The Toyota Foundation Report for Fiscal 1980

The Toyota Foundation is a private, nonprofit, grant-making organization established by the Toyota Motor Company and the Toyota Motor Sales Company and registered 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 dual standpoint of the nonprofit foundation's social duty to make this information public and of our desire to make our Foundation known as widely as possible.

This annual report was compiled on the basis of the "Report of Activities for Fiscal 1980" (in Japanese), covering the Foundation's programs during fiscal 1980 (April 1, 1980, to March 31, 1981) and approved at the twenty-fourth meeting of the Board of Directors, held June 17, 1981.

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.

The Japanese edition of this annual report and our quarterly *The Toyota Foundation Report* (also in Japanese) are available on request, as is our English-language *Occasional Report No.* 1.

Report for Fiscal 1980

April 1, 1980 to March 31, 1981

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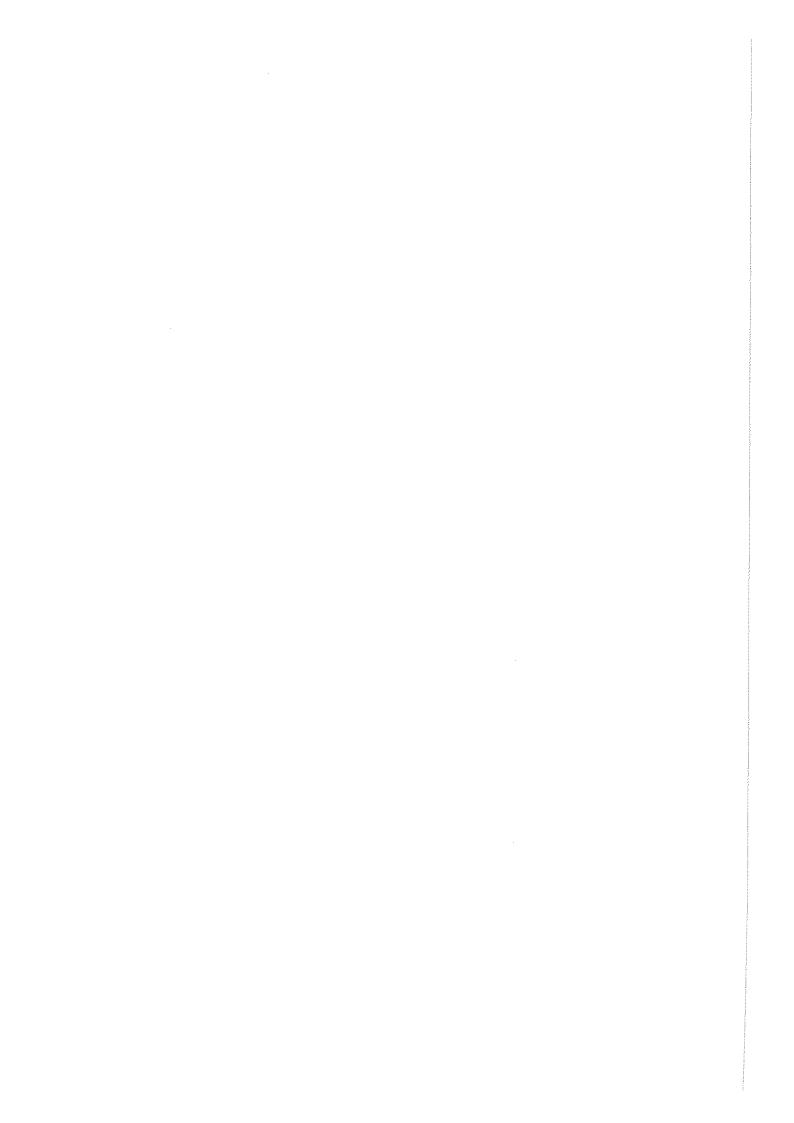
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The Executive Director's Report

The Third Sector

)

The concept of "society," or shakai in Japanese, is one that all Japanese to-day are familiar with, and all children are educated in social studies (shakai ka) courses. It was only about a century ago, however, that the word shakai became an integral part of Japanese speech and thought. When our predecessors first came across society and other terms with the same meaning in Western languages, they were at a loss as to how the concept might best be conveyed in Japanese.

According to a study by Tsuyoshi Saito, various Sino-Japanese ideograms, each with its own associations and nuances, were proposed as vehicles that could be made to fit society's content. The earliest example he found was a 1796 work that used majiwaru (intermingle) and atsumaru (congregate) to convey the sense of society. During the nineteenth century, as Japan emerged from isolation, scholars groped for a better translation, offering in turn such terms as kai, kaisha, or kessha (a gathering, an association), nakama or nakama kaisha (an association of friends), kosai, jinrin kosai, or ningen kosai (a fellowship, a social set), hokoku ittai (the whole country), renshu (united populace), and kokumin (people of a country). Eventually, beginning around 1875, the term shakai, which formerly had seen use as a term describing a group of related individuals, emerged as a word to describe society in general, and within a decade shakai had replaced all other terms as society's accepted Japanese equivalent.

Saito's study reveals that it took even longer before *shakai gaku* became the standard Japanese for the English word *sociology*. Other terms that enjoyed favor for a time in some quarters were *kosai gaku* (study of fellowship), *ningen gaku* (study of human beings), *ningen kosai gaku* (study of human fellowship), and *setai gaku* (study of social conditions).² While

^{1.} Tsuyoshi Saito, Meiji no Kotoba—Higashi kara Nishi e no Kakehashi (The Words of the Meiji Era—A Bridge from East to West), Tokyo, Kodansha, 1977.

^{2.} Saito also traces the record of attempts to create a Japanese equivalent for the word individ-

proposing that *shakai* stand for *society*, however, the Japanese scholars of the past did not necessarily comprehend *society*'s meaning accurately, with the result that the Japanese and English terms were not entirely synon-ymous. Often when Japanese talked about *shakai*, they intended to convey a meaning slightly different from our modern understanding of *society*.³

W

Why is it that the intellectuals during the Meiji era in the late nineteenth and early twentieth centuries had such difficulty comprehending the concept of society? The answer is that until their time, no equivalent concept existed among the Japanese, and the same may be said of the Chinese. As exemplified by the Confucian teaching that "the body and the limbs, the hair and the skin, are given to one by one's parents, . . . [so] this is where filial piety begins," the Japanese and Chinese lacked any concept of individuals as independent and equal human beings.⁴

ual. Modern Japanese people would probably be surprised by the many twists and turns that occurred before kojin became the standard translation.

3. In China the term *shehui*, which uses the same ideograms as *shakai*, had been in existence since ancient times, but with a different meaning. In the beginning the ideogram *she* represented the guardian god of the locality. (Similarly, the Japanese since long ago have employed the expression "the shrine of the guardian god," using the same ideogram to stand for *shrine* [yashiro]. This usage of *sha* survives today as the second ideogram in the term *jinja* [Shinto shrine].) It is the small, territorially defined communes that had formed on the land around each god of the locality that the Chinese called *shehui*.

In time the term was extended to encompass various hobbies, forms of entertainment, activities, businesses, and so forth, so that shehui designated any group of persons who had assembled to pursue a common objective. Thus a shehui was a small community of specified individuals, not a great mass of undifferentiated individuals as in the case of a "society." Since a number of Japanese terms designating a group of persons who have assembled for a specified purpose—such as shachu, shadan, and ko—were current when the Japanese began trying to comprehend society, there seems to have been a tendency to think of society in terms of shehui. Various scholars who wrote about society seem to have understood it to be a gathering of specified individuals.

In China, too, it was not until after the Sino-Japanese War of 1894—95 that shehui, due to the influence of Japanese scholarship, began to be used in the sense of society, that is, a mass of undifferentiated individuals. In passing, it might be noted that the process by which the Western concept of "society" or Gesellschuft crystallized also took many twists and turns. Different interpretations of the concept prevailed from country to country even at the time that Japan opened itself to foreign commerce in the second half of the nineteenth century. On the whole, however, these interpretations were in general agreement with the meaning of society as discussed here.

4. In the mid-seventeenth century, European missionaries attempting to propagate the Christian faith in China became embroiled in the "rites controversy," or the question of what attitude should be taken toward Chinese ceremonies. The Jesuits, who had been inspired by the pioneer Matteo Ricci and were the most influential in the beginning, argued that the Confucian rites held at the Beijing court and elsewhere around the country were not religious ceremonies but a type of secular function, and hence they could be permitted. But when the Dominicans and Franciscans arrived several decades later, they both took exception to this attitude, and a squabble commenced that spilled over into Europe. After various shifts the issue was finally settled by Pope Benedict XIV, who on July 11, 1742, proclaimed that the Jesuit policy was wrong. The rites were part of a pagan religion, he said, and hence should be treated as heretical.

If we investigate the points at issue in this century-long controversy within the Catholic Church, we can perceive that the heart of the problem was a misunderstanding on the part of the Europeans of the Chinese people's fundamental value system. To be sure, viewed objectively the Confucian rites can be termed religious in nature, and thus the papal decree of 1742 was not mistaken. But the question of whether the teachings of Confucius actually constitute a religion must be dealt with first. Human virtue, as Confucius described it, resides in a model of vertical relationships from the lord to the subject, the master to the servant, or, as illustrated by the

One of the Meiji intellectuals who addressed this question was Kunitake Kume, who visited Europe and the United States shortly after the Meiji Restoration of 1868 as a member of the so-called Iwakura Mission. Serving as secretary to mission leader Tomomi Iwakura, Kume published a record of the historic mission after its return to Japan: *Tokumei Zenken Taishi Bei-O Kairan Jikki* (An Open Record of the U.S.-European Tour by the Ambassador Extraordinary and Plenipotentiary). Half a century later, in the April 1921 issue of *Kaiho*, Kume wrote as follows in the essay "Shakai Kannen wa Nihon Rekishi ni Nashi" (The Absence of a Concept of "Society" in Japanese History):

"Fifty years ago we had so little knowledge about what the term society means that we could not even translate it into Japanese easily. . . . People in the West see society as the basis of their life, as a place of intercourse where people can assist each other in carefully preserving the life that they receive from God. Men and women combine in society to form couples, who raise children and in other ways fulfill their God-given vocation. According to this logic, first comes the individual and then comes the couple, which in turn leads to parents and children. Even parents and children can become estranged from each other, and all these 'strangers' collectively form the society. The total society is also called the state. In the West, accordingly, the nation is measured by the number of individuals. When survival is threatened by unfortunate circumstances, each individual places greater value on his or her own life than on the life of others. . . . In the East, on the contrary, we followed a logic teaching us that our life is bestowed upon us by our parents, that the family is the basis of our life, and that our duty to our ancestors is to strive for the prosperity of our offspring. Hence we had no concept of society. We believed that first come the mother and father, then ourselves and our brothers and sisters. After growing up we become new mothers and fathers devoted to the prosperity of our children. All families together form the state, and the nation is measured by the number of families. Since the family is of greater weight than the individual, when in dire circumstances, parents and children commit joint suicide to protect the family name."

This archetypal consciousness of the Japanese up to the Meiji era still exerts a powerful influence on the Japanese mind today. It may be that because of this dimension of our consciousness, the modern Japanese have been unable to consolidate a "third sector."

Ш

The third sector. As most Japanese employ this term, it refers to joint public-private ventures, especially those formed between government and business to carry out development projects in local communities. This, however, is an exceptional use of the term that will not be understood elsewhere. When Americans talk about the third sector, they are referring to the private sector's nonprofit activities. Properly speaking, the first sector consists of government activities in the broad sense; the second sector is the money-making

above quotation, parents to children. Confucian rites, in the final analysis, are ceremonies in honor of ancestors, and the Jesuit policy toward them reflected a correct understanding.

business of the private sector. The first sector is supported directly and indirectly by taxes. In Japan's case, the activities of public enterprises and corporations are first-sector activities, which is why the sector is defined as government activities in the broad sense. The activities of companies and other private businesses support the second sector. But when the private sector undertakes nonprofit activities, these fall under the third sector as we shall employ the term here.

At the present time, the number of private Japanese organizations working on behalf of the public interest is not small in comparison with Western countries. But although in form the many *zaidan hojin* (foundations), *shadan hojin* (special corporations), and other nonprofit organizations must be classified as third-sector entities, there is more to this than meets the eye. In reality most of these bodies are third-sector entities in name only; in content they are first- or second-sector operations. In a great number of cases it turns out that the so-called nonprofit organization relies on government subsidies to support its operations, or else the company or companies that contributed to its foundation exercise great influence over its operations. Such nonprofit organizations cannot be termed pure third-sector entities.

Why is the fostering of a pure third sector so difficult in Japan? In order to answer this question, we must reexamine the archetypal consciousness of the Japanese described above. But first let us look back to the beginning of private nonprofit activities in Japan.

Apparently Japan's first nonprofit organization conforming more or less to the modern definition of a third-sector entity was Kannonko in the province of Akita. The organization came into being in December 1827 when Saburouemon Naba, a merchant working for the Akita clan, made a yearend call on Akita magistrate Gorozaemon Hashimoto.

Simplifying the story somewhat, Kannonko started out with a considerable contribution of four hundred *ryo* from Naba and by 1829 had been built into a large fund of more than two thousand *ryo* thanks to numerous other contributions. Kannonko was not run as either a public organization or a private business, for neither the clan officials nor Naba himself controlled the fund. Instead a presiding officer, a person with duties much like those of the modern foundation's executive director, was selected each year to head the organization. In this way a fund resembling the modern foundation came into being, and we can call Kannonko the very first of Japan's modern nonprofit organizations.

But did Kannonko really mark the birth of the third sector in Japan? The deeper we investigate this matter, the more apparent it becomes that Kannonko was not a pure third-sector entity. First, the name Kannonko, which might be translated as "Society of Gratitude," reveals that the fund

^{5.} Although it is well known that charitable activities in Europe date from those organized by the Catholic Church in the Middle Ages, Japan also has an ancient tradition of charity derived from Buddhism, as exemplified by the charitable works of the priest Kobo Daishi (774–835). Unlike the situation in European countries, however, virtually none of these activities has had a farreaching impact lasting down to the present, and we ignore them here.

^{6.} The most detailed description of Kannonko's history is found in Kannonko Kanrei Gige (The Story of Kannonko), published in February 1902, but a useful account is also available in Minoru Tanaka's Koeki Hojin to Koeki Shintaku (Nonprofit Corporations and Trusts), Tokyo, Keiso Shobo, 1980.

was conceived to promote the vertical relationship between the clan's official merchants and the lord of Akita, repaying him for past favors. In response to a request from Lord Yoshiatsu Satake for cooperation in succoring impoverished farmers and replenishing clan finances, Naba decided that in view of the patronage he had enjoyed from the clan over many years, he would express his gratitude by making a contribution through magistrate Hashimoto. Naba was not motivated by horizontal relationships extending into society, and we should conclude that here, too, consciousness of society was missing.

Second, while the assets of Kannonko were retained in a neutral form, their allocation by the fund's supervisors was subject to clan orders and determined through consultation with clan officials. In other words, Kannonko's management reflected the will of the clan. Thus despite the fact that private individuals had contributed to Kannonko, it was essentially a first-sector fund. This became even more apparent after the Meiji Restoration when the clan system was abolished and the present system of prefectures was instituted. The new government set about to confiscate assets that had been managed under Kannonko, so the organization's representatives were forced to petition the local administrative office for compensation. In 1874 the government awarded them more than ¥5,500, not a trifling amount at the time, and in 1881 it handed over more than ¥49,200, thereby revealing Kannonko's first-sector character.

But this situation was only to be expected. We have already seen that the pre-Meiji Japanese had no concept of society, and it can be added that since industrialization had yet to get under way, Japan was still an agricultural country. An agricultural society is based on small-scale production and marketing, an economy to which the feudal clan setup of the Tokugawa shogunate was well matched. If Naba and his contemporaries had been in the process of developing a concept of society, at best their concept would have been extremely limited. In fact, however, they seem to have been unconscious of society in even a limited sense, and as a result their conception of Kannonko was from the start the very circumscribed one of a fund for the relief of the poor. This mentality is further demonstrated by the fact that even after Japan shifted from an agricultural to an industrializing society in the Meiji era, the way Kannonko was understood changed not at all.

Kannonko survives today as a social welfare corporation serving as an orphanage for about eighty children. While we should not be reluctant to acknowledge the great social contribution that this organization has made, we must bear in mind that it is, in the end, a first-sector entity and not a true representative of the third sector.

Kannonko's unique history may have prevented it from becoming part of the third sector in the modern sense. But now that Japan has been modernized and industrialized, now that a century of growth so rapid that it has been termed miraculous is behind us, why is it that other third-sector entities are still so few? Is their fostering perhaps inessential?

IV

First-sector activities depend on taxes and hence cannot be adventurous. They stay within well-charted bounds and tend to develop a stereotypical

nature, providing only old blood to society. Second-sector activities, in their pursuit of profits, are sometimes adventurous, but their overriding goal is always money. They conduct no farseeing and experimental activities unless it seems certain that they will pay off. Only third-sector activities permit the kind of farsighted adventures that can infuse society with new blood.

Accordingly, the existence of a third sector is essential in every society to help keep the society young. But since this sector consists of privately organized nonprofit activities, usually it is brought into being by the first or second sector. It is common knowledge that in the United States, the country with the most active third sector, philanthropists who had amassed great fortunes through success in business created many of today's typical third-sector entities, such as the Carnegie, Rockefeller, and Ford foundations. In other words, the U.S. second sector gave birth to the third.

Japan's economic might as a highly industralized nation is now felt throughout the world. But in the building of modern Japan, only the first and second sectors played a leading role. Third-sector activities of foundations and other entities compared unfavorably with those of other industrialized nations. Although the nonprofit corporations that should form the nucleus of the third sector exist today in great profusion, we have already seen that most of them are first- or second-sector operations in third-sector guise. What are we to make of this? The absence of a robust third sector in Japan seems to stem most fundamentally from the lingering confusion in people's minds over the concept of society. Above we saw that the archetypal consciousness of the pre-Meiji Japanese lacked a concept of society; this lack has not been entirely overcome even today.

What is society? This is the kind of question that it seems any Japanese child should be able to answer, but would the answer not be superficial? In the depths of our minds, are we adults as well not somewhat perplexed by the idea of society? Can we really sense what it is without bewilderment? We can picture the first sector clearly enough; we can virtually see it before our eyes. Although if exhorted to "work for the good of society" we cannot come up with a specific idea of what we should do, we can comprehend immediately what is asked of us if the exhortation is phrased as "work for the good of the nation." As a result, we Japanese can grasp the concept of the first sector clearly.

What about the second sector? This, too, we can see vividly. Because it has a simple yardstick—whether activities are profitable or unprofitable—we can grasp the second sector with no difficulty.

As for the third sector, however, as long as our concept of society is not well defined, we cannot bring this sector into clear focus. Thus we come to the somewhat paradoxical conclusion that the reason for the third sector's failure to develop vigorously even at this late date is that, in the final analysis, remnants of the archetypal pre-Meiji consciousness still remain within the modern Japanese mind.

If this conclusion is correct, our duty is to devise methods by which we can make the necessity of the third sector evident to everybody. In view of Japan's great economic might, we must promote third-sector activities energetically to fulfill the global responsibilities of this advanced industrial power. We also need a flourishing third sector to infuse Japan, which finally is reaching maturity, with new blood so that it does not become senile.

Those of us engaged in philanthropic activities should never seek the hero's role or try to move into the limelight. We must learn to feel satisfaction while playing roles that keep us behind the scenes. This stance that philanthropic workers must always assume is one that we hope we have mastered. At the same time, as members of Japan's third sector, we must develop more effective practices that will assist the sector in gaining a firm foothold in society. As one means toward this end, we must strive through our activities to help more people perceive the sector's great importance. We must demonstrate what is necessary for society at this juncture using means that reach as many people as possible, means that enable people to sense for themselves and envisage more clearly what these needs are. While working behind the scenes, we must come up with new ideas for conveying our message to the public and put these ideas into practice.

Fiscal 1980 (April 1980—March 1981) was the sixth year of the Toyota Foundation's activities. The year was one of expansion of grant-making activities both within and outside Japan, and it was also marked by a series of special programs begun in fiscal 1979 to mark the Foundation's fifth anniversary. We learned many valuable lessons during this year, but perhaps none was more illuminating than our discovery that in various fields of endeavor, there are already many people working quietly but diligently in grass-roots types of activities. Should not our most active role be that of cultivating the third-sector seeds found in the context of such activities?

7. We had, of course, already come across activities of this sort here and there during our past experience in awarding research grants. We were aware that outside the framework of existing institutions and organizations, there are some groups of people involved in practical research on the forging of local communities and other groups of people engaged in independent studies of specific issues from the standpoint of the residents directly affected. But through the fifth-anniversary programs, we were able to confirm the presence of such activities in their various forms from a nationwide perspective.

Since these special programs were described in our Report for Fiscal 1979, here only a summation is offered. Three programs were implemented:

(1) The International Workshop on Living Children's Theater in Asia

(2) A research contest on the theme "Observing the Community Environment"

(3) A traveling symposium on the theme "Cities and Architecture: Western-Style Architecture in Japan During the Meiji, Taisho, and Early Showa Eras (1868—1941)"

In the children's theater workshop, teams of volunteer workers from Southeast Asia (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) involved in drama, puppet plays, story-telling, and other forms of theater for children were invited to Japan. With the participation of a Japanese team involved in similar activities, performances were staged for Japanese children and a workshop was held at which each team's experiences were shared. In addition to the performing teams from the six participating countries, many individuals from all over Japan active in this field attended the workshop. By virtue of this program we became aware that in many parts of Southeast Asia and Japan there are growing networks of grass-roots cultural activities with direct links to local society.

In organizing the environmental research contest we were apprehensive at first about how much of a response could be elicited, but we were gratified when as many as 128 applications came in from a wide variety of applicants with obvious enthusiasm for their respective research initiatives. We were impressed by the way these researchers had come up with fresh approaches differing in conception from traditional research, confirming that a new breed of research teams with its eye on problems in the community environment is now moving toward center stage. For a closer look at the specific research proposals, see the section describing the fourteen projects that were selected as award participants (pp. 50–53).

The traveling architectural symposium was planned to evaluate the worth and significance in Japan's present-day cities of the Western-style structures erected between 1868 and World War II (during the Meiji, Taisho, and early Showa eras). Symposiums were held in ten cities, during

Our International Division grants go to a diversified mix of recipients and hence cannot be treated in the same manner as our National Division grants. A number of policies guide our choice of overseas grantees. For instance, we favor projects conceived and carried out by local people. Second, instead of projects with the backing of a government or international organization, we focus on university and private projects, especially those independently conceived at academic institutions in outlying areas. Third, instead of research for research's sake, we support endeavors expected to reap practical benefits and to have a widespread social impact. Fourth, we look favorably on proposals whose intended effects will transcend the academic realm and reach as wide a segment of the public as possible. Through our programs in this area we have come into contact with numerous individuals performing valuable services in conditions that are far from ideal.⁸

Southeast Asia, like Japan, is part of the overall Asian region, although the social conditions of Southeast Asian countries differ substantially from those in Japan. But in terms of the need for a third sector, Southeast Asian countries are no different from any other country, and we have confirmed through our grant-making activities that there are indeed many people in Southeast Asia engaged in activities likely to sow third sectors in their countries' soil. The lesson we should learn from this is that if our efforts can be effectively channeled, it is possible that many third-sector organizations can be brought into being and fostered.

It goes without saying that as members of Japan's third sector we must

which reports were presented and discussions held, followed by a comprehensive concluding symposium in Tokyo. The program brought us into contact with the many citizens' movements throughout Japan trying to preserve their area's architectural heritage and thereby create a favorable community setting. We also met many individuals dedicated, neither from an administrative viewpoint nor with profits in mind, to making the urban environment a common asset of all city dwellers. By opposing municipal policies in some areas while encouraging them in others, these groups and individuals are attempting to provide opportunities for the emergence of a new urban development philosophy that gives top priority to the needs of the residents.

Within the above series of grass-roots programs and activities, we can sense the sprouting of the third sector on the daily-life level.

8. In order to provide Malaysian youths with a high-quality educational and cultural magazine, the Institut Masyarakat is publishing *Pengetahuan* (Knowledge). The institute is a privately run research center led by young scholars. In compiling their magazine they place emphasis on materials collected from ordinary people involved in farming and fishing communities. The publication of their magazine can be termed a precious third-sector experiment providing the next generation of Malaysians with opportunities for learning and thinking about their country's culture and development.

Mention might also be made of the projects to compile a dictionary of southern Thai at Sri Nakarinwirot University, to survey and microfilm Lanna Thai palm-leaf manuscripts at Chiangmai University in northern Thailand, and to inventory and record old Sundanese manuscripts at Padjadjaran University in western Java in Indonesia. These projects, led by outstanding specialists in poorly endowed research environments, represent earnest endeavors to preserve and make use of local culture. Again, drawing on long years of independently funded studies by young researchers, projects are under way to study mural paintings in Thai temples and to investigate traditional Thai architecture. They deserve attention for their potential significance for the people of Thailand.

Another project based in Singapore is devoted to research on traditional Southeast Asian architecture. With the twin objectives of building an informal network among researchers and specialists in this field and of conducting workshops in regions where traditional architecture is endangered, this project can be termed a third-sector program with a potentially far-reaching social impact. Finally, the HAWA Project in Malaysia deserves mention for its feasibility study on the creation of a health and welfare organization for the country's many female factory workers. As a project preparing realistic third-sector proposals, it also has great social significance.

devote ourselves to philanthropic activities, but at the same time we also must sow seeds so that in the future a hundred or even a thousand new third-sector flowers can sprout and bloom. By piling experience upon experience in this fashion an increasingly wider circle of people will be able to discern the existence of society through third-sector activities, and this, it can be confidently stated, will in turn help the third sector to secure an expanding place for itself in Japanese society.

Yujiro Hayashi Executive Director

Grant Program

National Division Grants

This year we awarded grants in the following three established fields and one special field: Human and Natural Environments, Social Welfare, Education and Culture, and Special-Subject Research: Changes in Local Communities.

We publicly solicited applications during April and May, as usual. A total of 613 applications were received. The selection committees screened applications from the end of June through September, and it was decided at the twenty-second Board of Directors meeting held on October 1 to award 95 grants.

This year's grants differ from those of the previous two years in the following ways.

1. More projects in the field of the human and natural environments were awarded grants, but the amount per grant was smaller. Over seventy percent of the project heads were associated with colleges or universities, but there was a slight increase in the number affiliated with national and public research institutes and private organizations. The majority of projects in this field now strive to clarify the effect that chemicals and other substances in the environment have on living organisms rather than to analyze the environment itself.

2. Grants in the social welfare field, like those in environment, increased in number, with smaller grants being awarded in each case. Although the overwhelming majority of project heads were associated with colleges and universities, many of the associate researchers were directly involved in social welfare work. Although the projects' subject areas varied considerably, a substantial number focused on the problems of aging and of disabled persons' participation in and adaptability to society.

3. Unlike the above two fields, the number of projects awarded grants in the field of education and culture was lower, while the average grant amount rose. In this field, too, the preponderance of project heads were associated with colleges and universities. The number affiliated with private organizations was fewer than last year. More projects dealt with culture than with education. In education two studies focused on the relationship between universities and local communities.

4. In our special-subject research, which was launched last year, those studies that began last year as preliminary research in most cases developed into full-scale research projects, meaning an increase in average project scale. Although most project heads were

also associated with colleges and universities, associate researchers belonged to various types of organizations. Four teams were led by members of private and other organizations, and appropriately enough, they were all conducting research on unique topics closely connected with local communities. Like last year, projects dealing with rural communities outnumbered those dealing with urban communities.

5. The total number of grant recipients has increased every year, while the average amount awarded has gone down. Although the great majority of the projects were undertaken by domestic project teams, projects conducted by individual researchers and those involving mixed teams of Japanese and non-Japanese researchers numbered more than ten each. Thirty-four projects, accounting for ¥118 million (42.2 percent) of the total grant awards, were in their second or third year. Twenty-four projects, or about one-fourth of the total of ninety-five, were preliminary studies.

Three symposiums on grant-supported research were held during fiscal 1980:

Ultramicroanalysis of Chemical Matter in the Environment: Examining Global Changes Through Research Undertaken by an International Team (January 31, 1981) A Social Scientific Approach to Environmental Problems: Marine Development and Preservation of Sea Areas (March 14, 1981)

Exploring the Importance of Public Health Care in Local Communities (March 28, 1981)

On May 10 and 11, we held the first symposium in which all those who received grants for special-subject research presented interim reports on their projects.

Human and Natural Environments

Long-Term Monitoring of the Human Environment by Means of Biological Analyses Masayuki ikeda, Professor (and five associates) School of Medicine. Tohoku University ¥12.0 million

Japan's increasingly complex industrial structure, along with the shifting and concentration of population and changes in life style, indicates that the stage has been reached where research on the effects of environmental pollution on health should be conducted nationwide rather than on a local level and should be based on a long-term rather than a short-term perspective.

This research seeks to monitor on a long-term basis changes in the accumulation of environmental pollutants, especially heavy metals, in the human body. The research is designed to combine two functions: elucidation of the nationwide situation in the early 1980s and the creation of a bank of specimens to allow comparison with the situation five or ten years later. Cohorts will be established in various areas throughout Japan, each cohort consisting of fifty to one hundred people in full- or part-time agricultural households or workers' households. Various biological samples, including venous blood, will be taken from cohort members. A portion of these specimens will be used for

heavy-metal analyses, while the rest will be frozen and stored for future comparative analyses. The state of health of the examinees will also be investigated. Their diet will be subjected to nutritional evaluation, heavy-metal analyses will be conducted, and frozen blood samples will be stored.

Research on Developing System Models for Integrated Pest Control

Shun'ichi Iwao, Professor (and four associates) College of Agriculture, Kyoto University

¥3.3 million

In postwar Japan the eradication of insect pests from agricultural crops has depended mainly on the use of synthetic organic insecticides. In recent years, however, various harmful effects have drawn attention, and emphasis is now being placed on the idea of integrated control incorporating methods other than the use of insecticides to keep pest populations below the level at which they cause commercial damage.

This research is a continuation from last year, which was devoted to developing models for probability forecasting of brown plant hopper outbreaks, assessing the effectiveness of the use of sex pheromones in controlling pest populations, and recording the effects on pest populations of natural predators. This year, in addition to developing these models further, special emphasis will be placed on the brown plant hopper, the most serious insect pest affecting rice crops.

Differences in the dynamics of brown plant hopper outbreaks in Japan and Southeast Asia will be investigated and field studies of brown plant hopper populations will be carried out in collaboration with the International Rice Research Institute. It is expected that this project will result in the creation of a basic model for recording the process of growth in pest populations and that this model will contribute to the development of integrated pest control measures.

A Preliminary Study Using Mutagenic Tests to Determine the Safety and Effects of Crude Drugs Tomoaki Okitsu, Head (and two associates) Department of Chemistry, Saitama Institute of Public Health ¥1.46 million

In recent years there has been a reappraisal in Japan of the importance of crude drugs as pharmaceutical raw materials. Over forty thousand tons of these substances are used annually in the production of Chinese medicines. In view of the long-term administration of crude drugs to patients in the form of pharmaceutical products, it is essential to determine their safety and effects. In particular, virtually no study has been undertaken so far on the extremely important question of the mutagenic or antimutagenic properties of various crude drugs.

This research plans to screen one hundred commercially marketed crude drugs for mutagenicity by means of Rec" assays using *Bacillus subtilis* and the Ames test using *Salmonella typhimurium*. The antimutagenicity of these drugs will also be studied using *B. subtilis*, *S. typhimurium*, and *Escherichia coli*.

A Preliminary Study on an AI/FeS_2 Secondary Cell for Electric Vehicles

Nobuyuki Koura, Associate Professor Faculty of Science and Technology, Science University of Tokyo

¥1.41 million

Such factors as a planned reduction in the use of fossil fuels and the problem of air pollution have led to a search for alternatives to gasoline-powered engines. Of the various methods studied, that offering the best prospects is the development of lightweight, high-capacity batteries. One of the most promising types of battery at present is the Li-Al/LiCl-KCl/FeS₂ moiten salts secondary cell. However, in addition to using lithium, a costly substance, this cell also requires the use of BN cloth to isolate the electrodes and LiCl as the molten salt, both expensive items. Another practical problem is that this type of cell must be operated under high 450°—500°C temperature.

This research seeks to develop an advanced Al/Al₃-NaCl/FeS₂ battery by exploiting the superior properties of FeS₂ as a positive electrode material while using aluminum, a low-cost material with high theoretical capacity, for the negative electrode. The use of aluminum will permit the utilization of low-cost AlCl₃-NaCl substances for the molten salts and allow the operating temperature to be lowered to around 100°C. It will also be possible to use high-polymer substances or glass wool for the insulating walls. This year will be devoted to preliminary studies.

Basic Research on the Preliminary Screening of Carcinogens with a Microbial Sensor Shuichi Suzuki, Professor (and two associates)

Research Laboratory of Resources Utilization, Tokyo Institute of Technology

¥3.2 million

The carcinogenicity of various chemical substances has become a major social issue in recent years, and there is an urgent need for methods of detecting carcinogenicity. While final detection requires experiments using mammals, it is possible to carry out preliminary screening using microbial-induced mutation tests developed by Ames and others. However, these tests require observation over long periods and involve complicated procedures, and a still faster and simpler preliminary screening method is needed.

The objective of the present research is to make electrochemical observations of the inhibitory action of carcinogens on the respiration of *Bacillus subtilis* Rec⁺, using a sensor composed of two microbial electrodes. Each electrode consists of immobilized bacteria (*B. subtilis* Rec⁺ and Rec⁺) and an oxygen electrode on a teflon membrane. This is an original concept, and promising results have already been obtained in preliminary experiments. The development of a fast and simple method of preliminary screening will be of great social significance.

A Preliminary Study on the Infection of Mosquito Larvae with Virus Isolated from Field-Caught Mosquitoes Using Cultured Mosquito Cells

Akira Igarashi, Associate Professor (and two associates) Institute for Tropical Medicine, Nagasaki University ¥1.48 million

The incidence of mosquito-transmitted diseases is especially high in tropical regions but is also widespread in temperate regions, including Japan. An extremely important and effective means of preventing such diseases is to couple the development of effective vaccines with the eradication of insect vectors. The traditional method of eradication was chemical insecticides, but such factors as environmental pollution, the emergence of resistant strains, and the rising cost of materials have led to an awareness of the need for biological methods of eradication.

This research seeks to develop a biological insect eradication method utilizing viruses. The chief researcher has successfully isolated insect viruses from field-caught mosquitoes using the clone C6/36, which is highly susceptible to viral infection, from cultured Aedes albopictus cells. In this year's preliminary research it is planned to infect laboratory-cultured mosquito larvae with this virus and study the mortality, pupation, and emergence rates as well as the growth of the virus in the larvae.

Research on the Development and Application of Radical Chromatography

Hiroyuki Hatano, Professor (and five associates) Faculty of Science, Kyoto University

¥5.85 million

Quantitative analyses of the short-lived and unstable free radical intermediates that occur during chemical reactions are essential to the elucidation of the mechanisms by which environmental chemical substances affect living bodies, including the mechanisms leading to the occurrence of photochemical smog.

The present research will stabilize free radicals using the spin-trap method and separate the constituents of the resulting spin-adduct mixtures by means of high-performance liquid chromatography with a view to developing a method of measuring and identifying the individual radicals thus obtained by means of the electron spin resonance (ESR) method and determining the structure of the original radicals. First the conditions for high-performance chromatography and spin-trapping will be studied, then the microwave unit and cavity of the ESR spectrometer will be modified to obtain greater sensitivity. It is planned to use this method to study free tadicals in polycyclic amino acids and other substances.

Research on the Effects of a Low-Carbohydrate Diet on the Toxicity of Chemical Substances, with Special Reference to Carcinogenicity

Akio Sato, Associate Professor (and three associates)
Faculty of Medicine, Shinshu University
¥4.28 million

It is said that eighty percent of human cancers are caused by chemical substances. Most of these substances only become carcinogenic after being activated by the enzymes that metabolize chemicals within the body. It is thought, therefore, that environmental factors affecting the activity of these enzymes also have a major influence on the carcinogenicity of chemical substances. In Japan today the intake of carbohydrates (cereals) is decreasing while the protein intake is increasing. In view of this, it is vital to study the possible effect of reduced cereal intake on the carcinogenicity of chemical substances.

The researchers have already shown that microsomal enzyme activity in rat livers is increased by a low-carbohydrate diet and decreased by a high-carbohydrate diet. The present research seeks to elucidate, on the basis of these findings, the way in which diet influences the carcinogenicity of chemicals through the modification of microsomal liver enzyme activity. Tests will be conducted using an experimental model based on hepatoma induced by 3-methyl-4-dimethyl-arninoazobenzene.

Spatial Recognition and Spatial Functions: A Preliminary Study on the Recording of Human Behavior in Specific Spaces

Kaneo Kawamata, Lecturer

Department of Culture. Seishu Junior College ¥0.96 million

Daily activities are determined by reactions to specific spaces and develop on the assumption of such spaces. In an increasingly complex society, obtaining fundamental knowledge regarding the way human beings recognize and utilize space is of great significance in the creation of living areas that allow people to conduct their daily activities in comfort. However, such research requires special techniques that allow behavior to be recorded objectively without interfering with

normal daily activities. A number of methods have been developed for recording and observing behavior, but all have some drawbacks.

This project seeks to develop an efficient and comparatively inexpensive behavior-recording system combining an ultrasonic transmitter and a microcomputer. This year it is planned to conduct a preliminary study and build a prototype system that will be used experimentally to investigate such subjects as spatial recognition, interpersonal relations, and nonverbal behavior.

Basic Research on Dolphin-Inflicted Fishery Losses and on Measures to Resolve the Problem Toshio Kasuya, Research Associate (and one associate) Ocean Research Institute, University of Tokyo ¥4,27 million

The damage inflicted by dolphins on the fishing industry in the vicinity of Iki Island, off the coast of Kyushu, and the slaughter of dolphins by fishers have had international repercussions. Little is known about the diet, age composition, growth, and reproduction of the four dolphin species slaughtered, making it difficult to ascertain the effects of the slaughter. Moreover, the bulk of the carcasses were disposed of without subjecting them to biological examination.

This project regards the problem as not simply one of dolphins' obstruction of fishing activities but rather one involving competition between the fishing industry and the dolphins for marine products. On this basis the researchers will try to clarify the role of dolphins in the marine ecosystem, their influence on the fishing industry, and the effectiveness of their slaughter and will try to work out methods to maintain and control the dolphin population at an appropriate level. The researchers will spend the three-month fishing season, from late January to mid-April, on Iki Island conducting detailed examinations of captured dolphins and gathering basic data on dolphins' diet and the other factors listed above.

A Preliminary Study on Land-Use Changes in Suburban Areas Resulting from the Construction of New Railways

Hideo Nakamura, Professor (and two associates) Faculty of Engineering, University of Tokyo ¥1,12 million

In addition to meeting the demand for increased transportation, the construction of new railway lines in the growing suburbs of large cities can also improve the conditions for land use in areas along the railway and provide new sites for residential areas and other urban land use. Despite vast investments, however, such factors as rising land prices and inappropriate restrictions on land use often prevent new railway lines from realizing their full potential.

This study plans to conduct an empirical analysis of changes in land use before and after the construction of new railway lines and to develop a model of the basic processes involved. The analysis will cover areas along lines opened during the last few years in the suburbs of major cities. The model will be used to compare and evaluate the extent to which the effects

of the construction of new railway lines on the price of adjacent land and on land use are altered by restrictions on land use or by methods of public development. This year will be devoted to preliminary research involving the gathering of basic data, the formulation of a number of residential-area models, and investigation based on empirical data.

Research on the Effects of Active Oxygen Substances in the Atmosphere on Organisms
Etsuo Niki, Associate Professor (and one associate)
Faculty of Engineering, University of Tokyo
¥3.0 million

The atmosphere contains a variety of active oxygen molecules. In recent years much attention has been focused on the phenomenon of lipid peroxidation resulting from oxidation within organisms. However, there is virtually no detailed knowledge of the chemical reactions involved, including the elementary reactions whereby active oxygen substances oxidize the components of organisms. Much also remains to be learned about the pathological effects of this phenomenon.

The chief objective of this study is to elucidate the processes of these reactions at the molecular level. The oxygen substances investigated include triplet and singlet oxygen molecules, ozone, superoxide, various oxygen radicals, nitrogen oxides, and sulfur oxides. For substrates the researchers will first study polyunsaturated fatty acid as a model compound for organism-related substances and then proceed to proteins and other substances. It is planned to clarify the effects of various factors involved in these oxidation reactions and to study the potential of vitamins and radical scavengers to control oxidation.

A Preliminary Study of Factors Determining the Level of Individual Exposure to Nitrogen Dioxide Hajime Nishimura, Professor (and one associate) Faculty of Engineering, University of Tokyo ¥1.41 million

In quantitatively evaluating the effects of the air pollutant nitrogen dioxide on human health, it is not enough merely to know the NO₂ concentration in the air. It is also essential to elucidate the level of exposure suffered by each individual in different ambient conditions. To measure individual exposure levels, small personal samplers that can be carried at all times are required. In the past, however, personal samplers capable of measuring NO₂ concentrations in the environment were not available, so that it was impossible to obtain quantitative measurements of individual exposure levels.

To measure individual exposure levels, this study will use personal samplers developed by the chief researcher and others and capable of measuring even low concentrations of NO₂ in the environment. The objective is to clarify the factors that determine levels of exposure and the relationship between exposure levels and impairment of health. This year's preliminary research will survey households in areas where the effects of traffic are severe or slight (thirty households in each case) and will establish a methodology for further research.

Proposals for the Local Government System in an Age of Urbanization: A Preliminary Study Aimed at Total Reform of Local Government Kelichi Matsushita, Professor (and four associates) Faculty of Law, Hosei University ¥1.5 million

The present local government system dates back thirty years, and various anomalies are now emerging because of its remoteness from contemporary needs and from the realities of regional society. The need for reform is currently the subject of widespread debate in various sectors of regional government.

This research aims to draw up a plan for a regional government system appropriate to the "age of urbanization" and to offer concrete and comprehensive proposals regarding the basic organization and operation of such a system. This year's preliminary research will concentrate on accumulating relevant documents and other materials and making a comprehensive review of existing theories and of the results of past research, as well as developing an initial plan incorporating new viewpoints. The main research project, beginning next year, plans to gather the views of people in relevant fields and to develop concrete reform proposals.

Fundamental Biology of Red-Tide Microflagellates in Japan, with Special Reference to Their Fine Structure and Taxonomy

Terumitsu Hori, Associate Professor (and five associates) Institute of Biological Sciences, University of Tsukuba ¥2.7 million

Most past research in Japan on the generation of red tides has concentrated on analysis of inorganic environmental factors affecting the constituent organisms. This has hindered fundamental biological analyses of the plankton that form the red tides, and knowledge regarding these organisms is still extremely meager. As a result, problems frequently arise even at the basic level of identification of the organisms primarily responsible.

The present research involves the collection of samples from various coastal areas. Scanning and transmission electron microscopy are used to determine the morphology and fine structure of red-tide organisms at the submicroscopic level, and their physiological characteristics and life cycles are elucidated through cultures. Research over the past two years has already yielded a substantial body of fundamental biological knowledge. This year's objectives are to gain a more precise understanding of the nature of red-tide organisms in Japanese waters by expanding the areas surveyed and to prepare a pictorial taxonomical guide for use by field researchers.

Research on the Socioecology of the Drill Baboon and on the Conservation of Forest-Dwelling Mammals in Cameroun

Masao Kawai, Professor and Director (and three associates) Primate Research Institute, Kyoto University ¥4.01 million

The drill baboon, a species found only in Cameroun, inhabits the tropical rain forest floor. It has an unusual

mode of life that is especially remarkable for its twotiered social structure. The drill baboon can provide vital clues to the social and ecological evolution of primates, including the emergence of the family.

In cooperation with local researchers, this project seeks to enhance understanding of this little-known species through long-term observation of the drill baboon's ranging behavior, diet, social relationships, and social structures. Fundamental questions relating to human food intake can also be approached through study of the foods of apes. Of the many plant varieties available, there are some on which the drill baboon does not feed, and there is a strong possibility that these plants contain toxic substances. It is hoped that analysis of these plants will lead to the discovery of new medicinal herbs. The drill baboon is a very rare species, and its numbers are being depleted through hunting. This research will provide basic data for use in the conservation of the drill baboon and other mammals inhabiting tropical rain forests, suggesting ways in which these mammals can coexist with human beings.

A Study of the Ecology of Indicator Animal Species (Especially Benthic Species) in Organically Polluted Sea Water

Gotaro Yamamoto, Professor (and five associates)
Faculty of Marine Science and Technology, Tokai University
¥2.21 million

Eutrophication of Japan's coastal waters is progressing, and certain coastal areas have reached an organically polluted state. Organisms found in sea water and chemical analysis of the water are commonly used as indicators of the level of pollution, but benthic, or bottom-dwelling, biota are also extremely significant as indicators of long-term accumulation of pollutants.

This research, a continuation from last year, seeks to clarify on a continuing basis the topographic distribution of benthic and clinging organisms in and around the harbors of Tagonoura, Mochimune, and Shimizu, as well as the ways in which distribution of these organisms changes according to their distance from the source of pollution. The researchers are also studying the life cycles and environmental tolerances of the indicator species and clarifying their interaction with the environment. Last year's research revealed that organisms could be classified into four or five biota according to the level of pollution. This year these findings will be generalized in an attempt to determine correspondences between benthic biota and different levels of pollution. This research is expected to produce results that researchers in general can utilize.

Research on the Environmental Effects of Waste Water from Domestic Washing Machines: The Biodegradability of Surface-Active and Fluorescent Whitening Agents

Michiko Katayama, Associate Professor (and one associate) Department of Home Economics, Tokyo College of Domestic Science

¥2.95 million

Although environmental pollution caused by detergents is a serious problem, there is insufficient scientific knowledge regarding the ways in which waste water

from washing machines actually causes pollution. In particular, it is not clear whether surface-active agents (surfactants) and fluorescent whitening agents (FWAs) are completely biodegradable.

There are many ways whereby water from washing machines can be directly absorbed into soil. This research will use the soil diffusion method to investigate whether it is possible for surfactants and FWAs to be broken down by soil bacteria. Experiments will employ LAS, ABS, and SDS as surfactants and two other agents as FWAs. Surfactants in the perfused solution will be identified by means of methylene blue activation and FWAs by means of absorption in the ultraviolet spectrum and fluorescent intensity, and a comparison with the total organic carbon (TOC) content will be made. The degree of biodegradability will be determined by measuring increases in the number of live bacteria in the perfused soil.

Cytogenetic Training for Indonesian Scientists, with Special Reference to the Cultivation of Home-Garden Plants

Kazuo Shimamura, Professor (and three associates) School of Agriculture, Okayama University ¥7.3 million

Approximately six hundred plant species are grown in the "home gardens" that are a characteristic of Indonesian farming households. These plants include not only fruit trees and vegetables but also a wide variety of medicinal plants. A number of the plants grown are of high commercial value, and by breeding improved strains it should be possible to increase agricultural productivity. However, the science of cytogenetics, which is basic to the breeding of crop plants, is still undeveloped in Indonesia, and there have been few cytogenetic studies of home-garden plants. There is now a growing need for this type of research in Indonesia.

This project seeks to promote cytogenetic study of home gardens by Japanese and Indonesian researchers who have been jointly conducting ecological and agricultural studies. Special emphasis is being placed on the transfer of research techniques to Indonesians. This project, which combines the transfer of technology with the training of researchers, not only will assist Indonesia's scientific and technological advancement but also will be extremely significant in terms of the development of tropical agriculture.

Clarification of Human Factors Contributing to the Eutrophication of Lake Oze
Atsuo Ujiie, Director (and seventeen associates)
Gumma Institute of Public Health
¥1.2 million

Lake Oze and the surrounding marshy area, a "special natural monument" situated on the boundary of Gumma and Fukushima prefectures, possess a valuable natural environment in terms of both geology and biology. In recent years, however, signs of eutrophication have become apparent. Following discussions between the Gumma and Fukushima prefectural governments, water-quality surveys were conducted over a three-year period starting in fiscal 1976. Nevertheless, the

factors involved in eutrophication and the resultant changes in the natural environment have not yet been sufficiently clarified.

This project seeks to elucidate these factors and to ascertain the changes in the natural environment, Research is being carried out mainly by prefectural hygiene and pollution research facilities with the cooperation of local universities and high schools. With a grant provided two years ago, the researchers tentatively calculated the extent to which human factors are contributing to the process of eutrophication. This year the data recorded so far will be studied in detail and the distribution of benthic animals, animal plankton, and diatoms will be investigated. The Naoemon marsh area, located close to Lake Oze but virtually untouched by human pollution, will also be studied, and the effects of human pollution will be determined through a comparison of the two areas.

The Pyschosomatic Effects of Infrasonic Noise in an Urban Environment

Osamu Okai, Professor (and six associates) School of Health Science, Kyorin University ¥1.3 million

The number of industrial machines and urban structures generating infrasonic waves (low-frequency sound inaudible to the human ear that does not directly cause pain) has increased in recent years. People may be unaware of infrasonic noise even when it is present at high levels, and the resultant functional disorders and symptoms may be treated as internal complaints of unknown cause.

This research, a continuation from last year, seeks to clarify the causal relationship between these phenomena and to study comprehensive medical and engineering measures to counter the effects of infrasonic noise. Last year the researchers surveyed residents in regions exposed to infrasonic noise and conducted research on physiological reactions to single-frequency infrasonic noise. This year they intend to record actual, multifrequency infrasonic noise and to study the reactions of people subjected to this noise to determine whether or not it produces adverse effects (nystagmus, nausea, vomiting, and so on) and to study the threshold for such effects through observation of pulse rates, respiratory waves, and blinking.

Research on the Development and Utilization of Gas. Sensors Using Metal Oxides

Tetsuro Seiyama, Professor (and two associates) Graduate School of Engineering Sciences, Kyushu University ¥3.5 million

The use of gas sensors is receiving considerable attention as a simple method of detecting flammable or toxic gases, oxygen, and moisture in order to prevent disasters, protect the environment, and conserve energy. However, there is still room for improvement in a number of aspects, including gas selectivity and stability.

This research, a continuation from last year, seeks on the basis of knowledge gained last year to design and develop flammable gas, carbon monoxide, and

oxygen sensors with sophisticated gas selectivity. This year's research is to cover the following areas: (1) The researchers will investigate changes in gas selectivity resulting from the addition of precious metals or highly active oxide catalysts to flammable gas sensors and will elucidate the actions of the catalysts. (2) It has been shown that the mechanism operating in ceramic moisture is H⁺ transfer. The researchers will design a long-life sensor using rapid-response hydrophobic materials with a controlled pore size. (3) To develop new materials, the researchers will clarify the properties of various mixed metal oxides in relation to the detection of flammable gases, moisture, oxygen, and carbon monoxide.

Dolphin Ecology and Bioconcentration: Research on the Interaction Between the Properties of Chemical Substances and the Species and Characteristics of Organisms

Ryo Tatsukawa, Professor (and six associates) Department of Environment Conservation, Ehime University ¥4.98 million

Many of the chemicals entering the environment as a result of human activities ultimately find their way into the oceans, where their concentration increases in the bodies of each ascending organism through the functioning of the food chain. Marine mammals in particular build up high concentrations of these chemicals because of their high position in the food chain and long life span, and are therefore excellent indicators of the average condition of long-term ocean pollution.

This research will involve the capture in Japanese and North American coastal waters of dolphins of species whose life cycles are relatively well known (striped dolphin and Dall's perpoise). Detailed autopsies will be conducted and measurements taken, and biological data will be recorded to determine the concentration and accumulated volume of various chlorinated hydrocarbons and heavy metals in these mammals. The researchers will also study fluctuations in the accumulation and excretion of these materials according to age, parturition, and lactation, the effects of diet and geographical location, differences in the metabolism and accumulation of various substances, and the effectiveness of these substances as indicators. Some of the knowledge gained in relation to dolphins should also be applicable to human beings, another mammalian species.

Experimental Statistical Analysis of the Physiological Effects of Multiple Environmental Risk Factors Junko Matsubara, Lecturer (and ten associates) School of Medicine, University of Tokyo ¥2.16 million

Just as multiple-risk factors are understood to control the incidence of the various geriatric diseases that represent the major causes of death, today's environmental pollution is also multiple in nature. Evaluation of the effect of multiple risks on human groups requires vast amounts of time and money, and research in this area is inadequate.

This project will use a statistical analysis method involving the application of a multiple logistic tunction model, which permits analysis of the physiological effects of multiple factors even in cases where the data are limited. The effectiveness of the model for predicting the risks that exist in a multiple-risk situation will be determined. After exposing large numbers of mice to such risk factors as radiation and metallic elements, the researchers will compile data on survival rates and such physiological criteria as body weight. The effectiveness and prediction potential of the method will be investigated through comparisons with other statistical methods. Experiments to date have shown the existence of a reciprocal effect between radiation and lead, and this will be studied in more detail both biologically and statistically.

Basic Research on Controlling Wild Pigeons Habituated to Human Environments Fumio Sugimori, Chief Researcher (and four associates) Yamashina Institute for Ornithology ¥5.8 million

The control and management of wild pigeous is a social problem shared by all industrialized nations. Damage caused by wild pigeons has been occurring throughout Japan, particularly since the period of rapid economic growth that followed World War II. This has resulted in problems affecting human health, daily life, and industries, and concrete countermeasures are needed. Direct capture is the principal control measure being implemented at present. Virtually no basic research has been conducted into such questions as increases in the pigeon population and causes of damage or en the development of other control techniques. Systems to control wild animals habituated to human environments, of which the wild pigeon is a typical example. are vital to the coexistence of human beings and other animals that share the same habitat.

This research, which began last year, will continue this year to study the life pattern of wild pigeons and to conduct basic surveys relating to damage control. In addition, a comparative study of control systems in various European countries, particularly France, is planned.

Basic Research on Environmental Dynamics of the Han River and Its Basin in the Republic of Korea Nobuyuki Nakai, Professor (and eight associates) Faculty of Science, Nagoya University ¥6.02 million

Human activities, land-use patterns (forestry, cultivation), and the natural ecology (vegetation, type of soil) in a river basin have a considerable influence on the river's ecosystem and the chemical properties of its water. There appears to be a quantitative cause-and-effect relationship between the chemical properties of river water and the environment of the basin.

This research on South Korea's Han River and its basin, conducted with the collaboration of Japanese and Korean researchers in various fields, seeks to evaluate this relationship and collect basic data for use in the conservation of the river basin environment. Water

collected from about thirty stations between the source and the estuary of the Han River will be analyzed for chemical content, including heavy metals, stable isotopes (13C/12C, 18O/15O, 34S/32S, D/H), radioactive isotopes (T/H), nutrient salts, and plant and animal plankton. In analyzing land-use patterns in the river basin the researchers will use data from the Landsat satellite to calculate the areas of land under different types of land use. It is also planned to collect data on flow rates at the sampling stations and on the climate of the river basin to allow a quantitative clarification of the chemical properties of the river water and the environment of the river basin.

A Preliminary Study on Security at the Household Level

Ichiro Utena, Senior Researcher (and five associates) Institute for Social Engineering Inc. ¥1.2 million

Contemporary life in Japan is generally tranquil, stable, and materially affluent. However, a close examination of the foundation supporting daily life reveals a variety of latent risk factors that could disrupt this peaceful existence. These factors, which vary widely, include major earthquakes, fire, disease, unemployment, and traffic accidents. However, only fragmentary knowledge is available regarding awareness of these latent dangers, steps taken to counter their effects, and the potential to cope with such situations at the individual household level.

This research seeks to investigate the current situation regarding security at the household level by means of a questionnaire survey and also to prepare concrete proposals for desirable precautions. This year's preliminary research will include classifying the risks existing at the household level, considering possible countermeasures, drafting a basic plan for investigating actual conditions, and carrying out a preliminary survey.

A Study of the Ecology and Nutritional Requirements of the Dinoflagellates That Induce Paralytic Poisoning Takeshi Yasumoto, Professor (and four associates) Faculty of Agriculture. Tohoku University \$5.7 million

The phenomenon of paralytic shellfish poisoning in temperate regions has long been known in many parts of the world, and much research has been conducted to identify the species responsible and the composition of the toxins. In recent years, however, there have been reports of a similar type of poisoning in tropical seas, and its incidence is on the rise. Paralytic shellfish poisoning is caused by toxins that are produced by poisonous plankton and then accumulate in bivalves and other marine organisms. The high incidence is thought to be caused by environmental changes resulting from construction and urbanization in coastal regions.

The present study, a continuation from last year, seeks to obtain samples of the dinoflagellate Protogon-yaulax from the Palau Islands and Papua New Guinea with the cooperation of local researchers and to determine the types of toxins involved through cultures

and toxicity tests. The researchers will lay the ground-work for analysis of environmental factors by investigating the circumstances surrounding outbreaks of poisoning and determining whether the causative organism and its cysts are present. It is hoped that local researchers will continue this research in the future, thus contributing to the development of a system that can prevent outbreaks of poisoning and ensure effective exploitation of fishery resources.

A Preliminary Study on the Environmental Effects of Heavy Metals Using a Microenvironmental Model, with Special Emphasis on Heavy Metals at the Cellular Level

Kayoko Nakamura, Researcher

Department of Radiology, Tokyo Metropolitan Institute of Medical Science

¥1.15 million

Studies aimed at elucidating the effects of heavy metals on organisms at the cellular level must proceed on the basis of a clear understanding of the relevance of the nature of the organisms' environment. One reason for the difficulty of assessing the indispensability and toxicity of heavy metals is the difficulty of creating environmental models. Another problem is the difficulty of ascertaining the behavior of heavy metals in vivo.

This study seeks to determine the behavior of heavy metals and other major elements within cells by creating a microenvironmental model using *E. coli* and employing EPMA (electron probe microanalysis) to observe and ascertain the state of the cells in vivo. Methods of applying EPMA to biological samples are not yet well established. This year's preliminary research will emphasize the development of a method of preparing samples that will yield high-quality electronmicrographs and accurate quantitative measurements, while at the same time preparing a quantification program.

A Preliminary Study on a Comparative Analysis of Agricultural Water Resource Policies in Japan and the United States

G. Irving Latz III, Ph.D. Candidate Department of Geography, University of Chicago ¥1.2 million

Ever since the Meiji era (1868–1912), Japan has made constant efforts in water resource management to modernize rice production. However, it is obvious from Western literature on Japan that studies of Japan's administrative framework for the modernization of the agricultural sector have been meager, and there is a great need for research to make up for this lack.

This research intends to analyze, on the basis of field studies conducted in various parts of Japan, the enactment, enforcement, and revision of the postwar legislation that provided the institutional framework for developing and managing agricultural resources throughout Japan. Typical of this legislation is the Land Improvement Law of 1949. The researcher will investigate the management of Land Improvement Districts established under this law in the Tohoku and Kansai regions of northeastern and western Honshu, respectively, and will consider the land-use and water

control requirements of irrigated agriculture and the role of the administrative system in meeting these needs. A comparison of institutional structures for the modernization of agricultural regions in Japan and the United States is planned for the future. This year will be devoted to preliminary research focusing on the compilation of a comparative glossary of relevant Japanese and American terms.

Systematic Research on the Effects of the Physical and Spatial Environment on the Behavior of Infants in Urban Residential Areas

Hirokuni Taniguchi, Associate Professor (and four associates) Department of Architecture, Tokyo Institute of Technology ¥3.95 million

Children develop mentally and physically through behavior in the form of play in the environment with which they are provided, but they are limited in their ability to choose and improve their environment. Infants in particular are regulated in their play outside the home by a number of internal and external factors, such as their own ability to move, the physical environment, and the mother's attitude. The establishment of living spaces that ensure a rich life in an environment of high population density has become an urgent issue, and studies of infants are vital, since they are most susceptible to the effects of the physical environment.

This research will analyze the physical environment of residential areas in terms of density, height, and scale, study the spatial behavior of infants, and interview mothers and other people involved in child care to investigate the effects that differences in environment have on the living space of infants, particularly play space. The researchers will also consider better ways of laying out apartment complexes and creating outdoor living spaces.

A Preliminary Study on the Preparation of Community Maps by Residents

Motowo Yoshimura, President (and seven associates) Institute of Environmental Planning and Programming ¥1.5 million

In recent years such factors as the emergence of environmental problems and the demand for cultural activities as part of daily life have led to a rapid rise in residents' interest in the areas in which they live. This has stimulated a great deal of discussion on ways of developing channels to link residents with the administrative authorities. The Japanese system, however, is still characterized by top-down decision making by the authorities, and residents seldom participate actively in gathering, sorting, evaluating, and discussing data relating to the environment in which they live, leaving community development to others.

This research seeks to develop methods whereby residents can create community maps of the environment in which they live as a first step toward citizen participation in community development. This year's preliminary research will include considering relevant case studies from Japan and overseas, clarifying the methodological and technical problems involved, and preparing maps of specific areas on a trial basis.

Social Welfare

A Follow-up Study on the Social Adaptability of Patients with Cleft Lip and Palate
Nobuhiko Isshiki, Professor (and four associates)
School of Medicine, Kyoto University
¥2.4 million

Cleft lip and palate is one of the most frequently observed congenital abnormalities. Despite advances in its treatment, such complications as facial deformities, speech impediments, and maxillary underdevelopment still occur after primary surgery, resulting in mental and emotional problems as well as social inadaptability. Cleft lip and palate can be effectively treated only if the treatment is carried out on a long-term basis by a team of specialists with the full cooperation of the patient's family. In the past, treatment tended to be aimed only at achieving the therapeutic goals set by the attending physicians, who often ignored the patient's mental and emotional suffering.

The present project is a follow-up study on the degree of satisfaction or dissatisfaction expressed by patients whom the researchers have treated over the past twenty-five years (or their families), with the full cooperation of specialists in various related fields; the physical and mental problems these patients have encountered as a result of their treatment; and their social adaptability. Realizing the shortcomings of past treatment, which tended to overemphasize the judgment of those performing the treatment, the researchers will attempt to establish guidelines for the treatment of cleft lip and palate that take the patient's mental and emotional needs into consideration.

A Study of Problems of an Aging Society, Focusing on the Social Response to the Life Plans of the Middle-Aged and Elderly

Sachiko Kikuchi, Professor (and seven associates) Department of Human Science, Bunkyo University ¥4.5 million

The various issues associated with middle-aged and older workers are currently the focus of much attention. The question of deferring mandatory retirement is being dealt with by corporations and unions, while that of amending the pension system is being tackled by the government, unions, and various specialists, with the government taking the lead. However, no systematic research has yet been directed toward the question of designing life plans for later life, perhaps because this is an area traditionally dealt with on the individual or family level.

The present study, a continuation from last year, will provide middle-aged workers, next in line to fill the ranks of the elderly, with the basic data they will need in planning for old age and will make policy proposals centering on the issue of social adaptation as it relates to planning for later life. Last year's research focused mainly on the steps taken by individuals in establishing an overall plan for life after middle age. This year's study will focus on the topics of livelihood security (pensions and employment opportunities), the

availability of medical services, and the costs borne by individuals receiving medical treatment—the topics that last year's study pinpointed as causing the greatest anxiety. After analyzing the factors necessary for a humanistic treatment of these topics, the project team will frame their results so as to offer policy proposals.

A Follow-up Study on the Elderly in the Kushikawa District of the Town of Tsukui Kunimitsu Moriya, Associate Professor Faculty of Education, Osaka University of Education ¥1.49 million

Old age is not only the period of decline in one's life but also the period of fullest development. When old age is considered (or treated) as possessing both these characteristics, changes in the ego-structure emerge as a major issue. With this in mind, in 1976 all 552 members of the old people's club in the Kushikawa district of the town of Tsukui in Kanagawa Prefecture were interviewed. The interviews focused on the members' life history, daily activities, and concept of old age.

Two years later, in 1978, the same questions were out

to the same subjects in a follow-up study.

As the second follow-up study five years after the initial work, the present project hopes to clarify some of the changes that have occurred in the ego-structure of the elderly by analyzing the findings and comparing them with the data from the two previous studies. It is believed that this analysis and comparison will clarify the significance of old age as a period of both decline and fullest development.

Research on Livelihood Protection in the Chikuho District

Takumi Higaki, Associate Professor (and five associates) Fukuoka Shakaihoiku Junior College

¥1.5 million

Chikuho, formerly a coal-mining district in Fukuoka Prefecture, lost its industrial base and its inhabitants were deprived of employment opportunities when its coal mines closed down in 1955. Many problems have developed as a result, such as the outflow of young workers, aging of the population, and depopulation, coupled with the large number of disabled and sick people caused by coal-mine accidents and aftereffects of the mining era. The proportion of people receiving welfare assistance in this district has continued to be the highest in Japan.

The present research, which regards livelihood protection as central to the treatment of poverty and social welfare in the Chikuho district, will attempt to go beyond the conventional statistical studies carried out by local government administrations, to ascertain the actual conditions of households receiving livelihood protection by working closely with the social welfare council, district welfare commissioners, case workers, and others. Reflecting the district's unique geographical and historical features, as well as the differences in the conditions of people's lives in various parts of the Chikuho district, numerous differences in attitude toward livelihood protection exist between recipients and non-recipients. The present research will focus on these differences and will attempt to determine how well the

livelihood protection program is being administered in the Chikuho district.

Research on Job Systems for Older Workers in an Aging Society

Mitsuo Nagamachi, Frofessor (and seven associates) Faculty of Engineering, Hiroshima University ¥3.2 million

In today's rapidly aging society, one of the greatest concerns of Japanese companies is that the rise in the age of the average Japanese worker will bring about a decline in efficiency and productivity, thus greatly reducing corporate profitability.

This research, a continuation from last year, aims to clarify the abilities and special traits of older workers and consider the feasibility of establishing a job system whereby older workers can capitalize on the abilities they have gained through experience and contribute in their own way to production and corporate activities. Such a system can best be established by introducing automation and improved systems to compensate for any decline of ability or function in older workers. To make the proposed job system as widely applicable as possible, this year's research will use the laboratory tests and surveys conducted last year to develop a worker-job function index capable of determining worker-job compatibility, that is, the fit between the abilities and functions required by a particular job and the abilities and functions possessed by a worker. A manual to facilitate the use of this index will also be prepared.

A Case Study on the Introduction of Off-Season Craft Work to Revive and Strengthen the Village as a Community

Yoshio Akioka, Professor (and thirteen associates) Department of Industrial Design, Tohoku Institute of Technology

¥3.7 million

Today autonomous growth and diversity in rural life are being advocated for the farm and mountain villages in the Tohoku district of northern Honshu, it is believed that the best way to achieve these goals is to establish a production system that includes industry, farming, and craft work as community activities, none of which can take the place of the others. To revive and strengthen the village as a communal production unit, the key need is thought to be the introduction of off-season craft work.

The present project is a continuation of the preliminary study undertaken two years ago and of last year's case study on the introduction of off-season craft work into Ono-mura, a village in Iwate Prefecture. Three seminars to heighten the interest of the villagers have already been held, and a woodcraft group has been formed, with regular instruction provided and test marketing of products. The main goals this year are to organize an autonomous project-implementation group to promote participation on a continuing basis by more villagers, to improve the craft techniques of the villagers, and to create a market for their products. It is hoped that this experiment will contribute to reviving and strengthening Ono-mura as a community. Grass-Roots Democracy in Urban Asia: A Comparative Study of the Philippines, South Korea, and Japan Go Nakagawa, Professor (and two associates) Faculty of Law, Fiiroshima University

Little attention has been paid to the fact that local government in Asia, particularly on the grass-roots level, is based on principles different from those in Western countries.

On the basis of the findings of field surveys conducted last year on the balangai (village) of the Philippines and the pan or tong (block) of South Korea as part of a preliminary study on municipal associations in Asia, this year field surveys will be conducted to clarify the organizational principles underlying these citizens' associations, the functions they fulfill within the existing government structure, and their similarities and differences in comparison with municipal block associations and self-governing bodies in Japan. This year's surveys will be undertaken with the cooperation of residents in each specified district. Attention will be focused on the unifying effect of the balangai system of amicable settlement in Philippine communities, and on collecting historical data and testimony to clarify the system of citizen participation in South Korea.

A Preliminary Study on Disabled People's Human Relations in Industrial Organizations Giichi Misawa, Professor (and seven associates) Institute of Defectology, University of Tsukuba ¥1,5 million

Employment of the disabled is an important issue today. The 1976 revision of the Law to Promote Employment of the Handicapped aroused considerable interest in the problem even among large companies, resulting in a small but significant increase in employment of the disabled. However, a new problem has emerged as a result of this improvement: generally speaking, disabled workers fail to get along well with their nondisabled coworkers. Past research on this problem has been too limited in scope or has treated only special cases.

The present research will concentrate on large companies, which from now on will play the key role in providing the disabled with employment opportunities, examining the factors believed to determine human relations in industrial organizations in terms of the following three dimensions: (1) personality, attitude, and behavior; (2) adjustment and morale; and (3) environment and management. In this year's preliminary research an interview survey will be carried out, after which disabled workers, their colleagues, and their superiors will be asked to evaluate a set of questions. Disabled workers will also be asked to analyze their jobs.

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

Hideshi Ohashi, Associate Professor (and five associates) Faculty of Arts and Letters, Tohoku University ¥3.0 million

In the Tohoku district of northeastern Honshu and in

Okinawa, shamanism still preserves its original form and flourishes either in opposition to or in harmony with the ideologies and technologies regarded as rational and scientific. Yutas, the Okinawan shamans, are accepted in their communities as spirit mediums, diviners, and healers. They maintain the traditional culture and perform a counselorlike role, but they also cause anxieties and conflicts among their clients and prevent the spread of modern medicine, especially psychosomatic therapy.

The present study seeks to elucidate the functional relationship of the faith healing inherent in shamanism, community medical care, and modern medicine in three communities in northern Okinawa. The project team will attempt thus to ascertain the conditions under which harmonious interactions of the new and old cultures occur, as well as those under which conflicts occur. The research will include (1) case studies of the initiation into shamanism of yutas, (2) observation and analysis of interaction between yutas and their clients, (3) field research on the degree of reliance of residents on yutas, and (4) case studies of patients in mental hospitals.

A Preliminary Study on Quantifying the Ambiguous Nature of Popular Attitudes Toward Social Welfare Kiyoji Asai, Professor (and ten associates) Faculty of Engineering, University of Osaka Prefecture ¥1.2 million

Popular attitudes toward social welfare play an important role in shaping welfare policies. The spirit of social welfare arises from the concept that all members of a community must live and work together and develop a sense of solidarity if they wish to create a stable community. Unfortunately, this spirit has not taken root in the minds of the average Japanese.

This research seeks to pin down quantitatively the ambiguous nature of popular attitudes toward social welfare by focusing on volunteer activities, which arise from the spirit of cooperation, and by using the fuzzy system theory and the mathematical quantification theory. The research also plans to compare quantitatively the nature of attitudes toward social welfare in Japan and those found in West Germany, where social welfare is more advanced. Such a comparison will make it possible to explore the differences in social structure that underlie Japanese and West German attitudes. This year will be devoted to preliminary research.

Research on Art Education for and Creation of Art Works by the Severely Retarded Takeo Kanetsuki, President (and five associates) Shokaen (a social welfare foundation) ¥2.5 million

Although various measures have been taken and much effort has been exerted to rehabilitate the retarded, permanent institutionalization is the only step considered feasible for the severely retarded, who are in greater need of education than those less severely retarded.

The present research will attempt to discover the extent to which the severely retarded can participate in society. The method used will be the creation of art

objects, not as a diagnostic tool but as a means through which the severely retarded can participate in society. Specifically, the severely retarded will be trained in charcoal drawing, watercolor painting, oil painting, and all other art media, with the emphasis on abstract rather than representational expression. Plans are being made for the future exhibition and sale of their works, which will help create an economic base for them. The success of this project will help establish a new system of rehabilitation for the severely retarded, who are considered the most difficult to help and so tend to be abandoned by society. It is hoped that this project will also help change the general public's attitude toward the retarded.

Research on the Determinants of Comfortable Living from the Standpoint of Environmental Psychology Kimiyoshi Hirota, Professor (and seven associates) Faculty of Sociology, Kansai University \$2.86 million

Past research into the determinants of comfortable living has concentrated mainly on physical, physiological, and functional factors, such as the size of one's home, quality of household furnishings and fittings, and general convenience of daily life. Psychological factors have largely been neglected.

This research, a continuation from last year, will clarify the psychological factors determining comfortable living on the basis of factor-analytical data from last year's preliminary study. The research will also attempt to standardize psychological tests in order to estimate degrees of comfort and use the results to make a comparative field study of the degree of comfort in different communities. In addition, a series of laboratory studies of small groups will be carried out, the results being used to clarify the factors that determine comfortable living in such social environments as the family, the group, and the community. Armed with this information, the researchers will attempt to establish a theory of comfortable living.

A Preliminary Study on Medical and Psychological Coordination Between Human Beings and Machines in the Age of Information

Kenji Ikeda, Instructor (and seven associates)

Faculty of Medicine, University of Tokyo

¥1.5 million

In today's age of information, an increasing number of intelligent operations are being performed through such peripheral devices as keyboards and CRT displays. Although many studies have already been carried out concerning the interface between human beings and machines in relation to information processing, none have yet attempted to devise a way to coordinate human beings and machines by delving into the thought processes of the human brain. Especially in medical treatment, which requires work under emergency conditions, there is a growing demand for peripheral devices that are easy to handle.

This study will consider and make concrete proposals regarding ways to incorporate factors that correspond to the human thinking process, especially the physiological and psychological characteristics of recognition, memory, and remembrance, in designing information-processing systems. This year a preliminary study will be carried out.

A Preliminary Study on the Communication Potential of Severely Disabled Children Hiroya Suzuki, Professor (and five associates) Faculty of Education, Ibaraki University ¥1.46 million

Social welfare measures for the disabled have gradually been adopted in recent years, such as the compulsory establishment of special schools for disabled children beginning in fiscal 1979. But developmental guidelines for severely disabled children based on scientific knowledge of their actual conditions lag far behind, which has seriously hindered the establishment of educational training programs that meet their needs.

Focusing on brain functioning with a view to helping severely disabled children develop their verbal communication abilities as fully as possible, this study aims to evaluate accurately the residual acceptability of the input sensory system, to develop various potentialities in the output effector system, and to elucidate the physiological and psychological characteristics during information processing. This year's preliminary study will attempt to ascertain the latent communication potential of the children by measuring comprehensively and dynamically the various functions available for communication.

Illustrated Japanese-Language Texts for Non-Japanese-Speaking People with Limited Education
Hideaki Murata, Teacher
Shinsei Middle School, Tokyo
¥2.15 million
Japanese in adequate provision for World Way II orphan

Japan's inadequate provision for World War II orphans repatriated from China, Indochinese refugees settling in Japan, and children of impoverished Japanese returning from overseas has become a major social problem.

The present research, a continuation from last year, seeks to develop elementary illustrated Japaneselanguage texts for non-Japanese-speaking people with limited education, who are deprived of Japaneselanguage education because instruction in this field at present caters mainly to English-speaking foreign students with advanced academic backgrounds. In addition to providing Japanese-language instruction, the proposed texts will instruct people in everyday aspects of Japanese life, thereby indirectly helping them to lead independent lives. This year, as a sequel to the illustrated introduction to Japanese conversation published last year, this project will develop an intermediate text designed to provide the Japanese-language instruction necessary for everyday social life in Japan. It will also compile an illustrated vocabulary list of all the words and corresponding illustrations prepared for the introductory text as well as those that will appear in the forthcoming intermediate text. Tape recordings to accompany the texts will also be prepared. It is hoped that the resulting materials will be of use in improving the welfare of the above-mentioned people and will also facilitate the Japanese-language instruction of children and youths in other countries.

Development of a Device to Record the Environmental and Physiological Conditions of Ambulatory Patients Tatsuo Togawa, Professor (and six associates) Institute for Medical and Dental Engineering, Tokyo Medical and Dental University ¥4.0 million

Diagnostic and therapeutic techniques in hospitals and other medical facilities are highly advanced, but techniques to monitor the physical and environmental conditions of people at home or at work are still inadequate. Developing these techniques is a major technological task for future medical care, welfare, and public safety.

This research, a continuation from last year, attempts the development of a small device that can be attached to the body to record the subject's physiological and environmental conditions over an extended period. The use of semiconductors and microcomputers enables instantaneous data readout and processing. Last year a prototype was developed and tested for heartbeat and body temperature, and the results were recorded. This year's research will focus on developing a sensor to record respiration and posture, improving and standardizing the memory unit, and developing new data processing techniques. The device will be tested on outpatients, healthy subjects, and workers in special jobs to determine the significance of automatically measuring and recording physiological and environmental information on the basis of concrete, hitherto unavailable data.

A Survey on Development of Community Health Care Kyoichi Sonoda, Associate Professor (and twelve associates) Faculty of Medicine, University of Tokyo ¥2.8 million

With such geriatric diseases as cerebrovascular and cardiac disorders and cancer increasing at an alarming rate, local governments are showing increased interest in health care. A growing number of local communities are engaging in health-care activities on a community-wide basis or are implementing comprehensive programs of medical checkups and blood pressure tests. But researchers in medicine, public health, and sociology have seldom participated directly in any of these activities, conducting surveys, evaluating conditions, or providing guidance in a systematic and continuous manner.

The present study, a continuation from last year, is being conducted in the town of Aikawa, Akita Prefecture. The aim is, from the viewpoint of health sociology, to contribute to a ten-year plan for community health care that began in Aikawa in 1978. Last year the study adopted measures to increase the proportion of citizens of Aikawa receiving medical examinations and undertook a survey to determine their awareness of and activity in health care. This year's project will include field studies on those citizens of Aikawa who have not had their circulatory system checked for many years. In addition, the project plans to undertake basic studies on the medical environment in Aikawa, the results of which will be used to determine how large the town health center should be, how the town medical clinic should be rebuilt, and how community health care in general should be handled in the future.

Research to Develop a Training System for Improving Human Functions in a Highly Technotronic Society Yoshio Hayashi, Professor (and five associates) Department of Engineering, Keio University ¥4.3 million

With the progress of today's technotronic society, an increasing number of professions are using computers in the conversational mode. At the same time many problems in adaptation have been noted. In order to enhance the interface conditions between computer functions and human capabilities, it will be necessary, on the one hand, to improve computers, and on the other, to train human beings in their proper use.

The present study seeks to develop a training system that will make positive use of human capabilities. Specifically, research will be conducted to (1) ascertain the actual conditions in professions that use computers in the conversational mode, (2) clarify conversational processing patterns and the necessary human functions and capabilities, (3) clarify the machine conditions of computer conversation that are suited to human functions and capabilities, (4) develop a training system to improve the functions and capabilities of professions that use computers in the conversational mode, and (5) make proposals regarding human conditions from the standpoint of improving human functions and capabilities.

Basic Research on the Rehabilitation of the Mentally Retarded: Toward a Typology of Work That Will Stimulate Occupational Development

Takekatsu Kikuchi, Associate Professor (and two associates) Department of Industrial Arts Education, Kyoto University of Education

¥1.32 million

For the mentally retarded, employment not only satisfies their psychosocial needs but also accords them recognition as adult members of society. Employing the mentally retarded holds the key to their rehabilitation, but employment opportunities are limited.

This project will carry out case studies on how the mentally retarded achieve occupational development and adapt to their work at different stages of life, particularly in relation to family, school, and job. The results will be used to develop a typology of work to help rehabilitate the mentally retarded. The results of follow-up case studies of mentally retarded adults will be used to analyze the relationship between the individual attributes of the mentally retarded (ability, aptitude, occupational morale, family relationship, and social independence) and their occupational adjustment or maladjustment, and to devise rehabilitation measures tailored to the needs of individual mentally retarded adults.

The Outlook for a New Type of Social Protection for Dependent Children: Replacing Institutions with Group Homes

Tariho Fukuda, Professor and Dean (and six associates) Department of Sociology and Social Work, Meiji Gakuin University

¥3.2 million

Since the 1960s, the practice of placing dependent chil-

dren in large institutions has been strongly criticized by those advocating the importance of protecting the human rights of welfare recipients, especially the right of children to receive adequate protection in their formative years. The international trend in the treatment of dependent children now is to place them in small institutions scattered throughout the local community, such as family group homes, where they can share their lives with child-care workers in an ongoing, stable relationship. Most such children in Japan, however, are still placed in institutions accommodating some thirty to two hundred children, as group homes are still only in the experimental stage, while the system of foster parenthood, despite efforts to promote it, is still not widely accepted.

The present research will ascertain the situation of dependent children in Japan and the trends in their social welfare, with the cooperation of researchers and child-care workers. The research will also analyze data on the situation in Western countries in establishing a new theory of social protection that takes into account Japan's sociocultural environment and will explore the feasibility, on the basis of this theory, of reorganizing the existing system of welfare facilities for children.

Research on the Effects of Occupational Status on Aging After Mandatory Retirement Shinkichi Ogawa, Professor (and eight associates) Institute of Sports Science, University of Tsukuba ¥5.0 million

Although some outstanding studies have been conducted on noneconomic aspects of the lives of older workers, systematic, empirical research on the effects of occupational status on health and aging is virtually nonexistent. The relationship between society and aging needs to be understood in the context of actual conditions, but to date only workers in model plants have been covered by experimental studies.

This study assumes that the best way to understand the full meaning of health in the aging process of older workers is through a system of health examinations that complements the existing medical checkup sytem. On the basis of this assumption, the study will examine and measure the physical, mental, and social health, awareness of health, aging, medical checkups, physical work load, nutrition, and physical strength of two groups of people, one gainfully employed and the other unemployed, who have passed the age of 'mandatory retirement' (the age at which large companies dismiss their lifetime employees). The results will be examined multidimensionally to ascertain the effects of occupational status on aging after mandatory retirement and thus to clarify the correlation between social activities and aging.

A Comparative Study of Socioeconomic Development in Japan and Poland

Kiyoshi Takeuchi, Professor (and one associate) Faculty of Economics, Tohoku University ¥2.2 million

In East European countries national income is not made public in a form that would make direct comparisons with the West possible. And although these countries' currencies have official fixed rates against Western currencies, the rates do not reflect the Eastern countries' true social and economic circumstances. Moreover, because of differences in national concepts and statistical methods, few systematic comparative studies of social and economic problems in the two systems have been made.

The present study, building on basic research carried out last year, attempts to extend and deepen the quantitative comparison being made of socioeconomic development in Japan and Poland. This is being achieved by (1) conducting a quantitative evaluation of the levels of social and economic development in both countries, (2) estimating a real exchange rate for East European currencies in relation to Western currencies, and (3) deriving common statistical criteria by which to measure the standards of consumption, living, and social welfare in Japan and Poland.

A Preliminary Study on the Welfare Environment and Awareness of Inhabitants Under a Decentralized Local Structure

Hajime Myoken, Professor (and three associates) Faculty of Economics, Nagoya City University ¥1.4 million

The socioeconomic welfare environment in the coming 'age of local society," when attention will shift from economic growth to social welfare, is an area to be dealt with not through the central government's policies but from the viewpoint of decentralized local governments.

The present research is a preliminary study to (1) determine how the life styles and value systems of local inhabitants have changed as a result of social welfare policies; (2) survey local inhabitants on the kind of welfare environment they consider necessary; (3) examine the roles of local governments and the central public sector, particularly in welfare, medical care, health, and education, in connection with the division of roles between centralized institutions and decentralized institutions; (4) examine the ideal reorganization of the overall socioeconomic welfare environment under a decentralized structure; and (5) propose an organizational framework adjusting and regulating the goals of centralized and decentralized systems.

A Preliminary Study on Household Behavior in Asian Countries: Establishing a Theoretical Model of Labor Supply. Consumption, and Saving Yasuhiko Torii, Professor (and five associates) Department of Economics, Keio University ¥1.5 million

The need to understand comprehensively the mechanisms of labor supply is becoming increasingly urgent as Asian countries industrialize. It is necessary first to discover the social classes that serve as the major sources of labor, to ascertain their economic features, and to identify the factors governing labor mobility and determining labor costs. Next, it is necessary to collect data on the saving habits of each social class, the allocation of household savings to financial and physical assets, and the channels through which savings are turned into industrial investments. While re-

search on labor supply mechanisms in Asian countries has made small but significant progress, even basic observations are virtually nonexistent when it comes to saving and investment behavior.

The present study will survey labor supply and consumption, saving, and investment behavior in the rural, urban-traditional, and urban-modern sectors of various Asian countries. On this basis, a comprehensive theory of household behavior will be formulated. This year preliminary studies will be conducted in the Republic of Korea and Thailand.

Problems Faced by Enumerators in a Changing Social Environment: Basic Research to Improve the Statistical Environment

Yusetsu Oya, Professor and Dean (and two associates) Faculty of Economics, Kyushu University ¥1.5 million

The large number of residents of major cities who refused to cooperate in the 1980 census is but one example of the many problems faced in the compilation of statistics. The noncooperative attitude of local residents toward statistical surveys affects census takers and raises new problems with the data they compile.

The present study will attempt to clarify these problems by surveying and interviewing enumerators (using a sample of nine hundred) who took part in the 1980 census in five municipalities selected on the basis of patterns of urbanization; retabulating by regional type the results of an enumerator survey carried out in October 1979, with funding from the Ministry of Education; and organizing other existing research data in accordance with the purpose of this project. Through an analytical comparison of these data, an attempt will be made to bring into focus the various aspects of the problems faced by census takers.

Education and Culture

A Linguistic Geographical Study of the Ryukyu Islands

Yukio Uemura, Professor (and thirteen associates)
Faculty of Law and Letters, University of the Ryukyus
¥5.0 million

The Ryukyu dialects constitute one of the two major dialect groups of the Japanese language. These dialects are of inestimable value to the study of Ryukyu cultural history, as well as the history and genealogy of Japanese itself. However, the traditional vocabulary has begun to fall into disuse in recent years, and little has been done to record and preserve it.

This study, a continuation from last year, constitutes the nucleus of "Studies on the Language of the Ryukyu Islands," a ten-year project organized by the Okinawa Center for Language Studies. This year's activities will include (1) adding about three hundred

items to the basic vocabulary of three hundred lexical items investigated last year, (2) increasing the number of localities surveyed to reach the ultimate goal of two hundred during the ten-year period, (3) formulating questionnaires for use in the field in the third and fourth years, and (4) continuing work on the linguistic atlas that was started last year. Through the most accurate survey methods used so far and with the vast amount of data that will be collected, it will be possible to clarify the regional differences in the language of the Ryukyu Islands and to build a firm foundation upon which the study of the formation and development of the Ryukyu dialects and even of the Japanese language can be advanced considerably.

A Basic Study of the Relations Between Japan and Eastern Europe

Shigeru Kido, Professor (and thirteen associates) Faculty of Law, Kobe University ¥5.0 million

The need to deepen understanding between Japan and the socialist countries of Eastern Europe has increased, for their relations have become much closer in recent years.

In response to this need, the present study is conducting basic research on Japanese—East European cultural relations in their broadest sense. Last year the project compiled a bibliography of works on Eastern Europe available in Japanese and conducted a study on the history of cultural relations between Japan and Eastern European countries. This year the project will (1) compile a bibliography of works on Eastern Europe in European languages that are available in Japan, (2) promote studies in such individual fields as literature and commerce and conduct more detailed studies of the various periods in the history of cultural exchange between Japan and Eastern Europe, and (3) hold an international symposium on Japanese—East European cultural relations.

Changes in Japanese Food Consumption in the United States

Naomichi Ishige, Associate Frofessor (and four associates) National Museum of Ethnology

¥4.0 million

The consumption of Japanese food in the United States is undergoing rapid change. Ever since the first Japanese immigrants arrived in the United States, Japanese restaurants have catered for the most part to Americans of Japanese descent and to businessmen and tourists from Japan. In the last few years, however, Japanese food has become popular among Americans in general. A survey conducted in 1980 found that 650 Japanese restaurants existed in California alone.

In this project a field study will be conducted on Japanese restaurants in the Los Angeles area and their customers. The study will examine how Japanese food is being altered to suit American tastes, including ingredients and the way it is served. The aim is not simply to record the process by which Japanese food became popular in the United States but also to clarify the conditions necessary for and problems associated with the internationalization of Japanese culture.

Compiling a General Bibliography of Old Japanese and Chinese Books: A Critical Bibliography of Specific Texts

Ryuichí Abe, Professor (and eighteen associates) Institute of Oriental Classics, Keio University ¥8.0 million

Most existing bibliographies of classical Japanese and Chinese literature have been compiled not on the basis of actual examination of texts but by simply listing information from inaccurate library catalogues. Thus they are unreliable as academic reference books.

The purpose of this project, now in its third year, is to examine ancient Japanese and Chinese texts in Japan and compile a general bibliography that will include titles, authors' and editors' names, number of volumes, and dates of publication and transcription, as well as the provenance of the texts, their relation to other versions, and current locations. This year's goal will be to complete the research begun on the following works two years ago:

I. Japanese Works

(1) Japanese Confucian studies: writings by Yamazaki Anzai and his followers and by Yamaga Soko; (2) classical Japanese literature: writings by Tachibana Moribe; (3) waka: Hachidai-shu and Sanka-shu; (4) medieval Japanese literature: such works as Ise Monogatari (printed versions only), Muromachi Monogatari, and war tales (Hogen-Heiji Monogatari, Taiheiki, Soga Monogatari, and Yoshitsune-ki); (3) early modern Japanese literature: the ukiyo-zoshi; (6) topographies printed before 1716; and (7) the six classic Japanese histories.

 Chinese Works (including Chinese-language works by Japanese authors written prior to the 1868 Meiji Restoration)

(1) Sung and Yuan editions; (2) Ssu shu (The Four Books of Confucianism) and Hsiao ching (The Classic of Filial Piety); (3) historical chronicles compiled by imperial decree; (4) bibliographies and bibliographical catalogues; (5) classified collections of T'ang works; and (6) novels and dramas.

A Preliminary Study on the Formation of New University Functions Based on Regional Research Tomitaro Sueishi. Professor (and nine associates) Department of Environmental Engineering, Osaka University ¥1.49 million

Universities need to establish close ties with their local communities. They will be expected from now on to equip themselves with facilities capable of observing and recording all aspects of a community's past, present, and future. By doing this, they will be able to function as information centers that gather, store, and utilize knowledge concerning their surrounding communities. In addition, they will be called on to function as clinical organizations in which findings of field studies in the region will be used to the direct benefit of the local community.

This study aims ultimately to design a university-extension system closely tied to the local community. The proposed system will be compared with recently established interdisciplinary extension organizations, and the results will be used to formulate a draft for a community observatory that integrates the economic.

industrial, environmental, informational, administrative, and other aspects of community life. After this has been done, an exhibition will be held, at which local citizens will be asked to evaluate the social and educational benefits of their participation in environmental education, energy conservation, recycling, and regional planning.

Postwar Economic Growth and Political Administration in Japan and West Germany

Haruhiro Fukui, Professor (and three associates) Department of Political Science, University of California at Santa Barbara

¥3.15 million

Few scholarly works exist that focus on the similarities and differences in the postwar development of Japan and West Germany, both of which were defeated in World War II.

In this comparative study the postwar political and economic development of the two countries are examined in an attempt to clarify their political and economic systems, to construct a model of the modern mixed economy, and to test the theoretical and practical validity of the model. Approximately thirty sociologists from Japan, West Germany, and the United States will participate. Researchers from each country will be assigned specific areas to investigate from a list of fourteen subtopics, including energy and resources, prices and inflation, agricultural policy, and environment. The investigations will be conducted mainly through bibliographical surveys in each country and interviews with specialists, after which the results will be compiled and submitted to the project head.

Research on Japanese Studying Overseas and Changes in Attitudes Toward Study Abroad

Minoru Ishizuki, Professor

Faculty of Arts and Sciences, Tenri University ¥0.8 million

Despite the crucial role students educated in the West played in Japan's modernization in the late nineteenth century, scholarly works on the history of study overseas are virtually nonexistent.

This research will attempt to clarify the importance of study abroad by examining the systems, policies, and history of sending students abroad, the conditions of students during their stay abroad, their situation after returning to Japan, evaluation of these students both at home and abroad, and other aspects of study abroad. Historical materials will be collected from a wide range of sources, including official records of the Ministry of Education, the Ministry of Foreign Affairs, and other government offices, as well as of prefectural offices and schools. Other sources examined to grasp the qualitative aspects of study abroad will include (1) students' records, diaries, and reports of their experiences abroad; (2) biographies, both popular and critical; (3) novels dealing with study abroad or situated in an overseas academic setting: (4) commentaries and articles about overseas study appearing in magazines, newspapers, and books; and (5) foreign impressions and evaluations of Japanese studying abroad. The research will also attempt to

trace changes in attitudes toward study abroad through a comparison of the situations before and after World War II.

An International Study of Trade Ceramics in Premodern Asia

Tsugio Mikami, President (and twelve associates) Trade Ceramics Study Group ¥9.0 million

During the T'ang dynasty (618–907) and thereafter, trade ceramics were exported from China, Vietnam, and Thailand, and from Imari and Karatsu in Japan, to Southeast Asia and countries in greater Asia. Today these ceramics are being excavated in great numbers throughout Asia.

Using trade ceramics, the present study is attempting to clarify the history of commerce in Asia. Continuing their work from last year, the researchers will prepare drawings and photographs of Chinese and other ceramics excavated at six representative sites in Japan. The drawings and photographs will then be mounted on cards with annotations in both Japanese and English. This year the scope of investigation will be expanded to include ceramics of the sixteenth century in addition to those dating from the fourteenth and fifteenth centuries. Moreover, to promote international academic exchange, Southeast Asian ceramics experts will again be invited to take part in field work in Japan, while Japanese researchers will be sent to Indonesia and Sarawak to conduct archaeological surveys.

A Basic Study of the High School Entrance Examination System, Scholastic Achievement, and Career Choice

Hiroshi Kida, President (and fourteen associates) National Federation of Educational Research Institutes in Japan

¥3.98 million

Until recently, data on public high school entrance examinations, which are conducted on a prefectural level, have remained unpublished in the files of the prefectural and metropolitan boards of education.

The present study—a continuation from last year in cooperation with the National Federation of Educational Research Institutes in Japan, a body organized chiefly by the National Institute for Educational Research and prefectural and metropolitan education centers—is a comparative study of nationwide data on high school entrance examinations. The information obtained will contribute to a qualitative assessment of academic achievement at the end of the nine years of compulsory education (elementary and middle school) as well as of the relationship between the academic performance of students during their years of compulsory education and during high school. This study will be a valuable guide in planning ways to improve academic guidance, career guidance, and the high school entrance examination system itself. Last year thirty-six prefectures cooperated in an analysis of the test items appearing on high school entrance examinations. Items were examined by subject and on the basis of a single, unified standard. This year the results of

these analyses will be compiled into a book, and similar analyses will be carried out for the test items on the 1981 entrance examinations. In addition, case studies on career guidance will be continued, and a comparative study of the entrance examinations in major advanced countries will be implemented.

The Urban Environment as a Place for Children: The Home Life of Children

Nobuko Ogawa, Professor (and eight associates) Department of Home Economics, Japan Women's University ¥3.2 million

The question of how children living in cities are affected by urbanization at different stages of their growth is an important subject in need of clarification. This is particularly true in Japan, where even mountain villages are increasingly affected by urbanization.

This study, a continuation of the 1978 study on children's life outside the school, will survey the home environment of children living in the same community in an attempt to clarify the relationship between home environment and child development. The study will delve into the life of children, including their concept of a house, stage of growth, budgeting of time, use of space, relationship with their families, and other aspects of home life. Since teachers at the local primary schools surveyed in 1978 were very cooperative, it should not be difficult to enlist their help again in collecting data for the present project. By combining the results of the two studies, it will be possible to conduct a comprehensive reassessment of the lives of children, which up to now have been studied only separately in terms of family, school, and outside-school life.

A Comparative Study of the Developmental Process of Occupational Aspirations: The Socialization Functions of Educational and Employment Systems
Hidenori Fujita, Associate Professor (and two associates)
School of Education, Nagoya University
¥1.8 million

Previous studies on the process of choosing a career have generally regarded the educational and employment systems as constants and focused on individuals' sociopsychological traits and on the expectation and attitudes of those with whom they come in contact. At a time when the harmful effects of Japan's preoccupation with academic "pedigree" are becoming increasingly apparent, it is important to examine the extent to which the characteristics of the educational and employment systems affect young people's occupational perspectives and career choices.

This study, a continuation from last year, is a comparative analysis of the formation of occupational aspirations and career choice among young people through an examination of the structural features of the educational and employment systems of four industrial societies: Japan, Sweden, the United States, and West Germany. This year's activities include analysis of the results of questionnaire surveys of Japanese middle school, high school, and university students; pilot surveys in Sweden, the United States, and West Germany; and refinement of the theoretical framework and major hypotheses of this study by comparing the

results of the pilot surveys with the results of last year's study of educational and employment systems.

A Preliminary Study for Conducting a Comprehensive Survey of Straw Culture in Japan Katsuhiko Sakamoto, Professor (and five associates) Faculty of Engineering, University of Chiba ¥1.5 million

Considering the extensive use of straw in Japan, it is no exaggeration to characterize Japan's traditional material culture as a straw culture. Straw is a key material in every aspect of daily life. Straw culture has also penetrated deeply into the cultural and religious life of the Japanese, as illustrated by the sacred Shinto rope.

The goal of the present project is to compile comprehensively and systematically through field studies and examination of documents an illustrated record of straw culture as it has affected every aspect of Japanese life, as well as to consider the future of straw culture. Unlike past studies of rice culture in Japan, which have focused mainly on religious and ritualistic aspects, the present project will be the first to focus on the material culture of the straw derived from the rice crop. It is hoped that the research can provide people in rice-growing communities with valuable information.

A Preliminary Study on Women and Employment: Female Executives of Small Companies in Tokyo Hiroko Hara, Associate Professor (and three associates) Faculty of Home Economics, Ochanomizu University ¥1.5 million

Statistical data clearly indicate the low level of women's participation in the decision-making process at large corporations and government offices; however, their level of participation in smaller enterprises is significantly higher. In the past, only a few studies were conducted in this area, and while government statistics provide quantitative data on women executives, analyses of the extent of their contribution and other vital information are nonexistent.

The present study aims to secure concrete, basic information on the situation of women executives by conducting a series of personal interviews with women executives of small companies. This year companies in Tokyo will be surveyed in a preliminary study to determine the methodology for carrying out a nationwide survey. It is ultimately hoped to contribute to the establishment of a sound methodology for cross-national comparisons of female job participation.

Research on Educational Clinical Psychology in Therapeutic Education for Handicapped Children Teruhisa Yoshida, Associate Professor (and four associates) School of Education, Ibaraki University ¥2.34 million

Research suggests that diverse therapeutic education is necessary for handicapped children and that they also benefit from extensive contact with normal children. Moreover, it has been shown that extensive contact with handicapped children plays a significant role in shaping normal children's attitudes toward the handicapped.

This study is designed to obtain basic information on therapeutic education. It focuses on autistic, emotionally handicapped, and mentally retarded children and compares the effects of individual and group therapeutic education in special schools for the mentally handicapped with the results of group psychotherapy for handicapped children at regular community schools. Last year, during the first year of study, the researchers gathered data on therapeutic educational programs and the resulting changes in handicapped children's behavior by participating in individual and group therapeutic programs at special schools for the handicapped. With respect to handicapped children attending regular schools, the researchers conducted interviews with parents, school officials, teachers, and others and obtained data on changes in handicapped children's behavior and in normal children's attitudes toward the handicapped. This year these data will be analyzed, and the results will be used to modify and improve therapeutic educational programs. In addition, the researchers will continue work on the surveys begun last year.

Endogenous Intellectual Creativity and the Emerging New International Order, with Special Reference to East Asia

Tadashi Kawata, Director (and eleven associates)
Institute of International Relations for Advanced Studies in
Peace and Development in Asia, Sophia University
¥1.5 million

The declaration on the establishment of a "new international economic order," which confirmed the need of every nation in the world to work toward the rectification of socioeconomic inequities, was adopted by the United Nations special session on economic problems in May 1974. However, since then the gap between the nations of the North and those of the South, as well as the gap in living standards within countries, has been widening at an alarming rate. Consequently, efforts to replace the old methods of social and economic development with endogenous methods of development have begun all over the world.

In response to this urgent international issue, the present project aims to determine how the intellectual creativity of the endogenous cultures of Japan and other East Asian countries can contribute to the establishment of a new international order. This year theoretical and empirical studies of endogenous growth will be undertaken as interdisciplinary projects encompassing the various fields of social and natural science. In addition, an attempt will be made to compare the research on Japan and other East Asian countries with studies conducted in the Middle East and Latin America.

Sociological, Socioanthropological, and Management Research on the Korean System of Business Administration

Abito Ito, Associate Professor (and three associates) Department of Cultural Anthropology, University of Tokyo ¥3.5 million

Korea's unique social structure makes the Korean system of management quite different from Japan's. For example, in Korea one's social network—kinship, home-

town, and classmate relations—is not confined to one's workplace, but extends the length and breadth of society in general. It is this type of social network that makes Korean society so mobile.

This project, which is based on the results of sociological and socioanthropological studies carried out so far, will consist of a field survey on the human relationships that exist in Korean firms. One small firm will be selected as the subject of research, and an attempt will be made to construct a basic model of the Korean management system by conducting participant observations, field interviews, and questionnaire surveys. In undertaking this task, a special effort will be made to compare the management systems of Japan and Korea, with a view to identifying the unique features of each system.

Interdisciplinary Research on the Ishiguro Collection and Related Materials in the Koju Library: Sociocultural Significance of Academic and Technical Studies Pursued by the Country Gentry in the Late Edo Period Masaru Kusunose, Professor (and eight associates) Faculty of Humanities, Toyama University ¥4.88 million

The pursuits of Nobuyoshi Ishiguro (1760–1836), a noted mathematician of the late Edo period, and three generations of his descendants cover not only wasan (Japanese mathematics) but also a wide range of practical studies, such as land surveying, calendar making, astronomy, navigation, and map making. The books, old maps, archives, documents, and instruments that illustrate their achievements have been preserved by the Koju Library in Shin-Minato, Toyoma Prefecture.

The present project is expected to show, through an interdisciplinary examination of these materials, that Ishiguro's mathematics was not just an intellectual pastime, as tended to be the case of intellectual pursuits in the Edo period, but a systematic investigation intended as a practical and rational tool for land-reclamation, irrigation-planning, river-improvement, land-surveying, and map-making activities. The project is also expected to show that the scholastic achievements of the Ishiguro family were on a high level, thereby providing a concrete example of how the intellectual pursuits of the country gentry in the late Edo period laid the foundation for Japan's acceptance of Western technology and its remarkable scientific and technological development since the 1868 Meiji Restoration.

Counseling Programs in High Schools: Establishing Individual-Oriented Student Guidance Goro Imai, Teacher (and eight associates) Sakuramachi High School, Tokyo ¥3.0 million

Apathy among high school students has become widespread recently, while the problems of truancy, suicide, and violence in the home have become serious social concerns. These phenomena are caused by a number of complex factors, but they cannot be understood without considering the role of teachers as student counselors.

This project, which is being carried out primarily by high school teachers, is designed to elucidate the

problems now facing high schools and to formulate solutions by focusing on the problems of the teachers themselves. Last year, a 230-item questionnaire was sent out to 659 Tokyo public high school teachers. This year the project team will analyze the results of the questionnaire in greater detail and conduct a supplementary survey focusing on (1) teachers' qualifications, (2) teachers' attitudes and behavior toward students, (3) the organization and operation of school counseling programs, and (4) the training of teachers in counseling. The project's ultimate aim is to make proposals for the improvement of student counseling in high schools.

A Preliminary Study on Vocational Retraining, with Emphasis on Technical Education

Tatau Nishinaga, Professor (and six associates) Faculty of Engineering, Toyohashi University of Technology ¥2.0 million

In this age of rapid technological innovation, any engineer at the vanguard of modern industrial society who fails to keep abreast of new advances in technology will be left behind. This is particularly true in electronics, one of Japan's key expanding industries. But new technology has no practical value if it remains at the level of knowledge gained from books; it must be put into actual use.

This project will attempt to provide training in integrated-circuit technology, the core of electronics, as vocational education for adults in general. New equipment, including that for IC manufacture, and an adequate teaching staff are essential to such a program. The Toyohashi University of Technology, a recently established national university, fully meets these conditions. The institute will be open to the public during summer vacation, and this summer a technical course will be offered to college instructors and other interested parties. Implementation of this course will serve as a means of determining the best way to set up a vocational retraining program for adults.

A Study on the Formation of Villages and Changes in Production Territory in the Agano-gawa River Basin Mamoru Sudo, Researcher (and two associates) Kintetsu Institute for Tourism and Culture ¥3.5 million

The Agano-gawa river originates in the Aizu mountain region of Fukushima Prefecture, flows through the Aizu basin in the Echigo mountains, bringing alluvial deposits to the Echigo plain, and then empties into the Sea of Japan. Because of the length of the river basin, different cultures have developed along the upper, middle, and lower reaches, as evidenced by the different occupations, methods of trade, and methods of land development in each area.

This project will select representative villages from each of the three areas and undertake surveys on their formation and the changes that have taken place in their production territories. The research will entail collection of residential maps of the villages selected and drawings and documents related to land ownership and land use in the Meiji era. This information will be used to reconstruct the original layout of the villages. The results will provide insight into how people de-

cided on where to set up a permanent settlement, how they went about building a settlement, and how much production territory they needed to make a living. The project will attempt also to clarify the differences and similarities in the three areas through a comparison of the survey results for each area.

A Cross-National Study on Socialization in Infancy Kazuo Miyake, Professor (and eight associates) Faculty of Education, Hokkaido University ¥5,22 million

One of the major theoretical questions in the field of developmental psychology is to what extent the interaction between mother and child during the child's first years of life influences subsequent social and emotional development.

The present study will attempt to clarify the relationship between, on the one hand, an infant's biological and temperamental traits during the first few months of life coupled with the mother's mode of interaction and, on the other hand, the infant's attachment to the mother between the ages of ten months and one year and receptivity to her socialization efforts between the ages of one and two. In addition, the project researchers will cooperate with researchers from Harvard University in analyzing data to be collected by similar methods in the United States. This joint analysis will attempt to determine whether differences exist between the developmental patterns of Japanese and American children and to identify the characteristics and problems of child-rearing practices in Japan.

Special-Subject Research: Changes in Local Communities

Research on the Ideas Behind Reconstruction Planning After World War II and Their Impact on City Formation: The Case of Hiroshima Norioki Ishimaru, Research Associate Faculty of Engineering, Hiroshima University ¥1.2 million

The atomic bomb virtually obliterated the central area of the city of Hiroshima. After World War II, however, reconstruction planning laid the foundations that shaped the postwar face of the city, in the course of which a variety of reconstruction-planning ideas were developed.

This research, a continuation from last year, seeks to clarify the nature of these ideas, to identify the groups and individuals that supported them and the environment in which they took concrete form, and to show their influence on the actual formation of the city. Last year's preliminary research, based on written materials and on the testimony of those involved at the time, has already resulted in some clarification of a number of these reconstruction-planning

ideas, including the small-city concept, the introduction of 100-meter-wide roads, the creation of riverbank park areas, and the decision to make Peace Memorial Park the central focus of the city. This year it is planned to study in depth the impact of some of these ideas on the formation of the city. It is also intended to make comparisons with other war-damaged cities and to examine the evaluation of reconstruction planning itself.

A Preliminary Study on the Relationship Between Industry and the Local Community in Tokyo's Downtown District

Ken'ichi Imai, Professor

Faculty of Commerce, Hitotsubashi University ¥0.98 million

Although many people place a high value on the role of Tokyo's small manufacturing enterprises in shaping the technology and skills of Japanese industry, the nature of these enterprises has not been fully clarified. The redevelopment of Tokyo's downtown mixed residential and industrial district and the relocation of industry in local communities have become major policy issues. It is extremely significant in this context to clarify the relationship between small enterprises and the local community and to determine the future role of this relationship.

This research seeks to develop a new method of approaching these questions based on an amalgamation of industrial organization theories and urban economics and to investigate the current condition of small companies and very tiny establishments. The emphasis this year will be on preparatory studies involving the development of a methodological framework. It is also planned to conduct experimental surveys of a number of typical business categories.

A Region-Wide Study of Transformational Processes in the Satellite Towns of Major Urban Centers: The Case of Takamatsu City

Eisaku Goda, Professor Emeritus (and four associates) Kagawa University

¥1.1 million

Local community development has taken concrete shape in the form of the phenomenon of the urbanization of prefectural seats and other outlying urban centers. The process of urbanization has also created a variety of problems in the satellite towns clustered around such centers. The designation of certain districts as development zones under the New City Planning Law has led to a "double ring" population distribution, with the urban sprawl spreading into increasingly distant suburbs. The unplanned development of residential land is causing a number of social problems, not least of which is friction with agricultural communities, particularly those involved in livestock raising.

This study examines these questions by means of a "region-wide" approach, that is, a comprehensive inquiry into community matters extending from the natural to the social setting. For the past six years the researchers have been conducting surveys and publishing findings relating to satellite towns around Takamatsu City at the rate of one town per year. These surveys have covered a diverse range of topics, such

as the relationship between nature and development, water utilization, crop and livestock farming, mining and industry, commercial zones and shopping centers, the effect of residential development on land prices, population dynamics, transportation conditions, the attitudes of townspeople, the level of demand for community facilities, and the future shape of towns. This year it is intended to finish the research on the remaining town and to complete the comprehensive report on the results of the research.

A Comprehensive Study on the Utilization of Water and Land in Postwar Okinawa

Yoshiro Tamanoi, Professor (and nine associates) College of Commerce and Economics, Okinawa Kokusai University

¥3.2 million

During Japan's postwar period of high economic growth, agriculture in Okinawa was transformed to monoculture farming, pineapples and sugar cane being the sole crops produced. This type of agriculture, however, involves a variety of environmental as well as agricultural risks.

The purpose of this study, a continuation from last year, is to conduct comprehensive research on water and land utilization in Okinawa, investigating the factors causing monoculture farming and ways of overcoming the dangers involved. Last year the researchers investigated the changes and current conditions in water and land utilization, as well as the historical systems and customs, of four areas—the islands of Okinawa, Kume-jima, Ishigaki-jima, and Miyako-jima. This year it is planned to study the organic relationship between the multiple-dam system and diversified water use on the island of Okinawa, to examine the relationship between irrigation systems utilizing underground water and agricultural development on Miyakojima, to compare water and land utilization systems and practices with those on Japan's main islands, to develop research into the causes and progress of soil erosion, as well as countermeasures, in the northern part of the island of Okinawa, and to clarify questions relating to the future development of Okinawan agriculture.

A Multidimensional Study on the Function of Religion in the Local Community: The Case of Hamamatsu City

Noriyoshi Tamaru, Assistant Professor (and eleven associates) Faculty of Letters, University of Tokyo ¥3-2, million

Postwar Japan has seen dramatic social and cultural changes in both the urban and agricultural sectors of society. However, the role of religion in these changes has not been fully corroborated. Specialists in such fields as comparative religion, sociology, urban anthropology, ethnology, and social psychology are now showing a great deal of interest in this question.

In this project an interdisciplinary group of specialists from a variety of fields will study the changes in traditional religion at various stages of postwar society. They will also investigate the relationship of new religious movements to the period of cultural and so-

cial confusion in the immediate postwar period and to the ethos of the subsequent period of high economic growth. The target area for these studies will be the city of Hamamatsu in Shizuoka Prefecture. Another objective is to clarify the relationship between religious organizations and business enterprises and the effects of the spread of urbanization on residents' religious culture.

Research on Changes in the Residential Environment of Japanese Villages: The Case of Kutsuki-mura, Shiga Prefecture

Atsushi Ueda, Professor (and nine associates) Faculty of Engineering, Osaka University ¥4.09 million

Kutsuki-mura in Shiga Prefecture is a diversified agricultural village about two hours from the Kyoto-Osaka-Kobe metropolitan area. At present the process of depopulation is rapidly accelerating, however, and the village is threatened with ruin.

This study will attempt to corroborate the values of the traditional local life and culture of Japanese village communities and the changes that are now affecting these values in terms of such factors as living space, social institutions, and life style. It is hoped thereby to create a new awareness of the value structure within traditional village communities and to investigate the relationship between changes in these values and changes in the communities. The feasibility of adapting these values to modern society and of revitalizing them will also be considered with a view to providing basic data for future social planning at the village level. This project will also function as the Japanese contribution to a UNESCO project making regional comparisons of Asian production systems and environmental design.

A Follow-up Study on Occupational Socialization of Natives of the Shimokita Peninsula

Tatsuro Hosoe, Associate Professor (and five associates) Department of Behavioral Sciences. Iwate University ¥3.74 million

In 1963 this researcher participated in a comparative study on the socialization process of adolescents in rural and urban areas of the Tohoku region of northeastern Honshu, using subjects then in the third year of middle school. Special attention was focused on 908 subjects from the Shimokita Peninsula whose progress was subsequently traced over a nine-year period.

The purpose of the present research, a continuation from last year, is to conduct follow-up research on these 908 subjects, who are now adults, focusing on the process of occupational socialization. Last year the researchers investigated the life histories of these subjects and attempted to classify their career patterns into a number of categories. This year's research will concentrate on those subjects who still live near their birthplaces. It is planned to clarify the scope and limitations of their adaptation to local industry through the process of their careers and to determine from this the role that native residents play in the modernization of the local community. This research is expected to clarify the functional relationship between the occupa-

tional socialization of the individual and changes in local communities and provide data that will be useful in such fields as education and industry.

Research on Community Change and the Division of Labor in Education: The Case of Munakata, Fukuoka Prefecture

Haruo Yanai, Associate Professor (and five associates) Faculty of Education, Kumamoto University ¥2.0 million

The subject of this study is the municipality of Munakata, a rapidly growing town that assumed city status on April 1, 1980. It lies between the cities of Fukuoka and Kita-Kyushu, both of which have populations of over one million. Because of the increasing influx of population, Munakata's agricultural society has undergone rapid urbanization, and the town has become a dormitory suburb of the two larger cities nearby. These drastic shifts have also brought about rapid changes in the educational situation.

This research seeks to elucidate the division of the role of education among various groups and investigate the extent to which the process of division has developed. In concrete terms, this will involve investigating changes in the role traditionally borne by schools and in the educational functions of the family, the disintegration of local organizations for children and young people, and changes in the relationships linking schools, families, and these organizations. By reappraising the phenomenon of the disintegration of the educational power of the local community in terms of the division of labor in education, it is intended to clarify the direction that educational reforms should take in the local community from the viewpoint of reorganizing this division of labor.

A Preliminary Study on Changes in Local Communities Accompanying the Construction of New Towns and on the Maturation of Towns: The Case of Tsukuba Academic Town

Hitoshi Murakami, Ph.D. Candidate (and nine associates) Program in Agricultural Sciences, University of Tsukuba ¥1.19 million

Tsukuba Academic Town was proposed and planned during the high-growth period of the late fifties and early sixties and was virtually completed by 1980. However, the new town is a typical example of urban planning concerned mainly with putting the facilities in place. The town's construction has produced marked changes in the surrounding agricultural communities, and the area's maturation as a balanced local society will be a task for the future. The Tsukuba area, like the rest of Japan, was profoundly changed by the waves of rapid economic growth, but at Tsukuba these waves were particularly concentrated and appeared over an extremely short period of time.

The objective of this research is to contribute to the creation of more human-oriented communities by analyzing the strains placed on local society in areas like Tsukuba. This year will be devoted to preliminary research centering on the classification and organization of existing literature, the holding of seminars taught by specialists with experience in town planning, and the conducting of interviews to learn the views of local residents. By this means it is hoped to pinpoint Tsukuba's coordinates on a continuum beginning from planning and continuing through construction and initial completion to maturation. Thereby the groundwork will be laid for full-scale research.

A Follow-up Study on How Changes in the Life Style of a Local Community Influence the Health of Its Residents: The Case of Ryujin-mura, Wakayama Prefecture

Hiroshi Iwata, Professor (and six associates) Wakayama Medical College ¥3.0 million

The westernization of the Japanese life style has been in progress for over a century, affecting urban areas in particular. Since the mid-fifties, however, this process has rapidly gathered momentum and spread throughout the nation, penetrating even to rural areas. As a result, there have been major changes in the lives of rural children affecting such factors as the allocation of time to various activities, the amount of exercise taken, and the volume of nutritional intake. These changes are apparently contributing to the increase in children's height and the lowering of the age of menarche.

The purpose of this research is to provide evidence on the ways in which these changes in life style have affected human health through the study of a selected rural area. During the preliminary study last year, target districts were selected and survey items were studied. This year it is planned to investigate and analyze in greater depth the correlations among such items as health data (death ratios by cause and other indices); medical services available; the health, medicalcare needs, and working conditions of residents; and life styles and life histories.

Changes in the Way of Life of a Village Community and the Function of Associations of Former Villagers: The Case of Nishi-Amuro, Amami Oshima, and Its Kvoaikai

Shin Anzai, Professor (and eight associates) Faculty of Literature, Sophia University

During Japan's period of high economic growth, large numbers of workers left Nishi-Amuro, a village on the island of Amami Oshima, to work in cities. These migrants formed hometown associations known as Nishi-Amuro Kyoaikai and established systems of mutual cooperation, in the process affecting the mode of life and the mentality of the villagers remaining in Nishi-Amuro.

The purpose of this research is to accumulate evidence on the relationship between urban-based associations of former villagers of this type and the process of cultural change in the village. Last year changes in the life style and mentality of Nishi-Amuro residents and the processes involved in the establishment and growth of kyoaikai were investigated. This year, by means of an in-depth examination of the attitudes of former and current villagers toward local development projects, such as the construction of a breakwater, it is hoped to clarify the role of the kyoaikai in the village's decision-making process. Beyond its contribution to theory and scholarship, this research has the ultimate objective of offering proposals on how locally sponsored development in the Nishi-Amuro area can best be carried out.

A Study on the Changes Brought About by the Conversion of Swamp Land into Well-Drained Rice Fields and the Construction of a New Port in the Imizu Area of Toyama Prefecture

Toru Adachihara, Professor (and five associates) Department of Agricultural Engineering, Toyama College of Technology

¥5.0 million

The Imizu area in central Toyama Prefecture was formerly an area of extremely swampy, single-crop paddy fields. Due to the large-scale conversion of swamp land into well-drained paddy fields and the construction of a new port under the Toyama-Takaoka District New Industrial City Plan, the Imizu area has undergone extensive change in aspects ranging from land utilization to the everyday life of the local residents.

This research is being undertaken as a cooperative project involving participants in the new industrial city plan and people who actually witnessed the changes that took place in local communities. Its objectives are the investigation, evaluation, and analysis of the role of planning by central and local government in the context of local society and the reaction to such planning by local communities. The preliminary research last year clarified the facts of the situation and brought a number of issues into focus. This year, from the three cities, three towns, and one village in the Imizu area, one city (Shin-Minato) and one town (Kosugi-machi) have been selected for further study. A variety of evidence will be collected with a view to tracing distortions that emerged in the course of the plan's conception, initial drafting, detailed drafting, and implementation and to clarifying how the residents in the two municipalities reacted to the development project,

A Follow-up Study on Changes in Village Life Caused by Changes in the Structure of Agricultural Production: The Case of a Farming Village in Fukuoka Prefecture Kazuto Matsunaga, Professor

School of Humanities, Fukuoka University

¥0.62 million

The structure of agricultural production in the village selected for this study, which is near the city of Yame, has shifted from the traditional emphasis on rice to the cultivation of chrysanthemums. This has been accompanied by a rapid inflow of nonfarming residents into the area. These changes have caused the disappearance of communal labor as a means of securing the water that was indispensable for rice cultivation. Moreover, growth in the nonfarming population has eliminated the former unity of the economic structure. The village still observes its shrine festivals and other annual events, however, with many of the nonfarming residents taking part, and this has been a factor making the community a cohesive village.

While changes in economic structure and the mix-

ing of farming and nonfarming populations are in many areas causing the disintegration of village society, the village under study has somehow succeeded in keeping its annual functions alive. The aim of this research is to clarify the reasons for this by conducting long-term site surveys. On the basis of the overall changes in the community's situation clarified by the preliminary research last year, the plan this year is to analyze in greater detail the various factors involved.

A Study of Agricultural Changes in the Development of the Tatenogahara Area Shingo Yuasa, Chair (and one associate) Society of Philosophy ¥0.9 million

Tatenogahara, an area of land formerly used as a training ground by the Japanese Imperial Army, was converted to farmland following the war. This barren area with scant water resources was settled by 210 families lacking both capital and farming skills. A multipurpose dam and reservoir were constructed and road and irrigation projects were undertaken, with the result that the area today offers stable conditions for agricultural operations.

The purpose of this study is to record the careers of the settlers beginning from the original reclamation of the land down to the present, to survey the present-day agricultural situation and farming households, and to provide basic data on the best form of agriculture for the area. Since the researchers have lived in the Tatenogahara area for many years and plan to select about ten young people from nearby towns and villages to cooperate in the study, it can be termed a research project rooted directly in the local community. Another significant aspect of this research is the fact that through the testimony of those involved, the history of the trials and tribulations of the original settlers will be passed on to the farming families working the land now and in the future.

A Study on Postwar Changes in Nishijin, a Local Community in Kyoto

Akira Nonaka, President (and thirteen associates) Nonaka Weaving Co., Ltd. ¥2.0 million

Nishijin, the weaving district of Kyoto, is a local community supported by traditional handicraft skills and possessing a unique division of labor. Within Nishijin are various public and private organizations unique to the area. Still active today, these organizations have provided energetic backing for the postwar develop-

ment of Nishijin.

This study, conducted mainly by inhabitants of Nishijin, aims to clarify the postwar history of this complex community and also to contribute to the development of Japan's traditional industries and the next generation's creative activities. This year the plan is to conduct full-scale introspective and subjective studies using the research methodology developed during last year's preliminary work. The principal methods used will be interviews of representative Nishijin inhabitants and evening discussion meetings designed to create a living record of Nishijin customs and mores.

Parallel with these activities, a study of existing literature and other materials will be undertaken to clarify the objective facts relating to the community and to complete a chronology of Nishijin's history. Insofar as the present research is being conducted from inside the subject community, it is hoped that the results will shed light on a number of aspects of Nishijin in a way that would not be possible through the conventional studies conducted by outside researchers.

A Preliminary Study on Urbanization in the Mamagawa River Basin and its Effects on the Structure of Local Life

Kimio Takano, Director (and two associates) MANU—Laboratory of Urban Design and Architectural Planning

¥0.94 million

A confrontation has developed between public administrators and residents in Ichikawa City, Chiba Prefecture, regarding a plan to improve the Mama-gawa, a river that flows through a residential quarter of the city. The plan calls for the removal of a two-kilometer row of cherry trees along the river, and the confrontation is the result of vigorous protests from citizens who wish to preserve these trees. Disputes of this type over the relative merits of river improvements as opposed to leaving the environment untouched are occurring in various parts of Japan, but generally the residents concerned advance emotional arguments, the administrators put forward inflexible, technological arguments, and neither side possesses sufficient understanding of the environmental values and risks involved for reaching a mutually acceptable solution.

This research is designed to conduct an analysis of the functions of rivers in daily life, to consider how the safety and value of the human environment can be improved, and to develop a methodology for adjusting the trade-off between the risks of inadequate river control and the scarcity value of an environment with trees and flowing water. For this purpose, a study will be conducted to clarify the interrelations between the river and the local residents during the river basin's development into a residential area, focusing on how the attitudes of residents, the risk of flood damage, and other factors changed during this process.

A Preliminary Study on Changes in the Development and Use of Water Power in Osaka, with Special Reference to the Human Environment of the Old Minami-Kawachi District

Tsutomu Demizu, Teacher (and four associates) Joto Technical School, Osaka

¥1.2 million

Of the approximately three hundred Japanese-style water mills estimated to have been operating in the Osaka area prior to World War II, only about ten still exist today. The rapid technological progress that followed the war caused the use of electricity to spread even to industry in the countryside. While this resulted in the modernization of many industries, it also caused the collapse of other businesses dependent on watermill power that were unable to adapt to modern technology. Of the few water mills still in existence, some

are used for traditional crafts and others supply power to small-scale manufacturing operations that depend on very low energy cost.

This research will investigate the water-mill industry of the old Minami-Kawachi district to gain insights into how the shift to electricity affected the human environment and the local industry. From this it will be possible to determine what kind of relationships prevailed between the former community and the watermill form of power supply. The preliminary research this year will include basic preparations, such as a reconstruction of the way water mills were distributed. and formulation of a methodology for the main project. A noteworthy feature of the project is its intention to introduce and consolidate the procedures of 'industrial archaeology," which is still an undeveloped investigative tool in Japan.

National Division Communications Supplements

Preliminary Research on Community Care for the Mentally and Physically Handicapped (presentation of papersl Uichi Furukawa, Senior Researcher

Institute for Developmental Research, Aichi Prefectural Colony ¥835,850

Research on Environmental Legislation and on Human Environmental Problems Caused by Development (Including Urbanization and Industrialization) [printing costs and presentation of papers] Ichiro Kato, Professor Japan Center for Human Environmental Problems ¥3,277,500

Cooperation Among Medical Professionals in the British Health-Care System [printing costs and presentation of papers] Shintaro Asakura, Professor Department of Public Health, Osaka University Medical

School

¥1,774,000

Research on Structures Remaining from the Taisho and Prewar Showa Eras [supplementary printing costs] Teijiro Muramatsu, Professor Institute of Industrial Science, University of Tokyo ¥1,090,000

Fermentation of Cassava Starch Without Steaming [presentation of papers]

Seinosuke Ueda, Professor Faculty of Agriculture, Kyushu University ¥798.460

Mutual Understanding Between the Japanese and the Arabs [printing costs] Shinji Maejima, Chairman Japan National Committee for the Study of Arab-Japanese Relations ¥2,291,000

Survey Tour to Assemble Photographs of Chinese Paintings in European Collections [printing costs] Kei Suzuki, Professor Institute of Oriental Culture, University of Tokyo-¥450,000

The Japanese Bureaucracy: Institutions, Organization, and Personnel from 1868 to 1947 [editing, additional analysis, and printing costs] Junnosuke Masumi, Professor Faculty of Law, Tokyo Metropolitan University ¥8,039,000

Development of a New Air-Pollution Assessment Method Through the Surface Analysis of Heavy Metal Particles in City Air [editing and printing costs] Ryuichi Shimizu, Associate Professor Faculty of Engineering, Osaka University ¥1,700,000

The History and Outlook of Rural Community Development: An Empirical Study of Changes in a Local Community (printing costs and symposium) Tadao Kiyonari, Professor Faculty of Business Administration. Hosei University ¥1,330,000

A Follow-up Study on Occupational Socialization of Natives of the Shimokita Peninsula [printing costs] Tatsuro Hosoe, Associate Professor Department of Behavioral Sciences, Iwate University ¥398,000

Fundamental Biology of Red-Tide Microflagellates in Japan, with Special Reference to Their Fine Structure and Taxonomy [presentation of papers] Terumitsu Hori, Associate Professor Institute of Biological Sciences, University of Tsukuba ¥1,500,000

A Comparative Study of Decision-Making Processes in the Welfare Policies of Industrial States (printing costsl Masataka Kosaka, Professor Faculty of Law, Kyoto University ¥900,000

International Grant Program

The International Grant Program began on an experimental basis with two grants in 1976. In the initial two years grants were made in the developed countries because the Foundation did not yet have enough contacts with people in the developing countries to conduct grant-making activities and also because it was necessary to gain experience in international grant making before inaugurating full-scale grant-making activities.

However, because the Foundation's Articles of Endowment specify the developing countries as the geographical priority area for International Division grant-making activities, since 1977 its staff has been working to develop a network of contacts in Southeast Asia, which is geographically close to Japan. This effort has elicited positive responses from people in Southeast Asian countries, and most grants are now awarded to projects in those countries.

In fiscal 1980 seventeen grants were approved; the characteristics of the projects awarded grants are as follows:

- 1. Projects conceived and conducted by indigenous scholars and professionals.
- 2. Projects conducted by researchers at universities and private organizations, especially independent projects at local universities, rather than projects conducted by governments or international or regional organizations.
- 3. Research for the sake of research has a low priority. Projects must be expected to produce concrete results and to have a discernible social impact.
- 4. Projects that go beyond the academic sphere and reach as broad a sector of the general public as possible.

As stated in the Foundation's Articles of Endowment, the priority fields of the Foundation's grant-making activities are the human and natural environments, social welfare, and education and culture. However, considering the priority fields of other organizations and foundations and reflecting local needs, at present the Foundation is making grants mainly in the field of culture. In other words, most grants are made to projects that try to identify and help develop Southeast Asian cultures. More specifically, grants have been made to projects that aim to preserve and revitalize indigenous culture, to develop human contacts and networks of researchers in the field of the

study of Southeast Asian cultures, to publish educational and cultural magazines for young people, and to promote readership programs.

In the fields of social welfare, environment, and education, grants have been made to those projects expected to have a social impact and that try to solve problems by grasping the situation objectively, formulating draft proposals for possible solutions, and conducting experiments in which the proposals are applied to real situations.

The application procedure for international grants is as follows: the International Division is presently focusing on Southeast Asian countries. If people in Southeast Asia wish to apply for an international grant, the application procedure is best started by directly submitting to the Foundation's International Division in Tokyo 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.) If the proposed project falls within the scope of the Foundation's present grant-making activities, the Foundation will send a grant application form to the applicant(s), who should complete the form and return it to the Foundation.

In general, the Foundation does not approve grants for endowments; capital investment, plants, or equipment; museum or library acquisitions; annual budgets of institutions, international organizations, or established programs; propaganda or lobbying activities; religious activities; research for the sake of research; and salaries of project leaders or researchers.

There are no fixed deadlines for submitting applications. The time required for the review procedure varies from six to eight months 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) for necessary investigation before and during the review period. For projects conducted over a period of more than one year, applications must be submitted each year. Grants are approved at the Board of Directors' meetings, which are held three times a year.

An Investigation of the Reading Habits and Interests of Malaysian People

Professor Atan bin Long, Chairman

Research Committee for the Readership Promotion Campaign ¥3.83 million

Concomitant with raising the literacy rate of the Malaysian people, which is one of the goals of the Third Malaysia Plan (1976–80), is the need to improve their reading habits and interests. Even though many Malaysians are able to recognize words, they are unfamiliar with reading techniques, are incapable of selecting appropriate books to read, and do not regard reading as a recreational activity or as an instrument of character building. For these reasons, reading has not become a widespread habit in Malaysia.

This project will be conducted by researchers from five national universities, who will survey the current status of Malaysian people's reading habits and the interest taken in and importance attached to reading. West Malaysia will be divided into five regions, and two urban and two rural areas will be chosen in each region for the survey; subjects will include Malays, Chinese, and Indians living in the areas. The survey results are expected to supply basic objective data for

the Malaysian Language and Literary Agency's longterm readership promotion campaign, as well as to generate suggestions for campaign activities.

Survey and Microfilming of the Lanna Thai Palm-Leaf Manuscripts in Northern Theiland

Dr. Kasem Burakasikorn, Head

Project for Establishing the Social Research Institute, Chiangmai University

¥2.93 million

The objective of this project is to compile basic records of the ancient palm-leaf manuscripts written in Lanna Thai, a northern Thai dialect, and to put the important manuscripts on microfilm. The palm-leaf manuscripts include valuable information on the history, traditional law, Buddhist and folk beliefs, rituals, ceremonies, astrology, and traditional medicine of northern Thailand—materials indispensable to the ethnological and historical study of the region's traditional society and culture.

Initially awarded a grant in June 1979, this project is now in its second year. During the first year of the project, over one hundred temples in the Chiangmai and Lamphoon districts were surveyed, basic records of more than sixty thousand palm-leaf manuscripts were compiled, and over seven hundred manuscripts of particular importance were microfilmed. The project's second year will be devoted to investigating the Lampang, Tak, and Phrae districts.

The Second Regional Conference on Legal Education and Development

Dr. Neelan Tiruchelvam, Executive Director Asian Council for Law in Development ¥2.39 million

Specialists in legal education and the legal profession from South, East, and Southeast Asia will participate in this international conference to be held in Singapore. The first conference, held in 1976 in Kuala Lumpur under the sponsorship of the Asian Council for Law in Development, was highly productive. Drawing on the results of the first conference, the second meeting will focus on discussion of the various legal problems involved in development and of how to incorporate the results of the conference into legal education, thereby promoting reform.

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

Professor Ungku A. Aziz, Vice-Chancellor Universiti Malaya

¥12.16 million

The influx of foreign corporations during the period of the Second Malaysia Plan (1971–75) greatly increased the number of female factory workers migrating from rural villages. Many problems have arisen as a result of poor working conditions, psychological isolation, insanitary living quarters, and inadequate leisure facilities, and much concern is being focused on the plight of these women.

First awarded a grant in June 1979, the project is now in its second year. The purpose of the project is to draft a plan for the establishment of a government agency that would be responsible for the welfare of female workers. The agency will be known as HAWA, an acronym that spells 'woman power" in Malaysian. A feasibility study will be conducted and a report compiled. The first year of the project was spent surveying the actual situation of female factory workers living in the suburbs of Kuala Lumpur and assessing their problems from several different viewpoints. The project has attracted the attention and cooperation of both the government and private corporations. Drawing on the results of the first year's investigations, activities during the second year will concentrate on more detailed surveys in other Malaysian cities.

Introduction to Japanese Law: Textbook Translation Dr. Phaisith Phipatanakul, Dean Faculty of Law, Thammasat University ¥0.78 million
The need for a book written in Thai on the Japanese

legal system is growing year by year, but such a book

has still not been published. The present project, in-

itiated by the law faculty at Thammasat University, aims to translate into Thai, edit, and publish as a text-book an introductory work on Japanese law.

Introduction to Japanese Law, the English version of the original book written by Yoshiyuki Noda, is the text selected for translation. It has been acclaimed throughout the world for its thorough outline of the basic structure of Japan's legal system, as well as its coverage of Japan's social and economic aspects. The present project will also serve as a study of comparative law for the purpose of determining whether Japan's experience can be applied to the solution of legal problems in Thailand.

Investigation on the Occurrence of Red Tides and Paralytic Shellfish Poisoning in Papua New Guinea Dr. C. S. Ananthan, Head

Department of Fisheries. The Papua New Guinea University of Technology

¥5.33 million

Red tides, which are caused by the sudden concentrated growth of dinoflagellates, have become an annual problem in Papua New Guinea. The dinoflagellates populating the seas around Papua New Guinea are thought to include the poisonous organism *Pyrodinium bahamense*. The primary objective of this research is to confirm the identity of the toxic organism and to investigate the environmental factors causing the abnormal occurrence of red tides and dinoflagellates. Once the researchers have identified the toxic organism, they plan to cultivate it in large volumes, extract the toxin, and conduct pharmacological tests in order to produce an antitoxin for paralytic poisoning striking people who have eaten toxic shellfish.

The present project is being conducted jointly with a Japanese research team. The aim is to establish, with the Japanese team's assistance, methods of observing red tides in Papua New Guinea and to cooperate with the Papua New Guinean government in setting up a red-tide warning system.

SPAFA Workshop on Ceramics of East and Southeast Asia

Dr. Rosa C. P. Tenazas, Assistant Coordinator SEAMEO Project in Archaeology and Fine Arts (SPAFA) ¥1.65 million

Beginning in the tenth century, maritime trade flourished on a global scale for several hundred years. Ceramic articles shipped during this time are virtually the only archaeological materials available for research on the contemporary maritime trade. The Chinese, Japanese, Annamese, and Thai ceramics discovered at excavation sites throughout East and Southeast Asia help throw light on the state of maritime trade at that time.

The present workshop forms part of SPAFA, one of the projects conducted by the Southeast Asian Ministers of Education Organization (SEAMEO), and is being carried out under the joint sponsorship of SEAMEO and the Sarawak Museum. At the workshop, archaeologists and young researchers from SEAMEO's five member countries will have the opportunity to exchange the latest information with specialists invited from China and Japan. Archaeological techniques used in

assessing the origin, type, and age of ceramic items will also be discussed. The results of the workshop discussions will be compiled and distributed to young researchers throughout Southeast Asia.

Education and Enculturation in the Republic of Korea, with Special Emphasis on Language and History Professor Kihong Cho, President Sungshin Women's University ¥3.6 million

The objective of this project is to trace the changes that have occurred in the study and teaching of national history and language—the nucleus of education and enculturation—in South Korea before and after 1945. This is the project's second year, the first-year grant having been made in October 1979. During the first year, reference materials were gathered from libraries in South Korea and Japan as well as from historical sites, universities, scholars, and government agencies. Writing of the project report is already under way. In the second year the collection of source material in South Korea and Japan and writing of the report will be continued.

Southern Thai Dictionary Compilation
Mr. Sudhiwong Pongpaiboon, Associate Professor and

Institute for Southern Thai Studies, Sri Nakarinwirot University

¥0.5 million

The purpose of this project is to compile and publish a comprehensive dictionary of the dialect spoken in South Thailand. The original southern Thai dictionary published roughly ten years ago has been found to contain a number of deficiencies. Native speakers of Southern Thai and scholars with a special interest in dialectology began compiling a new dictionary three years ago. By thoroughly reviewing the original edition and adding new vocabulary, they aim to create a comprehensive work of southern Thai words and idioms.

The new dictionary is eagerly awaited by Thai and foreign scholars alike. Once published, it will serve as a basic source of information for those researching the dialect, literature, and ethnic culture of South Thailand.

Historical and Textual Studies of Old Northern Thai Palm-Leaf Manuscripts, with Emphasis on Legal and Muang-History Texts

Mr. Anan Ganjanapan, Lecturer Faculty of Social Sciences, Chiangmai University Mrs. Aroonrut Wichienkeeo, Lecturer The Lan Na Thai Folklore Studies Center, Chiangmai Teacher College

¥1.03 million

The aim of the present project is to select and transliterate into modern Thai fifteen palm-leaf manuscripts dealing with the laws and history of ancient Thai society in northern Thailand, to preface each manuscript with information obtained from historical and textual studies, and to publish these manuscripts together with a glossary, thus providing other researchers with useful

reference material. The project will be headed by two young historians from Chiangmai universities who are concentrating their research on palm-leaf manuscripts. They have limited their fields of investigation to law and history because they believe that priority should be given to elucidating the structure of a society through research in these two areas before studying its outlook on the world as reflected in its religion, customs, and traditional arts.

The present project plans to make full use of the historical materials gathered in another project, the Survey and Microfilming of the Lanna Thai Palm-Leaf Manuscripts in Northern Thailand (described above).

The Thai Economy: Its Past, Present, and Future Dr. Luechai Chulasaí, Assistant Professor Department of Economics, Chiangmai University ¥2.0 million

The purpose of this project is to compile a comprehensive work dealing with the Thai economy based on the presentations and discussions that take place at a conference on the past, present, and future of Thailand's economy. Although foreign economists have written books on the Thai economy. Thai scholars have yet to produce an all-inclusive work on the topic.

To meet this need, the conference will be attended by economists from Thai universities, private corporations, and government agencies, who will discuss such topics as the history of economic thought in Thailand, income distribution and the problem of poverty, assessment of economic plans, and the future of the Thai economy. The conference is expected to yield an accurate perception and understanding of the past, present, and future of Thailand's economy. Publication of the meeting's proceedings will contribute to the development of future research.

The History of Southeast Asian Architecture: Developments in Thailand from the Sixth Through the Thirteenth Century

Mr. Anuvit Charernsupkul, Assistant Professor Faculty of Architecture, Silpakorn University ¥2.43 million

This project will investigate the development of architecture in Thailand during the period of Indianized states from the sixth century up to the thirteenth century, and a report will be published on the findings. Focusing on the Dvaravati, Southern Provinces, Khmer, and Lopburi architectural styles, research will consist of (1) investigating the development of each style, its sphere of influence, and its cultural implications; (2) appraising the strength of design and architectural worth of each style; and (3) considering each style's technical and architectural methodology and its disappearance or its subsequent role in modern-day architecture.

Heading the project is an assistant professor of Silpakorn University who has spent almost ten years visiting areas throughout Thailand accumulating data on the subject at his own expense. Much effort has been put into planning this project, which is expected to yield the first modern interpretation of the subject of pre-Thai architecture. The results of the investiga-

tion will be published in what is to be the first specialized book on the history of architecture in Thailand.

Inventory and Recording of Sundanese Manuscripts Dr. Edi S. Ekadjati, Assistant to the Director of Research The Institute of Culture, Padjadjaran University ¥2.0 million

Large numbers of ancient Sundanese manuscripts are in the possession of both Indonesian and foreign collectors, descendants of the Javanese nobility, and Indonesian religious and traditional social leaders, but few have been listed, recorded, and published. The goal of this project is to assemble an inventory of Sundanese manuscripts from Western Java, recording their form and content, as well as to compile an outline of the research conducted on Sundanese manuscripts up to the present time. As the manuscripts are fragile, recording must be completed as quickly as possible so that preparations for microfilming, the second stage of the preservation project, can begin.

The present project is being headed by an outstanding young bibliographer of Padjadjaran University, with a backup team of national museum staff members and specialists from the government's Department of Education and Culture.

Methods of Mural Painting Conservation at Wat Chong-Nonsi

Professor M. R. Tongyai Tongyai, Rector Silpakorn University

¥4.8 million

The goal of this project is to review methods used in preserving Thailand's temple murals. A team of professors from Silpakorn University, staff members of the Thai government's Fine Arts Department, and an associate professor from the Tokyo National University of Fine Arts and Music will investigate how this is carried out at Wat Chong-Nonsi, a small temple located in the suburbs of Bangkok. The temple, which is over two hundred years old, is a target for conservation because of its importance to Thai art history. The results will be pooled and appropriate conservation methods will be studied.

The research team members investigating Wat Chong-Nonsi's structure and murals are specialists in chemistry, biology, mural-conserving techniques, architecture associated with murals, architectural engineering, and art history. This will be the first time that Silpakorn University and the Fine Arts Department cooperate in this sort of project, and significant results are anticipated.

Publication and Exhibition of "The Structure of Thai Lanna Mural Paintings": Project Report and Traveling Exhibition of Photographic Reproductions of the Murals

Mr. Sone Simatrang, Lecturer

Faculty of Decorative Arts, Silpakorn University

¥6.24 millior

The present project, initially awarded a grant in fiscal 1978, is in its third year. During the first two years the murals of nine important temples in northern Thailand, which are in danger of imminent disintegration unless

steps are taken to assure their preservation, were photographed, surveyed, and reproduced. In addition, the murals' designs, styles, and painting techniques were analyzed. During the third year the project will aim to increase social awareness of the value of temple murals as cultural legacies by publishing an explanatory text of the murals and organizing a traveling exhibition of photographic reproductions. The text will be published in Thai, English, and Japanese, and the exhibition will be held at art museums and other sites in Bangkok and other major cities in northern, northeastern, and southern Thailand. The exhibition will also serve as Silpakorn University's main event in the festivities celebrating Bangkok's two hundredth anniversary in 1982.

Research on Traditional Southeast Asian Architecture Datuk Lim Chong Keat

Southeast Asian Cultural Research Program (SEACURF), Institute of Southeast Asian Studies

¥10.02 million

By establishing an informal organization of Southeast Asian researchers and specialists who are deeply interested in the preservation and use of traditional Southeast Asian dwellings, this project will attempt to promote exchange of information and cooperative research on the problems facing these dwellings. The ultimate goal is to heighten social awareness of the meaning and value of the structure and associated life styles of traditional dwellings. In the first year of this project, meetings and field workshops will be held for participants from the various countries.

As part of the project a late female American architect's collection of slides and photographs of traditional Southeast Asian dwellings will be preserved under optimum conditions at the Institute of Southeast Asian Studies. Known as the Pelzer collection, it has until now been in the temporary care of an individual. The slides and photographs will provide specialists with a comprehensive image of traditional Southeast Asian dwellings that they can use in planning future research projects.

Publication of the Youth Magazine Pengetahuan (Knowledge)

Dr. Lim Teck Ghee, Chairman

Institut Masyarakat

¥1.34 million (supplementary grant)

The present project, initially awarded a grant in March 1979, involves the publication of a magazine for Malaysian youths between fourteen and eighteen years of age. The magazine will attempt to give youths knowledge about development and the changes that accompany it, examples of responses to change, and information on the traditions and cultures of Malaysia and its neighbors.

The project, which was postponed for two years, has been awarded a supplementary grant to help begin publication of the magazine.

Communications Grant Program

The "Know Our Neighbors" Translation-Publication Program, now in its third year, aims to better acquaint the Japanese with the culture, society, history, and other aspects of their Southeast Asian neighbors and to facilitate a deeper awareness of the ways of thinking and social trends in those countries. To this end, the program selects from among Indonesian, Malaysian, Philippine, Singaporean, and Thai literary works and books dealing with culture, society, history, and other topics those deemed suitable for introduction to the Japanese public; and the Toyota Foundation awards grants to assist with the translation of these books into Japanese. This support is intended to promote the publication of books on Southeast Asia, encouraging both publishers who have already begun introducing books from Southeast Asia and those who are interested in doing so. At present seven Japanese publishers are participating in this program.

The selection of books suitable for publication is made through consultation between advisory groups of learned people from these Southeast Asian nations and a coordinating committee of Japanese experts on Southeast Asia. Of thirteen applications for translation grants received this year, ten were awarded a total of ¥30.46 million: eight for works

from Thailand and two for works from Singapore.

The purpose of the Grants for International Conferences Convened in Japan program is to increase opportunities for scholars and researchers from developing countries to participate in international academic conferences held in Japan by assisting them with their travel and lodging expenses. This year grants totaling ¥10.21 million were awarded to ten of twenty conferences for which applications were submitted. Of the thirty-six participants supported by grants, there were seven each from Indonesia and Thailand; six from the Philippines; four from India; two each from China, Hong Kong, and Taiwan; and one each from Bangladesh, the Republic of Korea, Malaysia, Mexico, Singapore, and Vietnam. This program, which accomplished its primary goals within the four years of its existence, has been terminated as of fiscal 1980.

The Fellowship Program for Japanese Social Scientists administered by the International House of Japan is now in its sixth year. The Toyota Foundation has provided grant aid to the program since its inception, bringing to ¥155 million the total amount awarded so far.

"Know Our Neighbors" Translation-Publication Program

Title	Author	Translator	Publisher	Grant Amount
Si Phan Din, Vol. 2	M. R. Kukrit Pramoj	Keiko Yoshikawa	lmura Cultural Enter- prise Co., Ltd.	¥ 6,330,000
Studies on Singapore Society	Peter S. I. Chen	Michio Kimura and Yozo Kaneko	Mekong Publishing Co., Ltd.	¥ 1,400,000
Son of Singapore	Tan Kok Seng	Shigehiko Shiramizu and Hiroko Shiramizu	Tosui Shobo Publishing Co., Ltd.	¥ 860,000
Naiphan Tai Din	Roy Ritthiron	Tatsuo Hoshino	Mekong Publishing Co., Ltd.	¥ 3,750,000
Fun Khwamlang	Phraya Anuman Ra- jadhon	Mikio Mori	lmura Cultural Enter- prise Co., Ltd.	¥ 7,500,000
Phisua Lae Dokmai	Nipphan	Tatsuo Hoshino	Imura Cultural Enter- prise Co., Ltd.	¥ 1,260,000
Tung Maha Rat	Riem Eng	Takejiro Tomita	Imura Cultural Enter- prise Co., Ltd.	¥ 4,410,000
Yu Kap Kong	Yok Burapha	Tatsuo Hoshino	Imura Cultural Enter- prise Co., Ltd.	¥ 2,010,000
Khang Lang Phap	Sriburapa	Nittaya Onozawa and Masaki Onozawa	Kyushu University Press	¥ 1,290,000
Laí Chiwit	M. R. Kukrit Framoj	Renuka Musikasinthorn	Imura Cultural Enter- prise Co., Ltd.	¥ 1,650,000
Tota	l			¥ 30,460,000

Si Phan Din [A Chronicle of Four Reigns]. Vol. 2 This is the second volume of Kukrit's epic novel dealing with modern Thai history as seen through the eyes of Phloy, a lady-in-waiting at the Thai court. While the first volume dealt with the reign of King Chulalongkorn (Rama V), the second takes up the reign of Rama VI through Rama VIII. The novel traces the lives of Phloy and her family during the turbulent years of the late nineteenth and early twentieth centuries as Thailand comes under the influence of westernization and experiences a bloodless revolution establishing a constitutional government, an attempted military coup d'état, and occupation by Japanese forces during World War II.

Studies on Singapore Society

The twelve essays included in this volume were taken from Studies in ASEAN Sociology (Singapore, 1977). Since its independence in 1965 Singapore has achieved remarkable development and, in the process of modernization, has experienced great political and economic, as well as social, changes. The book analyzes various aspects of Singaporean society from three perspectives: the elite and development, ethnic groups and society, and urban social problems. It also offers a wealth of interesting information on the country of Singapore in general.

Son of Singapore

This book is said to be the first autobiography ever written by a Chinese coolie. In it, the author recounts his life from the time of his birth in a rural area of Singapore Island just before the Japanese occupation through his various trials and tribulations as a laborer until he gets a relatively stable job around the age of forty as a chauffeur to a white man.

Naiphan Tai Din [Undergound Colonel]

This novel, set against the background of underground activities against the Japanese forces in Thailand during World War II, is considered to be Thailand's best literary work dealing with the wartime anti-Japanese resistance movement. Plang, the protagonist, is an anti-Japanese guerrilla squad commander. Nicknamed the Underground Colonel, he engages in daring guerrilla activities against the Japanese forces in Thailand and Laos. Although the story is fiction, it is of value to Japanese readers, who know little about wartime anti-Japanese guerrilla activities in Thailand.

Fun Khwamlang [Reflections on Thailand, Reflections on Life]

This book is the autobiography of the late Phraya Anuman Rajadhon, known as the greatest authority in That humanities and especially in That ethnology. In it he recalls the events of social significance that he observed throughout his life, from childhood to old age. The work is not merely a record of personal reminiscences but a social and cultural history that describes That society and culture as a whole from the perspective of a great ethnologist.

Phisua Lae Dokmai [The Butterfly and the Flower] Set in South Thailand, where many Islamic Malays live, this social novel describes the contradictions of society through the innocent eyes of a youth whose poverty leads him to a life of crime. Hujan, whose father is a railroad worker, quits school to help support his family by selling ice cream. He later becomes involved with racketeers smuggling rice between Thailand and Malaysia. The novel ends when an experience he has makes him decide to earn a respectable living cultivating flowers.

Tung Maha Rat [Great King's Plain] This novel is set in the central Chao Phraya river basin, situated between the mountains in the north and the delta region of the central plain. It was here in the area around Sukhothai that the Thai people built their first state. The region is now a distribution center for teakwood floated down the Chao Phraya. The novel tells how its young protagonist comes to the area, meets the daughter of his father's former girlfriend, marries her, and eventually becomes a successful teak merchant after enduring many hardships. This famous novel is even included in Thai middle school literature textbooks.

Yu Kap Kong [With My Grandfather] This novel sympathetically depicts the efforts of Thais of Chinese ancestry to become true Thais living in and assimilated to Thai country life. In it, a young orphan named Yok, meaning "Jade," is taken in by an old Chinese immigrant in a typical Thai village. Although Yok causes various sorts of trouble among the villagers, his schoolteachers and other kindhearted people lovingly watch over him.

Khang Lang Phap [Behind the Painting]
Nopphom, a Thai exchange student, and Keerati, a married Thai princess, meet in prewar Japan and fall in love. Even though they meet again after returning to Thailand, nothing comes of their love. This work superbly portrays the confrontation and discontinuity of values between Thailand's new and old elites during Thailand's turbulent period of modernization before World War II. The novel is recognized both in Thailand and abroad as the first work of modern Thailiterature.

Lai Chiwit [Various Lives]

A boat headed from Ayutthaya to Bangkok sinks during a violent storm at night, and its ten passengers drown. The bodies are retrieved from the water, and each passenger's life is related briefly in a separate chapter. In Thailand death by drowning is considered a great misfortune. The author, a former prime minister, tells what each person did to make such a death inevitable, thus skillfully weaving the Thai Buddhist philosophy of life into a masterful work.

Grants for International Conferences Convened in Japan

Conference	Organizing Committee Coordinator	Grant Amount	Number of Participants Supported
Conference on Asian Peace Research in the Global Context	Conference on Asian Peace Research Seiji Kaya	¥ 1,031,000	3
Symposium on Granite, Pyroclastics, and Associated Mineral Deposits in Japan, the Philippines, and Indonesia	Association of Earth Scientists, Kagoshima University Noboru Oba	¥ 879,000	2
First UICC International Conference on Can- cer Prevention: Cancer Prevention in the Developing Countries	International Union Against Cancer (UICC) International Conference on Cancer Preven- tion Susumu Hibino	¥ 1,063,000	4
The First Comparative Urbanization Project Conference for the Asia-Pacific Region	Tsukuba Group for the Comparative Urban- ization Project for the Asia-Pacific Region, University of Tsukuba Koichi Meta	¥ 1,073,000	5
Seminar on the Assessment of Volcanic Destruction in the Circum-Pacific Region	Volcanological Society of Japan Yoshio Katsuí	¥ 1,002,000	3

International Conference Commemorating the Thirtieth Anniversary of Student Counseling in Japan	Japan Association of Student Counseling Hiromichi Nakamura	¥ 1,059,000	4
Asian Writers' Forum	National Federation of UNESCO Associa- tions in Japan Kiyoshi Kazuno	¥ 1,040,000	4
Conference on Comparative Social Development in Northeast and Southeast Asia	Japan Sociological Society Takashi Nakano	¥ 1,067,000	3
Second Workshop on Classification and Evaluation of Paddy Lands in Tropical Asia	Study Group on Classification of Faddy Lands in Tropical Asia Hayao Fukui	¥ 1,000,000	4
Fourth (1981) International Citrus Congress	international Citrus Congress Shoichi Tanaka	¥ 999,000	4
Total		¥10,213,000	36

Conference on Asian Peace Research in the Global Context

This conference, which is being held for the first time, is the culmination of many years of efforts by the International Peace Research Association to form a communication network among peace scholars.

The conference will address the major issues being studied by Asian peace scholars—militarization and disarmament, new strategies for developing less-developed areas, and the creation of new cultural identities as a result of changing value systems. Non-Asian researchers will also be invited to participate in the meeting, which will study Asia's position in the world, it is hoped that the conference will lead to the formal establishment of the Asian Peace Research Association.

Symposium on Granite, Pyroclastics, and Associated Mineral Deposits in Japan, the Philippines, and Indonesia

Geologists in Japan, the Philippines, Indonesia, and other Asian countries have been trying to conduct joint research, as well as hold joint symposiums, for several years. At the first of these symposiums, the main participants will be Japan, the Philippines, and Indonesia.

The symposium will compare the geochemical states and origins of granite, pyroclastics, metamorphic zones, and associated mineral deposits in the respective countries: it also will attempt to promote research on related subjects. Geologists will classify the mechanisms whereby each substance is formed, thus providing information that will aid exploration for natural resources.

First UICC International Conference on Cancer Prevention: Cancer Prevention in the Developing Countries

Cancer is on the rise in developing countries. It is urgent that these countries institute measures to prevent cancer by drawing on the experiences of the advanced countries.

To establish an anticancer program, the conference will examine the present incidence of cancer and the medical treatment and other countermeasures instituted

throughout the world and particularly in the developing countries. Specific problems related to creating such a system will also be investigated. The conference will survey the latest results of cancer research conducted in the advanced countries and will discuss future countermeasures that should be adopted against cancer by the world as a whole.

The First Comparative Urbanization Project Conference for the Asia-Pacific Region

This conference, which is being held for the purpose of promoting international joint research, will hear the interim reports of research teams from nine countries in the Asia-Pacific region that began working together in 1980 on a project comparing urbanization in the region. The project will be completed in 1983.

Japan is a leader in research related to urbanization. The conference will enable researchers from developing countries to hear directly about Japan's experience and, it is hoped, will encourage developing countries to conduct theoretical analyses of problems related to urbanization.

Seminar on the Assessment of Volcanic Destruction in the Circum-Pacific Region

The circum-Pacific region, which includes the Japanese archipelago, has the largest concentration of active volcanoes of any region in the world. Volcanic activity in this region is generally eruptive, and characteristically accompanied by such destructive phenomena as pyroclastic flows, mud flows, and tsunami. Volcanic eruptions in the region have also caused much destruction because of the comparatively dense concentrations of population in surrounding areas.

Using voluminous data submitted by various countries bordering the Pacific on the type, scale, and destructiveness of volcanoes, the seminar will serve to foster an exchange of information on predicting the extent of destruction to be caused by an eruption and on the theory and techniques of predicting eruptions. Methods of minimizing volcanic destruction will be examined as well.

International Conference Commemorating the Thirtieth Anniversary of Student Counseling in Japan In 1970 the Japan Association of Student Counseling inaugurated an annual national conference, to which it invited one specialist from the United States and several representatives from Southeast Asian countries with the object of furthering international exchange on the subject of counseling. However, the lack of sufficient government funding led to the suspension of this exchange for the past few years. The advanced Western countries hold a biennial international conference, but attendance by participants from developing Asian countries is very rare. In the light of this situation, on the occasion of its thirtieth anniversary the Japan Association of Student Counseling has decided to hold this international conference with the aim of facilitating exchange among counseling specialists from Asian countries.

Asian Writers' Forum

The present forum was planned in response to a need felt by Asian intellectuals and artists to meet and explore in depth the identity of Asia in the midst of a rapidly changing world. Participants from eight countries will discuss "Asia's uniqueness."

Both the content of the discussions and the papers delivered by forum participants will be translated into each participating country's language and published. The proceedings of the forum are expected to make an invaluable contribution to Asian studies throughout the world.

Conference on Comparative Social Development in Northeast and Southeast Asia

This conference will examine and compare social development in Northeast and Southeast Asia in terms of urbanization, industrialization, and the nature of and changes in traditional values in these two regions. The conference aims especially to broaden opportunities for academic exchange among Asian sociologists and will investigate the possibility of forming a permanent communication network for these scholars. The exchange among academic personnel is expected to promote joint research and comparative surveys on social development.

Second Workshop on Classification and Evaluation of Paddy Lands in Tropical Asia

This joint meeting will focus on a three-year cooperative research project (recipient of a Toyota Foundation grant) being conducted in Japan and the Philippines to devise a methodology for classifying and evaluating paddy lands in tropical Asia. That researchers will also attend the meeting, as the project is of great import to their country.

Two activities will be carried out to determine the direction of future research. First, a model of an area in which paddy lands have been classified on the basis of several previous field surveys will be put on display. Second, to assess the suitability of these paddy land classifications, cropping experiments will be conducted and the results collated.

Fourth (1981) International Citrus Congress Citriculture has never been developed industrially in subtropical Asia, even though the region is the home of citrus fruits and is extremely well suited to their cultivation. The main reason for this situation is the failure to establish countermeasures to eradicate mycoplasma blight.

This conference aims to help solve the problem by investigating the current status of research and facilitating the exchange of information on this disease. It is expected that the conference will encourage closely coordinated international research.

Fellowship Program

Fellowship Program for Japanese Social Scientists Yoichi Maeda, Managing Director International House of Japan ¥25 million

This program, first awarded a grant in October 1975, the year of its inception, is now in its sixth year. 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 granting them fellowships to conduct research of their choosing for a fixed period (generally two years) in universities and other academic research institutions abroad. To date thirty-five fellowships have been awarded: six in the first year of the program, nine in the second, six in the third, eight in the fourth, and six in the fifth. Nine fellowships are to be awarded in the sixth year. Fellowship recipients conduct their research in many parts of the world, including the United States. Eastern and Western Europe, and Asia.

The program receives the cooperation of the Social Science Research Council of the United States and other organizations throughout the world and is jointly supported by the Ford Foundation, the Japan Foundation, the Japan-U.S. Friendship Commission, Mobil Sekiyu K.K., and the Toyota Foundation.

Special Fifth-Anniversary Programs

The Toyota Foundation celebrated the fifth anniversary of its founding on October 15, 1979. To commemorate the occasion the following programs were planned:

- 1. International Workshop on Living Children's Theater in Asia
- 2. Research Contest on the Theme "Observing the Community Environment"
- Traveling Symposium on the Theme "Cities and Architecture: Western-Style Architecture in Japan During the Meiji, Taisho, and Early Showa Eras (1868–1941)"

The first program was completed during fiscal 1979; the other two were carried out in fiscal 1979 and fiscal 1980. The purpose of these commemorative programs, the criteria used in developing them, and detailed descriptions of activities that were carried out in 1979 are described in last year's *Toyota Foundation Report*, to which interested readers should refer. Here we bring the description of the second and third programs up to date with news on the 1980 activities.

The purpose of the Research Contest on the Theme "Observing the Community Environment" is to encourage specialists and local residents to cooperate in implementing research that involves long-term observations of the community environment, which has a close bearing on everyday life. The Foundation accepted contest applications from October 1979 through January 1980, and at the end of March, 20 of the 128 applicants were selected as award candidates (see last year's report). From April to September each applicant selected as a candidate was provided with a preparatory grant of \(\frac{x}{500,000}\), to be used to conduct a preliminary study and draw up a research proposal for a project. These preliminary studies and proposals were screened, and in October fourteen candidates were chosen as recipients of either the gold prize (\(\frac{x}{5,000,000}\)) or the silver prize (\(\frac{x}{1,500,000}\)) to assist the research activities. Each of the fourteen project teams has been asked to continue its research until autumn of 1982, at which time one project will be selected to receive a \(\frac{x}{10,000,000}\) special research grant to aid in funding long-term research activities by its team.

The Traveling Symposium on the Theme "Cities and Architecture: Western-Style Architecture in Japan During the Meiji, Taisho, and Early Showa Eras (1868–1941)" was based on the Catalogue of Early Western-Style Architecture in Japan (in Japanese), the

published results of a Toyota Foundation—funded survey. The purpose of the program was to make the average Japanese person more aware of the importance of preserving and renovating Japan's architectural properties by bringing the results of the survey to the attention of people in various parts of the country. From February to September a series of symposiums was held in ten cities throughout the country, and in November a three-day general symposium was held in Tokyo. This program can be characterized as an experiment in which a nationwide survey launched in the specialized field of architectural history was developed into a cultural movement of wide-ranging significance.

Research Contest on the Theme "Observing the Community Environment"

Research on the Habitats of Mammals in Gifu Prefecture, the Condition of the Environment, and Environmental Education in the Area

Tatsuo Kawasaki

Gifu Prefecture Mammal Study Group, Gifu Prefecture ¥5.0 million (Gold Prize)

This research will cover all of Gifu Prefecture. With an extensive land area of more than ten thousand square kilometers, Gifu is characterized by great topographical variation and has diverse meteorological conditions, such as marked regional temperature differentials. As a result, the prefecture has various types of vegetation and forestry resources, and many species of animals inhabit its complex ecological system. Recently, however, this ecosystem has been undergoing changes due to development projects in natural areas.

This project will study the habitats of mammals of various sizes, the historical changes in these habitats, and the influence exerted by human activities and the human environment. The animal families studied will include bears, deer, boars, Cercopithecidae monkeys, Canidae species, hares, Mustelidae species, squirrels, and rats. Teachers in the prefecture's middle and high schools and employees in the prefecture's museums and educational centers will form a nucleus of researchers assisting this project. Through these studies the researchers hope to gain a better understanding of how environmental changes brought about by economic development affect the overall ecosystem and the human habitat. Making use of the research experience and the results attained, they plan to compile manuals and develop curricula for environmental education in school and society.

The Relation Between Changes in Water Temperature in the Crater Lake and the Volcanic Activity of Mount Kusatsu Shirane

Masayuki Shimoya

Mount Shirane Volcano Study Group, Gumma Prefecture ¥5.0 million (Gold Prize)

The crater lake of Mount Kusatsu Shirane, the subject of this research, has a pH value less than one, making it one of the world's most acidic crater lakes. During the peak tourist season more than ten thousand visitors converge on this famous tourist attraction each day to observe the lake from the crater wall. Yet Mount Shirane is near the end of its active volcanic period, and there is a danger of vapor explosions.

This project, centering on local high school teachers, will continuously record the crater lake's water temperature and the amount of sulfur coming up from the lake's bottom, with the aim of clarifying changes in volcanic activity and providing data that may be useful in predicting volcanic eruptions. The water temperature will be automatically measured by sensors placed in the lake and linked with a recording system on the lake's shore. Although conditions in the area are harsh, and it is expected that instruments will corrode because of the area's high acidity and break down due to snow in the winter, it is hoped that the researchers' enthusiasm and their being locally based will produce valuable data that previous research work has not been able to obtain. The nature of the research precludes participation by students and local residents in environmental education programs, but the results should be highly significant for society.

A Comprehensive Observation Study of a Local Natural Environment

Kiyoshi Tsuchiya

Society for Environmental Study of the Hiki Hills Region. Saitama Prefecture

¥5.0 million (Gold Prize)

This project will observe the Hiki Hills region, an area measuring about twenty-five kilometers along each side and centering on Hatoyama-mura. Saitama Prefecture. The area lies about fifty kilometers northwest of Tokyo in the periphery of urbanization, where the Kanto Plain ends and the Chichibu mountain region begins. Recently this hilly region has witnessed much residential-area development. A feature of the area is that it is the site of an earth observation center run by the National Space Development Agency and of facilities for satellite communications and weather observation run by the Meteorological Agency.

This project will seek to clarify heretofore neg-

lected small-scale meteorological phenomena and study the relation of such phenomena to changes in the natural environment. The project team will be working with employees of the above-mentioned facilities, personnel of the local meteorological observatory, and teachers and students of local primary and secondary schools. The project team hopes to break new ground in research on small-scale meteorological phenomena by comparing and collating observations made by some of the most advanced equipment available with concentrated and detailed ground observations. The research will also be significant for its provision of environmental education extending beyond the confines of normal school education.

Study and Application of Regional Climate-oriented Architecture in Okinawa

Akio Hara

Okinawa Regional Architecture Study Group, Okinawa Prefecture

¥5.0 million (Gold Prize)

The northern part of Okinawa, the area that this project focuses on, has a subtropical climate with high temperatures, much rain, high humidity, and many typhoons. It also has a high outflow of population. Individual housing sites and residential housing projects are proceeding haphazardly, causing environmental problems. The construction of reinforced concrete housing is being widely adopted to protect against the wind and rain, with aluminum-frame storm windows used to seal the house against the elements. Sealed housing necessitates the use of air conditioning, however, presenting such problems as much electricity consumption and an unhealthy home-air environment.

The present project seeks to discover and develop housing designs suitable to the Okinawan climate. The project team consists of personnel working in local city offices, technical high school teachers, and architectural designers, thus enabling the research to be developed by people already closely involved for their livelihood with the research theme. It is hoped this project will be a practical one, recognizing anew traditional designs, adapting them to new technology, and developing entirely new techniques.

A Study of the Boso Peninsula: Its Insularity and Culture Akira Suzuki

The Study Group on the Insularity of the Boso Peninsula, Chiba Prefecture

¥5.0 million (Gold Prize)

Geological evidence indicates that the Boso Peninsula may have been an island separated from Honshu in the past, and biological evidence supporting the presence of a unique biota on the peninsula also exists. The peninsula is also insular from the standpoint of culture, which was brought into the area mainly by sea. Even in more recent years the peninsula retained the character of an area isolated from Tokyo's urban sphere. But developments in the last decade have been causing the area to lose its unique biology and culture.

This research will evaluate the Boso Peninsula's insularity from the biological, cultural, and social points of view with the aim of creating basic knowledge for developing the area in ways that enable its rich biological and cultural environment to remain relatively undisturbed. The project team, which has been organized mainly by local nature clubs, will be divided into groups to study the structure of the peninsula's biota, the dynamics of its biological communities, the modes of human life, the ecological and anthropological features of coastal dwellers, the area's dialect, and the way that children play. Until now the Boso Peninsula's insularity from Tokyo has been regarded as a demerit; this research hopes to turn the area's individuality into a merit.

Application of the Iwakura Method of Land-Use Planning Through Communal Agreement

Fumio Okuvama

Iwakura Town Development Study Group, Kyoto ¥5.0 million (Gold Prize)

The former Iwakura school district, a new fourteen-square-kilometer residential area in northeastern Kyoto, has witnessed phenomenal population growth in recent years. The area has both the traditional character of a farm community with old temples and historical remains and a modern character, with a private high school and an international conference hall. Though the area is now an attractive living environment, problems may arise in the future if housing development continues to be disorderly and a well-balanced commercial network does not evolve.

This project is a community-building project premised on the agreement of residents and landowners in seeking appropriate use of land, to be carried out by local urban and regional planners, schoolteachers and students, and members of local municipal bodies. Consideration has also been given to arranging meetings between old residents and newcomers so that an exchange of opinions and a common outlook can be achieved. It is hoped by such means to develop a community that conforms to local residents' ideals and needs.

A Comparative Study of the Environment, Life Styles, and Health of Residents of Agricultural, Mountain, Fishing, and Urban Areas in Kyushu

Michikatsu Konno

Kyushu Health and Science Association, Fukuoka Frefecture ¥1.5 million (Silver Prize)

This project will study four areas with different geographical and social environments: Kasuya-machi, a commercial town near Fukuoka City; Genkai-machi, a fishing community between Fukuoka and Kita-Kyushu: Izumi-mura, a mountain hamlet with a sparse population; and a farming village close to the sea on the outskirts of Yatsushiro City.

Researchers will carry out health, life-style, and living-environment surveys to ascertain the conditions of each area and will make continuing observations to see how improvements in living environments and life styles affect health. Experts in the fields of medicine, nutrition, and environmental physiology will carry out the research with assistance from residents in each of the target areas. The results of the project are expected to contribute greatly to health campaigns con-

ducted in local communities. Health guidance in the past has been given one-sidedly by young specialists, with the result that residents act like passive experimental subjects instead of taking the initiative and considering how to change their environment so as to improve health. With this point in mind, the project team will seek to perform research starting from local residents' ideas, with cooperation from local health nurses.

A Hydrogeological Study of Ground Water on Miyakojima and Appraisal of the Environmental Effects of the Use of Ground Water, Focusing on Water Use at Subsurface Dams

Hiroyasu Furukawa

Research Group for Water Problems of Offshore Islands, Okinawa Prefecture

¥1.5 million (Silver Prize)

Miyako-jima, a 176-square-kilometer island located in the southern Ryukyu Islands, is a limestone tableland with no mountains. As a result, there are no rivers, and so the inhabitants have relied on ground water from ancient times. Yet this water source is limited, and the island's isolation rules out other supply routes. After the return of the island to Japan, development of water sources using subsurface dams was planned for developing the island's agriculture. An experimental subsurface dam has already been built, and a large-scale project is now getting under way.

This research seeks to clarify what hydrogeological effects the development of water sources using subsurface dams has and how the water will affect agricultural development. The researchers will also study environmental education as it relates to Miyako-jima's water supply. The project team consists of specialists affiliated with the University of the Ryukyus, civil servants working in local organizations related to the research, and schoolteachers. If local residents' ideas can be incorporated into the sociological aspects of the research, the project can become a unique one with practical benefits.

A Survey of Seasonal Awareness in Urban Shopping Malls: Nagoya's Sakae-machi

Yasuhiro Kawamoto

Nagoya in the Four Seasons, Aichi Prefecture ¥1.5 million (Silver Prize)

This research will study the area within a five-hundredmeter radius of Sakae intersection in Sakae-machi, Naka Ward, the nucleus of Nagoya's commercial district. This quarter has the most brisk commercial activity in the Nagoya region, and yet it has a reputation as an uninteresting, unenjoyable shopping area.

This research makes the hypothesis that Sakae-machi's reputation stems in large part from a lack of seasonal awareness in the area and investigates this hypothesis from various angles. In specific, long-term observations will be made of such factors as changes in show-window displays and other criteria accompanying the shift of seasons; the length of sleeves, the color of clothes, and the seasonal awareness of people who come to the area; and seasonal indicators in the area's

mass media. This data will then be analyzed for correlations. The project team, composed of urban planners and friends of Nagoya in various walks of life, hopes to turn Sakae-machi into a more charming place by making practical application of the research results. The researchers are enthusiastic about this attempt to get a grasp of the difficult phenomenon of seasonal awareness, but to be successful they will have to pioneer original research methods.

The Development of Shared Space in Areas of Rapid Population Increase: Self-reliance of Mothers and Children in Daily Life

Tadayuki Hayasaka

The Sakado Community Environment Study Group, Saitama Prefecture

¥1.5 million (Silver Prize)

This project will study Sakado City, Saitama Prefecture, a bedroom community for Tokyo that has witnessed a rapid increase in population in recent years. In more than half of the households in the apartment complexes and surrounding residences in Kita-Sakado, the specific area this research will study, the parents commute quite far to work. As a result, most parents and their children have little shared time and space. Moreover, many residents live in the area for only a short time and have little contact with one another. There are also divisions among the various groups of residents: apartment complex residents, housing development residents, and the original farm residents. The area thus has many problems in common with the phenomenon of "urban sprawl."

For this research the Sakado Community Environment Study Group, composed of Sakado residents and researchers and residents from outside the community, will survey residents' life styles, local activities, and the local community environment. The study group will participate in and evaluate various local activities, such as festivals and environmental seminars. They will also attempt to determine how shared space for local activities should be used and how people who use this space evaluate it. To obtain data of general usefulness from this case study, the researchers will have to develop a research methodology that is objective.

An Environmental Study of Change in the Left Bank Flat-Land Region of the Lower Shigenobu-gawa and the Local Attitudes to Such Change

Tamuro Hirai

Association for Environmental Study of the Shigenobu-gawa, Ehime Prefecture

¥1.5 million (Silver Prize)

This project will take place on the island of Shikoku along the lower reaches of the Shigenobu-gawa, focusing on the town of Masaki-cho and parts of Iyo City and Tobè-cho nearby. This sector of Ehime Prefecture is a delta area rich in underflows, with Masaki-cho located on the outer extreme of the alluvial fan. Fomerly the area was a farming community on the outskirts of Matsuyama City, the capital of Ehime Prefecture. Now the area's natural environment is undergoing remarkable change as a result of the development of

apartment complexes and residential areas for urban commuters, the advance of small factories into the area, the reclamation of land from the sea, and the reinforcement of banks and other river control work along the Shigenobu-gawa.

This project will mobilize the many science club students of local middle schools with the aid of their teachers to survey the flora and fauna of the area's complex river system and to poll the residents' awareness of the natural environment. The research seeks to reveal how the changing natural environment has affected the way people think and the way children play with living things. At present the naturalistic aspects of the project are receiving the most attention. In the future, after gaining the cooperation of university researchers in developing themes and a methodology, the survey on the structure of awareness of the environment will begin.

A Study on the Ecology and Environmental Preservation of *Itasempara* [Japanese Bitterling] in the Three Rivers of Kiso

Shun'ichi Asano

Research Association for the Freservation of the *Itasempura* Ecosystem, Aichi Prefecture

¥1.5 million (Silver Prize)

In the ponds, branch creeks, and wetlands of the three Kiso rivers lives the *itasempara*, a rare protected fish of the genus *Acheilognathus*. This species, once thought to have become extinct in the region, was rediscovered in 1974 by the Kisogawa High School biology club, which is led by the head of the present project team. The fish's habitat is gradually diminishing, however, as a result of river control work.

This project will use the peculiar ecology of the itasempara to acquaint students with the nature close by where they live. By means of investigations into the itasempara's mode of life and habitat, the students will gain experience and understanding in relation to how artificial changes in the environment affect nature. The research group consists of local middle school and high school teachers, university professors, and other interested people, with high school students also participating. Incorporating the results of this project in environmental studies curricula will be difficult because of the itasempara's uniqueness. Nonetheless, the project as a whole will have significance as a model for other research.

A Study of Living Conditions in Ogi-machi: A Follow-up Survey of Change in Home Design, Tools, and Environment

Shigera Kaneko

Committee for the Promotion of Popular Culture in Ogimachi, Niigata Prefecture

¥1.5 million (Silver Prize)

This project will study Ogi-machi, a town with twenty-three local communities nearby and a population of forty-eight hundred on the southern tip of Sado-gashima, an island lying off Honshu in the Sea of Japan. The port of Ogi is linked by car ferry with the ports of Niigata and Naoetsu and the Noto Peninsula. Recently

the area has been undergoing development, with the extension of roads, the consolidation of port facilities, and the construction of houses. As a result the local mode of life has been changing, with a drop in the food self-sufficiency ratio, for instance. Moreover, the area's households are increasingly becoming nuclear families, and the ratio of old people is on the rise, presenting problems for the town's healthy development.

Ten years ago a Tokyo research group conducted an exhaustive survey of the area's living conditions, noting such items as house floor plans and types and use of tools. For the present project the same research group will conduct a follow-up survey, this time with the cooperation of the town's mayor, members of the board of education, and other local residents. In addition to clarifying how life styles have changed in the last ten years, the researchers will seek to understand how these changes are linked with changes in the residents' attitudes. By involving many of the area's inhabitants, the project will also stimulate reconsideration by Ogi-machi residents of how life styles have changed and self-assessment of how their town should grow in the future.

A Practical Study to Create Distinctive Municipal Areas by Utilizing Regional Cultural Landmarks in Omi-Hachiman City

Koji Nishikawa

Study Group on the Future of Omi-Hachiman City, Shiga Prefecture

¥1.5 million (Silver Prize)

Omi-Hachiman is a provincial city in Shiga Prefecture that was the home in premodern times of many successful merchants. It has many hometown traditions and a superlative city design. This layout of the traditional town center was in danger of being altered during the reconstruction after World War II, but citizens' campaigns backed up by the local government succeeded in preserving the city setting found today. In addition to the city center, Omi-Hachiman encompasses traditional communities and new residential districts, which tend to function independently of each other

This project seeks to unite these three community sectors through their local cultural assets, devising a plan for creating distinctive municipal areas that together form an integrated whole. The project team consists of citizens' organizations, concerned personnel in the prefectural and municipal governments, and specialists affiliated with universities. The team will survey the cultural assets and history of the three community sectors, attempt to stimulate exchange between old and new residents to create a sense of community, and offer proposals on community formation. Although in design the project has been organized from the specialist's perspective, it is hoped that in its execution it will incorporate ideas from the residents' perspective.

Traveling Symposium on the Theme "Cities and Architecture: Western-Style Architecture in the Meiji, Taisho, and Early Showa Eras (1868—1941)"

Summary

The Western-style architecture constructed in Japan during the Meiji and Taisho eras as well as during the prewar days of the Showa era has been disappearing in recent years with the progress of urban development. Yet, these buildings are indisputably of great significance as historical data tangibly illustrating Japan's process of modernization and as factors that lend individuality to many of Japan's cities. A nationwide survey conducted over the past dozen or so years has enabled the Architectural Institute of Japan to compile a catalogue of extant architecture from that period. This catalogue is valuable not only as basic reference material for future studies of Japan's modern period but also as data for studying ways of preserving and utilizing early Western-style architectural properties.

A series of symposiums was held in major cities throughout the country with the cooperation of many of the researchers who took part in the survey with a view to reporting the survey's results to people in various parts of the country. Each symposium included reports on the general background and characteristics of extant early Western-style structures in the particular region followed by discussion of the worth and significance of these structures in today's cities. The symposium schedule for fiscal 1980 is given below.²

The symposiums were sponsored jointly by the Toyota Foundation and the Study Group for Early Western-Style Architecture³ with the support of the Architectural Institute of Japan, the Japan Federation of Architects and Building Engineers Associations, Asahi Shimbun Sha, and other organizations throughout Japan.

Schedule

	Shikoku Area Symposium	Takamatsu	Saturday, April 26
4.	Chugoku Area Symposium	Kurashiki	Sunday, April 27
5.	Hokkaido Area Symposium	Hakodate	Tuesday, May 27
6.	Kinki Area Symposium I	Kobe	Saturday, June 14
7.	Kinki Area Symposium II	Osaka	Sunday, June 15
8.	Kinki Area Symposium III	Kyoto	Saturday, June 21
9.	Tohoku Area Symposium	Morioka	Saturday, July 26
10.	Hokuriku Area Symposium	Kanazawa	Saturday, September 27
11.	Tokyo Symposium	Tokyo	Friday, November 28, through
			Sunday, November 30

Shikoku Area Symposium

A report was delivered on the findings of surveys on extant early Western-style architecture on the island of Shikoku, which were conducted on a prefecture-by-prefecture basis

- 1. The survey, conducted by the Architectural Institute of Japan's Subcommittee for the Survey of Western-Style Architecture Built in Japan During the Taisho and Early Showa Eras (Chairman: Prof. Teijiro Muramatsu, University of Tokyo), was funded by an Asahi Science Research Grant and the Toyota Foundation. The results were published in the Catalogue of Early Western-Style Architecture in Japan (in Japanese) by Gihodo Publishing Company in April 1980.
- 2. The first two symposiums, the Tokai Area Symposium held in Nagoya on February 23, 1980, and the Kyushu Area Symposium held in Fukuoka on March 29, 1980, were described in the fiscal 1979 report.
- 3. This study group is a voluntary organization that grew out of the Architectural Institute of Japan's Subcommittee for the Survey of Western-Style Architecture Built in Japan During the Taisho and Early Showa Eras.

by researchers primarily from the Kyoto-Osaka area. In addition, local scholars who have been conducting research in the area expressed their views on the relationship between the buildings and Shikoku's climate in an attempt to lay the foundation for future study of the region's architectural history.

Chugoku Area Symposium

Reports were made on the present state of early Western-style buildings in each of the prefectures of southwestern Honshu. Then, people connected with Kurashiki spoke on the development of early Western-style architecture and its cultural and historical background in the region, using the city of Kurashiki as an example.

Hokkaido Area Symposium

After hearing reports on the present state of early Western-style buildings in Hokkaido, participants took up the case of Hakodate in a search for the ideal role of such architecture in lending charm to port towns.

Kinki Area Symposium I

Reports were made on the characteristics of early Western-style buildings in Hyogo Prefecture. Area residents also discussed housing problems encountered in Japan's early modern period, focusing on housing development in the Osaka-Kobe area from the Meiji era on.

Kinki Area Symposium II

At this follow-up to the first Kinki area symposium, reports were made on early Western-style buildings in Osaka, Nara, and Wakayama prefectures. Then, lectures were given on a group of buildings in Osaka's Semba wholesale district, taking into account Osaka's economic history and focusing on the structures' significance, characteristics, and preservation.

Kinki Area Symposium III

Following reports on early Western-style buildings in Kyoto and Shiga prefectures, participants discussed technical problems in promoting the buildings' preservation and future utilization, taking as an example the preservation engineering for the Nakagyo post office and other structures in Kyoto.

Tohoku Area Symposium

Reports were made on early Western-style architecture in the Tohoku district of north-eastern Honshu, after which participants heard local administrators and residents tell of their experience with Morioka's environmental preservation legislation, the first of any city in Japan, and discussed the role and potential of local government as a creator and controller of the urban environment.

Hokuriku Area Symposium

After hearing reports on early Western-style buildings in Fukui, Ishikawa, and Toyama prefectures, participants examined the local characteristics in the development of these

buildings and how the buildings were assimilated into the traditional environment of the area. They also discussed the importance and methods of preserving early Western-style architecture.

Tokyo Symposium

At this last symposium reports were made on extant early Western-style architecture in Tokyo and the Kanto district. The participants, some of whom were from overseas, discussed from various viewpoints the worth and significance of such buildings and how they should be preserved and utilized.

First Session (November 28, morning): Six researchers announced the results of their investigation of early Western-style buildings in the Kanto area, excluding Tokyo, in a slide presentation that mainly covered (1) industrial and former military facilities, such as ship-yards, fortifications, brickyards, railroad and mining facilities, and power plants; (2) urban facilities, including public facilities, banks and other financial institutions, and schools; and (3) such resort facilities as hotels and villas in Nasu, Nikko, Karuizawa, and Shonan.

Second Session (November 28, afternoon): A report on early Western-style architectural properties in Tokyo was divided into the downtown series, centering on representative commercial buildings, and the uptown series, dealing mainly with mansions and suburban dwellings. The report, accompanied by slides, was slanted toward a reassessment of buildings that had rarely been subjected to detailed examination before then.

The participants next heard a report on the "Tokyo and the Townscape as Culture" study, which was funded by a Toyota Foundation grant in fiscal 1979. The report focused on landmark types and building and site types characteristic of Tokyo.

In connection with these two reports, Professor Toru Haga of the University of Tokyo, Assistant Professor Henry D. Smith of the University of California, the literary critic Koichi Isoda, and Professor Atsushi Ueda of Osaka University discussed the Tokyo cityscape with reference to the city's history and unique characteristics.

Third Session (November 29, morning): Two researchers each were invited from the Republic of Korea and Taiwan to make reports and slide presentations on early Westernstyle buildings in their countries, including those built during Japanese colonial rule, which are considered to illustrate the good and bad aspects of prewar Japan.

Fourth Session (November 29, afternoon): In the first half of the session, which focused on the distinctive charm of early Western-style architecture, the painter Zenjiro Chikaoka talked about his favorite Western-style buildings, using slides of sketches he made. Akihisa Masuda, a photographer, then showed some five hundred slides in a multiscreen presentation titled "The Poetry of Western Buildings."

In the second half Nihon University Professor Hiroshi Yamaguchi summed up the previous symposiums in a keynote address titled "Understanding Early Western-Style Architecture," after which the young researchers who helped compile the catalogue of Japan's early Western-style buildings held a lively discussion.

Fifth Session (November 30, morning): Professor Manfredo Tafuri of the Istituto Universitario di Architettura of Venice lectured on cities and architecture as cultural symbols. Taking as examples Vienna and New York, he discussed how differently these two modern cities have developed since the latter half of the nineteenth century, with reference to their social and cultural backgrounds.

Sixth Session (November 30, afternoon): Reports were made on three surveys dealing

with cities and the science of building preservation, all of which were funded by the To-yota Foundation: (1) The Importance of Compiling a Catalogue in Preservation Planning, by Teijiro Muramatsu, professor, University of Tokyo; (2) Early Western-Style Architecture as Regional Cultural Assets, by Koji Nishikawa, professor, Kyoto University; and (3) Preservation and Renovation: A Comparison Between Japan and Europe, by Sachio Otani, professor, University of Tokyo.

Summarizing the three-day Tokyo symposium and the previous area symposiums, experts from various fields discussed the significance and methods of preserving and utilizing early Western-style architectural properties in order to create a pleasing cultural environment. Akira Tamura, a chief engineer for the Yokohama municipal government, moderated the discussion, and the audience was given the opportunity to ask questions.

Financial Report for Fiscal 1980

Settlement of Accounts (April 1, 1980-March 31, 1981)

				Unit: Yen	
	Fiscal 1980	Fiscal 1979	Fiscal 1978	Fiscal 1977	
NCOME					
Balance brought forward from the previous year	16.373,039	1,892,028	40,669,467	138 ,0 59,340	
Endowment income	829,629,066	712,011,139	871,684,223	821,838,105	
Miscellaneous income	7,391,305	3,088,720	2,287,324		
Denations		400,000,000	1,800,000,000	1,800,000,000	
Total Income	8 53,393,410	1,116,991,887	2,714,641,014	2,759,933,445	
XPENDITURES					
Grants and program expenses	526,973,945	519,346,710	490,769,708	452,909,725	
Expenses for special fifth- anniversary programs	81,035,385	55,798,591			
Administrative expenses	80,943,584	73,973,547	67,900,978	65,452,653	
Purchase of fixed assets	2,193.361		3,078,300	901,600	
Income transferred to reserve for retirement allowance	3,200,000	1,500,000	1,000,000	ma** :	
Income transferred to working endowment		400,000,000	1,800,000,000	1,800,000,000	
Total Expenditures	694,346,275	1,050,618, 3 48	2,362,748,986	2,319,263,978	
Excess of Income over Expenditures	159,047,13 5	66,373,039	35 1,89 2,028	440,669,467	

Note: Of the surplus funds for the current fiscal year ¥150,000,000 has been transferred to the working endowment, and the balance has been carried over to the income budget of the following fiscal year.

Balance Sheet (as of March 31, 1981)

				Unit: Yen
	Fiscal 1980	Fiscal 1979	Fiscal 1978	Fiscal 1977
ASSETS		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
Cash	35,146	86,691	140,672	25,508
Bank accounts	47,488,729	9,786,769	3,623,643	26,575,755
Marketable securities	11,164,306,655	11,011,238,039	10,520,448,364	8,342,893,746
Prepaid expenses	1,933,966	1,790,378	1,790,378	1,622,828
Advance (disbursement)	4,421.083	937,016	288,767	4,832,436
Suspense payments	104,922	mpro-may.		1,033,263
Fixed assets	44,574,265	44,912,719	47,155,697	46,653,463
Total Assets	11,262,864,766	11,068,751,612	10,573,447,521	8,423,636,999
LIABILITIES		***************************************	······································	
Accounts payable	193,740,974	153,502,712	132,222,314	105,328,936
Deposits received	1,827,690	1,670,440	1,177,482	985,133
Reserves				30,000,000
Reserve for Toyota Foundation prizes	60,006,000	50,000,000	40,000,000	
Reserve for retirement allowances	3,674,702	2,292,702	1,000,000	e e e e e e e e e e e e e e e e e e e
NET ENDOWMENT				
Principal endowment	7,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Working endowment	3,800,000,000	7.750,000,000	7,399,047,725	5,287,322,930
Surplus fund	203,621,400	111,285,758		
Total Liabilities	11,262,864,766	11,068,751,612	10,573,447,521	8,423,636,999

Endowment Status

				Unit: Yen	
End Fiscal 1980	End Fiscal 1979	End Fiscal 1978	End Fiscal 1977	End Fiscal 1976	
7,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	
4,003,621,400	7,861,285,758	7,399,047,725	5,287,322,930	3,186,517,747	
11,003,621,400	10,861,283,758	10,399,047,725	8,287,322,930	6,186,517,747	
	7,000,000,000 4,003,621,400	7,000,000,000 3,000,000,000 4,003,621,400 7,861,285,758	7,000,000,000 3,000,000,000 3,000,000,000	7,000,000,000 3,000,000,000 3,000,000,000 3,000,000,000 4,003,621,400 7,861,285,758 7,399,047,725 5,287,322,930 11,003,621,400 10,861,285,758 10,399,047,725 8,287,322,930	

Note: The working endowment at the end of fiscal 1980 includes \$44,574,265 of fixed assets.

Adjustments to Grant Budgets

(April 1, 1980-March 31, 1981)

Period	Grantee Type of Grant	Organization	Date Grant Approved	Amount Approved Amount Returned Final Amount
Fiscal 1976	Jacques Lesourne International Division Grant	OECD	March 18, 1977	- ¥23,500,000 2,631,200 ¥20,868,800
Fiscal 1979	Takebisa Takizawa National Division Grant	National Federation of the Families of Mentally Disturbed People	October 3, 1979	¥ 1,200,000 135,665 ¥ 1,064,335
	Toshinobu Suga National Division Grant	Tokyo Medical College Library	October 3, 1979	¥ 2,100,000 77,639 ¥ 2,022,361
	Mikio Yamamoto Grants for International Conferences Convened in Japan	Japanese Society of Health and Medical Sociology	October 3, 1979	¥ 2,190,000 223,120 ¥ 1,967,880
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		October 3. 1979	¥ 2,400,000 110,000 ¥ 2,290,000
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program	The second secon	October 3, 1979	¥ 2,550,000 330,000 ¥ 2,220,000
	Mekong Publishing Co., Ltd. "Know Our Neighbors" Translation- Publication Program		October 3, 1979	¥ 2,850,000 75,000 ¥ 2,775,000
	K, C, Leong International Division Grant	Eastern Regional Organization for Planning and Housing (EAROPH)	October 3, 1979	¥ 570,000 179,031 ¥ 390,969
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		March 18, 1980	¥ 4,200,000 171,000 ¥ 4,029,000
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		March 18, 1980	¥ 1,620,000 165,000 ¥ 1,455,600
	Zainal Abidin bin Abdul Wahid International Division Grant	International Association of Historians of Asia	March 18, 1980	¥ 470,000 5,650 ¥ 464,350
	Takao Nishida Research-Contest Grants (grant declined)	Society for Study of the Living Environment for Senior Citizens of Koji-machi and Bancho	March 18, 1980	¥ 500,000 500,000 ¥ 0

Note: Adjustments to the grant amounts determined by the Board of Directors and carried in the annual reports are due to subsequent changes in project plans made by the grantees, such as a reduction in the number of participants at conferences.

Chronological Data

1980 Apr. 1: Acceptance of grant applications for fiscal 1980 National Division Grant Program; acceptance of grant applications for fiscal 1980 Grants for International Conferences Convened in Japan and "Know Our Neighbors" Translation-Publication Program

Apr. 26: Third Traveling Symposium: Shikoku Area

Apr. 27: Fourth Traveling Symposium: Chugoku Area

May 27: Fifth Traveling Symposium: Hokkaido Area

May 31: Final acceptance of grant applications; total: 613 for National Division Grants; 20 for Grants for International Conferences Convened in Japan

June 14: Sixth Traveling Symposium: Kinki Area I

June 15: Seventh Traveling Symposium; Kinki Area II

June 19: Twentieth meeting of Board of Directors; acknowledgment of fiscal 1979 activity program report and financial report; report on principal and working endowment as of March 31, 1980; approval of adjusted fiscal 1980 budget; approval of the appointment of members of Board of Trustees and National Division Selection Committees; fiscal 1980 grants decided: for "Know Our Neighbors" Translation-Publication Program, 4 recipients; for International Division Grants, 2 recipients; fifth meeting of Board of Trustees; approval of appointment of directors and auditors; explanation of status of Foundation activities

June 21: Eighth Traveling Symposium: Kinki Area III

July 1: Twenty-first meeting of Board of Directors; approval of appointment of Chairman and Executive Director

July 25: Publication of Toyota Foundation Report No. 10

July 26: Ninth Traveling Symposium: Tohoku Area Sept. 27: Tenth Traveling Symposium: Hokuriku Area

Oct. 1: Twenty-second meeting of Board of Directors; fiscal 1980 grants decided: for National Division, 95 recipients; for Grants for International Conferences Convened in Japan, 10 recipients; for "Know Our Neighbors" Translation-Publication Program, 2 recipients; for International Division Grants, 6 recipients; for Research Contest on the Theme "Observing the Community Environment," 14 recipients; approval of appointment of Vice-Chairman

Oct. 15: Fiscal 1980 grants awarded; publication of Toyota Foundation Report No. 11

Oct. 31: Final acceptance of grant applications for "Know Our Neighbors" Translation-Publication Program; total: 13

Nov. 15: Fifth International Division Seminar

Nov. 28–30: Final Traveling Symposium: Tokyo

1981 Jan. 31: Ninth National Division Symposium; publication of Toyota Foundation Report No. 12

Mar. 14: Tenth National Division Symposium

Mar. 18: Twenty-third meeting of Board of Directors; fiscal 1980 grants decided: for International Division Grants, 9 recipients; for "Know Our Neighbors" Translation-Publication Program, 4 recipients; acknowledgment of estimated fiscal 1980 financial status and decision on disposal of estimated surplus fund; establishment of fiscal 1981 activity program and budget

Mar. 27: Publication of Toyota Foundation Report No. 13; publication of "Know Our Neighbors" Translation-Publication Program Report No. 1, featuring Thai literature

Mar. 28: Eleventh National Division Symposium

The Staff of the Foundation

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