Errata:

The title page of the thesis should read:

The Embodiment of the Traditions of Japan
reflected in the Sony Walkman, the Sharp
Folding Iron, 1972, and the Sharp
Hand-Held Calculator, 1980.

Michelle Moran

B.Des in Industrial Design 1993

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National College of Art and Design,
Faculty of Design,
Department of Industrial Design.

The Embodiment of the Traditions of Japan reflected in the Sony Walkman, the Sharp Folding Iron, 1972, and the Sharp Hand-Held Calculators, 1980.

by; Michelle Moran.

Submitted to the Faculty of History of Art and Design and Complementary Studies in Candidacy for the Degree of Bachelor of Design.

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INTRODUCTION

Commercial appeal, technical sophistication and high quality characterize Japanese products. Today the Japanese are acknowledged world leaders in transport, fashion, architecture and modern crafts. Yet not so long ago Japanese goods were considered cheap, inferior and disposable. What has brought about this remarkable turn-round?. How do the Japanese combine an acute understanding of consumer needs with technological ingenuity and appealing design?.

One of the key elements in Japans conquest of world markets is their approach to design. This thesis will penetrate Japanese design thinking and assess the values and concepts the Japanese have cherished for centuries, and to analyse the ideas that have found their way into contemporary design.

(Introduction cont.)

There is an excess of forces spewing forth from Japan. The forces of it's economy, it's politics and the irrepressible forces of it's culture, shrouded in the haze of all that is imported from other countries. This import of culture and ideas from other continents occured in overwhelming periodic waves. Historically, Japan experienced widespread internal turmoil right up until the mid nineteenth century, where, internal loyalist pressures against the prolonged rule of the Tokugawa shogunate were unleashed and with the gradual entrance of the Western powers, which led to the toppling of the old regime of two and a half centuries.

Each of these periods of internal turmoil, in fact coincided with, a peak of political and cultural tension face to face with other countries. The common feature of these periods, moreover, is that once the turmoil was put to an end, the country became more open to the external world and sought through cultural importation, a means of integration. The "external world" countries, interestingly enough, varied each time. In the seventh century it was Korea, in the eight century, it was China, in the sixteenth century it was the Iberian powers that first introduced Christianity, and in the mid nineteenth century it was Western Europe.

All the many discussions of Japan, it's people and culture, share a common dilemma: Japan is clearly different from the West, but it is impossible to make a summary of that difference or to attribute the root of the difference to a single concept or value. The Japanese are nevertheless a very dynamic people, and their industries are known for unique and highly advanced systems of production and fierce competition among corporations as well as employees.

The mechanism of Japanese behaviour resembles the playing of a game, all that matters are the rules. The ultimate pleasure is to respect, follow and become absorbed in those rules. Once the game is established it becomes an obsession - involvement in this game is what provides fulfilment and makes life worth living. The social system, too, can be understood as a complex of such rules. This theory will be discussed later in much more detail.

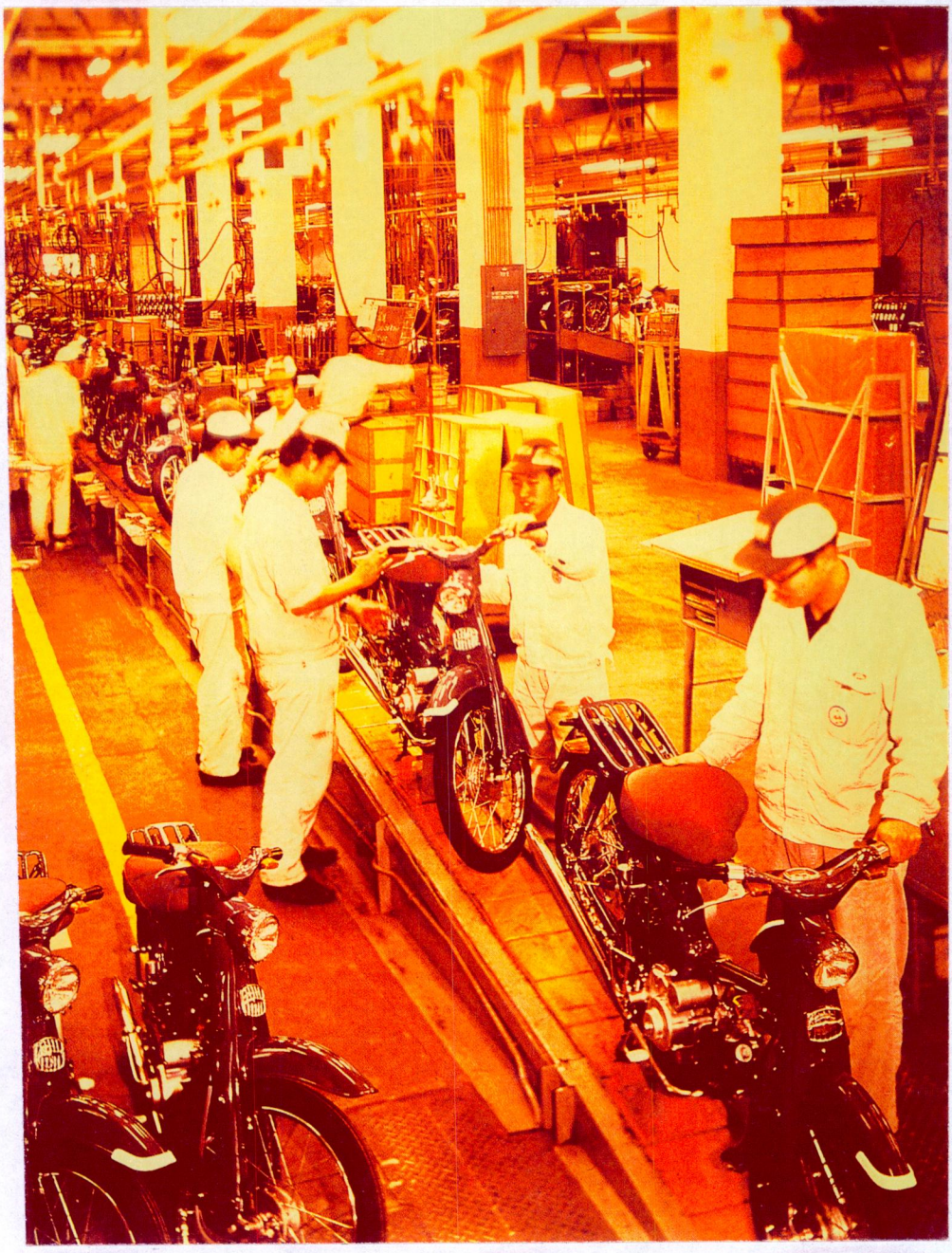


Figure 1.1

A motorcycle plant in Japan. Along with the optical and precision instruments and electronic equipment , motorcycles were one of the high-technology products which characterised Japans post war industrial construction.

CHAPTER 1

Post 1945 Industrialization;

Japan becomes a model for the rest of the world for the first time, in architecture, graphics, fashion and electronic and electrical goods.

In the years 1940-1960, Japan gave more to the west than it received in return, particularly in the areas of art, architecture and design. None the less, technological advances made in Japan in these years, which depended almost entirely on imports from the West, were substantial. After the Second World War, in spite of the massive destruction, Japan was in a position to gather it's strengths and take up where it had left off. By then it was also ready to assimilate many of the aesthetic lessons it had both taught, and learned from the West, and more into a new epoch. In the post-war years, the Japanese provided once again, in the areas of architecture , crafts and graphic design, and for the first time in fashion, electronic and electrical goods, and automotive design, a model for the rest of the world.

Tokyo in 1950 was still in the shadow of war. In the early months of 1945 huge expanses had burned to the ground in firebombings. Reconstruction had got underway almost at once, but of the most poverty stricken, improvisational kind. Japans capital was largely a city of wood and corrugated iron shacks.

The outbreak of war in Korea was Japans' "gift from the Gods." U.N Forces had need of everything-iron, steel, cement, textiles, munitions and weapons. Japan, just 100 miles away at the closest point, was ideally placed to supply them. The war kick-started the nations' heavy industries, which had been comatose since 1945.

Life in Japan, begins to improve. For many families the big breakthrough was obtaining a flat, usually in the cities, in a high rise housing estate. So fierce, was the competition for flats that they were allocated by lottery. Car ownership was still the perogative of the wealthy. Covetnous was concentrated in the home, as affluence grew, housewifes set their hearts on obtaining three items: a television set, a refrigerator, and a washing machine. These were known a the `three sacred treasures,` a jocular reference to the three sacred symbols of the Emperors authority: the mirror, the sword and the jewel."(Popham, 1990, page 2.)

Gradually the tiny living spaces, formerly admired by foreigners for their elegant emptiness, became cluttered with the luxurious products of the new age.(Figure 1.2)

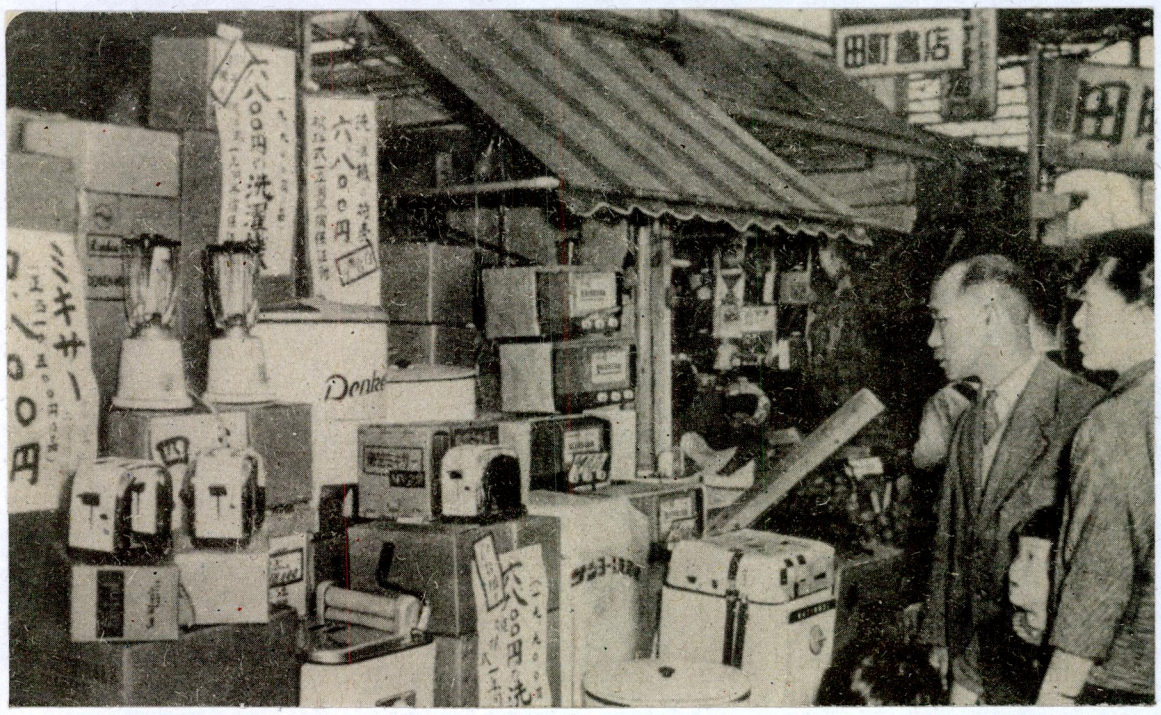


Figure 1.2 Luxurious products of a new age

This is one of the reasons why the visit of Masaru Ibuka, head of a small Japanese firm, to America in 1952, was so significant. He brought back the secrets of the transistor. Three years later, his company, Sony, launched the miniature transistor radio:an item perfectly scaled for use in the Japanese home. (Figure 1.3). It was first of the many products which have shown how adept the Japanese are in designing products perfectly tailored to the living and working conditions of their domestic customers.

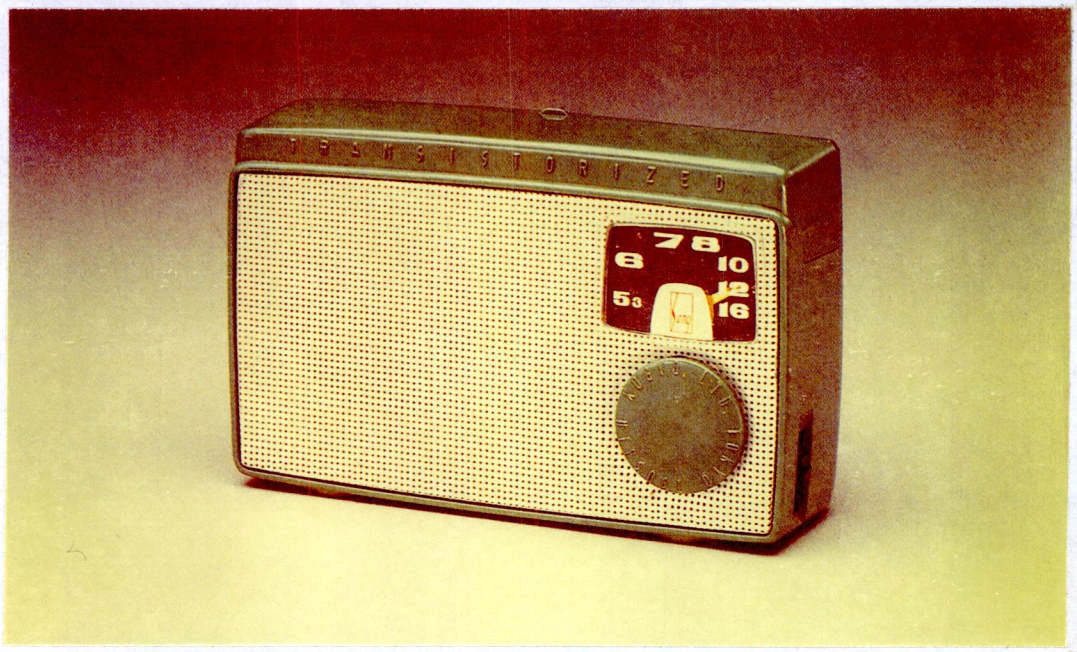


Figure 1.3 Sony TR55 transistor radio.

Sony was the first company in Japan to produce a transistor radio. The TR55, the appearance of which owed much to contemporary American styling, was the companies first export.

Japan for the first time in it's history was beginning to feel, like an affluent world, of which it was an increasingly rich, essential dynamic part. The dark past had been left behind. In 1964 Tokyo had the great opportunity to show it's new face with the Olympic Games, with a young athlete called Yoshinori Sakai, born in Hiroshima on the day the bomb fell. He lit the Olympic flame, the world was welcomed to a city which was proving how radically it had remade itself. (Figure 1.4, 1.5)

At the end of the 1970s, Japan was economically stable, a survivor of disaster. It became an unrivaled manufacturer of a new generation of "smart goods" like fax-machines, hi-fi cassette desks and computers. (Figure 1.6, 1.7, 1.8) An appreciation of Japans wealth and energy grew around the world, it's image began to change. It gradually ceased to be the maker of reliable goods of whose appearance foreign customers were slightly ashamed. The launching of the Walkman in 1980, introduced a new world and a new concept, and also helped to remove long adhering "copy-cat"labeling, even though the age old debate over whether Japan is a chronically imatitave or a highly creative country remains and will be discussed later.

Figure 1.4 An early microwave oven, or "electronic range" as it was then called , pioneered by the Sharp Company in 1952

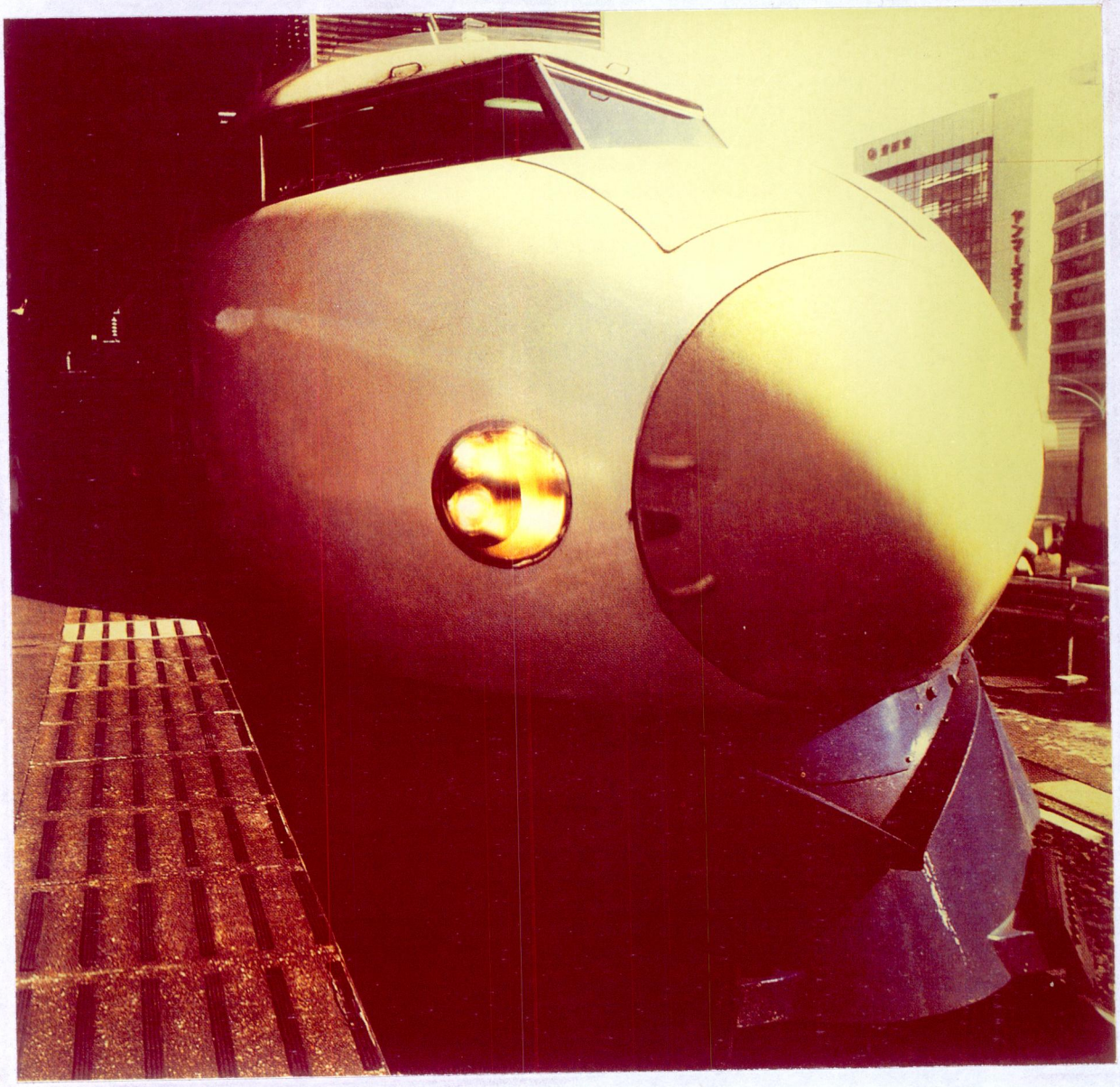


Figure 1.5 Japans bullet train:was introduced in 1964.

In appearance it had much in common with earlier American streamlined locomotives.

Figure 1.6 Sharp was at the forefront in the evolution of the hand-held calculators. Produced in 1973.

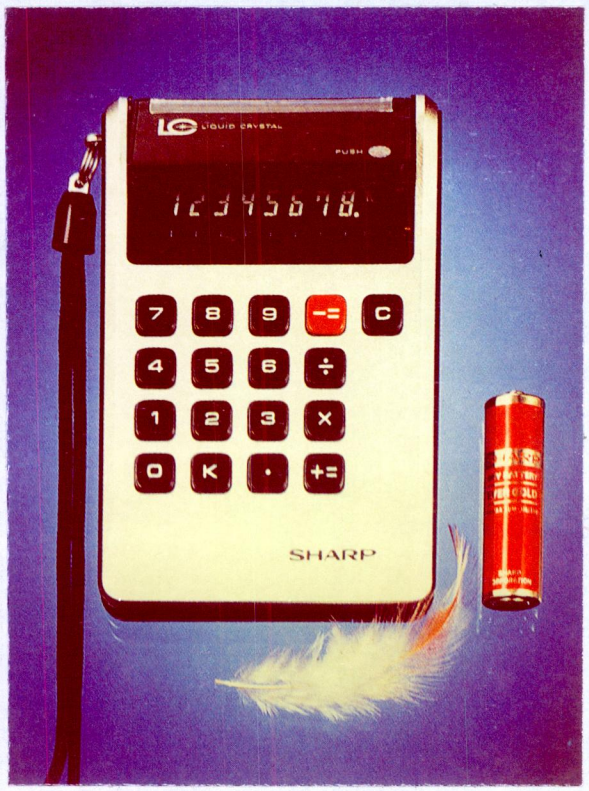


Figure 1.7 Sony developed the worlds first solid state television receiver; featuring an eight inch screen in 1959.

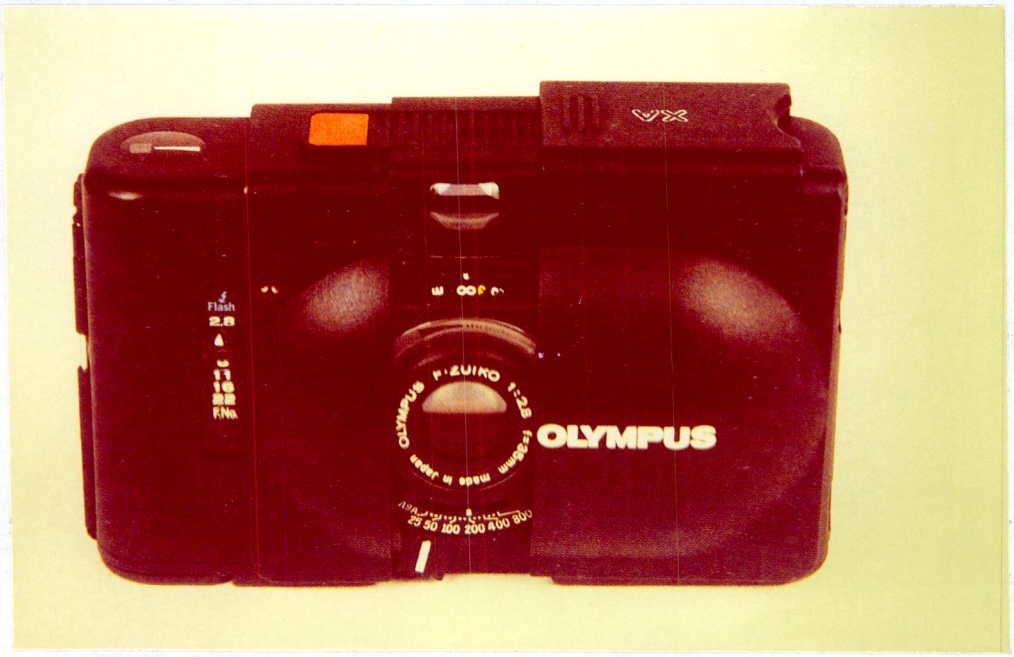


Figure 1.8 Initiated in 1982, the Olympus camera remains one of the most respected of camera designs to emerge from Japan.

For the Japanese, the 1980s was the decade when they consolidated their post war achievements. Even in international politics, perhaps the weakest area, advances were made. Japans wealth had long made it;s involvement in the Western councils unavoidable but traditionally it was a silent partner, meekly towing the American line. Politics aside, the 1980s was the decade when Japan began to feel good about itself. Due to it's congestion, pollution and architectural mediocrity, citizens of Tokyo had long harboured feelings of inferiority about their capital. Now they discovered it afresh, it's long history, it;s complex structure, it's dynamism, it's unique blend of chaos and serenity. (Popham,1991,p.4)

Figure 1.9 1970s Japan and it's new generation with"smart goods"

CHAPTER 2

The Traditions of Japan.

Aggressive companies in Japan, have integrated from the beginning - technology, thinking and design, to their new ideas and exciting products. In this chapter it will be discussed, a number of ways that success might rely on the fact that Japanese design, has up to the present day incorporated their own traditional Arts and Japanese style. With this running through their designs, they have found a winning formula in modern times.

If one takes a look at some of the Japanese traditions and what has been discussed earlier and how Japan sought through cultural importation, a means of integration, it can be seen how almost everything "Japanese" is reflected in the design of the three chosen products;

1. The Sony walkman, (Figure 2.1)

2. The Sanyo folding travel iron, 1972, (Figure 2.2)

3. The Sharp hand-held calculators, (Figure 2.3)

CHAPTER 2 (cont.)

2a; Japanese companies capitalizing on war time technological developments.

As already mentioned, there was a series of new electrical companies before and after the second world war, capitalists in on war-time technological developments, the Sony corporation was probably the most progressive company in this respect, established in 1945, by Masaru Ibuka and Akio Morita on the basis of breakthroughs made in telecommunications engineering during the war. (Figure 2.4) Although in it's early days in the late 1940s the operations engineers were responsible for both the product's interiors and exteriors, as early as 1951, Sony sought the advice of people that were still trained as illustrators and painters, rather than as designers for industries

Figure 2.1 The Sony Walkman

Figure 2.2 Sanyo folding travel iron, 1972, shows the Japanese designers' gift for compactness at it's best.

Figure 2.3 Sharp hand-held calculators, 1980s.

Figure 2.4 Sony TR610 transistor radio 1958. Miniaturization proved to be one of Japans strengths in electronic goods in the 1960s and 1970s.

Sori Yanagi, who also became one of Japans best known Industrial designers internationally, was commissioned to design the "H" tape recorder which was marketed in 1952-53. (Figure 2.5) In 1954, Sony hired it's first full time in-house designer and by 1961 it had seventeen designers on it's staff, under the design management of Norio Ohga, (who in the mid nineteen eighties became the President of the Sony Corporation.) It was time before they grouped as a team and centralized, and until 1977, there were still designers scattered among Sonys' different departments. By 1981 Sony had fifty six designers in total, and by 1985 this had expanded to one hundred and fifty one, located centrally in it's product planning centre in Tokuo, under the leadership of Yasou Kuroki. (Lorenz. 1987, p.52)

This recollation of designers reflected their changing role from stylists to product innovators, from them performing a fairly superficial task to their becoming increasingly integrated in the process of manufacturing and marketing.

The man behind the Sony walkman is Akio Morita, this man has a revolutionary understanding of consumer psychology and also of product design, whereby he transformed the original jumble sale ideas of Japans electronics into the present day ideas - ones of prestige and mystique. Akio Morita states that "the Sony walkman is a symbol of a post war economic miracle and that it is the Tokyo Sameri of the transistor."(Morita,1986,p.75)

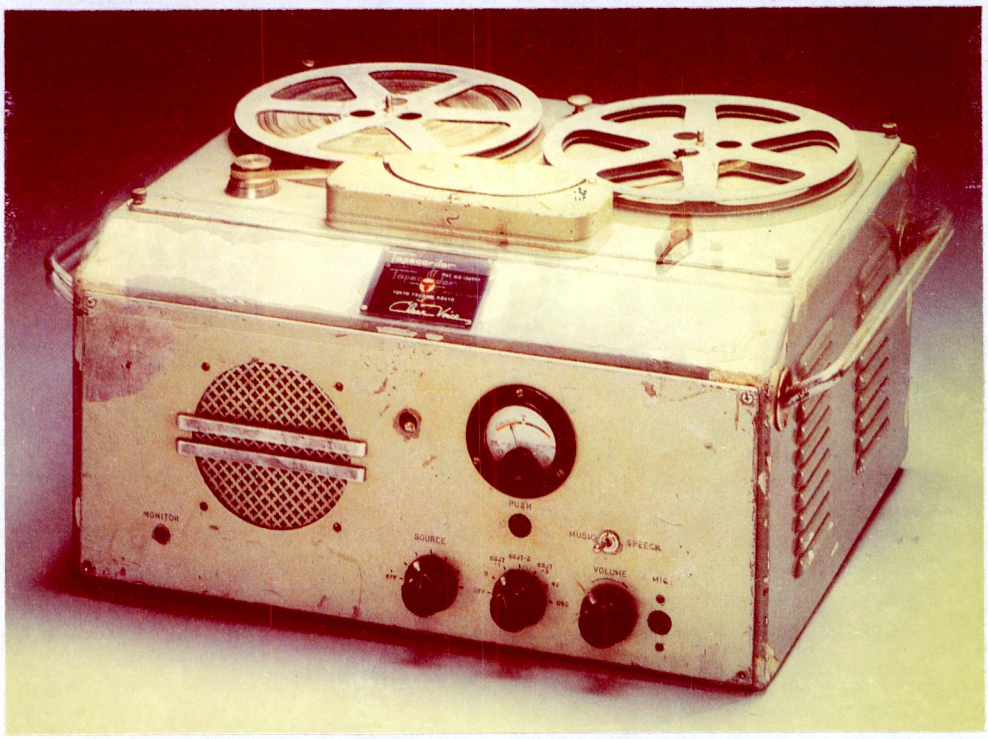


Figure 2.5 Sony's type "G" tape recorder of 1950, a bulky object which owed much to war time technological discoveries,which was the first of it's kind in Japan.

And so began the race for new ideas and exciting products, a turning point for the Sony company was when they heard of the American invention - the transistor radio. After a trip made by Morita, the Sony TR55 portable radio was then launched in Japan. (figure 1.3) These earlier radios were small and portable and new trends and behaviours followed the product, they were instant hits, especially with the teenagers, who did not care where they were, as long as they could listen to music, even the ear plugs that resembled deaf aids did not seem to bother the younger generation. This is where the concept for the walkman began. Morita thought of a tape player, with a good sound, that one could listen to anything they liked, wherever desired. It was an idea for a new product, that, when the concept was developed and eventually placed on the market, Sony had no idea how popular the idea was to be. The product was not planned or launched anyway carefully and it was three months before sales took off.

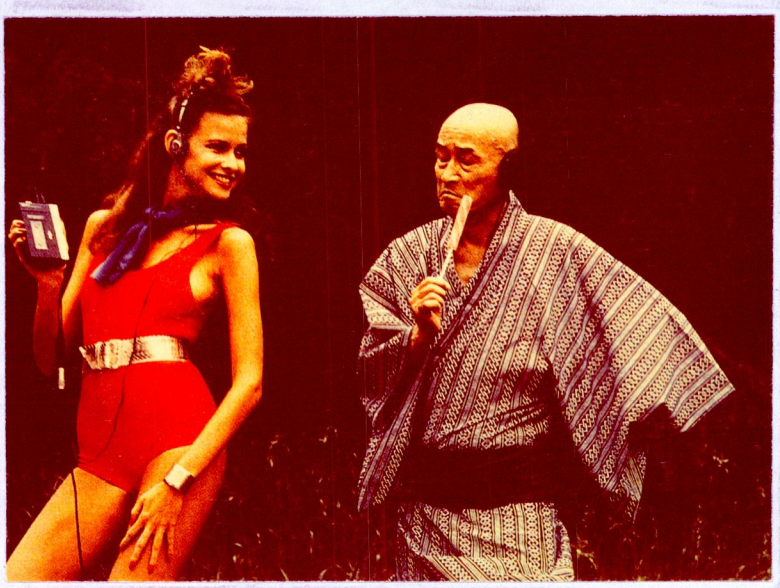


Figure 2.6 Advertisement for Sony walkman 1979. The Sony Corporation took advantage of graphic designers' skill in producing highly effective technically sophisticated images.

CHAPTER 2

Traditions of Japan (cont.)

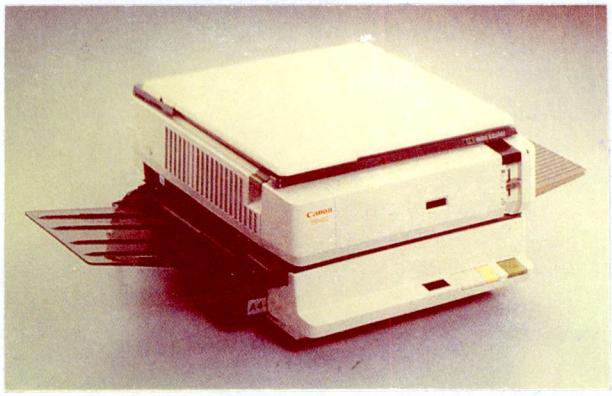
2b; A comparison between a selection of traditional Japanese objects, with the Sony walkman, the Sanyo folding travel iron and the Sharp hand-held calculators.

The previous explanation of the Sony walkman is a very good example of what was stated in the introduction; that the country became more open to the external world and sought through cultural importation, a means of integration; Morita travelling to America seeking the latest inventions, taking them back to Japan and through cultural traditions, integrating this radio, developing the concept into a new Japanese product; the Sony walkman.

American manufacturers eventually learned what the Japanese already knew, that new markets can be created by making things smaller and lighter. The popular phrase in Japan is KEI - HAKU - TAN - SHO,which means light, thin, short and small. (Figure 2.7)

With the Japanese' desire to make things smaller, miniaturization was the fundamental part of Sony's, Sharp's and Sanyo's corporate policy in the 1970s, but especially for the birth of the super walkman, the ultimate mini cassette player, with it;s tiny motor operations. and the Sharp's calculators, with so much genius in so little space. But this obsession that the Japanese have is not just for the sake of it. (Figure's 2.8, 2.9)

Figure 2.7 Sharp Colour Video Camera.



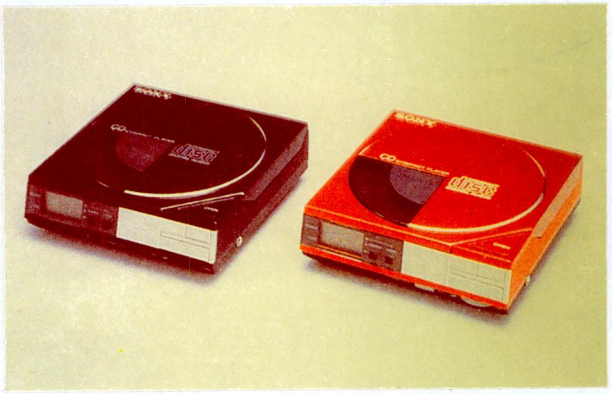


Figure 2.8 Cannon Mini Copier 1983. Example of Japanese miniaturisation.

Figure 2.9 Sony Compact Disc Player D50, 1985. Sony designed it's players in line with it's commitment to neat minimal design..

Human interest in tiny machines dates back to the clockwork toys of the sixteenth century, but it was not really this century that making things smaller became a matter of military and economic survival. Spurred in by the Cold War and the Space Race, U.S. scientists in the late 1950s began a drive to shrink the electronics necessary to guide missiles, creating lightweight devices for easy launch into space. It was the Japanese though who saw the value of applying miniaturisation technology to the consumer market. In his book, Morita tells us how he proudly showed Sonys' $22.95 transistor radio to U.S. retailers in 1955, and he was repeatedly asked "who needs these tiny things?" Morita. A. Sony in New York, 1986, page 21.

Miniaturization stems from the Buddhist religion, whereby objects have to have spiritual, aesthetic and moral overtones - the Japanese need to be ingenious and in control of their environment. these three companies; Sony, Sharp and Sanyo have roots very deep in Japanese traditions.

Take for example, the MAKUNOUCH lunch box, it is a simple box shape, that can contain a variety of attractively foods at one sitting, (Figure 2.11). This concept has been adopted over a number of years, in many situations. For example; Airline travel, the customer is kept in suspense until the food arrives, all packed in it's separate boxy compartments,contained on a small tray. on which the contents are revealed

The calculator, walkman and folding iron, are all objects one might desire, as you do, the food inside the lunch box or on the Airline. One has to carry these products around with them, for the walkman, as part of you.

These products each have many functions - the walkman, apart from the obvious playing music, one can fast forward, rewind, stop, tune, adjust volume and chooses between "normal" and "metal sound" etc.(Figure 2.1)

The travel iron will iron your summery dresses or your shirts, but it also unfolds and folds, to enable you to pack it neatly away into the smallest of suitcases, it has many functions, of which, the user can decide the temperature and the correct materials it should be used for. (Figure 2.2)

The Sharp calculators, produced so that one, will fit neatly into the palm of the hand, will carry out the square roots of any amount of numbers, carry out addition , multiplication and division etc. for you at basically the tip of sixteen buttons, but with the help of an extra L.C.D., this mini storage computer can ark you "if you speak German?."

These three items are operated in a variety of ways and each product contains rather a lot of information, to add to this, they are all portable. But... so too is the MAKUNOUCH lunch box, portable, it too contains a variety of information. Taking all four items, it can be said that they were conceived and designed in much the same spirit. Now the connections between these products and the lunch box, is not just the similarity in the basic box form, which they all reflect.

Figure 2.11 "Meigarami bento" the traditional compartmentalized lunch box expertly conveys the Japanese talent for skilful packaging which continues today.

The Japanese also have a profound understanding of the principals of reduction. One only has to look at their bonzi trees and miniature rock gardens or their "Tsuba," which for centuries, the Japanese have decorated. These metal sword guards, which prevented the swordmans hand from slipping onto the blade. In early times these guards were strictly utilitarian in appearance but from the late seventeenth century onwards it became fashionable to commission highly detailed decoration on the Tsuba to compliment the magnificent Japanese swords

One can also look at the Japanese "Netsuke" and "Inro" - a small case containing several airtight compartments, was used by men during the eighteenth and nineteenth centuries, to carry tiny personal items, such as medicines and seals. The Inro were made to hang by silk strings from a "Toggle" (netsuke), which secures the Inro to a belt. The extraordinary variety of minuscule decoration and shapes incorporated in these everyday articles, has made them highly valued articles today.

The Japanese have a love of culture, two thousand years ago when they were introduced to rice, from the continent, it became their way of life, just looking at their rice fields, one can see their economy of their use of space. Space has become a necessity and virtue to them, and it is with these examples that one can say that it was no accident, nor any luck on their part that they have passed out all with their technology products.

It is with these examples, of lunch boxes, miniature rock gardens and bonzi trees, compared with the three products in question, that one can begin to show how these everyday items, used or loved by the people of Japan, that are so typically Japanese and have roots in their traditions and culture, have either been conceived and designed in the same spirit or designed because of their reasoning with what they already know.

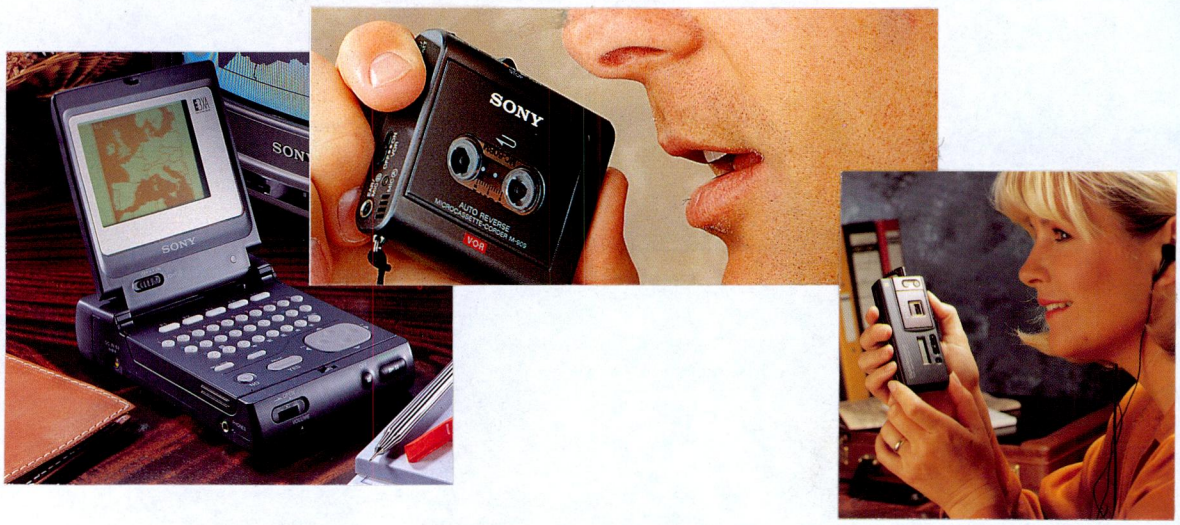


Figure 2.12 Making things smaller has become a matter of military and economic survival.

CHAPTER 3

The Traditional Japanese House

how it's construction and layout has influenced the design of the three products under discussion, from this highly regulated way of living.

Taking the traditional Japanese house, one can see that other events; it is the setting for their famous ceremony (which will be discussed later). Over the years, it has acted as the forcing ground for many of the components of the aesthetic code that the Japanese adhere to, so carefully.

Made of wooden beams, and constructed with a "pillar and beam" method, (Figure 2.13), which symbolises the temporary shelter provided by the outstretched branch of a tree, the traditional Japanese house was, a small, simple space with a minimal amount of low storage furniture within it. The floor area where both eating and sleeping and eating takes place is emphasised; moveable paper screens called "shoji," separated spaces from each other and provided a flexibility and openness within the space which was always multifunctional and kept clear of any unnecessary objects. The only other decoration was provided by a selection of carefully arranged small objects exhibited on an alcove or "tokonoma," ; these were arranged or changed according to the seasons and when not in use, were stored, as were the bedding, clothing and culinary utensils - well out of sight.To show how the three Japanese products can be identified with this traditional living area, would be to speak of aesthetic rules, that have emerged from this highly organised way of living,and their structured way of working.

A regulated way of living in such confined areas would also include an emphasis on compactness, portability, minimalism and rectilinearity - all of which feed directly into the temporary Japanese material environment.

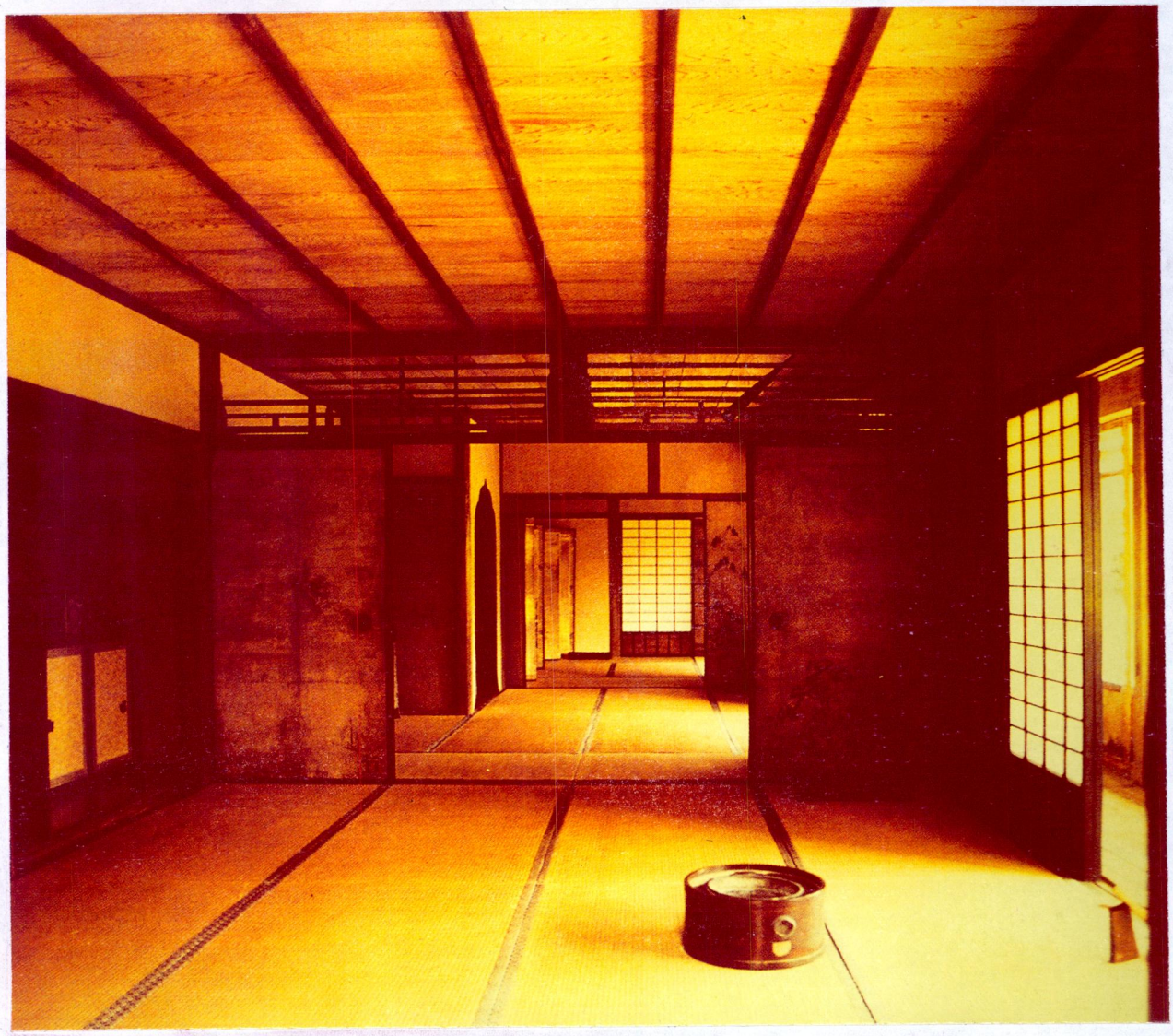


Figure 2.13 The interior of a villa, used as living quarters, showing the use of sohji or movable screens.

One of the most important features of the traditional house, is an emphasis on separate modules, which stem from the use of many floor mats - usually measuring six by three, the size of each room is described by the number of mats contained in it .

In turn, one deduces, the size and proportions of the house itself are determined by the repetition of each module in the wall panels of the house. This emphasis in Japanese living, of looking at the single unit first, and then at the outer shell, has created a very Japanese way of understanding form, which operates by moving from the outside to the inside - from the detail, to the whole.

This way of perceiving has direct significance for such objects as the calculator, the walkman and the travel iron to hi-fi equipment or automobiles. This means that the control knobs or switches on the walkman, and the travel iron , or the chrome finish on the calculators, are only starting points for an aesthetic appreciation of the object , not the whole metal "box" exteriors that house them. (This will be discussed in more detail later, see "the tea ceremony.")

One notices from this everyday environment of the Japanese that, they have a preference for straight lines, rather than curvy objects. In Japanese homes, "tatami" mats and the panelling on sliding doors are all of straight forms. (Figure 2.14, 2.15) This concept is reflected in their products which more often than not, are made up of straight lines. This is more noticeable when looking at older models of Japanese products. (Figure's 2.16, 2.17)

One only has to look at the original walkman, it is made up of all straight lines with definite edges, to the functional buttons which are rectilinear in design.

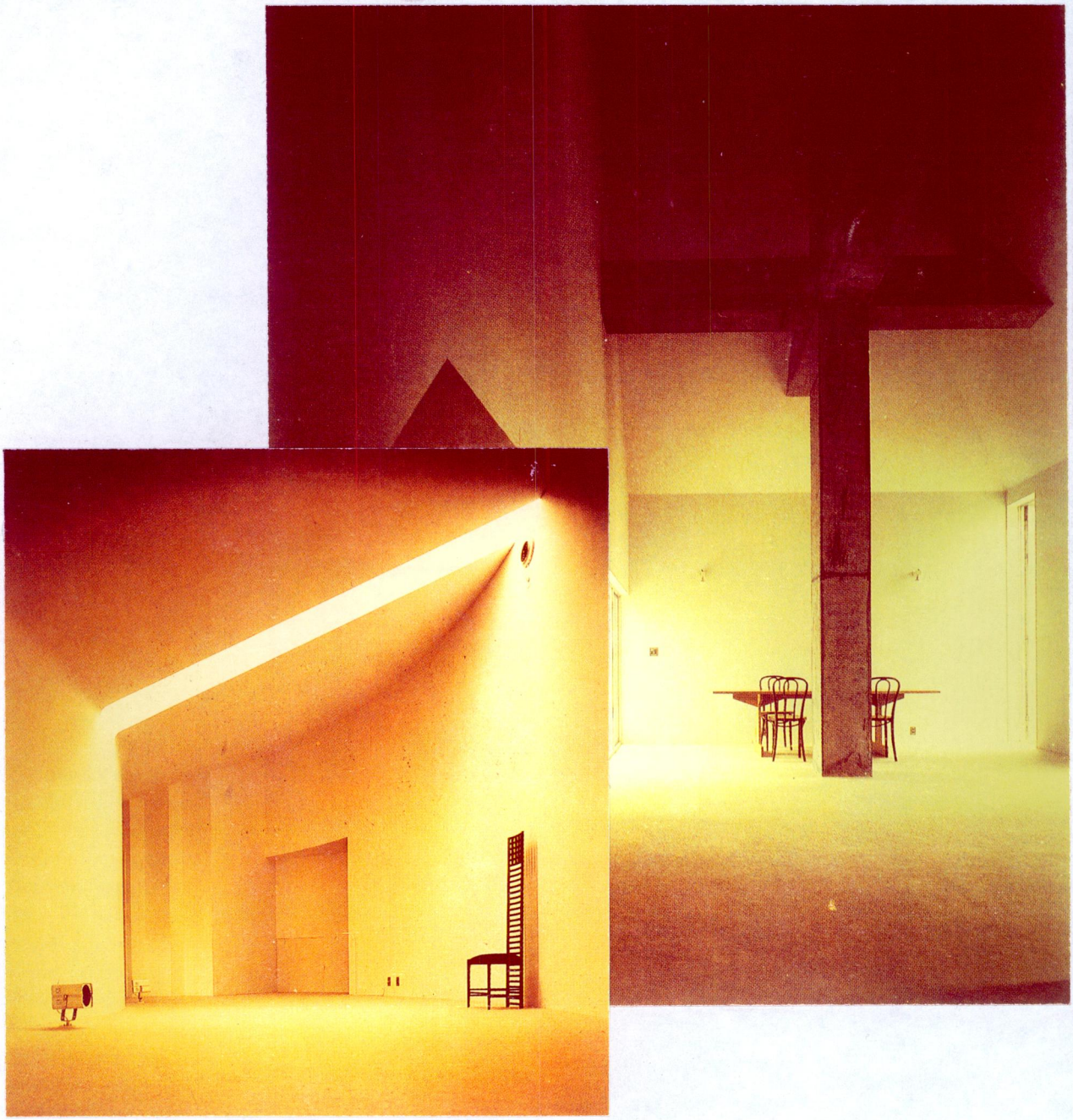


Figure 2.14 Kazo Shinohara, House in Uehara, 1975. This house combines Shinohara's manipulation of internal space, and his commitment to traditional Japanese architectural construction in the use of the beam.

Figure 2.15 Toyo Itoh, House in Nakano Honcho, 1976.The move away from metabolism in the early 1970s, produced a number of architects such as Itoh, who returned to traditional Japanese architecture in search of a "purer" more minimal aesthetic for the domestic house.

Figure 2.16 Tosiba "walky" cassette player, 1983

.Japanese preference to straight lines reflected in their older products.

Figure 2.17 National Panasonic "Future Design" series, 1985. showing the strong linear emphasis of so many Japanese goods of the 1980s.

The Sanyo neat folding iron,(Figure 2.2), shows the designers gift for compactness at it's best, but taking a closer inspection, one can see that this product is constructed from very basic forms. The product folded, and ready for packing also takes the form of a box shape with cut away spaces, shaping the iron. All the edges are straight and the whole object reflects the linear nature, as in traditional Japanese houses' interiors, where a sence of proportion prevails through it.

Looking at the walkman, iron and calculators of more recent design, one can see that curves and rounded edges have become a little more fashionable and have been introduced to products, but the basic shape, even still, are of straight lines with simple colour schemes and small sizes.

"Small but powerful" is another of the Japanese motto's, looking back on the bonzi trees, they have the qualities of any larger trees, therefore the natural landscape is reduced, but, without loosing any of these qualities. One of the Japanese dreams is to take a huge power station, and reduce it to a tiny scale but having the same amount of power generated as the larger one. A dream mabye, but one can see the similarity in the dream realized in the calculators, the iron, cameras,the walkman and other micro-chip, mini objects produced in Japan.

After speaking of miniaturization and the principals of reduction, it is not just the compactness of these three products, that makes them so seductive, it is also the transformation of a plain "box," into a desired personal possession. The drive to manufacture even smaller and increasingly multi-functional electronic products, has become a major characteristic of Japanese design. For many manufacturers, the more "miniature" the product the more sophisticated it's technological achievement and the more integrated it's form and function.

It was a logical direction for Japanese manufacturers to explore this miniaturisation of products, with a need to export as large a quantity of goods as possible, of this sophisticated technology, and with the limitations imposed by the diminutive size of the average Japanese home. This tendency in design reached it's peak with the hand-held calculators, which are so thin, they can be manipulated in the palm of the hand or fitted onto a wrist watch.

The designers have focused their attentions on detail and presentation. Once again, these elements of design on any of the three products echo Japan's rich artistic traditions, another example; colour, the same traditional colours of Black, as on the vast majority of Sony walkmans sold today.(Figure 2.19), White, which also features on walkmans and the Sharp calculators,(Figure 2.19), and Red, which can be seen to be the predominant colour of the Sanyo travel iron,(Figure 2.2), which also features a band of black, with black function buttons and black flex.

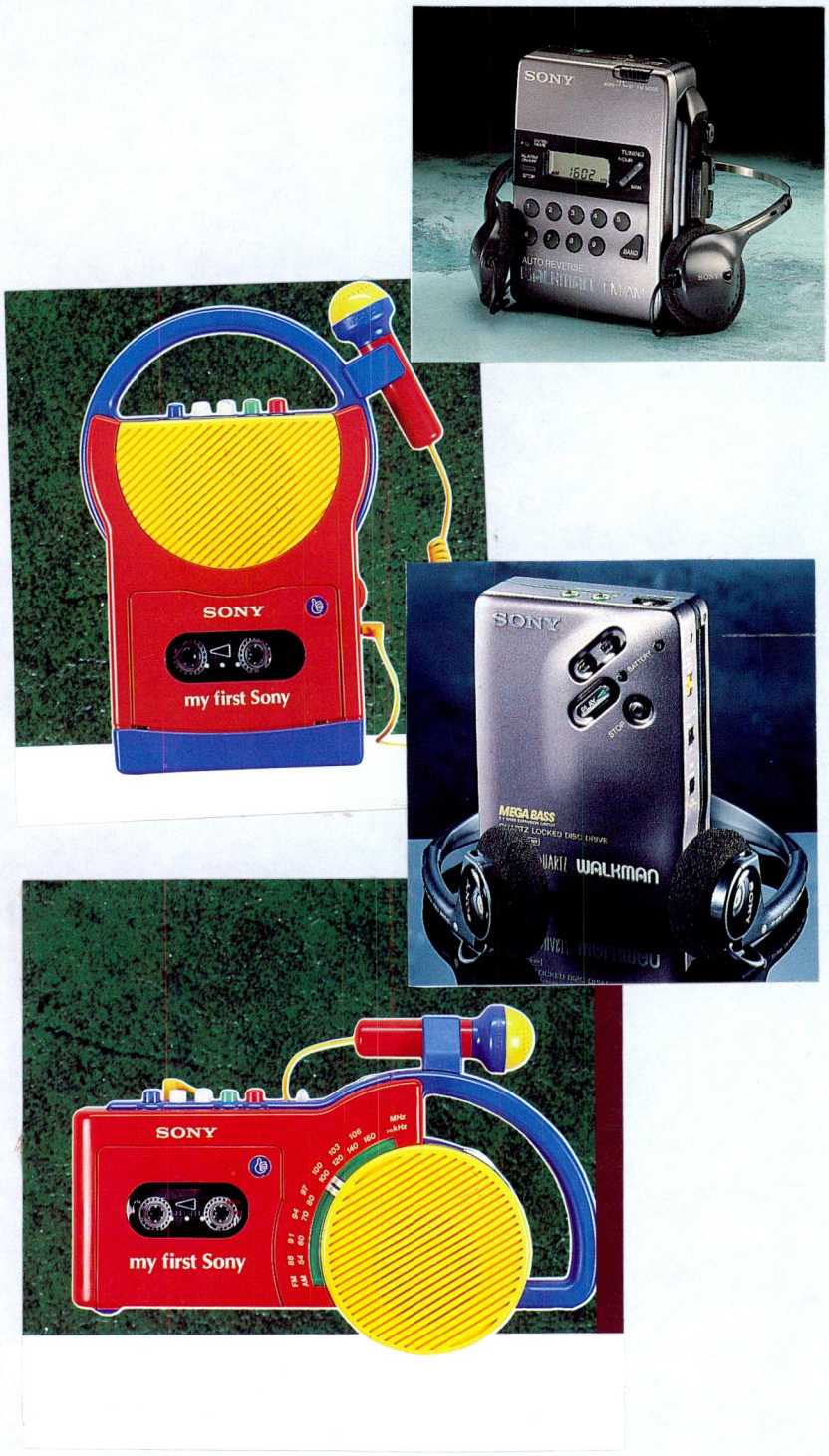
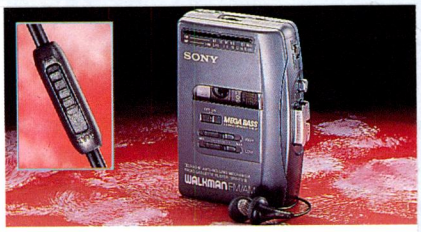
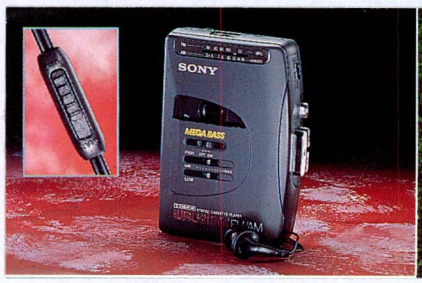
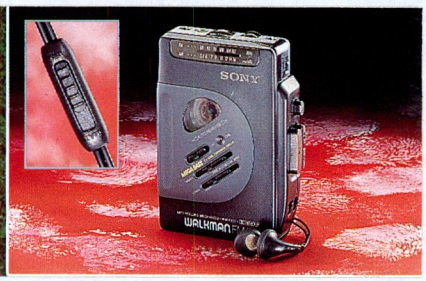


Figure 2.18 Traditional Japanese colours reflected on the Sony Walkman.



W M - F X 1 8





W M - F X 1 7
Combination "Walkman" with Volume Control on "Fontopia" Headphones
Headphone volume control on "Fontopia" headphones • FM/AM tuner • High specification "Mega Bass" • Anti rolling • Tape selector (normal/metal) • Auto shut-off (PB) • DC in socket • Belt clip

W M - F X 3 7
Combination "Walkman" with Volume Control on "Fontopia" Headphones
Headphone volume control on "Fontopia" headphones • FM/AM tuner • Auto reverse • High specification "Mega Bass" • "Dolby B" NR • Anti rolling • Auto shut-off (PB) • DC in socket • Belt clip

Figure 2.19 The Sony walkman, "Black," the same traditional colour of black featuring on the majority of walkmans sold today.

W M - E X 2 7

Auto Reverse "Walkman" with "Dolby B" NR

Headphone volume control on "Fontopia" headphones • "Dolby B" noise reduction • Auto reverse • High

W M - F X 1 7

W M - E X 2 1

of Super "Walkman" ensure a superior musical performance. As standard all Super "Walkman" offer auto reverse, high specification "Mega Bass" and "Dolby B" noise reduction. For superior radio performance, Combination "Walkman" features a highly sensitive integrated FM/AM tuner for pinpoint station accuracy. With the additional specification of a digital tuner with presets, favourite

W M - E X 4 9

Super "Walkman"

Auto reverse • High specification "Mega Bass" • "Dolby B" NR • Cassette case size • Fast-changeover battery capability • Tape selector (normal/metal) • Auto stop (metal) • DC in socket (1.5V) • Case supplied

W M

Super "

Auto r

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Tape s

socke

CHAPTER 4

The Tea Ceremony

> showing how the Japanese aesthetic of touch and reverence for objects, which stems form Buddhist religion and this ancient ceremony, can be seen to have influenced the design of the walkman, the travel iron and the calculator.

From the previous chapters, it has already been shown in a few examples how almost everything Japanese is reflected in the design of the walkman, the calculators and the travelling iron, how taking these objects, assessing their qualities and showing how traditions of Japan are seen in them. One could not discuss Japanese design without mentioning the famous, Japanese Tea Ceremony. So of the Japanese responses to objects and the way objects acquire meaning, stem really, from this ceremony.

As there is so much of Japans' cultural past in it's cultural present, it is important to understand where some of the basic aesthetic principals or beliefs originate. The most important reason however, why their aesthetic traditions are still relevant to contemporary culture is the fact that, they have always been based on "popular," rather than "aristocratic" values. As such they have influenced the lifestyles of the vast majority of the population, so that it would be possible to, talk realistically about "shared values," and "known rules," in a way that would be difficult to do in the West, where aesthetic codes have not moved freely through class barriers. The highly controlled nature of the Japanese society, and the traditional emphasis is upon the social group, rather than on the individual, and this has enhanced a respect for rules, and has allowed them to flourish as a means of reinforcing group activity and stability.

The strongest influence upon Japans traditional aesthetic values has been that of Buddhism. Introduced from China in the sixth century, Buddhism joined Shintoism to become the two most influential religions in Japan.

> Buddhism brought with it a more philosophical approach to life than Shintoism, and a strong link between aesthetics and morality underpined by the Buddhist creed. Buddhist monks organised their lives in their monasteries on the idea of the `economy of means.` According to Buddhist belief, poverty,austerity and simplicity were a means to contemplation and spirituality. These ideas provided the philosophical framework for the famous tea ceremony.(Sparke,1987,p.11)

During the tea ceremony, there is a lot of engaging physically with the tea's container, touching holding, stroking and turning the precise number of utensils needed for the task, before actually drinking the tea, is all part of the ceremony.

Touch is a strong part of the Japanese aesthetic, and this is why the tea ceremony is so important while discussing almost any of the Japanese' smaller products - it is not just, the visual; we tend to dominate the success of a designed object by the visual element, with the Japanese, this is less so.

Japanese people have reverence for objects, not totally in any materialistic way, but much more because the object means certain things. This concept goes back to the idea of the Japanese' desire to be ingenious, with a control over nature, (power stations and bonzi trees), and other spiritual factors, whereby the object in central - they can relate to it - therefore a ritual enhances the relationship with an object.

Reverence for objects and detail, to design, therefore, makes products relatively easy for marketers of Japanese companies. One does not have to be Japanese however to be attracted to the three objects in question, especially the Sony walkmans, there are very few that are not attracted to this product.

When one purchases a Sony walkman there is great reverence for it's possession, it will be given care and attention and may often even displayed with pride and in Western society act as a status symbol. All are drawn to touch and feel the object, to check the positioning of the controls, to press, to try on the headphones etc., but above all - a desire to own and mind. Like the tea ceremony, with the walkman, this sense of "the object," moves right through it. just like, Cha - No - Yu, (tea ceremony), there is a ritual one goes through with the walkman, concerning engaging physically with the object, through to music, which in itself, is a ritual also. (Figure 2.20)

Cha - No - Yu, is really nothing more than boiling water, making tea, and then drinking it, but this everyday simple activity to us, has become ritualised in Japan that their mastery requires, hours of study and practice, Westerners are drawn by the drama. Every aspect of the ceremony is carefully regulated; the way the host enters the room to greet the guests, the gestures accompanying the presentation of the tea, even the folding of the silk napkin, used to wipe the tea scoop and ladle. Yet, when orchestrated by a master, the Cha - No - Yu, is an intense satisfying and spiritual experience.

Figure 2.20 The Cha - No - Yu, has been practised in Japan it's form for about four hundred years. Both a social and spiritual ritual, it is highly stylized and depends upon minimal surroundings and the correct number of utensils

Originally imported from China, tea drinking was turned into a specifically Japanese ceremony at around the end of the fourteenth century, by Murata Shuko, who advanced it's introduction into private homes as well as in special tea rooms within monasteries. "Teism,"as it became called, was transformed however in the sixteenth century by Sen Riko, the greatest tea master of all, into the tea ritual that it remains today. From it's beginnings as a form of relaxation and withdrawal, the tea ceremony has become one of the social graces required of young ladies of marriageable age!. The tea ceremony cannot be learned from books, like Zen Buddhism, as mentioned under whose influence the ritual took shape, it too, for the actual ritual can only be transmitted from master to discipline. There are several aspects of the tea ceremony which concern this establishment of an aesthetic code of behaviour - they include only a precise number of utensils needed for the task, amongst them; a "foro,"or furnace, a "gotoko," or trivet, a ladle and charcoal tongs, a slop bowl, a "mizu - sash,"or water vessel, a kettle and stand, tea caddies and ceramic tea bowls. There is usually not a lot of decoration on these utensils, a standardized ritualised behaviour, because the ultimate emphasis is on the action, rather than on the material end. This is a vital element of the tea ritual and now should fully explain the connection with the design of the Sony walkman and this ritual. (Figure 2.21)

A number of terms evolved in connection with the tea ceremony which are used to describe the aesthetic elements in it : "wabi," for example, this is a general concept which has been translated in a number of different and confusing ways. It is used in the general sense, to mean `a way of life, synonymous with poverty and limitation and implies the attainment of spirituality without material possession.` It further suggests the the idea of `imperfection` or `irregularity` which comes from living ones life in direct contact with the rawness of nature. As an aesthetic concept to notion `rusticity` has remained fundamental to much of the work produced by Japanese craftsmen, particularly over the years.

An accompanying and more specifically aesthetic concept to wabi is `sabi,` which has been at the centre of a great deal of discussion about Japanese art and design over the centuries, particularly in relation to the Modern European Movement. It refers, specially to the timelessness, simplicity and purity of Japanese objects, but also to the idea that if an object functions well, it must look good. The aesthetic economy that emerges from those concepts is at the heart of the Japanese approach to everyday life, not just to the tea ceremony and permeates numerous areas of contemporary Japanese design.(Smith,1992,p.11-12)

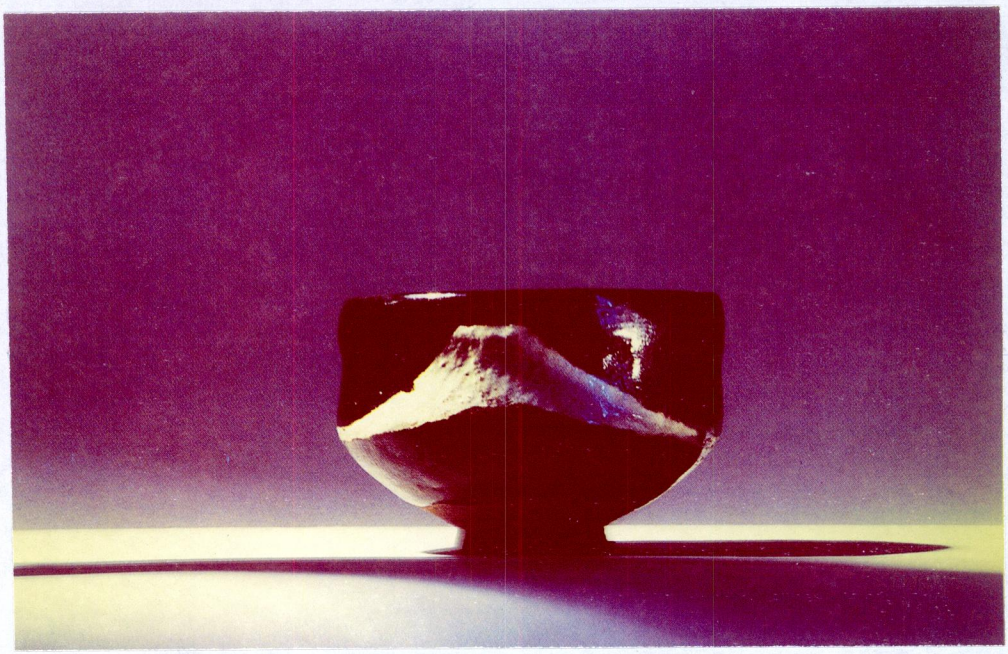

Figure 2.21 An eighteenth century cup, with an image of Mount Fuji on it's side, is used in the tea ceremony. As for the Sony walkman, the Sharp hand-held calculators, and the Sanyo travelling iron, they also slot into the comparison with the tea ritual, what were once considered small luxury items are now necessary products in modern day society. But, the fact that these Japanese products are mini versions of their counterparts, makes them instantly desirable.

When either of these products are purchased, there is also a sense of smug satisfaction for it's possession, just like the walkman, there is a little routine that one might go through when using the iron, unfolding and folding the product, admiration for it's compact and neat design.

With the Sharp calculators, there is also a kind of reverence for the product. It's" petite-ness," also draws one to examine, touch and press, again there is a desire to own. Like the tea ceremony, with the folding iron and calculators, this sense of "the object," moves right through them and again there is a ritual one goes through concerning engaging, physically with the object, through to fresh pressed clothing or the answer to that percentage problem.

These" rituals" enhance a relationship, and further the satisfaction, with all of these products.

CHAPTER 5

Japanese Motivation and Success.

Other factors, integrated with the traditional and cultural forces of Japan that have given rise to the respected Sony, Sharp and Sanyo Companies.

Technical sophistication, high quality and commercial appeal, are all characteristics of Japanese products. From cassette recorders to cars, high fashions,(Figure's 3.1, 3.2), to Hondas,(Figure's 3.3, 3.4), and tea cups to Toyota's,(Figure 3.5, 3.6). Today the Japanese are acknowledged world leaders in transport, electronic and electrical goods, graphics,(Figure 3.8), advertising and modern crafts, (Figure 3.7).

As mentioned in previous chapters, Japanese goods were considered cheap, inferior and disposable. What exactly brought about this turn-round ?. How do the Japanese combine an understanding of consumer needs with technical ingenuity and appealing design ?.

One of the key elements in Japans conquest of world markets in their approach to design. The thinking of the Japanese people plays a major part in their enormous success story. Japan as a nation, as mentioned in chapter 1, which practically stood still in time for centuries, broken by war and all it's effects, in a relatively short space in time, overcome so many obstacles.

The dramatic changes that occured in Japan in the years immediately following the bomb of Hiroshima and Nagasaki were reminiscent of the revolution of the 1960s. Within a decade, a transformation had taken place; an economic, social, technological and cultural fronts simultaneously, which changed Japan from a war weary country to one of the most powerful manufacturing forces in the world.

Figure 3.1 Issey Miyake, Spring/Summer Collection, 1987.In this 1987 collection Miyake's sculptural approach has inspired garments which are, nonetheless eminently wearable.

Figure 3.2 Kenzo, pret - a - porter, 1984. The bright colours of Kenzo's fashion clothing of the 1980s, echo his earlier designs which were influenced by the Pop Culture of the 1960s.

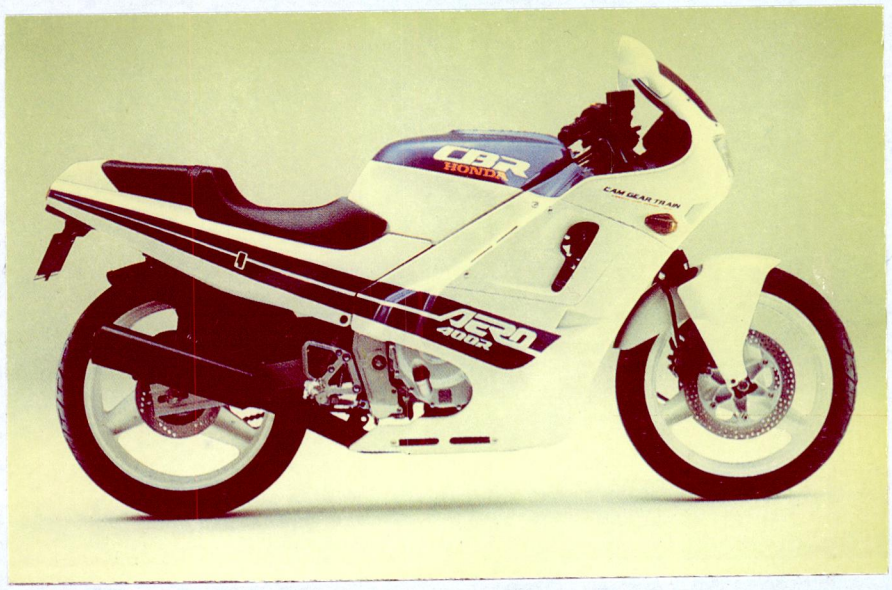

Figure 3.3 Honda CBR 750, 1986. By the mid 1980s Japanese motorcycles had evolved an aggressive, masculine, space-age image of their own. Their technological sophistication matched their visual slikness.

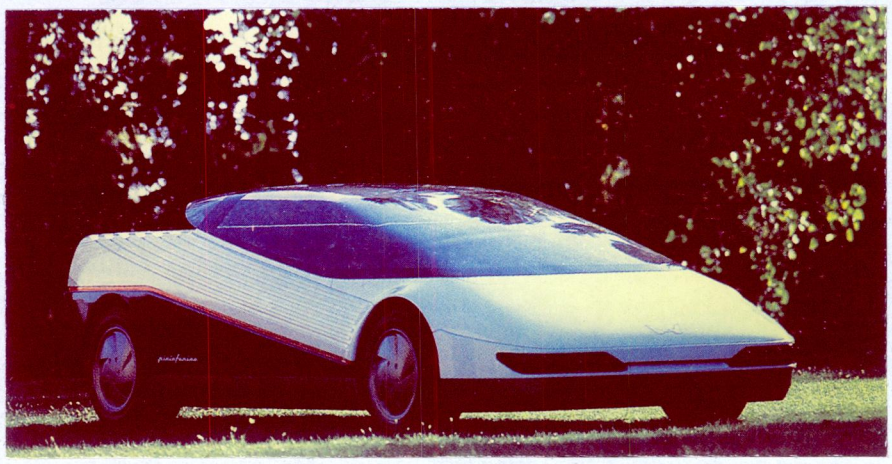

Figure 3.4 Honda HP-X, 1984. The HP-X is one of the most dramatic concept cars of the mid-1980s.

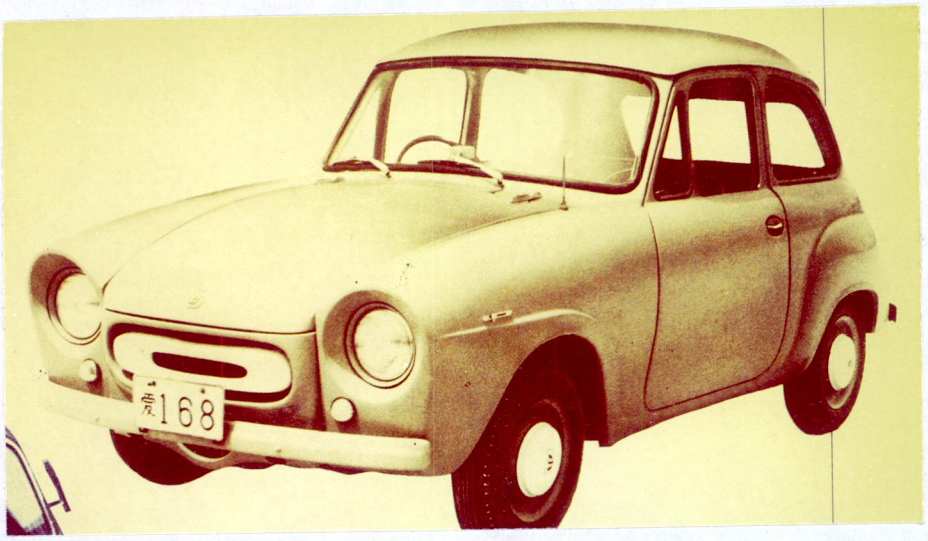

Figure 3.5 Toyota 1000 Prototype, 1956. Initiated in 1954, designed for private use in towns, it was a revolutionary car when it appeared, unlike anything the company had produced before.

Figure 3.3 Toyota Master Ace Surf 4WD Grand Saloon, 1985. One of the most popular "life-style" concepts for family driving in the mid-1980s, was epitomized by this 1985 version of Toyota's earlier Hi-Ace wagon

Figure 3.7 Masanori Umeda, Fruit Bowl. Umeda's foray into craft and design include this aluminium fruit bowl which owes a great deal to the "Pop" influence of Memphis, while retaining a respect for materials which has it's roots in traditional Japanese culture.

Figure 3.8 Tadanori Yokoo Poster, 1966. More than any other post war graphic, designer Yokoo was responsible for moving the emphasis way from the high-minded ideas of Constructivism to the more mass culture-orientated, vibrant "Pop"aesthetic which had an enormous impact on Japanese design in the 1960s and 1970s.This is entitled "Koshimaki-Osen."

The period surrounding the 1970s was a period of political confusion, when Japan had just emerged from it's long period of seclusion and was to set foot on the path toward becoming a modern nation in every sense of the term, but looking back once again, it may be said that the early modern age in Japan started with a sort of interest and curiosity toward machines. This was before there was a constitution, or any sort of political system. There was a certain consciousness of the fact that there was a world out there containing an area known as "the west," that possessed an "advanced ,"civilization,(to the Japanese of the time), but that there were extremely few people that had actually travelled beyond the islands, of Japan.

In the midst of all this, the Japanese had an amazing interest in the machines that were born in western civilizations.

> Japans' modernization, which was generally referred to as `civilization and enlightenment,` began in very concrete terms with things that were visible to the naked eye and very tangible, and most of these objects were machines. (Kato, 1991,p.24)

The people of Japan delighted in observing these technological inventions. They welcomed the largely "exotic," workings of the "machines" and waited eagerly for the invention of new ones. To the people of Japan, machines were priceless friends. In the west, the introduction of machines often result in a loss of work for labourers, giving rise to movements for the destruction of such machines. But the people of Japan have always welcomed the machine unconditionally. To them, "civilization," meant things from the west . People were impressed by the objects that machines made and the way in which those objects served to make daily life more convenient. (Figure 3.9)

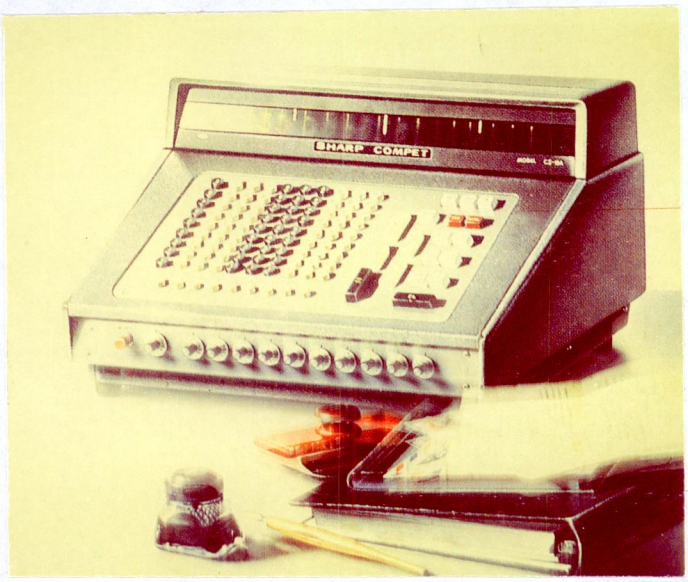

Figure 3.9 Sharp's electronic desk top calculator of 1964 was the first example of it's kind in the world. It's bulky forms were transformed by the 1970s move towards miniaturisation.

It was such feelings of interest and surprise that served as the main support for the industrialization of Japan, if there had been any sort of doubt toward the machine, the speed of industrialization would have been greatly hindered. These people welcomed the machine in all industries, from steel to textiles. The people were also unanamous in their belief, that the introduction of machines were absolutely necessary in order to place Japan in among the civilized nations of the world. (Figure 3.10)

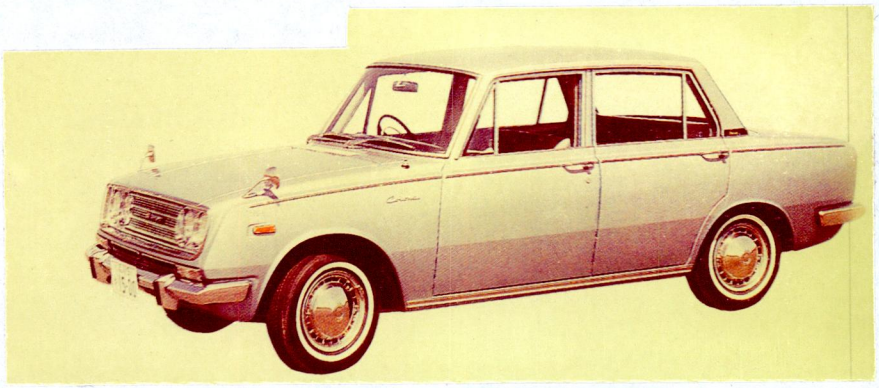

Figure 3.10 Toyota Corona 1500 Delux, 1986. The Corona aped American executive cars from this period. Prestige rather than"good design" was the order of the day.

Another reason for this success story, was American funding, but apart from this money, there were other factors; "mutual commitment," this is the loyalty that each Japanese citizen feels for the group over and above his or her personal interest, inside manufacturing industries. This has been manifested in such areas as the "life-time contract," (an idea that is less common in more recent years); the protective parent like role of the employer towards his employees, and the enhanced sense of loyalty of the employee for his company, often expressed by the singing of company songs, the wearing of company uniforms and the widespread use of company logo's. Figure 1.1)

The harmony in these industries that has for the most part, resulted from this special relationship between management and workforce without doubt facilitated Japan's manufacturing strengths after the war.

This "strength," does not however, only result from the previously discussed deeply rooted cultural forces, ideas imported from abroad, deliberate policy decisions on the part of management and of the Japanese Government are just as significant. The most noted of deliberate policies in management terms, was that of the "quality control circle," a concept borrowed from the Americans and their buisness practices.

Nearly all the manufacturing companies encouraged these work circles, whereby the factory workers were allowed to make suggestions about, production improvements for example. Those initiatives helped to keep manufacturing standards high and also provoked a sense of enjoyment and involvement for each employee.

With all of those new policies , contracts and commitments, Japan geared itself to increased production levels and enhanced prosperity.

A few companies emerged in the years immediately before and after the first world war, and there was a succession of new electrical companies until the second world war when many of todays best known electronic and electrical manufacturers were born, including the Sony, Sharp and Sanyo Companies, which have, through cultural and traditional integration, have given rise to some of the most respected of designs to emerge from Japan, including the walkman, the travel iron and the calculators.

CONCLUSION

Design in contemporary Japan is thriving, and is one of the major reasons why Japanese goods continue to make such an impact on the West. The richness of today's Japanese design contains it's contradictions - Japan embraces the potential and the most advanced technology but at the same time it has gone back to a simple, almost "anti-industrial,"aesthetic. While Japan recalls the values of it's traditional society, in which Buddhist austerity guided nearly every of their actions, Japan has also taken on a high level of advanced capitalism and mass consumption. Japan, in searching for an essentially national style in design, has achieved respect for their design internationally.

This contradiction should not be seen as any weakness, it is the lifeblood of Japanese design and culture, it is necessary for Japans ability to retain the old while searching for the new.

The stimuli behind Japans entering the post war design race were essentially two-fold. The first post war plan of reconstruction, which focused on the expansion of industries with a large technological standing, was one factor, the other was the creation of a wealthy society, based on the Western world, especially America. For this reason, the "Pop,"revolution in art and design found a special welcome in Japan and it's impact was felt in product design also.

The Japanese have reached the luxurious point where they can inspect, from an equal technology vantage , what we in the West are doing with our world and, with what is similar to that glassey-eyed distance that enables us all to run our friends lives perfectly, and decide whether or not it makes sense for them. With this perspective, the Japanese have recently discovered that their electrical and electronic industries do not follow the rules of logic.

If the Japanese saw that they were making cheap, reliable, and economical and beautifully engineered products, and people were choosing some inferior piles of plastic and tin instead, manufactured in another country, they would take a close look at those piles of plastic and tin. And if they discovered that by adding a few little bits and peices - that for some reason, seemed to matter to product buyers of either tin and plastic, or whatever material, and that they could add thousands of pounds to the price of these products, they would add those bits, obviously.

The Japanese are thorough, they send teams of designers and engineers to observe their potential customers, in their natural surroundings to find the key elements for impression, and give their new designs the best from whatever results they end up with.

The usual attitude towards the Japanese is one of "they just copy what we do." People tend to overlook what has been discussed earlier, that they have a culture of their own, including Zen and their Buddhist religion, which has some of the most important influences on any of their products that have emerged from their country, as has been shown in previous chapters, on only three very different products.

Companies of Japan have from the beginning, integrated technology, thinking and design to their new ideas and products. It has to be said that their success relys on the fact that they, up to the present day, incorporated their own arts and Japanese style, which runs through their designs. Taking the three products as objects and assessing and comparing their qualities, it was shown how the traditions of Japan were seen in them, like the ancient desire the Japanese posses to make things smaller - which results in miniaturisation and portability being fundamental parts of Sony's Sanyo's and Sharps corporate policies, or like the aesthetic rules that have emerged from their highly organised way of living and their structured way of working, which has fed directly into the Japanese material environment, and incorporated an emphasis on compactness, rectilinearity and minimalism on their technological products. These are all clues to their phenomenal success in capturing world markets. Their sending teams of designers and engineers to observe their potential customers is not a matter of going to copy, it is almost a Zen thing,like, learn "yuppie," by being yuppie, then improve in it in your own way. Japanese manufacturers have set up design studios all around America and Europe so they can keep learning.

The Japanese have a number of ways of saying "i," they are socially defined. It is not a matter of being nobody or insignificant, but by being multiple people, depending on the group you are in. The"I" that visits granny at weekends is not the "I" that was out night clubbing the night before, even though, the two may share hangovers. This makes the Japanese people extremely skilful at spotting nuances of differences between people, and catering to them.

It was Akio Morita and his team of designers that decided that, by taking the basic walkman and it's functions, by "wrapping" it in a number of different styled bodies, Sony could give the original concept of a walkman to an increased amount of people, suiting their lifestyles or images; pink and rounded edges for the ladies, or multi-coloured for the teenagers, so it emerged that it is the symbolic association of product design that added value. It is already at the point where Japanese Companies are selling symbolism back to the rest of us.

The controlling factor behind Japanese material culture is a shared aesthetic awareness, and a special visual sensibility which is demonstrated, not in a single style but in a range of alternatives from minimal to decorative design. In the end, Japans special talent in design is to borrow first from elsewhere, but then, on the basis of shared cultural traditions, to turn what is borrowed into a new, unique and distinctly Japanese phenomenon. It is this which, in the end, makes Japanese design so rich culturally and so exciting visually.

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