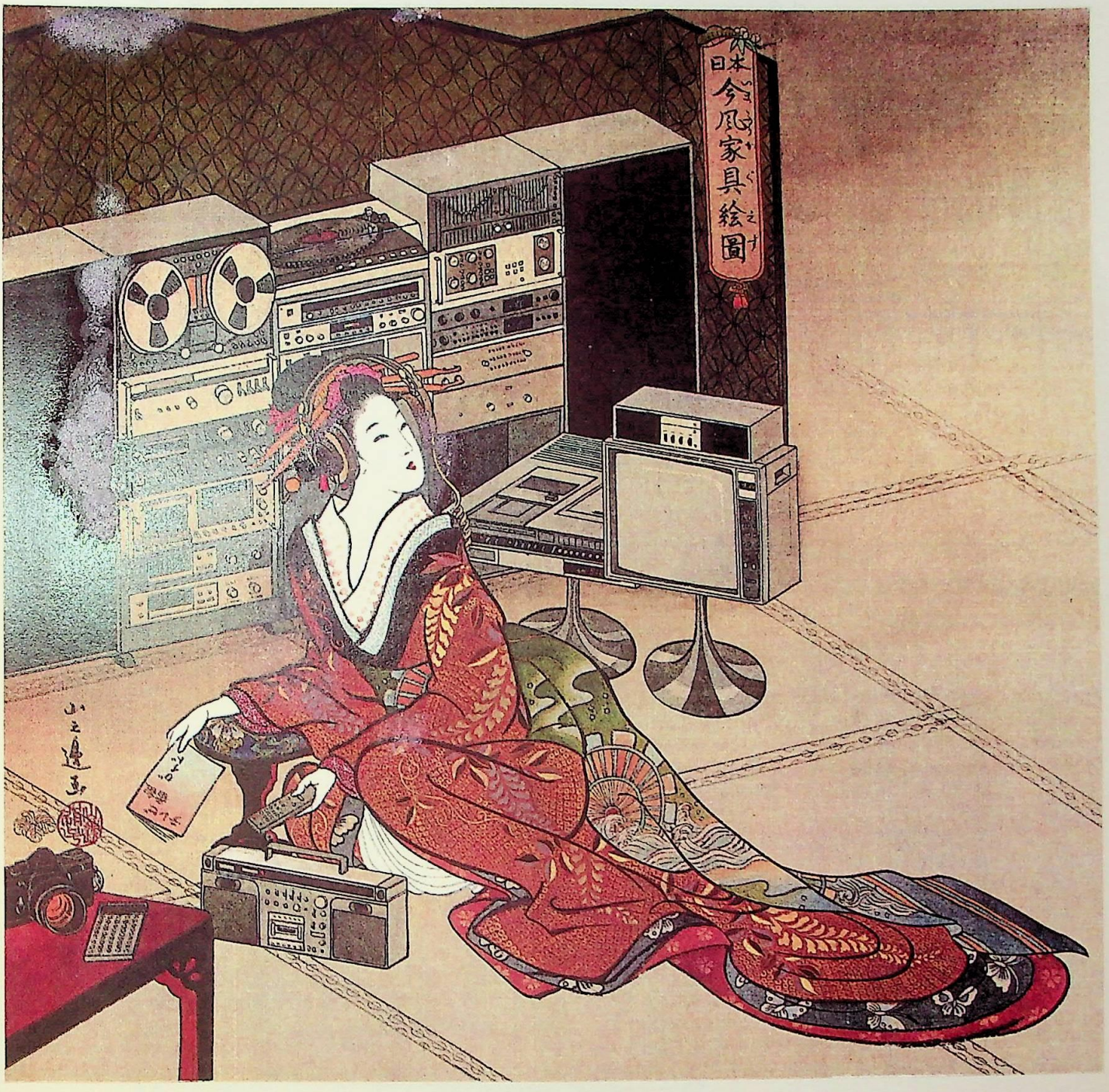
in search of a hidden - tradition

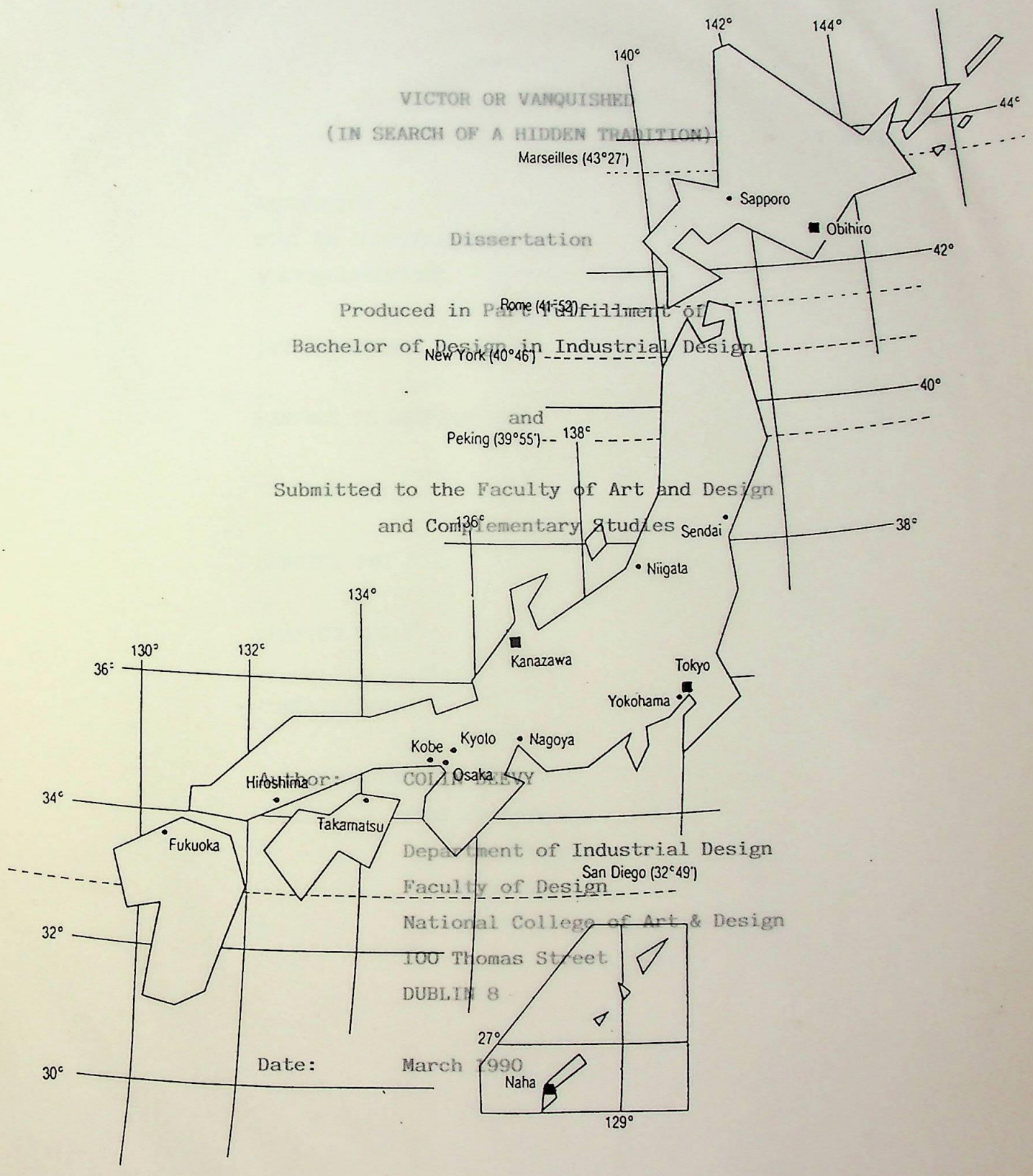


Kinuko Craft

THE TECHNOLOGY WAR: BEHIND JAPANESE LINES
by Peter Ross Range
February 1981
gouache
(above)

KALKI: PART I
by Gore Vidal
March 1978
egg tempera

VICTOR OR VANQUISHED



VICTOR OR VANQUISHED
(IN SEARCH OF A HIDDEN TRADITION)

Dissertation

Produced in Part Fulfillment of

Bachelor of Design in Industrial Design

and

Submitted to the Faculty of Art and Design

and Complementary Studies

Author: COLIN DAVY

Department of Industrial Design

Faculty of Design

National College of Art & Design

100 Thomas Street

DUBLIN 8

Date: March 1990

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For my parents and family
to whom I owe so much

LIST OF ILLUSTRATIONS

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INTRODUCTION

Japan's geographical position has, historically, encouraged a dichotomy of general isolation from yet economic and cultural dependence on Eastern Asia.

The arrival of Buddhism in the 6th century brought with it the arts, ceremonies, literature and philosophy of a great world religion and, subsequently, the Chinese system of writing, theories of government and social order. However, although cultural links with Eastern Asia remained close throughout Japan's subsequent history, she never owed political allegiance to any continental power. Therefore, Japanese arts and crafts remained largely self-contained, ideas originating from outside the islands were adapted and crystalised into an intrinsically Japanese form. For this reason, much of Japan's traditional cultural offerings are often dismissed as derivative.

Korea, being Japan's nearest neighbour provided the channel of social and cultural ideas from China and North East Asia after the 6th century. These migrating ideologies and customs often acquired a distinctively Korean slant before making the 195km sea crossing to settle down in the semi-isolation of the rising sun. Though superficially like Chinese and Korean work, it is this isolation which gives to the Japanese culture its distinctive aesthetic and character - a character much influenced by the danger and impermanence of life.

Constantly threatened by natural disaster, Japan has developed with a marked absence of visible permanence in the form of stone buildings and monuments; the regular occurrence of earthquakes, typhoons, landslides, tidal waves and fire has encouraged the small, the light and the replaceable. Indeed, in no advanced culture has wood, paper and lacquer played such an important role.

Following the assimilation to Buddhist thinking, embodying the austerity and simplicity of Zen, the character of the Japanese developed independently of Asia proper. A gentle melancholy overlay a core of inner violence, a characteristic which may derive from or reflect the unpredictable physical environment which surrounds them.

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Following the assimilation to Buddhist thinking, embodying the austerity and simplicity of Zen, the character of the Japanese developed independently of Asia proper. A gentle melancholy overlay a core of inner violence, a characteristic which may derive from or reflect the unpredictable physical environment which surrounds them.

Despite this, a deep love of nature and its strongly marked seasons is expressed through the traditional arts, crafts, architecture and lifestyle of the people. An unerring sense of a mostly asymmetrical nature, an innate craftsmanship and a feeling for materials underlies the Japanese aesthetic.

"Our aesthetic sense is our order"
(MIWA: Process; 1983, p.19)

The Japanese aesthetic may indeed be at the basis of all things Japanese, but it's the opposing images of traditional simplicity with visual eloquence against the blatant mass-appeal of consumer gadgets which makes its definition of design so difficult. The historical and cultural contexts from which each evolved has provided both images their own distinctive and apparently opposing characters. Many facets of cultural, religious and daily life have found expression through traditional Japanese arts and crafts such as ink painting, ikebana (flower arranging) and ceramic glazing.. This connection, however, is not so blatantly obvious for the latter, which attempts to fulfil the needs of mass production and a ravenous consumer society.

But within contemporary Japanese design, traditional concepts and an awareness of the meaning of Japaneseness, is a pervasive trend today - especially in areas where the individual plays a strong part. This, however, is also slowly establishing itself as a source within the industrial process. Rediscovering this tradition has not caused an introversion nor any form of design fascism - but rather, has established the universality of that design aesthetic. This is particularly significant because of the passive yet vital role which traditional Japanese design has taken in the formation of what we mean by the word, 'modern'.

While traditional Japanese craft aesthetics have played a fundamental role in the inspiration of the international style, it has, until recently, had remarkably little obvious influence on the work of that country's designers.

In presenting the development and remarkable achievements of the Japanese people, I hope to establish a connection between some notable industrial products of that country and their cultural heritage. I have taken the electronics industry for the purpose of this thesis to provide the models for my argument and refer specifically to the meteoric rise of the Japanese Sony Corporation in the home electronics field. The relationship between industrial design and the aesthetic and cultural aspects will be explored through the Sony design ethic. However, I drew on wider examples where appropriate to clarify certain points.

The structure of the study is loosely chronological as it traces the most prominent examples of where tradition and design overlap. I have supplied a short preface to Chapter 1 to establish the first modern contact between east and west and to clarify the positions of the respective societies at that time.

Chapter 1 deals mainly with the dramatic changes which took place in Japan in the post War years and acts as an introduction aiding in and setting the scene for further discussion. Starting from political initiatives which established a design framework from which companies could work, I lead into the products which that structure produced, its references to traditional concepts and ultimately the possibility of unconscious inclusion of cultural elements in product development.

The development of design is addressed in Chapter 2 and traces the establishment of a high-tech style which was Japanese inspired during the late Sixties and early Seventies. A parallel movement depicting technology with a Zen-based philosophy of simplicity, including traditional elements of miniaturization and compactness is discussed. I consider the social trends in Japan during the period and point out the duality which is at the basis of all things Japanese.

The philosophy of the worker within the traditional role and the structure of the company system and how this relates to the designer's role is considered in Chapter 3. I question that if designers are given more freedom to create products as they wished, what historical claim they have to innovation and creativity.

The Japanese reputation for imitating is explained and the growing confidence within commercial design briefly discussed. Here I take the opportunity to present a few examples of modern design which display features which are of an innately Japanese character.

My conclusions evaluate the recent and dramatic changes in Japanese society and indicate that growing economic stability has enabled a growing confidence in national expression. I establish the international reputation of not only Japanese industry but also the designers which present the face of Japan today through the highly creative and innovative products which the international community associates with that tradition. The possible international developments which are predicted in the coming years are finally evauated within the framework of a modern Japanese society and culture.

This study is by no means exhaustive, its aim is simply to outline the growing interest in cultural values and traditional aesthetics throughout contemporary Japanese design and, more specifically, within the manufacturing process. Within the time constraints available, I hope that I have been successful in revealing the fascinating developments which have enabled Japan to take its place among the international design community.

PREFACE TO CHAPTER ONE

The creation and crystallization of what is the basis of the Japanese aesthetic can be said to have its origins in the 16th century, when a long civil war exposed the people to disturbing foreign influences. The victorious Tokugawa shoguns (military dictators), set out to check the spread of alien ideas, and of Christianity, in particular. Almost any form of contact with the outside world was forbidden; Christianity was suppressed and the country remained in virtual seclusion for over two centuries. (MacINTYRE: The Shogun Inheritance; 1981, pp.27-48). Thus, as the countries of Europe and America were embracing mercantilism and plunging headlong into the industrial revolution, the Tokugawa government was cutting Japan from these very influences, promoting cultural development, social unity and strengthening the Zen-inspired feudal system.

With the arrival of the American fleet under Commodore Perry, in the middle of the 19th century, the Japanese awoke to the renewed threat from without; it was technologically backward and unable to defend itself. Only a concentrated effort to emulate the foreigners offered any hope for escape from eventual domination by them.

With the establishment of the Meiji Restoration in 1868, the new government, (which had overthrown the Tokugawa Shogunate), undertook the reversal of the established national policy of isolation, thus heralding Japan's entry into the modern world. The radical approach which aimed to establish a modern state by introducing the science and technology from advanced Western nations, aimed to encourage and perpetuate a western philosophy. This is reflected in a contemporary slogan:

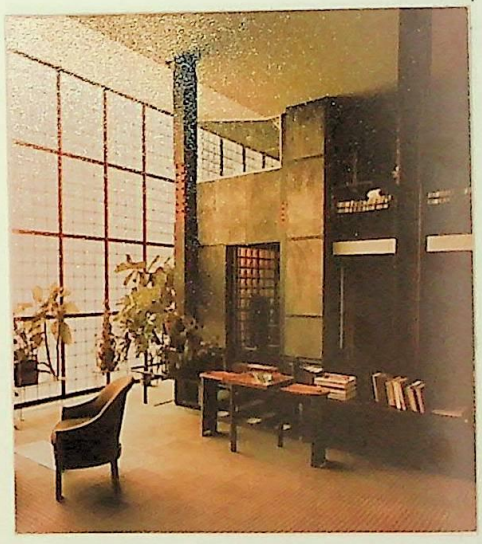
> 'Bummei Kaika (civilization and enlightenment)',

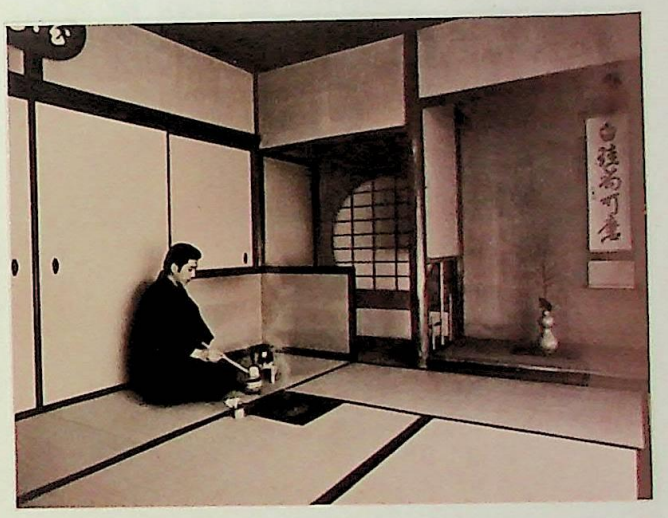
but,

> 'the traditional life and culture, which had grown to maturity and refinement (under the Tokugawa Shogun), was not so powerless nor so lacking in practical value as to be easily swept away by this new tide of civilization or enlightenment'.
> (KATZUMIE: Yesterday, Today & Tomorrow; 1980, p.7)

It was this rich, Zen-based tradition, with its austere simplicity, which impressed so greatly at London's Great Exhibition of 1862. It seemed to embody the spirit of revolution against the madly ostentatious ornamentation which the Crystal Palace represented, and subsequently went on to play a major part in the emergence of the 'modern' idiom.

In the West, Japanese plainness began slowly to infiltrate into Western sensibilities, with, for instance, Frank Lloyd Wright's Prairie houses being an expression of the Japanese influences disseminated at the Chicago World's Fair of 1893. By the 1920's, modern architecture and the Bauhaus owed a great debt to Japan for its clarity and simplicity.





1-2
the simple linements of the traditional tea-room are reflected in Pierre Charean's Maison de Verre (1928-32)

3-4
Vernacular architecture (Kura storehouse) and Wright's W.Thomas House(1901)

> "Honesty to materials, the beauty of asymmetrical design, modularity, the rejection of ornament - all these were quintessentially modern tendencies derived in part from traditional (Japanese) practices".
> (AMBASZ: International Year Book; 1986, p.79).

However, Japan could not afford the gradual assimilation of Western influences. Acutely aware of Western superiority, both technologically and militarily, the Japanese resorted to wholesale importation and adoption of the products and standards which would bring her into line with the powers in Western Europe, and more specifically, the United States.

Traditional Japanese arts and crafts as well as cultural 'treasures' were subsequently accorded a separate historical sphere of interest and were maintained unaffected, perfectly preserved, from the onset of modernization in the 1860's to the defeat by the Allies in 1945. As a result, the Japanese have been living a dual life of 'Wa and Yo', constantly swaying between the apparently opposing values of tradition and progress, East and West.

> "Modern Japan is a unique example of the way in which a sophisticated urban culture has adapted Western methods to take on and outstrip the West in terms of trade, industry and the like, and yet to a remarkable degree, has retained its distinctive character".
> (EARLE: Japan Style; 1980; p.13).

Japan, in September 1945, stood devastated by war, her cities gutted, factories damaged or destroyed, communication networks disrupted and a civilian population who were hungry, ill clothed but nonetheless prepared for the final 'battle of Japan'. Thus, it was to a scenario of national degradation that the Emperor's surrender speech was addressed, shattering all sense of national mission, stripping the Japanese of both a communal identity and a coherent direction.

Expecting a cruel and vindictive occupation, the Japanese instead found it constructive and benevolent. Under these conditions, the sense of duty which had enabled them to bear the heavy sacrifice of war, turned to positive, even enthusiastic co-operation with the new authorities. The basic American assumption was that a democratic Japan would be less likely to disturb the world's peace again. At the same time, it was also in America's best strategic interest to remodel Japan in her own image, thus strengthening its representative system of government and establishing a vital foothold in Asia - from which it was hoped it could spread.

Although the structure of occupation, in theory, was international, it was the American influence which decided, financed and undertook the rebuilding of the Japanese nation. Indeed, while the occupation lasted only seven years, Japan proved such a receptive and adaptable protege of the American ethos, that in the subsequent social and economic development, she adopted a very altered national persona. The prime objective of the Japanese Government after a humiliating defeat in the Second World War was to reconstruct the economy and generate a new goal and sense of national pride for its people. The many social, economic and political reforms that had been initiated in the late 40's under the direction of the Allied (U.S) forces, became the foundation of Japan's post-war policy and set the framework for the cultural and political colonisation of Eastern Asia.

chapter one

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In many ways, Japan's progress in the post war years, parallels that her European counterparts, Italy and Germany. It was on the basis of American aid, and the American's refusal to allow vast sums of money to be used in the development of an armed service, that Japan made her bid to establish herself as a major industrial power. With this vast capital and technological insurgence, she focused her attention less on heavy industry, than on manufactured technical goods.

Japanese products in the post war years, however, expressed no particular design policy. The main aim at that time was to re-establish itself and its economy through the production of cheap, technologically advanced products, that could be sold all over the world in large numbers. Vast investment capital was spent in purchasing technological production know-how and vast sums were invested in the research and development of these new technologies. Companies concentrated on keeping ahead of the field on a technological level, worrying less about aesthetic and cultural considerations and almost nothing at all about integrating traditional elements and creating a Japanese style.

It was during this period of reconstruction and economic development that the Japanese became notorious for their cheap plastic imitations of Western goods. Consumer products emulated their American counterparts, as their greatest need was to penetrate the U.S. market:

> "As a result many products looked as if they had come straight out of Detroit with their exaggerated forms and chrome details"
> (SPARKE: Design Culture; 1986, p.184)

However, by the early fifties, Japan began to move toward a position of social and economic stability - the 'economic miracle' underway would reach a peak in the late sixties and last late into the seventies.

As the fifties unfolded, Japanese businessmen were encouraged to travel on study tours to the United States in order to learn business management techniques. There, they were exposed at first hand to the design process and the benefits of product development. By the middle of the decade, the Japanese Export Trade Organization (JETRO) was sending students abroad to study and attracting foreign designers to participate in education programmes.

The Government was by 1958 well aware of the part good design could play in the establishment of Japan as the producer of excellence in consumer durables. It was also acutely aware of the international tensions concerning the flagrant copy-cat policy followed during the previous decades. Through the Ministry of International Trade and Industry, (M.I.T.I), the prototype of the Japan International Design Promotion Organisation (JIDPO), was established due to a;

> "pressing need felt by the MITI to establish some mechanism within its organisation to deal with the increasing number of claims from abroad against the illegal use of design on the part of Japanese enterprises".
> (M.I.T.I. HANDBOOK: 1979, p.7)

These claims were to be dealt with by prevailing on Japanese companies to design their products themselves, and by honouring those who did so satisfactorily. Each year JIDPO selected well designed goods and bestowed on them what was termed the G-mark, as an indication of good design based on true originality, and as an encouragement to other Japanese enterprises to realize the importance of original design development.

Partly as a result of JIDPO's initiative, Japan gradually outgrew its phase of flagrant imitation - though inevitably the more developed West remained the basic source of inspiration. During the fifties, industrial designers, who had established themselves in the post-war period on commissions for the American Military, came to maturity, designing a whole range of domestic appliances for the Japanese home market, which was beginning its slow climb to affluence.

The post-war manufacturers of consumer goods concentrated at first on precision audio-visual equipment such as cameras, watches, radios, tape recorders etc. These were products which were small, had a high capital return, a high technological profile and an ever-expanding world market. Television, introduced in the early 1950's with the commencement of public television broadcasting, was the first product of the 'new consumerism' to have a profound effect on Japanese social attitudes.

As the influence of American style living, (as seen on T.V.), spread, a vibrant home market emerged for the production of more and more domestic appliances. This process of Westernization characterized the decades which followed. People flooded from the countryside to the reconstructed cities in the 1950's and 1960's in search of work, and Japan became a predominantly urban-based country. The products of the new industries including television, washing machines and a plethora of household gadgets, practically unknown in the early fifties, were by the end of the decade, crowding every surface of previously highly austere interiors.

These technologically advanced products were inspired by those from the United States, many of course being designed with the American market specifically in mind. The design philosophy, like that of their American model, was based upon giving a product market appeal or 'style'; put another way, enclosing technological components in a box which was then decorated with familiar motifs taken from contemporary American automobile design - the symbol of popular culture in the fifties.

> "Radio, television sets and refrigerators were covered with pieces of chrome trim and embellished with shiny control knobs which derived from the Cadillac school of design".
>
> (SPARKE: Japanese Design; 1987; p.54)

By emulating their U.S. counterparts, Japanese manufacturers, using this crude form of marketing design, adhered closely to the standard mood and tastes of the pop era. This assured them success in a market which symbolized the spirit of industrial consumption and economic prosperity - quickly becoming the 'Japanese Dream'! The revolutionary approach of object symbolism, obsolescence and overt consumerism was fundamental in the infiltration of the American spawned mass-culture, so dependant on the role of the media for its dissemination.

This alliance between design and the popular imagination had little to do with the high culture of international good design but was the influence underlying the nature of Japanese production and consumption.

By the late fifties and early sixties, a number of the well established companies had begun to formulate their own design policies and promote it as an element of the company's structure and development. Upon returning from the United States in 1951, Kowosuke Matsushita, president at the Masushita Electrical Industrial Company, established an industrial design department at Matsushita, (encompassing National Panasonic, Technics and Quasor). Considered the first in Japanese industry and consisting of only a handful of designers, it had grown to more than fifty strong by the end of the decade; others were soon to follow.

Sony, now well recognised for its enlightened attitude toward design, was one of these companies appointing its first full-time designer in 1954 and seven years later instituting its design department. The background of Sony reflects in many ways the rise of Japan itself as an industrial economic power.

The origins of the company lie with one individual, Masaru Ibuka, who had run a firm called Japan Precision Instruments during the war. Together with Akio Morita, a young navy lieutenant and son of an old sake brewing concern, Ibuka incorporated the company in 1946 with capital of about $500. The enterprise called Tokyo Tsushim Kogyo Kabushiki Kaisha (T.T.K.), cashed in on the Japanese hunger for news from abroad by producing converters that would enable owners of any radio in Japan to receive foreign shortwave broadcasts.

The revitalised Japan Broadcasting Corporation (N.H.K.), was soon to become a client providing the basis for the economic growth of the tiny company. However, it was the Americans who pointed the way to a successful future in consumer electronics, when an official of the Civil Information and Education service of the Occupation Forces first showed Ibuka military tape recording technology received from the Germans as spoils of war.

Producing the clumsy and heavy Type G tape recorder in 1950, the company soon followed it with a series of innovative products. The Type M of 1951, was Japan's first portable tape recorder for professional use, while the Type H, intended for general use, appeared shortly after.

5
The clumsy Type-G was Sony's and Japan's first tape recorder (1950)

6
The TR-55 (1955) was an export success

T.T.K.'s breakthrough occurred in 1954, however, when it was granted a licence from Bell Laboratories and Western Electric to manufacture the first transistor in Japan, and in 1955, the first transistor radio - the TR55 - appeared. It bore the brand name 'Sony' which Morita and invented after a trip to America, when he learned that Ford was easier to say than Chrysler, and that Sony both evoked the Latin word for sound and the affectionate diminutive for son. (BAYLEY: Sony Design; 1982; p.17).

The transistor radio became Sony's first export when later that year, Canada's General Distributers, fascinated by this diminutive piece of technology, bought 50 examples. Three years later, T.T.K. adopted Sony as its corporate name and quickly developed a reputation as one of Japan's most design conscious manufacturers.

Indeed, Sony was the first Japanese electronics company to produce Western-style consumer products within a system that retained certain sustaining and influential elements of traditional culture. While Sony depended on imported technology, it adopted and enhanced it with an entirely Japanese attention to detail. The astonishing products which they created flourished in a home market that had a socio-economic basis very different from any Western competitor.

Sony's spectacular success in the West may in part be explained by examining the case of the hard-pressed middle classes, highly taxed to support a corroding economic structure that could no longer depend on manufacturing - of America:

> "Our crucial problem is over production. We have perfected mass production and mechanical equipment until our population cannot find employment unless we set in motion great programmes of armament or of luxury production".
>
> (BAYLEY: op. cit.; 1988; p.60)

These people sought quality in their consumer durables; Sony sold quality and the Americans bought it. The truly international style and universal appeal of Sony products, as with a growing number of Japanese consumer groups, was not overtly suggestive of an indebtedness to traditional influences and aesthetic concepts. However, the very essence of many of these products find its origins through these same traditions and design aesthetics.

So many basic influences from which traditional elements derive can be traced back to three main precepts. First, to the environment and its influence on daily life, secondly to the very special pressures on a people who live and work in one of the most densely populated situations in the world and thirdly, to a Zennish outlook of inner consciousness, austerity and simplicity.

For the Japanese, an unpredictable and hostile environment has made it necessary for a great deal of flexibility in traditional design. With the constant threat of natural disaster, an acute awareness of uncontrollable external influences has led to a disposition towards adaptability. From the embracing of Buddhism and the adoption of Chinese culture in the 6th century, to the ease in changeover of production in the constantly fluctuating markets of the 20th century, the Japanese have displayed an amazing flexibility and acumen for change.

A key concept in their domestic architecture, its philosophy works on two levels. Externally, the treatment and use of materials attempts to integrate the building elements with environmental elements, thus dissolving the structure into its general surroundings. From our Greco-Christian origins, we have built to challenge nature and establish human control and supremacy, attempting to dominate nature by exerting our presence on the landscape. The Japanese philosophy is the antithesis of Western thought, attempting to adapt and integrate and thus become a part of the natural order.

Internally, rooms do not have specific functions as they do in the West:

> "The Japanese would say that in the West the house floor is treated as an extension of the road. The floor in a Japanese house by contrast is seen as an extension of the bed".
>
> (ALL JAPAN-CATALOGUE: 1984; p.32)

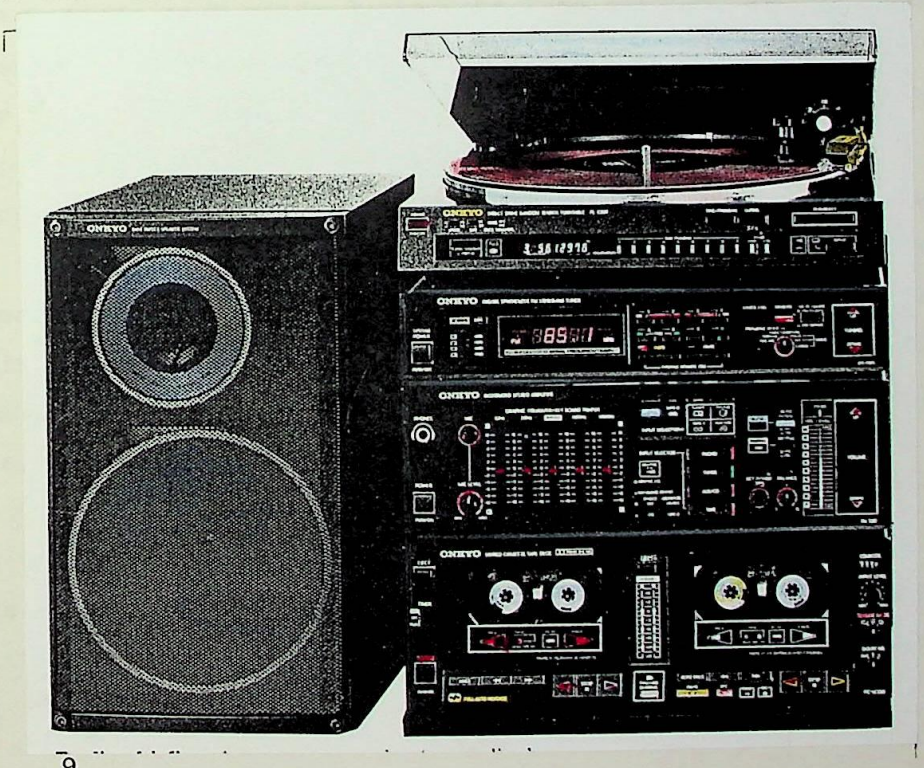
7
Many traditional elements are retained in homestyle

Indeed the same character is used for both. The function of the room, for eating, sleeping and working etc. can be changed easily by the placement of screens, the opening or closing of sliding doors or the spreading or removal of bedding. A bedroom is merely a room that happens to have a futon or bedding quilt laid out at that moment. In a culture whose space is at a premium, it is only prudent to utilize the available floor plan to its best advantage - but this has produced a very characteristic trait. The originators of the prefabricated house, the Japanese design their buildings on a grid floor plan by the laying of 'tatami', (straw matting of standard dimension). Screens are then employed to divide the area into rooms following the same basic grid, thus producing a variable modular living environment. The obvious convenience and efficiency, (which has a significant appeal to the Japanese), of an adaptable, modular system is an apparently innocuous traditional aesthetic thread, which has, nonetheless, penetrated the national psyche, emerging occasionally in industrially designed products.

8
Traditional, compact and modularized unit of containers and plates evokes the Hi-Fi stacking systems of the seventies

Continuing the by now familiar fascination with consumer electronics, the Japanese produced a rather peculiar combination of electronics equipment. Released in the early seventies, the Hi-fi stereo sound system purported to bring state-of-the-art technology with high fidelity stereoscopic sound to the consumer.

The concept involved separating the principle components of record deck, waveband tuner, stereo amplifier, stereo cassette tape deck and a dual speaker system, into individual units. These would be bought separately and combined in a modular format to comprise a high quality integrated music 'system'. Thebrushed aluminium or all-black, aggressive high-tech package displayed all the mystique of contemporary professional equipment. The modular concept, an essential element in indigenous architecture and crafts, unwittingly proved of great benefit to the audio electronics industry and by the mid seventies the hi-fi, with its midi hi-fi cousin could be found in homes all over the world.



9
The modular system appealed to foreign as well as the extensive home markets

Running parallel to this was an associated group of products based upon a similar principle - that of compactness. Traditional Japanese culture had for centuries produced such compact combinations as the Yatate, (ink, container, brushes in a portable case), and the Katsaru (comprising seal block, wax lighter and oil), for the

personal dispatch of mail. Being compact combinations of associated products, perhaps it is not unreasonable to suspect that Japanese industry applied the same philosophy to modern elements as that which had been applied to a variety of folk objects. The result has been an 'inspired' group of products ranging from the radio alarm clock with telephone to the wrist-watch calculator, including optional pac-man game; not to mention the morning call teasmaid with alarm clock and reading light - a very Japanese concept.

> "The tendency to combine functions such as tape-recording and record playing into single units also became increasingly widespread... and soon the concept of housing discreet functions in single shells had become obsolete. Miniature components were (modularized and) clustered together to create a visual impact through the sum of the parts"
>
> (SPARKE: op.cit; 1987; p.58)

For this reason, most goods during the late sixties - early seventies displayed more sophistication in their clever use of technology than in their appearance and visual subtlety. Japanese design had become synonymous with the clever manipulation and application of technology, perhaps more as a result of economic pressures and market demand, than of any coherent aesthetic choice or direction. Perhaps it was partly due to an unintentionally employed traditional concept which displayed a unique character and appealed not only to a home, but also a Western market as the goods at the Great Exhibition had done over a hundred years previously.

Despite the efforts to emulate the mood of progressive Western products during this period, the cultural heritage which seemed to have little to offer a technologically advanced industry seemed to be showing its face in the Japanese approach to product design.

It was clear, however, that Japan not merely had to find a style for her products but also had to market them aggressively if she was to maintain and prosper in the very competitive and fickle international market.

Since the late fifties, design had become an intrinsic part of both the mass production and mass marketing of Japanese products. The designers responsible, unquestionably influenced by the post-war social revolution and undoubtedly affected by the omnipresence of Western values, remained Japanese, were surrounded by Japanese culture and were living a Japanese experience. The contribution which they would make, foreign or native, to the development of a Japanese style in the significant social climate of the following decades, was still to be decided.

chapter two

> "During the 1960's and 1970's, as the Japanese economy drew level with and then overtook those of much of the West, industrial designers grew in confidence and originality feeling it was less necessary to follow the West's lead blindly".
>
> (POPHAM: Back to Native Basics;1986; p.2)

The improving quality and low price of all sorts of Japanese-made commodities, from hi-fi and video equipment to kitchen appliances and consumer gadgets, forced the overseas competition onto the defen The dual commitment to advanced technology and high quality innovation meant that Japanese industry depended greatly both on research and development as well as design. While the former tended to call the tune, design nonetheless was recognised as a crucial aspect of its manufacturing, serving both the means of humanizing the technology and of meeting the ergonomic and product image requirements needed to sell the goods and beat the competitor. However, wherever Japanese technology broke new ground, design originality was forced upon them, simply because no models existed to be imitated.

It would be naive to suspect, however, that the growing awareness of design among a select group of enlightened individuals had any real impact on the vast majority of Japanese manufacturers. For many, the most compelling priority was the filling of the public's eve growing need for high-tech gadgetry. Once these products began to be considered as pieces of equipment rather than pieces of furniture the constraints imposed by mass-manufacturing methods, resulted in a growing number of technological components being housed in little more than industrial boxes.

However, the fact that the technology used could heavily influence the appearance of the units themselves proved a perfect vehicle to associate the exciting imagery of aerospace control consoles and technologically advanced professional equipment of the late sixties with the new consumer goods of the early seventies. This quickly developed into a signature of Japanese products and by the ea years of the decade the 'high-tech' look had become a familiar part of product form internationally.

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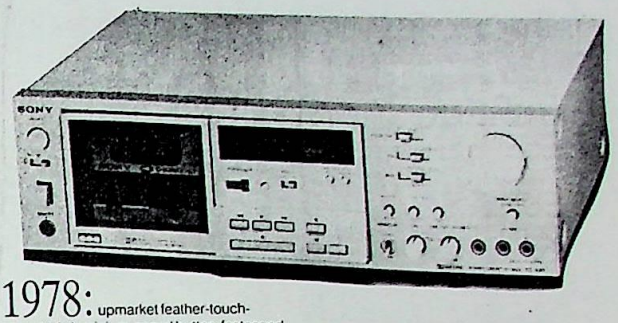
1972: Sony's teak-sided stereo amp designed to integrate smoothly with the veneer sideboard in the suburban living room.



1978: upmarket feather-touch-operated aluminium-cased button-festooned Sony cassette deck. Hi-fi was no longer disguised as a piece of the furniture; the design now suggested that a degree of manly technical expertise was required to operate the equipment.

10
Sony's modular stacking systems played on the semi-professional image

The marketing emphasis on low cost technological sophistication enabled the rapid infiltration of the United States and Europe:

> "For the mass market, Japanese style stood for space age luxury, (at a price you could afford), even if it wasn't always clear how the products worked as how they would fit in with other objects in the domestic environment"
>
> (SPARKE: op. cit.;1986; p.185)

11-12
Consumer electronics attempted to evoke the spirit of the age

While these products emphasised the spirit of technological advancement, pushing its futuristic complexity into the home, another tendency which paralleled it, contained many retrospective, traditional elements.

An increasingly characteristic feature in post-war Japanese design also, was an innate interest of ever smaller and more compact domestic electronic products. The suggestion was that the more compact the package, the more sophisticated its technology. It was, however, fundamentally an aggressive way of asserting Japanese technological prowess yet simultaneously displaying an inherent and indigenous design aesthetic based on compactness. (See Chapter 1).

Sony being one of the most progressive and pioneering of Japanese companies, had been committed to the miniaturization of consumer electronics since the early fifties. Producing its first diminutive radio, the TR55, which was based on the transistor technology bought from Bell Laboratories, it revolutionised the industry and took the market by storm at its launch in 1955. By 1957, other manufacturers had also begun to produce small transistor sets and Sony set out to emphasise its market lead by increasing the already apparent impulse towards miniaturization. It unveiled the world's first pocket tranny, the TR63, that year and followed it with the TR610, a year later. Undoubtedly this heralded what has come to be recognised as one of Japan's most endearing idiosyncrasies - her penchant and capacity for compacting and miniaturizing everything to an extraordinary scale.

13
Compactness and simplicity underlies the universally popular tranny - the TR-610 epitomises Japan's facination with comactness

Not without precedent in folk culture, this pervasive interest in compactness may be seen,not only in the compact, (and modularized) arrangement of containers and plates (see Fig.) but also finds expression through traditional poetic metre, known as Haiku. A mere seventeen syllables long,

> "it derives its aesthetic merit from the fact that it cannot be fully achieved without perfect execution". (YOSHIDA: Japanese Aesthetic Ideas; 1980; p.21)

An admiration of concision of form and compactness of meaning is coupled with a belief that the creation of perfection and quality in workmanship is not the preserve of high art and culture alone, but is an essential part in the execution of every day things: thus, Haiku finds widespread popularity throughout Japan. This almost religious work ethic and quest for perfection through compactness has survived into the production system of modern industrialised Japanese society and manifests itself not only in the work ethic of the people but perhaps also in the products they produce. It is not unreasonable to suspect that a people who, for centuries have taken trees, manicured and manipulated to miniaturize them and harness a dynamic aesthetic, see, in electrical goods, a vehicle through which a similar beauty in compactness, can be attained. The concept may indeed have a universal appeal, but the culture which has produced the Bonsai and Netsuke (a carving worn at the girdle), may have indeed discovered a contemporary way to express this urge, with the result that the theme has persisted ever since.

The affluent sixties presented to Sony an excellent opportunity to affirm, what has now become its characteristic style and to establish a strong corporate identity based on innovation, and original design. While other manufacturers were making bigger and bigger television sets as symbols of the move towards luxury consumption, Sony went the other way completely by applying the transistor technology it had by now perfected for radios, first to the TV8-301, (with its 8" screen), and subsequently to the 1962, TV5-303, (5" screen).

Exploiting fully for the first time the public's fascination for precision electronics, Sony's diminutive television epitomised an ethos with a very Japanese character. Almost overnight, the mood for miniature products became synonymous with Japan itself and over the following decades has found its way into a vast range of popular appliances. From the ever shrinking proportions of the desk-top calculator in the sixties and seventies, to the wafer thin hand-held model of the early eighties, this incessant quest for the ultimate in compactness and technological perfection has gone beyond the boundaries of necessity.

14
The introduction of the TV 8-301 established Japan and Sony as the source of high quality miniaturised consumer electronics

Today, the components have been made so small and so thin that what was once table top equipment is now wrist band technology. This philosophy has manifested itself through a multitude of contemporary products, from Sanyo's range of diminutive travel irons and hairdryers, through the thousand and one permutations of Walkmans, to the minuscule proportions of the new Sony Clip radio.

15
Sanyo7S diminutive iron (1983)

16
Sony's card Clip radio((1986)

17
Sony's walkman which revolutionised the personal entertainment concept by offering high quality-smallpackage

18
Panasonic's ultra thin radio

The Japanese interest in compacting and miniaturising products can be seen through the vast array of consumer durables which they produce based on this philosophy. While the technology which spawned it was available to manufacturers arround the world, it was the Japanese who persued this line of thinking to its limits

The fascinating feature in the development of miniaturization has been the dichotomy in aesthetic approach between the styling of standard high-tech look, projecting the image and aspirations of a futuristic and blatantly technological society, embodying the spirit of social affluence and of modern sophistication. It also flattered the consumer into believing that if he could understand the complexity of such an advanced piece of technology, by implication he had a high level of intelligence - indeed, an inspired piece of marketing.

Miniaturized products, on the other hand derived their technological standing simply by being so small. For these products there was no need to create a high-tech image to carry them in the market place, therefore designers were free to develop the style as they pleased. The results proved to be very interesting:

> "these (miniaturized) goods emphasized the expressive and innately mysterious function of high technology products through visual simplification".
> (SPARKE: Design in Context; 1982; p.56).

To overcome the apparently unsubstantial nature of such small, 'simple' products, marketing exploited these very features - but by emphasizing the smallness, lightness and simplicity, marketing departments were presenting to the public what could easily be evaluated as traditional Japanese characteristics in modern consumer products. This brought to an end the apparent domination of post-war aesthetics by industry's technological prowess.

On a practical level, these commodities had a particular attraction by fulfilling the very significant need to export as large a quantity of high capital goods as was possible. Thence, the move was towards producing high quality consumer durables which could be transported to the market at minimum cost, thus yielding higher returns. The home market also benefited greatly by smaller product ranges due to the ever-rising demand for such products against the very real limitations imposed by the diminutive size of the average Japanese home.

While the vast proportion of the Japanese move towards an urban lifestyle, living in and around large cities and experiencing one of the highest standards of living in the world, the typical home is very small by U.S. or European standards. As land prices are so prohibitively expensive, most Japanese live in new apartment buildings or in the comfortable estate developments throughout the sprawling suburbs of Tokyo, Obihiro, and Kanazawa. Nothing seems more evident in modern Japan today than the influences which the West has had on the attitudes and lifestyles of the people. Western styles in clothing, food and especially in home and product design have appeared tantalizing exotic and progressive to the Japanese for decades, representing liberalization and freer attitudes:

19
Japanese domestic environments are very compact and efficient

> "Sitting on chairs around a dining room table - lounging on a leather sofa, cooking in an American style kitchen and collecting European antiques are only some of the common practices that reflect Japan's assimilation of Western culture", and its design ethic.
> (SLESIN: Japanese Style; 1987; p.12)

Many Japanese, especially of the older generation, have expressed the fear that the new technologies and Western influences will between them make future generations careless of Japanese traditions.

Similar challenges to tradition have also been experienced in the West, but here the choice has been between the maintenance or rejection of those traditions based on a continuous and clearly homogenous historical process. This historical continuity is not as well defined in Japan due in most part to the traumatic cultural and sociological changes brought about after the Maiji Restoration. This has produced a classic Japanese duality - that of traditionalism versus modernism, as opposed to the Western experience of modernism being an extension of a constantly updating traditionalism.

Yet writing in 1983, the sociologist, Kato Hidetoshi, observed that, "some 70M people had visited a shrine or temple on New Years Day, of that year, according to ancient custom", (THAMES:Japan Since 1945; 1989; pp.50-51), a figure which must have included a large number of young people who were adhering to their cultural roots.

This brings us to yet another interesting duality in the Japanese character. Although few are ardently religious, the typical Japanese is both a Shintoist and a Buddhist, while an artist or intellectual may also be a Christian. This is a characteristic little understood by the West because it is based principally on this dualist philosophy, which sees no disparity between the unity of a number of apparently divergent concepts. However, it is fundamental in understanding this people's sense of aesthetics and endless adaptability, (see Chapter 1, p.14), and goes a long way towards explaining the emerging philosophy towards the apparently opposing forces of East and West.

Despite the apparent rejection of tradition, the Japanese continue to decorate at least one room in a traditional manner, with real Tatami mats on the floor and a small alcove where a favourite ink painting or calligraphy scroll can be hung. This room keeps the household in daily contact with its cultural roots.

Thanks to the increased leisure and opportunities afforded to the Japanese in recent years, there are more women practising Ikebana, traditional flower arranging, than there would have been half a century ago. (THAMES:op.cit; p.50). The persistence of tradition continues to influence men who, upon returning home, shed their

Western style office suits and slip into a comfortable Yukata, (dressing gown).

Electronic calculators abound yet more than a million people every year take the examinations set by the Japan Chamber of Commerce and Industry to test experience on the Seroban (abacus). Indeed while Japan adopted the metric system back in 1959, the Japanese continue to use traditional methods of measurement for clothing, furnishing and room size. This is also seen in the sale of fruit, cutlery, china or where sets of any kind are sold, an asymmetrical uneven number of threes, fives and sevens are used against our Western symmetrical groupings of pairs, sixes and dozens.

20
Children take part in calligraphy competition

The New Philosophy in Japan rejects the assumption that modernization can only be achieved by superseding tradition. Instead, the traditional characteristics of harmony and duality prevail in the recognition that tradition and modernization are complementary and interchangeable rather than contradictory and polarized.

> "People now drive to shrines in their new cars and women study Ikebana in factory classrooms and then assemble the most advanced electronics equipment at their work stations"
>
> (THAMES: op.cit; p.51)

Japan's remarkable economic performance can be attributed to many factors, first among which is the quality and commitment of its workforce, who are more reliable, conscientious and better educated than those of many competitors. Even graduates destined to manage in industry, must first perform even the most basic jobs to experience the value of communal responsibility and the extended corporate family system. Workers are responsible for the quality of their work and take pride in what they do. However, coupled with a quality workforce, who display an exceptional work ethic is the almost Zen character and structure of traditional Japanese companies; with their unique methods of doing business they closely interface the role which designers play within the company systems of production and sales.

The notorious Japanese company hierarchy, one based on consensus and seniority, is a formula, which has worked due mainly to its filtration throughout the Japanese experience. Young hopefuls pass through an educational system, viciously competing to attain a coveted university place which will lead to a prestigious company. Once in the company system, it is expected that you stay until retirement - it being a great dishonour to leave or to be dismissed. In return, the paternalistic company looks after housing, health care, entertainment and retirement benefits. Authority and promotion come with age rather than ability and it is due to consensus and the seniority system that it is,

> "normally outside the individual's power to make decisions. It would be intolerable arrogance and anti-social selfishness for a Japanese to make decisions affecting the lives of other people, especially workmates, without first seeking their consent".
>
> (IRISH TIMES: 1989; pp.1-2)

Designers not only have to work within the confines of the industrial and marketing process but also within company structures which allow little flexibility for self expression and personal creativity. Working as anonymous team members, their commitment to 'the company' parallels that of the legendary Japanese factory worker; thus it is often very difficult to determine who exactly has the real authority

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and who makes the final decision on product development. Even a top executive must consult his colleagues before making a decision because he has become a top executive more by his seniority than by his leadership ability. To maintain harmony he must act as a member of a family, with decisions, responsibilities and authority being channelled through the group.

But times are changing; as one would expect of the company, the Sony experience, like that of many other enlightened organizations, is quite different. Aware of the existence of capable people who are not satisfied with the situation and not sufficiently motivated, they recruit personnel through advertisements (poaching), and try to give their designers more freedom and more creative briefs. Sony are also very aware of the threat of competition from rationalized, profit minded Western business enterprises. Through Sony's managerial lead, closely followed by National, Honda, Nissan, MItsubishi and others, the rigid and stifling structures of the seniority system are beginning to break down. This is being replaced by a hybrid system combining the best of both Eastern and Western management philosophies. Drawing on the communal spirit and personal involvement of Japanese thought and merging it with the creativity and extended individualism which is the Western experience, a flexible, open and supportive environment for product innovation and creative thought is thus created.

Indeed, many of the major companies share the feeling that one cannot expect to survive without being innovative and creative. Kazuo Kimura, Secretary General of last year's ICSID Conference in Nagoya, speaks of the new wave of confidence sweeping Japanese design and says that at Nissan:

> "They are starting to foster people's individual ambitions to design the best car in the world, instead of just working to specifications agreed by the group"
>
> (HANCOCK: Design; 1989; p.55)

But what of Japanese creativity? As a people, do they have the resources or temperament for innovation and inherent original creative thinking? Historically, the country's communal society has discouraged individualism and non-conformist artistic temperaments; as the Japanese proverb warns:

"The nail that sticks up, gets pounded down".
(MASAKO HOSAKA: Dublin: 12 Dec. 89).

But the cliche that the Japanese excel at initiating and improving the invention of others but inherently lack creativity, cannot be taken too seriously. Intellectually, the Japanese have proven themselves perfectly competent: In the 17th century, at a time when Japan was still completely cut off from the mathematics of the West, a scholar named Takakazu Seki, (1642-1708), discovered a matrix formula which was in no way inferior to the work of his contemporaries in Europe. Similarly, the inventions of Gennai Hiraga, (1728-1780), including experiments for the induction coil and a variety of scientific devices, demonstrated a level of inventive, intellectual creativity comparable to that anywhere in the world. (MORITAKA: 1987; p.13).
If we accept the probability of creativity within the historical context, be it intellectual, scientific or aesthetic - and this presence is clouded - then we must search for the reasons underlying the misrepresentation by history.

Intellectually and scientifically, Japan was isolated from the developments in European theories between the 16th and 19th centuries, and therefore did not benefit from the cross fertilization of prevailing thought and established work. Regardless of this, Japanese mathematicians and scientists continued to do very important work independently of their Western colleagues; work which is recognised and respected internationally.

Aesthetic creativity during this same period was influenced directly from the teaching the the Buddha, epitomizing the simplicity, harmony and quest for perfection of Zennist thought. This perpetuated, through Tokugawa Shogunate, (Edo Period), a philosophy that 'perfection' could only be attained through continual repetition and

spiritual dedication. Personal expression and creativity was seen then, not as a means of attaining perfection and inner harmony through practice, but as an anti-social selfishness. Thus, it was not an inherent lack of creativity, but a completely different philosophy and circumstance which has differentiated Japan from the European model, to which it is compared, unfavourably.

Ever since the Meiji Era, (1868-1912), when Japan entered the race for modernization as a very late starter, the country has taken the shortest route possible in order to catch up with the United States and Europe.

Realising its backwardness when it was forced out of isolation by the encroaching Western Powers, she saw that catching up with the West was an absolute necessity in order to safeguard her national sovereignty; and would be no easy task. The most expedient and least expensive method of catching up was to acquire and copy the more advanced knowledge, technology and style, thus leapfrogging the preliminary and intermediate stages of industrial development, a process which had taken Europe several centuries.

So, if the Japanese have progressed in recent times by borrowing and adapting technology and style, it has not been due to an inherent lack of ability or respect for traditional values but rather simply a lack of the extra time, and resources, necessary for this period of development and original creation. As long as a nation is struggling to make up for lost time or to get enough to eat, labouring to build or rebuild itself from the rubble of division and war, it is not likely to have the extra strength to nourish creativity.

Whatever the argument on the existence or lack of inherent creativity within the Japanese experience, Japan's international reputation as copycat has little light to shed on the Japan of today. All of the larger companies have continually active, in-house research and development departments and, with the new company structures, an open fertile design environment in which their designers are encouraged to be innovative and creative. (WEAVER:Design; 1987; p.9).

The realization today is that it is only through design and product innovation that the company structure can survive. Ikuo Murakami, Manager of the Nissan Corporate Design Centre, in Tokyo, says:

> "Until now, we have all noticed that engineers have most of the power. But it is in fact design which is the most important discipline. Our engineers are having to change their ways, to work in a supportive role to designers rather than the other way around".
>
> (HANCOCK: Design;1989; p.55)

This has provided unprecedented opportunities to the first generation of young Japanese designers who have grown up beyond the shadow of war, (and discrimination),

> "With little or no sense of inferiority to distance from the culture of the West.... and for those who travelled abroad to study it had neither the strangeness nor the romance it had for their fathers".
>
> (POPHAM: Back to Native Basics; 1986; p.4)

By the mid 1980's, two opposing strands had become apparent within contemporary Japanese design:

> "Many designers freed from the constraints of the old system and thus released from the responsibility to re-assure the consumer of quality and reliability began showing a greater interest in the symbolic and expressive potential of products".
>
> (AMBAZO:International Design Yearbook; 1986; p.179)

The post-Modernist Movement, whose eclectic symbolism had become such an integrated and familiar aspect of Japanese architecture, now found expression in the products of the highly automated manufacturing methods of industry. Capitalizing on the flexibility of new technology, manufacturers created product variants by introducing variable components and through the appropriation of popular colours, products became part of the lifestyle trends which have characterized the eighties in Japan. The result has been a growing number of consumer electronics which use the post modernist ticket to appeal to the fashion/style conscious consumer.

21
The eighties brought lifestyle and Post-Modernism

At the same time, a much more austere, less compromising, pure approach had been present which rejected the ornamentation of the post modernist train of thought. This was coupled with an unease about all that was being lost to Western social, cultural and aesthetic colonisation and by the early eighties, some members of this generation began to pine for what had been discarded. Leading figures in architecture, fashion and interior design began to look for ways to re-affirm, not just a modern, but a specifically Japanese identity.

Traditional Japanese design was noteworthy most of all for its elegant simplicity, the prevailing Japanese taste favouring forms of striking plainness and simplicity.

> "During the centuries that European art, fine and decorative was undergoing spasm after spasm of change, Japanese aristocratic taste was directed steadily inward: on the attainment in, say a bowl or vase, in a splash of ink or in an interval of time, of a melancholy kind of stillness and quietness"
> (POPHAM: op.cit.; 1986; p.4)

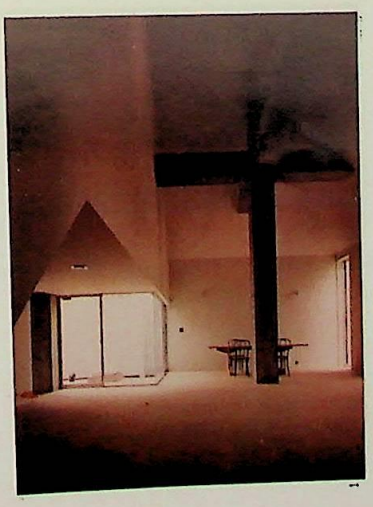
Austere and mysterious elements of Zen origin are united to great effect in interiors like Kenzo Tange's Sogotsu Art Centre. It embraces the purest form of the international idiom yet, at the same time, retains the strong Buddhist links of inspired traditional aesthetics. Takashi Sugimoto of Superpotato, a renowned Tokyo based design consultancy, attributes much of his inspiration to traditional influences when he is creating the exquisitely crafted interiors, for which he is so famous. He claims that he is:

> "very interested in the old traditional Japanese thatched farmhouses. I like them a lot, not to copy, but they are an influence, especially in the way they use natural materials"

(BLUEPRINT: 1987: p.28)

22
mysterious image of nature-Zen ?

23-24
Sculptural clothing with a traditionalism



25
Zen simplicity and Corbusier

Closely related to traditional Japanese values is a respect for the inherent beauty of materials and the associated ethos that:

"perfect treatment produces perfect results".

(HOOVER: Zen Culture; 1977; p.137)

This interest in the quality of traditional materials and the aesthetic principle, that you create decoration in the way materials are handled, is beautifully and dynamically executed in Issey Miyake's sculptural clothing. The asymmetrical proportions and the subtle use of the material to accentuate the wearer's body is strongly reminiscent of traditional styles.

Within the constraints of industrial design, the modern use of glass, metal and plastic is a far cry from the vivid glazes of the tea ceremony pottery, the manipulative use of grain in the wood for ceilings walls and floors or the subtle textures of lacquer. In fact, it is difficult to even associate industrial products with the inspirational work of designers like Tange, Sugimoto and Miyake. This is mainly because while contemporary commercial design is individual orientated, product design is still team-driven and the creative potential is dissipated throughout the group. However, certain sustaining elements that are inherent in the craft-based ethic can be, and have been, applied successfully to industrially made products.

A Japanese preference for drawing out the qualities in a material and the more recent move toward minimalism and simplicity, has been realized in Sony's Profeel system of the early eighties. This clean, uncluttered design with its innately mysterious character, (probably due to its apparent lack of tuning facilities), has a sleek and elegant profile when viewed from any angle. While the excellent finish and attention to detail belie a very Japanese aesthetic, the Profeel also overlaps tradition in its use of the modular format which allows the television unit to retain its unbroken lineaments; this subtly suggests the quality of the equipment as the hi-fi suggested professionalism and high-tech in the seventies.

25-26
Sony's Profeel System of the 80s restating modularisation of the 70s

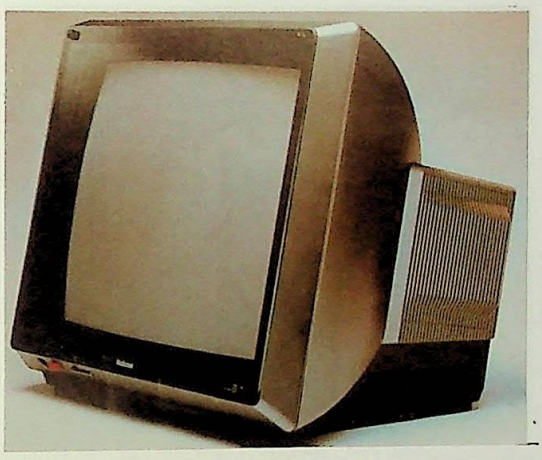
These same qualities have been brought to bear on the new Sony Clip radio, (see Fig.18) with its innately mysterious mode of operation. While the unit quite obviously displays a level of innovation and technological virtuosity without parallel, it retains a simplicity and quality which plucks similar strings to those by Kenzo Tanga and colleagues and brings the Japanese fascination for miniaturization to its limits.

This move to the Zen principle of simplicity and uncluttered format is clearly demonstrated in Sony's hi-fi systems of the late eighties. It provides a stark contrast to the design philosophy which provided the high-tech style of the seventies and underlines the mood of Japanese products of the latter part of this decade.

27
A new philosophy emphasising an uncluttered visually simple unit contrasts the high-tech image of the seventies as seen in fig.26 above

An interesting new twist is given by National's 'Floor T.V.', which is clearly inspired by the Profeel. With its slick, flat, screwed-down screen and grilled contoured back, the novelty of this set is that it is intended exclusively for use on the floor, so its screen is tilted ten degrees upwards. (POPHAM: op.cit.; 1986; p.)

The traditional lifestyle was entirely floor-bound and National's recognition of the floor space, symbolizes the most interesting trend to gather strength during the 1980's. That is a growing awarenes of Japanese tradition and a desire to revive and reinterpret its significance for the culture which spawned it and the international community which now looks to it for inspiration.



28
National's Floor TV reflects the renewed interest in traditional principles and the simplicity is reminicent of a Zen aesthetic

CONCLUSIONS

CONCLUSION

Japanese society has entered a new phase of development with transformations taking place in Japanese lifestyles, business activities, industrial structure and design philosophy.

Until recently the almost endless reservoir of consumers have kept pace with the rapid turnover of new products and consumer technology, all financed by the ever growing disposable income of the Japanese estimated at 80% of the average wage. (HORTLEY: Design Week; 1987; p.).

Recent consumer behaviour, therefore, points to a shift in emphasis from goods to services - people are beginning to look for things which make them feel good, with the resultant sweeping lifestyle changes. This has manifested itself through higher expectations, the phenomenal rise in the number of working women, the increased use of consumer credit, the revolutionary adoption of communication systems and the growth of the personality - especially among young people.

> "It must be hard for people in the West to understand the change, because they've always had personality. But in Japan we're just entering the age of personality".
>
> (HIRANU: Design; 1989; p.79)

This growth of Western behaviour does not indicate a decline in national pride nor a rejection of tradition but instead, on the contrary, it is this growing national confidence which is enabling the Japanese to employ their characteristic sense of quality by integrating modernism with traditionalism. Furthermore, the compactness, modularity, miniaturisation and the subtle manipulation and use of materials are from traditional aesthetic ideals unconsciously employed during the early post war development phase.

CONCLUSION

Japanese society has entered a new phase of development with transformations taking place in Japanese lifestyles, business activities, industrial structure and design philosophy.

Until recently the almost endless reservoir of consumers have kept pace with the rapid turnover of new products and consumer technology, all financed by the ever growing disposable income of the Japanese, estimated at 80% of the average wage. (HARTLEY: Design Week; 1987; p.).

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> (HIRANU: Design; 1989; p.72)

This growth of Western behaviour does not indicate a decline in national pride nor a rejection of tradition and culture. On the contrary, it is this growing national confidence which is enabling the Japanese to employ their charactristic sense of duality in integrating modernism with traditionalism. References, like compactness, modularity, miniaturization and the subtle manipulation and use of materials are from traditional aesthetic ideals unconsciously employed during the early post war development phase,

are now well established elements of Japanese product design. Today a healthy respect for the qualities embodied in traditional values and the way these may be employed in a contemporary context are being explored, not only by designers in the areas of interiors, graphics, fashion and architecture but also by a growing number of product design companies.

Contemporary commercial design has reached its remarkable level of sophistication in recent years, in part, I think, because many of the country's artists compete fiercely for jobs in architecture, fashion, interior, graphic and industrial design. In these fields, the artistic impulse and instinct of the sculptor and artist is powerfully channelled into the three-dimensional medium of buildings or interiors, the highly structural and dynamic fall of cloth or the transformation of the most restrictive design brief and advertisement campaign into pieces of graphic 'art'.

The success of Japanese product design is legendary, but the new structures allow for individual input and creativity within the old system of evolutionary change and development. This product development "mushrooms in a hothouse environment" of concept generation and cross fertilization.
(MOGGRIDGE: Design; 1989; p.48)

Designers,expressing the growing security of one of the world's richest countries, through their work, are recognizing the qualities that traditional Japanese aesthetics have to offer as the modern movement (Bauhaus, Frank Lloyd Wright etc.), had done in the early part of the century. This revival has been the most internationally significant as so many more Japanese designers now have experience of studying and working abroad.

> "They are on the same wavelength as their foreign counterparts and closely in touch with new developments worldwide; but they also carry enough weight to influence the West in return".
> (POPHAM: op. cit.; 1986; p.7)

The ever increasing shift back to traditional aesthetic values retains its momentum in the international character and appeal of these values. As the large multi-nationals move into closer contact on the international stage and attempt to infiltrate wider and even more diverse markets, the formation of an international idiom becomes more crucial. Products manufactured in one culture must find acceptance on foreign markets which may be very different in character to the home market.

The most difficult hurdle for industry in becoming more international is the large cultural gap between Japan and its Western counterparts. While the Japanese may well be superficially adopting Western habits and tastes, the fundamental psyche underlying their method and approach may not be so easily influenced. No company is more closely associated with Japanese industry's relentless international expansion than Sony. With 70% of its $8.76bn. total sales last year outside Japan, its name is synonymous worldwide with consumer electronics with an international flavour. (COPE, Business; 1990; p.24). Yet, according to Ken Iwaki, Sony's Head of Corporate Planning:

> "That does not necessarily mean that we are an international company. True, Sony has done more than most to bridge the cultural divide... Even so, there are often disagreements within Japanese companies about how far they should yield to foreign customs.
>
> (DE JONQUIERES: Financial Times; 1987; p.13)

As Japanese designers continue to grow in confidence, establishing and restating their cultural heritage within a modern framework and international context, one of the interesting questions for the future is just where this process will lead us. The continued adoption of foreign practices by the Japanese, in turn, may be affected by just how far the rest of the world is prepared to follow suit.

Japan's emergence, in the light of America's continuing problems

in which government and consumers alike are widely overspending, lead some economists to ask questions about the respective roles of the two countries in the future. Since 1945, world trade has expanded within a framework of the International Monetary Fund and General Agreement on Tariffs and Trade, which has been devised by the U.S.A. - with America itself as the powerhouse of growth and major regulator of the system. Now, America is visibly faltering, maintaining its high standard of living only by means of massive borrowing abroad - which has turned her into the world's largest debtor. So, who then is the world's largest creditor? Japan, of course, exporting capital to the value of $187 billions in 1989. (O.E.C.D.: 1989; pp.28-29). According to economist, Nakatani Iwao, America may soon become too involved in sorting out its debt problem to be able to continue to stimulate world trade. (THAMES: op.cit.; 1989; p.55).

By the 1980's, Japan's stature as an economic superpower was beyond question. The Japanese economy produces over ten per cent of the world's wealth - making Japan twice as big in economic terms as West Germany, the industrial powerhouse of Europe. The value of shares traded on the Tokyo Stock Exchange exceeds the value of those either on London or New York, (FRASER: Financial Times; 1989; p.7), and in terms of real estate Japan has been reckoned to be worth three times as much as the United States, which is thirty times larger.. While by 1986 Japan had only 12 of the world's largest manufacturing companies (measured by sales), compared with America's 48, she had seven of the world's top ten richest banks - and by 1988, all ten of them! (IRISH TIMES: 1989; p.56).

The sociologist, Hayashi Kenjiro, maintains that the crumbling of America's industrial leadership signals the end of an era and suggests that steps should be taken to build the foundations for a new Japan-led world order. These would include:

1. Upholding the doctrine of free trade, even if America resorted to protectionism.

2. Making the yen the major international world currency.

3. Making Tokyo the major centre of raising capital for development.
(THAMES: op.cit.; 1989; p.56).

But the most vital element which this scenario presents, is not just economic but cultural. Just as 17th century Holland, 19th century Britain and 20th century America had gained immense vitality and had been culturally very influential, so too, Japan may gain preeminence in the 21st century and export culture and information to the rest of the world. At that point, the process of Japan's internalization would be complete as the country would also meet the requirements for true leadership in the world community.

> "We Japanese must now decide how to go about creating, before the end of this century, a culture that we can be proud to offer to the world".
>
> (KENIJIRO: International; 1988;p.57)

It would not do to lose sight of the strengths of Japan - a major economic power with the skills and requirements needed to operate a modern society with a long experience of parliamentary politics.

Conclusions about the only non-Western state to have successfully industrialized are not difficult to reach. Like any other open society since the end of the Second World War, Japan has been a fishbowl open to scrutiny. Yet, the very openness may deceive; faced with the overwhelming amount of data, we must ask which aspects are fundamental and which imported and evaluate them in context to prevailing social, economic and aesthetic trends. Unlike other neighbouring states in which the apparatus of modern government and social structure have been imposed, what are essentially still predominantly agricultural, Japanese society is complex. Blurring of social class lines, ideological diversity, release from rigid traditionalism and its inclusion in the vigour of modern culture; these are all yardsticks of advanced social order - all characteristic not only of Japan but of Europe and America also. This makes Japan more intelligible to the West than the rest of Asia.

Yet there is a danger in finding Japan too easily intelligible, too Western, for just as the modern West continues to be inspired by its Judeo-Christian-Greek tradition, so too the influence of Japan's recent non-Western past remains within its modern life. This invites questions whose answers are not to be found in the study of the West and in the values and aesthetics of that tradition but in the examination of the traditions and culture of Japan itself.

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Topic: Social history and personal experiences

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Background: Masaru component contractor
Topic: Company systems and social experiences

3 FLYNN, Paulene, artist, N.C.A.D., Dublin, 23 Jan 1990.
Background: N.C.A.D. Graduate; lived in Japan
Topic: Everyday design in Japan and experiences

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Background: Japanese designer; educated and working in Britain
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COMPLETE AUDIO VISUAL SYSTEM COMPRISING OPTIONAL SU430 AV RACKS, KV 2521 TELEVISION, SLV 757 VIDEO RECORDER. THE HI-FI SYSTEM INCLUDES PSLX 555ES, TAF 730ES, STS 530ES, TCK 730ES, CDP 338ES AND APM 181ES SPEAKERS

The entire entertainment system, modularised, compact and becoming more visually clear presents a means by which the Japanese can express their culture through consumer products.

JAPAN YEAR BY YEAR SINCE 1945

1945 Fire-bombing of Tokyo. Fall of Okinawa. A-bomb destruction of Hiroshima and Nagasaki.
Surrender of Japan following Emperor's first-ever broadcast.
Occupation begins. Demobilization of Japanese forces.

1946 New Year's Day broadcast – Emperor renounces divine status.
Showa constitution announced.
Women vote for the first time.

1947 Showa constitution comes into force.
Socialist government briefly in power.
American food aid staves off starvation.

1948 Right to strike limited.
General Tojo and six others hanged as war criminals.
Honda and Sony companies established.

1949 End of post-war 'baby boom'.
'Dodge Line' raises interest rates to end inflation.

1950 Outbreak of Korean war. 'Red purge' of Communists in trade unions.
National Police Reserve established.

1951 'Majority Peace' treaty signed.
US-Japan Security Treaty.

1952 Occupation ends.
'Reverse course' begins to reassert powers of central government over police and education.
Radio Japan established to broadcast Japanese news and current affairs commentary to neighbouring countries.

1953 End of Korean war.
Pre-war living standards restored.
TV broadcasting begins.

1954 Self-Decence Forces established.
Japanese fishermen catch radiation disease from US H-bomb tests in the Pacific.
Japan Air Lines begins trans-Pacific flights.

1955 'Five Year Plan for Economic Self-Support' published.
Japan Socialist Party factions re-united.
Liberal Democratic Party established.
Hiroshima Maidens visit US for surgery.

1956 Diplomatic relations re-established with USSR.
Local education boards to be appointed rather than elected.
Japan joins UN.

1957 First post-war defence policy statement.

1958 Japan launches world's largest oil-tanker to date.
Typhoon kills 1300.
Japan External Trade Organization established to promote exports.

1959 Crown Prince Akihito marries a commoner.

1960 Security Treaty crisis.
Ikeda announces 'income-doubling' plan.
Colour TV broadcasting begins.
US paroles last Japanese war criminals.
Assassination of Asanuma, leader of Japan Socialist Party.

1962 Japan and US settle Japanese contribution to costs of Occupation.

1964 Tokyo hosts Olympic Games.
Japan joins Organization for Economic Co-operation and Development (the 'club' of rich nations).

1965 Public Nuisance Prevention Corporation established.
Re-establishment of diplomatic relations with Republic of Korea.
Japan Overseas Co-Operation Volunteers established to send young volunteers to work in developing countries.

1966 Japan begins generating nuclear power.

1967 Japan's population exceeds 100,000,000.
Basic Environmental Pollution Law passed.

1968 Japan's balance of payments moves into surplus.
Student riots at Tokyo University.
Kawabata Yasunari wins Nobel Prize for Literature.

1969 Tomei Expressway establishes motorway link between Tokyo and Nagoya.

1970 Suicide of Mishima Yukio.
Japan produces its first industrial robot.
Expo '70 at Osaka.

1971 Environment Agency established.
Nixon shocks.
Three die in anti-airport protests at building of Narita.
Emperor Hirohito visits Europe.

1972 Tanaka's 'Plan to Remodel the Japanese Archipelago'.
Okinawa reverts to Japan.
Tanaka visits Mao Zedong.
Winter Olympics in Sapporo.

1973 Oil crisis.
Japanese Embassy opened in Beijing.

1974 Japan International Co-Operation Agency established to promote technical assistance for developing countries.
Ex Prime Minister Sato Eisaku receives Nobel Prize for Peace.

1975 State Visit of Queen Elizabeth II to Japan.

1976 Lockheed scandal.
MIG pilot lands at Hakodate, exposing weakness of air defence system.

1977 50 per cent of Japanese population born since 1945.

1978 Treaty of Peace and Friendship with People's Republic of China.
Resignatgion of General Kurisu.
Narita Airport opened.

1979 Second oil crisis.
Summit of seven leading industrial nations meets in Tokyo.

1980 Paul McCartney deported on drugs charge.

1981 Honda and British Leyland announce technical co-operation.

1982 Methane gas explosion kills 94 miners.

1983 Nagasaki Holland village opened as historical tourist attraction.

1984 Centre for International Co-Operation in Computerization established by 65 Japanese computer companies.

1985 Yen revalued by 40 per cent against US dollar.
517 killed near Tokyo in world's worst ever air crash involving a single aircraft.

1986 Nissan opens car factory in UK.
Prince Charles and Princess Diana visit Japan.
Maekawa report calls for opening of Japanese economy to foreign exports and participation.

1987 Japan pledges to double number of Japanese tourists by 1991.

1988 Japan becomes world's largest creditor nation and largest donor of foreign aid.
Prime Minister Takeshita pledges Japan to greater internationalization.

1989 Emperor Hirohito dies, ending the longest reign in Japanese history.