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

Bang & Olufsen:

**An Analysis of how a Post-Modern Company use the
Design Language of Modernism in their products**

by

Sinéad Woods

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INTRODUCTION

Bang & Olufsen is a relatively small Danish electronic company which manufacture audio and video equipment. At a time when technological quality has become standardised throughout products of all reputable brands, and the main competition between companies revolves around product cost, Bang & Olufsen have managed to create a sustainable market for highly priced products. What is intriguing about B&O is how, down through the years, they have bought in many of their main components from the larger electronic companies (Hitachi, JVC and more recently Philips) but they "package" them in such a way that their products market with 4 figure price tags, rather than for several hundred pounds, like those of the other companies. The reason for this is that B&O sell design, not technological products in themselves. A major part the design image of these products has been derived from the formal language of Modernism. The objective of this thesis is to outline how a Modernist design language is used by B&O, and to show how B&O are essentially a Post-Modern Company which use this language as a marketing tool.

In the 1960's and 70's the company made strategic decisions in order to create a unique corporate identity for themselves, which would allow them to survive as a small company in the international market, soon to be dominated by the giant consumer electronic companies. They developed a product identity which would, in fact, exempt them from competition with mass-produced products, by decisively targeting an elite niche market customer, prepared to pay more for products with distinctive design characteristics. Chapter 1 will outline why, and how, the company established their unique corporate identity, and the resulting characteristics of their products. The main research for this chapter was carried out with

help from Bang & Olufsen A/S in Struer, Denmark, and a essay published by the Struer Museum on the history of B&O, The Radio Cult in Retrospect.

In August 1995 a selection of Bang & Olufsen products from 1925 to the present was held in the Bauhaus Archive, Berlin. This exhibition clearly expressed B&O's affinity to Modernism and the Bauhaus. Chapter 2 will deal with modernism as the significant visual design language used by the company. As yet, there has been no critical analysis, of Bang & Olufsen products, published, except for short periodical articles, so the main research for this chapter was carried out through documentary study of Modernism in general, and of specific modernist design styles which particularly apply to B&O product design. An analysis of quotes which accompanied the products presented in the Bauhaus exhibition, and thorough examination of the products themselves, helped to identify how the Bang & Olufsen product uses the language of Modernism.

The third chapter tries to link B&O, as Danish company, with their national design language, which in essence is a regional adaption of the Modern Style. The main research for this chapter was carried out with help from the Danish Design Centre, and its' publications.

Chapter 4 examines the marketing strategy of Bang & Olufsen and how it is essentially Post-Modern. It will look at the company's marketing ethos with reference to Modernism. The use of fashionable contemporary design languages, used by B&O, shall be traced in order to highlight, to a further extent, the company's Post-Modern tendency. The research sources for this chapter were books relating Post-Modernism and also numerous articles from various periodicals. It was through examination of B&O products and their marketing literature, from which the use of fashionable design

languages, was identified and evaluated.

1. BANG & OLUFSEN, THEIR UNIQUE STRATEGY

Once each European country had many small radio factories, which supplied their own local markets. In the first half of this century they were established together with the developments of the first radio, and later on, the television. In Denmark, for instance, there were more than 20 television factories in the mid 50's, now there is only one, Bang & Olufsen. It is one of the smallest companies in the world within audio/video production. By way of comparison B&O's turnover is 1 per cent of that of Philips and even smaller compared to the Japanese industries. How did B&O survive in the world of consumer electronics which is now dominated by a handful of Far-Eastern, multi-national, giants? How did the company avoid the destiny of the other small companies? This chapter will look at the important factors in the history of the company which answer these questions.

Background history

Bang & Olufsen was founded in 1925 by Svend Olufsen and Peter Bang. They decided to open a factory which would produce radio transmitters in the small town of Struer, Denmark. Right from the beginning the founders tried to make their products different, emphasising quality and new ideas. They developed a mains radio in 1926 instead of a battery operated one. The company was successful and developed new radios throughout the 30's and 40's, containing new consumer benefits such as preset buttons. In 1939 B&O introduced the first radio with "quick touch" operation, which made it possible to select a station by merely pressing a button. This was the first time that they really focused on user friendly operation. In 1950 their first television was ready for the TV boom which was bound to come. All TV factories in Europe did very well until the market became saturated and the companies started to die one by one. But B&O survived because of some

very important decisions, which were made in the 1950's and 60's.

European market formations

The first was because of European market formations. Up through the 1950's B&O considered the new market formations and the increasing international trade both as a threat and a chance to develop. The strong German radio and TV industry exported to all of the surrounding countries and gave B&O keen competition in the Danish home market. Therefore it was natural to consider doing the same thing, i.e. expanding and exporting. Also many of their products were already too specialised, e.g. cartridges and microphones, to give a satisfactory turnover in the Danish market alone. People at B&O recognised that it could be profitable to manufacture a product which must be sold in several international markets in order to obtain adequate volume, and that the product can obtain a better price and avoid great competition if it is special.

Concentration on audio developments

Another factor which had a decisive influence on B&O's development was the saturation of the Danish TV market. In 1953 there were 300 TV owners in Denmark, eight years after, in 1962, there were 583,000. Today one may wonder why so many companies did not foresee the coming saturation of the market. But the period was characterised by the post war scarcity of goods and a real market saturation had hardly been experienced before. But at B&O previous experience with radio development was now an advantage. During the TV boom technicians and engineers at B&O kept an eye on the development of sound around the world. They had realised that the appearance of the transistor would make the radio tube superfluous and that would again create new possibilities for radio listening. They foresaw that a FM waveband would appear, making a so far unknown transmission quality, and also the development of stereo on gramophones,

tapes and radios. Hence they decided to concentrate once again on audio products. In 1957 their achievement in the field of sound was at its highest point when they launched the first stereo pick-up in the world (created by B&O's engineer, E. Rorbæk Madsen), a development which placed B&O at the forefront of sound production for many years to come.

The use of design as a marketing tool

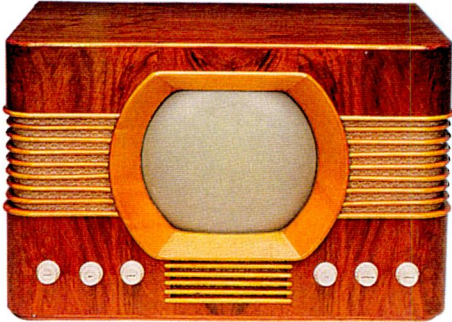
The third factor was just as decisive, if not more, than the first two mentioned. A severe criticism of the products in the audio/video business in a review of Copenhagen's Annual Carpenter Exhibition (1954), in which several new B&O products were exhibited, caused them to react. The reviewer, Poul Henningsen (designer known for his famous light fittings, e.g. the Artichoke lamp), wrote in the Danish newspaper *Politikken*:

Chubby and pot-bellied with sweeps, curves and curlicues, often in an odd mix of peculiar woods draped with plastic and brass. It really makes one sick to see such a mass of incompetence in one single place. the old-fashioned privy in its most stupid looking form really seems to have served brilliantly as a model for the grating on the front of almost all loudspeakers. One can almost hear them crying to heaven for completing the job by putting pail and paper into the box, which paradoxically enough contains one of the greatest technological wonders of our time (Ravn, 1992, p. 15).

Poul Henningsen's critical review was accompanied by a picture of B&O's Grand Prix radio, which was perhaps the reason why the criticism hit so hard at Struer. Plate 1 shows B&O's first television from 1950, a stereotype of the products to which Henningsen was referring in his description. At any rate, they took notice of this criticism and shortly after they began to use external designers, the most well known being Henning Moldenhawer, Jacob Jensen and David Lewis.

We only have free-lance designers attached to B&O. They are more willing to disagree with us (B&O, 1995, p.1).

Plate 1: The first Bang & Olufsen television, 1950



On the technical side B&O had been playing a leading role ever since the war, and this strength was now coupled with a consistent design policy which aimed at making design, engineering and function a consistent whole. Using the slogan "Bang & Olufsen - for those who consider design and quality before price", they decided at the same time to focus on a smaller segment of the market, the group of people who demand products with special technical features and a unique design.

The niche market

After Denmark had joined EFTA (1960) and later on the EEC (1973) their target group was so big that the new strategy proved quite wise. They had found themselves a unique niche in the market and were firmly sticking to it, selling expensive products to an elite target audience. The Company decided to consider all of the industrialised world, but firstly Europe, their home market. It was unusual for a company in the 60's to understand the importance of choosing a segmented lifestyle strategy and it is this strategy which exempted B&O from the type of competition which caused other small companies to fail. Small TV/radio companies could not compete with

the prices of Japanese products, but they still tried to sell in the same market (it was into the 80's before Philips, the electronic giant based in the Netherlands, started using design as a necessity to distinguish their products) . For B&O the usual aggressive price argumentation within the consumer electronic business, was avoided. As Jacob Jensen, their designer, has said:

Thy will never be able to compete with mass development.
You have to do something else (Evamy, 1991, p. 28).

Instead the artistic experience was emphasised above the technology and its cost.

Art status

With the introduction, in 1964, of the Beomaster 900 Bang & Olufsen took their first big step forward. The Beomaster 900 was the first fully transistorised radio in the world. Henning Moldenhawer showed in it that a radio could be flat and functional, but also elegant and unobtrusive. It had a rectilinear architectural identity which started the trend for the Bang & Olufsen products that followed over the next years. In 1972 the Museum of Modern Art, New York, included 8 B&O products in their permanent collection.

There is a consistently high quality in the design of the company's sound equipment. Too much of today's sound equipment has been designed without any concern for its visual impact on domestic interiors...Bang & Olufsen on the other hand, design their sound equipment as beautiful objects in their own right that do not inordinately call attention to themselves. Unlike much recent Japanese design for sound, which tended towards a macho aesthetic of crowded details and knobs, B&O's products are distinguished by understated elegance (B&O, 1994).

This was the description to accompany the presentation of B&O products in their 1978 "one-company" show of over 30 B&O products. The type of product which was otherwise popular with manufacturers at this time is exemplified in Sony's television, radio and cassette player, plate 2. The proliferation of knobs, dials, switches and controls, suggestive of an instrument panel, shows the "Radio Machismo" that the critic Reyner Banham described (Banham, 1981, p.117).

Plate 2: Sony's Jackal - television, radio and tape player, 1976



Although B&O had previously received design awards within Scandinavia (numerous "ID-Prisen" and "IF-Preis" since 1963) it was really the inclusions in the New York MOMA that showed the first official international, identification and celebration, of B&O products as "good" design, and of art status.



The 7 CIC's

In the middle of the 70's the common perception of B&O's objectives was strengthened and varied through the setting forth of its design philosophy in the 7 CIC's (Corporate Identity Components). These were supposed to give an image of, and state objectives for the development of Bang & Olufsen's identity.

The following are these CIC's with summarised elaboration of how B&O interprets them:-

AUTHENTICITY - quality reproduction of sound and picture.

AUTOVISUALITY - things, as much as possible should be what they look to be. At any rate they must not pretend to be something else.

CREDIBILITY - general credibility.

DOMESTICITY - the products are designed for use by people in their homes. At the same time this expresses a wish for the human touch.

ESSENTIALITY - simplicity.

INDIVIDUALITY - an expression which describes the segment chosen in the market.

INVENTIVENESS - creativity. A recognition that Bang & Olufsen is not large enough to undertake actual basic research (technological innovation), but instead the results of the basic research should be used in a creative way and thus produce other and more original solutions. (Palshøj, 1991)

The Beogram 4000, designed by Jensen in 1972, was one of the inclusions in the MOMA collection, New York (plate 3). This record player introduced a completely new concept to the world, the electronically controlled tangential arm (another innovation by Madsen), aimed at a more refined precision. The idea was simple, that a record should be played back at the same angle as the one it has been cut at, for optimum sound reproduction to be achieved. A conventional pick up arm rests radially in

the tracks but with the tangential arm the record is played in accordance with the principle that was applied when the record was made, i.e. in a straight line towards the centre of the record. This solution was made possible by the precise electronic control of the arm, based on the guidance from a second arm with light sensor. This is the type of inventiveness expressed in the last CIC, taking existing technology and applying it to different circumstances and in a different way. The Beogram 4000 was conceived as a "no compromise, electronic gramophone featuring absolutely top specification, obsolescence-proof design" (Hiesnger & George, 1993, p.252). The design of the box is discrete in appearance and lacks constructional detail, even the controls disappear into the overall design. Jensen's anonymous box soon defined the aesthetic of all the most expensive consumer electronic products, design using the most simple and pure forms with attention to materials and craftsmanship. Jensen also designed the BeoMaster 1900 in 1976, a radio receiver and amplifier, Plate 4. Both the Beogram 4000 and the BeoMaster 1900 became the founders of Bang & Olufsen product families during the following years, to date. In spite of the many technical changes during these years, these basic designs were used in a line of products, including even tape decks and CD players. Plates 5 and 6 show respectively the BeoSystem 7000 and the BeoCenter 9300, from the 1994 Bang & Olufsen range, showing how the original B&O identity created approximately 20 years earlier, still survives. Even completely new design concepts, designed by David Lewis, such as the BeoSystem 2500, introduced in 1991, Plate 7, can still be linked to the Bang & Olufsen original visual identity in their use of a common formal language which has been derived from Modernism. This is evident in the wide use of refined, geometrically based, forms, minimalism and purity of surfaces.

Plate 3: Beogram 4000, designed in 1972

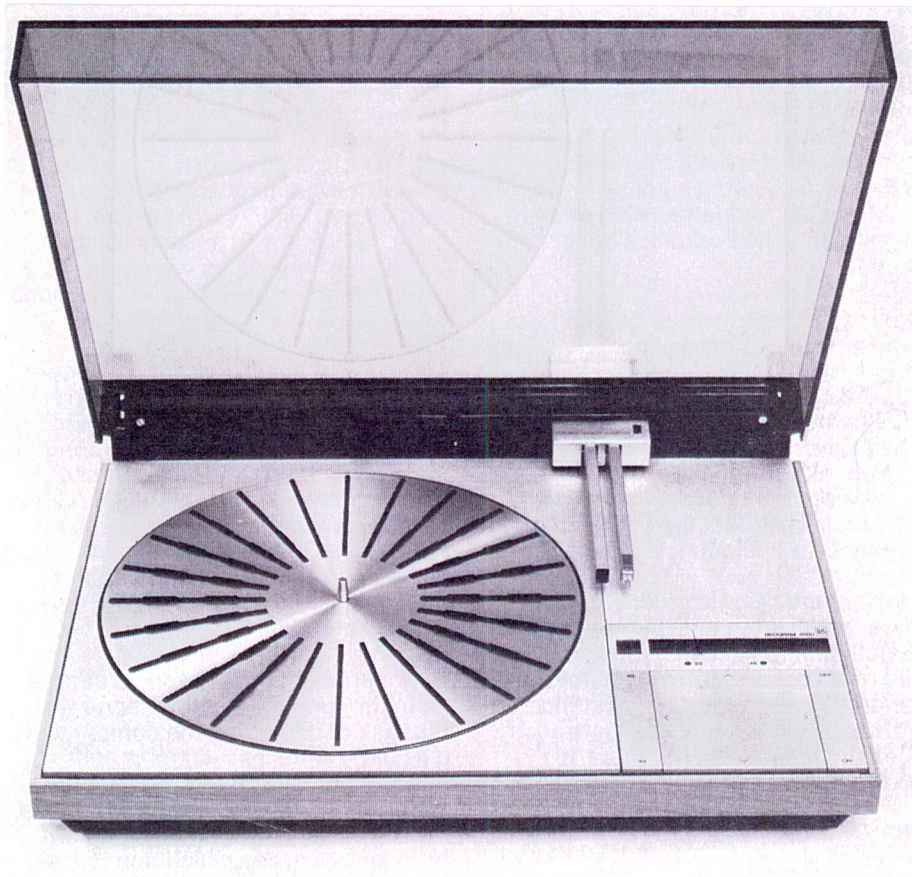


Plate 4: BeoMaster 1900, designed in 1976

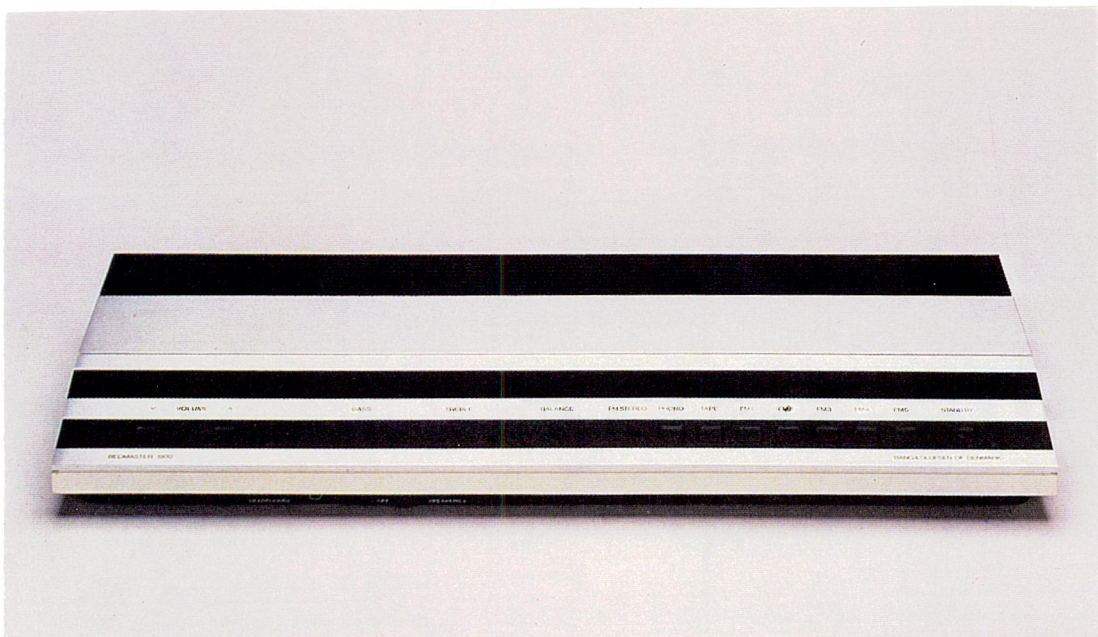


Plate 5: BeoSystem 7000, from the 1994 product range

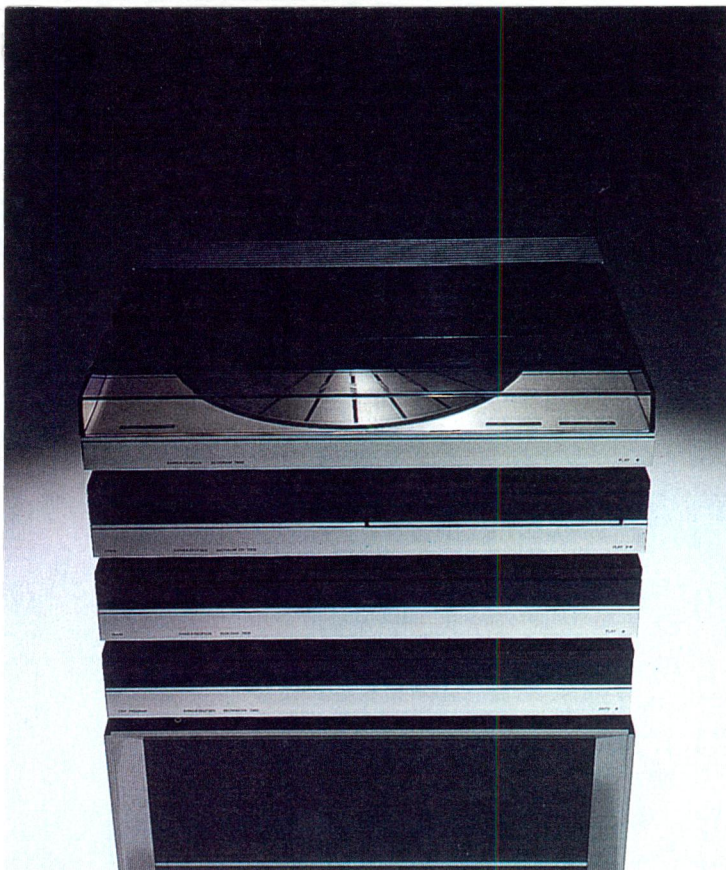


Plate 6: BeoCenter 9300, from the 1994 product range

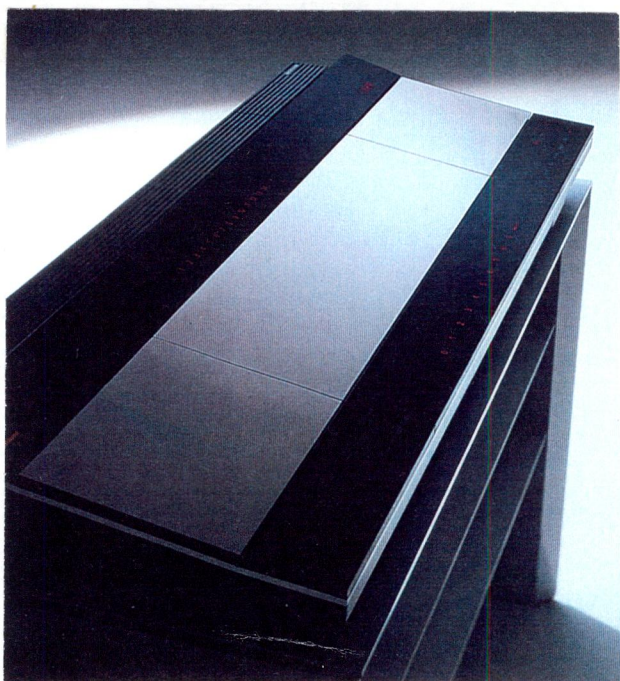
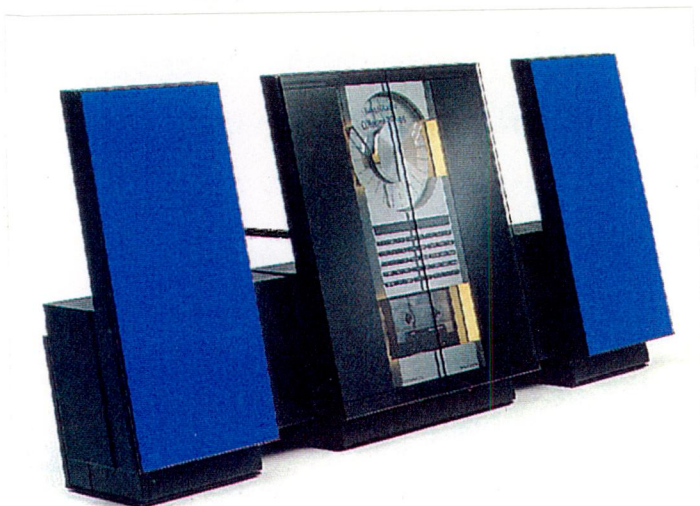


Plate 7: BeoSystem 2500, introduced in 1991





2. MODERNISM AND THE "UNIVERSAL" LANGUAGE

The Bauhaus Archive in Berlin, the design museum forming the most important collection of the Bauhaus today, held a special exhibition being "Bang & Olufsen - Bauhaus, Vision & Reality" for a week during the summer of 1995. The exhibition displayed selected products produced by Bang & Olufsen from 1925 to 1995. This chapter will examine the design influence of various ideas specific to Modernism and the Bauhaus which are apparent in Bang & Olufsen products. The objective is to define the common elements which connect B&O design with Modernist work, look at what these elements signify for modernism, and ultimately to obtain a reasoning to why the same elements are used in B&O products and if for the same reasons. In order to do this the chapter will look at DeStijl through the work of Piet Mondrian and Gerrit Rietveld, ideas underlying work of the Bauhaus School, The International Style and the architecture of Le Corbusier and Mies van der Röhe, and finally the language behind Braun products created by Dieter Rams.

DeStijl

One of the most noticeable aesthetic influences on most recent Bang & Olufsen products is the work from the DeStijl movement in Holland early in the 20th Century. The quest of DeStijl architects, designers and artists was to make a clean break from the past and to find a formal language corresponding to the new 20th Century Industrialisation. The "old" was the craft tradition which emphasized the individual, the "new" was mass-production and the machine which should celebrate the universal. Piet Mondrian said in his article "*De Nieuwe Beelding de Schilderkunst*" (1918),

The life of cultured man of today is progressively moving away from natural things and becoming an increasingly

abstracted life (Lemoine, 1987, p.29).

Theosophic concepts led Mondrian to create DeStijl's abstract visual language which tried to represent universal harmony, resulting from the resolution of opposites - between masculine and feminine, the static and the dynamic, the spiritual and the material, etc. This new language was based upon the right angle which could represent oppositional extremes, and hence all relationships in nature, without using figurative representation. In many ways science has become a new religion in the 20th Century with the constant challenging of traditional beliefs by scientific discoveries. Perhaps because of this it was reasonable that DeStijl looked to a mathematical, rational aesthetic to reach man's spirit. Geometry was considered to distinguish a higher reality than the material, than nature (which is particular to places, people, cultures). Geometry was considered appropriate for a universal language.

In the early aesthetic of DeStijl as defined in the writings of Mondrian, the horizontal line is a schematic representation of the earth and its horizon. The vertical line is the impingement of man on the environment. Vertical and horizontal lines also represent the traditional equations as mentioned already such as that between male and female. For Mondrian the orthogonal relationship expressed a balanced configuration, a harmonious equilibrium. The resulting aesthetic was of simple interlocking volumes of flat colours, in orthogonal arrangements, carefully respecting the surface plane. Plate 8 shows one of Mondrian's renowned Red, Yellow and Blue compositions from 1930. Mondrian classed black, grey and white as "non-colours" and used few colours (in his mature work, only the primaries) for carefully chosen squares and rectangles within a framework of orthogonal lines. His work aimed to heighten man's consciousness directly with different states of equilibrium created by the calculated interaction of the

volumes and colours.

Plate 8: Red, Yellow and Blue Composition by Mondrian, 1930

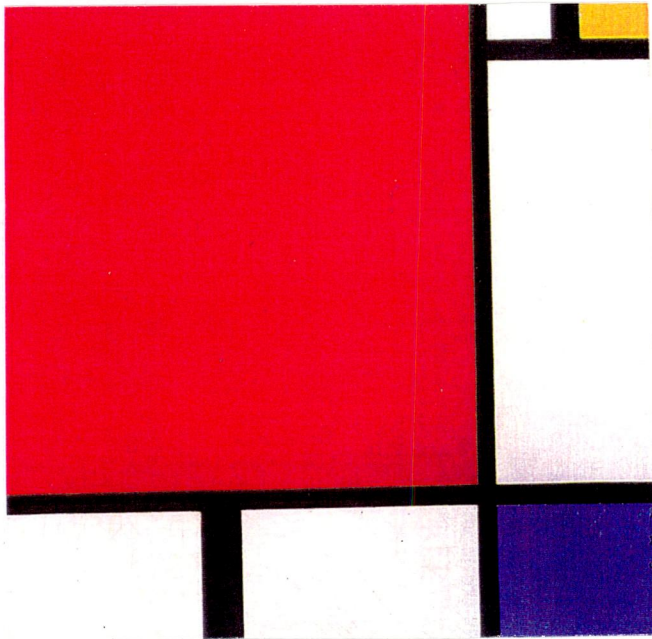
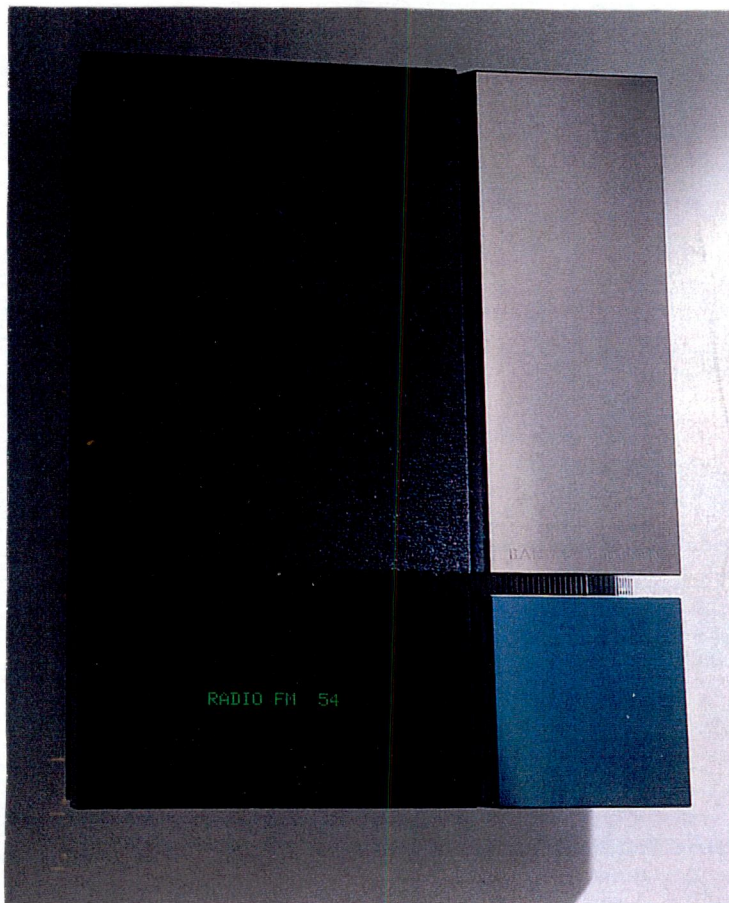
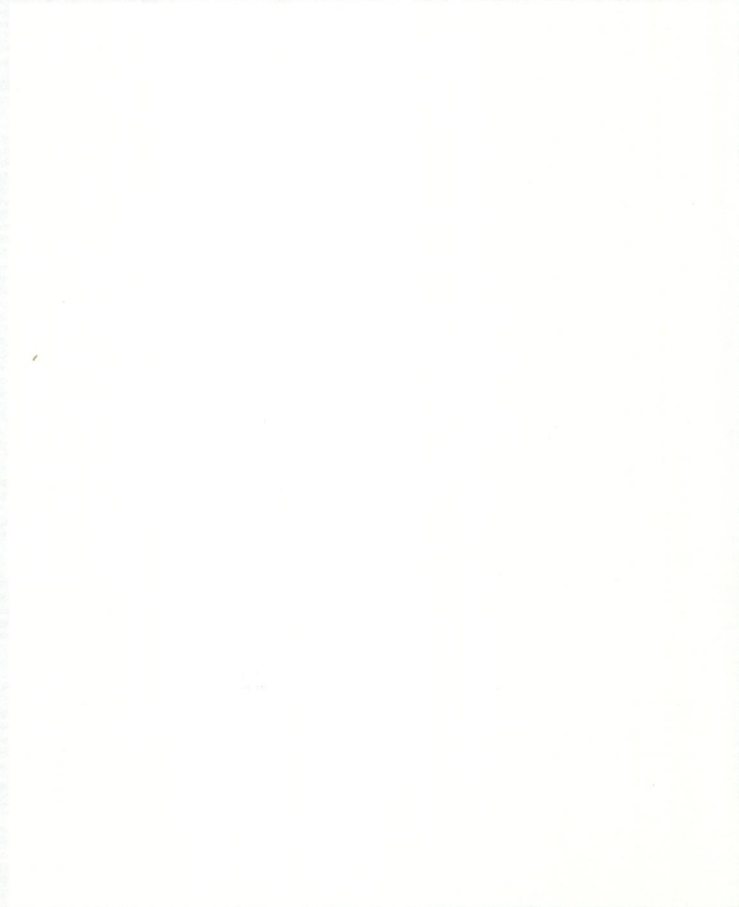


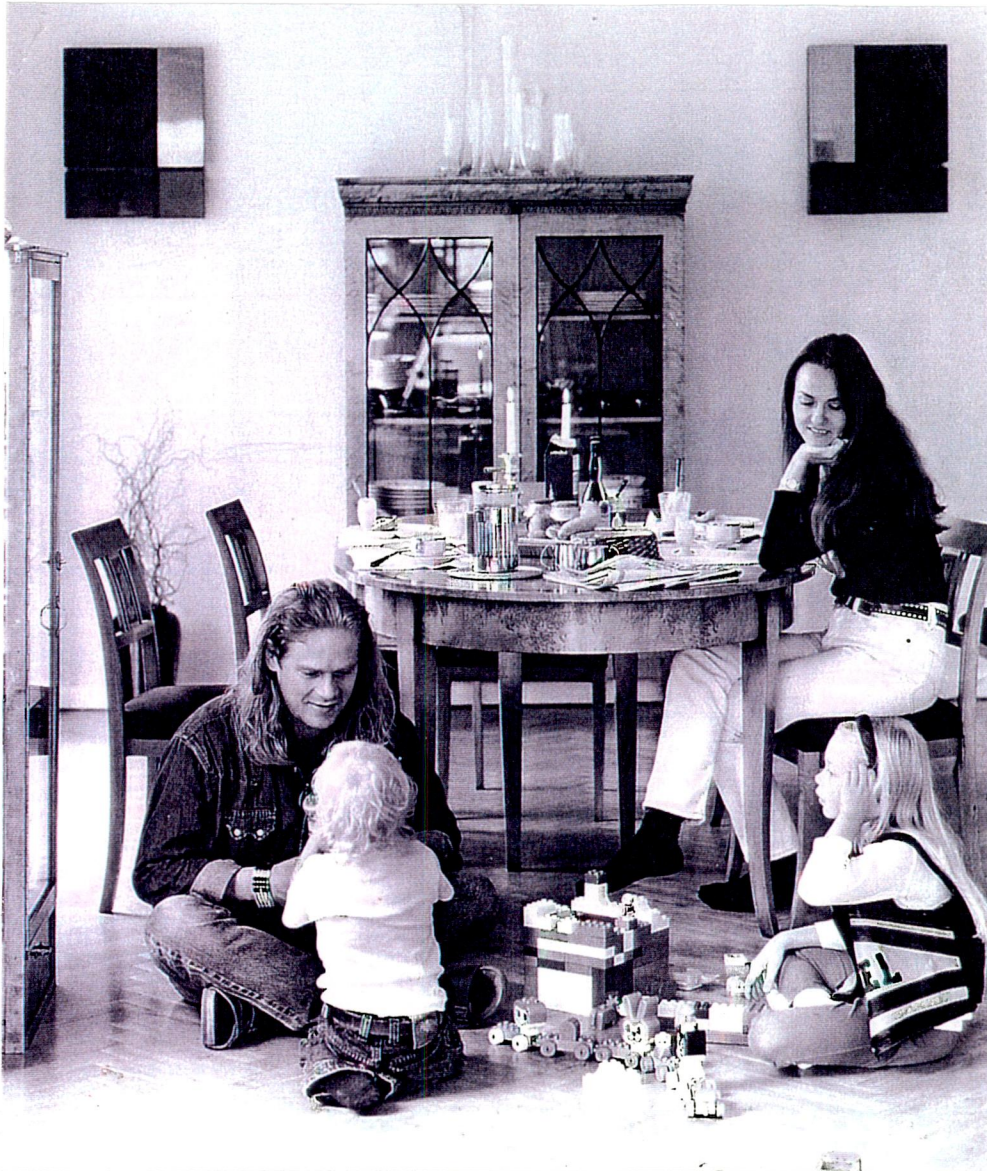
Plate 9: Beolab 4500 loudspeaker





The relationship between Bang & Olufsen design and Mondrian's work is exemplified in the Beolab 4500 loudspeakers, Plate 9 . Not only in principles is the similarity as the speakers, hung on the wall (as shown in the photograph from the B&O catalogue, Plate 10), are actually like Mondrian canvasses. The "patterns", on the loudspeakers are more simplified than most "Mondrian's" with only one "colour", blue, and less segments. In a way they are like close-up sections of one of his paintings, but one can assume that they are not only this, if the design should respect the Gestalt theories in which Mondrian believed and worked. It is the overall appearances of his pieces which is important and creates the expression, not individual parts of it. Mondrian's early work was more complex and used more colours but he constantly tried to simplify and minimise. Perhaps the Beolab loudspeakers could be seen as further development (simplification and minimisation) of his work. But it is design in question, not art. A painting need only follow restrictions set by the artist or the material but in product design the fundamental functions limit. These limitations can be seen as a problem or as a means of determining formal layout. Each panel of the loudspeaker is the face to underlying components. The black lycra panel is the covering of the speakers. The aluminium vertical rectangle is the facade of the circuitry and working components (Mondrian considered grey as a non-colour). It seems that B&O have replaced grey with aluminium as a "non colour" in much of their design. The bottom left panel is the window for the L.E.D. display and the blue square houses the built in amplifier which make it an "active" loudspeaker. It is in this way that the composition can be rationalised as not only being given this aesthetic for purely art's sake. Even so it is definitely the intention that these objects of everyday use be raised to the level of a work of art. One can see in the photograph, Plate 10, how the loudspeakers are carefully placed like art upon the walls in this dining room.

Plate 10: 1995 catalogue photograph of the Beolab 4500 loudspeaker



The "grid" of the Beolab speakers is emphasised more than the black line divisions which Mondrian used through the creation of negative spaces between the sections, which project each volume forward. DeStijl embraced all aspects of formal creation and aimed to raise architecture and design to the same level as art. It is from the architecture of DeStijl which B&O have derived such typical 3-dimensional planar composition. The buildings designed by Gerrit Rietveld, for instance the Schröder house



(Plate 11), are constructed of overlapping and intersecting 2-dimensional planes that enclose 3-dimensional space. A description by Rietveld of a jewellery shop in Amsterdam, which was one of the first architectural applications of DeStijl principles was:

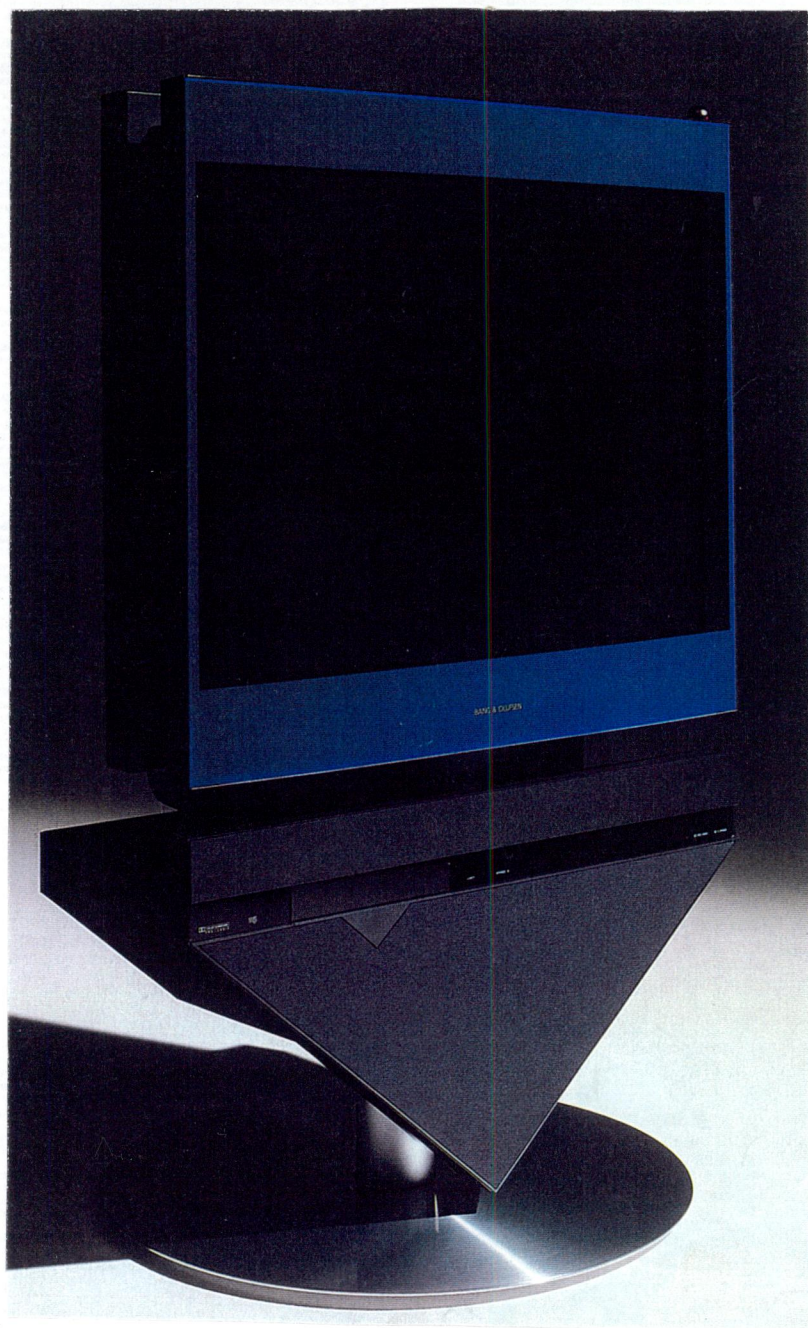
Glazed, discontinuous, rectilinear volumes, perpendicularly related, linked the inside and the outside in a space continuum channelled by discrete colour surfaces (Kepes, 1966, p.130).

Plate 11: Schröder house by Gerrit Rietveld



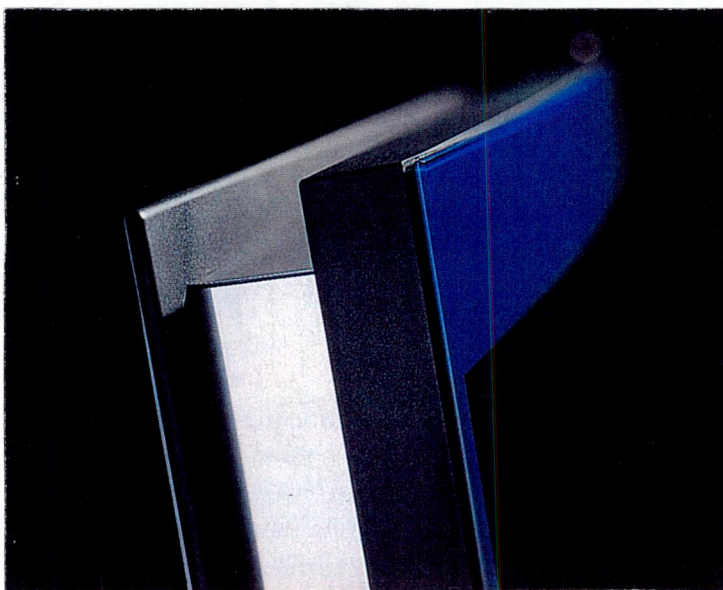


Plate 12: BeoSystem AV9000



This description could also apply to numerous B&O products. For example the form of the television of the BeoSystem AV9000 (Plate 12) is made up of thin layers of rectilinear volumes. The multiple layering of the cabinet has a visually slimming effect. The ultra thin bright blue layer, which stands out sharply from the black beneath, emphasises the screen to the viewer and projects it from the other forms. This gives the television a more cinematic feel. In this way the television picture is presented more than the television as an object itself. Behind the blue panel two thin black layers sandwich a thicker and scaled down aluminium layer giving the cabinet an architectural look (see plate 13).

Plate 13: Corner detail of the BeoSystem AV9000

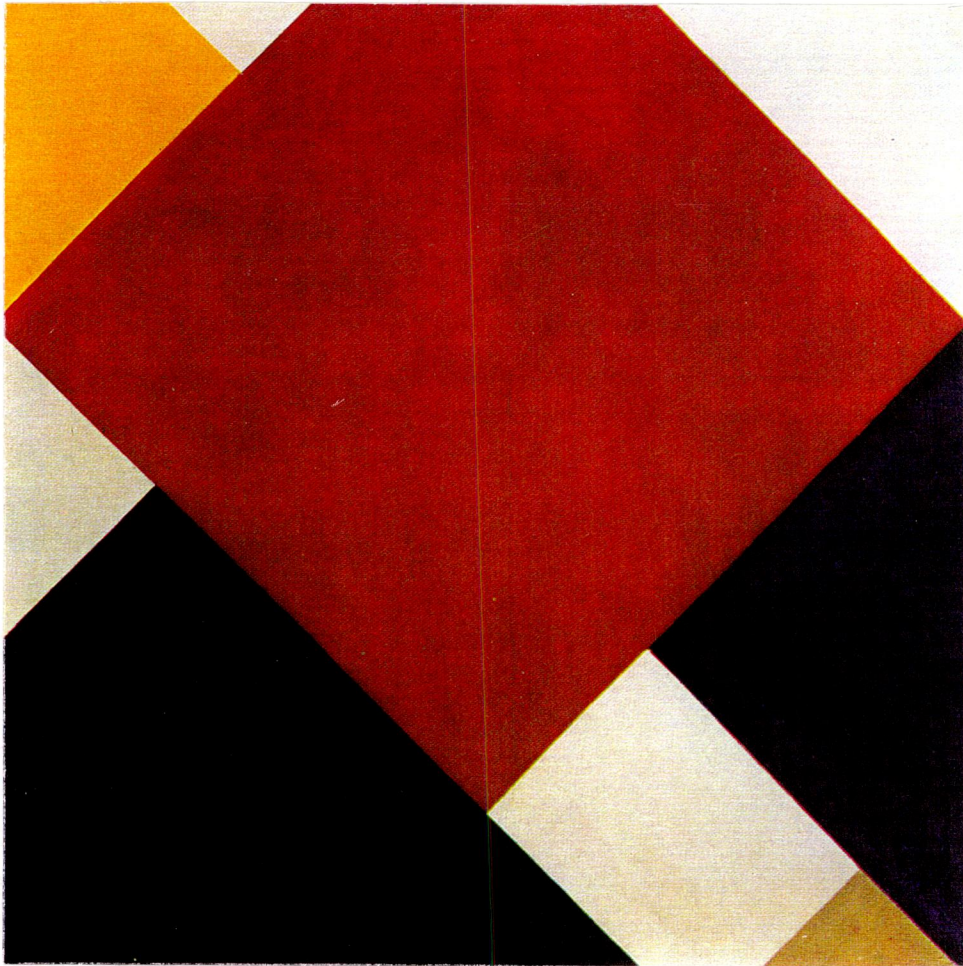


The aluminium can only be seen from the side so it will not distract the viewer's attention when looking at the screen. When one does see the side elevation, one can see how the aluminium, as well as stressing the layering of the panels, also lifts the visual weight of large volumes of black which make many televisions look heavy and boxy. Similarly this layering effect



obscures the reality that there is fundamentally one overall form housing the picture tube and components (which is obvious in the two vacuum forms, back and front, of many televisions).

Plate 14: Counter Composition V by Theo van Doesburg, 1924



The large triangle of the BeoSystem AV9000, the facade of its built in speakers and video recorder, gives the product a dramatic presence. The diagonal was introduced to DeStijl's balanced configuration of orthogonal relationships by Theo van Doesburg (Plate 14 shows his "Counter composition V", 1924). By the mid 20's Mondrian also started using the diagonal believing that it could represent the human body in movement by



purely abstract means, and also the experience of the speed of modern mechanised life, as a symbol of natural power harnessed by man. At the same time he believed that diagonal relationships more completely realised "the spiritual" because they opposed the gravitational stability of the natural and material structure of horizontal and verticals.

The same principle of flat surface planes and interlocking panels is seen also in B&O's audio products such as the BeoSystem 2500 (Plate 7). In DeStijl architecture the rectilinear panels are placed 3-dimensionally (planes are perpendicular as well as parallel), the continuation between interiors and exteriors, to create the impression of openness and spaciousness. Bang & Olufsen also play with space but create more 2-dimensional structures through parallel layering of apparently solid panels. This is used to distort the perception of the product as a container and also reduce its visual volume. The user is presented with a surface plane which stands out from the main bulk of the volumes needed to house electronics and other bulky components. The idea is of an interactive surface presented to the user with the technology sinking into the background. The sound seems to come from a surface rather than from speaker cabinets. The controls, display, cassette and tape holders are also layered on the surface of a thin panel in the same plane. CDs and tapes are placed onto this surface rather than into openings of an object with more obvious connections to mechanisms and electronics (see plate 15). The design concentrates on creating a sensory experience, through directing a sensory surface plane to the user, and disguising the real object, being a housing of electronic and mechanical parts. The surface has been divided into geometric areas of different colour, textures, materials, functions, sounds (including the silence of the CD holder as it rises open). Such experiences as glass panels gliding aside, and lights coming on, as one's hand is outstretched, are part of this experience. The glass cover also functions to create a flat undisturbed

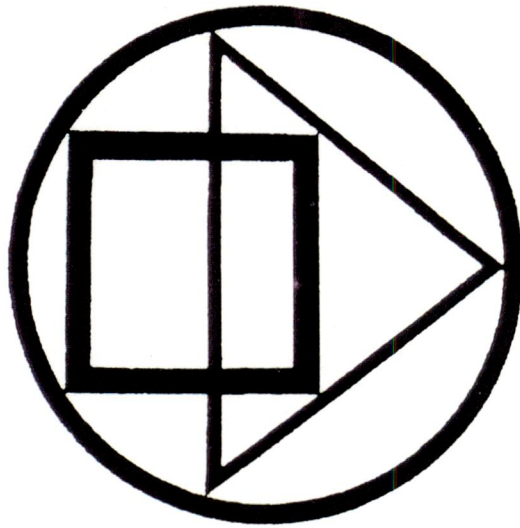
surface panel as typical of DeStijl. Controls and visual displays never protrude on B&O products. Even typography is placed subtly so as not to destroy the experience by the technology. The following quote by Rietveld suggests how the creation of such a multi-sensory experience for the user could be raised to the level of art:

The purpose of art is to develop and nourish a definite sense organ. It is the one-sided, yet immediate experience of reality, the ordinary, simple experience for which one need only open the eyes or extend the hand (Kepes, 1966, p.133).

Plate 15: Interface panel of the BeoSystem 2500



Plate 16: Symbol for the Bauhaus Press, 1923



The Bauhaus

The geometric constructivist/DeStijl approach to form strongly influenced development at the Bauhaus school. Johannes Itten, Paul Klee and Wassily Kandinsky aimed at uncovering the origins of visual language. They sought this origin in basic geometry, pure colours and abstraction. Like Mondrian and Rietveld they saw this language as based on theorised primordial laws of visual form which supposedly operated outside history and culture. In 1923 Kandinsky proposed universal correspondence between the 3 elementary shapes and 3 primary colours. The yellow triangle was dynamic, the red square was static and the blue circle was serene. The forms in this grammar are most celebrated and given a type of equality in the BeoSystem AV 9000 (Plate 12). Just as the symbol for the Bauhaus Press, by Laszlo Moholy-Nagy, 1923 (Plate 16), uses mathematical proportions to relate the circle, square and triangle, so does the BeoSystem AV 9000. This can be seen most clearly in front elevation view where each form has the same width, giving the overall elevation a rectangle form as the negative spaces are closed by the invisible orthogonal lines linking the forms. Flat areas of colour have also become an important part of the

grammar of B&O products whereas practically all consumer electronic products are black, apart from novelty designs. In DeStijl, colour was used to pick out architectural detail such as in the Schröder house and this is a highlighted detail in B&O products, for example the BeoSystem Avant 9000. Early theories in the Bauhaus also follow DeStijl ideas that colour causes vibrations in the soul and that the associations created by different colours are universal. Bang & Olufsen offer choices of variations of 3 basic colours, red, blue and green along with the "non-colours" for most new products, i.e. variation in that, for instance, red may be super-sensualised to cerise, red garnet, pearly red, etc. The fact, however, that a choice is offered conflicts with the modernist idea of objectivity in design, choice being associated with the individual and personal taste. One may notice how yellow has been replaced by green in the B&O colour palette. The most likely reason for the exclusion of yellow is probably because red, blue and green are thought to blend better with interior decor, or perhaps because, as Kandinsky believed, "yellow is the typical earthly colour, but in association with certain inner states it may be paralleled in human nature by "madness", while green is considered "the ideal point of equilibrium" (DeNoblet, 1993, p.163). Although yellow works as a balancing component in multi-colour compositions, perhaps, alone, it is true that yellow has universal negative associations, therefore it is avoided in B&O products which are supposed to be pleasurable. However, it has only been the more recent B&O products which show expressive use of colour, moving away from the anonymous aesthetic of the Beogram 4000 and Beomaster 1900 product families.

DeStijl and the Bauhaus (1919-1922) were greatly concerned with producing an appropriate universal visual language, but mainly for aesthetic reasons. Much of the early work was arts and crafts based. From 1922 the orientation of Bauhaus teaching gradually started moving towards industry.

Its leaders and teachers sought to integrate art and technology, and gave the courses a more rational, socially grounded basis. The new quest was for economical form in both work and materials, a rational "form follows function" approach. It was believed that industry would be the key to producing standardised, economical and good quality products for the masses which would improve the quality of life for all. The aim was to produce objects which were true to their new materials and processes, simple and unadorned. A universal beauty which everyone could appreciate was thought to exist in any object that applied these rules. Instead of history (represented in applied ornament) , invention and technology was to be the designer's inspiration. The "Wassily" chair (1925) by Marcel Breuer, illustrates this Bauhaus ethos perfectly, the functionalist structure determining the external appearance. The innovative materials and techniques give the chair its own structural suspension, lightness and economy.

The International Style

The architecture of Mies van der Röhe and Le Corbusier, pioneers of the International Style of modernism, also considered structure as the basis of their art. The modern techniques used for their buildings of glass, steel and concrete produced an aesthetic which was highly geometrical and organised, with harmony derived through proportional relationships. This aesthetic is reflected in Bang & Olufsen products. Their more classical symmetry and formalism is also present in all B&O design, as opposed to the asymmetry of DeStijl (Although the Beolab 4500 loudspeaker is asymmetrical, the mirror image of the second stereo speaker creates overall symmetry, Plate 10). The "curtain wall" of glass specific to the International Style, which creates a large transparent surface plane, and the gleaming glass doors of the new B&O sound systems produce similar images of modernist purity. Such elements give B&O their refined

architectural elegance.

But it is the aesthetic of Modernism that is used not the functionalist principles that underlie it. Firstly form does not follow materials and manufacturing. Óle Terndrup, the production development manager of the BeoSystem 2500 project, described the design of the product as being "enormously expensive and difficult" (Platt, 1991, p.41). The precision of moulding plastic to exact right angles goes against the nature of plastic, ease of manufacturing, rules. The systems 13 degree tilt also caused great manufacturing problems. Although presenting an image of modernist simplicity B&O products need to be highly priced because of their complicated constructions, combinations of numerous materials, and highly advanced technology, needed to create their sensory interfaces. Hence they cannot be attainable by the masses, the socialist ideal of modernism.

The International Modern aesthetic was used in product design, as well as architecture, in the 1930's, and now this same aesthetic is now used, nearly 60 years later for B&O products. An ideal comparative example, especially since the product is also an audio product, is a radio designed by Walter Dorwin Teague (1934), Plate 17. The BeoSystem 2500 (Plate 18) automatically comes to mind again for comparison. In Teague's search for perfection in the relationship of forms he followed Le Corbusier, deriving a new aesthetic of geometry and economy from machines. For Teague Modernist art was:

more closely allied to the art of the great age in Greece than to any art before or between. The Greeks invented their geometry, it is true, but we have acquired ours from our machines...we are recovering a realisation that line and proportion...are the basic elements in all design on which all other elements are superimposed (Hiesnger & George, 1993, p.133).

The geometrical layout, symmetry and simplicity of the centre panel of both objects is strikingly similar. The triptych composition of Teague's radio was to produce an organised symmetry, but did not reflect the presence of left and right speakers as can contemporary stereo sound equipment. Teague created his radio as a monumental mirrored facade almost totally unrelated to the design of the machine itself, the receiver and speaker being attachments in a rectangular black metal box, screwed to the back. Bang & Olufsen also produce objects that are to be types of monuments for exhibition i.e. in the home as well as in design museums (e.g. MOMA, New York) and special exhibitions (e.g. their 1995 exhibition at the Bauhaus Archive).

Plate 17: Radio designed by Walter Dorwin Teague, 1934

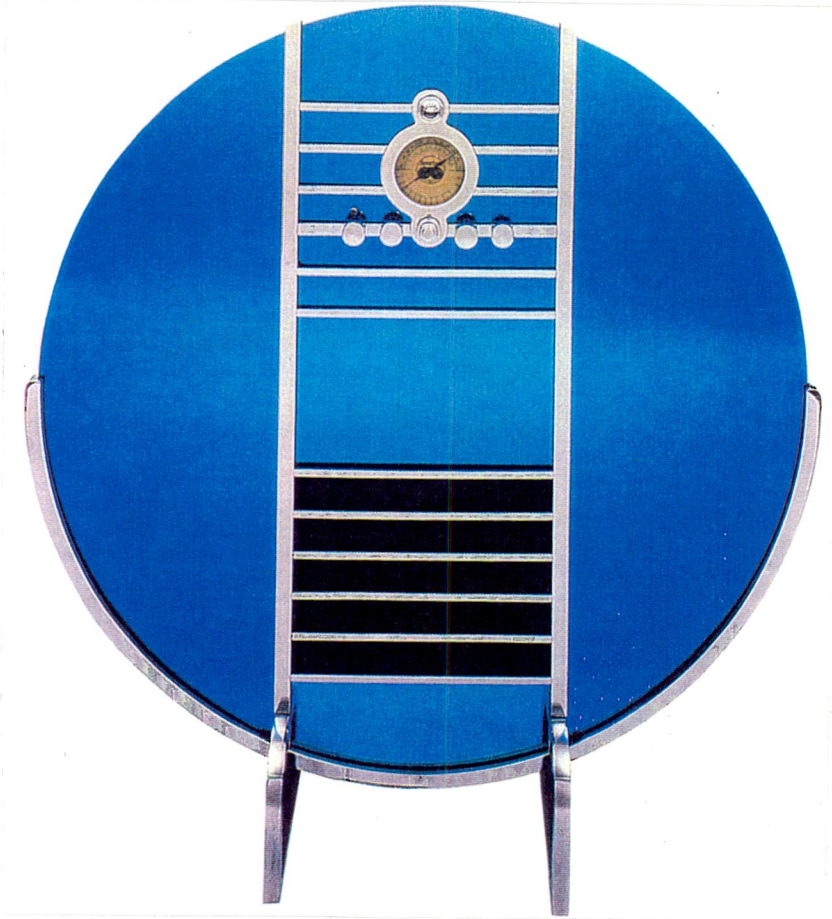
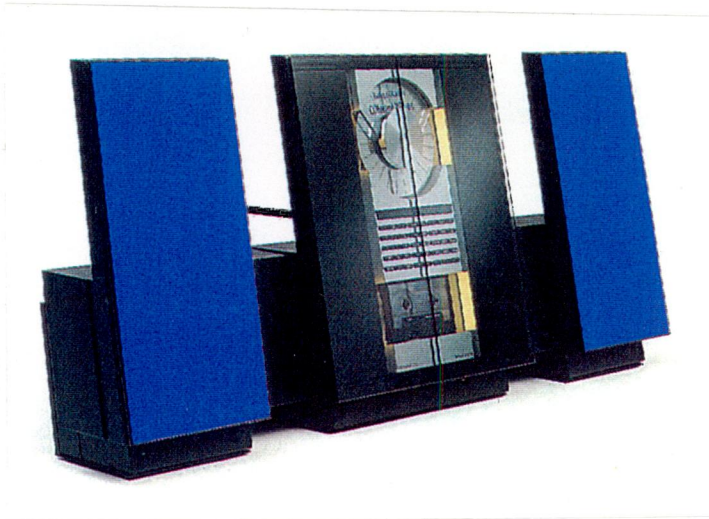


Plate 18: BeoSystem 2500 introduced in 1991



Braun

The German company Braun are most notable for using the rational, functionalist ideas of the Bauhaus in their products. The modernist design approach of Dieter Rams, designer of many Braun products, differs greatly to that of B&O. Braun products are not supposed to cause emotions or sensory interaction. They are based on geometrical shapes but have rounded edges and more obvious split lines and construction, for ease and economy of manufacturing. They do not hide the fact that they are tools, machines, vacuum forms fastened together to house technology. The BeoCenter 9300 (CD player, tape recorder, radio and amplifier), Plate 6, is a classic B&O product which may seem to be a design which is "only out to steal the show, that seeks to veil the purpose and function of a product" (Dornberg, 1992, p.62). The CD and tape players lie behind "invisible" doors on the flat steel surface, which silently open on touch contact. A long flat black touch sensitive screen is the main feature, replacing mechanical controls as the connection with the technology. The interface is supposed to act as a communication surface, appropriate messages lighting up to prompt the user to make a selection, or to show how to proceed. It's designer, Jacob Jensen, has said:

Our design conveys an experience beyond function...we don't design products, we create communication (Evamy, 1991, p.28).

The aesthetic of the BeoCenter 9300 is of the BeoCenter 1900 family and shows minimalistic, anonymous and discrete formal qualities created to give the impression of sound passing undisturbed through the object. These products have a quieter modernist simplicity than for instance the BeoSystem AV9000 which has a more dramatic presence. It would seem that the earlier B&O aesthetic relates more to the refined anonymity of International Modern Architecture, but the newer concepts look back to the

more expressive formal language of early modernism, as a communication tool of universal values.

Today we are moving closer to a Post-Industrial society. With the development of electronics and the microchip, the emergence of a more service orientated economy from a product producing society, has arisen. In this Information Age, created by electronic media, communication is the key function, computers to illustrating the point. It is the software that is important, but the software has to be interacted with through the interface. There is no point in a piece of software being able to do wonderful things if there is lack of communication between it and the user. It is the sound and the picture which is important in the audio or video product. B&O try to bring the user closer to the service (i.e. the sound and the picture) by attempting to hide the technology and the machine qualities, and allow the user to communicate more directly with the service using the senses. The user is not a machine so he/she should not have to communicate with a machine control panel, but as a human, through multi-sensory two way communication. Form does follow function, but this function goes beyond the physical nature of a product, to the communication of sound and picture without technology interfering.

' I don't want to see the technology, I want to hear the music ', the consumer cries, and B&O listen (Beardsley & Nicolaisen, 1991, p.17).

Chapter conclusion

It has been shown in this chapter how the rich, abstract, formal language of modernism is strongly evident in Bang & Olufsen products. This design grammar is applied for its artistic qualities rather than derived from the physical functions and components of the electronic machine. The language is used to reach man's basic understanding and also the spirit by creating

universal sensory experiences as explored in DeStijl and early Bauhaus work. The B&O product attempts to communicate at the same psychological level as the "universal" art piece, e.g. that of a Mondrian painting, and in many ways in doing so it attempts to give itself an in-built art status. It uses the same aesthetic, which was based on construction for International Modernism, but to disguise construction and play with spatial relations.

The B&O product is not true to materials, in economy of form or manufacturing techniques, and definitely not a product accessible to the masses like one by Braun, hence does not live up to the high socialist standards of Modernism. However Modernism never intended to be historical so if B&O used the exact design philosophies created by modernists earlier this century, its design would only be historical and surely not worthy of an exhibition in the Bauhaus Archive, especially an exhibition referred to in its title as "vision and reality". Modernism looked toward the future, new technology and new materials. Modernism also, and most importantly, tried to produce design for contemporary society. Society has changed a lot since the beginning of the century. Post-Modernism questioned the harshness of Modernism transferring importance to the individual and his/her psychological, spiritual and sensory needs, from purely practical functionality.

The formulated B&O vision. Bang & Olufsen, the unique combination of technological excellence and emotional appeal. The best of both worlds (B&O, 1995, p.2).

From the harsh rational language of DeStijl, the Bauhaus, and the International Style, a more sensitive and humane adaption of Modernism was developed in Denmark, in the 50's, with a less machine-approach.

3. DANISH DESIGN, A NATIONAL LANGUAGE

The Danish pride in their design tradition is proven when one flicks through any Danish tourist brochure or magazine, in which one will most likely find a section promoting Danish design. For example the Big Little Denmark brochure, 1994, has 4 pages of classic Danish products which are internationally acclaimed for their "good" design, including Stelton kitchenware, Georg Jensen Silverware, LEGO toys, Louis Poulsen lighting, Fritz Hansen furniture and of course Bang & Olufsen audio/video products. The products of these companies are often the ones chosen to epitomise Danish design. This chapter will look at what makes Danish design, Danish, and how Bang & Olufsen adhere to this strong national design identity.

Danish Modern Design

Although the classic Danish Modern era had its roots in the region's pre-1939 craft traditions, the Danish Modern style particularly dominated world taste (along with all Scandinavian design, which in many ways was marketed as a single style) in the late 50's and early 60's. The ambition of Modernism was to be universal with the "elimination of all the personal content of their designers and all otherwise ungeneric or non-essential features" (Gropius, 1965, p.27), but designers working in Northern Europe (including Denmark) stressed regional variation and individuality in their adaption of the Modern Style. Many Danish designers adapted a simple sculptural form of organic Modernism which can be seen in Poul Henningsen's light shades of simple functional solutions found in nature, and in the chairs of Hans Wegner and Arne Jacobsen, using minimalistic curvilinear forms to find perfect chair solutions, Plates 19, 20 & 21 respectively).

Plate 19: Artichoke light shade
by Poul Henningsen



Plate 20: Chair by Hans Wegner



Plate 21: The Ant chair by Arne Jacobsen



Plate 22: Cylinda Line designed
by Arne Jacobsen

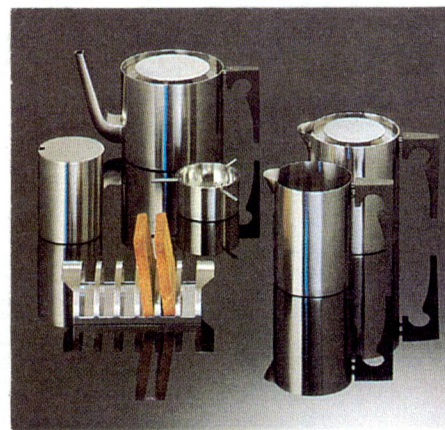


Plate 23: Vacuum jug by Eric Magnussen



Industrialisation came late to Denmark and many industries remained dominated by craft traditions and natural materials, particularly wood. A crafted rather than industrial quality is present in the most typical Danish design solutions. This can be seen by comparing Danish furniture of organic plywood forms to the more industrial, tubular steel, furniture of International Modernism, e.g. Breuer's Wassily chair as described in the last chapter. Bang & Olufsen also show generous attention to crafted or semi-crafted details and finishes (e.g. carefully lacquered surfaces and refined constructions - no raw plastic or visible joinings)

In many ways the International Style of Modernism was harsh, rational and unconcerned with human feelings. Jens Bernsen of the Danish Design Centre has described Danish design, on the other hand, as being different:

We have a special attitude towards people - we design as if people were important. We want to make good tools for people. Cooperation with the user is very important so that the product becomes a kind of tool that the user identifies with himself (Hoyna, 1992,p. 64)

Although the formal language of B&O products is more closely related to DeStijl, Bauhaus and International Style, geometry, rather than sculptural Danish forms, their Danish sensitivity is revealed in their attention to linear simplicity (almost graphic in quality) and delicate lightness of form (e.g. wafer thin mouldings reminiscent of plywood lightness), but also, in their attention to creating a good tool in the Danish sense. Bang & Olufsen are obsessed with the communication between the user and the product, and use a particular design language which communicates with the senses. In a way they have foreshadowed computer hardware designers' attention to the interface between the user and complex circuitry, the buzz-phrase nowadays being "good man-machine interface". The Danish approach is

to try and break the borders between man and technology, so that technology serves man and not the other way around. This is seen, for instance, in B&O's "system thinking" approach and their development of the home link system. A consortium funded by the Danish government, and headed by B&O, has been conducting research for the home link concept since 1987. It is generally a standard that a remote control comes as part of the sale of a television, video recorder, etc. The fact that the Beo4 remote control (Plate 24) is sold separately for an exceptionally high £150 shows the importance that is placed on this object itself. The Beolink 1000 was the first device to control all operations of a TV, video recorder and music system. The most recent version, the Beo4, can also adjust the lighting in a room. One no longer buys individual products, but a system in which each part communicates with the other parts, and all may be controlled through a central control, further bringing the service to the user rather than products themselves (in the form of several controls). It based on the idea that the products speak the same language, anyway.

Plate 24: Beo4 remote control



The classic design

Generally Danish designers do not allow themselves to be swayed by the winds of fashion that change from year to year. They prefer to work with enduring qualities in design which are not immediately apparent. They look for what, they feel, is an optimum solution for a product, working from the problem posed, something which does not rely on the cosmetic addition of stylish elements to a technological object, a very modernist approach.

This classic solution concept is shown by how the successful products of the 50's and 60's, the most successful Danish design period, still continue to sell well today. The best sellers are Arne Jacobsen's "Ant" chair from 1955 (for Fritz Hansen) and Poul Henningsen's artichoke lamp from 1958 (for Louis Poulsen). Most of the producers of popular Danish Modern design then are also the leading manufacturers today, and all have continued with their design-led manufacturing. It is also true to say that the image of their design has remained very much the same. They still produce the same classic designs or have built upon them (e.g. the addition of colour, for example Jacobsen's "Ant" chair now comes in a wide range of bright and pastel colours) or they design new products, with new materials and technology, but following a similar visual style (for instance Stelton got Eric Magnussen to produce a vacuum jug based on Jacobsen's stainless steel Cylinda-Line (Plate 21), but using ABS plastic and new manufacturing techniques, Plate 22). At the same time B&O have also become less puritanical about modernist ideas and produce more visually expressive products, e.g. vivid colour ranges, such as for the BeoSystem 2500, while retaining similar forms, the same idea as Fritz Hansen's expansion on the "Ant" chair. They also reproduce their design classics created in the 70's, but with advanced and completely new technology, e.g. the classic Beogram 4000 (Plate 3), which won numerous international awards and was included in the New York MOMA permanent collection.

The basic design of the Beogram 4000 was reworked, through the years, until all excesses were discarded. Each Basic unit (CD player, amplifier/radio, cassette recorder and turntable) of the Beosystem 7000 is based on the Beogram 4000 turntable. Although the Beogram 4000 had minimal discrete controls to the right of the turntable, the Beogram 7000 shows further advanced simplicity and purity of surfaces, due to its operation via the Beolink 7000 remote control unit, even though the number of functions has greatly increased.

The principle of developing a product of a "timeless style" was also used from the BeoMaster 1900 radio (1976), Plate 4, right through to the design of the BeoCenter 9300 (1995 catalogue), Plate 6. Both products look extremely similar even though in many technical ways they are completely different. Firstly the latter is also a CD player, tape recorder and amplifier as well as a radio (which now all fit into the same form as used only for a radio in 1976). In the Beomaster 1900 the flat centre panel was a disguised hinging door to the controls of more complicated, and seldom used, secondary functions, plate 25. Instead the new system has 2 touch sensitive sliding doors, left and right of the panel, to hide CD and cassette players (see Plate 26), and any of the more technical functions can be found through menus on the remote control. The same idea of the lighting-up responsive interface of a crimson L.E.D. data display has been carried through the years and refined, through improved technology and simplification of operations.

The use of teak veneer for the base of each unit has been replaced with aluminium and their finishes detailed using new techniques, e.g. anodising. However B&O's still offer one of their new televisions in teak finish possibly out fear of losing a major part of what created their original identity, Plate 27.

The Danes are extremely conscious of what is Danish. Teachers and students of architecture constantly refer to the presence, or lack, of Danishness in their own work, this Danishness seemingly being, the original Danish Modern Style which brought success. B&O take on this Danish trait, being very conscious of what it is that has always made a product, a Bang & Olufsen. They venture to use new design languages, but with restraint, anxious to retain as much as possible of their original identity that first made them famous.

Plate 25: Beomaster 1900 with hinged door revealing secondary functions





Plate 26: Detail of the BeoCenter 9300 showing "hidden" CD holder

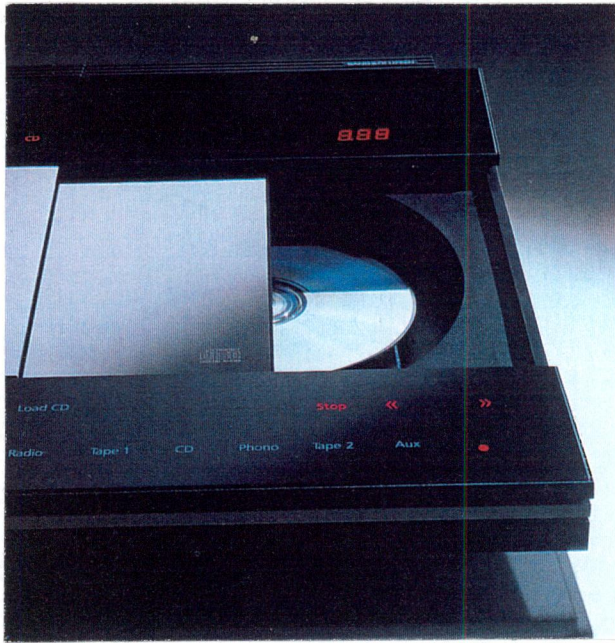
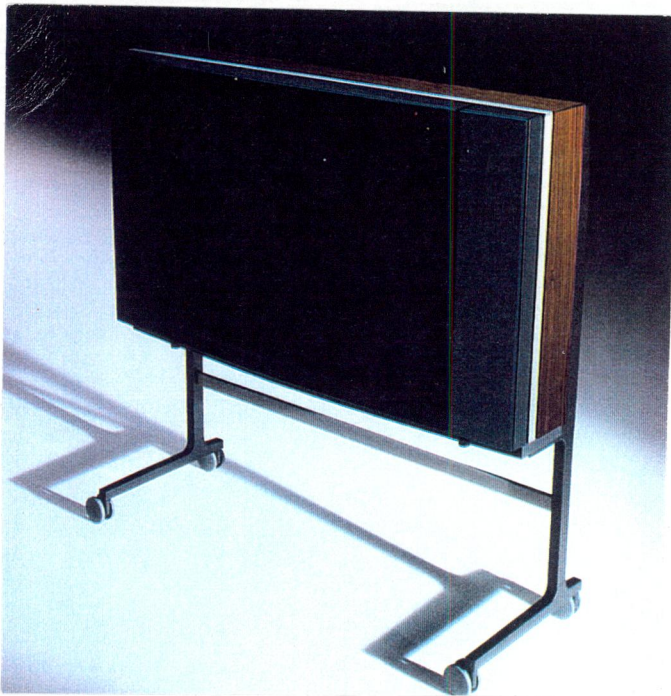


Plate 27: Teak veneered television from the 1995 B&O catalogue



4. MARKETING

Timelessness

The concept of timelessness was particular to Modernism in its attempt to create a "universal" style that transcends time, place, culture, etc. Post-Modernism rejected the "universal" style in favour of design which would reflect individuals and their cultural backgrounds, which inevitably varies depending on time or place. When Modernism was created, early in the 20th Century, most of the objects it produced generally had the same practical functions as they do today (chairs, lights, etc), but with the development of electronics, practical timelessness was also questioned.

Although it is obvious, from B&O's comprehensive testing standards, described in detail in catalogues and publicity media, that their products are intended to last, electronics themselves have a built-in obsolescence. Recent B&O products tend to fail more often than older ones. This is to be expected because they contain many more miniature components and connections. When these fail the likelihood of finding the fault, not to mind fixing it, is improbable, unlike a more mechanical failure. Many consumer products have an added artificial obsolescence on top of inevitable obsolescence, so that products only last for minimum, consumer acceptable, life span and have to be replaced (due to poor manufacture). Although it is experienced that B&O products do last longer, they still have obsolescence in the nature of the product (not only the possibility of failure but also of being outdated by new technological developments). The reality of timelessness may no longer exist, but the idea of the timeless product is very marketable, especially to those in B&O's elite market, who supposedly have good taste and value quality lasting design.

The elite market

Modernism in general aimed to create objects which could be accessible to the masses, and improve the quality of life for all. In reality, however, many of its renowned products only appeared in museums and design books, but set examples for today's designers. Danish Modernism was more successful in creating products attainable by a majority. Denmark is one of the few countries, where, their national design classics, which are found in museums and design books, are also popular with the general public. Bang & Olufsen, on the other hand, intentionally appeal to an elite target market, who will pay high prices for unique design and quality technology. This niche market concept is essentially a Post-Modernist phenomenon of the 80's and 90's and does not fit in with the ideals underlying modernism.

Most electronic companies use the cheapest and easiest route to present new technology to the consumer, creating a large market of cut-price disposability and obsolescence. For example Sharp develops around 2000 products a year of which only 2 percent contain any genuine innovation. Instead Bang & Olufsen put a lot of time and money into individual projects trying to produce what they feel to be optimum solutions, and perhaps classic designs. For example 3 years and 6 million pounds worth of research went into the BeoSystem 2500 alone. And this is why B&O products are so costly, why the Beosystem 2500 costs over £1,500 (i.e. without the speakers) when the majority of ghetto blasters on the market can be bought for less than £200. It is the reason why the B&O product does not appear in the bargain pages of consumer electronic dealers' brochures (Plate 28 shows a typical example the Harry Moore 1995 brochure), like the majority brands, but are only displayed (or should I say exhibited), in their own special centres, and presented in their own catalogues and brochures.

Plate 28: 2 pages from the Harry Moore 1995 brochure

TOP WITH FIDENCE AT MOORE'S

WEST PRICE PRANTEE

OP ANDS

PERT VICE

EXIBLE IANCE

NDAY ENING

VENIENT ATIONS

AYS O PAY

ENING OURS

GOODMANS GSP450
Goodmans bring you a portable CD system with surround sound facility and the option to run it from your car battery. CD Player • Twin Cassette Deck • 30 Preset Digital Radio • Detachable Speakers • 30 Key Remote Control • Facility for extra Surround Speakers • Operable with Car Battery (with optional cord lead)
HARRY MOORE £149.99 LOWEST PRICE!

DAEWOO ACD7200
Quality sound at a price you can afford from one of the World's leading Manufacturers • Twin Cassette • 3 Band Digital Radio FM/MW/LW • Front Loading CD Drawer • Remote Control
HARRY MOORE £129.99 LOWEST PRICE!

SONY CFD9L
A CD Radio Cassette from the most famous brand of all for under £100 • CD Player with synchronised dubbing to tape • Two Band Radio FM/MW • Single Cassette Deck
HARRY MOORE £99.99 LOWEST PRICE!

JVC PCX 110
A powerful portable component system which features • CD player • Twin Cassette • 30 Preset Digital Tuner • Detachable speakers • Remote Control
HARRY MOORE £199.99 LOWEST PRICE!

SONY CFSB11L
Great value from Sony! • 4 Band Radio • SW/LW/MW/FM • Single Tape Deck • Stereo Speakers
HARRY MOORE £49.99 LOWEST PRICE!

JVC PCX55
Just very Chassy! The JVC PCX55 features • CD Player with Repeat Play • Cassette Deck • Detachable Speakers • 3 Band Radio FM/MW/LW • Multi Bass Horn
HARRY MOORE £149.99 LOWEST PRICE!

PANASONIC RXDS15
Well worth a listen - this winner from Panasonic features • Full Function CD Player • 3 Band Tuner • Cassette Deck • XBS (Extra Bass) with Level Control • Microphone and Headphone Jacks
HARRY MOORE £139.99 LOWEST PRICE!

PANASONIC RXDT75
The Connoisseurs Choice! No other machine comes close in terms of Sound or Features • 20 Watts Peak Power • Motorised Top Panel with LCD Display • Full Infra Red Remote • Full Logic Auto Reverse Cassette Decks • 3 Band Digital Tuner with 30 Presets • 4 Amp. 6 Speaker Power Drive System • Built-in Digital Clock/Tuner
HARRY MOORE £399.99 LOWEST PRICE!

PHILIPS AW7140
A branded budget priced full function machine • Twin Cassette Deck • 3 Band Radio FM/MW/LW • Stereo Speakers
HARRY MOORE £59.99 LOWEST PRICE!

SAMSUNG RCD1230
The perfect package. The Samsung delivers • CD Player • 3 Band Radio • FM/MW/LW • 50 Watts Peak Power • Twin Cassette Deck with Continuous Play • Headphone Socket
HARRY MOORE £109.99 LOWEST PRICE!

JVC RCXC1
JVC have packed Triple Tray 3-Disc Changer into this portable machine allowing you to fill your room with beautiful music without filling up a lot of your precious space • Triple CD Player • Digital Tuner with 30 Presets • Remote Control • 4 Preset Equalisers (eq. Bass, Treble, etc.) • Operable with Car Battery (with optional cord lead)
HARRY MOORE £199.99 LOWEST PRICE!

GREAT AUDIO TAPE DEALS
• Sony 7 Pack C90 £4.99
• Maxell 3 Pack C90 £2.99
• Sony 3 Pack UXS (Chrome) £4.95

HARRY MOORE
It's all so beautiful

The ideal of modernism was to standardise the design of all products through the "universal" product. B&O products look more aesthetically modernist, however, the majority of stereos and televisions from other brands are more standardised the world over. This is shown by the stereos in Plate 28 produced by Sony, Panasonic, Samsung, JVC, Philips, etc, all of which have a similar identity. B&O intentionally differentiate their products by strategically using an alternative design language. The large consumer electronic companies have developed a common style which sells on the mass market in many countries all over the world. B&O also have a "world" market in that there are an elite group of people from Denmark, Germany to Japan and the United States who will buy unique products because of their differentiation from the standard product.

The product experience

In public relations material issued by Bang & Olufsen they describe how the human factor is used as a vital component of quality. The company pay great attention to the sensory nature of their products in order to create unique user experiences, which are marketed in themselves. Their product development testing team consists of listener, video, tactile and even smell experts which have been in existence since 1981.

As well as trying to obtain good sound quality, eliminating unwanted sound, is also important. Even a slight hum in a product or click in a loudspeaker is not allowed. The covers and doors silently glide open on products with a light touch or wave of the hand. It is not usually an annoyance that doors on products click, it usually acts as a feedback mechanism so one knows the machine is operating okay, and whilst these sounds are ones that go unnoticed, the silences of B&O products are immediately apparent.

The tactile panel of testers have to feel products to see if they have the "Bang & Olufsen touch". They have to examine edges to determine if they are too sharp, and if seams are too obvious, and determine if they fulfil the perceived B&O identity. The materials used and the finishing of construction is extremely important:

Surface treatment is extremely important to Bang & Olufsen. It affects not only the appearance but also the feel of a piece of equipment. A product is created to be used, and you can't do that without touching it (Palshøj, 1992, Article 13).

B&O remote controls are not finished in plastic like the standard unit on the market. They use zinc which is pleasant to touch and conducts heat away from the hand so it never feels clammy. It also adds a touch of quality by its weight over plastic. The cover plate of the Beo4, plate 24, is natural

aluminium and the buttons are rubber, with a well defined click point for user feedback. The materials and finishes are expensive, especially since contrasting and complimenting tactile materials are used together. The BeoSystem 2500 uses a variety of aluminium finishes, glass, lycra, rubber and composite plastics giving multi-tactile experiences. The materials add a sense of preciousness to the product. The B&O product cannot be mauled or roughly handled, but needs to be delicately treated. Even with normal use the gleaming glass and highly polished metals show up all fingerprints. However, it would seem that the ritual of carefully polishing the B&O product, is part of the product experience, like the way one proudly looks after other treasured personal possessions.

When one reads about B&O's claims of their attention to product smells, one cannot help, but, think that perhaps their sensory experience creating, philosophy, is a bit extreme:

When the proud owner of a new Bang & Olufsen product excitedly unpack it, it should smell right. The problem is that printed circuits can give off gas after the soldering process which, though not at all toxic, might be considered by some as unpleasant (Palshøj, 1992, Article 16).

The smell panel judge how a product smells, having to decide if it "needs" to be given an "electronic deodorant". People pay highly for these products, the sum of all such tiny details, but how many people would be consciously aware of, or concerned about, the presence of such minute smells which will wear off anyway ?

It may sound contradictory, but however sensory appealing, the Bang & Olufsen product may be, it is not exactly ergonomic, even though the ergonomic look is "in" at the moment, and the products of Japan show

rounded, easier to hold, forms. The buttons of the B&O remote controls are rather small, and although the units are slightly more rounded on the reverse, they still retain rather sharp forms, which are not exactly the most ergonomic. Also many of their information displays, even on recent products such as the BeoSystem 2500, still use LEDs over newer LCD technology, the latter being clearer to read. Although the Beo4 uses LCDs, the BeoSystem 2500 uses crimson red figures on a black background. In many ways the red on black has a richer aesthetic quality. Bang & Olufsen seem to go for pleasure and enjoyment over ergonomics. Their products seem to be more beautiful to hold and to look at, rather than comfortable. Their operations are also quite complex to follow, especially when one is unfamiliar with the product. It is unclear, for example, how to open the hidden panels (even what these are) when one looks at the BeoCenter 9300, plate 6, but discovery is part of the emotive experience of a new B&O product. With experience the products become easier to use, and retain their pleasure - through the building up of a relationship with the product.

Bang & Olufsen do not create practically functional products, but attempt to function at a psychological level, evoking emotions in the user through sensual experiences gained by the use of a product. In this way the B&O attempt to reach the user at the level of art, like the Mondrian painting, and this is what they market to their elite customer.

Expansion of the market and product identity

In the late 80's Bang & Olufsen began to find themselves in financial trouble. They had been sticking firmly to their product development strategy of the 70's but were now finding it difficult to maintain sales. Óle Terndrup, the product development manager felt that the company would:

only dig its own grave if it sticks too rigidly to philosophies of a past age....for three or four years now B&O has been a museum to its own products(Platt, 1991, p.42)

He felt the company should start producing more products and at a faster rate. In 1990 Philips bought a 25 percent share in Bang & Olufsen which has greatly influenced the company. Philips wanted to learn from B&O, being that they are a company that sell design over technology. Although, B&O's technology is of high standard, according to reputable hi-fi magazines such as What Hi-fi?, it is often judged to be of similar, or slightly lower quality, than cheaper products by other manufacturers. Therefore B&O have benefited from the partnership which allows greater access to Philips newly developed technology.

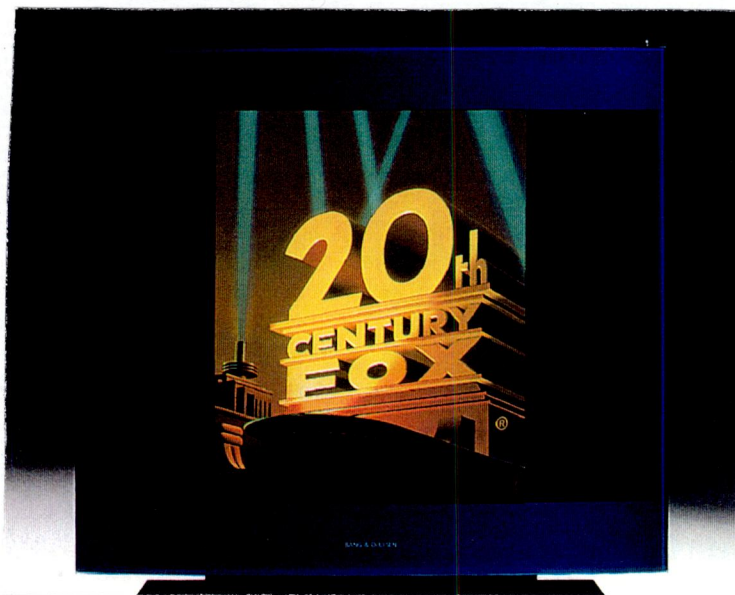
The company's Annual Accounts and Report, 1993/94 shows how their financial situation has greatly improved. They have moved-

from what was at times, a posture of irresponsible self importance...to attitudes and behaviour to ensure that we make money (B&O A/S, 1994, p.56)

They say in the report how the number of new products is being increased in response to the market being comprised of an ever growing number of different segments. As well as producing a more varied product range B&O have obviously felt the necessity to include extra features on their products, to excuse their high prices. Before the extras were intangible, in

the form of the experience of touch sensitive and responsive panels. Although motorised stands, which turn to one's viewing position, and black curtains which glide open when the television is turned on, such as for the BeoSystem AV9000 (Plate 29), are supposed to add to the whole experience, many would consider these as superfluous gadgets.

Plate 29: Screen of the BeoSystem AV9000



Many of B&O's product characteristics have remained the same but they have also become increasingly more fashionable and Post-Modernist to meet market demands. This can also be seen in changes in their visual design language over the last number of years.

The fashionable appeal through advertisements

Bang & Olufsen advertisements this year such as for the BeoVision Avant, Plate 30, present their products with soft and fluid imagery. The BeoVision Avant with its sharp lines and rigid geometry is clearly defined in the photograph, while the foreground and background are exaggeratedly

unfocused and blurred. This creates a watercolour painting effect, which is further emphasised, by the "bleeded" edge for the framing of the picture. The concept of placing the product in a "painting" again hints at the idea that this television should be looked upon as an art object, not just a functional product. The subtle but rather large presence of the fish on the table in the foreground may be an attempt to compensate for the absence of biomorphic reference in the design of the television itself. As in the products of modernism any sign of natural expression in form is excluded in the B&O product. This especially conflicts with the trend, in the last number of years, for consumer electronic products to become more and more organic in form. Although the television screen is ideally completely rectilinear and flat (and this is what the manufacturers strive to technically achieve), the "black boxes" which house the technical components and frame the screen have been softened by many variations of radii and organic curves. In audio equipment this is most noticeable, where there are less restrictions in form than for television. Biomorphic design, of elliptical forms and curves, influenced by the car industry, is predominant in the styling of contemporary stereos (Plate 28).

Although Bang & Olufsen products retain their long standing ideals of simple yet refined geometry, the company's marketing team obviously recognise their deviation from current fashion trends in form, and counter balance this by evoking these fashionable qualities in their advertising, through softer imagery and biomorphic reference.

Plate 30: Magazine advertisement for the BeoVision Avant

Would you expect to find a fully integrated video recorder in a cabinet this slim?

Two unique active loudspeakers produce sound quality you'd normally expect only from a music system.

BeoVision Avant

EXPECT THE UNEXPECTED.

Just one look at the Avant and you expect something special. Switch it on and your expectations are soon realised. As the sleek cabinet turns towards your chosen viewing position, the curtain of the Avant glides open to reveal a superb 16:9 widescreen. And, thanks to the new and unique Active Picture Optimisation, every film and programme is presented in the best possible format. But the surprises don't stop there. There's a magic eye which adjusts the screen to the ambient light conditions and hidden in the cabinet you'll find one of the most advanced video recorders - fully integrated, so that both TV and video can be easily operated with just one remote control. But to make certain you know that you've encountered a totally new concept in video entertainment, there are two integrated active loudspeakers whose quality outperforms that of many music systems. Experience the Avant for yourself at one of our dealers - they're expecting to see you.

For your nearest dealer, please call free on 0321 300313.



Bang & Olufsen
see. hear. feel.

Contemporary post-modernist trends

The BeoVision Avant comes in 4 colours (Black, blue, red and green) in a high gloss, pearlescent lacquer, finish. Pearlescent plastics, fabrics and finishes simulating a type of metallic material are used throughout the contemporary fashion industry in strong vibrant colours. These artificial finishes (with no pretensions to being natural) aspire to creating a futuristic look. They are a major contribution to the image revolving around a young "cyber" generation interested in technology and electronic media, and appear in clothes, accessories and graphics. One only has to compare the metallic lycra of the BeoSound Century (Plate 31), to the metallic lycra clothing now popular in youth "club culture", to see how B&O fit in with contemporary trends. The advertisement for the BeoVision Avant (Plate 30) shows artificial luminosity, and blending of intensified colours, similar to what is being created in electronics by the virtual worlds of computers, where colour and light are redefined because no natural rules exist.

Clearly the newer B&O products are an appeal to the fashionable young, those anyway that have plenty of disposable income, rather than the "timeless" and reserved quality of the B&O product families which stem from the 70's. The fact they may be seen as "cool" and trendy is evident in the way the BeoSystem AV9000 is used in promotional media, including album covers, for the pop group Menswear, whose music is targeted at a younger market. Plate 32 shows a magazine advertisement for one of their albums which uses the BeoSystem AV9000 television as a graphic image. The layout of this advertisement also shows reference to DeStijl art work, such as Mondrian's Checker Composition in light colours from 1919 (Plate 33). This advertisement uses the formal language of modernism to create fashionable contemporary graphics, which do not appear to be historical in anyway. In a similar way B&O use a modernist aesthetic language for

market appeal.

Plate 31: BeoSound Century

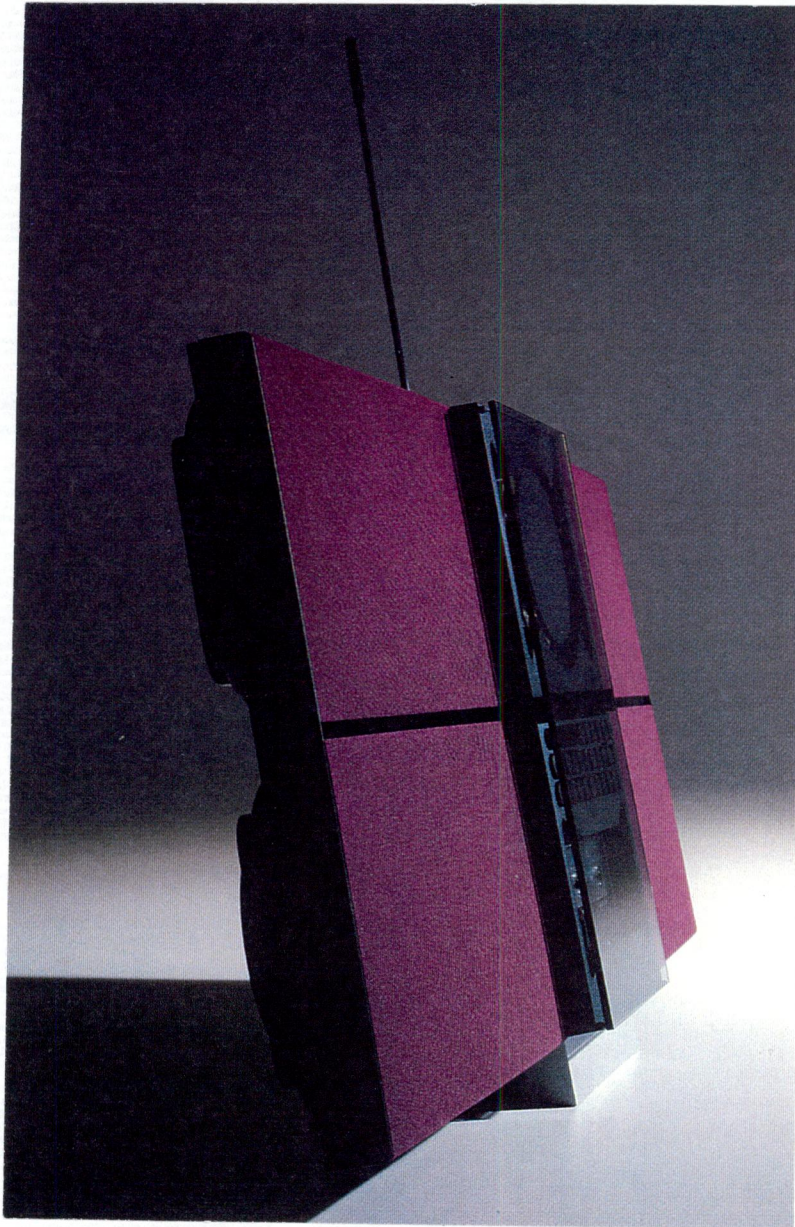
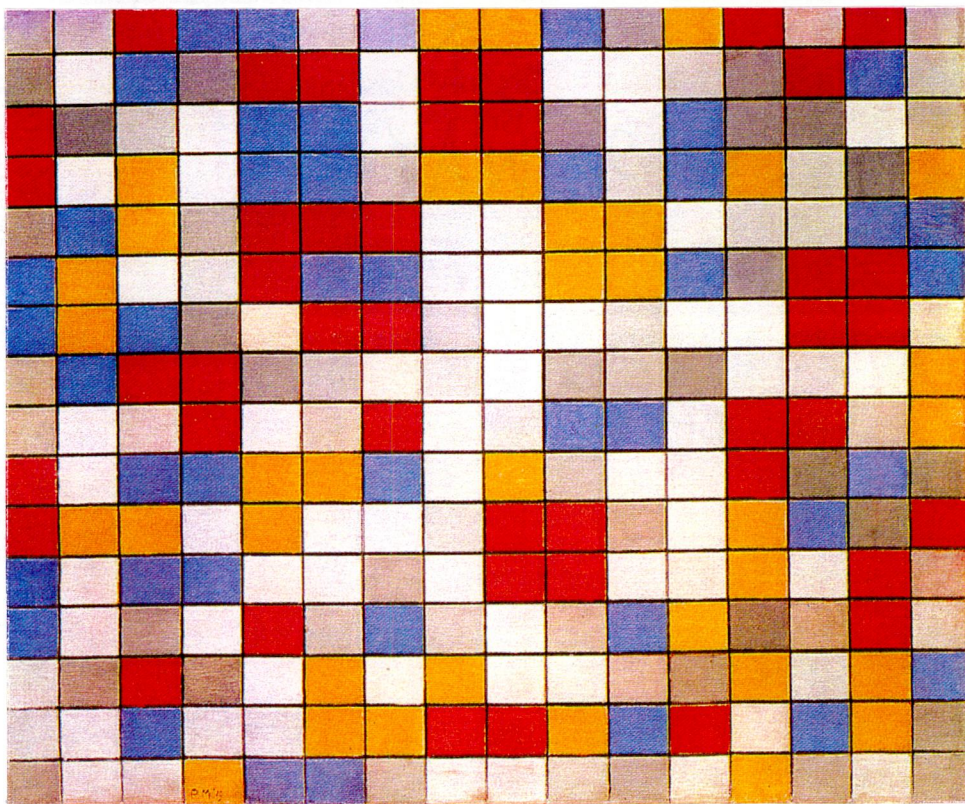


Plate 32: Menswear album advertisement using the BeoSystem AV9000



Plate 33: Checker composition in light colours by Mondrian





Recognition of individual consumer choice

The customer is given the feeling of individual personal taste, and being part of the design of his/her product, by having a choice of colours. For the lycra speakers of the BeoSound Century (Plate 31), booklets of material swatches in the different colours are available. The idea of choosing from swatches is associated with choosing materials for personal interior decor and design, giving the customer the feeling that the B&O product is being especially made up to his/her personal specification of finish. In reality the required product is sent from the factory or down from the store room. The whole concept behind the B&O product range is that each customer can create his/her own system. This concept of individual choice is characteristic of Post-Industrial and Post-Modernist society. People want variety, selections to choose from, and essentially the feel of individualism. Our homes and surroundings are expressions of ourselves, as well as being functional. It is important for people to feel that their personal objects create a type of self-identity. The Bang & Olufsen product is a status symbol which says that its owner has money. It also supposedly expresses that he/she has good taste, and an awareness of art and design.

CONCLUSION

Bang & Olufsen are essentially a Post-Modern company in their niche marketing philosophy. Since they established their corporate identity in the 60's and 70's their design philosophy has been market led, and they use the formal design language of Modernism to create products which appeal to their elite affluent market.

The company use their national design language, a regional adaption of the International Modern Style, in the detailing of their products. The Danish emphasis on crafted finishes and sensitivity to the individual, are essential elements, which international modernism did not provide, used for the product which claims to give the owner quality, and individual attention. Down through the years, B&O products have also shown Danish restraint in maintaining the key element of their design, the modernist formal language, and only very carefully detailing it with more fashionable elements.

At the same time Bang & Olufsen have become increasingly Post-Modernist, expanding on their product range to appeal to a larger market. They still produce products with a refined, anonymous, modernist appeal, but they have also introduced products which have contemporary fashionable elements subtly combined.

B&O use the "universal", formal design language of Modernism, as a marketing tool, not to create a "universal" product, but to create elite objects which claim an art status. The aesthetic grammar of abstracted geometric forms is applied to the B&O product, to evoke a similar reaction to the "universal" art pieces, created by early modernists, such as

Mondrian. The B&O product is a status symbol which has a high price, supposedly reflecting its owner's awareness of good taste and art. The following is a quote from the Berlin exhibition, by Óle Terndrup:

A B&O product is a claim. Nothing needs to be added, nothing subtracted. Take it or leave it." (Bang & Olufsen, 1995, p. 2)

It is up to the individual to decide if the B&O claim to art status is valid. Whether one agrees or disagrees, one cannot dispute that there is a sustainable market for these highly priced claims.

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