and cause of death if known. This information

can easily be combined with that from the contemporary household data (which is also keyed for presence in household in January 1976) to determine changes in household composition by comparing composition before the earthquake and contemporaneously.

Agricultural and Other Economic Activities. Data pertaining to income and land tenure (except for profession, occupations, migration and salaried income) are included in this section. This portion of the instrument received considerable attention during field testing. Obtaining accurate measures on land tenure and income is a chronic problem. The reasons are numerous and include the fact that some individuals honestly do not know the answers to income and land tenure questions. Others underestimate answers to income and land ownership questions out of fear of increased tax burdens or any number of other reasons that are justified on the grounds of privacy. Agricultural prices vary throughout the year and obtaining total crop yield and multiplying by an average price factor sometimes is highly inaccurate as a basis for estimating income. Earnings from many small businesses are not known by their proprietors since accounting records are rarely maintained. In addition, many small business accounts are also used as home expense operating funds, thus clouding the question of income. Further, relatives often contribute to the family income, but this may not be considered as "income" by informants. Because of these reasons, a gross measure of land tenure, estimates of annual income by crop, sales and purchase of land since the earthquake, estimates of annual income from home industries and businesses were accepted for purposes of this study. Additionally,

in the household composition section, questions asked for estimates of weekly income from wage earners. It was believed that by covering a wide range of possibilities, relative economic status rankings could be arrived at within any single community that will have reasonable validity. It is also believed that this basis for measuring economic status and income permits valid before-after earthquake comparisons.

It should be noted here that there are two cross-checks on this data that should provide some measure of validity. These are house construction and level of living scale before the earthquake. There should be reasonably high correlations between the income and land measures and these other two scales. Finally, in case the data proved to be totally unreliable in the sense of forming accurate interval scales, it is possible to fall back on a nominal scale (yes/no) to try to determine the degree to which individuals use multiple strategies to gain a living, and if there were changes in these strategies before and after the earthquake.

Housing and Level of Living. The principal problem encountered in pretesting was how to handle multiple dwellings occupied by the same household group since the earthquake. It was discovered that some families had obtained more than one "reconstruction" house and that some had changed the functions of a rebuilt structure from "house" to "store" to house several times. The original plan was to work with sequencing on the assumption that there would be a progression from house to house. However, while this is true in the sense that structures

were erected sequentially, it does not necessarily hold with respect to how such structures may actually be used. An example may make this problem more clear. One family's home was destroyed completely. They first constructed a temporary shelter; then received an agency constructed house, and then built a structure intended as a house from their own funds. The agency structure is now used as a small store, and they live in the house which they built themselves. However, they plan to add-on to the agency house and move their living quarters back to that structure and transfer their store to the privately constructed house. The problem was not simply to define a sequence, but to define a "house" and to key on it as questions relating to housing characteristics are asked. To resolve this issue housing categories were modified to obtain the following kinds of information: use of temporary shelter by length-of-time; new structure I, and new structure II with all specific questions pertaining to wall, roof, etc., where either of these "new" structures can refer to the repair or new construction, and is defined by the month and year of when it was constructed and first occupied or reoccupied. In addition a multiple use code for each structure was developed. Further data include who or what agency built the structure and under what conditions it was obtained.

In addition, this section of the interview includes a series of questions on who decided on the design, did the labor and how the materials were obtained to repair and/or construct these structures. Opinion questions were asked relative to the positive and negative aspects of the structures. Further, the schedule included questions to

determine what people heard (messages received) about how to build an earthquake resistant house and from what kinds of sources, e.g. personal, print, radio-television.

The level of living scale was designed to fit the cultural settings of the study. The following items were included: source and distance of water supply, kind of home illumination, food storage, sanitary facilities, cooking fuel and type of cooking facility used. These are all arranged to be coded both before the earthquake and contemporaneously. We also asked for damage estimates of these items where appropriate.

Relief and Reconstruction Experience. Since the housing issue is so complex, it was decided to categorize "Reconstruction Experience" as a separate conceptual area. It should be mentioned that in analysis these two categories overlap in a number of areas.

One of the principal issues which emerged early in the agency interviews was the concern regarding food distribution, its equitability, cultural compatibility and its perceived market impact on locally produced foods; in other words, its appropriateness in general. These questions have several operations which are designed to provide the necessary information to answer the major questions, including itemized lists of what was received, its perceived utility, its manner of distribution within the community, and direct questions on pricing.

Further operations designed to tap the relief and reconstruction efforts include the listing of other types of assistance provided, items designed to determine the perceptions of the most valuable kind of assistance provided, the sources of the assistance, and the informants' subjective evaluation of the efforts in their community, including

questions on how - from their point of view - the assistance efforts should have been managed.

Fertility, Health and Nutrition. Because of the length of the interview, it was decided to reduce the coverage for this portion of the research to a ten percent sub-sample. The fertility history questions were amply tested and interviewers competently handled the complexity of the probes involved. The basic task was to elicit a total pregnancy history from the randomly selected female household head. This includes abortions, stillbirths and all other births. If any birth has resulted in a death, then the date and cause of the death is recorded. Data were also obtained through anthropometric measurement on all children in the household under five years of age.

References

Bates, Frederick L; C. W. Fogelman; V. J. Parenton; R. H. Pittman; and G. S. Tracy
1963 The Social and Psychological Consequences of a Natural Disaster. Disaster Study Number 18. Washington, D. C.: National Academy of Sciences.

Campbell, Donald T. and Julian C. Stanley
1963 Experimental and Quasi-experimental Designs for Research. Chicago. Rand McNally College Publishing Company.

Rossi, Peter H. and Howard E. Freeman
1982 Evaluation, A Systematic Approach. Beverly Hills, California. Sage Publications.

Weiss, Carol H.
1972 Evaluation Research, Methods of Assessing Program Effectiveness. Englewood Cliffs, N. J. Prentice-Hall, Inc.

Footnotes

1. We have used the terms Indian and Ladino to characterize all communities except those in Guatemala City. Especially for the highland towns this should be understood to mean the predominant population in terms of size. The terms are useful generalizations and should not be taken as if they were absolute definitions based on rigid scientific criteria.

2. Zaragoza is a special case since it is a Ladino community in a basically Indian region.

3. Each of the three survey phases has a detailed instruction book. This provides detailed information on how to ask questions, definitions of all terms used, coding categories and so forth. The instruction books for each phase are about two hundred pages.