

2.5 Design Research and Study

(1) Current state and major issues

Research and study on design goes beyond the fundamental role to meet the academic and educational needs. It creates an opportunity for industry to introduce design, improve the levels of design it uses, and create original ideas and concepts. Enterprises can obtain various ideas about how to incorporate design concept into their products or business processes from the results of research and study. Designers can learn new design trends from research results. Technical support staff teaching design techniques can attain knowledge through their participation in the research and study process. Research and study in the design field should therefore be considered as a major instrument for design promotion.

In Indonesia, various universities have been conducted a number of research projects in the design field, including traditional motif, and materials of textile craft and their coloring methods. Nevertheless, many projects lack centralized control or coordination and primarily pursue academic interest without any prospect for commercial application of their outcome. In fact, the results of academic research and study have rarely been provided to industry, except for craft research projects where university staff provide technical assistance. There have been few joint design development projects by university and industry.

In industrialized countries, a number of research projects are underway to give insight into commercial application of design, and some examples are shown below.

1) The United States

Design Management Institute, a private organization based in Boston, has been conducting a number of pragmatic research projects on the use of design as management resources and application of design to corporate management. For subscribed members including designers, consultants and researchers inside and outside the U.S., the institute conducts research on these subjects and publish the results on its quarterly magazine "Design Management Journal" and at conferences in the U.S. and Europe (held a few times each year). It has published a few dozens of case studies on corporations and organizations in the U.S. and other countries, covering the use of design as management resources, from Harvard University Press, which are extensively used at premier business schools including Harvard and Stanford.

Universities and advanced educational institutions conduct unique researches in the design field, including the Design Institute of Illinois Institute of Technology ("human-

centered design"), the Universal Design Center of University of North Carolina ("universal design"), and the Sustainable Design Institute of University of Virginia ("sustainable design").

2) Europe

Research projects in advanced fields of design are conducted under the leadership of government (both central and local) design centers. Many institutes and organizations are working on next-generation design concepts as well as design research to take into account local characteristics peculiar to each country or region. Research subjects include universal design, sustainable design and information design. Leading organizations include the Netherlands Design Institute, Sweden Craft & Design Association, Norway Design Council, Germany's NRW State Design Center, and the U.K. Design Museum (private foundation).

3) Japan

During the period between reconstruction after World War II and high economic growth, public testing laboratories operated by the central and local governments (e.g., industrial testing laboratories and ceramics testing laboratories) conducted a variety of testing and research projects including design and published the results for successful industrial application. Because of this historical background, design centers operated by local governments belong to public test stations.

Today, numerous research and study projects are conducted in various industries (producing centers) under the leadership of local government (public testing laboratories) or industry. Research subjects range from resources (e.g., traditional Nishijin fabric patterns in Kyoto and development of digital archive of such patterns), technology (design techniques for wood furniture in Asahikawa, Hokkaido), and product development and market (market study and product development trend research by Ceramics Technology Center in Nagasaki Prefecture). These organizations are capable of serving as research organizations or testing laboratories upon request of a specific industry or an individual enterprise.

Japan Industrial Design Promotion Organization serves as a design library for industry by collecting and exhibiting good design products in and out of Japan.

(2) Need for programs and basic strategy

Design research and study is one of the activities which should be given of high priority from the beginning of design promotion efforts.

To further promote exports of Indonesian products to the global market, most

manufacturers need to become "truly independent" by developing their own products, instead of the current status of the subcontractor to make products according to the buyer's instruction. The ability to create unique designs which incorporate local resources peculiar to Indonesia is a powerful tool to promote the development of sophisticated, value added industries. Such ability comes from extensive research and study activities covering a variety of fields and areas of interest. It is important to store and utilize the results of research and study on design and local resources for productive purposes.

As a unique idea is often born out of synthesis of heterogeneous "materials," we have to make such materials available as an incubator of creativity. The materials represent or derive from the results of research and study.

Indonesia is endowed with diverse natural resources, traditional lifestyles, cultures and industries, which constitute a highly promising spawning ground for truly original design and product development. Research and study can provide a lot of ideas for people involved in the design promotion process about how to exploit numerous opportunities mired in rich resources and assets. At the same time, design-related research activities will help identify historical and cultural assets that require protection and preservation in the country, thus forming the basis of the knowledge base for government to take appropriate action in the future.

Subjects of design research and study should be selected in consideration to the actual progress of design use by industry and society as well as major trends and changes in the design environment (examples shown in Table III-2.5-1). In this conjunction, it is important to develop a general consensus, among related parties, on major areas of interest, along which actual research and study can be conducted to ensure that their results serve the overall purpose of design promotion. For this reason, the immediate goal of design research and study activities should be set to establish a formal place to discuss the direction of such activities within the framework of national policy and a mechanism to publicize the results. This can be accomplished by revitalizing the Design Council and developing research networks consisting of public research institutes, universities and other related organizations.

At the same time, the first stage should include efforts to develop the information infrastructure, including the storing of basic design materials required for development of original design and inventory taking of craft resources to determine potential for future commercialization.

In the second stage, assuming that the infrastructure to support research activities has been sufficiently developed, advanced research and study will be carried out under the supervision of foreign advisors in order to ensure that design research projects are abreast of world trends and envisage possible commercialization of the results. Also, joint research projects with industry should be encouraged as industry is expected to have good understanding of the need for design research.

In the second and third stage, the focal point of research and study should be shifted to the future needs. The possible subject includes design in the post-industry society, as done in industrialized countries.

Design research activities need to be supported by a wide variety of parties who should be actively involved by representing their interest and position. In this connection, multi-party research projects and joint research efforts with non-design entities (engineers, etc.) should be considered. Organizations which can take an active part in design research are listed below. It is strongly recommended to organize them into design research networks. The first step should start from networking of universities and research organizations, followed by expansion into other organizations.

- Universities (including advanced design institutes)
- Government offices and organizations (central and provincial), including the design center, research institutes, and testing laboratories
- Design promotion organizations (foundation, council, etc.)
- Industry (trade associations)
- Private sector (e.g., research organizations, consulting firms)
- Practitioners (designers, craftsmen, etc.)

Table III-2.5-1 Possible Areas of Design Research and Study

Field	Example
1) Design resources and materials	<ul style="list-style-type: none"> • Design resources (cultural, historical, human, physical) • Availability, commercial applicability and other attributes of materials (raw materials) • Testing and inspection data (e.g., strength of materials)
2) Design theories and techniques	<ul style="list-style-type: none"> • Design theories and techniques • Design technology • Methodology of design evolution (existing and new technologies) • Role of design
3) Use of design	<ul style="list-style-type: none"> • Case studies • Latest trends (local and foreign) • Design samples • Outcome, effect and evaluation of design
4) Design market and environment	<ul style="list-style-type: none"> • Market trends (local and foreign) • Consumer preference (trends) • Social environment (global environmental issues, etc.) • Major challenges for design (quality, aesthetic value, etc.)
5) Design promotion policies	<ul style="list-style-type: none"> • Design promotion policies and programs (local and foreign)

2.6 Design Education and Development of Human Resources

(1) Current state and major issues

There are two major goals for design education and development of design-related human resources in Indonesia: 1) the fostering of innovative designers, and 2) education of design promotion personnel. Design promotion personnel includes those providing guidance for design implementers, government officers who plan and carry out design promotion activities, and personnel who provides guidance and consultation for the former.

At present, design education is primarily carried out by universities and vocational training institutes, and no efforts are made to educate design staff within individual enterprises or by other organizations.

1) Absence of the environment to nurture innovative designers

Design education in Indonesia has been evolving under strong influences of relevant factors, including the pace of industrial development and technological advancement in the country, and opinions and initiatives of design educators who have experience in the foreign countries or have studied abroad as well as foreign designers who have been creating highly valued designs in the country. In the process, design educational policy has been repeatedly going back and forth between polarized thoughts, "technique comes first" and "return to indigenous culture." Unfortunately, however, the dialectical process has not much affected or is reflected in actual design work, as evidenced by the fact that few original designs have been created and developed into products currently on market. The lack of originality in design, e.g., most of Indonesian products have not established their identity or brand image based on design, impedes the emergence of enterprises which make success in international markets by effectively using design.

The study team analyzed design education in the key areas from the viewpoint of the environment to encourage growth of innovative designers. It should be noted that, as evaluation of educational philosophy and theory is out of the scope of this study, discussion is concentrated on a desirable direction of design education in the context of its contribution to industrial development.

a) Industrial design education and future direction

Generally, industrial design education in Indonesia has been following European and U.S. universities and their curriculums as a primary model. At present, design education in this field seems to face the dilemma that students are hard to find

desirable jobs after graduation, and the lack of demand for industrial design is cited as the major reason. However, the situation should be viewed as the problem of the current education system that follows educational standards in foreign countries and fails to fulfill the mandated role of producing designers according to the actual domestic/international market needs. Educational institutions are expected to make efforts to create opportunity for industrial designers to apply their skills to the fields where design demand has already emerged, such as interior decorations, crafts, daily consumer goods and public facilities, by offering appropriate courses and practical training opportunities. In particular, they must present to students a clear image of what is originality in design in the context of the country's identity and role in the world.

At the same time, design educators need to teach knowledge peripheral to industrial design, such as management of the design process, marketing and engineering. Although such knowledge can really be learned through actual job experience after graduation, educational institutions should help student open their eyes to the real world where the industrial designer must take into account and meet a variety requirements in designing¹. Furthermore, educational institutions are required to advertise design skills of their students to industries, such as joint projects with various industries to give practical design experience, and promotion of design projects sponsored by industry that may lead to actual product development.

Finally, it is important to realize that design education in Japan and other industrialized countries has begun to make its transition to the post-industry concept. More precisely, the basic theme of design in the 21st century is the global environment and its protection, and design activities in industrialized countries are swiftly moving toward the establishment of the recycling society. Likewise, industrial design education in Indonesia is expected to go beyond rationalism and functionalism emerged from Bauhaus and to look into the future – the role of design education in the new millennium.

b) Interior design education and future direction

Interior design education primarily emphasizes commercial and public facilities, with little attention being given to interior design and decorations at home. In the future, however, university education should address the needs to use design for improvement of the living environment and public space, in addition to commercial

¹ Such as the user's need, aesthetics, production cost, amenity, functionality, ease of use, and environmental consideration.

space such as hotels, boutiques and restaurants. Actually, these are one of the agenda for the government to tackle in the future as a part of public policy, and designers are expected to propose it from their initiatives. In fact, problems of poor living environment for the low-income families, can be improved significantly with producing improved amenity by applying interior design together with urban space design.

At the same time, "living environment" and "amenity" will be important subjects of research and study at universities and other educational institutions. As the world is about to make a decisive move toward the recycling-based society, Indonesia will be able to play an important role by using its rich lands and resources. The country is in a good position to lead the world in the construction of the environmentally-friendly society by departing from the traditional notion of "resources for the industrial society." For the country to propose such society in a visible form, design needs to be used effectively and interior design is expected to contribute greatly as it is closely associated with daily life of people.

c) Graphic design education and future direction

Recent pervasiveness of information technology at a rapid rate, particularly computers, enables graphic design to make visual expressions in an increasingly effective manner. At the same time, availability of handy technology tends to make originality a less important goal for graphic designers to pursue. As Indonesian cultures, related colors, patterns, ornaments, forms and materials are considered to be world assets, graphic design is expected to play a leading role in reproducing these cultural heritages in daily life of people and proliferating them to the world. For this purpose, university design education should offer programs to make students rediscover and aware rich sources of originality in the country, while conducting research projects. At the same time, educational institutions should encourage students to participate in collection of design resources, including historical assets and art objects bearing traditional colors, patterns and forms, as well as the development of the information infrastructure including a database, which will serve as good learning opportunity.

d) Craft design education and future direction

The craft industry in Indonesia is dominated by home-industries, or traditional cottage industry where product techniques have been handed over many generations under the apprenticeship system. Today, these production techniques are not officially documented and there is no government program to promote their transfer.

Meanwhile, an increasing use of modern products causes demand for traditional craft products to slow down or decline, forcing legacy techniques to change or wither. Craft products in Indonesia are highly reputed in Southeast Asia because of their sophisticated techniques and use of diverse raw materials and should not be left to deteriorate or disappear. It is therefore important for the government to launch a program to preserve traditional craft techniques and record them in document and other media as it constitute valuable craft design resources as part of national treasure. More importantly, such program should form a part of design education for students to participate and learn cultural heritages.

Secondly, efforts should be made to reduce the gap in the level of education between regions and educational institutions. By providing the same level of education at regional universities and vocational schools as that given in Jakarta and Bandung, rural regions can expect to have the continuous supply of young designers who are capable of and willing to create original craft designs by using traditional techniques, patterns and forms. Growth of local-based design activities will form the foundation for the refinement of traditional design concepts and the development of the truly Indonesian design. In addition to equalization of the level of craft design education, efforts should be made to hold design-related seminars and workshops in rural regions. Most of them are now held in Jakarta and virtually deny access to students/designers in rural regions due to the lack of information or funds.

2) Education of design support staff

At present, there is no official program to educate and train design support staff who is engaged in the planning of design promotion activities or technical guidance or consultation related to design.

(2) Need for program and basic strategy

The short-term target (one or two years) is to foster design staff and advisors at design promotion organizations (e.g., the Ministry of Cooperatives, Small and Medium Enterprises, local organizations under the ministry and PDN). They will be responsible for promotion of design activities, regional development or export promotion. They should have the ability to develop medium- and long-term design promotion plans, plan educational programs to raise the awareness of importance of original design, and provide field assistance and guidance. In fact, the effort should be started from education of instructors who can teach technical support staff. Foreign designers can be hired for this purpose.

The medium- and long-range target (3-6 years) should focus on the development of leaders who serve as key personnel in research, development and consulting activities related to design within a specific area or industry to which design promotion activities will be directed. They should be in charge of research and development activities at the design promotion base such as the PDN or craft technique guidance center, while providing technical support and consultation for the industries in each area.

2.7 Environment Fostering the Design Industry

(1) Current state and major issues

To develop the environment to encourage creation and delivery of design by designers, the following activities are required: 1) promotion of public recognition of the designer and the design industry; 2) standardization of design contract and business practice; 3) expansion of design opportunity; and 4) support to establish the foundation of design business.

Basically, some of these activities are to be conducted by the three designers' associations (interior, industrial and graphics). As discussed later, however, their activities are primarily intended for participation of individual members. Although some activities involve in-house designers and design educators, they have failed to produce expected results.

There is no official program to support individual designers or design houses in their business activities. They can use various programs supporting SMEs offered by the Ministry of Industry and Trade and the Ministry of Cooperatives, Small and Medium Enterprises, although no information has been obtained as to their actual use of these programs.

(2) Need for program and basic strategy

At present, it is not clear as to how strongly individual designer and design houses feel the need for the above support activities. One reason that they do not have a formal place or opportunity to express their opinions including the needs for assistance (partly because they are not publicly recognized as an independent industry that requires special attention). Also, it is not clear whether the current issues should be dealt with as part of industry policy supporting SMEs or should be addressed as the need peculiar to the design business. Nevertheless, as the design industry takes shape and grows, the above issues will inevitably surface and call for action, as seen in other countries that are the predecessor in the design promotion process.

Generally speaking, the increased design opportunity is the most important and immediate target. In particular, localization of industrial design (transfer of design responsibility from parents or buyers to local companies) has not progressed much, and it is still difficult for designers to make viable business in the field. Nevertheless, design opportunity cannot be easily created by implementing a special stimulus program. Instead, an indirect approach to promote design implementation among industries is expected to produce gradual but steady results. Also, the design adviser program will

help teach individual enterprises as to how they will be able to make most out of designers and their service.

Then, the increased design opportunity will help shed spotlight on the issues facing the industry, which will then voice the needs for formal supportive measures.

Thus, the government has to wait until the design industry raises the issues on its own initiative, based on which truly effective support programs are developed. Meanwhile, the design community is expected to organize itself into the representative of the design industry and have the ability to raise the issues related to its growth and propose possible solutions.

From this perspective, the first stage of support activities should focus on support for initiatives of the design community, such as designers' organizations to promote public recognition of "value of design as professional service," organization of designers' cooperative, and support for the cooperative in winning government contracts.

Then, as design contracts grow in number and scope, support activities should enter the second stage that needs to address the need for standardization of design contract and work practice. Standardization of design work, promotion of quality control, development of a standard form of contract between the designer and the client as well as basic rules related to contract administration, and the establishment of design service charges will be required. Together with standardization efforts, support for designers to establish the foundation of design business is expected to become effective in the second stage.

In addition, efforts to increase public recognition of the designer should be considered as the means to demonstrate the universal value of the designer. Such efforts include a designer certification program.

As pointed earlier, these support programs must be initiated by the design industry that articulates the needs for public support as a general consensus of all parties concerned. For a mechanism representing the interest of the design industry, three types of organizations seem to be feasible, the professional association, the trade organization, and the business cooperative. First of all, the professional association, namely the designers' association, primarily consists of individual designers, in-house designers and educators. Thus, it does not necessarily represent the interest of the design industry. Secondly, the trade organization (or an ad-hoc foundation, such as the one promoting the design industry) is optimal for representing the industry. However, it may not be able to secure sufficient membership in consideration to the country's present economic conditions, and its activities will likely be limited in terms of budget and staffing. The

third choice, the business cooperative faces the same risk related to membership. However, it is a business undertaking where investing enterprises can enjoy benefits as well as risks, so that the problem related to activity limitation can be overcome.

The cooperative can serve as an effective mechanism for leveraging increased opportunities for government contracts and public financial assistance (improved access to institutional lending), and favorable access to private loan and credit (low-interest loans to members). Also, it can be positioned as one type of the trade organization to promote public recognition of the industry and communicate its needs to the government. Finally, joint undertaking ensures the efficient use of scarce resources, such as joint design development and the collective purchase of equipment and materials.

On the other hand, the cooperative approach has several potential problems that have to be appropriately dealt with, reconciliation of conflict of interest among member enterprises as investors and collection of sufficient investment. Also, the need for joint undertaking requires member enterprises to be located within a limited geographic area, making it difficult to evolve into nationwide activities.

While most activities will be carried out under the leadership of the industry and other parties in the private sector, the government can make effective contribution in the following areas:

- 1) Support for initial organization of the cooperative and its startup;
- 2) Public programs and projects that can support specific activities of the cooperative;
- 3) Information service; and
- 4) Financial assistance including institutional lending.

**Feature of design business in Indonesia by employment/business
type of designers, and its possible direction to enhancement**

When designers are classified into in-house and independent, the former (designers in design houses) leads the design community in Indonesia. This makes a sharp contrast to Japan, where large corporations have been bringing talented designers into their organizations to lead product development efforts and raise competitiveness¹. As a result, many talents work within companies and products with good design are made known by their manufacturers rather than individual designers.

On the other hand, in Indonesia, decent design activities can be carried out by large corporations where design resources are available, particularly foreign capitalized companies; thus, design work is primarily done at their parent companies. As a result, designers who possess world-class skills are primarily found in design houses. And these design houses, particularly the successful ones, opt to focus their attention on the foreign market. To develop designers who can contribute to industrial development in the country, therefore, efforts should be made to turn attention of the foreign-oriented design houses to the domestic market. This can be accomplished by increasing incentive for designers, e.g., the Good Design award system to emphasize an individual designer and a design house, in addition to a client company. Secondly, it is important to encourage client companies to use outside talent in addition to in-house designers. This should be encouraged by developing the environment to accept and incorporate good design from outside sources through design competitions or a similar mechanism. It should be noted that, to encourage the adoption of design from outside sources, appropriate measures related to 1) protection of copyright and other IPs and 2) standardization of contract between the designer and the client company.

¹ This is particularly true in product design.

2.8 Design Protection

(1) Current state and major issues

Major issues related to protection of design in Indonesia, as raised by industrial circles, are summarized as follows:

- 1) Original design was copied by local competitors within a short period of time and its originality diminished and the produce price declined.
- 2) Some originally designed products have been regarded as imitated design products in export markets.

More importantly, many product designs made in the country are in fact imitations of foreign products, and there is an apparent lack of guilt feeling toward the unauthorized copying of design.

As shown in the Table III-2.8-1, Indonesia is now developing domestic legislation related to intellectual property rights. The country has ratified World Trade Organization's TRIPS Agreement (international agreement on trade-related intellectual properties) and is required to enforce various IP-related laws (including the design law and the semiconductor chip protection system) by January 1, 2000, when the agreement will come into effect. Vigorous efforts have been undertaken in this direction, including the amendments of the patent, trademark and copyright laws that were made on May 7, 1997, including the authority of the court to issue an injunction order against infringement products and penalties for infringement of patent, trademark and copyright (7 years in prison and/or Rp. 100 million in fine at maximum). Also, the government carries out public campaigns on intellectual property in cooperation with World Intellectual Property Organization (WIPO) and other organizations.

Table III-2.8-1 Current Status of the Intellectual Property Legislation in Indonesia

Domestic Legislation	Patent law	○ Amend. May 1997
	Trademark law	○ Amend. May 1997
	Copyright law	○ Amend. May 1997
	Design right law	△ Partly, by patent law, copyright law
	Unfair competition prevention law	△ by civil law, criminal law
	Trade secret law	△ by civil law, criminal law
	Computer program law	△ by copyright law
	Act concerning the circuit layout of semiconductor integrated	×
International Treaties	Treaty establishing the World Intellectual Property Organization (WIPO treaty); 1967	○ Signatory, 1979
	Paris convention for the protection of industrial property; 1883	○ Signatory, 1950
	Berne convention for the protection of industrial property; 1883	○ Signatory, 1997
	Universal copyright convention as revised at Paris on 24 July 1971; 1952	×
	Patent Cooperation Treaty (PCT); 1970	○ Signatory, 1997
	Budapest treaty on the international recognition of the deposit of micro-organisms for the purposes of patent; 1977	×
	Hague treaty, London act; 1934	△ Signatory, but no practical effect with no legislation
	WTO; 1995	○

Source: Institute of Intellectual Property, "Intellectual Property Rights Protection in Asia"

Indonesia does not have the design law and protects designs under the "simplified patent" system (according to the patent law), the copyright law or the trademark law. As a result, designs that do not meet requirements in any of the related laws are not protected. The absence of the design law reflects the fact that government authorities and their staff responsible for IP legislation¹ do not understand the concept of "design" as a legal entity for protection. On the other hand, demand for development of the design protection system by industrial circles is limited to some large corporations, foreign-affiliated companies and design associations, which are far from growing into nationwide

¹ There are two government organizations related to intellectual property rights. The Directorate General of Copyrights, Patents and Trademarks under the Ministry of Justice is responsible for examination, registration and application, and Scientific and Technological Information Center for collection and publication of patent information.

moves².

As discussed earlier, the recent progress in legislation was rather prompted by external pressures and the need for securing consistency with the international system, and low levels of public recognition on the need for IP protection are considered to be problematic.

Under these circumstances, domestic markets are deluged with imitations and pirated products. As seen in other developing countries, illegally imitated or copied household appliances, books, computer software programs, clothing, perfumes and numerous goods are on market, including those using trademarks and designs of Japanese companies are sold at prices one-half to 10% of normal prices. The following table summarizes the results of a 1993 survey conducted by the Japanese Industrial Design Promotion Association, which represent only small portions of actual illegal sales, and this indicates that design imitation accounts for the second highest share to trademarks. Most of products copying Japanese trademarks and designs are manufactured in the PRC, Taiwan and other areas and are imported to Indonesia. It should be noted, however, that some of them are manufactured within the country.

² Due to the absence of the design law, the number of patent applications in the country was analyzed by country of origin of the applicant. Between 1991 and 1998 (October), 22,898 patent applications were filed, of which U.S. applicants accounted for 31% (7,103) and Japanese 19% (4,419), compared to Indonesian 4% (800), indicating low levels of recognition on IP protection and the lack of resources for patent protection activities among Indonesian companies. (source: <http://www.netpassport.or.jp/~whaki2/>)

Table III-2.8-2 Cases of Imitation of Japanese Products Found in Indonesia

	Design	Trademark	Technology	Copyrighted work	Total
General industry machinery	6 (0)	7 (1)	3 (1)	0 (0)	16 (2)
Electronics/electrical	6 (1)	6 (0)	1 (0)	6 (0)	16 (2)
Transportation equipment	5 (3)	9 (4)	3 (1)	1 (0)	18 (8)
General merchandise	4 (1)	3 (1)	2 (0)	1 (0)	10 (2)
Textiles	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)
Ceramics	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Food	0 (0)	2 (2)	0 (0)	0 (0)	2 (2)
Chemicals	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Pharmaceuticals/cosmetics	0 (1)	1 (1)	0 (0)	0 (0)	1 (2)
Total	19 (6)	29 (11)	9 (3)	8 (0)	65 (20)

Note: Figures in front of () denote pirated products imported from third countries, and those in () denote those made in Indonesia (as of 1993).

Source: Japanese Industrial Design Promotion Association: "Study Report on Imitations of Designs, Trademarks, Technological Work and Copyrighted Work"

(2) Need for support program and basic strategy

Effective protection of design is very important from two perspectives. First of all, from the design creator and supplier, proper protection of the designer's right is highly desirable for the interest of developing the environment to encourage creative activities. Secondly, from the viewpoint of the design implementer and user, design protection encourages the commercial use of design.

Activities to protect design include: 1) the development of the legal infrastructure including laws and regulations, and their enforcement system; 2) actual enforcement by government; and 3) voluntary regulation by industry.

While legal protection is a critical element of design protection efforts, it is not enough to assure full protection required to meet the above goals. Legal enforceability must be combined with voluntary regulation by industry.

The development of the legal infrastructure for protection of intellectual property rights including design takes time in any countries including Indonesia. Nevertheless, importance of legal protection is increasingly felt within the government and other sectors, as seen in the 1997 amendment of the law. Now, further efforts should be made to advertise benefits of the intellectual property law to domestic industries through its enforcement, while improving the knowledge base of government staff engaged in law

enforcement activities and education of agents who handle design rights.

To demonstrate to the public that legal protection is really enforced, there must be an information dissemination system to provide public access to official statistics related to intellectual property disputes, records of legal proceedings, and court decisions. In particular, it will inform industry and general consumers of what constitutes design copying and how and what extent legal protection is enforced, encouraging public vigilance of illegal copying that is now rampant.

Legal protection can produce better results when it is focused on export activities, particularly in combination with export promotion by focusing on a selected area or industry.

The Export Product Design Law in Japan is a primary example of such focused design protection. The law was enacted in 1959, in response to the rising criticism by foreign countries that many products exported from Japan imitated designs of foreign products and packages, which adversely affected the country's export promotional activities. At that time, there was the lack of ethics among small businesses, and at the same time, some were forced by foreign buyers to copy existing designs and manufactured products according to design specifications instructed by buyers without realizing that they are committing infringement. Clearly, imitation not only disturbed with fair competition among companies in product development, but also encouraged bad buyers to purchase imitated products at low prices. To control the widespread act of imitation and encourage the development of originally designed products, the law was enacted to introduce a compulsory design registration program. Under the law, specific product items were designated to require their exporters to obtain official certification that their designs and trademarks were not imitations. Several organizations responsible for design registration and certification were designated, namely Japanese Textile Design Center, Japanese Export Commodity Center, Japanese Ceramics Design Center, and Japanese Machinery Design Center. By the end of 1979, the following seven items were designated under the law:

- 1) Fountain pens, toys made of soft vinyl chloride and wood furniture,
- 2) Cameras, 8mm cinecameras and projectors, and electric exposure meters

Note that designation of textiles and ceramics met strong resistance from industries and a voluntary restraining agreement was made under the Export and Import Trade Act.

Voluntary regulation by industry should be driven by combination of initiatives by the trade organization or the designers' association for design protection with complementary measures by the government to develop the infrastructure for public support. One

example is the use of an "industry certification mark" which is issued to designs registered with an official organization backed by industry. The organization maintains a database system that stores designs created by individual enterprises and are shared by members. Also, the use of a "production area mark" for local industries will help establish the geographic identity of a product officially recognized by the industry, as well as protection of intellectual property. These certification programs should be supported by government, which can advertise the programs and their benefits widely to the public.

It is important to implement the program as an extension of the industry's activities. The industry should not expect the government's generous support such as the establishment of a new promotion organization to provide financial and other assistance. The program should be positioned as the industry's initiative to advertise itself and products it provides to the market. Also, experience gained in implementation of the program should be communicated to the government as feedback for development of the legal system to support the program. This way, the program can be effectively linked to the legal infrastructure to keep abreast of reality in the market and the legal environment.

The government will support the industry in promoting public recognition of its activities and provide an arbitration function for disputes related to copying. The government's role should be limited to support for the trade organization, which needs to be self-propelled and keep momentum by itself and its members without public support. If the government is deeply involved in the program before the legal system is established, there will be a risk of having two partially overlapped and conflicting systems.

To avoid the situation, while the arbitration and surveillance function will be transferred to the future legal system, preparation should be limited to provision of information (e.g., which trade organization uses the "good quality" mark; what should be done to minimize the conflict between the endorsement program and the legal infrastructure that is under development; and which portions of success stories in other countries can be used) and an information system to allow quick disclosure of any disputes.

3 Organizations Relating to Design Promotion, its Role, Function, and Performance

Table III-3-1 (1) Organizations in the Design Promotion Field in Indonesia

Name	National Agency for Export Development: NAFED Bandan Pengembangan Ekspor Nasional: BPEN
History	<p>NAFED was established in 1971 as a special service agency of MOIT to aim promotion of exporting non-oil and gas product.</p> <p>The Agency's primary role is to assist Indonesian businessman seeking access to new International markets</p>
Organizational outline	Office in Jakarta employs more than 300 staffs. There were Indonesian Trade Promotion Centers in 13 cities, however, they has been closed since last year.
Activities	<p>Service of NAFED</p> <ol style="list-style-type: none"> 1) Service for overseas buyer <ol style="list-style-type: none"> a) Information on product availability - by sector and by company b) Advice and information on current gov't trade regulations and procedures c) Arranging trade visits to meet potential exporters d) Regular information about trade exhibitions and selling mission with invitations to attend such events e) Assistance and liaison with manufactures dealing to business negotiations <p>Agency can assist overseas buyers, intending to travel to Indonesia, by preparing the accommodation and business program. Agency receives 2,500 inquires form overseas buyers, and provide these information to appropriate local exporters.</p> 2) Service for local exporter <ol style="list-style-type: none"> a) Up-to-date information on trade trends and its prospects on the target markets b) Realistic assessments of regulatory factors and other relevant operating environments in the market c) Information on overseas trade procedures, restrictions and incentives d) Counseling on potential prospects and assistance in preparing meetings with overseas buyers e) Providing helps in arranging participation in international trade fairs <p>NAFED held Indonesia Resource Fair in Jakarta, invites both exporters and buyers to make business opportunity.</p>

Table III-3-1 (2) Organizations In the Design Promotion Field In Indonesia

Name	Ministry of Cooperatives, Medium & Small Enterprises: MOC & SME Departemen Koperasi, Pengusaha Kecil dan Menengah
History	In 1993, Ministry of Cooperative became Ministry of Cooperative and Small Enterprises by Presidential degree, to take additional responsibility to develop small enterprises.
Organizational outline	Organization: Secretariat, Inspectorate, R&D, Cooperatives, SMEs, Finance 27 KANWIL and 300 KANDEP Staff: 16,545 (1997)
Policy	<ol style="list-style-type: none"> 1) Increase access to market and strengthen market share 2) Increase capability and access to capital sources and strengthen capital structure 3) Strengthen organizational and managerial capability 4) Strengthen access to technology 5) Strengthen business networking
Activities	<p>SMEs program during the Sixth Five Year Development Plan</p> <ol style="list-style-type: none"> 1) Legislation <ol style="list-style-type: none"> a) Set up Basic Law for development Small enterprises b) Producing several Ministries Degree concerning SMEs 2) Socialization and Culturalization <p>Socialization and Culturalization of Enterprenership through newspaper, magazine, radio, TV, etc.</p> 3) Human Resources Development <ol style="list-style-type: none"> a) Through basic training, management, technical, OJT and comparative study b) Counseling through establishment of Business Consultative Clinic and empowerment of field consultative worker 4) Institutional Setting Up <ol style="list-style-type: none"> a) Setting up Business Consultative Clinic b) Setting up Business Incubator Technology c) Empowerment of small enterprise association such as HIPLI, Bakornas PKMI d) Setting up National Design Center 5) Capital Structure Empowerment <ol style="list-style-type: none"> a) Provide seed capital for Incubator tenant b) Provide credit scheme for SMEs c) Provide venture capital schemes d) Utilization of 1 - 3% state own enterprise profit e) Private sector participation

Table III-3-1 (3) Organizations in the Design Promotion Field in Indonesia

Name	<p>Jakarta Design Center: JDC Pusat Design Nasional: PDN</p>
History	<p>JDC is founded in 1992 as private company of which objectives are to conduct brand marketing for interior and architecture area, to lease space for shops and exhibition of mock-up models, and to provide design related information. It has been funded by JAIC for 24% of capital and rest comes from real estate industry</p>
Organization facilities	<p>Staff: Approximately 100 employees with 40 full time Total area: 24,000 sq. meter (70% for rental space, 30% for public space) 1st to 5th floor: show rooms 6th floor: seminar and conference space Rooftop: 2 tennis courts</p>
Activities	<p>The main business: Rental space for tenants Seminar Design competition Business show</p> <p>New line of business: JDC tries to take advantage on potential resources in craft and other cultural design areas. It aims to promote direct business transaction in the Center. It plans to set a floor for this purpose on constant base.</p> <p>Targeted product and transaction is in cultural and ethnic design area, and it has already started sending personnel to variety of regions for recruitment of potential manufacturers to be invited, as tenants</p>

Table III-3-1 (4) Organizations in the Design Promotion Field In Indonesia

Name	<p>Indonesian Society of Interior Designers Himpunan Dasaner Interior Indonesia: HDII</p>
History	<p>HDII was establish on January 22, 1983, as a sole association of interior designers in Indonesia. It became a formal member of International Federation of Interior Designers/ Architects in 11985</p>
Branch/ Budget	<p>Branch offices in Bandung, Jog Jakarta, Ujung Pandang, Surkarta and Denpasar, and holds a general meeting once or twice a year. HDII has five full-time staff at Jakarta Headquarters and a few staff in each branch.</p> <p>HDII is basically managed by revenues form membership fees and also has financial assistance form members as well as companies for a particular activity or project. In does not receive government subsidy or any privileges. The headquarter and each branch are financialy independent and separately accountable.</p>
Membership	<p>The total member is 401 by mid of 1998 with following categories</p> <ol style="list-style-type: none"> 1) Professional Members: 126 2) Associate Members: 155 3) Affiliate Members; 120
Activities	<p>The main activities are communication among designers, providing information to link designers to companies and education for public</p> <ol style="list-style-type: none"> 1) News letters, Publication 2) Participating in international conference 3) Give a free of charge design advice to the public whenever there is related exhibition 4) Lobby for policies benefiting the practice of interior design

Table III-3-1 (5) Organizations in the Design Promotion Field in Indonesia

Name	<p>Federation of Industry and Craft Cooperative in Indonesia: FICCI Induk Koperasi Industri dan Kerajinan Rakyat: INKOPINKRA</p>
History	<p>Established in 1997 (started activities in 1998). Purpose: Promote mutual cooperation among industrial craft cooperatives.</p>
Organizational outline	<p>Membership: Open to all industrial craft cooperatives (of which there are about 600). Members: 30 (representing about 1,500 owners).</p> <p>Funding: Member coops pay Rp 1 m. A margin on income-generating activities (nos. 1-3 below). No support received from government.</p> <p>Office: Full-time staff: 4.</p>
Activities	<p>Target product areas: 7 (wood, metals [iron, aluminum], textiles and apparel, silver, leather, handicrafts (of plant materials, ceramics, etc.), foodstuffs, sweets).</p> <p>Activities: 1) Joint purchasing of raw materials 2) Development of marketing channels (department stores, exports) 3) Training (design, management, skill improvement)</p> <p>Achievements: Thus far, limited to joint purchasing and market development. The Federation is aware that there is need for training in design development especially for wood products (including products made from plant materials), leather, apparel and other products having export potential.</p> <p>Comment: As the Federation is new, it has only recently begun activities and it does not have many members as yet. It is expected that design-related activities will be begun in the near future and the Federation personnel are eager and action-oriented. It is likely that activities including those related to design will increase hereafter.</p>

Table III-3-1 (6) Organizations In the Design Promotion Field in Indonesia

Name	<p style="text-align: center;">Indonesia Graphic Designer Association Asosiasi Desainer Grafis Indonesia: ADGI</p>
History	<p>Established 1981. Purpose: Improvement of abilities of designers and promoting a higher evaluation among the public of the importance of graphic design. Background: This is the professional organization of graphic designers. Founded as Ikatan Perancang Grafis Indonesia (IPGI) in changed its name to the current one in 1993.</p>
Organizational outline	<p>Government office concerned: Ministry of Information / Departemen Penerangan Form of organization: Voluntary association of individuals. Members: 50 professional members, 120 associate members.</p>
Activities	<p>Activities: 1) 1981 through the mid-Eighties: annual exhibitions. Objective: promote graphic design and build general awareness; prizes and awards were given for outstanding work in stamp, paper currency, and package design in particular; served to publicize outstanding designers. 2) Nineties: International seminars and conferences were held, but not on a regular annual basis; a workshop, exhibition and competition were held jointly with the Japan Graphic Designers Association (JAGDA) in 1992.</p>

Table III-3-1 (7) Organizations in the Design Promotion Field in Indonesia

<p>Name</p>	<p>National Craft Council Dewan Kerajinan Nasional: DEKRANAS</p>
<p>History</p>	<p>Established March 1980. Purpose: <ol style="list-style-type: none"> 1) Preserve the cultural value of crafts 2) Protect and develop traditional crafts as cultural heritage 3) Raise the economic value of crafts (by improving quality) 4) Improve the livelihood of craft workers (increase income) </p>
<p>Organizational outline</p>	<p>Government office concerned: Ministries of Industry, and Education and Culture. Form of organization: Non-profit making, non-governmental. Member of the World Craft Council. Members: Vice President of the nation serves as chairman; governors of provinces, wives of mayors etc. are board members.</p>
<p>Activities</p>	<p>Activities and accomplishments During the past 5 years, activities have been related to <ol style="list-style-type: none"> 1) Human resources development (skills, creativity, etc.) 2) Fostering the entrepreneurial spirit 3) Developing sources of finance (study of a loan-guarantee scheme) 4) Increasing the number of joint undertakings 5) Presentations on protection and preservation of cultural assets Accomplishments include the holding Craft Week activities (every other year, most recently in Yogyakarta in March 1999). This multi-event occasion lasts 7-9 days and includes exhibitions (including trade fair set-ups), seminars, a general meeting, a competition, sales products, etc. There appears to be no other multi-aspect activity than Craft Week (i.e., that is directly linked to policy).</p>

Table III-3-1 (8) Organizations in the Design Promotion Field In Indonesia

Name	<p style="text-align: center;">Indonesian Design Development Foundation Yayasan Pengembangan Desain Indonesia: Yayasan Hartarto</p>
History	<p>Established in 1989.</p>
Organizational outline	<p>This foundation has as its chair the wife of Vice President Hartarto. Office: full-time, 3 persons, assisted by 12-13 volunteers.</p>
Activities	<p>Activities:</p> <p>At the outset activities were confined to the crafts field but recently have been expanded to include fashion design. The foundation itself engages in craft business activities, rather than be devoted solely to promotion of crafts. That is, it accepts orders for production. It does training and this too is on a commercial basis.</p> <p>Production and sale of craft items is done on the basis of contracts with two localities where about 30 craft workers make what is needed, namely (for the most part) wooden toys, decorations and furniture to fill orders from Australia and other sources. The organization does have the objective of working to improve product quality, but for the present study it has been classified as among the "Others" category as it is engaged in production using subcontractors that have relatively low levels of technical standards and do not attempt to exploit the potential of their materials for expression of Indonesian culture and ethnicity. Technology used is not high relative to the level of other wood craft work in Indonesia.</p> <p>Training activities carried out include finishing of wood (at a training school) and quilt and patchwork classes taught by a Japanese instructor.</p>

Table III-3-1 (9) Organizations in the Design Promotion Field in Indonesia

Name	Sekolah Menengah Kejuruan di Indonesia: SMK
History	Objective: training of technicians.
Organizational outline	<p>Government office concerned: Ministry of Information / Departmen Penerangan.</p> <p>Level: Secondary level; 3-year program for age 15-18 years; comparable to the SMU high school.</p> <p>Number of schools: Public 740 (capacity about 500,000) Private 3,200 (about one million)</p>
Activities	<p>Fields of Activity:</p> <ol style="list-style-type: none"> 1) Arts, crafts, stage arts 2) Agriculture 3) Technical (architecture, machinery, electricity, automotive) 4) Domestic science (nutrition, hospitality, sewing [clothing], beauty care) 5) Social welfare 6) Commerce, business <p>The curriculum (in the case of crafts)</p> <ol style="list-style-type: none"> 1) Basic (basic design, craftsmanship, numeracy) This is determined by the Ministry of education and national qualifying examinations are held. 2) Categories (wood, metal, textile, leather, ceramics) Selection is by students. The Ministry provides guidelines. Specific details are determined by the individual schools or a council of schools. <p>Dual system: Introduced in March 1999, this combines school training and actual work at a work site. Emphasis is on practical training. In the first year, all training is at the school; in the second year 70% of the time is spent at school training and 30% at a work site, and in the third year 20% of the time is in school and 80% is at a work site.</p> <p>Accomplishments: The Ministry has the opinion that the low level of instructor qualifications is limiting results. There are only a few schools teaching crafts (53).</p>

Table III-3-2 SME Policy of the Ministry of Industry and Trade

Executing agency	Direktorat Jenderal Industri Kecil & Dagang Kecil (responsible for almost all of the nation's SME policy)
Budget	<ul style="list-style-type: none"> • Ministerial level: Rp 5-6 billion p.a. of which the Direktorat receives Rp 500 million p.a. • Budget for provincial level promotion of SMEs: Rp 500 million p.a. for smaller provinces, Rp 1 billion for larger ones such as West Java. <p>National total, Rp 20-25 billion p.a.</p>
Priorities	<ul style="list-style-type: none"> • National priority: Decided by MOIT. In case of "metals" targets include farm implements, and equipment, medical equipment, metalcrafts, electronics (repair) and others. • Local priority: decided by each province.
Major policies	<p>PIKM: The most important SME policy at MOIT. Transferred from BIPIK that was in charge for 20 years starting in 1974. Since 1994, the following six policies have been carried out by PIKM.</p>
PIKM	<ol style="list-style-type: none"> 1) Training program (planning and implementation at the province level) <ul style="list-style-type: none"> • Entrepreneurship • Managerial skills • Technical skills (this is the most important) <p>A program will be 4-10 days in duration (effectively, about a week), with 20-30 participants. There are 14 different programs that are given for about 20,000 persons each year (gross total, 1995).</p> 2) Marketing activities <ul style="list-style-type: none"> • Exhibitions (national, provincial, district levels) <p>Implementation is by the National Craft Council</p> 3) Technical support <ul style="list-style-type: none"> • UPT (technical services) <p>The site is provided by the local government, the building by the central government, and the equipment cost is shared by the two. Overhead cost is borne by MOIT, operational costs by UPT. About 20-30% of the UPTS are self-supporting (many of them in Java).</p> <ul style="list-style-type: none"> • TPL • ISO 9000. 167 firms have already received certification (many not at full scale). • QCC. Taken up at 2,822 firms (1995) 4) Design Convention; Craft & Design Convention <p>Not carried out for the past three years.</p> 5) Financial support <p>Loans (for export-oriented companies). Emergency measures were taken in 1999. It is planned to lend Rp 22.3 billion to about 500 companies in 1999-2000. Loans will mature in 2 years.</p> 6) Vocational training <p>On the job training for workers.</p>

4 Need and Opportunity for Design-based Regional Development in Indonesia

4.1 Definition of Design-based Regional Development and Implementation Strategy

Design-based regional development

The term refers to acts of developing a region or area comprehensively from design perspective, in its whole aspects ranging from local industries (products), commerce, tourism, to cultural activities, education, and urban development (planning).

Essentially, this approach focuses on the redesigning of the regional development process through the effective use of local resources and closer cooperation among organizations concerned with the region. For instance, a design-oriented approach to promote various producing centers in Japan can serve as a model for fostering of local industries in the country. The approach essentially focuses on development of a leading company (or organization) that can act as a driving force for industrial vitalization in a specific area.

Regional development and design

In promoting the design-based regional development process, it critical to understand local characteristics of a target region and reflect them in the entire process. There is no universal approach applicable to any regions. Rather, the design-oriented approach must be customized according to local conditions peculiar to the region it works with.

Traditionally, design has been primarily used by industry. Today, its scope of application is expanding into a whole range of economic and social activities, not only industrial domains such as product development, corporate strategy and advertisement, but the living environment including public service and works. Design is increasingly used where it can contribute to the betterment of daily life of people. In fact, demand rises in all aspects related to improvement of quality of life, in addition to a power tool for sophistication of industry.

On the other hand, increased globalization of manufacturing bases and markets prompt regions within a country to establish their local identity if they are to survive and prosper while maintaining a traditional value of local community. The situation is happening in most countries, regardless of their conditions or stage of economic development, and Indonesia is no exception to this. In other words, the region is expected to have its unique trait, and moreover, it should advertise its trait as an important asset appealing to the

outside world. This necessitates the region to search for and rediscover its strengths, weaknesses, challenges and opportunities.

The expanding scope of application for design can meet increasing demand for the establishment of design identity by helping the region to visualize its self-image and devise the future vision for regional development plans and programs.

Design's roles

- General roles
 - To visualize an ideal/vision
 - To depict the ways to implement the vision (proposition of strategies and tactics)
 - To propose a solution for public demand (including balancing of conflicting elements and conditioning of the environment)
 - To propose a new value (economic, social or cultural)
- Roles to address environmental changes in the country (producing areas and markets)
 - To visually represent the region's uniqueness (local identity)
 - To improve international competitiveness on strength of local identity
 - To address changing market demand reflecting diversification of lifestyles and personalization, as well as emerging social issues

4.2 Design-based Regional Development In Japan

In Japan, various types of regional development projects using design process as a driving force have been successfully carried out by taking into account of local conditions (see Table III-4-1). Primary goals of these projects are the fostering of local industries, promotion of local tourism, the development of urban landscape, the effective use of traditional assets, and environmental betterment. Note that each of the projects classified under the same category is highly customized to each region, being different in nature and other aspects.

Table III-4-1 Classification of Design-based Regional Development Projects In Japan

Category	General description	Examples
Local industry-focused	Use of design focusing on fostering of local industries and products	<ul style="list-style-type: none"> • Asahikawa City (wood furniture) • Sanjo City (tools) • Takaoka City (copperware) • Takefu City (knife) • Sabae City (frame of spectacles) • Suwa City (precision devices) • Kita Kyushu City (conversion from material supply to assembly)
Local industry + tourism	Comprehensive development of local industry and tourism	<ul style="list-style-type: none"> • Imari City (porcelain) • Mashiko City (ceramics)
Urban landscape	Application of design to city planning, public signs and street furniture	<ul style="list-style-type: none"> • Fukuoka City • Yokohama City • Tokyo (coastal urban center)
Traditional city	Integrated promotion of traditional assets (historical sites, traditional arts, craft, etc.) and tourism	<ul style="list-style-type: none"> • Kyoto City • Kanazawa City • Aizu Wakamatsu City • Matsumoto City
Environmental betterment	Harmonization of public facilities and structures with the surrounding environment and local residents	<ul style="list-style-type: none"> • Shinagawa-ward/Setagaya-ward (public complex) • Kyoto (Hiyoshi dam) • Sapporo Metropolitan Area (development of large parks)

4.3 Opportunities for Design-based Regional Development In Indonesia

Current state

While Japan and some other Asian countries have been increasingly adopting the design-oriented approach to their regional development, Indonesia has still to use design as such driver in any of the subsectors under the present study, including craft industries.

UPT, which provide technical support for SENTRA, a group of local industries, is no exception to this. For instance, UPT recognizes the design-related issues in Garut (producing leather craft products) and the need for improvement, but it is unable to undertake any promotional activities due to a budget constraint.

Similarly, the Ministry of Cooperatives, Small and Medium Enterprises fails to relate its design promotion efforts to approximately 600 cooperatives in the craft industry.

The same situation is observed in INKOPINKRA and DEKRANAS, national organizations of craft cooperatives.

Importance of design-based regional development for the country

The design-based regional development process is a comprehensive approach to regional development from design perspective. Using design as a powerful tool for conceptualization and representation of ideas, the region can rediscover its uniqueness (local characteristics) and establish its identity centered on the rediscovered value.

As economies and markets globalize at an accelerated rate, Indonesia and its industry are expected to fully leverage their own traits and assets (local characteristics as the whole or part of the country) in economic activities. The design-oriented approach is considered as one of the most important tools for regional development that helps meet the goal of establishing local identity.

In Indonesia, diverse craft products can be a good starting point for the design-oriented regional development process, for craft represents production activities that take root in local tradition and culture and are closely related to daily life of the local people. It is also created through interactions among raw materials, design and locality. In this sense, craft embodies the basic concept of design-based regional development, i.e., to rediscover the local identity through the use of design.

At the same time, craft products are considered as the country's strategic export item among other industrial products that are made in Indonesia and exported to the world market. In particular, industrialized countries, where the lifestyles of peoples increasingly becoming diverse and new social systems are being built up toward the next millennium, opt to demand customized products in place of mass produced ones. Diverse craft products made in Indonesia will be able to evolve into competitive products in the new century, so far as they satisfy quality and other requirements.

Necessary Viewpoints

Under these circumstances, the design-based regional development process using craft products should be planned and implemented on the basis of the following viewpoints.

(1) Need for induced promotion using external force

Generally, local-based, small craft manufacturers do not show interest in design until its practical (economic) value is demonstrated. They do not likely participate in the design/product development process until a specific design is implemented in a product and its value is proved as the product is sold on market. Clearly, design promotion in the craft industry needs to be driven by demonstration of an actual design development process and its results in a visible form.

On the basis of the result of the survey of selected craft manufacturers, most of small

enterprises in the industry (or home industries) will likely be the late adopter of design.

So far as local design capabilities are fairly limited at present, the focus should be put on the use of outside designers who will serve as facilitators in the design promotion process.

(2) Short-run need for government-led promotion

The effective use of design in the regional development process is clearly seen in comparison of two cities in Japan. Morioka City, Iwate pref. and Takaoka City, Toyama pref. were considered as metal craft producing centers in around 1960, rivaling each other in terms of the levels of design capability and production technology. However, after 1975, a clear gap developed between the two cities, which apparently came from the different levels of design awareness, and in particular, Takaoka showed committed efforts to development of the metal craft industry and produced favorably results. Clearly, the aggressive use of design for promotion of local industries became a winning factor for the competition between the two cities which previously developed side by side.

The potential situation seems to exist in Indonesia under present conditions and the design-oriented approach needs to be introduced as early as possible by using the government leadership in the short run to create momentum for the craft industry that is slow in taking initiative. Naturally, the government-led promotion efforts should be replaced with private initiative in the long run.

Design Makes the Difference

(Comparable Case Study of Two Cities in Promotion of Craft Industry)

This is a show-window case in the Japanese craft industry, where different approaches by different local governments determined growth of craft industries that operated in the two areas.

Between the 1960s and the first oil crisis (1973), Takaoka city in Toyama prefecture and Morioka and Mizusawa cities in Iwate prefecture prospered as metal craft producing centers in Japan. As the former boasted concentration of copperware manufacturers and the latter "Nanbu" ironware, they saw each other as a major rival in vying for the primary craft center in the country, although they served different markets (manufacturers in Takaoka made cooper candles and stands for exports, while those in Morioka supplied iron kettles and similar products to the domestic market).

Meanwhile, two cities enjoyed the benefits of various programs to foster local, small industries, as led by the Ministry of International Trade and Industry. The programs were started in the mid-1960s and produced significant results in around 1970, when local industries in the two cities recorded significant revenue growth. At the same time, they lost "hand skills" that were inherited over generations due to the rapid rate of mechanization.

In the late 1970s, Takaoka city, suffering from stagnation caused by the oil crisis, started to reinvigorate its copper craft industry under the assistance of the prefectural government and launched aggressive programs to stimulate growth. The programs focused on three strategic actions: 1) development of new craft products through the new design movement using outside craft designers who are invited from Tokyo and other areas; 2) attraction of metal-related factories including aluminum to raise the level of industrial concentration and to foster supporting industries for the metal craft production center; and 3) regeneration of technological resources (maintenance and enhancement of traditional production technology and restoration of lost skills and techniques). Among them, action 1) included activities such as "craft design workshops" and "design consultation service," also actively supported by the government.

In contrast, the Morioka/Mizusawa area was slow in undertaking the much-needed efforts partly because the iron craft industry received a relatively light impact from the oil crisis. As a result, Morioka was lagged behind Takaoka in terms of design capability, technology and industrial concentration. As it failed to use external designers and information sources, critical production techniques were not restored and it was demoted to the status of an obsolete production center which only receives spotlight temporarily due to the whim of the time but is incapable of creating new designs that meet the changing needs.

The craft industry in Takaoka established its leadership position as it started to host an annual design competition, "Takaoka Craft Design Competition," which has been continued to this date. The Morioka/Mizusawa area was no longer its rival in any respect. Takakoka is now thriving as a major craft producing center that supplies copper crafts (flower vases and stationery) as well as cast products such as statuettes.

Proposed strategic direction of design-based regional development in Indonesia

Based on the analysis of the current conditions and the case study, strategic direction of the design-based regional development process is proposed for selected areas.

Four areas were selected from craft producing centers studied during the second and third field surveys, namely Cirebon, Bali, Bandung and Yogyakarta. Cirebon was selected as the production center of rattan furniture and craft products, and the other three areas the craft production centers (see Table III-4-2).

Each area was analyzed to identify its unique characteristics, and a desirable strategic direction of design promotion activities was developed, together with the development of the vision and possible programs. It is assumed that craft products will be positioned within the framework as major export items of the country (including sales to foreign tourists).

(Note: In the column describing local characteristics, ○ denotes those of positive nature, and ● those of negative nature.)

Table III-4-2 Proposed Strategic Direction of Design-based Regional Development in Indonesia

Area	Local characteristics	Proposed direction of promotion	Vision and possible programs
Cirebon	<ul style="list-style-type: none"> ○ Concentration of rattan production and distribution facilities (including to maintain and secure specific production levels) ○ Concentration of craft manufacturers (batik and stained glass) ● Poor recognition (international) (including weak linkage with market) ● Lack of tourist attraction ● Lack of leadership in the promotion body 	<ul style="list-style-type: none"> • Rattan producing center 	<p>Vision</p> <ul style="list-style-type: none"> • To establish the image linkage between rattan and Cirebon • To launch focused campaign to raise the level of public recognition <p>Possible programs</p> <ul style="list-style-type: none"> • Establishment of "Rattan Museum" (collection of products and information) • To hold "International Rattan Competition" (raise the general image of rattan)
Bali	<ul style="list-style-type: none"> ○ Concentration of craft resources (wood, bamboo, ikat, stone, etc.) ○ Rich tourist attractions (resort areas, craft, arts) ○ International recognition and good image ○ Commitment by the local government to design promotion ○ Contribution by "Bali Trade Center" ● Large area (difficult to carry out focused promotion) ● Large variation in quality level of craft products 	<ul style="list-style-type: none"> • Tourism/craft combination • Focusing on "traditional craft" and "souvenir" • Should be area-focused (Ubud, Gianyar, Denpasar, Kuta) 	<p>Vision</p> <ul style="list-style-type: none"> • To leverage the internationally established images of "ocean resort" and "craft" <p>Possible programs</p> <ul style="list-style-type: none"> • To add infrastructure as the craft production center (to raise public awareness) • Sophistication of "traditional craft" and "souvenir" products (structuring of design and technology)
Bandung	<ul style="list-style-type: none"> ○ Concentration of craft resources (ceramics, wood, leather - shoes) (wood and mendong in nearby Tasikmalaya) ○ Broad-based design awareness (high educational standards, fashion-oriented city culture led by young people) ○ Concentration of institutions of higher education ○ The leading design education and research institute (ITB) ○ Concentration of specialized industry (jeans retailing) ○ Concentration of designers (including craft) ● Lack of international recognition ● Large area (difficult to carry out focused promotion) ● Large variation in quality level of craft products 	<ul style="list-style-type: none"> • "Craft design R&D base" • Focusing on "modern craft" • Should be area-focused (northern area) 	<p>Vision</p> <ul style="list-style-type: none"> • Effective use of the craft design education and research institute <ul style="list-style-type: none"> → To address issues related to evolution to "modern craft" <p>Possible programs</p> <ul style="list-style-type: none"> • Establishment of craft design center (ITB) <ul style="list-style-type: none"> → R&D and training institute led by ITB graduates → Provision of basic data through related research → Standardization through classification of materials & technologies used for crafts → Research on market-in craft design → Development of merchandizing methods using combination of different materials • Sophistication and modernization of the ceramic industry through alliances with "Ceramic Technology Center" and "Producing Center"
Yogyakarta	<ul style="list-style-type: none"> ○ Concentration of craft resources (wood, silver, batik, leather) ○ Historical heritage and tradition ○ Tourist attractions (temples and pagodas) ● Lack of international recognition (compared to tourism) ● Large area (difficult to carry out focused promotion) ● Large variation in quality level of craft products 	<ul style="list-style-type: none"> • Tourism/craft combination • Focusing on "traditional craft", "modern craft" and "new materials" • Should be limited to a selected area 	<p>Vision</p> <ul style="list-style-type: none"> • To promote public recognition of Indonesian craft by using drawing power of well-known tourist attractions • Deployment of "Indonesian craft in the 21st century" <p>Possible programs</p> <ul style="list-style-type: none"> • Establishment of "Craft Village" (concentration of resources from nationwide) • Craft Design Competition (spawning of ideas) • Development of new materials for the 21st century craft

4.4 Preliminary Proposal for Design-based Regional Development In Indonesia

- Yogyakarta – Craft-focused approach -

The design-based regional development process can only be adopted widely in the country by successfully implementing pilot products in selected areas such as the above ones.

Generally, the area for the pilot project should be selected in overall consideration of relevant factors including the level of enthusiasm toward design promotion within a candidate local government, existence of a cooperative or other organization representing the industry, the formation level of the producing center, and technology levels.

The short list selected from the above four candidate areas consists of Cirebon and Yogyakarta, which seem to be suitable for the pilot project that is contemplated here. The strategic direction for Cirebon is considered to be relatively clear, and it is relatively easy to measure the effect of promotion programs as previous programs have not produced significant results. For Yogyakarta, promotion programs can cover a relatively large framework and seem to timely address the future needs. For these reasons, the two areas appear to be most suitable for the pilot project.

On the other hand, Bali has already established its image that is consistent with the strategic direction identified, so that it does not require a special promotion program. Finally, Bundung is characterized as the R&D base rather than product development, which will take a longer period to produce the result of the design-based regional development process. Thus, the two areas were dropped in the selection process.

In the following section, the design-based regional development programs targeting the craft industry in Yogyakarta are discussed in more detail.

(1) Local characteristics of the Yogyakarta area

- Concentration of craft resources (wood, silver, batik, leather)
- Historical heritage and tradition
- Tourist attractions (temples and pagodas)
- Lack of international recognition in craft (compared to tourism)
- Large area (difficult to carry out focused promotion)
- Large variation in quality level of craft products

The Yogyakarta area produces a variety of craft products, including silver, batik, leather, ceramics and wood. Also, stained glasses and bags using plant-derived materials are produced. Among them, design and technology levels of silver (ornaments and tableware) and batik (traditional color and pattern) products are considered to be high as "traditional craft" and "souvenir" categories.

On the other hand, leather craft products, despite the reputation as the major producing center, are mostly made by subcontractors to take advantage of low wage and are classified into the "others" category, except for traditional wayang dolls. Thus, it is arguable if they can be defined as craft products in the sense assumed under this study.

As for ceramics, several manufacturers made "modern craft" products. Nevertheless, they must be improved significantly for export purposes and should hopefully be considered again in the near future.

The Yogyakarta area is an ancient city endowed with historical sites such as the Prambanan temple and the Borobudur pagoda. It is also close to a renowned historic city, Solo. The area attracts a large number of tourists from Japan, Australia and other countries and is considered to be one of the major tourist attractions in the country, beside Bali.

Compared to the international reputation for tourism, rich craft resources available in the area are much less known.

Craft manufacturers in the area are widely scattered, rather than locally concentrated for a particular product or category. It should be noted that craft shops using the same material are not necessarily located within a small area. Coupled with largeness of the area's geographic extent, the lack of local concentration can serve as a negative factor for promotion activities in terms of efficiency.

Craft products made in the area vary in the levels of technology (workmanship) and design. As pointed out earlier, silver and batik products generally maintain high levels, while other craft products include those of poor quality.

As for design resources, the ISI offers higher design education in the area, although designer population does not seem to be very large. The level of design education at ISI is rated second to that of Bandung Institute of Technology.

(2) Proposed direction of promotion and vision

Direction of promotion

- Tourism/craft combination
- Focusing on "traditional craft," "modern craft" and "new materials"
- Should be limited to a selected area

Vision

- To promote public recognition of Indonesian craft by using drawing power of well-known tourist attractions
- To deploy "Indonesian craft in the 21st century"

Based on the local characteristics of the Yogyakarta area, the focal point of the design-based regional development activities should be placed on the effective use of the existing tourist attractions (drawing power) to promote further growth of tourism, while fostering the craft industry at a regional and national level.

As for local craft products, silver and batik products that are at high levels of workmanship and design can be further upgraded to high-grade "traditional craft" and "souvenir" products through design improvement, while efforts should be made to create "modern craft" products that are currently made by a handful of shops. Other craft products should be upgraded to the level achieved by silver and batik in order to supply traditional and modern crafts that become local brands representing the Yogyakarta area.

At the same time, the area can be used as a show window for the Indonesian craft industry by demonstrating diversity and value of craft products from all over the country. This will serve as a springboard for nationwide efforts to foster the industry, which have not been extensively implemented.

Promotion of the craft industry as a whole should be directed to enable the industry to fully utilize local resources and design products that address the market needs in the next century. Given rich craft resources (including existing and potential raw materials and production techniques, e.g., weaving, dyeing and carving) available in the country, the craft industry can provide much for the international community which will increasingly become and environment-sensitive and emphasize the recycling of reusable resources. As industrialized countries increasingly weigh the global environment and consider environmental issues in product design, contribution to the recycling society is becoming the central theme of design in a variety of fields. Under these circumstances, if

Indonesia is to develop craft products into a major export item, its rich craft resources will turn into highly strategic ones.

As pointed out earlier, the largeness of the Yogyakarta area can become an obstacle to efficient promotion activities. In this case, the area should be divided into several areas centered on major producing centers and tourist attractions.

(3) Planning framework and possible programs

<p>Planning framework</p> <ul style="list-style-type: none">● Promotion of the craft industry in the Yogyakarta area● Promotion of the craft industry in the country● Development of Indonesian craft for the 21st century (preparation) <p>Possible programs</p> <ul style="list-style-type: none">• Establishment of "Craft Village" (concentration of resources from nationwide)• Craft Design Competition (spawning of ideas)• Development of new materials for the 21st century craft
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Based on the strategic direction and approach defined above, the planning framework for promotion programs consists of the following key elements:

- Promotion of the craft industry in the Yogyakarta area
- Promotion of the craft industry in the country
- Development of Indonesian craft for the 21st century (preparation)

1) Promotion of the local craft industry

The vision for the application of design in the craft industry is summarized in Table III-4-3. This is applicable to the craft industry in the Yogyakarta area. As discussed earlier, craft resources in the area vary greatly in category and level, regional development using design needs to be promoted through programs that are tailored to the need of each category and level.

The development of the infrastructure for craft-based regional development should be started from the establishment of a core entity that is not clearly defined at present. In addition, the following activities are required as essential elements of the

infrastructure:

- Securing of outside craft designers (including foreign designers) through "Designers in Residence (DIR)" program
- Establishment of the framework for craft-based regional development through collaboration with ISI and designers of its graduates

Table III-4-3 Vision for Application of Design to Craft

Category	Vision for use of design
Traditional craft	<ul style="list-style-type: none"> ● Sophistication as "traditional craft" <ul style="list-style-type: none"> • Improved of quality • Structuring of traditional craft products • Structuring of traditional production techniques • Structuring, documentation and implementation of inheritance and protection methods for technology • Training of basic shaping techniques
Modern craft	<ul style="list-style-type: none"> ● Evolution of craft to market-in products <ul style="list-style-type: none"> • Improvement of product planning ability (to reflect market needs, lifestyles, etc.) (To create products that meet the needs of the times, e.g., the recycling society) • Improvement of quality • Consideration of raw materials (including combination and synthesis) • Appropriate representation of local characteristics (as modern craft) • Training of basic shaping techniques • Learning of volume production technology (exports)
Souvenir	<ul style="list-style-type: none"> ● Sophistication as "souvenir" <ul style="list-style-type: none"> • Improvement of quality • Appropriate representation of local characteristics (as souvenir) • Training of basic shaping techniques • Learning of volume production technology (for domestic market and exports)
Other	<ul style="list-style-type: none"> ● Conversion to "modern craft" <ul style="list-style-type: none"> • Establishment of <i>raison-de-etre</i> value as craft (ethnicity, tradition, etc.)

2) Promotion of the national craft industry

Promotion of Indonesian craft requires the following programs:

a) Establishment of "National Craft Village"

This will serve as a core organization to collect and store craft resources (products, documents and materials) from all over the country. This type of organization is desperately needed for the purpose, but there is none at present. National Craft Village will essentially have the following functions: i) to exhibit, introduce, provide and sell craft resources to tourists; ii) to disseminate technology and provide product

samples for domestic craft shops; and iii) to conduct R&D and propose business plans.

In particular, the function in ii) is required to address the immediate problems facing Indonesian craft, e.g., possible loss of traditional production techniques, sharing and unification (standardization) of related technologies and techniques, and loss of old product samples.

b) Craft Design Competition

In particular, the competition is intended to help improve the indigenous design ability in the area of "modern craft." Also, it is expected to serve as a place to propose the vision and concept of craft in the 21st century. The expected result is to raise the value of craft resources in the international market.

3) Development of Indonesian craft in the 21st century (preparation)

Toward the development of the environment-centric and recycling society, this initiative will be planned and implemented under the leadership of the Craft Village mentioned above. (The new initiative in the ancient city has been extensively carried out by enterprises in Kyoto and other Japanese cities, which have proven to serve as a spawning ground for new visions and ideas.)

a) Development of the new century craft using a new material (plant)

Plant resources, previously not used as craft materials, will be analyzed and evaluated as their potential. In addition to wood, bamboo and rattan, various materials, such as banana including leaves and skin, mendong (rush-like plant) and sea grass, have been commercially used for craft products. This program will reinforce such efforts.

In the Yogyakarta area, a leather bag manufacturer is developing a product using palm leaf and other materials.

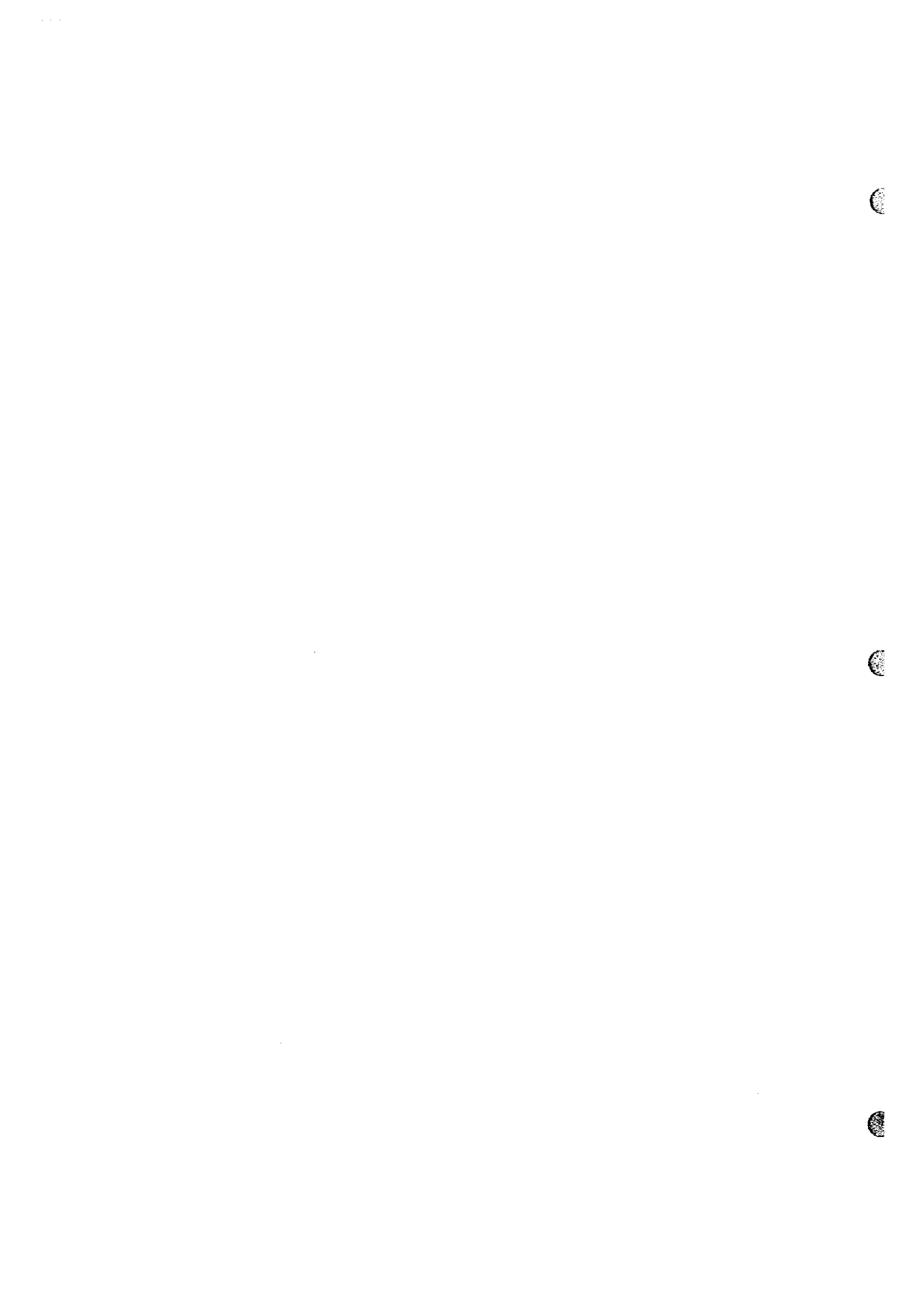
Craft's value is determined by the ability to establish a good relationship between "materials" and "design," and "workmanship" measured by the level of perfection. Thus, knowledge on a particular material and the ability to evaluate its quality constitute key factors.

Nevertheless, raw materials are often viewed as a dispensable and replaceable constituent of a product in Indonesia, as widely observed in other countries. Each raw material, however, has its own characteristics that make it suitable or unsuitable for a particular use or purpose. Design is an effective means to reconcile a material and a particular use. It is important to realize that design elicits the value of the raw material and paves the way for the development of the recycling society in the next



generation.





5 A Renewed Vision for Design Promotion in Indonesia

5.1 Sustainable Design and Ecological Design

The global environmental problems, as they become more and more serious and are considered as one of the most urgent needs to be addressed, prompt regions and countries around the world to take definite actions, regardless of economic and social conditions in each country. In particular, countries are expected to work together to evolve themselves to the recycling society.

In industrialized countries which are expected to become major consumers of Indonesian products, "nature-sensitive life" emerges as an important value of many people, both physically and mentally. Accordingly, the lifestyles of peoples increasingly becoming diverse and an increasing number of people are demanding customized products in place of mass produced ones.

Under these circumstances, if Indonesia is to modernize industry to compete in export markets, it must be approached from a new vision to meet the world trend, namely sustainable design (or ecological design).

Sustainable design¹ is a methodology to revert the conflicting relationship between economic development and environmental protection to the harmonious one so as to reduce environmental load and enable human race to survive and maintain prosperity on the earth. It usually refers to the act of designing a man-made object in such way to allow it to coexist with the nature and keep the balance between the present and the future (Uozumi, 1998).

¹ Under the increasing concern about the environmental problems and their serious impacts, there is the growing need for "recognition that the ongoing crisis strikes the human race living on the earth" (Yamanaka, 1997), in addition to the buzz word "environmental friendliness." To reflect the change in public recognition, the word "sustainable design" was added to its predecessors, "ecological design" and "environmental-friendly design." (Note: There is a subtle difference in meaning between sustainable design and ecological design. While the former contains some technical aspects, i.e., how the human race can survive by reducing their loads on the environment, the latter addresses social and cultural aspects, i.e., how our life will be defined in the entire environment.)

A key point is that "sustainable design" goes against evolution or development. In considering the incorporation of sustainable design into industrial activities, it is important to realize that "sustainable design does not mean reversion to the value in the primitive age. It represents a forward-looking methodology to guide the human race in a right direction by stimulating motivation and creativity toward evolution – traits inherent to the mankind – while going back the path of environmental destruction that we caused in the 20th century (Uozumi, 1998).

Thus, sustainable design entails overall reforms of the economic and social system and its desirable direction. Also, it requires significant investment in the form of technological research and development on materials and production. As a result, it goes beyond efforts of a single company or industry and is expected to involve the public sector which can contribute by developing the necessary infrastructure ("Design Policy toward the 21st Century," Sanwa Research Institute, March 1998).

It is important to realize that products made in Indonesia, whether sold in the domestic or foreign market, will need to be designed under the concept of sustainable design, e.g., they must envisage the entire life cycle of production, consumption and recycling.

Strategy for Indonesia

With globalization of economies and markets at an accelerated rate, Indonesia and its industry are expected to fully leverage their own traits and assets (local characteristics as the whole or part of the country) in economic activities. If Indonesian industry can establish its local identity by using diverse cultural and historical heritages in the country, it will help raise the country's status in the international community by addressing the important agenda in the next century, while strengthening international competitiveness as their products are widely accepted by consumers in many countries.

In Indonesia, diverse craft products can be a good starting point for making a steady move toward the establishment of industry's identity in the world market. Generally, craft represents production activities that take root in local tradition and culture and are closely related to daily life of the local people. It is also created through interactions among raw materials, design and locality. In this sense, craft embodies the basic concept of design-based regional development, i.e., to rediscover the local identity through the use of design.

Given rich craft resources (including existing and potential raw materials and production techniques, e.g., weaving, dyeing and carving) available in the country, Indonesia has much to contribute to the international community which will increasingly become and environment-sensitive and emphasize the recycling of reusable resources. If Indonesia is to develop craft products into a major export item, its rich craft resources can be considered to have a highly strategic value. They can evolve to highly competitive products if they meet quality and other requirements in the market place.

The strategic direction for Indonesia, therefore, is to empower the industry to design new products by using local resources and propose them to the market.

An example of the program to invigorate the craft industry

Development of the new century craft using a new material (plant)

Plant resources, previously not used as craft materials, should be studied to determine their potential for commercial use. In the country, various materials, such as banana including leaves and skin, mendong (rush-like plant) and sea grass, have been

commercially used for craft products. It is feasible to find new materials by stepping up previous efforts.

Craft's value is determined by the ability to establish a good relationship between "materials" and "design," and "workmanship" measured by the level of perfection. Thus, knowledge on a particular material and the ability to evaluate its quality constitute key factors.

Nevertheless, raw materials are often viewed as a dispensable and replaceable constituent of a product in Indonesia, as widely observed in other countries. Each raw material has its own characteristics that make it suitable or unsuitable for a particular use or purpose. Design is the means to properly reconcile a material and a particular use. It is important to realize that design elicits the value of the raw material and paves the way for the development of the recycling society in the next generation.

Note

UNEP has started a program related to sustainable product development in developing countries, under the initiative of the Netherlands government, which seems to provide useful information for the proposed initiative in Indonesia.

5.2 Preservation and Development of Cultural and Historical Heritages In Indonesia and Their Diversity

Diverse cultural and historical heritages

Indonesia has highly diverse cultural and historical heritages that were developed through the country's long history and on the basis of its unique traits in terms of multi-culture, multi-religious, diverse nature, and colonial experience.

For instance, the country is endowed with historical sites and the natural environment that have been registered with UNESCO as World Heritages². It also retains diverse cultural assets including traditional arts, crafts, and performing arts (music, dance and theater). Unfortunately, however, there have been no systematic research, study, analysis and inventory taking of these resources, and this situation prohibits their effective use.

Indonesia is the world largest archipelago nation (including around 300 inhabited islands) extending 5,100km between the Pacific and the Indian Sea. The word "Indonesia" is made from "India" and "nesia" (a plural form of a Greek word meaning an

² Indonesia has registered five world heritages, including the Borobudur pagoda, the Prambanan temple and Komodo Island.

island) to mean "Indian islands." The country's people consists of more than 300 races, including aborigines and those who came from Southeast and South Asia as well as the Middle East. While the national language is spoken by approximately 70% of total population, there are reportedly ten regional languages and nearly 250 local languages in use. Nearly 90% of population are Moslem, followed by Christian, Hindu and Buddhist (the order varies with regions). Notably, Islam has different characteristics among various regions to reflect its adoption process through which it merged with indigenous belief and custom.

Thus, Indonesia accommodates diverse values, customs and lifestyles that are based on the indigenous ones and have incorporated various foreign cultures and civilizations over long years.

Generally, identity of any country or area (also called as tradition or culture) is clearly depicted in tools and articles that are closely associated with belief, ritual, religious ceremony and daily life of local people.

What is the thing that is firmly founded upon the tradition and culture that Indonesia can boast to the world, then?

- **Ikat (resisted yarn weaving)**

Traditional weaving dyeing techniques. Ikat is an Indonesian word meaning "tying." Indonesia is renown as the world famous center of resisted yarn weaving. To form splashed patterns, yarns are tied (ikat) and dyed while leaving the knots blank. The dyed yarns are woven into fabrics. As the production process has been modernized, industrial production systems have been gradually replacing manual skills and, therefore, workmanship, and traditional materials and designs developed through collaboration between people and nature are disappearing. Nevertheless, ikat has diverse patterns, motifs, colors and coloration that vary with regions and races, representing a delicate and breathtaking mixture of indigenous cultures and those from India, Africa and Europe. Together with batik, it is a valueless heritage and source of information about the country and its culture.

- **Batik (resist pattern dyeing)**

Batik is another world famous textile product originated in Indonesia. It was used to decorate traditional garment such as waistcloth. Today, it is also used to make interior cloth such as tablecloth as well as design (pattern) suiting. Like ikat, batik has different variations in pattern and color according to various regions. Major motifs represent animals, plants and geometric patterns, and many designs incorporate influences from

China, India, Europe and other areas.

In addition, there are luxurious fabrics such as "songket" and "tapis." If these world-class craft products are documented systematically to classify and record raw materials (fibers and dyes), production processes, patterns, motifs, colors and coloration, they form a vast database that can be used by a variety of other industries.

- **Sculpture**

Just like textile products above, Indonesian sculpture also has a great regional variety in terms of form and pattern that reflects ethnic culture and tradition. As seen in the islands in the South Pacific, Indonesia must have been full of myths and legends. They were engraved into a variety of figures symbolizing gods, ancestors and spirits, which were related to some form of religious belief. While engraving skills have been inherited over generations with particular traditional forms, there are many works that have gone beyond tradition and have become the art object. For instance, farmers in Bali engrave motifs into hard wood during the rest period, which are presented to the Hindu gods. Devotion to the act of engraving as expression of their belief produces splendid work. Similarly, wood carving by a Papuan-origin people in West Irian Jaya is full of energy that overwhelms accuracy or aesthetic value. Characteristically, engraving here is made into columns that are erected in the villages and are worshipped by people as "mausoleum." This represents a religious act to place an ancestor's spirit upon a tree spirit. In fact, numerous forms of sculptures were made from wood, but propagation of Christianity made them unworshipped and forgotten, leaving many traditional techniques and talent to wither. Currently, in reality, major sculptural products are souvenirs that attempt to meet taste of tourists.

- **Others**

Indonesia is also full of traditional assets in the areas of "housing" and "clothing" which are maintained by people in their daily life. In particular, traditional houses represent a wealth of unique ideas that are applicable to modern architecture and interior design. Also, there are numerous crafts, such as silver work, dolls fed by wayang, bamboo work and straw work, that can become world heritages.

Need for two-pronged approaches: "preservation" and "commercialization"

Cultural and historical assets in Indonesia must be viewed from two perspectives. One is their commercialization, i.e., how can they be effectively utilized for industrial development and export promotion purposes. Equally important is the preservation of

legacy assets. When one look at the current state of the assets, it is obvious that some of them have been left withering or forgotten, including traditional production technologies and physical models. They must first be protected and preserved if they are to be used as the basis of commercialization efforts.

Clearly, it is important to classify historical assets into those requiring preservation and those suitable for commercialization, and devise and implement programs that are intended to achieve the goals. While different programs are formulated to meet specific requirements for each of the two goals, they must be closely linked to each other and carried out concurrently as both goals must be pursued to accomplish the primary objective of using historical assets as a driver for industrial development. Furthermore, time is of essence in developing and implementing actual programs.

Basic approach

As the two goals may be hindered by a risk of "market failure," the government is expected to take some part in managing program development and implementation.

In particular, the government will play a leading role in the protection and preservation process to ensure that traditional artifacts and related technologies are collected, arranged and documented in a proper form, i.e., the government will take initiatives.

On the other hand, the commercialization process will proceed under the government support to develop production of traditional craft into an autonomous industry. Thus, the government will assume a rather subordinate role. One of the key objectives of commercialization efforts should be placed on the application of traditional production technologies to development of a product that meets the current needs of the market.

At present, various programs are underway without the clear definition of their goal, protection or commercialization, often pursuing both and ending up in failing to achieve them. The situation seems to stem from: 1) the lack of recognition of the importance to distinguish the two goals and apply different approaches to them; and 2) the lack of understanding of the current state of craft resources as the prerequisite to the establishment of either goal (preservation or commercialization) for each craft resource.

Thus, it is imperative to proceed with collection and documentation of resources through field surveys as well as program development as the immediate goal, then programs will be implemented over a longer time span.

Protection and Commercialization of Traditional Craft In Japan

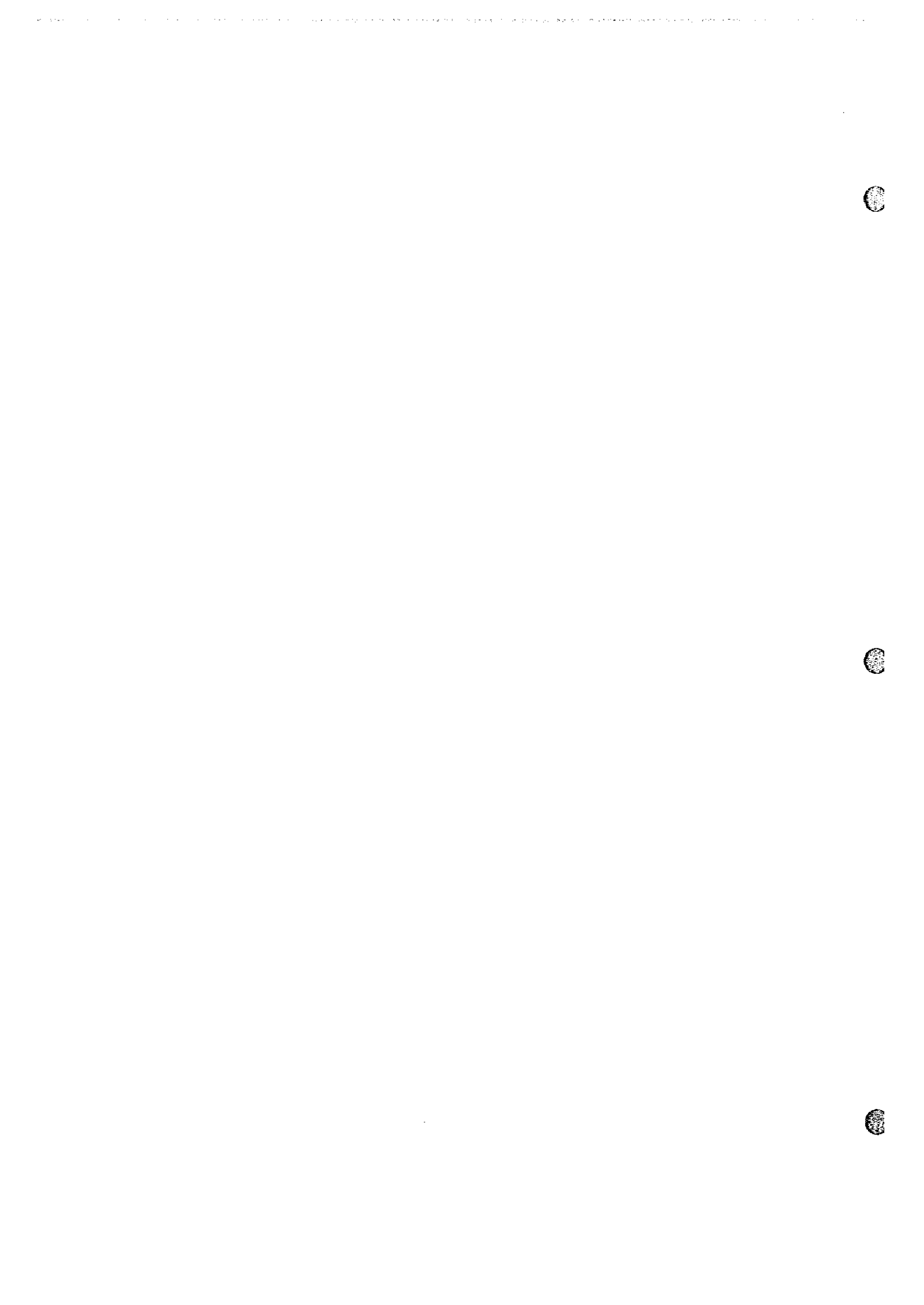
In Japan, different government authorities have been implementing a variety of programs aiming at both protection and commercialization of traditional craft.

First of all, the Agency for Cultural Affairs works to protect and preserve arts and crafts under its Cultural Assets Protection Program by designating tangible assets (arts and crafts) and intangible assets (artists and craftsmen)

Secondly, the Ministry of International Trade and Industry strives to help growth of traditional craft industries since 1974 when the Law Concerning the Promotion of Traditional Craft Industries was enacted. The primary purpose of the law is "to promote the industries producing traditional crafts in certain areas by using traditional technologies and/or techniques, in consideration to the fact that such traditional crafts have been developed and inherited in everyday life of the people and have the foundation to support their sustainable growth in future, so as to enrich and provide amenity for life of the people and contribute to the development of a local economy they operate, thereby contributing to the healthy growth of the national economy."

Eligibility requirements for traditional crafts under the law:

- Crafts that are primarily used for daily life
- Crafts that are made in the process which primarily consists of manual work
- Crafts that are made by using a traditional technology or technique
- Crafts that use raw materials which have been used over a long period of time
- Crafts that are made by a significant number of people in a particular geographic area



6 Roles of Research and Study and Foreign Designers in Design Promotion Activities in Japan

In planning and implementing design promotion activities in Japan, "research and study" and "foreign designers" have played a critical role in raising design levels in Japan to the world class. The chapter describes how these two factors have contributed to design promotion in Japan in an attempt to present them as case studies from which Indonesia can learn much for its design promotion activities, as proposed in "Conclusion and Recommendations."

6.1 Design Research and Study

In Japan, early activities that can be defined as research and study related to design promotion were seen in the late 1970s. However, full-fledged activities, considered as the beginning of what is termed as a continuous movement up to present, did not emerge until the late 1920s and the early 1930s.

In Europe, the mainstream of design philosophy shifted to the functionalism symbolized by the establishment of Bauhaus, after turmoil that arose in opposition to the Industrial Revolution and evils it brought, such as the Art & Craft Move and activities of the DWB (Der Deutsche Werkbund). These movements and thoughts strongly influenced Japanese artists but had little effect on design activities, or industry and consumers, probably because Japan had just started modernization of its industrial technology and its industrial structure was significantly different from that in Europe.

In 1928, the National Craft Guidance Center was established to mark the first government initiative related to design promotion. This reflects the fact that the government started to realize the need for continuous enlightenment and educational activities by an independent, ad-hoc organization, in place of sporadic promotion activities such as an annual exhibition.

The early research and study conducted during the period primarily covered local specialties, such as design improvement of lacquer ware for exports. The government expected such research activities to promote application of latest science and technology to traditional handicrafts (particularly, lacquer ware, metalwork and woodwork) and enable products to be exported to overseas markets.

In 1933, the center's activities entered a new phase as it invited a renowned designer, Mr. Bruno Taut. Mr. Taut conducted research and prototyping of a standard model

(normative prototype) for volume production and influenced young researchers strongly. Two principles he enunciated, "qualitat arbeit (quality production)" and "from craft for seeing to craft for using," formed the guiding principles for the center's subsequent activities.

In addition, the center carried out the following enlightenment and guidance activities:

- Special trainee program (human resource development)
- Teaching of new technologies and techniques to local industries (since 1929, a few times per year, three months each)
- National Conference of Craft-related Technical Officials (started in 1930)
- Sending of study missions on overseas craft industries and markets
- Preparation of budget request related to local craft promotion (to the MOIT)
- Publication of magazines
 - "Kogei Shidou (Craft Guidance)" (9 issues between 1929 and 1933)
 - "Kogei News" (1932 – 1974)

The center's major contribution to the design world was that it created a place of study and experience for young designers. In fact, it sent out a large number of prominent designers who produced excellent design work after World War II.

In 1952, the center was renamed to the Industrial Arts Institute under the MITI. The institute has been conducting research projects under the main theme of "design modernization" to study modern Japanese design using traditional craft technologies.

During the late 1950s, there were interesting discussions on the results of research and study made by the institute, which seem to be applicable to discussion on development and promotion of craft design in Indonesia. When the research results were made known to the public at the Design and Technology Exhibition held by the institute in 1954 and the Sweden International Craft Exhibition in 1955, they attracted much attention and stirred up debates in several issues, including: 1) the Japonica debate, i.e., what is the difference between mediocre, geisha- and "Fujiyama-style" souvenir products and Japanese design; and 2) most products of modern Japanese design were mostly made by manual work, e.g., lacquer ware and ceramics, and it raised the question as to whether "handcraft technology" can converge with the modern concept of design that assumes "the manufacturing process that is separated into design, processing and assembly."

In traditional handicraft industries, the designing of the work's shape, form and surface pattern and the actual work of shaping, molding and pattern making were all carried out by

a single craftsman. In particular, creation of the design and pattern was believed to be an exclusive domain of a master craftsman with high handicraft skills that were attained over a long period.

The institute challenged the belief by letting young designers create modern Japanese design. The designers, who had no experience in traditional handicraft work, designed a product and sent its drawings to a local craftsman for prototype production. Naturally, this attempt was denounced by some art critics as a shoddy mechanical design, which contained a shape, a pattern and a color that were created without any regard to the traditional material and technology, thereby to degrade the traditional craft.

While most designs created at the institute failed to develop into actual products, some designs were accepted for their novelty that was never contrived by traditional craftsmen. Therefore, the project proved that separation of design and manufacture would be feasible in the traditional world of handicraft making. In fact, it opened up a new window of opportunity for the traditional craft industry to explore a new frontier and paved the way for young designers who made foray into the traditional arts of lacquer ware, ceramics and others with new ideas and spirits.

During the period, it became apparent that design for industrial products (formed by machining) was inherently different from that for handicrafts, and the former was referred to as industrial design, while a new term "craft design" was created.

After a number of contributions, the institute was reorganized to the Industrial Products Research Institute in 1969 and design-related activities were reduced to a minimum level.

6.2 Foreign Designers Invitation Program

The Industrial Arts Institute conducted the Foreign Designers Invitation Program between 1956 and 1971 under the MITI's budget. The program that lasted fifteen years can be divided into four phases according to the area of interest. Each phase is briefly described, with quotes from impressive comments by invited designers.

Phase 1 (1956 – 1960)

To learn foreign design trends, reputed designers and educators were invited.

Gorge Nelson (1957): "America has grown and has its own culture. It is why America is considered to be important in the world. Our culture is "mass production" and "jazz" which are everywhere. This culture has enabled Americans to have pride. The Japanese have good things. They should be more proud of themselves."

Chay Frank (1958): Japan does not have much resources. To use scarce resources and earn foreign currency, you must use your head. The brainwork makes a poor country rich. There is no such thing as the brain is too brilliant or skill is too high.

Phase 2 (1961 – 1963)

During the period, renown professionals in the field of furniture painting, consumer education and ergonomics were invited.

Phase 3 (1964 – 1967)

Mainly, European designers were invited.

E. Sotthus Jr. (1966): "What I am interested is to completely destroy today's furniture that symbolizes bourgeois life. We must realize symbolization based on cultural background or education in terms of its role in impacting industrial products and discover the value and nature inherent in the product.

Phase 4 (1968 – 1970)

With the advent of the information society with computer evolution, scholars in advanced design were invited.

Final year (1971)

Sir Paul Riley, a member of the U.K. Design Council, director of ICSID and president of the U.K. Design Center, was invited to hold Design Promotion Seminar in Tokyo and Osaka. This helped successful management of the World Design Conference that was first held in Japan in 1973.

The program successfully served as the first stage of design utilization activities in Japan. Major events in each phase are described as follows.

Phase 1 (1956 – 1960)

Teachings of Art Center School (ACS), emphasizing design practice and skills (particularly highlight drawing technique), strongly impressed the design community and its influence still looms large among industrial designers and educators (1956).

Also, Professor J. Dublin of Illinois Institute of Technology (ITT) and Mr. D. Chapman, prominent industrial designer, introduced contemporary industry design in the U.S., which long gave impacts on industries and others.

Most notably, demonstration using new tools not seen in Japan, such as a cutter and a variable angle triangle, impressed participants (1959).

Phase 2 (1961 – 1963)

Visit by two ergonomists, Mr. J.W. Dunlap and J.T. Fushiguna, met expectations of Japanese researchers in the field. They were first researchers who successfully commercialized ergonomics and conveyed valuable information through presentation on the relationship between ergonomics and industry, measurement of human body, the environment, application of ergonomics to management, and the relationship between ergonomics and design.

6.3 Study Abroad Program for Japanese Designers

Two programs were implemented to send designers to various countries, the Industrial Design Researcher Overseas Study Program as part of the Industrial Design Upgrading Program (sponsored by JETRO) and the Design Upgrading Researcher Overseas Study Program (for researchers of the Industrial Arts Institute).

(1) Industrial Design Researcher Overseas Study Program as part of the Industrial Design Upgrading Program

The program was carried out for 16 years between FY1955 and FY1970 under the sponsorship of JETRO. Eligible designers were those with five years or more experience and engaged in design work at the time of application, working for local governments or the private sector.

The primary purpose of the program was to improve design levels of Japanese products for exports. Selected designers spent one or two years in the U.S. or Europe to expose themselves to the environment spawning contemporary design and conduct basic research and study on industrial design at design schools and/or research organizations. The government paid one half the total cost, and the designer or his organization paid the rest.

During the 16-year period, a total of 98 designers studied abroad under the program. Many of them later occupied leadership positions in the fields of industrial design and design education, contributing greatly to the improvement of design of export products as well as introduction of design to various industries.

As there were few opportunities to study abroad during the early period of the program, the program also provided great motivation for young designers.

(2) Design Upgrading Researcher Overseas Study Program

The program was started at FY1956 and sent two researchers of the Industrial Craft Research Institute each year.

The program focused on the main topic "design upgrading research and prototyping of export merchandise" and researchers conducted the series of researches at schools or research organizations in the U.S. and Europe.

7 Report on Case Studies

The current study includes a case study. The Case Study, particularly the workshops were quite useful for establishing the effective and practical master plan, in that it enabled the Study Team to obtain more detailed situation and constraints of design and its promotion in this country, than that could be obtained from the interview survey, and that it was useful for verification of the effectiveness of the promotion measures proposed. Further, the workshops may be regarded as one step toward design promotion in this country with the fact that the participated enterprises could ensure the effectiveness of application of design process to their product development.

The main objective of the current study is to formulate the master plan for design promotion, and the objectives of the case study were:

- 1) Evaluation of the existing product designs,
- 2) Technical guidance and improvement of product designs, and
- 3) Workshops for disseminating the effectiveness of product design improvement.

The Case Study was composed of the following seminars and workshops,

- Opening seminar; to improve awareness of design, and promote better understanding on the Study.
- Workshops; for technical guidance for product design improvement
 - Interior design workshop
 - Industrial design workshop
 - Package design workshop
- Concluding seminar; to transfer the study results

7.1 Opening Seminar

(1) Outline

The outline of the opening seminar is described as follows. In addition, four sectional sessions (Industrial, Interior, Package and Craft Design) were held on October 8th (Thursday) in the morning.

- Date: October 7th, 1998
- Place: Jakarta Design Center (JDC)

- Participants: **Approx.150 (Indonesian)**
(Japanese)
- **MITI Design Promotion Office: Mr. Yorikuni Emmei**
- **Study Team Members**

(2) Aims

The main aims of the first seminar are as follows,

- 1) **Improve awareness among persons concerned including persons from Government and private sector**
- 2) **Promote understanding of participants regarding purpose and implementation process of the Study.**

(3) Program

The first seminar is consisting of 1) Explaining the outline of the Study, 2) Definition of Design, 3) Presentation on design activities in Japan and 4) Question and answer.

- 1) **Explanation of the outline of the Study,**
 - **Outline and process of the Study**
 - **Importance of the Study**
- 2) **Definition of design**
 - **Definition of "Design process"**
- 3) **Present status of design activities in Japan**

Officer from MITI and some members of the Study Team in charge of each field subjected in the Study made presentation on design activities in Japan.

 - **Design Policy**
 - **Industrial Design**
 - **Package Design**
 - **Interior Design**
 - **Craft Design**
 - **Design Education and Human Development**
- 4) **Question and Answer**

(4) Result

The number of participants from the group expected to come was inadequate (Participant was apt to be limited to those related to MOC&SME and Design community). However, this seminar seemed to play a part as opening by drawing their attention into the Study and workshops.

7.2 Interior Design Workshop

7.2.1 Outline of workshop

Program and contents are described in Table III-7.2-1. Workshop textbook, outputs and pictures are showed in Annex III-7.

(1) Target of workshop

This workshop was designed as a project, which is one step to establish regional identity, instead of a workshop to learn about theory, method or skill, etc. In the workshop, the regional identity is to be established through two major factors; namely, 1) development of image of Cirebon as the rattan furniture manufacturing area, and 2) development of products with original brand of Cirebon. Thus, the workshop was necessary to be accepted by the region as a whole, involving regional government and furniture manufacturers in unison, as part of their strategic movement aiming at vitalization of the region.

The concept proposed here as a basis for development of regional image and original brand furniture, stems from a definition of interior design that it is to "create comfortable space by analyzing people's way of living", and not the definition of "design of decoration" or "design of way to decorate a space". Nowadays, people everywhere in the world, particularly in city life, increasingly seek space where they can feel peace of mind through contact with nature, and establish good human relationship.

With such target and proposed concept, the workshop tried to make the participants to understand and learn the design process by experience through lecture of theory and actual design works. As a final output, workshop is planned to make products on the basis of above concept.

(2) Participants

Participants were not only designers but also managers in production and marketing, QC personnel, drafters and an officer. Many materials were prepared to make the program easy to be understood. Especially, housing market, preference and lifestyle, in Japan were shown by color slides, videotapes and CD-ROM to understand given concept.

In practices, many answer sheets (format) were given to participants so they were able to express their thoughts without having design technique.

(3) Issues identified through the workshop

1) Needs to promote better understanding about the role of design in product development and regional design development

The number of participants in the opening seminar in Cirebon, which was held with an aim of promoting better understanding on design process, particularly among management, was unexpectedly small. It is true that the concepts of "product development with regional brand of originality", and "development of regional image" is still new, but, this is an evidence of insufficient understanding of design. Since these concept can be materialized only if it is supported by management of majority of the enterprises in the region, formation of regional consensus will be the key for the success.

2) Necessity of appropriate planning and coordination to materialize the potentiality of regional development

Cirebon is rich in resources for development of regional images. However, in order to make most of such potential resources, many efforts will be required to organize the use of these resources appropriately. The resources include not only manufacturing skill or know how, but also ability to utilize various resources for tourism.

7.2.2 Issues related to the workshop

(1) Attendance

The workshop was started under the attendance far below the Study Team's expectation. As the workshop focused on design-based regional development, particularly the improvement of a general image of the production area, as well as the development of original brands and products, production areas had to be strongly committed to the initiative and to set up an organization to support it.

There are several causes for the discouraging result. First of all, there was a perception gap between ASMINDO and the study team in various areas including the expected outcome and role of the workshop. Also, the Study Team, as the host of the workshop, must review and develop a better way to recruit participants and a more workable mechanism to promote participation in the preparation process.

(2) Participants

At present, corporate managers have little incentive to participate in the design workshop because design does not play an important role in their business activities so far as they make products specified by buyers or customers. There is no need to develop new products or explore markets by introducing design resources. Their highest priority is to meet requirements set by buyers or customers. As a result, the workshop failed to attract key personnel and most participants were not in a position to represent the interest of their companies. Also, as some participants were recruited at the last minute, there was a great variation in capability and skill among participants. Their purpose of participation varied widely and some discontinued participation before the workshop was completed.

(3) Level of understanding and commitment

Nevertheless, thirteen participants who completed the workshop showed a high level of commitment. As the workshop dealt with promotion of the production area and the development of original products, not necessarily related to personal interest, and covered a wide range of subjects including survey, concept development, design work, and model construction, the study team anticipated that they would be difficult to understand or appreciate. However, all participants worked with all the problems presented during the workshop. In particular, they demonstrated high levels of understanding on identity of the production area, concept development, and product design work. Model construction produced good results by using practical skills learned through the samples. Participants were relatively young and are expected to play an active role in design promotion activity for their own areas.

(4) Workshop schedule

The workshop that is designed for business people, particularly the manager class, should be limited to three days in duration. On the other hand, if the entire process including design-based regional development as well as product development is to be taught, eight days are not sufficient. Also, the period, the promotion mechanism and method should be reconsidered.

(5) Place of workshop and opportunity for regional development

The workshop is unique in its focus on the Cirebon area. In particular, rattan design work can be led by Mr. Yamakawa, a renowned rattan designer. As core design resources are already in place, programs must link them effectively to actual design-oriented promotion of the production area and the workshop should serve as one initiative toward

the objective. Rattan products are in the less competitive market than wood products and are more conservative. A combination of the conservativeness and a new design is unique and has large impacts. At the same time, the area is endowed with various assets that can be used to establish local identity in the increasingly globalizing market. It has a port and an airport, infrastructure essential in promoting industrial development and urbanization, the remains of the dynasty and culture that prospered four centuries ago, together with recreational resources including hot springs and resort areas, as well as great scenery and the proximity to the ocean and a mountain (3,000m above sea level) within an one-hour drive. If these assets, currently not linked to each other, are interrelated, including the rattan industry, they will form a rich spawning ground for development of local identity and further grown.

7.2.3 Findings from the workshops

The Team has watched the interior design workshop in Cirebon, in view of one of the prospective district for regional design development.

(1) Development potentiality

Cirebon seems to have high potentiality to grow as a quality rattan furniture production district in the world, in view of long-term accumulation of skilled labor for rattan furniture manufacturing together with small scale component-manufacturers, experience in international trade, and also existence of some advanced enterprises which are aggressive in developing quality and good design products. Further, Cirebon may be one of the most appropriate district to develop its regional brand of high image for their products, due to accumulation of large number of rattan furniture manufacturers in a small areas, and history of one of the largest rattan furniture manufacturing district in the world in these two decades.

(2) Limitation for development

Yet, there is a lot of obstacles in promotion of the regional design development (project). The major one is the fact that an organization or enterprise which takes initiatives of the project, is not definite.

The leaders in the district has been represented by the industrial association for furniture, which used to have a strong power due to monopolistic nature of raw material supply. They are mainly those large enterprises which grow locally having own sales channel, subcontracting the manufacturing process with local SMEs, and having finishing

process and distribution function by themselves. However, they are rather conservative for new business development due to the existing interests. Another category of manufacturers is small and micro enterprises, which rely their businesses totally on the large manufacturers. They have no connection with the markets, and they have to follow the direction from the large manufacturers.

Third category of manufacturers is large or medium scale manufacturers having an established channel with foreign buyers/ manufacturers. They have own know-how on manufacturing and product development through close relationship with their foreign partners. Thus, there is a limited possibility for them to join regional project, unless they feel out of profit making or the project being against their profit, without joining the project.

Fourth category is the medium sized manufacturers who have connections with a certain markets, but it is not well established. There is a great possibility for them to form a core for promoting the project.

(3) Recommendation for further development

Workshop is a useful tool for transfer of practical technology. However, it is obvious that workshop is workshop. In order to materialize the potentiality in the actual business, participants have to take a possible risk by themselves to a certain extent. For example, they have to decide which market they will chose as their target market, which development concept is acceptable for them, and whether they will proceed to actual production with their own risk, etc. Thus, the next step to the current workshop should be a project with participation of manufacturers taking their risks by themselves.

Since the Cirebon District Government has also realized the effectiveness of regional design development for their regional economic development, they could play the role of promotion core of project particularly at the preparation stage. In the process of project implementation, it is recommended to form a executing committee with participation of manufacturers who are interested in the project, accepting application for the participants among private enterprises, cooperatives, and government established corporations. The Team recognized that some of the manufacturers, particularly those in the fourth category, are strongly interested in the project. The manufacturers who did not participated in the workshop, may also become interested in the project, once they realize the effectiveness of design for establishment of regional identity in the market.

The project is best to be implemented mainly on commercial basis with inviting interested designers locally and abroad, formulating an organization by participated manufacturers to coordinate the development process as well as implementing process for actual business. The detail is proposed separately.

Table III-7.2-1 Program for Interior Design Workshop

Phase 1 (Oct 1998)

	Date	Program	Contents
1	4-Nov	Orientation	Background cases introduction: current situation of housing & life in Japan such as housing market situation, and image of living persons (value on life, change in lifestyle), as background for "Rattan" furniture <Slide, VTR>
		Space and Area Division of the Basic Concept "Nature Contact House" House"	Explain necessity and contents of 2 concepts; "Basic Concept" (upper level) and "Nature Contact House" (middle level) as basic concepts for development of original regional brand furniture
2	5-Nov	CI Planning-1 Development of "Regional Brand" and CI Planning	Explain Importance of regional image by CI planning method Case study of SME using CI <VTR>
		CI Planning-2 Research and Analysis for Concept-making	Research and analyses: the current situation of regional production and surrounding environments, for the image improving
3	6-Nov	CI Planning-3 Concept Work	Setting up "regional brand" name and "goals of image" as basic factor for image improvement Specifying future vision, ideas and guiding principles
		CI Planning-4 Design Work	Making brand mark, logo, color, statements, graphic pattern
4	9-Nov	Merchandise Development-1 Research and Analyses Work	Research and analyses: "Rattan" goods in Cirebon and other regional factors, verifying the importance and appropriateness of concepts
		Merchandise Development-2 Product Concept Work	Concept work: how to organize the product design concept based on upper and middle leveled concepts
5	10-Nov	Merchandise Development-3 Product Design Work	Setting up conditions for merchandise development (module, parts, effects of total design)
		Merchandise Development-4 Product Design Work	Designing product with image sketch, idea/drawing, detailed explanation
6	11-Nov	Merchandise Development-5 Product Design Work	Layout developing merchandises consisting of "Nature Concept Space"
		Model Work-1	Produce 1/10 model of "Nature Contact Space"
7	12-Nov	Model Work-2	
8	13-Nov	Model Work-3	

Phase 2 (February - March 1999)

	Date	Program	Contents
1	26-Feb	Orientation	Reconfirmation of process and products in previous Workshops
		Presentation	Exploration for merchandising
2	1-Mar	Prototype Production	Produce Prototype at the Factory Design advice and meeting on site
3	3/2-3/15	Prototype Production	Modification of Prototype at the Factory
			Modification of Prototype at the Factory
4	16-Mar	Review of Phase 1 Presentation	Lecture on Product Planning Process and Development Process
			Presentation of Prototype
5	17-Mar	Closing Ceremony	Summary

7.3 Industrial Design Workshop

7.3.1 Outline of workshop

Program and contents are described in Table III-7.3-1. Workshop textbook, outputs, pictures are showed in Annex III-7.

(1) Target of workshop

The major target of workshop was set as follows:

- 1) Promote better understanding of enterprises on importance of development of originally designed products, as one of significant measures to vitalize their business, encourage their product development, and transfer experience of Japan of industrial design method which is expected to play a significant role in original product development. More specifically;
 - a) Introduce some successful cases of product development, and their concept making process with their rationale. Introduce design concept including not only the concept in view of consumer needs but also the development concept in view of enterprise's point.
 - b) Establish target consumers through image building method for consumers. The participants could have a common image of product to be developed, using pictures of life scenes, daily necessities and durable goods, and fashion which represent the image of the target consumers, gathered from magazines. Further, the commodity map chart was developed to understand how the products in the market been developed.
 - c) Promote understanding on the relationship among engineering design, mold making, components manufacturing, real production, and design, to promote better understanding of the whole process starting from planning up to production and sales, which design has close relationship. Industrial designers in this country has yet sufficient knowledge, particularly of selection of materials and their use, mold and injection, selection of component parts, and production technology. Workshop was designed to involve staff from planing section and engineers of the participating enterprises, so that these enterprises could introduce the design process by themselves.
- 2) Promote better understanding of enterprises on importance of industrial designers and better cooperation between management and designers.

(2) Participants

The team requested the industrial association of electric home appliances, GABEL, to enlist the potential participants with condition that three medium sized manufacturers of electrical home appliances. Seven companies applied for it. However, because of the fact that there are quite a few number of companies with the above qualification other than the members of GABEL, and that many companies which mainly target the domestic market were forced to shutdown because of shrinkage of the market, the Team also made promotion for participation for the enterprises participating Resource Indonesia '98.

On the other hand, since the participating companies are found to have no in-house designer, and design development seems difficult by themselves, the Team decided to ask outside designers to participate, in consultation with ADPI. However, at the same time the Team found that most of out-house designers have insufficient design experience of electrical home appliances. Therefore, the Team also decided to make student designers, who have experience to design electrical home appliances through a training course sponsored by a electrical home appliance company to participate to help other participants, and at the same time to provide them with the chance to be involved in an industrial designing process.

The participants of workshop were classified as follows:

Group	Industry	Out-house designer	Students
Electric fan	3	2	1
Gas cooker	4	1	2
Audio compo	3	2	1

(3) Points considered in implementing the workshop

In order to make the workshop more practical and effective, it was prepared as follows:

1) Selection of participants and grouping of participants

The number of participating companies were limited to three, and the selection of the companies are assumed to be made with preventing the duplication of products they are producing. The participants were grouped into three with those from manufacturers to be the core member, while out-house designers and graduate students as the collaboration members.

2) Request for advance preparation for the workshop

In order to make the workshop effective, the participants are requested to make the following preparation.

- Selection of a product, on which the participant makes design improvement / development through workshop.
- Collection of catalogs of the product thus selected. Tabulation of the difference in functions/specifications and sales prices among the similar products, reviewing the catalogs.
- Preparation of participant's image for the design improvement/development, and filing of pictures, as many as possible from magazines, etc., which represent your design images, including those representing color images, shape images, as well as the images of spaces in which the product be used/installed.

(4) Issues identified through the workshop

- 1) The potential ability of university graduates and out-house designers to create concepts and make sketch seems promising. However, their designs are not industrial design. Their designs are mostly made in view of use of the goods, but not in view of production, lacking technological knowledge of manufacturing process.
- 2) The target market of most of local manufacturers is lower-end market, where the consumers are believed to be price conscious, neglecting quality, design and performance. Thus, the manufacturers have been forced to reduce costs, neglecting design. On the other hand, high-end and medium-class market are mostly occupied by the products of foreign affiliated companies. They have almost no linkage with local manufacturers, and thus, there is a big gap between the foreign affiliated companies and the local manufacturers in terms of design, quality and performance. The reduction of such gap is essential for the local industries to be sustainable. Upgrading of local companies is expected to lead to upgrading of local parts, resulting in easiness of large companies to obtain quality and good design parts.

7.3.2 Issues related to the workshop

(1) Local assistants

The workshop was conducted under the cooperation of two local assistants (designers who teach at ITB and ITENAS). It was progressed in the form of lecture and laboratory work. The assistants explained the design process in detail to facilitate communication with the participants. Also, the assistants translated reference materials to Indonesian in order to promote understanding.

(2) Orientation

During the orientation, the industrial design process was explained, including its outline and importance. An emphasis was made on the point that the design process was a method for problem solving, rather than merely pointing out a problem. Also, product design was defined as the act of obtaining general acceptance on a particular product among consumers, retailers and manufacturers including managers and production engineers and workers through an extensive consensus-building process. Furthermore, the design process was explained as an entire process of creating, manufacturing, selling and consuming a product. The participants seemed to have a general idea about the design process as they heard it several times, but they were primarily concerned about the concept and idea sketching and did not realize the entire process.

(3) Product concept

Product concept was explained by using charts of household appliances for single persons as an example. While students had some understanding of product concept, business participants understood less. This seems to reflect the fact that many local manufacturers design their products by simply copying designs of Japanese and other products or use dies to be purchased from outside sources, thus eliminating the need for elaborate development of the product concept. In addition, participants lacked experience in marketing and consumer survey, while understanding their meanings. Thus, to gain full understanding of the product concept development process, including survey and data utilization methods, professional guidance seems to be required.

While any industrial product should be developed on the basis of consumer needs, it must be designed and manufactured to generate profits for its manufacturer to an extent that satisfies the manager by taking into account relevant factors including the company's overall product strategy, technology, production equipment and cost. In the workshop related to concept development, a hypothetical proposal approach was taken; a product was planned in a domain (segment) where business factors and consumer demand met, and a target user group was identified and used as the basis of determining design, function, product line and price. The concept development process considering business factors was new to students, while being easy to understand for business participants.

(4) Idea sketching

The idea sketching session focused on the following three elements:

- 1) Creation of a new image

- 2) Ideas of usability and user-friendliness
- 3) External appearance and productivity, selection of materials, and shaping based on its characteristics

Participants showed relatively high levels of skills in terms of sketching and expression. On the other hand, many participants except for in-house designers did not have sufficient knowledge on plastics materials and their shaping methods, and the use of machinery including press and bender, probably due to the lack of experience in production field.

(5) Mockup

Participants were able to make a three-dimensional sketch. Importance of dimensional accuracy was emphasized and the method for dimensional check was instructed. Although they were instructed to achieve a high level of completeness equivalent to the product, the mockup completed could not be used for catalog photographing. The lack of attention to detailed finish seems to reflect the general attitude of designers that they are not committed to creation of a quality product.

(6) Design process

Generally, education on the design process covers concept development, sketching and mockup building. The workshop extended its scope to the interface with actual production. Design affects the production process in that it helps improve product quality in terms of appearance and raise the product value. Explanation was made on the role of design in the entire production process, including die making, trial molding, engineering prototype, commercial prototyping. It was well accepted and understood by business participants.

The industrial design process is roughly divided into the following three elements:

- 1) Development of a product concept to meet consumer taste (to sell what kind of product to whom)
- 2) Creation of a new image that impresses consumers
- 3) Management of design quality, including product's workmanship

The primary purpose of the workshop was to help the participants to become aware of that the industrial design process was the entire process from product planning to production and sales.

7.3.3 Findings from the workshops

(1) Development potentiality

Under the current economic situation, the home electrical appliance industry is severely depressed particularly due to the significant shrinkage of domestic market. Nevertheless, we found that there is a great possibility to utilize design as a tool for new development in the following, but not limited to:

- 1) Enterprises which have tie-up with foreign enterprises, were not confident in product development locally so far, partly because of local capacity and technology. However, the workshop showed a significant creative capacity of local people in design development. There will be a possibility for these companies to reconsider the possibility of product development locally if the result of the workshop is disseminated appropriately, resulting in increase in local procurement of components and development of linkage among local industries.
- 2) The local companies are mainly targeting a lower-end market, which is strongly price conscious, preventing competition with products of international brands. Their products have no originality, and they have to rely only on price competitiveness to market their products, and thus they believed to have limited possibility of new design development. In the workshop, however, the participants made their efforts to develop new design under the given cost condition, and could show the good results, proving that still there is a room for design improvement even under such conditions. With such result, they may seek for niche market other than that of domestic market, namely lower-end segment of export markets, where the products of internationally recognized brand find difficulty to penetrate, or difficulty to cultivate the demand there due to their higher prices.
- 3) The products which are suitable for development in Indonesia, will be home electrical appliances, such as electric fans, rice-cookers, irons, toasters, juicers, freezer and refrigerators, microwave ovens, electromagnetic cookers, washing machines, water pumps for home use, etc., excluding audio and visual equipment. These are the products not necessarily adequate for export since these require large space to transport. Nevertheless, these products has advantages for local development, in that these products are easy to undertake technical improvement, and easy to improve value added with incorporating innovative ideas obtained from actual living scenes¹. The Indonesian technology level might not allow their export directly to the markets in developed countries. However, there is a possibility for them to be sold in the niche

¹ Further, since these products are objects requiring universal design, the product development efforts in this field could be useful for Indonesia to get a pioneer position internationally in this field.

markets in Asian countries, Africa, and South America, etc. in addition to the domestic market.

- 4) Such small-sized products as radio cassette recorders seem to be adequate for export in that these are operated with DC power and can be used without consideration of the difference in power source, and that these are higher-priced products with small size. However, local SME manufacturers in Indonesia would find difficulty in producing export grade products in terms of technology, since the technologies used in the major exporting countries such as Singapore and Malaysia are well advanced compared with that in Indonesia. Further, the prices of components are homogeneous internationally, and the major source of competitiveness comes from labor costs even if the product level could reach export grade. Some manufacturers in Indonesia have been engaged in the export of these products. However, the design has mostly come from their foreign partners.

(2) Limitation for development

The possibility of design improvement under such cost condition is not recognized yet by the most of manufacturers here. Further, product development effort has been discouraged because of copy problem and smuggling. In addition, the access of medium sized manufacturers to the market is very limited, also discouraging their effort to improve their products.

(3) Recommendation for further development

Through the workshop, the Team found that management of the workshop participants are increasingly interested in design development, with the result shown by mock-up as the final output of the workshop. If such result is widely disseminated, more manufacturers will be interested in the design development.

Most of export promotion project in the past have emphasized establishment of direct relationship with buyers. We recommend projects to establish relationship with designers both local and foreign as an intermediary between the manufacturers and markets. The project is necessary to be implemented on commercial basis with support by the government for implementation initiatives at the preparation stage and introduction stage.

Table III-7.3-1 Program for Industrial Design Workshop

Program	Contents		Date
Opening/ Orientation		<ol style="list-style-type: none"> 1. Introduction of participants, instructor, and assistant instructors 2. Orientation for the workshop 3. How design was developed; Case studies 	Nov. 4
Establishment of Marketing Concept	Basic Development Concept (A Working Hypothesis)	<ol style="list-style-type: none"> 1. Drawing up a marketing chart. Understand a marketing chart and its role, and draw up the marketing chart using pictures available in catalogs and magazines, etc. 2. Frame the marketing target 3. Complete a concept sheet. Understand a concept sheet and its role, and importance to nurture the capability to formulate a working hypothesis. 4. Establishment of the design plan 	Nov. 4 5
Design Elaboration/ Examination of Product & Technical Factor	Idea Sketch	<ol style="list-style-type: none"> 1. Idea creation 2. Image development 3. Evaluation of ideas 	Nov. 6 18
	3-Dimension Sketch	<ol style="list-style-type: none"> 1. Examination of an internal mechanism, and making an outline drawing. Evaluation in view of productivity, cost efficiency, and technical possibility. 2. Drawing up a three dimensional sketch 3. Examination of the cubic styling 	Nov. 18 19 20
	Rendering (Final Sketch)	<ol style="list-style-type: none"> 1. Rendering from three sides 2. Accurate representation of outward appearance, material, surface treatment, and parts. 	
	Draft for Mock-up (Design Draft)	By triangular projection	Nov. 23
	Color and Finish Planning	Defining of color and finish specifications	Nov. 24
	Graphic Planning	Block copy	Nov. 24

Phase 2 (March, 1999)

Opening	Review of Phase 1 Orientation for Phase 2	March 1	
Examination of Product & Technical Factor	Examination of Mock-up	<ol style="list-style-type: none"> 1. Examination of essential technology 2. Examination of metal mold 3. Examination of materials and surface 4. Examination of inner devices, functions, usability 	March 1 2
		<p>Defining Merchandise Concept</p> <p>Evaluation of Pre-Final Design</p> <p>Presentation</p>	March 2 to 8 9 10

7.4 Package Design Workshop

7.4.1 Outline of workshop

Program and contents are described in Table III-7.4-1. Workshop pictures are showed in Annex III-7.

(1) Achievement level of workshop

The goal of workshop is aimed to achieve the level of comprehensive understanding in package design developing process, the level to be enable designers to generate and develop original concept for package design representing the subject as "Made in Indonesia Package Design", and adequate technological transfer to assist them. The prototype model at the end of program shall be presented as both achievement proof and the trigger for continuous improvement on package design in Indonesia. The following points are highlighted as step by step benchmarks for the progress and achievement indication.

1) Observation Ability

Major purpose of the user observation is to gain both insights and inspiration. To observe the user activities in their actual environments on use of products is essential to identify potential needs of user to be incorporated in the package functionality. This step would explore the ability to hunt essential elements for package design.

2) Brainstorming to Rapid Prototyping Ability

The process provides opportunities to both elaborate and sort out essential elements identified in observation to shape up into targeted prototype. Revolving and evolutional sub-process is utilized as methodology (activation of memories from experiences, paradigm shifting in stereotype of perception and wording, reloading of meaning delivered, objective and material finding). This step would provide way to bridge over essential elements to design concept.

3) Concept Formation Ability

Second level observation on characteristic elements of product targeted provides more focused base to shape up concrete design plan into concept. Screening process to support for this exercise is utilized as methodology (by requirement of elements, by requirement of technical limitation, by economical requirement). This step would provide way to formulate concrete concept.

4) **Brand Identity Generation and Management Ability**

Distinctive process management ability is explored to assist to generate and develop brand identity. Two processes, Basic Design Developing Process and Application Design Developing Process, are exercised to have clear notion of positioning of package design and significance of brand identity.

5) **Information Delivering and Communicating Ability**

Notion of Visual Communication and Linguistic Information Delivery is exercised on the course of programs indicated 1) - 4) above.

6) **Expression and Construction Ability**

The integration stage is wrapped up with all the ability achieved into actual package design. This step would also deliver technical transfer for creation, on PC and construction devices.

(2) **Participants**

The participants were invited through related channels of Indonesian Package Institute, Indonesian Packaging Federation, Indonesian Chamber of Commerce and Industry, and Indonesian Graphic Design Association. The first response of applicant was received from IPI and IPF for 2 converters related to food product package and 3 related individuals. In order to make an appropriate composition of participation, the registered companies for Resource Indonesia '98 were also called for. With other advice from related industries and design houses, freelance designers and design students (pre-designers) are also invited. The qualification of participation reads as follows.

Composition of Participants

Converter:	3
Food Company:	2
Design House/Freelance Designer:	7
Lecturer:	1
Student:	4
TOTAL	17

Qualification

- a) Following parties related to food product industries and packaging industries
- b) A pair/team of designer and personnel from top management, marketing,

sales/exporting, engineer/production per company and/or organization in small and medium size industry

c) Designers are not limited to in-house designers

(3) Attentions addressed for program operation

1) Manner of Participation

As program consist of a set of comprehensive and consistent series of sessions, manner of participation had to be continuous. So far for phase 1 of workshop, this has been successful and active participation is found. A roll call at the beginning of session has also been effective factor to keep them in alert.

2) Composition of Groups

Fortunately, the composition of participants are well balanced and representing that of package design developing process in industries. Thus, for the group activities, this balance has been kept even and paralleled. The factor in level of design ability was quite a keen issue to keep balance of the group, especially while it keeping balance in composition of attribution. The first exercise program, fortunately, provided opportunity to shuffle personnel in appropriate manner.

3) Introduction of Review and Check Process

To keep the participants' attention concentrated, review sheets have been handed everyday for the review of previous session. It has been very efficient and effective to this end as well as substantiate workshop text and keeping record of session.

7.4.2 Issues related to the workshop

(1) It is imperative to define the following functions of package design, together with their purpose, in order to identify implicit elements constituting package design:

- Quantification
- Proper quantity
- Quality maintenance
- Product protection
- Description of content and other functions

Based on observation on and interaction with the participants, most of them view design superficially, namely at its face value. To have profound understanding, it is important to consider productivity and obtain knowledge on the actual production process

in terms of economy and efficiency due to technology. Furthermore, extensive training seems to be required to understand methodology for design and planning in consideration to the differences in packaging and catalog among sales channel including the Internet, as well as the differences due to the purpose, e.g., export, domestic consumption, gift and souvenir. It should be carried out in repetitive training including OJT, which gives workable and practical knowledge.

(2) Among soft packaging materials (gravure: film printed package) on market, some used a film material that does not meet requirements for maintaining product quality. Heat seal was damaged in many products. They can be prevented by learning the correct operation of machinery and knowledge required to select an appropriate material. Without them, quality deterioration and sanitary problems will surface.

(3) Freelance designers and university lecturers general lack awareness of and knowledge on the production and distribution processes as well as field conditions and requirements associated therewith, including actual production lines, transport efficiency in physical distribution, space efficiency under storage, strength when being stacked, strength against drop, and appropriate materials to meet various requirements and associated costs.

Interface with production machinery must be realized and taken into account. The lack of design coordination creates many packaging constraints, and to avoid it, close communication with manufacturers of production equipment, packaging materials and print is important. Based on these fundamentals, designers are expected to make appropriate selection and judgement on various materials (film, paper, metal) and their suitability for purpose, and environmental issues, which must be supported by sound knowledge base.

(4) To identify true advantages as Indonesia and utilize them effectively, it is important to develop information resources and a mechanism to ensure their productive use.

7.4.3 Findings from the workshops

(1) Potentiality of package design in Indonesia

Actual notion of package design is not yet established in Indonesia. However, it is the very potentiality of package design here. The fruitful finding through workshop is that designers as well as personnel in packaging industry are very much capable to absorb the concept and methodology of new package design process. It is because that there has not been conventional notion of package design to conflict with.

Paradigm shift in consumer needs is recognized remarkably these days. One big shift is increasing acceptability for products in appropriate pricing comparable to their value. Another shift is growing consciousness toward ecology. Consumers are becoming more and more connoisseurs in selecting products with environment oriented. Thus, conventional stereotype, that allows manufacturers to believe mass production and low cost is mighty way to bring out best products that consumers want, is not always applicable any more. And traditional industrialization process is gradually losing its gleam of glory as it has put aside environmental care.

Indonesia is, therefore, in a good position. Because it is already free from conventional stereotype or traditional industrialization process with full of skilled workers who could produce products in appropriate pricing comparable to their pricing and full of natural resources that could give consumers a good impression. The appropriate design direction could realize new product lines into the market.

The consumer market has been rapidly expanding not only globally but also into cyber space. In order to specify certain products out of such a broad-scaled market, brand strategy is becoming more important ever. Package design is perfect instrument for brand strategy for Indonesia.

(2) Limitation of package design at current state

In Indonesia, package for domestic product is not yet regarded as important instrument to deliver message of products and/or producers as well as brand identity. The lowest cost for the package is the most important factor even among consumers. If this notion remains and is believed to be applicable to any market, it could become the limitation of package design. Without thorough understanding and examination of difference in market needs, package design will never be the strong instrument.

(3) Direction of package design

In order to increase product competitiveness of Indonesia, it is important to capture Indonesian identity onto package design as well as product improvement itself. Through the workshop, it was observed that participants had never had any opportunity to consider what is Indonesian identity. It could be suggested that study team should be established to work on Indonesian identity. The study team has to cover the survey on market needs in international level. The study process and result should be shared with package designers so that they can receive feedback to be utilized in new package design.

(4) Evaluation and issues for considered in design promotion

The following is some of the points highlighted for provisional remarks reflected the activities of workshop.

- 1) Few package designers, graphic designers for the most of cases, have developed their perception that package design is rather considered to be in product design. The ability in understanding is still at developing stage, and why and how package should be designed is not adequately grasped.
- 2) Knowledge and/or consciousness on packaging materials are found to be quite limited among package designers, maybe graphic designers. Especially, recognition for the implication of usage and functionality of certain materials is weak as well as physical characteristics of materials. For most of the cases, their attention is paid to economic factors, such as cost reduction, and not found to be balanced between quality of design and cost.
- 3) As for developing issues, especially ecological issue, many of package designers in young generation are aware and interested. They are still flexible in absorbing new knowledge enough to deal with matters. It is quite important to cherish and promote these seeds of development.
- 4) The real resource in Indonesia is its blessing mother nature, energetic power of people and purity of spirit. As well as designers, the identification, promotion and support of artists can be another vehicle to integrate design into synergistic stage. It may give potential to new horizon in design area by generating new business which ordinary business standard will never reach at. Human resource development shall take effort both in design and art to this end. There may be certain industrial gaps between Indonesia and developed countries. However, no such gap is recognized in art. It may well be pointed out that design could serve as a reliable bridge to bring art works into "products".

Table III-7.4-1 Program for Package Design Workshop(1)

Phase 1 (November, 1998)

Program	Contents	Date
Opening Orientation	<ol style="list-style-type: none"> 1. Guidance on basic concept of Package Design 2. Setting-up project team 3. Product check-out (observation) 	Nov.3 am/pm
Observation Elaboration	<ol style="list-style-type: none"> 0. Brainstorming Process 1. Active Memory: to activate memories from experiences 2. Changing Minds: to shift stereotype of perception and wording 3. Found Objectives/Objects & Found Materials: to identify packaging objectives/objects & materials 	Nov. 4 am/pm
Brainstorming to Rapid Prototyping	> Design Work: prototype model creation on "spoon"	Nov. 5 am/pm
Application Case Study	<ul style="list-style-type: none"> > Presentation on PC: ecological development in package design area > Assignment on Coffee Package No.1 	Nov. 9 am/pm
Element Finding	> Design Work: element finding on Indonesian factors	Nov. 18 am/pm
Concept Making & Plan Screening	<ol style="list-style-type: none"> 1. Concept Making Process: observation, characteristics of product, background of product, material application 2. Plan Screening Process: concept, technical/material requirement, economic factors 	Nov. 19 am/pm
Basic Design & Application Design	<ul style="list-style-type: none"> > Design Work: 1. Identification of elements in basic & application design 2. Brand Identity Generation & Management 3. Information Delivery & Communication Concept 4. Sketching to PC work 	Nov. 20 am/pm Nov. 21 am/pm
Review & Evaluation	<ol style="list-style-type: none"> 1. Review and Evaluation on the output of Design Work 2. Expression and Construction 3. Assignment: specification and instruction 	Nov. 22 am/pm

Table III-7.4-1 Program for Package Design Workshop(2)

Phase 2 (March, 1999)

Program	Contents	Date
Opening & Orientation	1. Orientation for Phase 2 2. Review of Phase 1 (Presentation & Review of assignment)	Mar. 1 pm
Comprehensive Check & Review	0. Check & Review on the output of assignment > New assignment: (Brand Development on Tea Product for export: Tea Project) 1. Case Study 2. Product Observation 3. Brain Storming	Mar. 2 am/pm
Element Finding	> Tea Project: 1. Identification of Indonesian Color	Mar. 3 am/pm
	> Design Work: 1. Identification of Indonesian Shape	
	> Design Work: 1. Pictograph designing on Shape identified 2. Screening process on pictograph	Mar. 4 am/pm
Concept Making & Plan Screening	> Tea Project: 1. Combination pattern development on Indonesian Color 2. Concept making on Tea brand	Mar. 8 pm
	> Tea Project: 1. Concept making on Tea brand > Design Work: 1. Screening of pictograph 2. Concept separation between pictograph and symbol mark	Mar. 9 am/pm
Basic Design & Application Design	> Tea Project: Basic Design System work Brand development on Tea product	Mar. 10 am/pm
		Mar. 11 am/pm
	> Tea Project: Application Design System work Brand development on total sales promotion	Mar. 12 am/pm Mar. 15 am/pm
Review & Evaluation	> Tea Project: Application Design System work 1. Finalizing Brand development on total sales promotion 2. Preparation for presentation	Mar. 16 am/pm
	> Tea Project: Application Design System work 1. Finalizing presentation work 2. Final presentation and exhibition of assignment works	Mar. 17 am/pm