

The Toyota Foundation
Report for Fiscal 1983

The Toyota Foundation is a private, nonprofit, grant-making organization established by the Toyota Motor Company and the Toyota Motor Sales Company (which merged to form the Toyota Motor Corporation on July 1, 1982) and chartered by the Prime Minister's Office on October 15, 1974.

Annual Japanese and English reports on the Foundation's activities have been prepared and distributed widely since fiscal 1975 from the standpoint of the nonprofit foundation's social duty to make this information public.

This annual report was compiled on the basis of the "Report of Activities for Fiscal 1983" (in Japanese), covering the Foundation's programs during fiscal 1983 (April 1, 1983, to March 31, 1984) and approved at the thirty-fourth meeting of the Board of Directors, held on June 12, 1984.

The information on individual grants is current as of the date the grants were approved. Subsequent adjustments are not reflected; however, changes made in grant budgets are listed separately in this report.

The descriptions of grant projects are not reports of project results but summaries of the project proposals submitted to the Foundation by the grantees and edited by the Foundation staff. The Foundation is responsible for the content of the summaries; however, project results do not necessarily reflect the Foundation's opinions or thinking.

The Japanese edition of this annual report and of our quarterly *Toyota Foundation Report* are available on request, as is our English-language *Occasional Report* series.

Report for Fiscal 1983

April 1, 1983, to March 31, 1984

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Tokyo, Japan

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The Executive Director's Report

Toward a Japanese Style of Philanthropy

I

Japan is entering the period of maturity of industrial society.¹ Before long the country will undoubtedly be moving on to the next stage: postindustrial society. When we understand that the industrial civilization created by contemporary industrial society is a world civilization, we can appreciate that postindustrial society as well, no matter what form it takes, will be a society linking all peoples and societies together. Let us term this society of the future *global society*.

Gazing from our present position toward global society, we can see a barrier in the way. It is a wall of differing value systems that feud with and oppose each other. Modern society is truly a place of competing values, which arose as a natural consequence of the growth period of industrial society.²

How is this barrier to be removed? How are we to harmonize competing and contrasting values so that they can coexist? The task of contemporary society is to answer this question; by doing so, a path will be opened from industrial society to the coming postindustrial society.

A society in which value systems are in competition is characterized by disjointed social strata in various quarters. To eliminate these discon-

1. I use the term *period of maturity* in the same sense as in my opening essay 'Philanthropy as a Cultural Activity' for our fiscal 1978 annual report. The meaning was explained in footnote 3 as follows: 'Whereas during a period of growth, entropy decreases and energy increases, in a period of maturity, this relation reverses: entropy increases and energy decreases. Entropy here means disorder. When entropy decreases, disorder wanes and order is gradually established; likewise, as entropy increases, disorder increases. Energy means the vitality of a society or people. Therefore, when energy is increasing society tends to become expansive. When it decreases, however, society tends toward social isolation.'

2. Insofar as industry consists of mass production and mass marketing, constant market expansion in vertical and horizontal directions is requisite. By vertical expansion I refer to the process by which a market grows to the point where every consumer uses a product in a high mass-consumption society. Horizontal expansion is the opening of new markets throughout the world. In both cases there is a steady increase of encounters with differing values.

tinuities, "free space" is needed. This free space must not be rigid; it must be malleable so that it can always fit the circumstances. Perhaps the word *play* in the engineer's sense of "free motion within limits" captures my meaning. This play at first glance appears superfluous, but it is not. On the contrary, it is absolutely essential. The same may be said of free space, which can be seen as the play within society. By employing free spaces, social discontinuities can be linked together; by flexible use of free spaces, we should adapt to continuous change in circumstances.

I would add that this concept of free space includes the "interval of time" meaning of space. In this sense, we must be aware that even when a need is not perceived as very important at present, in some cases prompt action must be taken anyway to prepare for the future. This point should be kept in mind especially in the course of promoting relations between different peoples and societies.

II

In the context of the daily activities of contemporary society, can we reasonably expect free space to serve usefully? Can we assume that the competition among values will diminish?

The first-sector case: Let us consider first the effect of government and semigovernment activities. Among the major pillars of first-sector activities thus far—and undoubtedly in the future as well—are the expansion of welfare and the promotion of internationalization. This would seem to signify that over time the unevenness and gaps in society could be smoothed over, but this will not occur in all cases. Because first-sector activities are financed by various kinds of taxes, naturally they are guided so as to be universal and egalitarian in application whether in Japan or in any other country. Another feature of first-sector activities is that they take note only of the "nation" among the various units of which society is composed.³ Or if this is going too far, we can say that at the very least the first sector places a higher priority on the nation unit than on any other social unit.

In the realm of international activities, as the very term *internationalization* superbly illustrates, people tend to think in terms of inter-national relations—for example, the relations between Japan and this or that nation—especially when the activities are being conducted as part of national policy. In such a relationship, the units on both sides are nations. But this manner of relating, as is frequently noted, is far from adequate today, particularly in the case of relations with the developing countries.

Ultimately the activities of the first sector tend to rigidity, and the gaps in society are apt to widen as a result. On the domestic front, the emphasis placed on evenness and equality in elevating the level of welfare is apt to lead to abuses of egalitarianism, thereby sapping society of its vigor. In the

3. The word *unit* is used in the sense explained in my essay "In Search of a Standard for Third-Sector Activities" in our fiscal 1981 annual report. As I wrote in footnote 3, "Society is composed of a great number of undifferentiated individuals. Each individual has assorted needs not only as an individual but also as a group member. Ordinarily, each individual is a member not of just one or two groups but of many groups. These groups, moreover, have their own group goals. Thus both individuals and groups constitute the units of which society is composed."

end, far from disappearing, social stratification may become increasingly permanent. In international affairs, although the nation is an extremely important unit for the promotion of internationalization, we must bear in mind that it is only one among a wide range of units. Even in the management of first-sector programs, which inevitably put the nation first since they are, broadly speaking, government activities, we must recognize and appreciate units other than the nation. The degree of recognition of other units today is far from sufficient. Consequently, regardless of the intention of the people conducting the activities, the results may run counter to internationalization, and they may even bring new disjointed social strata into being, especially in the case of the developing countries.

The second-sector case: In the case of second-sector activities, which are primarily profit-seeking undertakings centered on private enterprise, orientation is provided by the profit motive and by productivity. We have already seen that the first sector's activities on the domestic front tend to be universal and egalitarian in application and that its programs on the foreign front give priority to the nation unit. Second-sector undertakings, by contrast, are neither universal nor egalitarian in their coverage, for they are guided by the profit motive, that is, by the expectation of making a profit. National boundaries, moreover, do not necessarily define the second sector's markets. The market boundaries may cover only a region within a country, or they may extend outside the country. The second sector, we may say, does not place exclusive emphasis on the nation as a unit. In any event, the ultimate feature of the second sector is that it pursues that which is profitable and does not pursue that which is unprofitable. As such, second-sector operations tend to generate social strata. At the very least, they are not likely to enhance society's continuity.

Similar comments can be made about the productivity orientation of the second sector. Productivity is of decisive importance to the sector. Greater productivity allows an expansion of activities, while a loss of productivity may threaten the continuation of operations. The yardstick of productivity, in short, measures the likelihood of success or failure. This being the case, activities guided by a productivity orientation cannot be expected to even out society's discontinuities; to the contrary, they are liable to widen the gaps between disjointed strata.

From this discussion we can see that first-sector and second-sector activities as they are carried out today cannot be expected to lead to social continuity.⁴ If, as I suggested at the outset, the elimination of discontinuities

4. In recent years some companies in Japan, like leading companies elsewhere, have been vigorously undertaking activities for the good of society. As methods of returning some of their profits directly to society, they often provide funds to finance institutions or sponsor events. Judging from the results, we might think that such activities are essentially the same as those of charitable foundations, but in fact they are not. Insofar as the endowments extended directly from a company are part of its operations and thus are second-sector activities, they can be seen as part and parcel of the company's public relations program. Admittedly in some cases pure gratitude to society may be the sole motive, in which case the use of funds is identical in both name and reality with the operation of a foundation. But any foundation that presumes to operate in the third sector, regardless of whether its funding relies on private enterprise or other sources, must not act as the advance guard for any endowing company's public relations. All people involved with foundations must be mindful of this difference in stance.

is a precondition for the advent of postindustrial society, the first and second sectors alone will find it very difficult—if not impossible—to bring that society into being.

III

In "Three Guidelines for Foundation Activities," my essay in the fiscal 1982 annual report, I proposed that *foresight*, *participatory orientation*, and *internationality* be applied as three elements of a standard for guiding third-sector activities, especially those of grant-making foundations.

Let us consider the concept of foresight. As should be obvious from the discussion thus far, the foresight required at the present time largely consists of enhancing the use of the free spaces interspersed throughout society. Our most foresighted activities must be those drawing forth the utility of the play within society. Unfortunately, as already explained, we cannot expect much in this connection by looking only to the activities of the first and second sectors. This being so, we must pin our hopes on the third sector.

The third-sector case: Is it possible that the nonprofit activities of the private sector can be of aid? More precisely, do these activities, which are the only activities we can place our expectations upon, have a realistic chance of leading to the results we desire?

Instead of responding to this question with generalities, let me proceed as concretely as possible within the context of Japan's private grant-making foundations. Some people ask whether the fostering of foundations like those operating in the United States will not be an exceedingly difficult proposition in Japan. The Japanese milieu, they argue, is poorly suited to third-sector activities. In point of fact, although Japan does not compare unfavorably with the United States in the number of so-called public-service-oriented organizations, most of them are first-sector or second-sector entities in disguise. The size of Japan's true third sector is quite small. Nonetheless, my own opinion is not that the Japanese milieu is genuinely ill-adapted to the third sector. I even believe that just the opposite may be true. I would add, however, that I am thinking here of a "Japanese-style" third sector. If we limit ourselves to programs faithfully following the American style of operations, probably we cannot expect much. What, then, is this Japanese style? And how does it differ from the American way of doing things?

We should begin with an examination of the Japanese mentality. In my essay "The Third Sector" in the fiscal 1980 annual report, I spoke at some length on the concept of society as it is perceived in the Japanese consciousness. To recapitulate, the Japanese in the second half of the nineteenth century, when they first came across the European concept of society, had great difficulty in comprehending what was meant. Although they were accustomed to identifying themselves as members of groups encompassing a set of specified individuals, they were not accustomed to seeing themselves as members of a large body of undifferentiated individuals. A society in the Western sense is just such a mass of undifferentiated individuals. To the Japanese back then, the concept of society was a nebulous one, and the quest for an appropriate Japanese translation for the term took much time. Even today, when *shakai* has become the conventional Japanese rendering

of society, the underlying Japanese perception of *shakai* is not in all respects congruous with what Westerners see as society. Our comprehension of society as a collection of many and unspecified persons is still weak.⁵

The distinctive Japanese way of comprehending society should not be written off as a lag in understanding in all respects. Rather, the manner of comprehension simply takes a different approach. The features of this outlook on society, it can be said, should serve as a premise in any analysis of how Japan's third sector operates.

In his *Beyond Culture*, the American cultural anthropologist and psychiatrist Edward T. Hall lays stress on the degree of context of cultures and differentiates between "high-context" and "low-context" cultures.⁶ To explain this original concept of contextual difference in very general terms, the density of human relationships is far greater in a high-context culture than in a low-context one. Japan he classifies as a high-context culture, while the United States—especially white society—is a low-context culture. European countries, insofar as they are compared with Japan, also come out on the low end of the scale. Whatever the academic merits of this analysis, it feels intuitively correct. In exploring the characteristics of the Japanese concept of society, accordingly, Hall's contextual scale may provide a valuable hint. In other words, the way society is perceived in a high-context culture like Japan's should differ from the view of society in a low-context culture precisely because of the differing density of human relationships. The denser the relationships, moreover, the more this density influences the perception of society.

Another feature of Japanese mentality that deserves attention is what might be termed the prototypical Japanese value system. Consider this passage from *Bushido: The Soul of Japan* by Inazo Nitobe (1862–1933), a prominent educator and scholar during Japan's early modernization process.⁷ "Shinto theology has no place for the dogma of 'original sin.' On the contrary, it believes in the innate goodness and God-like purity of the human soul, adoring it as the adytum from which divine oracles are proclaimed. Everybody has observed that the Shinto shrines are conspicuously devoid of objects and instruments of worship, and that a plain mirror hung in the sanctuary forms the essential part of its furnishing. The presence of this article is easy to explain: it typifies the human heart, which, when perfectly placid and clear, reflects the very image of the Deity. When you stand, therefore, in front of the shrine to worship, you see your own image reflected on its shining surface."

In the beginning the human being is good, pure, and on a continuum with the gods. Even today this is the mentality of the Japanese. Although Shinto purification ceremonies and prayers are only retained now as a mat-

5. To capture the essence of Japanese society, the anthropologist Chie Nakane at the University of Tokyo has termed it a "vertical" society (*Japanese Society*, London, Weidenfeld and Nicolson, 1970). Again, Japanese companies are seen by the anthropologist Tadao Umesao, the director general of the National Museum of Ethnology, as functioning in much the same way as did Japanese clans in the feudal age.

6. Edward T. Hall, *Beyond Culture*, New York, Anchor Press, 1976.

7. Inazo Nitobe, *Bushido: The Soul of Japan*, Tokyo, Shokwabo, 1901 (now available in a Charles E. Tuttle Company edition). This book was influential in shaping the Western understanding of Japan in the early twentieth century.

ter of form, religious sentiments remain alive. It seems to me that the reason the Japanese are often said to lack religion may be because of their feeling deep in their hearts that people and gods exist on a single plane.

Buddhism also had a major impact on the Japanese and their society. Lafcadio Hearn (1850–1904), the famous pioneer interpreter of Japan to the West, reports that he had to struggle mightily to comprehend the Buddhist concept of karma. A Buddhist, he eventually concluded, would explain the concept as follows: "To understand the doctrine you must get rid of the notion of individuality, and think, not of persons, but of successive states of feeling and consciousness, each of which buds out of the other, —a chain of existences interdependently united."⁸

This view of life as the continuous repetition of a perpetual and sublime chain provides a sharp contrast with the European concept of the individual. When it was first introduced to Japan, it no doubt resonated with the prototypical value system shared by the Japanese. With interpersonal relations already being seen as of extreme importance, these relations became all the more important when incorporated into the "this world" orientation of Buddhism.⁹ In terms of Hall's concept of the degree of context, we may find that not just Japan but all the societies in the Buddhist sphere have high-context cultures.

IV

Some Japanese see such traditional values as *giri* (obligation), *ninjo* (compassion), and *on* (debt of gratitude) as relics of the feudal age. In modern Japan, they argue, ossified ways of thought are devoid of meaning. Just because a way of thinking is old, however, does not necessarily mean that it is backward. As in the case of the Japanese people's concept of society and their underlying sense of continuity in life, many old values should be seen as idiosyncratic rather than as backward.

Let me take the discussion one step further. To turn the competing values of today's society into harmoniously coexisting values in the society of tomorrow, we must turn society's free spaces into valuable spaces. The role of the third sector and especially of the grant-making foundations within it is to discover potentially valuable spaces and to exploit them. In an abstract sense, needless to say, this need is present not just in Japan but in all countries. It also goes without saying that foundations everywhere are aware of the critical importance of setting their priorities before grant activities begin, and that they see "program development" by their staff as a

8. Lafcadio Hearn, *Japan: An Attempt at Interpretation*, New York, The Macmillan Company, 1905, Chapter II (now available in a Charles E. Tuttle Company edition).

9. University of Tokyo Professor Emeritus Hajime Nakamura, one of the world's foremost authorities on Buddhism, provided the following insight in a paper delivered to a Japanese–West German symposium on information society held in Tokyo in October 1981: "The followers of Pure Land Buddhism, instead of saying 'I will do this or that,' often say 'I will have you allow me to do this or that.' This kind of phrasing, moreover, is frequently used by Japanese in general. To some extent we can see this manner of speaking as a manifestation of the Japanese belief in salvation with outside help. The recognition implied is that the individual, as a limited entity, could not do such and such unaided, but that with the agreement of all others concerned and trusting to the grace of heaven and earth, the individual happens to be in a position where he or she can do this or that."

key process in setting priorities. The concrete evolution of programs, however, may proceed in a number of directions. At present we in Japan are endeavoring to elucidate the Japanese style of program development. My comments thus far on the features of Japanese mentality and on other characteristics of the Japanese people and society are meant to serve as part of this endeavor.

Philanthropy in the West got its start as a means of giving evidence of atonement for one's sins, and presumably even today this motivation for philanthropy remains deep within the Western consciousness. It seems to me that the philanthropic initiatives taken in rendering service to society—efforts designed to breathe new life into society—can be seen as a sort of rendering of service to God. In Japan, by contrast, the motivation seems to be not so much a desire to serve society but a desire to repay debts incurred out of gratitude to society. One indication of this sentiment can be found in the name given to the nineteenth-century organization said to be Japan's first entity devoted to philanthropic activities in the modern sense. The ideograms forming the organization's name, Kannonko, can be loosely translated as "Society of Gratitude."¹⁰

To speak of repaying *on*, or debts of gratitude, may sound old-fashioned to some Japanese ears. All Japanese, however, place great importance on relations—not just interpersonal relations but also relations linking people to nature and all other things. They see all aspects of their present circumstances as a return for what occurred in the past; when their circumstances are fortunate, they attribute this to the backing they have received rather than to their individual efforts. This is the debt of gratitude they bear, so even today they find it natural to want to repay it.¹¹ To be sure, to speak directly of repaying a debt of gratitude undeniably turns many people off today, for the word *ho'on* (repaying debts of gratitude) used in this context has unfavorable connotations dating from the period before World War II. In those days, not unnaturally, many private grant-making foundations called themselves the such-and-such *ho'onkai* (society for repaying gratitude), but often their programs were directed quite openly to serve the state.¹² This came about because the prewar Japanese saw society as essentially synonymous with the state. Even to-

10. Kannonko was established in 1827 in the province of Akita in northern Honshu. Founded by a merchant working for the Akita clan, it was built into a large fund through numerous contributions and operated so as to treat all people equally regardless of social status. A description of Kannonko can be found in "The Third Sector," my essay in the fiscal 1980 annual report.

11. The ideogram for "debt of gratitude" (*on*) can be found as far back as in the 720 classic *Nihon Shoki* (Chronicles of Japan), where it includes the idea of gratitude for the bounty of nature and is read as *megumi* (kindness) or *mitsukushimi* (affection). The ideogram no doubt was used to express the sense of gratitude naturally generated in ancient Japanese society. The Buddhist sutras also expound a doctrine of gratitude. The form of the doctrine that took the widest hold in Japan teaches of four debts of gratitude: to the lord, the teacher, the parents, and people in general. Then, during the Edo period (1603–1868), Confucianism lent further authority to the doctrine of gratitude by emphasizing the debts to one's father and mother, to one's ancestors, to one's master, and so on. In this way the feudal-age outlook on repaying debts of gratitude took shape.

12. The very first of the many prewar *ho'onkai* was the Saito *Ho'onkai*, which was established in 1923. The transcript of the inaugural speech given by the founder, Zen'emom Saito, contains the following passage. "Those people who work day and night to attain their respective desires are in fact working under the direction of the gods on behalf of the whole human race. Accordingly, for all

day, when the accepted translation for *society* is *shakai*, the Japanese are apt to use *shakai* in a sense somewhat different from the original meaning of *society*. Likewise, they are apt to see the repaying of debts of gratitude as being directed at a special group, for example, the state. This being a natural tendency, we must be on our guard.

In order to steer clear of this path of least resistance, we must have a clear awareness of our goal. To repeat, this is to turn the competing values of today's society into harmoniously coexisting values in the society of tomorrow through a process of finding ways to make effective use of the necessary free space. With this awareness, we will come to possess the foresightedness that should be an integral part of the standard for guiding private grant-making foundations. And so that we can also make participatory orientation and internationality part of this standard, our need in concrete terms is to strive to discern as dispassionately and objectively as possible what all the needs are of each of society's units, whether these units be within a country or part of the global community. Beyond that, we must reach decisions on what activities are essential to meet the most pressing needs. In this connection, in addition to developing grant programs so that they contribute to the revitalization of each society in as many areas as possible, we must hope to contribute also to the construction of the global society I mentioned at the outset. Our grant-making activities are, in a word, repayments of debts of gratitude to society. It goes without saying that we must not expect rewards of any type for conducting these activities.

Four islands tranquil in the night—
Flowing over mountain and river
White light falls full and round
On the sea, far hills reflected
Like a strand of shining hair.

(Noriyuki Kojima)¹³

Yujiro Hayashi
Executive Director

people including scholars, priests, and politicians as well as those of us engaged in a profit-making business or some other enterprise, the fruits of our labor are none other than awards from heaven to be offered toward human happiness and by no means to be used for personal gain." This excellent example of the philosophy of repaying debts of gratitude sees the recipient as the human race, not the state. The tendency to equate the state with the object of gratitude apparently grew stronger during the ensuing prewar years.

13. From the contemporary poem *Ganjin Wajo Toseifu* (Monk Chien-chen Wins Over the East) eulogizing the arduous labors of the Chinese monk Chien-chen (Ganjin in Japanese). The lines visualize Chien-chen's impression of the four Japanese islands when in 754, after several unsuccessful attempts to reach Japan, he finally arrived as a blind old man. He founded the Ritsu Sect, one of the so-called Six Nara Sects.

Research Grant Division Program Officer's Report

Internationalism in the Research Grant Program

Opening Participation to All Nationalities

The following passage from an article in the April 9, 1984, evening edition of the *Asahi Shimbun* throws light on a common problem. The piece concerns current government plans to hold an architectural competition to determine the design of the proposed new (second) national theater.

"Controversy has erupted over the issue of whether to limit participation to Japanese nationals or to accept foreign entries. The original proposal of the Agency for Cultural Affairs and the Ministry of Construction would bar foreigners from independent entries but would accept their entries if submitted as joint proposals with ranking Japanese architects. The Japan Architects Association and other concerned organizations object to this restriction, arguing that barring independent participation of non-Japanese would make Japan the laughingstock of the international community."

It may be that there are mitigating circumstances for an exclusionary policy in this case, but in a field where the common tendency has been to restrict outside participation simply to give the existing participants greater opportunities, even a partial opening of the door is like a breath of fresh air. To be sure, allowing broad participation would introduce certain practical problems. But we can hardly hope to accomplish an undertaking worthy of international respect unless we are prepared to welcome ideas from around the world.

This competition aside, the fact is that many activities and programs in Japan are open only to people with Japanese citizenship. The Japanese, being long accustomed to this policy, see nothing inappropriate in it. Perhaps for many first-sector projects sponsored by the government, citizenship is an unavoidable requirement. Unfortunately, however, similar restrictions are also common in third-sector programs sponsored by nonprofit foundations, which theoretically should not conduct themselves solely to serve the "nation unit." Through such practices—based more on unconscious sen-

timents than on conscious deliberation—the third sector needlessly restricts its own field of activity.

Soliciting Applications from Abroad

The Toyota Foundation's Research Grant Program, while originally oriented toward Japanese scholars working in Japan, has never erected barriers based on nationality or place of residence. In fiscal 1975, the first year that grants were awarded, a non-Japanese scholar resident in Japan was among the recipients. Since that time the number of applications from non-Japanese scholars and from Japanese scholars residing abroad has gradually increased, and so has the number of grants awarded such applicants. Internationalization of the Research Grant Program has thus progressed naturally.

In the annual report for fiscal 1982, Executive Director Hayashi explained the Foundation's policy in his opening essay as follows: "Our international endeavors at present can be said to have two forms, one intensive and the other extensive. Our international grants are concentrated in the developing countries of Southeast Asia and support the advancement of indigenous culture; our research grants are spread across various fields of learning and are offered to researchers of any nationality. Or perhaps I should say that the former program is narrow and deep while the latter program is broad and shallow."

This year, in a further effort to internationalize our Research Grant Program, we distributed application materials formerly available only in Japan to overseas institutions with Japanese studies programs. Insofar as this program differs in focus from our International Grant Program, however, we stipulate that the proposed subject of study have some relation to Japan and that the application be submitted in Japanese. Application materials were sent to 510 organizations.

Identical Screening for All Applications

What was the response to this measure? In fiscal 1983 we received a total of 864 applications in our three established research fields, the largest number ever. Of these, 48 were from abroad, of which 20 were from Japanese living overseas and 28 were from non-Japanese. In addition there were 10 applications from non-Japanese residing in Japan. While it is impossible to establish how many of these applications were made as a result of the Foundation's new policy of distributing application materials abroad, there is no denying that this year's program is more international than ever.

A breakdown of the foreign applications for the fiscal 1983 program reveals a heavy concentration in the area of education and culture. In the case of non-Japanese, the requirement that applications be submitted in Japanese no doubt has a screening effect favoring researchers who work in the humanities. The same trend, however, also turned up in the applications from Japanese scholars living abroad. Why this should have occurred is not clear.

The increasingly international character of the applications in the education and culture field occasioned a certain amount of debate within

the selection committee regarding the treatment of foreign applications. While there was some support for actively furthering the process of internationalization by giving such applications preferential treatment, ultimately a consensus was reached that true internationalization meant judging all applications by the same criteria. In the end this principle was applied in all three fields.

In terms of the final outcome, out of a total of ninety-seven grants awarded in the three different fields, five went to non-Japanese living abroad, three to Japanese residing abroad, and two to non-Japanese residing in Japan. But exact figures like these do not, on further reflection, have much meaning. There are people who have long lived in Japan who happen to be foreign nationals, and there are people who have long lived abroad who happen to be Japanese citizens. In the case of some people, moreover, neither the home country nor the place of residence is easy to pin down. The citizenship and place of residence of researchers are matters of individual choice and of circumstances at a particular time; they bear no relation to the essential nature of their research. These observations serve to bring home the meaninglessness of nationality and residence requirements in general. In fact, even the validity of the figures cited above may be open to question, since legal proof of citizenship and of place of residence was not required of any applicant.

Turning now to research topics, we find that nearly all the non-Japanese applicants proposed to explore some aspect of society or culture in Japan or in a Japanese community abroad from an original viewpoint. Because such viewpoints fall outside the bounds of established Japanese scholarship, they provide a basis for highly original research. As such, this research has the potential to serve as a stimulus to the Japanese intellectual community, and it may also help promote understanding of Japan and its culture worldwide. I believe that research in the category of "Japan as viewed from without" can play an important role in promoting international understanding.

Toward a Global Society

In the autumn of 1983, after the grant recipients had been determined and the award ceremony held, I had the opportunity to spend four weeks in the United States. There I was able to meet with a number of the current and former grantees, and I had the opportunity to talk to a number of people at Japanese studies centers around the country. In this way I was able to gather valuable information relevant to future grant programs and also to observe at first hand the enthusiasm and ambition of the grantees. Once again I was impressed with the merit of our grant program.

Recently I received letters from two of the people I met during that trip. One was Yuji Ichioka, curator of the huge archives of material on Japanese-Americans at the Asian American Studies Center of the University of California at Los Angeles. Ichioka is a member of a joint research project funded by a fiscal 1982 grant. The project concerns the development of Japanese-language newspapers in North America. In our conversation last autumn, Ichioka provided me with a report on the progress of the project and discussed in general the state of research on Japanese-Americans.

At that time I had requested that he provide assistance to Gayle Fujita, a graduate student at Brown University who is researching Japanese-American literature under a grant for the current fiscal year. In his recent letter, Ichioka reported that Fujita was proceeding smoothly in her research and that he had recently finished an article on Japanese-language newspapers.

Several weeks later I received a letter from Gayle Fujita herself, in which she thoroughly detailed the results of her research on the West Coast and expressed gratitude for Ichioka's generous assistance. Fujita, a third-generation Japanese-American born and raised in Hawaii, had originally studied Puritan literature at Brown with a view to tracking down the roots of American society. After coming in contact with a certain professor's work in black literature she had been inspired to tackle Japanese-American literature. When I met with her at Brown last autumn, she spoke enthusiastically of her plans to spend spring and summer this year on the West Coast interviewing Japanese-American poets and going through literary materials. She seemed proud to have received a grant from a Japanese foundation, and that, in turn, was highly gratifying to me. Her letter was an interim report on her continuing research.

These letters are just a sampling of the many I have received testifying to the Foundation's role in strengthening ties between people on both sides of the Pacific. As such experiences become commonplace, we can come to grasp Executive Director Hayashi's vision of a "global society" referred to in his essay in this report. Opening participation to all nationalities is one step in this direction.

A Final Word

I have concentrated here on internationality in terms of the home country of the leader of project teams, but other instances of internationalism could be cited. Among our most international projects, some are led by Japanese scholars in Japan but are joint international projects relying on the participation of non-Japanese scholars. The Foundation has always placed great emphasis on joint international research, and when the topic of research concerns other countries as well as Japan, we almost always make close liaison with scholars overseas a precondition for awarding a grant. In fiscal 1983 the Research Grant Program awarded eighteen grants to support joint international research projects.

It is obvious, moreover, that the makeup of a particular project team need not be international for the project's theme or results to have international ramifications. Although I have focused on project leaders, I would stress that a variety of factors should be considered in relation to the internationality of research grants.

Yoshinori Yamaoka
Program Officer, Research Grant Division

International Division Program Officer's Report

Toward a New Flow of Information

From the Village to a Global Society

Several hundred years ago, one's own village was the extent of the world that most people were able to comprehend. Of course, when it came to worlds inhabited by supernatural beings, people's imagination spanned a vast range of time and space. And people engaged in trade by land or sea, pastoral people, and nomads were naturally able to fathom a world much wider in scope than were settled agricultural peoples.

However, even the world of agriculturalists, who were limited to a small radius of action, began to expand as history progressed. The world that people were able to fathom grew from the villages in which they lived to encompass first neighboring villages as a result of economic and commercial development; next countries artificially created by the formation of dynasties, the waging of wars, and the establishment of colonies; and then neighboring countries as commerce developed still further. The emergence of industry, mass production, and mass marketing and their concomitant problems expanded the world ordinary people were able to grasp to include every region of the earth. Moreover, the development of transportation, communications, the economy, and science and technology, as well as mounting military strength with all its implications, led people to begin to see the world not as a number of scattered, unrelated entities but as a unified global society. The threat of nuclear war in particular has expanded the world that ordinary people are capable of grasping to the range of this global society.

However, although our perception of the world has expanded, the concept of a global society has not yet penetrated to the level of our daily activities. Examining them one by one, we find that few of our activities take global society into account. Meanwhile, an astounding number of problems have accumulated in global society. Possessing free will, human

beings at this stage of development are not particularly skillful at adjusting their divergent values and desires.

The vast range of problems currently besetting global society include the threat of nuclear war and growing military expenditures; the many problems of the international economic system; the problems of resources and energy, food, poverty, the environment, science and technology, refugees, and human rights; and social issues, such as those pertaining to women, the handicapped, youth, the aged, and population.

Although many international organizations, governments, and private organizations are addressing these problems, much more must be done in many areas, on many scales, and in many ways. Since the problems are so varied and the symptoms afflicting the global society so serious, many areas must be treated simultaneously to increase the chances of the emergence of a harmonious and peaceful global society. In this regard, our perception of the world and the way we act in our daily lives are of the utmost importance. In addition to what international organizations, governments, and internationally oriented private organizations can do, there is much that we can do as private individuals if the concept of a global society becomes a natural part of our daily lives.

The Direction of Cooperation with Southeast Asians

The Toyota Foundation is a medium-sized private, nonprofit, grant-making foundation in Japan. The Foundation's International Division awards grants each year worth a total of about ¥150 million. Most of its international grants go to Southeast Asia. When the Foundation was established, Japanese organizations as a whole had not yet accumulated much experience in international cooperation, and so it was deemed necessary to learn through trial and error while engaging in grant-making activities on an experimental basis. The Foundation's Articles of Endowment emphasize the importance of philanthropic activities directed toward developing countries. Thus the countries of Southeast Asia, being Japan's closest neighbors among the developing countries, were selected as the area in which to carry out this experiment in international cooperation. We do not know how long it will take to establish a cooperation model, but when one is finally completed some years hence, the Foundation may embark on cooperation in other areas.

The Japanese government provides Southeast Asia with about ¥200 billion worth of official development assistance annually, while other governments and international organizations also provide huge amounts of assistance to this region. Private foundations also provide funds; for example, the Ford Foundation, a huge American foundation, provides grants to Southeast Asia totaling about ¥2 billion annually.

Many factors had to be taken into account to carry out our grant-making activities effectively under these circumstances. First, with regard to factors bearing on the grant-receiving side, it was necessary to (1) ascertain Southeast Asia's stage of historical development, (2) understand the relationship between Japan and Southeast Asia down to the present, and (3) listen to Southeast Asian people to learn their thoughts and needs.

Next, with regard to factors bearing on the grant-making side, it was

first necessary to take into account Japan's stage of historical development. It was then necessary to consider (1) whether grant-making activities to meet the needs of Southeast Asian societies should be limited to cooperation with a clear-cut direction or whether they should be designed so that cooperation can be extended in response to any request Southeast Asians may have; (2) whether grant-making activities should be concentrated on cooperation in projects that deal symptomatically with current problems or on cooperation in projects that aim at long-term results; (3) whether cooperation should be carried out in political fields or in nonpolitical fields; (4) whether cooperation should be carried out in the field of business activities or in the field of nonbusiness activities; (5) whether the parameters of cooperation should be clarified by ascertaining what responsibilities private, nonprofit organizations should assume when cooperating with Southeast Asia, what activities can only be carried out effectively by such organizations, and what activities are especially suited to such organizations, or whether cooperation programs similar to those undertaken by governments should be carried out without taking any of the above factors into account; (6) whether, in meeting the needs of Southeast Asians, the emphasis should be placed on cooperation in projects carried out by Japanese researchers and by Japanese private organizations, or whether the emphasis should be placed on cooperation in projects carried out on the initiative of Southeast Asians themselves; (7) what types of organizations and people in the grant-receiving countries the Foundation should cooperate with; (8) whether cooperation should be carried out mainly with organizations or mainly with individuals or teams of individuals; (9) whether cooperation should be carried out mainly in academically oriented projects or in projects having relevance for ordinary people; (10) whether the emphasis should be placed on bilateral cooperation or multilateral cooperation; (11) whether cooperation should be carried out in areas where funding from private organizations, foreign governments, or the recipients' own governments can be easily secured, or whether cooperation should be carried out in areas where such assistance is hard to obtain; and (12) what types of programs yield the best results with small grants.

Consideration of these questions resulted in the following program design. The first aspect of this design has to do with the overall *character* of the Foundation's programs. The programs are to be carried out nonpolitically in nonbusiness fields and are to be suitable for grants from a private, nonprofit organization. The second aspect of the design has to do with the *direction* of the programs. Grants are to be limited to certain types of projects.

The third aspect of the design has to do with the framework of the *goals* of the programs. The programs are to be based on a framework that takes into account the following factors: (1) the historical stages Southeast Asia and Japan have reached and the relationship that has existed up to now between the two regions, as well as the needs of Southeast Asians; (2) projects that contribute to building a relationship of equality with Southeast Asians; (3) projects that aim at long-term results and that have relevance for ordinary people in one way or another rather than "symptomatic" cooperation, and projects that contribute to the establishment of a new structure for the future; (4) the importance of helping Southeast Asians carry out projects

that they themselves have initiated; (5) cooperation with individuals and teams of individuals rather than with organizations; (6) projects that have the potential to develop into multilateral cooperation; and (7) projects in areas where the recipients' governments, foreign governments, and other foreign organizations are usually reluctant to make budgetary allocations or provide assistance.

The fourth aspect of the program design has to do with *methods* of carrying out the programs and with the *people* responsible for their implementation. The programs are to be carried out by (1) devising a method that will ensure that the voices of Southeast Asians will always be heard and their points of view taken fully into account; (2) devising a method whereby the trends of the times and social changes can be dealt with flexibly; (3) providing funds to projects carried out by Southeast Asians themselves, not to projects carried out by Japanese researchers or Japanese private organizations; (4) cooperating with individuals or teams of individuals, not with organizations; (5) cooperating with people who identify with ordinary people; (6) adopting a system whereby bilateral cooperation can eventually develop into multilateral cooperation; (7) giving consideration to a system that makes it possible to secure the cooperation of private citizens and private, nonprofit organizations in both Southeast Asia and Japan; (8) giving consideration to a system that allows talented young people to be nurtured in both Southeast Asia and Japan; and (9) cooperating with government and with businesses fulfilling their social responsibilities when this is both feasible and appropriate.

The "Know Our Neighbors" Program

The "Know Our Neighbors" Program and projects for the preservation and encouragement of indigenous cultures, a priority grant-making activity of the Foundation's International Grant Program, are both based on the program design outlined above. While each has its own objectives, they share one crucial goal: to change the flow of information through grant-making activities. In particular, it is hoped that by improving the flow of information affecting ordinary people, these activities will help push the global society, currently beset with clashing values, a step toward a more peaceful condition.

The "Know Our Neighbors" Program, which began in 1978, is now in its seventh year. This program, based on the need of both Southeast Asian and Japanese people to know each other better, aims to increase understanding of our neighbors through a method that avoids stereotypes. The program helps us ordinary people understand our neighbors and brings the global society closer to our daily lives by providing concrete images of our neighbors.

Since the beginning of modern times, whether in Southeast Asia or in Japan, most information from foreign countries has originated in the West. While the flow of goods between Japan and Southeast Asia is plentiful, the exchange of information is extremely limited. And the flow of information among Southeast Asian countries is just as limited. The "Know Our Neighbors" Program is an attempt to stimulate a change in this inadequate flow of information.

The "Know Our Neighbors" Program currently being carried out consists of grants to promote the translation and publication of works of literature, the social sciences, and the humanities, as well as grants to promote the compilation of bilingual dictionaries for the various Southeast Asian languages and Japanese. The project aimed at Japan introduces Southeast Asian people's viewpoints and information concerning Southeast Asian societies to the Japanese; that aimed at Southeast Asia introduces Japanese points of view and information concerning Japanese society to Southeast Asians; and that aimed at understanding among people of different Southeast Asian countries introduces information concerning the various Southeast Asian societies and their viewpoints to other Southeast Asian countries.

English, the common language of international communication, is sometimes resorted to as an intermediate step in translating from a Southeast Asian language to Japanese, from Japanese to a Southeast Asian language, and from one Southeast Asian language to another, but as a rule this is not done. We decided to keep our reliance on English to a minimum and instead translate directly from one language to another, a more difficult and time-consuming undertaking, because we wanted to focus our efforts on ordinary readers. If the same amount of effort were exerted to translate everything into English, many more books might be translated and they might be widely read by people in areas other than Southeast Asia and Japan, but in Southeast Asia and Japan, the target regions, they would be read only by the highly educated elite or those especially interested in English.

Books aimed at Japanese readers include those written in Burma, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Japanese books are being translated and published in Indonesia, Malaysia, and Thailand. The translation project aimed at enhancing understanding among Southeast Asian countries is progressing in Thailand, where the translation and publication of books by writers in Indonesia, Laos, the Philippines, and other countries are planned.

The "Know Our Neighbors" Program strongly emphasizes private-sector cooperation. The Southeast Asians working on the program belong to either groups of individuals or private, nonprofit organizations. And in Japan private publishing companies assume the responsibility of publishing translations of works by Southeast Asian writers.

Under the part of the program aimed at the Japanese, so far grants have been awarded for seventy-three books: twelve from Burma, nineteen from Indonesia, seven from Malaysia, five from the Philippines, seven from Singapore, and twenty-three from Thailand. Forty-nine of these (seven from Burma, twelve from Indonesia, three from Malaysia, two from the Philippines, four from Singapore, and twenty-one from Thailand) have already been translated and published. Under the part of the program aimed at Southeast Asians, two Japanese works have been published in Thailand.

Preservation and Encouragement of Indigenous Culture

The International Grant Program awards grants for research projects or research-oriented projects carried out by Southeast Asians themselves.

Grants for the preservation and encouragement of indigenous culture, the mainstay of the International Grant Program, are centered on projects that involve basic research into the indigenous cultures of various regions in Southeast Asia with a view to preserving them, enlightening society as to their importance, and finding ways to revitalize them in contemporary life. The aim of these grants is to enable local people to compile reliable information concerning their own communities. This information should prove to be so superior to the information hitherto available to people in the capital and to foreigners that it will force a reassessment of regional history and culture. A situation is beginning to emerge where scholarly discussion can only proceed on the basis of this new information, and where plans for improving the local people's quality of life are much more practical and effective if this new information is taken into account.

Grants for the preservation and encouragement of indigenous cultures have been awarded in such fields as paleography (ancient documents on history, law, folklore, religion, occupations, medicinal herbs, astrology, literature, and so on), language studies, folklore, archaeology, architecture, and fine arts. In Thailand, for example, projects in the field of paleography entail borrowing ancient records written on palm leaves or handmade paper from Buddhist temples and individual owners. These documents might well be lost forever if they were not studied and recorded by experts, with the most important documents being preserved permanently on microfilm. Research on ancient documents encourages the study of history. Efforts are also being made to promote research into ancient documents at the local level, thus developing an awareness in local communities of their importance. Microfilm records of Thai documents will provide researchers not only in Thailand but around the world with basic information essential to the study of Thai history and culture. In addition, the Foundation will transmit the techniques for handling similar ancient documents to other Asian countries.

Language projects entail recording local languages, which are important manifestations of indigenous culture, and compiling dictionaries comparing these local languages with the standard language before they are engulfed by the wave of modernization. Local people themselves will compile these dictionaries, basic tools indispensable to the understanding of ancient documents, oral literature, and other elements of indigenous culture.

Folklore projects entail compiling encyclopedias of the various aspects of indigenous culture before they are lost, and at the same time compiling film records where appropriate. The aim of these efforts is to stimulate a reassessment of indigenous culture, thus heightening awareness of its importance. Here, too, local people themselves will carry out the compilation of these important basic sources, thus contributing to efforts to improve their quality of life, as well as to create a more spiritually satisfying life by making the best use of indigenous culture in modern life.

Archaeological projects involve such activities as identifying the sites of ancient moated settlements by means of aerial photography and clarifying the distribution and significance of sacred stone ruins. These projects will help elucidate hitherto unclear aspects of local history, at the same time stimulating interest in archaeological studies and leading to the training of local people to carry them out. These activities will encourage local people

in various regions to write their own local histories and pave the way for the writing of national histories based on local histories. Moreover, collecting basic data on the national distribution of ancient settlements will exert a significant influence on efforts to protect the environment, preserve cultural assets, and develop in local people an awareness of their indigenous culture. Since the method of aerial photography can be applied in any country, cooperative projects are also possible.

Architectural projects entail developing a history of traditional architecture, conducting research on architectural styles, and compiling records of traditional houses. These activities will contribute to efforts to utilize the wisdom and beauty of traditional architecture in modern architecture. In addition, these projects will help train local researchers in this field and will also help develop local people's awareness of their own culture. They may also influence people in other countries who are carrying out studies with similar aims, thus giving rise to cooperative projects.

Projects involving the fine arts entail studying, copying, photographing, and analyzing murals in Buddhist temples as well as interviewing elders. These projects will further not only the study of art history but our knowledge of ordinary people's lives in various periods of history. Since detailed copies and photographic records will be kept, even if a mural should be lost, it can easily be reproduced. Moreover, since temples are so closely linked to the lives of local people, reappraisal of temple murals will contribute greatly to increasing local people's awareness of their own culture. In addition, it will be possible to carry out studies of fine arts in other countries using similar methods and to contribute to the training of teachers of art history in Southeast Asian countries.

Toward a New Flow of Information

The "Know Our Neighbors" Program involves generating, through mutual participation on an equal footing, a flow of information indigenous to the non-Western world in a form accessible to ordinary people. Information on this program is conveyed to the Western world through the Toyota Foundation *Occasional Report*.

It is true that this experiment is being implemented in only part of Asia and that it is not widely known even in the countries where the program is being carried out. The "Know Our Neighbors" Program, however, is an experiment in building a model for changing the flow of information and thus establishing a better global society. It is likely that in the future a corresponding movement will appear in Japan, since the time is ripe for such a change. In Southeast Asian societies, too, the time is ripe for a gradual widening of the new flow of information.

Grants for projects for the preservation and encouragement of indigenous culture have exerted a strong influence on both local people and people in the capital by providing new information related to indigenous culture. These projects have also encouraged the establishment of cross-regional information networks, which in turn is promoting the development of basic data centers open to scholars and ordinary people within a particular country and also to specialists and ordinary people in other countries.

This new flow of information is the reverse of the traditional flow of information. In the traditional flow of information, information obtained by researchers from developed countries through studies of local communities in various Southeast Asian countries has usually remained in the hands of the researchers even after they have finished using it. In a limited number of cases, the information has flowed back from developed countries to the capitals of Southeast Asian countries, but only in very rare cases has it trickled down to local communities.

The flow of information now taking place is the reverse of this. Its goals are completely different from those of the traditional flow, as are its functions and the people responsible for its transmission. Since the projects so far have been on a small scale and are still in progress, they have not yet left a clear impression on society. But the new flow of information is now developing rapidly, a vivid indication that Southeast Asian societies feel a need for such information and that people capable of transmitting it are definitely beginning to appear.

We are, I believe, approaching an era in which milestones will be built throughout Asia, marking the gradual penetration of the concept of a global society into our daily considerations.

Kazue Iwamoto
Program Officer, International Division

Research Grant Program

This fiscal year we again awarded grants in the three fields of human and natural environments, social welfare, and education and culture. Applications for the human and natural environment field were screened by a nine-member selection committee chaired by Ken'ichi Inada, those for social welfare by a six-member committee chaired by Hiroshi Motoaki, and those for education and culture by a six-member committee chaired by Shosaburo Kimura. In all fields, emphasis was placed on research that will contribute to the solution of the various problems confronting contemporary society and that is in keeping with the needs of the times.

The three research categories established in fiscal 1982 were applied again this fiscal year. The conditions for the awarding of grants in each category are summarized in the table below.

Applications were publicly solicited during April and May, as usual, and a total of 864 applications were received. As discussed above in the Research Grant Division Program Officer's Report, information regarding the grant program was also distributed to major Japanese studies programs abroad this fiscal year, with the result that a considerable number of applications were received from overseas. Screening by the selection committees took place from the end of June through September. At the thirty-second Board of Directors meeting held on September 20, it was decided to award ninety-seven grants.

This year's grants can be characterized as follows:

1. In the field of the human and natural environments, 336 applications were received, and grants were awarded to thirty-three projects. Seven of these projects were classified under Category I, fifteen under Category II, and eleven under Category III. In terms of content, there was an increase in themes falling into the area between the natural and the social sciences, with the majority of the projects emphasizing field work rather than laboratory research.

2. In the field of social welfare, 215 applications were received, and grants were awarded to twenty-nine projects. Five projects fell under Category I, sixteen under Category II, and eight under Category III. Many of the projects are in the area of medicine and engineering, with relatively few in the social sciences. In keeping with the nature of

the field, the emphasis was placed on field work. Projects relating to welfare for the handicapped increased in number.

3. In the field of education and culture, 313 applications were received, and grants were awarded to thirty-five projects. Ten were Category I projects, sixteen were Category II projects, and nine were Category III projects. Subjects in the social sciences and humanities predominated, particularly themes relating to the promotion of cultural exchange and understanding of foreign cultures. This field is also distinguished by a relatively large number of non-Japanese researchers.

4. A total of eighteen grants were awarded for projects conducted jointly by Japanese and non-Japanese researchers. In the field of human and natural environments, the majority of non-Japanese researchers are from Indonesia or other Asian countries; in education and culture, U.S. and European researchers predominate.

5. For fiscal 1983 the number of research grant recipients totaled ninety-seven, while the total grant amount reached approximately ¥274 million, with the amount per grant averaging ¥2.83 million. Broken down by category, the average grant amount per project was ¥1.4 million for Category I, ¥1.8 million for Category II, and ¥5.65 million for Category III. For seventeen of the twenty-eight Category III projects, the grants are lump-sum payments for two years of research.

Three two-day colloquiums, each devoted to one of the three major fields, were held in April and May 1983, at which all those who received one-year grants in fiscal 1982 presented interim research reports. Recipients of two-year grants delivered their interim reports during a two-day colloquium held the following December. On the latter occasion a forum was also held on the topic of "Bridging the Gap Between Laboratory and Society."

In addition, public symposiums on grant-supported research were held twice during 1983, each time over a period of two days:

Folk Medicine Reconsidered: An Evaluation Based on Research in Hokkaido and Okinawa (July 9-10, 1983, Tokyo)

The Gap Between Grassroots and Administration: Resident Involvement in Community Construction (December 10-11, 1983, Kyoto)

Research Categories and Grant Conditions

	Category I	Category II	Category III
Content and Nature of Research	Individual-incentive research	Experimental and preliminary research	Development of Category II research
Researchers	Individuals only	Individuals and research teams (both domestic and international)	Individuals and research teams (both domestic and international)
Grant Amount	¥500,000-¥2 million per project	¥1 million-¥2 million per project	¥2 million-¥20 million per project
Grant Period	One year, beginning October 15, 1983	One year, beginning October 15, 1983	One or two years, beginning October 15, 1983

Human and Natural Environments

A Computerized Quantitative Analysis of Insect-Behavioral Data Obtained by Means of the "Individual Pursuit" Method

Takashi Otani, Researcher

Nature Study and Photo Studio of S. Kuribayashi

¥1.8 million

The researcher has developed a method whereby a complete record of an insect's life can be recorded in the form of stream-of-behavior patterns. This "individual pursuit" method is proving to be an extremely effective means of obtaining basic ethological and ecological data. Only a few results have been published, however, for compilation work is lagging far behind the collection of data. The reason for this lies in the vast amount of data for analysis.

The objective of the present research is to develop a series of procedures whereby a personal computer can be used to analyze the vast amounts of data and prepare them for prompt publication. In this way it will be possible to overcome a major drawback of the individual pursuit method, demonstrating its methodological effectiveness.

A Study of New Relief and Compensation Schemes for Environmental Destruction Caused by Toxic Substances

Yukihiko Asami, Research Assistant

School of Law, Nagoya University

¥1.3 million

Environmental destruction caused by dioxane and other toxic substances has become a serious problem in the United States, leading to widespread debate about compensation for the resultant damage. In Japan a public compensation system for victims of pollution-related health problems is in existence, but calls for its revision are being heard.

The goal of this study is to identify problem areas in public compensation schemes through a survey of U.S. compensation systems for damage caused by toxic substances. On this basis, recommendations on improved compensation schemes will be proposed. As part of the study, attention will be focused on the provision of relief in line with the latest thinking on product liability.

Basic Research on the Spatial Behavior of Road Traffic Using Simultaneous Field Observations at Multiple Locations

Yoichi Tamura, Research Associate

Department of Civil Engineering, Yamaguchi University

¥1.9 million

Clarification of the spatial behavior of road traffic is of fundamental importance in order to develop traffic control methods and to find solutions to bottlenecks and other traffic problems.

This research is designed to achieve an understanding of the spatial behavior of traffic flows in terms of "leader-follower" patterns. Video cameras will be used

to obtain simultaneous observation data from several points along a road. These data will then be used (1) to construct models of speed and headway distribution suited to leader-follower patterns, (2) to derive bunching models, and (3) to postulate a theory of the relationship between bunching and travel time.

A Study of Planning and Management of Housing for the Aged

Hiroko Ogawa, Teaching Assistant

Faculty of Education, Yamaguchi University

¥1.0 million

In recent years an increasing number of aged people are living alone or with only their spouse. One need arising out of this trend is the development of housing that enables these people to maintain their social independence. Basically this is a problem of finding the human and physical means to meet the needs of the elderly.

The purpose of this study is to propose housing concepts for the aged from the viewpoints of planning, management, and operation. Existing housing for the elderly will be categorized, and using two studies conducted at a certain home for the aged in 1979 and 1983, an attempt will be made to determine which facilities are capable of meeting in human and physical terms the changes resulting from the increasing age of the residents.

Research to Ascertain Damage to the Environment in National Forests after Conversion to Private Ownership: A Case Study in Hokkaido

Tomoaki Kon'ya, Director

Nature Conservation Society of Hokkaido

¥1.1 million

Past research has shown that the deforestation of areas around Sapporo, Hokkaido, in recent years can be attributed to the sale of state-owned forest land to the private sector. Some of this land has been used without proper planning, and some has been left unused and untended in anticipation of increases in land prices.

This project was conceived on the basis of the above preliminary findings and is intended to clarify how this deforestation has occurred in two typical areas in Hokkaido. One of the areas is within a national park and was transferred to private ownership after World War II. The other was released to private ownership during Japan's early modernization in the late nineteenth century. The study will be based primarily on an examination of land registers. It is expected to ascertain the advisability of government administration of forest lands.

The Effects of Large Retail Outlets on Local Transportation Conditions

Sukehiro Hosono, Assistant Professor

Department of Economics, Outemon Gakuin University

¥1.0 million

The siting of a large retail outlet in a residential area creates a centralizing influence that attracts both customers and other retail businesses. One result is a massive enlargement of transport flows of commodities and

people, a process that has a major effect on the local environment. Methods have not yet been developed for predicting the ramifications of this effect.

The aim of this research is to express the problems involved in the form of a model and to verify the model as far as possible through empirical studies. On this basis, it is hoped to present policy recommendations relevant to the siting of large retail stores.

Research on a Model to Contain the Spread of Earthquake Damage Through Interlocking Lifeline Systems in Cities

Masaru Hoshiya, Professor (and three associates)
Department of Civil Engineering, Musashi Institute of Technology
¥4.5 million

An essential aspect of designing cities that are able to withstand earthquakes is the development of systems to predict the mutual interaction and functional deterioration of the various lifelines (electric power lines, water mains and sewers, gas pipes, and so forth) and to guide the restoral of services. These tasks require an approach in which all lifelines are seen as a single interlocking system. Such a system can then be evaluated quantitatively, and its characteristics can be identified.

The aim of this project is to identify functional interactions involving the different lifelines in an urban disaster situation and to clarify the functional patterns of the overall lifeline system. A dynamic model will be built to predict breakdown interlinkages in the event of an earthquake, to assess the spread of the damage, and to evaluate the time factors involved in the restoration of services. This model will be applied to actual cities to assist in the planning of their lifeline systems and to assess the ability of these systems to withstand earthquakes.

Study of Changes in Kampung and Evaluation of Kampung Improvement Programs in Indonesia

Shuji Funo, Lecturer (and seven associates)
Faculty of Engineering, Toyo University
¥5.9 million (two-year grant)

Kampungs, the traditional communities found in major Indonesian cities, are not mere slums. They contain a wide diversity of residential settlements with an overall unity that preserves traditional community structures. However, serious problems have arisen in kampungs as a result of excessive growth, and rapid changes are taking place. Kampung improvement programs have attracted much interest in recent years as a method of enhancing the community environment. The evaluation of these programs is now a matter of considerable public interest.

This project is being conducted jointly with Indonesian researchers. The objective is to clarify the process of change in the kampungs of Jakarta and Surabaya by focusing on specific areas and to evaluate the impact of the improvement programs. Comparisons are being drawn with Japan's past experience in an effort to identify the best methods for improving the community environment. A feature of the project is the emphasis on community organizations and their activities to improve, maintain, and manage the residential environ-

ment. Based on the preliminary study last year, this project will continue for two more years.

Research on the Gradual Thinning of Trees in Urban Residential Districts and the Economic Burden on Landowners

Naoko Nakajima, Research Assistant
Doctoral Course in Human Culture, Ochanomizu University
¥1.9 million

Green areas located on private land in residential districts with little public greenery often make an important contribution to the environment despite the small size of the plots. Because of the need to use these plots for housing and the economic burden of unused plots on residents, the ratio of these green areas to publicly owned open space has been declining sharply. The result has been a progressive deterioration in the environment of residential districts.

Last year the extent of the depletion of trees in the central areas of seven major Japanese cities was investigated. This year additional data on the economic burden imposed on landowners will be collected, and higher-resolution aerial photographs will be studied. The project is expected to yield basic information on the preservation of trees in residential areas and how they can enhance the environment for local residents.

A Preliminary Study on Public Attitudes Toward Motorcycle Usage by High School Students and on Safety Education Methods

Yasuhiro Nagatsuka, Professor (and seven associates)
Faculty of Humanities, Niigata University
¥2.0 million

In recent years there has been widespread debate on the problems of motorcycle usage by high school students, with some people calling for a total ban on motorcycle driver's licenses for and motorcycle riding by high school students, while others call for increased safety education. The situation has reached the point where a multifaceted approach is needed.

Keeping an open mind on the subject, the researchers will first elicit the views and attitudes of the young people most closely involved in this issue in an effort to determine the best way to conduct traffic-safety education. They also plan to conduct questionnaire surveys and interviews and to hold discussion sessions and public debates, encouraging the participation of middle and high school teachers, traffic administrators, and the general public. Taking both psychological and sociological views into account, they hope to clarify the existing driver-training situation and to suggest how it can be improved.

A Preliminary Study on Changes in the Ecology of the Izu Islands Following the Introduction of the Japanese Weasel

Sachiko Nishikata, Lecturer (and seven associates)
Hachijo High School
¥2.0 million

Japanese weasels were released in the Izu Islands as a means of controlling field mice, which had been causing considerable damage to certain crops. This objective has

been largely accomplished, but the weasels have begun to affect the ecology of the islands, since they also prey on animals other than field mice. The exact nature of the ecological changes that are taking place has not been determined. Because the interests of the islanders are so closely involved, conflicting views and unsupported conjectures have dominated discussion on this issue.

The purpose of the present project is to determine the ecological changes through field surveys, taking into account the size of the weasel population and the size of each island. By this means objective data will be collected on the increase or decrease of other animal species and on the impact on the habitat.

A Preliminary Study on the Use of Balloon Photography in Environmental Research

Norio Tase, Assistant Professor (and four associates)
Institute of Geoscience, University of Tsukuba

¥1.8 million

The environmental status of a given area of water needs to be evaluated not only through time series observations at given points but also through aerial monitoring of the area as a whole. Information for such monitoring can be obtained from Landsat data or from aerial photography, but these methods cannot always provide data at the required times and with sufficiently high resolution.

This project is a preliminary study on the development of an environmental and hydrological monitoring system relying on low-altitude aerial photography using simple balloons. Specific goals include the perfection of a balloon-mounted photography system using a 35 mm camera and the development of photographic techniques. The researchers will study the timing and spacing of photos over lakes and rivers and research the methods for interpreting and processing the data obtained.

A Study of the Formation of Spatial Order for Environmental Preservation of Special Farming Communities, with Special Emphasis on the Musashino Shinden Region

Ryoichi Ura, Professor (and eleven associates)
Faculty of Engineering, Meiji University

¥8.5 million (two-year grant)

Japanese rural communities have evolved unique systems of environmental conservation that reconcile nature with agricultural production. But the trend toward urbanization in recent years has brought systems for the control of land, water, and natural greenery to the brink of collapse, frustrating the preservation of the rural environment. It is vital that studies be conducted from new perspectives, taking into account the ability of residents to control their environment and focusing on the integrity and the organic interrelations of the environment.

This project consists of a series of studies on the Santomi area of Saitama Prefecture, where even today traditional rural communities have been preserved within the Musashino Shinden region. The research will focus on (1) the role of the Santomi area in the wider regional context and the historical and natural changes in the area, (2) the overall classification of the area in terms of natural zoning and land use classifications, (3) the

area's basic environmental structures and units, and (4) the order of living space within communities in the context of the regional system of environmental units. Environmental evaluation systems for the residents will be set up, and a symposium on environmental conservation in the Musashino Shinden region will be held.

Methods for the Evaluation of Aircraft Noise Heard Frequently at Long Distances

Yoshiji Matsumoto, Professor (and three associates)
Department of Civil Engineering, University of Tokyo

¥1.3 million

In recent years large airports have tended to be built relatively far away from major cities in Japan. This has helped reduce noise levels in residential areas, since aircraft traverse these areas at much higher altitudes. However, the duration of the noise has increased. The increasing frequency of flights is magnifying the environmental impact of the noise, and an evaluation of this impact is needed.

This research will first clarify the degree of traffic noise and natural sounds in terms of noise levels and perceived nuisance, thereby permitting separate evaluation of the effects of aircraft noise. Methods will then be developed for assessing the environmental impact of aircraft noise in relation to the frequency of flights and changes in the timing of flights.

A Study of the Causes of Bicycle Accidents

Koya Kishida, Associate Professor
Faculty of Business, Takasaki City University of Economics

¥1.4 million

Many cyclists in recent years have been ignoring basic safety rules. Common transgressions include riding at night without a headlight, riding double, and riding triple with small children in seats mounted at both the front and the rear. There are also cases of people cycling while intoxicated. When accidents occur, cyclists are usually regarded as the victims because of their lack of protection compared with users of other forms of transport. Rarely is the behavior of the cyclists criticized.

Because accidents involving cyclists are sometimes caused by the cyclists themselves, this study will verify the common causes of the accidents. The methods used will include street observations, questionnaire surveys on the behavior of cyclists, and a study of accidents and near-accidents.

Research on the Balance Between Logging Levels and Environmental Conservation in the Former Kiso Imperial Forest

Yukichi Konohira, Associate Professor (and four associates)
Faculty of Agriculture, Shinshu University

¥2.0 million

Forests play an important role in ensuring ample water resources, preventing natural disasters, and protecting the environment. They are also a source of supply for forest products, including such essentials as wood and paper. The balance between environmental conservation and the supply of forest products is determined by a combination of natural and socioeconomic factors, including the climate and terrain of the region in question

and the lifestyles and industrial activities of its inhabitants.

The aim of this study is to analyze management data pertaining to the 400-year-old former Kiso Imperial Forest using computergraphic techniques. It is hoped to develop guidelines on allowable logging levels that do not damage the environment and to clarify methods of forest planning.

Research on Heterogeneous Photocatalytic Oxidation in the Atmosphere, with Special Emphasis on the Formation of Acid Rain

Yoshio Hori, Associate Professor
Department of Synthetic Chemistry, Chiba University
¥1.8 million

Widespread concern is being voiced over the serious environmental damage caused by acid rain containing nitric and sulfuric acids. The acid content of the rain is thought to be produced by the oxidation of atmospheric nitrogen oxides and sulfur dioxide, but the mechanisms involved have yet to be clarified. The volume of particulates suspended in the air is expected to increase in the future, and this may also have an important bearing on the formation of acid rain.

This research project has as its goal the analysis of the reactions whereby nitric and sulfuric acids are formed through the photocatalytic oxidation of NO_x and SO₂ in heterogeneous aqueous solutions containing various semiconducting powders. By this means an attempt will be made to clarify the contribution of suspended particulates to the formation of acid rain.

Joint Study on the "Citizens' Forest" Scheme for Preserving and Utilizing Open Spaces in Urban Environs

Shigeyoshi Ota, Representative Director (and twelve associates)
Nippon Green Consultant Co., Ltd.

¥1.9 million
Greenery in and around urban districts is restricted to small areas that have narrowly escaped the onslaught of development. Local residents are becoming increasingly eager to preserve these areas. The Yokohama municipal government is striving to preserve and utilize green areas by implementing a scheme whereby such areas are made available to the public as 'citizens' forests' through a system of subsidy payments to landowners.

This study will focus on schemes of this type. The citizens' forest scheme will be assessed on the basis of comparative analyses of data gathered from similar areas throughout Japan. The objective is to conduct comprehensive studies of systems for the preservation and utilization of green areas in urban districts.

A Comparative Study on Urban Development and Environmental Capacity in East Asia

Toshio Ojima, Professor (and fourteen associates)
School of Science and Engineering, Waseda University
¥2.0 million

The cities of East Asia have lagged considerably behind the mature urban centers of the West in the process of urbanization. In recent years, with the massive population growth of East Asian cities, development has been

steadily following models imported from the West without thought for indigenous patterns of development.

The aim of this joint international project is to reevaluate certain historically and economically significant East Asian cities, particularly cities in China. By means of joint studies with local researchers, it is hoped to postulate urban environment designs and to contribute to the development of cities that are more suited to the East Asian cultural milieu.

An Experiment to Improve the Economic Viability of Traditional Sago-Producing Communities by Providing Small-Scale Economic Aid and Recording the Resultant Changes in a Village

Yoshikazu Takaya, Professor (and four associates)
Center for Southeast Asian Studies, Kyoto University
¥4.4 million (two-year grant)

The tropical lowlands have attracted considerable interest as one of the world's last areas with the potential for development. Development planning, however, has tended to focus solely on rice and to neglect traditional food production know-how. Communities forced to switch rapidly to rice production have experienced problems of instability and dissatisfaction.

The purpose of this joint international project is to provide help to the traditional sago-producing village of Pengkajoang in southern Sulawesi, Indonesia. In order to raise sago productivity and ensure the village's economic viability, a pump-equipped well will be outfitted and other measures will be taken to enhance the extraction of sago starch. Social changes in the village will be recorded over a two-year period. The ultimate goal will be to find appropriate means of harmonizing development within the framework of Indonesia's tropical rain forests. One member of the joint research team will live in the village for the entire two-year period.

The Driving Performance of Aged Drivers in Cities and Related Problems in Transportation Planning

Yuzuru Kurimoto, Professor (and five associates)
Toyota National Technical College
¥7.85 million

The proportion of aged people in Japanese society is growing at a speed unparalleled in the world. Extensive research has already been conducted on the effects of this change on Japan's social, economic, and welfare systems, but little work has been done on the behavior of aged people in relation to transportation systems.

The cities selected for this study are Toyota (population: 300,000) in Aichi Prefecture and Matsuyama (population: 400,000) in Ehime Prefecture. The trip performance of aged people will be examined by means of studies of driving in each municipal area and clarified through questionnaire surveys. The driving performance of aged people will be determined through an analysis of the acceleration noise accompanying changes in road and traffic conditions. The characteristics of accidents involving aged people will be clarified by means of a study of police reports on motor vehicle accidents. The data obtained in this way will be used in a comprehensive evaluation of the trip performance and driving performance of aged people. Future priorities for transportation planning will be recommended.

Basic Research on the Development of a Comprehensive Disaster Data Bank

Suminao Murakami, Chief Director (and seven associates)

Laboratory of Urban Safety Planning

¥2.0 million

Modern communities possess complex social and technological linkages that can cause disasters to expand through chain reactions, resulting in wide-area or "multiple" catastrophes. The impact of such disasters can be reduced only through countermeasures and planning based on a comprehensive perspective.

The researchers hope to learn from past disasters by studying their linkages and theorizing classes of disasters. With the ultimate objective of building a comprehensive disaster data bank that can be used to come up with correlations, discoveries, and creative insights into disasters, the researchers will develop a conceptual framework and construct a model data base relying on a number of case studies.

Research on Butterflies of Southern Origin That Have Migrated to Japan

Haruo Fukada, Researcher (and three associates)

Kagoshima Prefectural Museum

¥2.0 million

The existence in Japan of numerous nonnative butterflies, particularly those of southern origin, is an indication of the fluidity of Japan's natural environment. However, much still remains to be explained about the behavior and life cycles of these insects, which breed after their arrival in summer but cannot survive the Japanese winter.

This research will deal mainly with the species *Parantica sita*, *Catopsilia pomona*, and *Hypolimnas bolina*. The long-distance migration of *Parantica sita* has been confirmed in recent years through the marking and recapture of individual butterflies. In the case of *Catopsilia pomona* and *Hypolimnas bolina*, an increased level of arrival has been recorded since 1957. Field studies will be conducted overseas to determine the origins of these butterflies, their migratory routes, and the factors that lead to their departure.

Ex Post Facto Evaluation of Transportation Planning Errors

Yoji Niitani, Professor (and seven associates)

Faculty of Engineering, University of Tokyo

¥6.25 million (two-year grant)

Transportation planning is based on quantitative, objective values obtained from large volumes of data and sophisticated models. In many cases, however, planning failures result when the implementation lags far behind or the finished transport system fails to perform as expected. In either case, the cost to society is substantial.

After preliminary research last year, the researchers will continue their efforts to identify the causes of errors in predictions on social needs, planned effects, and project viability. In a bid to reduce the costs of plan failure, they will make further ex post facto evaluations of what went wrong with the forecasting methods, the staff involved, or the intended community for the transport system. Case studies will include the comprehensive urban transport system for Hiroshima, the trunk road

plans for Tokyo and Otaru, Hokkaido, and the prospective plans for new transport systems. In addition to studying the background and the history of the plans and the types of forecasts used through public hearings and other methods, the researchers will evaluate the accuracy of the forecasts and attempt a quantitative identification of the causes of errors.

Basic Research on Municipal Waste-Water Treatment with Anaerobic-Aerobic Rotating Biological Contactors

Masao Kuroda, Professor (and two associates)

Department of Civil Engineering, Gumma University

¥1.76 million

A large body of experience and know-how has been accumulated on the design and operation of sewage treatment systems using activated sludge, and this knowledge has now been widely distributed. But this method has a number of serious problems, including the creation of large volumes of surplus sludge and the consumption of large amounts of energy. Alternative treatment processes need to be developed.

This study will examine the possibility of wastewater treatment using a combination of anaerobic tanks, which permit the recovery of methane gas, and aerobic rotating biological contactors. In addition to designing the necessary processes, the researchers will conduct experimental and theoretical analyses to determine the rates of organic degradation, providing data for the design of operating systems.

A Preliminary Study on Natural and Socioeconomic Changes in Areas Affected by a Land Reclamation and Desalination Project at Two Estuarine Water Bodies

Izumi Kitagawa, Professor (and ten associates)

Faculty of Agriculture, Shimane University

¥2.0 million

The continuation of a land reclamation and desalination project is expected to produce dramatic changes over a short period of time in the environment of the area around Nakanoumi Lagoon and Lake Shinji in Shimane Prefecture. Research on the effects of these changes has thus far been limited to the natural sciences. Little work has been carried out regarding the social impact.

The objective of this study, now in its second year, is to clarify changes in the natural and socioeconomic environments of the area and to observe the ways in which local communities are adjusting to these changes. The researchers hope to establish a methodology interlocking the natural science research with new sociological studies. This will be used as the basis for a comprehensive evaluation of the civil-engineering project.

A Study on the Possibilities of the Coexistence of Squirrels and Human Beings in Urban Areas of Hokkaido

Koji Kogure, Representative (and nine associates)

Society for the Research of Environmental Planning in Hokkaido

¥2.0 million

Although most of Hokkaido is blessed with a bountiful natural environment, the areas around the main cities have become increasingly devoid of natural flora and

fauna because of the development that has taken place over the last century. In view of the strong wish on the part of the residents of these areas to live in an environment befitting the special natural characteristics of Hokkaido, the development of cities as suitable habitats for squirrels, birds, and other creatures is to be desired.

The focus of the present study is the Ezo squirrel, which lives in the forests of Hokkaido. The researchers plan to identify the zoological problems involved in creating urban environments where Ezo squirrels and human beings can coexist. A study will be made of social and urban-planning issues that will require further investigation.

The Geographical Distribution of Arboviruses in Eastern Indonesia

Masatsugu Kanamitsu, Professor Emeritus (and seven associates)

Sapporo Medical College

¥10.0 million (two-year grant)

A variety of arthropod-borne (arbo) viruses, some of which cause severe disease in human beings and animals, are prevalent in Southeast Asia. Previous studies by the researchers indicated that the geographical distribution of some arboviruses in eastern Indonesia is related not to the distributions of their vertebrate hosts or arthropod vectors but rather to the topography of the region in a certain geological epoch. This suggests that these viruses may have originated in the epoch in question.

The objective of the present joint international project is to substantiate this assumption through more detailed studies of a wider range of geological sites with the cooperation of Indonesian researchers. Livestock and domestic fowl in a number of locations in eastern Indonesia and Papua-New Guinea will be tested for antibodies against arboviruses. The results will be compared with the topography of the regions involved in certain geological epochs. A cladistic dendrogram of arboviruses will then be prepared using the methods of molecular genetics, and the evolution of the viruses will be studied by applying geological time to the branch points of the dendrogram.

Environmental Factors in the Etiology of Prostate Cancer in Japan and the Netherlands

Osamu Yoshida, Professor (and eleven associates)

Faculty of Medicine, Kyoto University

¥7.73 million (two-year grant)

In recent years the incidence of prostate cancer has increased in Japan, but it is still low compared with the incidence in Western countries. Epidemiological and pathological studies of the prostate glands of immigrants and others have shown that there is no essential racial difference in the incidence of latent prostate cancer. The assumption is that the different active cancer rates are the result of environmental factors.

The aim of this study is to identify the risk factors involved in prostate cancer through a study of subjects in the Netherlands, which has a high incidence of the disease. This work will be done with the cooperation of the medical faculty of Erasmus University of Rotterdam. Case studies will be carried out in the Netherlands and Japan using the same protocol. The subjects will be

divided into patients with prostate cancer, latent cancer, and prostate hyperplasia and hospital matched controls. Epidemiological studies will be conducted primarily from the viewpoints of diet and sexual activity. Plasma hormones and trace elements will be measured, and pathohistological examinations of surgically removed prostate gland specimens will be conducted.

Empirical Research on the Utilization and Conservation of the Natural Environment by Agroforestry Systems

Manabu Morita, Professor (and twelve associates)

Faculty of Agriculture, Kyoto University

¥12.2 million (two-year grant)

Agroforestry is a composite of agriculture and forestry whereby food, animal feed, and industrial raw materials, as well as forestry products, are supplied by means of agricultural activities in forests. Today agroforestry is attracting attention in many developing countries and elsewhere because of its potential for ensuring superior living conditions for people at the same time as it conserves the natural environment.

This joint international project is designed to compare agroforestry in Japan and overseas in order to clarify the conditions necessary for its establishment. The objective is to develop agroforestry systems that are in harmony with the natural and socioeconomic environments and that realize high productivity and income levels through the utilization of the dynamics of plant ecology. The study is focusing on the Asian monsoon region and is limited to agroforestry operations involving timber grown for long-range recovery on fallow farmland. In the preliminary study last year, joint research systems were established in Thailand and Indonesia. Building on the field surveys in Japan last year, the researchers will extend the surveys to Thailand and Indonesia.

The Social Impact of Predictions of Major Earthquakes: A Comparative Study of the Predictions for a Tokai Earthquake in Japan and a Southern California Earthquake in the United States

Hirotsada Hirose, Professor (and eight associates)

College of Arts and Sciences, Tokyo Women's Christian University

¥4.8 million

Scientific predictions of major earthquakes have been made in Shizuoka Prefecture (the Tokai region) in Japan and Los Angeles County in the United States. Such predictions have had a serious social impact on the regions concerned and are affecting human behavior and psychological attitudes in a variety of ways. The reactions in each area differ in some respects, however, due to differing aspects of national character and cultural and historical backgrounds.

In a continuation of their studies last year, the Japanese and American researchers are conducting joint studies on the impact of the earthquake predictions in Shizuoka Prefecture and Los Angeles County. Specific activities include analyses of media coverage, analyses of social, economic, and demographic statistics, and comparisons of public attitudes and behavior. It is hoped in this way to clarify differences in Japanese and American attitudes to science and disasters, reactions to emergen-

cies, capabilities in the processing and control of information, and social preparedness for disaster.

Development of an Aerial Photography Method Using Kites and Applications in Environmental Research
Katsutaka Murooka, Director (and fourteen associates)
Murooka Architect Office
¥1.8 million

Aerial photographs taken from altitudes of a few hundred meters provide valuable data for various types of research and surveys. But this type of photography entails many practical difficulties. Despite the great need for methods of obtaining low-altitude aerial photographs, few suitable methods have been developed.

The purpose of this project is the development of aerial photography using kites—a unique photography method using wind as its energy source. Taking into account the results of earlier experiments, the researchers will attempt to perfect the techniques and apply them to carry out an environmental survey.

A Botanical Survey of Medicinal Plants in Brazil
Goro Hashimoto, Director (and ten associates)
Museu Ferrazense de História Natural
¥3.0 million

Brazil is a vast country stretching from the Amazon Basin just south of the equator to the temperate regions near Argentina. As a result, Brazil's topography and climate present variations of extreme complexity. The country abounds with a wide diversity of plant life, including numerous medicinal herbs. Many of these have already been investigated by botanists, but no comprehensive survey has been carried out.

This project will take the form of a botanical survey of the medicinal plants found throughout Brazil. The surveys in the first year will focus on the Paraná and Santa Catarina states in southern Brazil. The researchers will conduct field surveys and collect samples, photographs, and other data as well as gather documentary information. The scientific names of each species will be verified, together with synonyms and local names. When necessary, drawings will be used to provide a complete identification. All survey data will be filed in a card system in preparation for publication in the near future.

Social Welfare

Research on the Effects of Habitual Alcohol Intake and Smoking on the Development of Liver Cancer
Kunihiko Ohnishi, Research Associate
First Department of Medicine, Chiba University Hospital
¥1.3 million

In recent years cirrhosis and primary cancer of the liver have become major causes of adult mortality. It is pos-

sible that this phenomenon is caused by an increase in hepatitis B virus and in alcohol intake as well as by smoking.

The study will examine the history of alcohol intake and smoking and the existence or nonexistence of hepatitis B virus antigens in liver patients, as well as the possible influence of these factors on the incidence and time of onset of hepatocellular carcinoma. The study will also analyze the effects of alcohol intake on the hepatitis B virus, the activity of DNA polymerase, and the metabolic activity of medication.

Symbols and Rituals of Juvenile Deviant and Delinquent Groups: An Ethnographic Survey of Motorcycle Gangs

Ikuya Sato, Ph.D. Candidate
Tohoku University
¥1.4 million

The expression *asobigata hiko* (play-type delinquency) is often used to characterize the "third wave of juvenile delinquency" that began a little over a decade ago in Japan. The ambiguity of this concept and its overlap has actually undermined understanding of recent cases of juvenile delinquency and hindered efforts to implement effective countermeasures.

The present study will examine the relationship between the symbols and rituals of the motorcycle gangs' activities on the one hand and the causal mechanisms of juvenile delinquency and the organizational principle of group control on the other through an ethnographic survey of motorcycle gangs. The results will be used to clarify the relationship between various aspects of "play," deviant activities, and subcultures.

Preliminary Research on the Development of an HA₂ Vaccine Against Influenza

Hizu Aoki, Research Associate
School of Medicine, Nagoya University
¥1.15 million

Influenza virus vaccine is ineffective in preventing the spread of influenza because the antigenic structure of the protein hemagglutinin (HA) mutates constantly, triggering the appearance of new viruses in a short period. Hemagglutinin consists of two subunits, HA₁ and HA₂. Cell surface adsorption of the virus is mediated by HA₁, whose antigenic structure changes easily. The penetration of the viral genetic material into the cell is mediated by HA₂, which rarely undergoes mutation.

This project will examine the basic conditions necessary for the development of a vaccine that will induce the production of an antibody against HA₂ and will also be effective against changes in the antigenic structure of HA₁.

Basic Research on the Development of Tactile Maps for the Visually Handicapped

Hirofumi Saito, Research Associate
Department of Psychology, Kwansai Gakuin University
¥1.05 million

The use of colors and symbols on road maps for people with normal eyesight has become more effective over the course of time. However, there are few maps for the

visually handicapped, and there has been little research into the types of symbols most suited to their needs.

This research will attempt to develop a computer system for generating visual road maps and to examine the process by which people with normal eyesight recognize map features when using this system. The data obtained will be used to determine the optimal size, number, and texture of tactile symbols to be used on maps for people with severely impaired vision.

A Study of Juvenile Delinquency from the Viewpoint of Law and Community Morality

Yoshiko Yanagihara, Research Associate
Department of Sociology, Kwansai Gakuin University
¥1.2 million

Involvement with young people regarded as delinquent and reflection on their problems have raised two fundamental questions: What is delinquency? What is the social significance of being a juvenile?

This study will search for ways to solve the problems of today's youth by exploring these questions. The study will compare and analyze the constellation of legal regulations and community morality that determine the definitions of "juvenile," "child," "delinquency," and "deviant behavior." The method employed will involve field work, case studies, and, if possible, experiments in existing community organizations.

A Study of the Psychological Factors Affecting the Aging Process

Masami Oda, Professor (and seven associates)
Department of Psychology, Waseda University
¥1.4 million

Research on the mental processes of elderly people has tended to focus mainly on their intellectual processes. However, according to a preliminary study recently conducted by this research team, the dynamics of motivation and the ability to handle human relations appear to have an even more significant influence on aging than intellectual processes.

This study will use psychological tests and case studies to investigate the process of change in elderly people's motivation toward achievement and desire for friendship, as well as in their ability to handle human relations.

A Study on the Compilation of a Basic Vocabulary for Children with Sensory Impairments

Akira Okada, Professor (and two associates)
Doctoral Program in Special Education, University of Tsukuba
¥1.7 million

Children with visual and auditory impairments suffer from various speech handicaps. The researchers will attempt to clarify the structure of words, the basic units of language. The data thus collected will be used to contribute toward the language education of children with sensory impairments.

The purpose of this study is to compile a basic educational vocabulary list designed for use by children with visual, auditory, and other sensory impairments. The study will also investigate the size and structure of

such children's actual working vocabulary in connection with each child's degree of impairment, present age, age at which the impairment appeared, and other factors.

Preliminary Research on a Trileaflet Valve Prosthesis for a One-Piece Artificial-Heart Outflow

Tatsuo Tsutsui, Assistant Professor (and two associates)
Department of Surgery, University of Tsukuba
¥2.0 million

Improving the outflow and valves of artificial hearts is among the key problems in efforts to modify and improve auxiliary and artificial hearts. Normally, artificial valves are used for pump outflow. In addition to hydraulic and biological problems inherent in artificial valves, however, the quality and hardness of the materials from which the outflow pathway is made have adverse effects.

This preliminary research will attempt to solve these problems by producing a trileaflet valve prosthesis based on an analysis of the dynamics of the natural aortic valve. The proposed prosthesis will be a one-piece, seamless structure made from a high-polymer synthetic material resistant to thrombosis. Its biocompatibility and durability will be tested in dogs. Plans are also being made to carry out materials engineering tests.

A Practical Study for the Establishment of a Regional Dental Health Care System for the Handicapped

Hiroshi Kasahara, Professor (and ten associates)
Matsumoto Dental College
¥1.7 million

Most handicapped people suffer from various dental disorders, such as dental caries and gingivitis. Traditional dental health care systems, which place too much emphasis on restoration and prosthesis, are incapable of meeting their needs. Although the new field of dentistry for the handicapped is gradually developing, few dentists are actually willing to treat handicapped patients.

This study will clarify the dental health condition of handicapped people living at home and in institutions throughout Nagano Prefecture. The study will also evaluate the success of the dental treatment the researchers have provided for handicapped patients over the past several years by conducting a follow-up survey on these patients' post-treatment condition. The results will be used to determine the needs of a new dental health care system for the handicapped that transcends conventional frameworks and to establish a model for such a system.

The Development of Social Welfare Administration on the Local-Government Level in Japan

Hiromi Shimodaira, Professor (and six associates)
Faculty of Economics, Shinsu University
¥2.0 million

In the present transitional period of Japanese society, attitudes toward social welfare are becoming more diversified and thus are in a state of flux. To explore the basic direction of social welfare in the future, it is necessary to adopt a long-range perspective going back to the formative period of social administration and to carry out a careful historical analysis of its development. Elucidation

of the role of municipal governments, which lie between the state and the people and are in direct contact with the lives of ordinary people, is the key to success in this undertaking.

This study will analyze the evolution of social administration in Tokyo, Osaka, and other municipalities in terms of organization, function, and ideology and will also examine the relationship between the state and local governments and the transition between the prewar and postwar periods.

Research on the Functions of Homes for Fatherless Families in View of Changes in the Functions of the Family

Sumeru Nagaune, Director (and twelve associates)
Mother-Child Working Group, Tokyo Council on Social Welfare

¥1.8 million

Along with social changes, the causes of fatherless families and the livelihood problems they face have changed significantly. Clarification of the actual conditions of households headed by divorced or unmarried women and of fatherless families burdened with physical or mental handicaps is an urgent need. It is necessary to systematically help residents of publicly funded homes for fatherless families to become self-reliant by responding appropriately to their needs and also to ascertain the most effective way of cooperating with related institutions.

The first half of this project will be devoted to designing the survey that will be used to achieve the above objectives, carrying out the survey, and compiling the results. In the second half of the project, the researchers will analyze the survey results, identify key issues, and carry out intensive case studies and other follow-up studies.

Measurement of and Psychological Therapies to Alleviate Cancer and Other Chronic Pain

Yoshio Yamanaka, Associate Professor (and three associates)
Department of Psychology, Sophia University

¥1.4 million

Various therapies have been devised for reducing the sensation of pain, but most tests to assess their effectiveness measure acute pain. Since so many people suffer from chronic pain, a method of testing chronic pain must be developed as soon as possible.

This project will attempt to measure pain reactions elicited by nociceptive stimuli through the use of a Formalin test to develop an animal simulation model of chronic pain. The researchers will also apply cognitive modification therapy, stress analgesia, and biofeedback to the treatment of chronic pain.

Research on the Promotion of Primary Health Care in Rural Bangladesh

Nobukatsu Ishikawa, Consultant (and eleven associates)
The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association

¥2.0 million

Tuberculosis control programs in developing countries, like many other disease control programs, have failed

because they have not sufficiently motivated local communities. This is especially true with regard to tuberculosis treatment programs, which have not been planned as an integral part of primary health care supported by the active participation of local communities.

This joint international project will attempt to formulate a system for promoting primary health care in rural Bangladesh through organized community volunteer health activities. The researchers will ascertain the effectiveness of primary health care in areas where volunteer health care activities have been introduced by evaluating the degree of improvement in tuberculosis treatment that has been achieved as a result of such activities.

A Study to Evaluate the Job Performance of Autistic Adults and Develop Effective Training Devices

Akira Hashimoto, Director (and eight associates)
Asake Gakuen Workshop for the Vocational Rehabilitation of Autistic Adults

¥3.7 million

Many follow-up studies have found that most autistic children continue to manifest some social maladjustment in their adolescence and adulthood. This is why autistic adults find it so difficult to become socially self-reliant. A systematic program of rehabilitation for these adults is urgently needed.

Based on the data collected in last year's preliminary study, in which the correlation between job performance and other functions was identified, the present study will attempt to work out a method of evaluating job performance using both check lists and psychological tests. The data necessary for standardization will be selected, using sampling methods, from the data obtained in last year's survey. These data will be used to analyze the standardization, validity, and reliability of the proposed method of evaluating job performance. In addition, an individual job-training project will be conducted at Asake Gakuen's Sheltered Workshop, through which research to develop teaching materials and training aids will be continued.

A Study for Developing a Comprehensive System of Support for Handicapped Infants: A Longitudinal Investigation of Children with Down's Syndrome and Low Birth Weight

Hiroko Fujita, Associate Professor (and seven associates)
Faculty of Science of Living, Osaka City University

¥3.6 million (two-year grant)

With advances in perinatal medicine, the survival rate of babies with very low birth weight has increased dramatically in recent years. But because the proportion of brain-damaged babies has not changed greatly, the actual number of brain-damaged babies has in fact increased. In addition, the commercialization and consequent spread of the use of chromosomal tests to detect mental retardation have led to earlier diagnosis. Naturally parents are shocked when they are told, soon after delivery, that their baby is mentally handicapped, and often they are unable to form a close parent-child relationship with the baby. Last year's preliminary study found that parents in such circumstances desire practical advice on how to care for a handicapped

child throughout the child's life and how to obtain information on the social services available.

This year's study will attempt an interdisciplinary approach involving medicine, psychology, and sociology to determine how parents should be informed of their child's handicap and what assistance or information should be provided to them as their child grows up.

Research on the Rehabilitation of Aphasic Patients

Tsuneo Hasegawa, Director (and four associates)

Izu Nirayama Rehabilitation Hospital

¥1.8 million

Aphasia is defined as the inability to recognize and produce words and letters due to degenerative cerebral changes, such as cerebrovascular damage. Although research on aphasia has increased, data on patients' return to normal social life are inadequate. Such data will become increasingly important, since the number of aphasic patients is expected to increase as a result of the aging of the Japanese population.

This research is designed to establish a method of evaluating the language skills of aphasic patients to determine the extent of their rehabilitation, with the goal of developing more effective therapy programs. As a preliminary step, the researchers will ascertain the extent of rehabilitation of aphasic patients in the Kanto area around Tokyo and conduct case studies to determine the factors that affect patients' return to normal social life.

A Sociometric Study of the Relationship Between Determinants of Satisfaction with Life Among Those in Their Forties and Fifties and Determinants of a Sense of Well-being Among the Elderly

Yoshio Sugiyama, Professor (and eight associates)

Department of Psychology, Sapporo Medical College

¥1.6 million

From the perspective of developmental psychology, the forties and fifties are a critical period of life. While there are many reasons for this, anticipatory aging anxiety is a factor common to those in their forties and fifties. This anxiety affects the degree of satisfaction with life and thus determines the success or failure of the transition to old age.

This study will investigate the psychological structure of satisfaction with life and the psychosocial conditions for increasing satisfaction by a sociometric survey of one thousand men and women in their forties and fifties. The results will be compared with the findings concerning elderly people obtained and analyzed in a study conducted by the researchers last year, and a plan will be drawn up for social education in connection with the aging process.

Clinical Research on an Early-Intervention Program for Infants with Down's Syndrome

Bensaku Nishimura, Chief Researcher (and four associates)

Institute for Developmental Research, Aichi Prefectural Colony

¥2.0 million

Down's syndrome, a developmental disability caused by a chromosomal abnormality, accounts for a high proportion of cases of mental retardation. Infants with Down's

syndrome are afflicted with several unique handicaps to the development of motor skills, cognitive ability, and language ability. Recently it has been pointed out that the developmental handicaps of Down's syndrome children can be alleviated considerably if adequate training is provided from infancy, and the importance of early intervention is now being urged.

This project seeks to develop an early-intervention program for Down's syndrome infants by empirically elucidating the characteristics of their development. The study will include an examination of the factors responsible for the emotional stability of their mothers so as to identify special points to be considered when counseling mothers.

Preliminary Research on Criteria for Determining Degrees of Color-Vision Deficiency

Tadashi Tomiie, Professor (and nine associates)

Faculty of Literature, University of the Sacred Heart

¥1.8 million

Pseudoisochromatic plates are in common use as a quick way to test the color vision of such people as applicants for driver's licenses. These plates are useful for testing many people in a short period but cannot determine degrees of color-vision deficiency. Thus it is possible that many people with some degree of color-vision deficiency but not enough to interfere with their work or study are unjustly rejected.

The object of this research is to establish criteria for determining degrees of abnormality in color-vision to alleviate the above-mentioned problem. A distinctive feature of the project is the use of multidimensional distribution of color-matching data.

Research on the Ideal Lifestyle to Prevent Stroke and Cardiovascular Disease

Minoru Iida, Director (and ten associates)

Department of Epidemiology and Mass Examination for CVD, The Center for Adult Diseases

¥8.0 million (two-year grant)

The Japanese lifestyle has changed considerably since World War II, as evidenced by changes in dietary habits. This is the main reason for the decline in the number of deaths caused by stroke, especially those caused by cerebral hemorrhage. Recently, however, the change in lifestyle has progressed so fast, especially among young people, that the features of the traditional Japanese diet that have kept the incidence of cardiovascular disease low are rapidly being lost. Thus cardiovascular disease may increase considerably in the future.

The aim of this study is to clarify the conditions necessary for a long and healthy life, bearing in mind the current situation. On the basis of the data collected in last year's preliminary study, the researchers will conduct a large-scale epidemiological survey of population groups with different lifestyles in cities and in farming and fishing villages. The results will be used to analyze the relationship between the incidence of cardiovascular disease and lifestyle, including dietary habits, type of work, and blood chemistry findings. The data thus obtained will be analyzed using simulations and other methods and will be applied to the formulation in specific terms of the pattern of an ideal lifestyle.

Research on a Comprehensive Dental Health Service for Babies, Expectant and Nursing Mothers, the Handicapped, and the Elderly

Fumiaki Shinsho, Lecturer (and eight associates)
Osaka University Medical School

¥1.4 million

While the incidence of dental caries among children is falling, the proportion of adults with missing teeth is rising. With the aging of Japan's population structure, the provision of dental health care that meets the needs of all members of society is becoming increasingly important.

The purpose of this study is to clarify the way in which a comprehensive dental health service for infants, expectant and nursing mothers, the handicapped, and the elderly should be set up so that it can encompass the community's full range of dental needs. The distinctive feature of this project is that the local dental association, public health center, government authorities, and residents will work with a dental health center to promote the establishment of such a comprehensive dental health service system.

A Preliminary Study on Analyzing Lip Reading by Applying Computer Science

Kenji Kurosu, Professor (and six associates)
Faculty of Engineering, Kyushu Institute of Technology

¥1.7 million

Lip reading is a simple, convenient method of communication for deaf-mutes. Recently, however, its importance has dwindled because of the difficulty of training deaf-mutes, uncertainty over the accuracy of the information conveyed, and the spread of sign language.

This study seeks to improve communication among deaf-mutes through the analysis and application of lip reading through the use of such modern engineering technologies as pattern recognition, graphic image processing, sensor technology, and knowledge engineering. The results are expected to be useful in establishing an auxiliary system to supplement current speech-recognition systems.

Research on a Training Program to Aid the Development of Severely Handicapped Children

Eiji Murakami, Professor (and five associates)
Faculty of Education, Nagoya University

¥2.9 million

The researchers have been providing group therapy once a week at the therapeutic clinic of the Faculty of Education, Nagoya University, for preschool handicapped children living at home. With the progress in community-based therapy systems for handicapped children in recent years, the severity of the handicaps encountered has increased markedly, the age of the children treated has dropped, and therapy for severely handicapped children who are almost bedridden has become predominant.

The main purpose of this study is to determine the best way to facilitate the development of handicapped children, which so far has not been considered in terms of clinical psychology. The researchers will continue the therapeutic activities that they have been conducting on the basis of the above standpoint and will explore

methods to further develop these activities. Specifically, the researchers aim to (1) clarify the process of mental development of severely handicapped children through group therapy, (2) seek ways to provide assistance by taking into account the total interpersonal environment surrounding these children, and (3) promote these children's post-therapy integration into the community and train therapists.

Research to Develop a Comprehensive and Effective Community System of Medical Care, Health Care, and Social Welfare for the Elderly

Yosuke Yamane, Professor (and six associates)
Department of Environmental Medicine, Shimane Medical University

¥2.0 million

The Japanese population structure is aging rapidly. By the year 2000 the number of people aged sixty-five and over is expected to increase to nineteen million, or one person out of seven. Japan's present policy toward the elderly is far from satisfactory; it must be more comprehensive, effective, and farsighted.

In this project, a continuation from last year, Shimane Prefecture, which has the highest proportion of aged people in Japan, will be studied on the basis of the results of last year's survey. The information thus obtained will be used to (1) formulate a community model for a comprehensive policy toward the elderly that takes into consideration the distinctive features of aging communities, (2) establish a system of primary health care for the elderly centered on a policy for preventing stroke, and (3) determine the effectiveness from a cost-benefit standpoint of a medical-care system for elderly people who have senile dementia or are bedridden.

An Immunogenetic Study of the Pathogenesis and Prevention of Kawasaki Disease

Tomisaku Kawasaki, Director (and four associates)
Department of Pediatrics, Japan Red Cross Medical Center

¥8.5 million

Kawasaki disease, which mainly attacks infants, is named after the head of this research team, who first reported the syndrome. In recent years the incidence of Kawasaki disease has increased rapidly in many countries, especially in Japan, where about fifty thousand cases were reported between 1968 and 1982. Since coronary artery aneurysms are present in approximately ten percent of cases, and since no completely effective treatment of aneurysms has been developed, this complication has become a major social problem. Many hypotheses of the etiology of Kawasaki disease have been suggested, but not one has been verified.

This study will use recently developed immunological methods to attempt to clarify the immunoregulatory abnormalities that are believed to contribute to the pathogenesis of Kawasaki disease. Specifically, the study will analyze lymphocyte and monocyte subset populations and their functional abnormalities, as well as serum antibodies and autoantibodies against various antigens. In addition, the researchers will carry out immunopathological analysis of cervical lymph nodes and immunogenetic analysis of the factors connected with the onset of Kawasaki disease. On the basis of the results

of this study the researchers hope to elucidate the etiology of the disease and establish effective methods of treatment and prevention.

Development of a Conversational Aid System for Deaf-Mutes

Shin'ichi Tamura, Associate Professor (and four associates)
Faculty of Engineering Science, Osaka University
¥6.0 million (two-year grant)

The communication gap between deaf-mutes and hearing persons is growing. This is the main reason that deaf-mutes have so much difficulty finding employment and participating in society.

On the basis of the data collected in the preliminary study carried out last year, the present study will carry out the following plan, with the goal of establishing a total communication system for deaf-mutes that incorporates lip reading, hearing ability, sign language, and finger spelling. (1) Voice reshaping: Abnormal voices, such as those of deaf-mutes, will be converted to normal voices by voice-recognition units for specific speakers and by voice-generation units. (2) Lip reading: Speech will be converted to lip reading by the method used for sign-language generation. (3) Finger spelling and sign language: Efforts to generate sign language will be continued because the technical framework of the method of converting speech to finger spelling has already been perfected. (4) Sign-language generation system using video disks: Instead of a display system using pictures, video disks will be used to develop a high-speed search display capable of showing real images of sign language, as these will be more easily recognized by deaf-mutes.

Research to Develop a Method for Continuous Measurement of Movements and Activities of the Lower Extremities Using Bioelectrical Impedance

Yoshitake Yamamoto, Associate Professor (and eight associates)

School of Engineering, Okayama University
¥8.0 million (two-year grant)

In treating and rehabilitating patients with various types of walking impediments, it is essential to be able to measure the degree of impediment with accuracy. Various methods of analyzing gait have been proposed up to now, but none has proved satisfactory.

On the basis of the data collected in the preliminary research carried out last year, the present study seeks to establish new criteria for diagnosis by clarifying the relationship between bioelectrical impedance and the parameters of kinematics and by analyzing the impedance patterns of various diseases, aging, and rehabilitation training.

The Environmental Effect on the Development of Psychotic Manifestations Among People Affected by Senile Dementia

Shun'ichi Yamamoto, Vice-Director (and thirteen associates)
Tokyo Metropolitan Research Institute of Gerontology
¥5.2 million (two-year grant)

In Japan, where the elderly population is growing at an unprecedented rate, the problem of senile dementia is weighing heavily both on society and on families with

people affected by this disease. The most serious aspect of senile dementia is such psychotic manifestations as nocturnal delirium, delusions, and hallucination. On the basis of the data collected over the last two years, the research team has summarized existing epidemiological knowledge concerning these psychotic manifestations and submitted the hypothesis that psychotic manifestations are caused when elderly people with reduced mental capacity become unable to adapt to environmental stress (factors that give rise to anxiety and impatience).

The purpose of this year's study is to complete the comparison begun last year of senile dementia in Tokyo, which has a high incidence of dementia together with a high incidence of psychotic manifestations, and Okinawa, which has a similarly high incidence of dementia but a low incidence of psychotic manifestations. The researchers will also verify the effectiveness of care and counseling based on the above hypothesis by assessing the counseling provided caretakers and the patient-caretaker relationship, and by clinical examination of senile dementia patients at home.

Empirical Research for Establishing a System Capable of Dealing Effectively with Early Delinquency and Pre-delinquency in Elementary School Children

Ichiro Yamanaka, Professor (and eight associates)
College of Social Work and Sociology, Meiji Gakuin University

¥1.9 million

About half the delinquent children taken into police custody today are middle school students, and the number of violent crimes similar to those committed in Western countries is increasing. Although measures to deal with juvenile delinquency currently focus on middle school students, investigation of delinquent students' backgrounds shows that the seeds of delinquency are sown in elementary school. But research on this subject is almost nonexistent.

This research will identify the various problems that appear in the early stages of delinquency by plotting in chart form the data on problem children gained from case studies. The goal is to establish a system capable of effectively dealing with the problems thus identified.

Education and Culture

A Study of the Kaga Clan's Chinese Studies During the Edo Period: The Daishoji Collection of Chinese Literature

Akira Isobe, Lecturer
Faculty of Humanities, Toyama University
¥1.5 million

During the Edo period (1603-1868) Japan's various clans actively encouraged the cultivation of letters, opening schools and collecting and publishing both Japanese and

Chinese works. In the Hokuriku region the Kaga and Echizen clans invested heavily in support of literary studies, thereby contributing significantly to the formation of local culture.

This study will investigate the promotion of literary studies by the Daishoji clan, an offshoot of the Kaga clan's ruling Maeda family, keeping in mind the literary relationships between the head and the branch clans. The study seeks to illuminate the state of Chinese literary studies within the Daishoji clan and clarify the relationship to the culture of the Hokuriku region by surveying and cataloging the clan's Shohan Library collection of classical Chinese literature.

The Birth of Kabuki and Kagura: A Study of Folk Religious Ritual Elements in Early Kabuki Theater

A. Horie-Webber, Professor

School of Oriental and African Studies, University of London

¥1.2 million

The association between Kabuki and folk religious rites is one of the most compelling subjects of speculation in the study of Japanese theater. The generally accepted theory acknowledges that a relationship exists but maintains that early Kabuki was merely a theatrical adaptation of folk religious rites of the tenth to sixteenth centuries and did not itself incorporate any religious or magical elements.

By comparing early Kabuki theater and the rites of Kagura and Goryoe, this study aims to establish the existence of religious and magical elements in early Kabuki. At the same time, it will attempt to demonstrate that these elements help to account for the unique and mysterious power of modern Kabuki.

A Study of the Traditional Organization of Islamic Education in Indonesia

Setsuo Nishino, Ph.D. Candidate

Division of Education, University of Tokyo

¥1.8 million

In Indonesia traditional Islamic educational organizations called *pondok pesantren* continue to exert a strong influence on rural life. The schools differ from secular institutions in their teaching methods as well as in such extracurricular areas as prayer, religious meetings, youth group activities, and dormitory life in general.

Through long-term observation and study of several *pondok pesantren*, this study will attempt an investigation into the structure and operation of the schools' wide-ranging education structure and curricula. The study will also examine shifts in curriculum and function that have occurred in the wake of social change.

An Anthropological Field Study of Religious Syncretism in Northern Brazil, Focusing on the Batuque Cult

Yoshiaki Furuya, Ph.D. Candidate

Division of Sociology, University of Tokyo

¥1.8 million

Brazil has been called a land of contrasts because it embraces such a wide range of cultural traditions. The prolonged interaction of these traditions has shaped a hybrid yet peculiarly Brazilian culture.

This project, an anthropological field study of northern Brazil's diverse religious traditions, will focus on a group of syncretic cults collectively referred to as "Batuque" and featuring possession of cult members by supernatural beings. The study will survey and analyze Batuque's links with a number of parent traditions and examine the extent to which it has been affected by the pervasive influence within Brazil of Umbanda spiritualism. It will also make use of a network of local informants to analyze the social structure supporting these cults.

A Study of Sociocultural Transformation and Changing Concepts of Disease Among the Bushong of Zaire

Kozo Watanabe, Lecturer

Kunitachi College of Music

¥1.4 million

In societies that preserve traditional concepts of disease and medicine, there is a close link between the system of interpreting and treating illness and the culture's cosmology. This system also reflects in a special way the tensions existing within the ethnic group and connecting it to the outer world.

The aim of this study is to examine the outlook on disease among the Bushong tribe of Zaire, a country that has managed to preserve its traditional ways even while achieving the status of a modern nation. Case studies will be carried out and the data examined in the light of social and religious change, with the help of early records and contemporary ethnographical studies.

A Study of Japanese-American Literature, Focusing on the Work of Eight Representative Poets

Gayle Kimi Fujita, Ph.D. Candidate

Department of English, Brown University

¥1.3 million

In the latter half of the 1970s, young third-generation Americans of Japanese descent began to manifest a heightened consciousness of and interest in their own heritage. But the research carried out on Japanese-American literature since then has tended to focus on its documentary character rather than its literary value.

The researcher, herself a third-generation Japanese-American, will attempt to grasp the nature of Japanese-American literature as literature per se and clarify its cultural significance. The study will analyze the work of representative Japanese-American writers with the hope of placing Japanese-American writing within the tradition of modern American literature and encouraging a wider readership in this field.

A Study of Computer Processing of Vernacular Chinese-Language Materials

Shigeru Murata, Sinologist

¥1.6 million

Computers are indispensable to the rapid processing of the vast amounts of information written in Chinese. Research in this area of computer-aided translation is lagging because of the complexity and number of Chinese ideograms and because of a lack of analytical tools for dealing with Chinese grammar.

This study will conduct preliminary research on methods of processing vernacular written Chinese using

microcomputers, which have made remarkable technological advances in recent years. Research will cover input and output, analysis, and applied information processing of Chinese-language materials.

A Linguistic Survey of Animal Nomenclature in the Ryukyu Dialect

Masanao Toyama, Staff Researcher
Okinawa Prefectural Museum
¥1.5 million

Dialects threatened with extinction have been studied extensively by researchers in the field of humanities, but the orientation of such studies has usually been wide and diffuse. There has been little in the way of detailed surveys by researchers in specific disciplines.

This study will focus on animal nomenclature in the Ryukyu dialect, compiling terms and analyzing them from the standpoint of biological classification. Analysis will be based on data collected by gathering and cataloging the results of previous research and by conducting field surveys throughout Okinawa, including the Miyako and Yaeyama islands.

The Structure of Information Linkage Among Economic Organizations

Hiroshi Mochizuki, Graduate Research Student
Harvard University
¥1.8 million

It has been some time since the arrival of the so-called information age, but such important issues as the socio-economic impact of information and the determination of the value of information have yet to be satisfactorily addressed.

This study will focus on information as a unique commodity that is not depleted but may actually be increased through consumption. The purpose is to evaluate the importance of information in Japan's economic and business environment and to study the role of information in linking industries and other economic entities.

The Impact of Christian Thought in China: A Study of Chinese-Language Writings by Jesuit Missionaries

Sukeo Fukazawa, Associate Professor
Faculty of Humanities, Niigata University
¥1.2 million

From the latter half of the Ming dynasty through the beginning of the Ch'ing dynasty, Jesuit missionaries in China produced a vast quantity of original and translated literature in Chinese, exerting a tremendous impact on the country through the transmission of Western thought. Studies of that historical period have so far examined these works only from the standpoint of science and technology. An objective evaluation of the Jesuits' theological writings is also required to appraise their religious influence on China.

Focusing on the *Ch'ao-hsing Hsiieh-yao*, the *Ming-i-t'an*, and other works, this study will attempt to isolate the texts and passages that were selected for transmission to China from the European tradition of Scholasticism. It will then go on to evaluate the nature of their rendering into Chinese.

Basic Research on Architectural Planning Methods and Processes in Asia: A Study of the Ruins in Sri Lanka's Quadrangle Zone

Takeshi Nakagawa, Assistant Professor (and eight associates)
School of Science and Engineering, Waseda University
¥2.0 million

Studies of Asian methods of architectural design using art history methodology have generally lacked the perspective on contemporary Asian society necessary to promote understanding between Japan and its neighbors. The need has arisen for a more comprehensive study of Asian architectural planning methods.

This study will survey and examine the restoration of an architectural complex built long ago in the Polonnaruwa period in Sri Lanka, where a unique architectural style flourished despite strong Indian influence. The aim of this project is to elucidate the distinctly Asian characteristics of architectural design by analyzing the techniques of local architects and assessing the architectural concepts expressed in local literature.

The Formation and Development of Modern Industrial Enterprise in Japan: A Socioeconomic History of Large Corporations in Japan Since World War I

W. Mark Fruin, Professor
Department of History, California State University, Hayward
¥1.3 million

A comprehensive historical study of the large corporations that facilitated the rise of modern industry in Japan is needed to comprehend the process of Japan's socio-economic development since World War I.

The aim of this study is to investigate the development of Japan's large corporations by comparing them with the experience of big businesses in Britain, the United States, and West Germany. Focusing on significant economic changes that took place in five benchmark years between 1918 and 1980, the researcher will compile data on Japan's 200 top-ranking manufacturing corporations and compare them with those of comparable U.S. corporations in terms of total corporate assets, sales, and number of employees. In addition, the role of big business in the economy will be analyzed from a macroeconomic perspective.

Basic Research for Enhancing Cooperation Between Japan and Burma Through Cultural and Social Studies

Ryuji Okudaira, Associate Professor (and twelve associates)
Department of Indochinese Studies, Tokyo University of Foreign Studies
¥1.8 million

Japan and Burma today are in the process of forging a relationship of warm friendship and mutual respect. Unfortunately, exchange on the academic level lags behind.

Building on earlier research in individual fields, the researchers will synthesize diverse and wide-ranging data to clarify the two countries' cultural and social foundations, a task of vital importance for promoting friendly relations. The first phase of the project in the current fiscal year will involve compiling an annotated bibliography of Burmese studies materials in Japan and locating the Japanese- and Burmese-language materials on Burma available in Japan. A comprehensive bibliography of these materials will then be prepared.

"Yes-No" Linguistic Response in Korean Culture: A Sociolinguistic Comparison with Japan

Kilyong Watanabe, Associate Professor

Faculty of Letters, Keio University

¥0.9 million

Increasing cultural contact between Japan and South Korea has been accompanied by mutual misunderstanding and criticism. Koreans have labeled the Japanese "overcautious" and "seemingly helpful but actually devious," while Japanese tend to view Koreans as "argumentative" and "overly assertive."

This study aims to examine the verbal expression of agreement and disagreement so vital to communication to demonstrate how traditional values, interpersonal relationships, and other cultural factors affect Korean linguistic behavior. The aim of this research is to help ease cultural friction between Japan and South Korea by focusing on the critical area of communication.

The Structure of Ancient Sumerian Society: A Study of the Administrative Texts of the Third Dynasty of Ur

Kazuya Maekawa, Associate Professor (and two associates)

Institute for Humanistic Studies, Kyoto University

¥3.0 million (two-year grant)

Cuneiform-inscribed tablets were written throughout Mesopotamia from the fourth millennium B.C. until early into the Christian era. Of the tablets that have been unearthed, those describing the administration and economy of Sumer during the third dynasty of Ur (end of the third millennium B.C.) are distinguished by their prodigious number and detailed content. On the basis of these cuneiform texts, the project leader has published many works on the structure of Sumerian society and on agriculture and animal husbandry in Mesopotamia. Most recently he has been researching unpublished texts kept in the British Museum.

The researchers of the current project will work jointly with the staff of the British Museum and the Archaeological Museum of Istanbul in a study of those museums' unpublished Girsu (Lagash) texts, copying the more important texts for future publication. The objective is to help make the some fifty thousand unpublished Girsu texts in both collections available to scholars throughout the world.

A Practical Study of Word Games as a Form of Linguistic Coaching for Disabled Children

Shuntaro Tanikawa, Poet (and eleven associates)

Word Game Society

¥4.0 million

Mentally handicapped children often lag behind in emotional development. But the cultivation of emotions is vital to establishing a basis for linguistic expression. In Japan, linguistic instruction of the mentally handicapped usually focuses on the teaching of vocabulary. Yet instructor Mitsuko Hase has conducted a series of experiments that prove the effectiveness of a program designed to elicit linguistic response through the emotional stimulation provided in basic forms of word games.

Building on work begun in fiscal 1982, this project aims at development of educational materials that combine traditional functional training (chewing, sucking,

drinking, blowing) with the use of word games. A package including video materials and an instruction manual will be developed for instructors and parents with the hope of encouraging wider and more effective application of these methods.

A Comparative Study of the Changing Circumstances of Chinese Schools in Nagasaki, Kobe, Osaka, and Yokohama

Nobuchika Ichikawa, Professor (and five associates)

Faculty of Education, Miyazaki University

¥1.8 million

Before World War II, Chinese residents in Japan established overseas Chinese schools in Yokohama and nine other cities to enable their children to learn the Chinese language and Chinese culture. The schools closed, reopened, consolidated, and separated as political, economic, and social pressures dictated. Today only four such schools remain, in Nagasaki, Kobe, Osaka, and Yokohama.

This study aims to compare changes in management, organization, curricula, and other aspects of the overseas Chinese schools from the standpoint of socioeconomic history. To this end the researchers will attempt to locate, survey, and compile relevant historical records as well as to interview alumni of the schools.

A Comparative Study of Women's Magazines in Japan, Mexico, and the United States

Teruko Inoue, Assistant Professor (and eight associates)

Faculty of Humanities, Wako University

¥2.0 million

The number of women's magazines has risen worldwide as a result of changes in sex roles and increased consumption. Women's magazines in Japan, Mexico, and other countries have been heavily influenced by European and American magazines.

This joint international study will conduct a comparative analysis of the layout, contents, fashion coverage, and language of women's magazines published in Japan, Mexico, and the United States. The results will be used to ascertain the state and character of the internationalization of women's culture as well as to delineate differences in the cultural backgrounds of women in Japan, Mexico, and the United States.

Research on Artisans and Handicrafts in Traditional Tokyo Districts: A Survey Centering on Sumida and Koto Wards

Kiyoshi Imaizumi, Director (and five associates)

Institute for the Life and Culture of Shitamachi

¥1.8 million

Many people in the older districts of Tokyo (*shitamachi*) still earn their living at traditional handicrafts. However, such problems as a lack of successors, difficulty in securing materials, and a shrinking market are threatening the economic base and the livelihood of these artisans.

This study aims to produce materials that will help assess the current status and future prospects of artisans and their work. A survey will be conducted by a re-

search group with the participation of local artisans to investigate handicraft production as a way of life and a source of livelihood in Tokyo's traditional districts.

An Architectural Study of Holy Precincts on the Ryukyu Islands

Ryuichi Urayama, Instructor (and three associates)
Kagawa Vocational Training College

¥1.8 million

In the Ryukyu Islands, sacred precincts called *utaki* are still plentiful. *Utaki* are ancient sites of ancestor worship thought to be dedicated to sacred mountains or other natural landscape features. Research is lacking, however, on the topographical arrangement and internal organization of these holy precincts and on the ritual edifices located within them.

This study will attempt to elucidate the belief system behind these holy precincts. The major precincts and structures on the Yaeyama, Miyako, Okinawa, and Amami islands will be measured and surveyed, and a comparative analysis of their structure and spatial organization will be conducted.

A Preliminary Study on the Present Conditions and Future Problems of Chinese Management in Connection with the Promotion of Technology Transfers

Jingai Cho, Leader (and fourteen associates)
China Project, Society of Systems Analysts

¥2.0 million

A major focus of China's modernization efforts is the importation of advanced technology to further domestic technological development. This is a task that cannot be accomplished quickly, and various problems are cropping up between China and its technology donors.

This study, a continuation of a project begun in fiscal 1981, aims to close the gaps in perception that have arisen between Japan and China in the fields of technology transfer and business management and to suggest ways to promote more effective joint ventures. The researchers will conduct additional interviews with Japanese directly involved in joint Japan-China enterprises and with Chinese business trainees and students residing in Japan. The results will be studied using factor analysis.

A Comparative Study of Women Business Administrators in Japan and the United States

Toyohiko Narikawa, President (and six associates)
Waseda Institute for Behavioral Science

¥1.7 million

Organizations are a prominent feature of modern society, and problems involving the management and administration of business organizations have been attracting universal concern. Meanwhile, women have been making remarkable inroads in many areas of society and have gradually made their presence felt as administrators in business organizations. The subject of women administrators concerns itself with both of these important developments in modern society.

This joint international study will attempt to assess from an international perspective the status and character of women business administrators and of the or-

ganizations employing them. Through interviews and questionnaires, the researchers will examine the management style of enterprises that employ women in administrative positions. Differences in the women's personalities and in the sociocultural context of Japan and the United States will also be investigated.

Sacred Space in Japan: A Case Study of the Concepts and Organization of Space in Japanese Culture

Massimo Raveri, Assistant Professor (and one associate)
Faculty of Letters and Philosophy, Venice University

¥1.9 million

The principles of spatial organization in Japan as seen in Shinto shrines and gardens provide rich material for cross-cultural comparison and have attracted the interest of both architectural and anthropological researchers in the West.

The current joint international project aims to go beyond spatial organization in specific fields by identifying the concepts, principles, and structures operating in general in the use of space in Japanese culture. The study will begin by focusing on sacred space, attempting to explain its structure from a historical perspective on three levels: technical-economical, social, and symbolic. At this stage, the research will emphasize consideration of methodology, collection of data, and formulation of hypotheses.

Experimental Research on Intonation in Japanese Dialects

Norio Yoshizawa, Professor (and four associates)
Tokyo University of Foreign Studies

¥1.9 million

A local dialect is the medium by which people communicate on a daily basis, and intonation is that which gives life to words and enables people to communicate their feelings. To examine the dynamics of human communication, it is necessary to study how regional intonation functions in conversation. Yet researchers in the linguistics and language education fields have largely neglected this crucial area of research.

This project is a preliminary study consisting of field work and surveys geared to formulating a methodology for describing regional intonation, preparatory to launching a study of the role that intonation plays in communication. The ultimate goal is to provide material for mature deliberation of linguistic and language instruction policies in Japan.

A Preliminary Study on the Development of Software Materials for Teaching Japanese to French Speakers

Bunkichi Fujimori, Professor (and fourteen associates)
Center for Japanese Studies, National Institute of Oriental Languages and Civilizations, Paris

¥1.9 million

Advanced Japanese-language instruction is becoming increasingly necessary to solve misunderstandings between Japan and Europe that stem from linguistic and cultural differences. As Europe's oldest and largest center for Japanese studies, the Paris-based National Institute of Oriental Languages and Civilizations is constantly developing original teaching materials and methods to cope

with a growing number of students and to maintain its high academic level.

This joint international research project is a preliminary study aimed at establishing a cost-effective system that will make the most of the institute's personalized method of instruction. The project will involve drawing up sophisticated flow charts based on studies of typical French linguistic reflexes, thus facilitating precise assimilation of the morphological and structural characteristics of the Japanese language.

Land Use and Landscape Perception Among Pre- and Protohistoric Japanese Peoples

Gina Lee Barnes, Assistant Lecturer (and six associates)
Department of Archaeology, University of Cambridge
¥2.0 million

Human populations began to have an impact on Japan's natural environment when they introduced rice-paddy agriculture some twenty-five hundred years ago. Gradually lowland vegetation and microtopography began to change; at present, the original landforms are almost entirely obscured.

This joint international project investigates the transformation of the Nara Basin into rice paddies and traces the changing patterns of land use over the centuries. One aim is to test the hypothesis that the people of the Yayoi period (ca. 200 B.C.-A.D. 250) utilized lowland swamp areas for the construction of the first rice paddies in the region. To this end, geological coring samples of a former swamp area in Tenri City will be taken and analyzed through the identification of plant remains, carbon 14 dating, and pollen and plant opal analysis.

A Study of Bridges Reconstructed in Tokyo After the Kanto Earthquake

Takashi Ito, Lecturer (and four associates)
Faculty of Engineering, Hosei University
¥2.0 million

Road bridges reconstructed in Tokyo after the great Kanto earthquake of 1923 still exist in considerable numbers, spanning such waterways as the Kanda River and the Nihonbashi River. Designed to be aesthetically pleasing and harmonize with the surrounding landscape, these bridges have become local landmarks dear to the hearts of city residents.

This study aims to investigate the historical significance of these bridges from the viewpoints of technology, urban design, and legal systems. Research will involve comparison with suspension bridges built in the modern era prior to the earthquake, together with a systematic survey of 425 bridges restored after the earthquake.

Research on the Reconstruction of Town Plans of Historic Japanese Towns

Kaoru Ugawa, Professor (and seven associates)
Faculty of Economics, Rikkyo University
¥5.0 million (two-year grant)

Historic towns in both Japan and Europe have changed dramatically as a result of World War II bombings and, more recently, urban redevelopment. Fearing the immi-

nent destruction of their countries' aesthetic townscapes, researchers have joined with local residents in calling for the preservation of historic buildings and vistas and have applied themselves to the drawing of maps describing the early plans of historic towns.

This study will use cadastral maps, especially those drawn up in the early years of modernization, together with written records to reconstruct the original plan of towns in the Hokuriku region. This information will be superimposed on current large-scale maps to show towns as they appeared in several historical periods: just prior to World War II, during the Taisho era (1912-26), prior to and during the Meiji era (1868-1912), and at key times in earlier periods.

A Study of Japan's Cultural Policy Toward China: Japanese Efforts at Cultural Exchange with China Before World War II and the Chinese Response

Hiroshi Abe, Director
Department of Education in Asia, National Institute for Educational Research
¥3.3 million (two-year grant)

Cultural exchange between Japan and China has been proceeding rapidly in a variety of fields. A comprehensive investigation of Sino-Japanese cultural exchange before World War II, including erroneous policies and bitter experiences, is needed if we are to build a solid foundation for future exchange.

The researcher will concentrate on three areas of Japanese exchange with China in the 1920s and 1930s that relied on Boxer Rebellion indemnity funds: (1) scholarly activities carried out at the Peking Institute of the Humanities, the Shanghai Institute of Science, and the Tokyo and Kyoto Academies of Oriental Culture; (2) Toa Dobunkai's educational activities in China; and (3) assistance provided to Chinese students studying at Japanese higher education institutions. The study will examine the reaction to these efforts in cultural circles in China, as well as the reasons behind the failure of certain activities.

Tattooing Customs in Japan's Southern Islands: A Survey and Visual Record of Tattooing in the Okinawa and Amami Islands

Gisho Nakama, Director (and nine associates)
Yomitan Township History and Folk Art Hall
¥5.4 million

The custom of tattooing (called *hajichi*) was once practiced in Japan as far south as Yonaguni Island and as far north as Kikaijima in the Amami Islands. Upon reaching a certain age, women in this region tattooed the backs of both hands and arms. The custom was banned in the Amami Islands in 1876 and on Okinawa in 1899, with the result that tattoos are worn today by only a very few Okinawan women in their nineties.

In the course of this joint international study, tattooed women will be interviewed as to the name and number of their tattoos, the age at which they were tattooed, the tools and methods used, the accompanying ceremony and song, the tattooer, the reason for being tattooed, and the various tattoo patterns. Photographs and videotape recordings of the tattoos will also be collected. The eventual purpose of this research is to fa-

facilitate a comparison of the tattooing customs in Japan with those in Southeast Asia and among other peoples around the Pacific.

Basic Research on a Methodology for Japanese Toponymy

Ken'ichi Tanigawa, President (and twelve associates)
Japanese Center for Toponymic Studies

¥2.0 million

The study of place names in Japan has lagged behind that in other countries. While a few famous Japanese scholars, such as Kunio Yanagita and Kanji Kagami, made considerable progress in the study of place names, they did not succeed in establishing toponymy as a systematic academic discipline.

The aim of this joint international study is to establish toponymy as a serious scientific pursuit. The work of earlier, isolated researchers will be compiled, and the cooperation of scholars of history, geography, folklore, philology, and other disciplines will be enlisted to formulate a unified theory and methodology for the study of place names in Japan.

Compilation of a Modern Japanese-Portuguese Dictionary

Yasuhiko Sano, Professor (and twelve associates)
Faculty of Foreign Languages, Sophia University

¥2.0 million

The world's seventh most widely spoken language, Portuguese is currently used by more than 150 million people in Portugal, Angola, Mozambique, and Brazil. The last country also embraces one of the largest overseas Japanese communities in the world, consisting of some 800,000 people of Japanese descent, active in every sector of society. In view of Japan's growing importance in the global community, it is clear that there is urgent need for an up-to-date Japanese-Portuguese dictionary to help disseminate information about Japan abroad.

This joint international project, begun in 1980, will attempt to complete the compilation of a Japanese-Portuguese dictionary adapted to users with no knowledge of Japanese or of Chinese characters. All usage examples will be written in romanized Japanese, and entries and examples will be selected for their informative and practical value. Japanese-language scholars at the National Language Research Institute and at the Center for Japanese Culture of the Universidade de São Paulo will check the Japanese manuscript thoroughly, after which a team of translators consisting mainly of people of Japanese descent will render it into Portuguese. The manuscript will be entered in a word processor for greater speed and accuracy in editing.

Compilation of and Chronological Research on Calendars and Astronomical Records in China, Japan, and Korea

Hiroyuki Momo, Lecturer (and twelve associates)
Rissho University

¥5.8 million (two-year grant)

Historical events can only be corroborated by the use of written records, but the occurrence of such astronomical events as lunar and solar eclipses and planetary

phenomena can be reconstructed accurately through mathematical calculations. Where documents reporting astronomical phenomena exist, astronomers can verify their accuracy, make judgments as to their reliability, and confirm or correct their chronological order. Such historical records can also yield data that are useful to modern astronomers.

This project will combine the efforts of historians and astronomers to gather and analyze astronomical data from published and unpublished historical records with a view to checking astronomical chronology and the reliability of historical materials. Research will be directed toward checking the coordinates of observed astronomical events, investigating ancient calendars and charts of constellations, and verifying the chronological progression of ancient eras.

Research on the History of Industrial Technology in Japan

Mitsukuni Yoshida, Professor (and fourteen associates)
Institute for Humanistic Studies, Kyoto University

¥5.6 million

Modern industrial technology in Japan has developed at a remarkable pace and attained extremely high levels. This speedy development, however, poses problems for researchers of the history of Japanese industrial technology. Always in pursuit of new technology, industry has been constantly replacing old equipment with new. Research is urgently needed to assess the rapidly disappearing evidence of Japan's early industrial technology.

The aim of this study is to trace the history of Japan's industrial technology, paying particular attention to industrial archaeology and the investigation of industrial remains. A nationwide survey will be conducted to determine the location of such remains. The task at this stage of the project will be to build a nationwide network of researchers and to initiate field work, especially in the environs of Osaka, Kyoto, and Kobe.

Early Education and the Sense of a Useful Life Among the Elderly: A Study of Retired Blue-Collar Workers

Ikuo Arai, Associate Professor (and ten associates)
Faculty of Engineering, Tokyo Institute of Technology

¥3.0 million (two-year grant)

The proportion of elderly citizens in Japan's population is expected to reach unprecedented levels in the near future. As this happens, the growing sense of uselessness and helplessness among the elderly could become a serious social problem. Since the quality of life in old age is largely determined by early education and other preadult experiences, a study focusing on early education is essential to solving the problems facing our aging society.

The aim of this study is to look at the retiree's sense of purpose in life—an issue that researchers have addressed only in a fragmentary fashion until now—and link it to his or her childhood educational experiences. The researchers have already conducted a similar survey on white-collar retirees of large firms. The current study will attempt to obtain more broadly applicable results by surveying blue-collar retirees through mail-in questionnaires and interviews.

Research Contests on the Theme "Observing the Community Environment"

Research contests have been held biennially since fiscal 1979, when the first contest was held on the theme "Observing the Community Environment." The purpose of these contests is to encourage specialists and local residents to cooperate in implementing long-term research on the community environment.

This year the Foundation conducted activities in connection with the ongoing second research contest, begun in fiscal 1981, and the third research contest, which was inaugurated. The schedule for both contests is given below.

Schedule	Second Contest	Third Contest
Acceptance of research contest applications	Oct. 1981–Jan. 1982	Oct. 1983–Jan. 1984
Selection of candidates for research awards	Mar. 1982	Mar. 1984
Preliminary studies by award candidates	Apr.–Sept. 1982	Apr.–Sept. 1984
Selection of award recipients	Oct. 1982	Oct. 1984
Implementation of research projects	Oct. 1982–Oct. 1984	Nov. 1984–Oct. 1986
Decision on special research award recipient	Mar. 1985	Mar. 1987
Implementation of special research award project	Apr. 1985 on	Apr. 1987 on

In connection with the second research contest, the selection committee visited with and interviewed each of the project teams that had been selected for research awards the previous year, and a symposium was held for the presentation of interim research reports. Work was also begun on a documentary film recording the activities of four project teams.

As for the third research contest, the Foundation solicited applications and screened

proposals from eighty-six project teams. Nineteen projects were selected as candidates for research awards. Each candidate received ¥500,000 to conduct preliminary studies.

Projects Selected as Candidates for Awards in the Third Research Contest

The Role of Basic Experiences in Shaping Awareness of Nature and Society: Creating and Transforming Human-Oriented Spaces in the Higashi Shioda District
Yutaka Ide
Higashi Shioda Education Promotion Group
Nagano Prefecture

Comprehensive Research on Preserving and Restoring Firefly Habitats on the Miura Peninsula: Toward Urban River Improvement That Enhances an Attractive Environment
Nobuyoshi Oba
Study Group on Environmental Water Systems
Kanagawa Prefecture

A Survey and Study to Explore the Possibility of Farm Management by Urban Residents for a Self-sufficient Food Supply Using Farmland in the Vicinity of Kunitachi and Hino Cities
Tetsuo Akemine
Yabo Cultivation Group
Tokyo

Research on the Preservation and the Use as a Teaching Aid of Industrial Ruins and Relics in Aichi Prefecture
Shoji Ishida
Study Group for the Preservation of Aichi Industrial Ruins and Relics
Aichi Prefecture

Research on the Creation of a Living Environment as Seen from the Perspective of Changing Dietary Patterns in the Nambu Region Around Hachinohe
Keisuke Koyama
Study Group on Nambu Region Foods and Living Environment
Aomori Prefecture

Research on Activities and Education for Environmental Conservation on Rebun Island: Formulation of an Environmental Education Curriculum, Surveys of Plant Distribution, and Fostering of Rare Plants
Yuko Takebayashi
Rebun Island Nature Conservation Study Group
Hokkaido

Research on the Relationship Between the Community Environment and the Local Winds That Blow from the Ibuki Range Across the Nobi Plain
Michio Owada
Aichi Climate and Environment Study Group
Aichi Prefecture

An Ecological Study of Birds Living in the Urban Environment Around Tokyo Station and the Imperial Palace
Koichi Karasawa
Study Group on City Birds
Tokyo

Research on the Transition from Vacant Houses to Small-scale Redevelopment in the Hama School District of Kadoma City
Mami Gemba
Hama School District Reform Group
Osaka

Research on the Benefits of Town Planning and Handicraft Work by Children Making Use of the Traditional Sakè Brewing Environment of Fukumi, Kyoto
Yasunobu Okada
Fukumi Town Planning Study Group
Kyoto

The Relationship Between Crow Ecology and Refuse Left by Tourists in Kamakura
Haruo Iwata
Kamakura Independent Bird Watchers Group
Kanagawa Prefecture

A Study of the Ecology of Hooded Gulls Wintering on the River Kamo, Kyoto
Higashi Sugawa
Kyoto Kamogawa Hooded Gull Study Group
Kyoto

Habitat Preservation Measures for *Ajime Dojo* (*Niwaella delicata*) Loaches in Gifu Rivers
Yoshihiro Wada
Gifu Research Group on the Ajime Dojo Loach
Gifu Prefecture

Community Planning for Elderly Residents of Depopulated Areas, with Emphasis on Mental Health and Sociological Measures in Yamaguchi's Oshima District

Shigeru Kobayashi

Suo Oshima Study Group on a Healthy and Meaningful Life
Yamaguchi Prefecture

Research on the Relationship Between Snow and Human Life, with Emphasis on the Toyoma Area in Hokuriku Snow Country

Shuji Fujii

Toyama Snow Study Group
Toyama Prefecture

Research on the Conservation, Fostering, and Use in Education of the Greenery in the Environs of Ueno Park

Kiyoshi Ogawa

Ueno Environmental Greenery Study Group
Tokyo

A Study of the Change in Environment and the Educational Effect on Children Caused by the Relocation of Elementary School No. 10 in Suginami Ward

Minako Murakami

Study Group on Suginami's Elementary School No. 10
Environment
Tokyo

Environmental Survey on the Impact on the Oze Lake and Marsh of the Abnormal Proliferation of Waterweed (*Elodea nuttalli*) Algae

Hideo Kurita

Oze Nature Conservation Study Group
Gunma Prefecture

The Relationship Between Housing Structure and Insects Harmful to Health in Naha City

Sumio Nakatamari

Study Group on Harmful Insects in Okinawan Houses
Okinawa Prefecture

International Grant Program

The Foundation's International Grant Program is currently directed chiefly toward Southeast Asian countries. Drawing on its seven years of experience in assisting researchers in these countries, in fiscal 1983 the Foundation concentrated on the following two fields: (1) projects aimed at preserving and revitalizing indigenous cultures and (2) projects aimed at fostering healthy, self-reliant young people. The Foundation is placing priority on projects that exhibit the following characteristics:

1. Projects initiated and carried out by indigenous researchers.
2. Projects initiated by universities and nongovernment (nonprofit) organizations, especially independent projects undertaken at local universities, which take precedence over those initiated by the governments of Southeast Asian countries or by international organizations.
3. Projects that do not represent research for research's sake but offer the prospect of practical results with a discernible social impact.
4. Projects that go beyond the academic sphere and have as much relevance as possible for the general public.

The application procedure for international grants is as follows: People in Southeast Asian countries wishing to apply for an international grant should submit directly to the Foundation's International Division a brief letter in English describing the proposed project and its goals. (The Foundation has its only office in Tokyo and does not maintain field offices abroad.)

In general, the Foundation does not approve grants for endowments; building construction; equipment procurement; museum or library acquisitions; annual budgets of institutions or established programs; propaganda or lobbying activities; religious activities; research for the sake of research, such as projects that have no practical foundation or are deemed unlikely to produce results with any social impact; or salaries of project leaders or researchers.

There are no fixed deadlines for submitting applications. The Foundation will require from six months to one year to review an application depending on the nature of the project's proposals and the amount of information provided by the applicant(s). In most

cases, the Foundation's professional staff will visit the applicant(s) to gather necessary information before and during the review period. For projects with a duration of more than one year, applications must be submitted each year. Grants are approved at the Board of Directors' meetings, which are held several times a year.

HAWA Project: Drafting a Proposal for a Counseling and Welfare Organization for Female Factory Workers in Malaysia

Professor Ungku A. Aziz, Vice-Chancellor
University of Malaya

¥6.62 million

Awarded its first grant in June 1979 and a second grant in October 1980, this project is in its third year. The influx of foreign corporations as Malaysia pursued economic development under the Second Malaysia Plan (1971-75) greatly increased the number of female factory workers migrating from rural villages. Many problems have arisen because of poor working conditions, psychological isolation, unsanitary living quarters, and inadequate leisure facilities, and much concern is being focused on the plight of these women.

The project's purpose is to draft a plan for the establishment of a government agency that would be responsible for the welfare of women factory workers. The agency will be known as HAWA, an acronym that means "woman power" in Malaysian. A feasibility study will be conducted and a report compiled. This year data obtained in field studies (in Kuala Lumpur during the first year and in other Malaysian cities during the second) will be analyzed, a draft report will be prepared, and a national seminar, whose participants will include scholars as well as representatives of government agencies, volunteer organizations, and corporations, will be held to discuss the research findings.

Implementing an Appropriate Preschool Educational System for Children in Impoverished and Rural Areas

Professor Kawee Tungsubutra, Director
Health Science Center, Khon Kaen University

¥7.12 million

This project, awarded its first grant in June 1981 and its second in June 1982, is in its third year. It aims, with the cooperation of village priests and residents, to establish and develop day-care centers based on the Montessori method in villages located in northeastern Thailand, the country's most impoverished region. The centers will be located at village temples, and priests and villagers will be encouraged to take full responsibility for their staffing and financing.

During the first year, two new day-care centers were established, educational materials were developed, young village women underwent training to be center teachers, and the project was publicized among villagers. With the opening of several centers in the second year, the project focused on providing advice on problems related to the centers' operation. In the third year, feedback will be sought from all groups involved in the project, and these findings will be analyzed. In addition,

people involved in the project will discuss problems and methodology, a written evaluation of the project will be prepared, and efforts will be made to encourage other regions to establish Montessori-method day-care centers.

The *Carita Parahyangan*: Its Place and Function as a Historical Source

Mr. Dirman Surachmat, Vice-Director
Department of Museums and History, Jakarta

¥0.93 million

The *Carita Parahyangan* is a work of oral literature that has been partially recorded in the old language of the Sundanese, an ethnic group on the island of Java. The current project will use this oral classic as a source for studying the history of Sundanese inhabitation of western and central Java. The regions referred to in the classic, apparently located between the Sundanese centers to the west and the Javanese centers to the east, are of particular interest to historians studying Java.

The first objective of the project is to determine the accuracy of oral literature as a historical source by such processes as comparing the *Carita Parahyangan* with related documents, checking place names in the classic against actual ancient place names, and studying the dialects found in the area under study. Once the accuracy of oral literature as a historical source has been established, the *Carita Parahyangan* will be used along with information from such sources as documents, field surveys, and archaeological research to reconstruct the social structure, natural surroundings, religious beliefs and practices, and other aspects of the region at the time of the classic.

An Inventory of Ancient Settlements in Thailand Using Aerial Photography

Mr. Thiva Supajanya, Assistant Professor
Department of Geology, Chulalongkorn University

¥7.07 million

This project, awarded its first grant in June 1981 and its second in June 1982, is in its third year. Much of Thai history before the establishment of the Sukhothai kingdom is still unknown. The aim of this project is to classify and supplement the results of more than fifteen years of research by the project leader in identifying ancient settlements throughout Thailand and to arrange the information in a form accessible to the public. An inventory of aerial photographs identifying settlements will be compiled.

The project focused on photographing settlements of northeastern Thailand in the first year and those of northern Thailand and the Chao Phraya plain in the second year. The aerial photographs, which cover two-

thirds of Thailand, have been thoroughly studied, and settlements have been identified. This year southern Thailand and other areas will be surveyed. It is expected that the completed inventory will include information on about one thousand settlements.

A Survey of Old Manuscripts in Northeastern Thailand
Mr. Pharn Wong-Uan, Secretary
Cultural Center, Maharakam Teachers College
¥4.42 million

Northeastern Thailand, like other regions of Thailand, has many old manuscripts that are invaluable sources for historians. These manuscripts, written in a variety of scripts, deal with morals, mythology, poetry, history, astrology, religion, law, customs, medical botany, and other subjects. The objective of the present project is to survey palm-leaf manuscripts, inscriptions on stone monuments, and paper manuscripts, noting their location and contents. Valuable manuscripts will be recorded on microfilm and preserved as primary sources for future research. The number of people able to read the ancient scripts in which the documents are written is very limited, making it important to finish the survey quickly.

Coordinated by the Cultural Center at Maharakam Teachers College, the project involves the cooperative efforts of seven other Thai teachers colleges. With national-level specialists and prominent local figures as advisers, the project will also seek to train local researchers in this field.

A Lexicon of Classical Newari Drawn from Traditional
Kośa Sources

Mr. Prem Bahadur Kansakar, Secretary-Treasurer
Nepal Bhasha Dictionary Committee
¥0.65 million

The present project, which was initially awarded a grant in September 1982, is in its second year. Its objective is to compile a dictionary of classical Newari, the language of the Newar, a people who have for centuries inhabited the Kathmandu Valley, one of Asia's major cultural crossroads. The dictionary will be based on classical Newari vocabulary items drawn from twelve valuable Sanskrit-Newari and Pāli-Newari lexicons known as *kośa*, some of which date back to the fourteenth century.

Compilation of the dictionary, which will provide definitions in both the language of the source manuscript (usually Sanskrit) and English, was half finished last year. The manuscript is expected to be completed and ready for printing in 1985.

Ethnicity and Development: A Study of Indians in
Southeast Asia

Professor Kernal S. Sandhu, Director
Institute of Southeast Asian Studies
¥3.57 million

This project, first awarded a grant in June 1978, is in its second year. The purpose of the project is to conduct a comprehensive study and comparative analysis of Indian communities in Southeast Asia in order to assess ethnic problems and clarify the issues involved. It will also explore the connection between ethnic problems on the

one hand and economic, social, and political development and integration at the national and regional levels on the other hand. The project's findings are expected to be of use in improving policies and programs for economic development, social integration, and regional cooperation in Southeast Asia, a region characterized by great ethnic diversity.

The project has been extended because of such unforeseen difficulties as considerable delay in obtaining some countries' census results and other indispensable data. The remaining papers on Indian communities in Southeast Asia are expected to be submitted this year, after which all forty-five papers will be edited for publication in book form.

Survey and Photographic Recording of Northeastern
Thai Mural Paintings

Mr. Pairoj Samosorn, Lecturer
Committee of Esarn Cultural Center, Khon Kaen University
¥2.21 million

First awarded a grant in September 1981, this project is in its second year. The objective of the project is to compile a record of mural paintings found in the temples of northeastern Thailand by surveying and photographing them. Although most of the murals depict religious themes, such as the travels of the Buddha's disciples and Jataka tales (popular stories of former lives of the Buddha), all the murals incorporate various aspects of life in northeastern Thailand. The murals are valuable both as a resource for ethnologists studying northeastern Thailand and as a cultural legacy of this region. However, inhabitants of this region, as well as other Thais, are for the most part unaware of the murals' value.

During the first year of the project a field survey was made of seventy temples in fifteen northeastern provinces. Murals were discovered in thirty-five temples. This year, focusing on five of these temples that have been designated as particularly important, the researchers will draft a floor plan of each temple, photograph and create full-scale replicas of its murals, and collect the traditions associated with the murals.

Workshop: The Hidden Treasures of Northeastern Thai
Mural Paintings

Ms. Suneo Leopenwong, Department Head
Department of Humanities, Khon Kaen University
¥0.79 million

The workshop, whose participants included intellectuals, monks, and government officials in northeastern Thailand, was based on the interim results of research conducted for the Survey and Photographic Recording of Northeastern Thai Mural Paintings, a project that received its initial Foundation grant in September 1981. The workshop, held in December 1983, examined ways to draw attention to the mural paintings and their value, increasing awareness of them both locally and nationally. Workshop participants discussed the theoretical framework and methodology of future research and explored ways to preserve the mural paintings.

It used to be thought that northeastern Thailand had no temple murals worthy of scientific study. The project conducted with Foundation assistance has shown that this is not true, and this survey undertaken by local

researchers has thus taken on great significance. The project team planned to make the workshop a forum for informing national-level researchers and local intellectuals and monks of the progress of research thus far. The team also sought to promote further research and encourage efforts to preserve the mural paintings. In addition, the team hoped to gain the recognition of national-level researchers and draw on their advice in charting the future course of research.

A Survey and Study of Ancient Southern Thai Manuscripts in the Province of Nakhon Si Thammarat

Mr. Wichien Na Nagara, Director
Center for Cultural Studies of Southern Thailand, Nakhon Si Thammarat Teachers College

¥3.95 million

Nakhon Si Thammarat is in the south of Thailand. This province is of considerable interest to historians studying Southeast Asia, for they believe that it once included the capital of the Śrīvijayan Empire, which stretched across present-day Thailand, Malaysia, and Indonesia. Data on this question are still inconclusive, however, and basic, wide-ranging research is necessary.

In the present project, which will be conducted over three years, a team led by researchers from Nakhon Si Thammarat Teachers College will survey and collect an estimated three thousand ancient manuscripts in eleven areas of the province. The manuscripts will be recorded on microfilm, and some will be transliterated and published. The manuscripts concern such topics as folklore, religion, poetry, traditional medicine, astrology, history, morals, law, etiquette, and magic. This project will be carried out by local researchers, who will collect, catalog, and preserve a wide range of basic reference materials on the history of the region.

Sema Stones of the Northeast: A Survey and Study of the Continuity of Megalithic Elements in Northeastern Thai Society

Mr. Srisakra Vallibhotama, Associate Professor
Department of Anthropology, Silpakorn University

¥1.6 million

Sema stones are remnants of the megalithic culture that flourished on the Khorat Plateau in northeastern Thailand in the late Iron Age. With the introduction of Buddhism to this region in the seventh century, many of the stones were taken over by the Buddhist religion and moved to mark the boundaries of monasteries.

The objective of the present project, which was initially awarded a grant in September 1982 and is in its second year, is to use the *sema* stones as a source for retracing Thai history prior to the introduction of Buddhism, thus revising understanding of the cultural history of northeastern Thailand. This will be achieved by clarifying several points, such as the links between the stones and the remains of settlements, the age of the stones as indicated by their artistic style, the distribution of the stones in northeastern Thailand, the stones' stylistic characteristics and changes over time, and contact with the culture of Dvaravati, an ancient kingdom in what is now central Thailand. Surveys conducted on a plateau along the upper reaches of the Mun and Chi rivers during the project's first year yielded many dis-

coveries. This year field surveys will be continued and a report prepared.

A Data Base for Ancient Settlements in Thailand: Preparation for Establishing an Information Center

Mr. Thiva Supajanya, Assistant Professor
Department of Geology, Chulalongkorn University

¥6.5 million

The present project is the outgrowth of another project, An Inventory of Ancient Settlements in Thailand Using Aerial Photography, which was awarded Foundation grants in fiscal 1981, 1982, and 1983. The inventory, which covers Thailand's main regions, is nearly finished.

The aim of the present project is to use the inventory results and other data to create a comprehensive computer data base on the remains of settlements throughout Thailand for easy access and to establish an information center on ancient settlements. The data have been gathered primarily by local researchers under the guidance of instructors at teachers colleges in various regions of Thailand. Because the research has been done on a local level so far, the data must be collated as the inventory project enters its final phase. Local workshops will be held to increase knowledge of the remains and teach residents how to use the inventory. It is expected that the data base will be used in future research on ancient settlements and in government projects for preserving their remains.

International Conference on Thai Studies

Professor Pensri Duke, Director
Thai Studies Program, Chulalongkorn University

¥1.51 million

The International Conference on Thai Studies, to be held in Bangkok in August 1984 by Chulalongkorn University with the cooperation of eight other universities, will be the first international conference on Thai studies to meet in Thailand. At the conference scholars from Thailand and other countries will hold discussions and exchange opinions on such topics as the current state of Thai studies; concepts, theories, and methodologies of such studies; language, arts, and traditions; Thailand's social history; and Thailand's relations with other countries.

In recent years there has been a surge in the number of Thai scholars involved in this field. In particular, the findings of Thai scholars studying the culture and history of their local regions are beginning to appear. Local Thai researchers will have an opportunity to meet with scholars from industrialized countries and from other Southeast Asian countries at the conference, which is expected to benefit all participants and yield new perspectives and outlooks for Southeast Asian studies in general.

Videotape Recording of Southern Thai Buddhist Culture

Mr. Supak Intongkong, Secretary
Institute for Southern Thai Studies, Sri Nakhonwirod University

¥6.49 million

This project, initially awarded a grant in March 1983, is in its second year. The project focuses on southern

Thailand, which, with its traditional communities, ancient art, remains, and traditional entertainments, is one of Southeast Asia's richest cultural wellsprings. The objective of the project is to record elements of traditional southern Thai culture on videotape before they vanish. The tapes will deal with such aspects of the region as its traditions, entertainments, occupations, arts, handicrafts, beliefs, and social structure. By making maximum use of these videotapes, local inhabitants will learn more about their culture and take pride in it. The tapes will also make other Thais and foreigners aware of southern Thailand's flourishing culture.

During the project's first year, visits were made to fourteen provinces in southern Thailand to select the locations and settings most suitable for recording on videotape. A trial tape was made at one location, and a script was prepared. Full-fledged filming will commence this year.

Editing and Publication of the Royal Edicts of Burma from 1598 to 1885

Professor Than Tun
Mandalay University
¥2.5 million

Most of Burma's royal edicts were scattered in the turmoil of World War II, and those extant are located throughout Burma and in Britain. Aided by his students, the project leader has spent years seeking out and copying these edicts by hand. The aim of this project, initially awarded a grant in March 1983 and now in its second year, is to type the edicts, arrange them in chronological order, and supplement them with summaries and an overall introduction in English. They are to be published in four volumes by the Center for Southeast Asian Studies at Kyoto University.

In the project's first year the first volume, which covers the years from 1598 to 1752, was published, and editorial work on the second volume was begun. The four volumes will contain edicts relating to legal provisions; judicial procedures: inheritance, marriage, and divorce laws; revenue and taxes; the calendar; court etiquette; court life; festivals; the monetary system; the military system: defense; and weights and measures. The volumes will be valuable reference works for researchers studying Burma's political and cultural history.

Publication of the Social Science Quarterly Journal *Ilmu Masyarakat* (Social Science)

Professor Syed Husin Ali, President
Malaysian Social Science Association
¥3.67 million

Initially awarded a grant in March 1983, the present project is in its second year. Its objective is to publish a quarterly social science journal to encourage international joint research and joint publication by Southeast Asian social scientists, promote the exchange of knowledge and information among Southeast Asian social scientists, and develop Southeast Asian perspectives and approaches in the social sciences. The journal's articles, which are in either Malaysian or English, include both research reports and more general articles that present new views and arguments.

During the project's first year, the inaugural issue

and three other issues were published as scheduled. The response in academic circles has been encouraging, and some articles have been cited in lectures and carried in academic journals in Malaysia and other Southeast Asian countries. This year, as the journal begins to carry articles concerning countries other than Malaysia, sales efforts will be stepped up to make the project financially self-supporting.

Muslim Architecture in the Southern Border Provinces of Thailand

Mr. Khate Ratanajarana, Lecturer
Center for Southern Thailand Studies, Prince of Songkla University
¥3.58 million

Initially awarded a grant in March 1983, this project is in its second year. Thai Muslims of Malay ancestry account for the majority of the population of the southern provinces of Pattani, Yala, Narathiwat, and Satun, which lie along Thailand's border with Malaysia. The unique style and structure of Thai Muslim dwellings exhibit a strong Islamic influence. Unfortunately, however, the value of Thai Muslim structures has been overlooked in southern Thailand, and such buildings are rapidly being demolished.

The objective of this project is to survey and collect basic data on these Thai Muslim dwellings, to train specialists in this field of research at the Prince of Songkla University, and to make local inhabitants aware that their traditional architecture is a valuable cultural property. The twenty field surveys conducted during the project's first year yielded data on history, customs, traditional construction methods, and architectural terms. A display and other activities were also held to promote awareness of the dwellings' value. Further surveys will be conducted this year.

Compilation of a Southern Thai Cultural Encyclopedia

Mr. Sudhiwong Fongpaiboon, Director
Institute for Southern Thai Studies, Sri Nakharinwirod University
¥8.63 million

Awarded its first grant in March 1982 and a second grant in March 1983, the project is in its third year. The aim is to compile a cultural encyclopedia on southern Thailand based on data on the region's customs and oral traditions. The data are to be collected through field studies and interviews. The encyclopedia, which will be amply illustrated, will include entries on history, legends, biographical data, religion, customs, arts, occupations, language, literature, and such performing arts as music and dance.

Once the encyclopedia's entries have been determined, they will be divided into four categories according to their importance. Specialists and local residents cooperating with the project will help collect the necessary data, check the data, and prepare the final drafts of the entries. Specialists will meet as necessary to discuss entries and ensure that they are adequate and accurate. As of the middle of the project's second year, drafts had been written for forty-one percent of the planned entries. The rest of the manuscript is expected to be completed this year.

A Study and Survey of Palm-Leaf Manuscripts in Phitsanulok, Sukhothai, and Phichit Provinces, Thailand

Mr. Supot Pruksawan, Lecturer

Cultural Center, Pibulsongkram Teachers College

¥5.75 million

Awarded its first grant in March 1982 and a second grant in March 1983, this project is in its third year. The southern part of northern Thailand, once the locale of one of Thailand's former capitals, abounds with historical and cultural relics. These include palm-leaf manuscripts that date back one hundred to five hundred years. The present project aims to conduct a comprehensive survey of the palm-leaf manuscripts, microfilming those of particular importance and transliterating them into modern Thai.

During the project's first year, 406 monasteries were surveyed in Phitsanulok province. A total of 28,565 manuscripts written on palm leaves or paper were found in 106 monasteries. Of these, 1,653 were microfilmed, and their contents were transliterated and published. Midway through the second year, a survey had been made of 36 monasteries in the province of Sukhothai. Of the 4,000 manuscripts discovered there, 1,695 were microfilmed. The project will focus on the province of Phichit during its third year. (It was originally planned to study the province of Kamphaengphet, but it was discovered that this would overlap with another project. Moreover, Phichit is believed to be a richer source of documents than Kamphaengphet.)

Haji Hasan Mustapa: An Anthology

Mr. Ajip Rosidi, Writer

¥1.46 million

Haji Hasan Mustapa, born in 1849 in the Sunda region of western Java, was active from the latter half of the nineteenth century until his death in 1930. An Islamic scholar, he wrote many treatises on Islamic doctrine. He was also a prolific writer of poetry and other literary works. His works are scattered across various areas: Mecca, where he once taught; Cairo; Indonesia; and the Netherlands. The grantee will travel to various locations to collect these documents. After analyzing the manuscripts, which have never been studied as a single *oeuvre*, he will publish selections in an anthology.

Himself a writer from the Sunda region, the grantee is concerned because classical Sundanese literature, which is an important cultural property, is not being collected and made available to future generations. Instead, he notes, it is becoming increasingly forgotten as time passes. One of his major reasons for undertaking this project is to encourage young people of the Sunda region to read the literature of their ancestors. This anthology will thus first be published in Sundanese.

A Preliminary Study on the Translation of Academic Writings and Standardization of Translated Academic Terms

Professor Muhammad Haji Salleh

Department of Malay Letters, National University of Malaysia

¥1.17 million

For many years after Malaysia gained its independence from Britain, education continued to be conducted in English and Chinese as well as the native Malay lan-

guage. Malaysia has made Malay the country's official language, renaming it Malaysian. This language is now being used for all levels of education from elementary school on up. There is an urgent need to create Malaysian equivalents for academic terms, because until recently higher education has been conducted almost entirely in English. The lack of appropriate expressions hinders the translation of foreign works into Malaysian and the preparation of academic works in Malaysian.

Seeking a solution to these difficulties, the grant recipient, who is a literary scholar, plans to study the experiences of other countries, especially Japan. He feels that Malaysia can learn much from Japan, where experience in translating foreign works into Japanese goes back more than one hundred years and where the educational system has long been based entirely on the country's native language. He will use the findings of interviews conducted in Japan to facilitate the study of a systematic method of translating foreign works into Malaysian and of creating standardized Malaysian equivalents of academic terms.

“Know Our Neighbors” Program

The “Know Our Neighbors” Translation-Publication Program was inaugurated in fiscal 1978. It includes the “Know Our Neighbors” Translation-Publication Program in Japan, which is in its sixth year, the “Know Our Neighbors” Translation-Publication Program in Southeast Asia, which got under way in fiscal 1982, and the “Know Our Neighbors” Translation-Publication Program Among Southeast Asian Countries, which was launched this fiscal year.

The program in Japan strives to better acquaint the Japanese with the culture, society, history, and other aspects of their Southeast Asian neighbors. To accomplish this, the program selects from Southeast Asian literary works and books on culture, society, history, and other subjects those designated by people from Southeast Asian nations as suitable for introduction to the Japanese public. The Toyota Foundation awards grants to assist with the translation of these works into Japanese. Thus far, grants have been awarded to seventy-three works: twelve from Burma, nineteen from Indonesia, seven from Malaysia, five from the Philippines, seven from Singapore, and twenty-three from Thailand.

The program in Southeast Asia aims to encourage an understanding of Japan among the peoples of Southeast Asia. To this end, it assists with the translation and publication in Southeast Asian languages of social science and humanities books on Japan by Japanese authors, Japanese literary works, and the results of Japanese research projects on Southeast Asian topics. Selection of the works to be translated, the translators, and the publishers, as well as other administrative details, is the responsibility of organizations in Southeast Asia that have received Foundation grants. In fiscal 1982 groups in Malaysia and Thailand were awarded grants; this fiscal year a group in Indonesia received its first grant, and the Malaysian group was given a second grant.

The “Know Our Neighbors” Translation-Publication Program Among Southeast Asian Countries was established to promote understanding among the peoples of Southeast Asia. The program seeks to do this by assisting with the translation and publication of Southeast Asian social science and humanities books and works of literature to enable the Southeast Asian peoples to read the works of their neighbors. This fiscal year a grant was made to a group in Thailand.

The Dictionary Compilation-Publication Program, which is in its third year, strives to encourage the publication of medium-sized bilingual (Southeast Asian languages into Japanese) dictionaries that will serve as a basic tool for "Know Our Neighbors" program activities. It does this by partially funding the costs of compiling and publishing such dictionaries. Each dictionary is to contain 30,000–50,000 entries, an amount sufficient for reading novels, newspapers, and scholarly works, and should remain useful for many years. Grants have thus far been awarded for the compilation of a Thai-Japanese dictionary (in fiscal 1982) and a Vietnamese-Japanese dictionary (in fiscal 1981, with an additional grant in fiscal 1983).

The Foundation has held two seminars in conjunction with the "Know Our Neighbors" program. The sixth International Division Seminar, whose theme was "The Development of Contemporary Thai Literature: A Comparison with Burmese and Indonesian Literature," was held in 1982 in two locations, in Kyoto on October 23 and in Tokyo on October 30. The seventh International Division Seminar, whose theme was "The Development of Contemporary Southeast Asian Literature in Malaysia, the Philippines, and Singapore," was held in Tokyo on December 17, 1983. At the sixth seminar, the Foundation invited the Thai writer Suchart Sawadsri to be the main guest speaker. The participants discussed similarities and differences in the development of contemporary literature in Burma, Indonesia, and Thailand, focusing on the novels of these countries. Abu Bakar Hamid, a professor at the University of Malaya, was the guest speaker at the seventh seminar. The participants discussed literature written in the languages used in Malaysia, the Philippines, and Singapore, bearing in mind Southeast Asia's ethnic and cultural diversity.

"Know Our Neighbors" Translation-Publication Program in Japan

Title	Author	Translator	Publisher	Grant Amount
<i>Salina</i>	A. Samad Said	Tatsuo Hoshino	Imura Cultural Enterprise Co., Ltd.	¥ 3,900,000
<i>Or Else the Lightning God and Other Stories</i>	Catherine Lim	Miyuki Kosetsu	Dandansha Co., Ltd.	¥ 1,160,000
<i>Kebrangkatan</i>	NH. Dini	Megumi Funachi	Dandansha Co., Ltd.	¥ 880,000
<i>Nawa Niyai Kap Sangkhom Thai</i>	Trisin Bunkhachon	Toshiharu Yoshikawa	Imura Cultural Enterprise Co., Ltd.	¥ 1,400,000
<i>Hkayi Wingaba</i>	Sein Sein	Toru Ohno	Imura Cultural Enterprise Co., Ltd.	¥ 1,960,000
<i>Can Ye Xing</i>	Miao Xin	Heiwa Fukunaga and Chen Shun Chun	Mekong Publishing Co., Ltd.	¥ 1,100,000
<i>Waywaya and Other Short Stories</i>	F. Sionil José	Seisuke Miyamoto	Mekong Publishing Co., Ltd.	¥ 1,300,000
<i>Laporan dari Bonaran</i>	T. B. Simatupang	Masanori Sato	Imura Cultural Enterprise Co., Ltd.	¥ 1,900,000

Title	Author	Translator	Publisher	Grant Amount
<i>Merpati Putih Terbang Lagi</i>	Khadijah Hashim	Tatsuo Hoshino	Imura Cultural Enterprise Co., Ltd.	¥ 1,900,000
<i>Nyonya yu Baba</i>	Fang Bei Fang	Reiko Okutsu	Imura Cultural Enterprise Co., Ltd.	¥ 980,000
<i>Shwe Daung Taun Hsaunba Mya</i>	Ludu Daw Amah	Yasuko Dobashi	Shinjuku Shobo	¥ 1,240,000
<i>Than Lwin Phaung See</i>	Ludu U Hla	Shizuo Katoda	Shinjuku Shobo	¥ 1,320,000
<i>Juara</i>	S. Othman Kelantan	Mikio Hirato	Imura Cultural Enterprise Co., Ltd.	¥ 900,000
<i>Bon Barva Hma Hpyin</i>	Thakin Tin Mya	Hisao Tanabe	Imura Cultural Enterprise Co., Ltd.	¥ 5,100,000
<i>Memoir</i>	Mohammad Hatta	Masahiko Otani	Mekong Publishing Co., Ltd.	¥ 3,000,000
<i>The Woman Who Had Two Navels</i>	Nick Ioaquin	Matsuyo Yamamoto	Mekong Publishing Co., Ltd.	¥ 1,860,000
Total				¥29,900,000

Salina

This novel is typical of the early work of A. Samad Said, a well-known Malaysian socialist writer. Set in the slums of Singapore just after World War II, the novel portrays various aspects of human nature. Life has been difficult for most of its characters, many of whom lost relatives in the war. Though *Salina*, the woman of the title, once lived in comfort, she is now a slum-dwelling prostitute. This sketch of people living in the lower echelons of Singapore's postwar society urges readers to consider who are the real victims of war. It is an excellent example of Southeast Asian antiwar literature.

Or Else the Lightning God and Other Stories

This is the second anthology of short stories by a woman who is one of Singapore's most distinguished writers of English-language literature. The eighteen short stories in this collection feature a wide spectrum of characters who live courageously despite the hurt and confusion they feel in Singapore's affluent society. One mother is so concerned about education, which is the key to success in Singapore's fiercely competitive merit-based society, that she beats her offspring for not studying. Other characters include a young person who has dropped out of this competitive arena, people who attach so much importance to material affluence that they lose their sense of self, and one of the money worshipers who have emerged during the country's rapid economic growth. Though at times her depictions of people are tinged with irony, the author wields a sympathetic pen from beginning to end.

Kebangkitan [Departure]

Around 1950, not long after Indonesia gained independence from the Netherlands, the Dutch began to withdraw from the Indonesian government, and part-

Dutch Indonesians were given the option of becoming Dutch nationals. Set during this period of transition, this novel focuses on a young woman of mixed Indonesian and Dutch blood. The author introduces such issues as the problems of a colonial state, the hatred between people of different races, and the status of Eurasians. The work, which offers various images of young people in Indonesia, vividly imparts the essential life force of Indonesia, a newly independent country shadowed by an aura of melancholy. The author is one of the most active woman writers in Indonesia today.

Nawa Niyai Kap Sangkhom Thai [Thai Novels and Society]

Presented in 1978 as the author's master's thesis, this volume is a history of modern Thai literature as it reflects political changes in Thailand. The work spans recent history, including Thailand's period of absolute monarchy, the aftermath of the revolution establishing a constitutional monarchy, the rise of ultranationalism during World War II, the postwar years, and the rise of nationalism and proletarian literature during the cold-war years. The author analyzes the way that specific novels reflect social and political changes and examines the attitudes, thinking, and messages of the novelists.

Hkayi Wingaba [Traveling Through a Labyrinth]

The author of this autobiography, a leading writer in Burma until her death in 1972, received four literary awards in the 1950s and 1960s. The book begins with her youth, a time that is supposed to be gay and carefree. But at the age of nineteen the author discovers she has Hansen's disease. As she lives with this incurable malady, she repeatedly experiences the cruelty of fellow human beings and sees the ugliness of society. In writing her autobiography, she suppresses her emotions and

calmly and objectively describes her experiences. She writes of a young woman who not only fights her illness but also encounters unjustified prejudice and discrimination as well as swindlers trying to take advantage of her situation.

Can Ye Xing [Daybreak]

Miao Xiu, whose works are set in Malaysia and Singapore, is one of the leading writers of Chinese-language literature in Malaysia and Singapore. This novel tells of two young people who have immigrated to Singapore, where they are caught up in the turmoil of World War II. The young man is an anti-Japanese guerrilla. His lover, who left China and traveled via Hong Kong to Singapore after her father was killed by the Japanese, has become a prostitute. This tale of the young couple's fleeting romance accurately depicts social conditions in war-torn Singapore and offers a look at the Japanese forces occupying the island.

Waywaya and Other Short Stories

The author, one of the Philippines' foremost writers of English-language literature, was born in an area of northern Luzon where speakers of the Ilocano language are dominant. "Waywaya," the title story, is set in this area. Like the eleven other selections in the anthology, it deals with the ethnic pride of the Filipinos. The story concerns the tragic love of a young couple caught up in the strife between an ethnic minority living in the Ilocos mountains and the people living on the plains below. Written in the author's characteristic rapid-fire, loquacious style, the story is an outstanding example of the nature and quality of English-language literature in the Philippines.

Laporan dari Banjaran [The Road to Indonesian Independence]

Shortly after Indonesia gained independence, the author helped found the new republic's armed forces, serving as an army major general. He also directed guerrilla warfare as vice-chief of staff. In negotiations between Indonesia and the Netherlands he was a confidant of Commander in Chief Sudirman. Building on his own experiences in the more than four years of struggle against the Dutch that followed Indonesia's declaration of independence, the author wrote this book for postwar generations with no firsthand knowledge of the war. The work, which includes correspondence and documents of considerable historical value, is an eyewitness account of Indonesia's rocky road to independence.

Merpati Putih Terbang Lagi [The White Dove Soars Again]

The author of this Malaysian novel is also known for her television plays and short stories. In this novel, set in a fictitious town not far from Kuala Lumpur, she presents a parade of incidents and problems touched off among some of the town's conservative citizens by a young person of progressive ideas and unconventional behavior. A social novel, the work clearly depicts the creation of a new society in rural Malaysia, noting the many problems

that develop. The novel takes a penetrating look at the effect Malaysia's modernization is having on the country's rural society.

Nyonya yu Baba [Nyonya and Baba]

Originally written in Chinese, this novel examines the traditions and attitudes of ethnic Chinese living in Southeast Asia. It focuses on a three-generation family of Chinese immigrants living in Malaya, portraying shifts in their outlook on life and friction between the generations. Around the beginning of this century, Li Tiang Hock leaves his native China as a young man and goes to British-ruled Malaya. Lim Baba, his daughter, shrugs off her Chinese heritage and enthusiastically adopts British ways. Lim Nyonya, his wife, is greatly troubled. Lim Sou Ba, their grandchild, grows up in Japanese-occupied Malaya. Educated by a teacher well versed in Chinese literature, Lim Sou Ba grows into a youth who identifies strongly with his Chinese roots.

Shwe Daung Taun Hsaunba Mya [Popular Culture in Burma]

Ludu Daw Amah, the celebrated author of this sparkling collection of essays, is the widow of Ludu U Hla, the well-known Burmese journalist who wrote *Than Lwin Phaung See*, another "Know Our Neighbors" selection. These essays on popular culture in Burma draw on her own wealth of experience and on materials that date back to the early days of her late husband's newspaper. Imbued with a deep love for Burmese culture and incorporating anecdotes and background material on Burmese history and traditions, the essays cover a range of subjects, including an elephant festival, *gyinn* (gambling with tops), Burma's traditional glassware, silk *loungyi*, and the world's largest stone Buddha.

Than Lwin Phaung See [Rafters on the Salween River]

The late Ludu U Hla, a renowned Burmese journalist who died in 1982, based this volume on interviews with rafters who worked on the Salween River during the first half of this century. In describing the indigenous beliefs, customs, and folklore of the people living along the Salween River, this work relates the history and culture of these Burmese river people. The work also reflects the author's views regarding such issues as environmental destruction and the indiscriminate deforestation of teak forests that took place when Burma was a British colony. Discussing these concerns, the author appeals for immediate afforestation efforts to preserve Burma's forest resources.

Juara [The Bullfighter]

The protagonist of this novel enters Malaya's struggle for independence after World War II as a key member of the United Malays National Organization. Forming an alliance with the Malaysian Communist Party, the UMNO is overwhelmingly victorious in the national election of 1955, and Malaya's long-desired independence is proclaimed. But the UMNO suffers a crushing defeat in the next election because of intraparty strife. Even the protagonist, who although self-educated is the UMNO's

highest-ranking official, tastes defeat. He travels to Patani in southern Thailand and takes up one of the region's renowned trades: bullfighting. The story of a man who fights for independence only to find himself excluded from the newly independent society with its bias toward academic credentials, this novel is a satire of Malaysian society after independence.

Bon Bawa Hma Hpyin [The Communal Society]

The author of this work was a member of the Thakins, a radical pre-World War II student group advocating Burmese independence. He also occupied a central position in Burma's anti-Japanese and antifascist movements. Following Burma's independence, he joined the Burmese Communist Party, participating in an armed struggle against the government. Now a government supporter, he incorporates its socialist ideology into his work as a literary critic. Drawing on historical sources, the author has produced a clearly written, highly readable autobiographical work that reflects the fluctuations in Burma from 1938 to 1945, the country's most volatile years.

Memoir

Mohammad Hatta is a politician who has significantly affected modern Indonesian politics. Born in 1902, he

worked alongside Sukarno in Indonesia's struggle for independence, serving as vice-president when Sukarno became president. Because he was at the center of Indonesia's drive for independence, Hatta's clearly written memoir is an indispensable account of a dramatic period in Indonesian history. The work is a tapestry of memories ranging from his childhood in Sumatra through the time he spent studying in the Netherlands, his early involvement in politics, Indonesia's occupation by the Japanese, the Indonesians' struggle against the Dutch, and the successful bid for independence.

The Woman Who Had Two Navels

The story begins with a young woman visiting a veterinarian's office in Hong Kong. She asks the veterinarian, a Filipino, to perform surgery to remove her extra navel. As the tale unfolds, it reveals the endlessly complex relations among a group of expatriate Filipinos. As if to symbolize the decadence of the Philippines, the story focuses particularly on the love affairs of the protagonist and her mother. This work, an outstanding example of Philippine English-language literature, depicts the feelings of those Filipinos who, encumbered by their country's history and filled with discouragement, place their last hope in the Christian faith, which was introduced to the Philippines by its Spanish colonizers.

"Know Our Neighbors" Translation-Publication Program in Southeast Asia

Country	Organization	Representative	Grant Amount
Indonesia	Karti Sarana Foundation	Mochtar Buchori	¥15,880,000
Malaysia	Dewan Bahasa dan Pustaka (Language and Literacy Agency of the Ministry of Education)	Baharuddin Zainal	¥14,340,000
Total			¥30,220,000

Joint "Know Our Neighbors" Translation-Publication Project of the Karti Sarana Foundation and the Toyota Foundation

This project is intended to promote an understanding of Japan among the people of Indonesia. It seeks to do this by facilitating the translation and publication in Indonesian of social science and humanities works on Japan by Japanese authors, Japanese literary works, and the results of Japanese research projects on Indonesian topics.

The secretariat of the committee that administers the project is under the auspices of the Karti Sarana Foundation, a private foundation that was established to promote culture in Indonesia through such activities as research, seminars, cultural exchange, and publishing. The committee's six members include individuals drawn

from universities and the government as well as independent scholars. Under the project, which began in fiscal 1983 and will cover a period of three years, the committee plans to produce four translations annually. In its first year the project involves the translation into Indonesian of Japanese literary works and of social science works on Japan. The Karti Sarana Foundation will seek publishers in Indonesia for these translations.

Joint "Know Our Neighbors" Translation-Publication Project of Dewan Bahasa dan Pustaka and the Toyota Foundation

The goals of this project parallel those of the Indonesian project. The Malaysian project is administered by the Japanese-Malaysian Literature and Social Sciences

Translation Committee, established by the Dewan Bahasa dan Pustaka (Language and Literacy Agency of the Ministry of Education), a national language association that publishes literary and scientific works. The seven-member committee includes individuals from the Dewan Bahasa dan Pustaka, the University of Malaya, and the National University of Malaysia.

Implemented in fiscal 1982, the three-year program is expected to produce five translations annually. Translations being produced during the first fiscal year are *Botchan*, by Soseki Natsume; *Bushido: The Soul of Japan*, by Inazo Nitobe; *Contemporary Japanese Literature*, edited by Howard Hibbet; *Japanese Culture: A Study of Origins and Characteristics*, by Eiichiro Ishida; and *Rural Society in Japan*, by Tadashi Fukutake.

"Know Our Neighbors" Translation-Publication Program Among Southeast Asian Countries

Thai "Know Our Neighbors" Translation-Publication Project: Works in Other Southeast Asian Languages to Be Published in Thai

Pramote Wongthonglua, Editor
Sathirakoses-Nagapradipe Foundation

¥1.08 million

A private Thai foundation whose philosophy parallels that of the Toyota Foundation's "Know Our Neighbors" Program established this project in fiscal 1983. The project's objective is to translate and publish works from other Southeast Asian countries. Just as there are few translations of Southeast Asian works in Japan, there is virtually no interchange of literary and other works among Southeast Asian countries themselves. Based on the conviction that such works are an important means for the Thais to become acquainted with their Southeast Asian neighbors, the project has thus far selected two literary works—one from Laos and one from the Philippines—to be translated into Thai and published. Beginning next year, works will be selected from Burma, Cambodia, Indonesia, Malaysia, Singapore, Vietnam, and other countries. The results of this project are eagerly awaited in Thailand, where until now almost no Thai translations of the literature of neighboring countries have been available.

Dictionary Compilation-Publication Program

Modern Vietnamese-Japanese Dictionary

Kunie Kawamoto, Professor

Keio Institute of Cultural and Linguistic Studies, Keio University

¥4.5 million

This project to compile and publish a modern Vietnamese-Japanese dictionary was initially awarded a grant in September 1981. Compilation is proceeding steadily, but some changes have been made in the plans for printing the dictionary. Because of the complex version of the Latin alphabet used in writing Vietnamese words, careful proofing of the typeset manuscript will be necessary to ensure that the finished volume is free of typographic errors and other mistakes. If the manuscript is sent to an ordinary typesetter, many proofs will probably be required. To cut down on the number of proofs, the group preparing the dictionary plans to use a word processor to put the manuscript directly onto floppy disks. Electronic phototypesetting equipment will then be used to prepare the dictionary for printing.

Other Grant-Making Activities

In addition to the grants mentioned thus far, the Toyota Foundation provides grants for fellowships, forums, and the presentation of research results.

The Fellowship Program for Japanese Social Scientists, which is administered by the International House of Japan, is jointly supported by grants from the Ford Foundation, the Japan Foundation, the Japan-U.S. Friendship Commission, Mobil Sekiyu K.K., and the Toyota Foundation. The purpose of the program is to train young Japanese social scientists to serve as a bridge between Japan and the rest of the world by awarding them fellowships for travel and living expenses to facilitate their efforts to conduct research of their own choosing for a fixed period (generally two years) in universities and academic research institutions abroad. To date, sixty-one fellowships have been awarded under this program, which is in its ninth year.

The Forum Grant Program supports small-scale research projects with the following characteristics: (1) projects of significance in the analysis and evaluation of the Foundation's current programs, (2) projects of use in developing the Foundation's program in broad perspective and over the long term, and (3) projects needed to prepare feasibility studies and draft plans for future Foundation programs. Because of the nature of this program, grants are awarded not as a result of public solicitation but on the basis of consultations between the Foundation and research groups. This year four projects were granted a total of ¥10 million.

The Foundation established the Communications-Supplement Grant Program to disseminate the results of Foundation-assisted research as widely as possible. Grants are awarded to help cover the costs of printing and publishing research results, convening symposiums, attending international symposiums, publicizing research results in other ways, and supporting supplemental studies for making research results public. This year the Foundation awarded twenty-six communications-supplement grants totaling ¥34.99 million.

Grant applications for these three programs are screened by a planning committee of the following members of the Board of Directors: Isao Amagi, Takashi Asada, Yujiro Hayashi, and Masamitsu Oshima.

Fellowship Program

Fellowship Program for Japanese Social Scientists
Yoichi Maeda, Managing Director
International House of Japan
¥20.0 million

Forum Grant Program

Compilation of a Bibliography of Japanese-Language
Materials on Southeast Asia
Hiromitsu Nakamura
Japan Orientalist Librarians Group
¥3.0 million

The Japan Orientalist Librarians Group was established by librarians from major libraries in Japan for the purpose of compiling a general bibliography of Japanese-language books, magazine articles, and other materials on Asia. Existing indexes of these Japanese-language materials are few and incomplete. In addition to compiling a comprehensive bibliography, the group is preparing to input the materials into a computer for use as a data base. Last year the group completed organizational preparations for the bibliography of materials on Southeast Asia. This year, the second year of the bibliography compilation project, the group will expand the network of sources. In addition, the group will act upon the requests and advice of researchers in Japan and concerned people abroad.

The Outlook for Environmental Studies: Grappling with
Actual Cases of Pollution

Noboru Yamagata
Environmental Studies Forum
¥2.0 million

In 1982 the Foundation held a symposium on the theme "Heavy Metals in the Environment and Their Ecological Effects," and reports were presented on many environmental studies, including those carried out with the assistance of Foundation grants. Despite the recent dramatic progress in environmental studies, however, it became apparent at the symposium that problem-solving research dealing directly with cases of actual pollution has yet to commence in many areas. A report on the symposium was published under the title *Grappling with Environmental Pollution* (in Japanese). During the editing of this volume, the need for new environmental studies from an on-the-spot perspective was discussed. During the course of the meetings held by this forum, attention will be devoted to discovering and assessing various ways in which this need can be met.

An Evaluation of and the Future Prospects for Research
on Life

Masayoshi Chubachi
Research on Life Forum
¥2.0 million

Numerous studies relating in one way or another to the quality of life and the human environment have been funded by the Foundation. A discussion group composed mainly of grant recipients in this category was organized in October 1982, and subsequently it has held a number of meetings. This forum, now in its second year, has been awarded a second grant. The group will continue to hold its regular meetings, which are scheduled every other month, for reports and debate. In the second half of the year the agenda will focus on the topics and the methods suited to human environment and other life-related studies. Valuable suggestions on the directions to be taken in the Foundation's activities are anticipated.

The Feasibility of Projects on the Postwar History of
Science and Technology in Japan

Shigeru Nakayama
Science and Society Forum
¥3.0 million

In monthly meetings held since December 1981, this forum has invited researchers, journalists, and others to engage in debate on the relationship between science and society. One subject that has attracted attention is the lack of research on the process of contemporary scientific and technological development and the paucity of organizations equipped to carry out such research. In order to make decisions on problems involving the relationship between science and society, basic reference materials on the history of science and technology in postwar Japan are needed. A central agenda item this year, the forum's second year, will be the feasibility of carrying out projects in this area.

Communications-Supplement Grant Program

A Comprehensive Observation Study of a Local Natural
Environment [attendance at an international symposium]

Kiyoshi Tsuchiya
Society for Environmental Study of the Hiki Hills Region
¥1,000,000

Proposals for Local Government Systems in an Age of
Urbanization [publishing costs]

Keiichi Matsushita, Professor
Faculty of Law, Hosei University
¥2,300,000

A Study on Women and Employment: Female Executives of Small Companies in Tokyo [convening a symposium]

Hiroko Hara, Associate Professor
Faculty of Home Economics, Ochanomizu University
¥1,000,000

Individual Exposure to Nitrogen Dioxide and Its Effect on Human Health [attendance at an international symposium]

Hajime Nishimura, Professor
Faculty of Engineering, University of Tokyo
¥1,450,000

A Study of the Ecology and Nutritional Requirements of the Dinoflagellates That Induce Paralytic Poisoning [printing costs and convening a symposium]

Takeshi Yasumoto, Professor
Faculty of Agriculture, Tohoku University
¥2,560,000

A Comparative Study of the Environment, Lifestyles, and Health of Residents of Agricultural, Mountain, and Fishing Villages and Urban Areas Surrounding Fukuoka and Yatsushiro Cities [printing costs]

Michikatsu Konno
Kyushu Health and Science Association
¥670,000

An Empirical Study of Biological, Medical, and Social Changes in the Environment of the Shiranui-kai Area [publishing costs and convening a symposium]

Masazumi Harada, Associate Professor
Institute of Constitutional Medicine, Kumamoto University
¥1,520,000

A Practical Study to Create Distinctive Municipal Areas by Utilizing Regional Cultural Landmarks in Omi Hachiman City [printing costs]

Koji Nishikawa
Study Group on the Future of Omi Hachiman City
¥940,000

A Study on Urbanization in the Mama-gawa River Basin and Its Effects on the Structure of Local Life [printing and publicity costs]

Kimio Takano, Director
MANU—Laboratory of Urban Design and Architectural Planning
¥1,600,000

Research on the Habitats of Mammals in Gifu Prefecture, the Condition of the Environment, and Environmental Education in the Area [attendance at an international symposium]

Tatsuo Kawasaki
Gifu Prefecture Mammal Study Group
¥580,000

Basic Research on Road Dust Caused by Studded Snow Tires in Areas of Heavy Snowfall [printing costs]

Toshio Yamashina, Professor
Faculty of Engineering, Hokkaido University
¥600,000

Toward a Quantitative Understanding of Change in the Natural Environment Using Moths as a Bioindicator [publishing costs]

Akira Miyata, Associate Professor
Department of Biology, Medical College of Oita
¥2,000,000

Studies on Development by the Iwakura Method of Land-Use Planning Through Communal Agreement [printing and publicity costs]

Fumio Okuyama
Iwakura Town Development Study Group
¥1,100,000

Social Equality and Political Systems: A Comparison of Highly Industrialized Countries [publishing costs]

Ichiro Miyake, Professor
Department of Political Science, Doshisha University
¥1,780,000

Research on the Role of Housing and Land Policies in Fashioning a Living Environment [printing costs]

Kazuo Hayakawa, Professor
Faculty of Engineering, Kobe University
¥800,000

Recording and Translation of Oral Traditions of the Ainu Culture [printing costs]

Sasuke Ogawa, Director
Association for the Preservation of Ainu Folklore
¥2,000,000

Research for the Production of a Manual to Be Used by Local Residents in Drawing Community Maps and Preparing Community Cards [printing costs]

Motoo Yoshimura, President
Institute of Environmental Planning and Programming
¥1,700,000

Individual Exposure to Nitrogen Dioxide and Its Effect on Human Health [publishing costs and convening a symposium]

Hajime Nishimura, Professor
Faculty of Engineering, University of Tokyo
¥2,400,000

A Comparative Study of Japanese and Korean Fishing Community Cultures [printing costs]

Syozo Masuda, Professor
Department of Human Relations, Konan Women's College
¥680,000

A Case Study on the Introduction of Off-Season Craft Work to Revive and Strengthen the Village as a Community [printing costs and supplemental study]

Yoshio Akioka, Professor

Department of Industrial Design, Tohoku Institute of Technology

¥1,960,000

Basic Research on the Rehabilitation of the Mentally Retarded: Analysis of Jobs and the Skills They Demand for Occupational Success [printing costs and convening a symposium]

Takekatsu Kikuchi, Associate Professor

Department of Industrial Arts Education, Kyoto University of Education

¥1,180,000

A Preliminary Study on the Exploitation of Sharks and Rays in the Western Pacific [printing costs and convening a symposium]

Kazuhiro Mizue, President

Japanese Association for Elasmobranch Studies

¥1,300,000

A Follow-up Study on the Social Adaptability of Patients with Cleft Lip and Palate [printing costs and supplemental study]

Nobuhiko Isshiki, Professor

School of Medicine, Kyoto University

¥1,180,000

A Comprehensive Area Study on the Functional Relationship Between the Faith Healing Inherent in Shamanism and Modern Medicine [supplemental study]

Hideshi Ohashi, Associate Professor

Faculty of Arts and Letters, Tohoku University

¥450,000

A Preliminary Study on the Form and Content of a New Style of Japanese-German Dictionary [convening a symposium and supplemental study]

Kennosuke Ezawa, Associate Professor

Department of German Philology, Tübingen University

¥1,700,000

The Development of Chemically Treated Gels for High-Performance Liquid Chromatography and Chemically Treated Plates for High-Performance Thin-Layer Chromatography and Their Application in Detecting Trace Amounts of Harmful Substances [attendance at an international symposium]

Mitsuyoshi Okamoto, Chief Technician

Gifu Prefectural Institute of Public Health

¥540,000

Financial Report for Fiscal 1983

Settlement of Accounts (April 1, 1983 – March 31, 1984)

	Fiscal 1983	Fiscal 1982	Fiscal 1981	Unit: Yen Fiscal 1980
INCOME				
Balance brought forward from the previous year	30,279,428	45,899,255	9,047,135	16,373,039
Endowment income	969,446,198	840,348,132	827,736,957	829,629,066
Miscellaneous income	3,045,075	1,326,129	3,278,031	7,391,305
Total Income	<u>1,002,770,701</u>	<u>887,573,516</u>	<u>840,062,123</u>	<u>853,393,410</u>
EXPENDITURES				
Grants and program expenses	634,020,856	673,083,984	585,610,054	526,973,945
Expenses for special fifth- anniversary programs	—	—	—	81,035,385
Administrative expenses	102,780,578	96,299,996	93,352,814	80,943,584
Purchase of fixed assets	7,190,000	5,410,108	—	2,193,361
Income transferred to reserve for retirement allowance	3,878,037	2,500,000	5,200,000	3,200,000
Total Expenditures	<u>747,869,471</u>	<u>777,294,088</u>	<u>684,162,868</u>	<u>694,346,275</u>
Excess of Income over Expenditures	<u>254,901,230</u>	<u>110,279,428</u>	<u>155,899,255</u>	<u>159,047,135</u>

Note: Of the surplus funds for the current fiscal year ¥150,000,000 has been transferred to the working endowment, ¥10,000,000 to the reserve for Toyota Foundation prizes, and ¥50,000,000 to a reserve for special programs; the balance has been carried over to the income budget of the next fiscal year.

Balance Sheet (as of March 31, 1984)

	Fiscal 1983	Fiscal 1982	Fiscal 1981	Unit: Yen Fiscal 1980
ASSETS				
Cash	114,188	69,485	30,125	35,146
Bank deposits	27,124,833	49,481,007	24,093,441	47,488,729
Negotiable securities	11,639,017,221	11,409,448,412	11,320,777,225	11,164,306,655
Prepaid expenses	2,138,734	2,138,734	1,933,966	1,933,966
Advances (disbursements)	360,244	353,286	6,368,543	4,421,083
Suspense payments	20,885,815	1,494,264	--	104,922
Fixed assets	51,174,807	46,875,009	43,165,262	44,574,265
Total Assets	11,740,815,842	11,509,860,197	11,396,368,562	11,262,864,766
LIABILITIES				
Accounts payable	207,045,259	208,833,841	166,026,955	193,740,974
Deposits received	3,009,607	2,834,217	2,402,388	1,827,690
Reserve for retirement allowances	14,684,939	11,037,702	8,874,702	3,674,702
NET ENDOWMENT				
Principal endowment	7,000,000,000	7,000,000,000	7,000,000,000	7,000,000,000
Working endowment	4,050,000,000	4,000,000,000	3,950,000,000	3,800,000,000
Surplus fund	466,076,037	287,154,437	269,064,517	263,621,400
Total Liabilities	11,740,815,842	11,509,860,197	11,396,368,562	11,262,864,766

Note: The surplus fund in the net endowment includes the reserve for Toyota Foundation prizes, the reserve for tenth-anniversary programs, fixed assets, and the balance carried over from the budget of the previous fiscal year.

Endowment Status

	End Fiscal 1983	End Fiscal 1982	End Fiscal 1981	End Fiscal 1980	Unit: Yen End Fiscal 1979
Principal endowment	7,000,000,000	7,000,000,000	7,000,000,000	7,000,000,000	3,000,000,000
Working endowment	4,516,076,037	4,287,154,437	4,149,064,517	4,003,621,400	7,861,285,758
Total	11,516,076,037	11,287,154,437	11,149,064,517	11,003,621,400	10,861,285,758

Note: The working endowment at the end of fiscal 1983 includes the surplus fund of ¥466,076,037.

Adjustments to Grant Budgets

(April 1, 1983 – March 31, 1984)

Period	Grantee Type of Grant	Organization	Date Grant Approved	Amount Approved Amount Returned Final Amount
Fiscal 1979	Mekong Publishing Co., Ltd. "Know Our Neighbors" Translation- Publication Program		March 18, 1980	¥2,700,000 <u>219,000</u> ¥2,481,000
Fiscal 1980	Takumi Higaki Research Grant Division Grant	Fukuoka Shakaihoiku Junior College	October 1, 1980	¥1,500,000 <u>286,561</u> ¥1,213,439
	Kazuo Shimamura Research Grant Division Grant	Okayama University	October 1, 1980	¥7,300,000 <u>765,853</u> ¥6,534,147
Fiscal 1981	Yoshio Hayashi Research Grant Division Grant	Keio University	September 29, 1981	¥3,900,000 <u>5,520</u> ¥3,894,480
	Kozo Yamamura Research Grant Division Grant	University of Washington	September 29, 1981	¥4,000,000 <u>432,241</u> ¥3,567,759
	Chikio Hayashi Communications-Supplement Grant	Institute of Statistical Mathematics	February 19, 1982	¥ 780,000 <u>205,100</u> ¥ 574,900
Fiscal 1982	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 16, 1982	¥3,750,000 <u>300,000</u> ¥3,450,000
	Mekong Publishing Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 16, 1982	¥1,980,000 <u>171,000</u> ¥1,809,000
	Dandansha Co., Ltd. "Know Our Neighbors" Translation- Publication Program		September 29, 1982	¥2,040,000 <u>429,000</u> ¥1,611,000
Fiscal 1983	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 15, 1983	¥3,900,000 <u>450,000</u> ¥3,450,000

Chronological Data

- 1983 *Apr. 1:* Acceptance of grant applications for fiscal 1983 Research Grant Program and Dictionary Compilation-Publication Program
Apr. 2: Commemorative symposium and presentation ceremony for First Research Contest special research award (in Gifu)
May 31: Deadline for acceptance of fiscal 1983 Research Grant Division grant applications (864 applications received)
June 15: Thirty-first meeting of Board of Directors; approval of fiscal 1982 activity program report and financial report (including report of disposal of surplus funds); fiscal 1983 grants decided: for International Division Grants, 3 recipients; for "Know Our Neighbors" Translation-Publication Program in Japan, 1 recipient; for Dictionary Compilation-Publication Program, 1 recipient; for Forum Grant Program, 1 recipient; approval of appointment of Chairman of Selection Committee for Third Research Contest; eighth meeting of Board of Trustees; explanation of status of Foundation activities
June 25: Publication of *Toyota Foundation Report No. 22* (Japanese)
July 9-10: Sixteenth Research Grant Division Symposium (in Tokyo)
July 31: Deadline for acceptance of fiscal 1983 Dictionary Compilation-Publication Program grant applications (1 application received)
Aug. 1: Acceptance of grant applications for fiscal 1983 "Know Our Neighbors" Translation-Publication Program
Aug. 31: Publication of *Toyota Foundation Report No. 23* (Japanese)
Sept. 1: Publication of *Occasional Report No. 3* (English)
Sept. 20: Thirty-second meeting of Board of Directors; fiscal 1983 grants decided: for Research Grant Division Grants, 97 recipients; for International Division Grants, 10 recipients; for "Know Our Neighbors" Translation-Publication Program in Southeast Asia, 2 recipients; for Fellowship Program, 1 recipient; for Forum Grant Program, 2 recipients; approval of appointment of Third Research Contest Selection Committee
Sept. 30: Deadline for acceptance of fiscal 1983 "Know Our Neighbors" Translation-Publication Program in Japan grant applications (23 applications received)
Oct. 14: Fiscal 1983 grant award ceremony
Oct. 15: Acceptance of applications for Third Research Contest
Oct. 31: Publication of *Toyota Foundation Report No. 24* (Japanese)
Dec. 10-11: Seventeenth Research Grant Division Symposium (in Kyoto)
Dec. 15: Publication of *Toyota Foundation Report No. 25* (Japanese)
Dec. 17: Seventh International Division Seminar (in Tokyo)
- 1984 *Jan. 15:* Deadline for acceptance of Third Research Contest applications (86 applications received)
Feb. 22: Sixth meeting of International Division Advisory Board
Feb. 29: Publication of *Toyota Foundation Report No. 26* (Japanese)
Mar. 13: Thirty-third meeting of Board of Directors; fiscal 1983 grants decided: for Third Research Contest, 19 recipients; for International Division Grants, 8 recipients; for "Know Our Neighbors" Translation-Publication Program in Japan, 15 recipients; for "Know Our Neighbors" Translation-Publication Program in Southeast Asia, 1 recipient; for Forum Grant Program, 1 recipient; approval of fiscal 1983 financial statement estimate and decision on disposal of estimated surplus funds; approval of fiscal 1984 activity program and budget
Mar. 31: Publication of *"Know Our Neighbors" Translation-Publication Program Report No. 4* (Japanese)

The Staff of the Foundation

Executive Director
Yujiro Hayashi

Secretary of the Foundation
Hideo Yamaguchi

General Affairs and Accounting Division

Division Manager

Naomichi Kamezawa

Assistants

Katsuyoshi Ito

Mieko Tamura

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