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## **Museum Exhibition, interpretation and Communication Techniques**

**Dr Alexander Kapukotuwa**

Senior Lecturer,

Fellow / Sri Lanka Council of Archaeologists,

Director Excavation / Ampara Rajagala Archaeological Project

Director Archaeology / Kagalla District, Central Cultural Funds (CCF)

Department of History and Archaeology

University of Sri Jayewardenepura

Nugegoda, Sri Lanka

### **Introduction Museums**

Museum is an institution developed through the centuries to stave off for as long as possible the deterioration and loss of objects treasured for their cultural value. As such, collects, preserves, arranges and displays the objects of scientific, historical, and aesthetic values. The museum has several functions. Firstly; it is a repository in which are kept the products of cultural and nature, those items from the vast material output of human that are held worthy of permanent preservation. Secondly; it is a Centre of learning, applying the finest research methods to the problems of gathering its materials, classifying them, and preparing them for meaningful study and display. Finally; the museum is usually a public place for putting before people the objects of their civilization and of past civilizations, serving to entertain and to aid in the development of taste and judgment. Society does not save these things just to hoard them but to use them. Accordingly Museums are organized to use their treasures for cultural property, natural history specimens, science and technology and archival purposes.

### **Exhibition**

Exhibition is the most important, powerful and directs visual communication in every museum. Every day large number of different people comes to museums to visit museum exhibitions. Therefore, there is a close relationship between exhibitions and museums audience. While museums have a wide range of potential public programmes, exhibitions tend to be the predominate form of communication between a museum and its public. Often the public's perception of a museum is based on their experience of the exhibition inside. Exhibitions - in their content and character, in their space and facilities needs and in their development and operations - also have significant impact on a museum's building and resources. The public is quite right to identify museums with displays. Although museums do have many other techniques to communicate with the public, their unique and special method is display.

An exhibition may be defined as a show or display of materials for the purpose of communication with an audience, often the general public. The exhibits have different aims. In museums, they employ original objects to inspire or inform and incidentally to entertain audience by displaying objects or processes that illustrate the technological and artistic attainments. The specific goals of

museum exhibitions involve the desire to change attitudes, modify behavior and disseminate the knowledge.

It is generally assumed that museum exhibitions incorporate collection objects or their representations as the primary channels of communication. These presentations are informational in content and intent. There are legitimate uses and reasons for this form of display, but by and larger, the uniqueness of museum exhibitions rests in their employment of the “real thing” intent or purpose lies with the exhibit maker. Exhibitions range from being either object - oriented at one extreme, to concept - oriented at the other. That is, either objects or messages predominate.

***“An exhibition is a means of communication aiming at large groups of the public with the purpose of conveying information, ideas and emotions relating to the material evidence of man and his surrounding with the aid of chiefly visual and dimensional methods” (Verhaar and Meeter 1989: 260)***

The definition by Verhaar and Meeter states some key elements in a museum meaning of exhibition. However, exhibition is more than simple a process of presenting things. It is also a collective activity with an overall goal of communicating a message or message-that medium or channel of expression.

There should be an exhibition mission in every museum. Thus museum should arrange their exhibition galleries according to their mission and type of the museum.

### **Types of exhibits**

Exhibition may be categorized in various ways and in the museum context it is perhaps simplest to examine first exhibition modes and their characteristics and then to consider other aspects such as approach and style. There are:

- Permanent exhibitions
- Temporary exhibitions and special exhibitions
- Mobile exhibitions. *(Belcher 1991: 44 - 47)*

### **Permanent exhibition**

Every museum has permanent exhibitions. Many of their collections, including their masterpieces and landmark objects are on display at all times. However for planning and design purposes it is important to know the intended life of an exhibition, as it will certainly affect decisions made on virtually all aspects of the design and content. The aims and objectives of a “permanent” exhibition may also differ from those of a short - term exhibition, although the basic communications functions will remain. In this context “permanent” has come to mean a minimum life of about ten years. Any proposal for a permanent exhibition must be considered in relation to a museum’s overall communications policy and plan, an important factor of which will be the exhibition budget.

## Temporary exhibits

If a temporary exhibition means life of up to and around ten years, then temporary means something less. The intention of how much less needs to be started in the design brief but in practice will often be qualified by **short, medium and long - term**.

**Short - term** could be a day, a week or a month or two, depending on the museum's exhibition programme and events. **Medium - term** - might be three to six months – perhaps during an annual major summer or any period, it depending on the programme cycle. **Long - term** tends to be a designation applied when a space is to be filled without certain knowledge of the time when it is to be brought into a schedule and so is temporarily filled pending further development (*Belcher 1991: 47*)

Temporary exhibition special themes may feature objects from the museum's collection brought from storage or their usual display places, perhaps supplemented by loans from other museums and collectors. Sometimes museums arrange temporary exhibitions as educational programmes. Other special exhibits may consist chiefly of loans or of prepackaged displays obtained from a traveling exhibition service. Permanent and temporary exhibits are often much the same in their theme-centered plan, circulation layout and design techniques, sometimes, in fact a new museum will create a series of temporary exhibits that are transferred to its permanent galleries with a minimum of revision. Yet temporary exhibits often justifiably use somewhat more theatrical display techniques because their points must be made more rapidly for viewers who will see the exhibit only once. (*Julia 1998:192*)

## Mobile exhibitions

Many museums of the world have been trying to reach audiences that do not come to their doors. Sometimes the big - city museum has developed outreach programmes to appeal to inner - city urban poor, ethnic or minority groups. In other instances, a state - supported museum in a capital city has taken programmes to small villages and remote rural areas. In developing countries with many illiterates, museum exhibits have provide invaluable in transmitting information on health, agriculture, modern science, ecology and social welfare. (*Alexander1996: 189*) The mobile museum exhibition system is so popular in many countries in the modern world because; museum management can provide a good publicity about their museum through this system.

## Exhibition Techniques

### An overview of the exhibition planning process

As with exhibition media, the methods, skills and personnel involved in the creation of an exhibition vary widely. Further, exhibition planning has been the focus of museological discussion because of the public nature of exhibitions; the resources needed to create and operate exhibitions and the efforts by various professionals and specialists to define their changing roles in sometimes very complex processes. Art exhibitions differ greatly from science or history displays and blockbuster shows borrowed from other museums present challenges very different from those of an exhibition selected from storage. It is useful, however, to list some of the phases and decision points for exhibition planning in more general terms for a range of institutions and facilities. It is also informative that the phases of exhibition development parallel the phases of building and

institutional development. Therefore, exhibition planning in the museum is a very complicated duty.

### **Exhibition Planning and design**

The sub - teams established by the exhibition committee usually include at least the following skills and expertise:

- Curatorial
- Design
- Interpretation
- Media and technical

Members of these teams will be responsible for the detailed draft and design development of the exhibition components. The products of this stage should include:

- An overall layout of the exhibition, describing its overall space configuration, visual treatment and exhibition highlights
- An exhibition plan, describing in detail the particular communication objectives, contents and media for every component of the exhibition, linked to the overall exhibition objectives and themes
- A systems specifications brief, including descriptions and details of any interactive or AV media, environmental technology or stagecraft proposed for the exhibition
- A preliminary budget and schedule, including a detailed costing and production time estimate for the media and systems proposed

The sub-teams should meet regularly with the exhibition committee to review all exhibition proposals. They should meet whenever the-team is ready to present options that affect the overall approach and major budget items for the exhibition. The layout, exhibition plan, systems brief and preliminary budget and schedule be reviewed, approved or revised by the exhibition committee. Once the exhibition committee has given its approval, the sub - teams will produce:

- Working drawings, detailing all aspects of proposed exhibition
- A detailed production budget and schedule, if the exhibition is to be produced in - house or proposal documents including and schedule if exhibition fabrication and media production are to be contracted out. (*Hugh 1999: 158*)

### **Exhibition Production**

With the approval of the working drawings, budget and schedule by exhibition committee and senior management, the fabrication of the exhibit components and production of media elements may begin. This work is a highly complex and structured process and should involve the following groups and functions:

- Administration: to ensure that the resources and staff of the museum are being co - ordinate and deployed in a timely and fashion
- Production: either to carry out the actual fabrication and installation or to monitor and maintain the museum's outside contracts
- Members of the sub - teams: to act as resources to the project and to maintain continuity with the original specifications and intent.

The exhibition committee should maintain a watching brief on the production process to assist where possible and to report to senior management.

### Exhibition operation and evaluation

The exhibition committee should continue its work after the exhibition has opened:

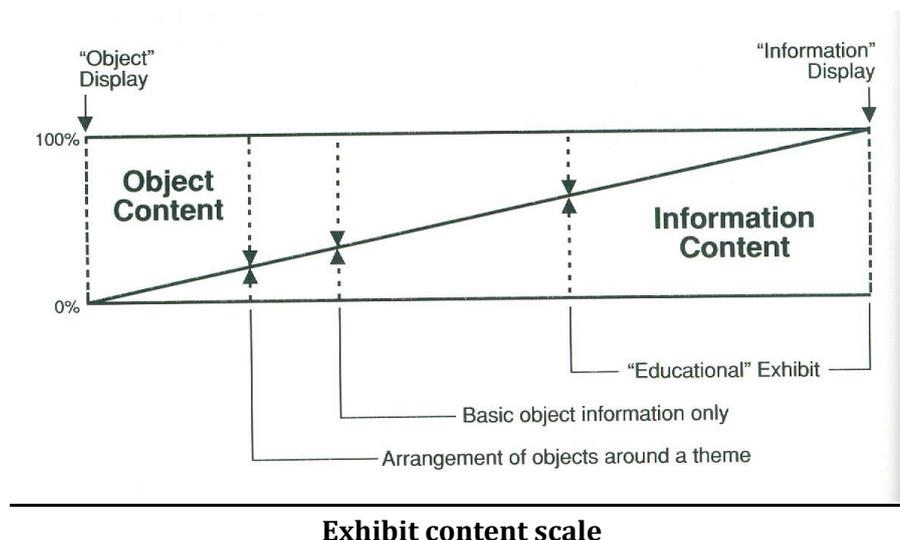
- Working with education, interpretation and public relation staff to evaluate how effectively the exhibition has achieved its objectives
- Consulting with conservation staff to ensure the continued good condition of all collections on display and scheduling the replacement of environmentally sensitive objects
- Working with programming specialists to train for presentation and visitor services and to prepare special events
- Monitoring the operation of all media and systems in the exhibition-working with media specialists and production team members
- Facilitating the long - term public use and enjoyment of the exhibition. This will include systematic studies of areas where the exhibition needs to be revised and updated and determining when an exhibition has completed its lifespan and should be replaced.

Presentation is the physical act of placing collections on public view,

### **Presentation + Interpretation = Communication**

**(Physical display) (Explanation and exploration) (The exhibitor's goal)**

Communicating information and ideas is the intent of the exhibit maker. How that is accomplished depends upon subject matter and available resources. Exhibits are often categorized by the sorts of objects or themes presented. Example: a presentation of paintings is considered an art exhibition; an array of animal specimens is a natural history exhibition and so forth. However, the type of exhibit should not so much be determined by what is in it, as by what it is intended to accomplish. Usually one associates museum exhibitions with collection objects or their representations as the primary focus for information. (Verhaar and Meeter 1989: 26)



Using this as a basis for categorizing exhibitions is more helpful in planning than simply relying upon their contents. Exhibits may range from being either purely object - oriented at one extreme or largely concept - oriented at the other. That is to say either things or messages are dominants. Thus, if arrange any exhibitions in the museum displaying objects we should give full and good knowledge to visitors. Therefore, museum staff should prepare themes according to the museum mission.

### **Design museum exhibitions**

Designing museum exhibition is the art and science of arranging the visual, spatial and material elements of an environment into a composition that visitors move through. This is done to accomplish pre - established goals. The presentation of exhibitions in museums should never be haphazard or left to chance. Although planning can be overdone for almost any project, quality museum exhibitions require a high degree of development and design to serve the public properly. Design decisions should be deliberate and calculated and executed to achieve maximum effect. Though a certain degree of serendipity plays a role, relying upon it too heavily is a mistake. A well - founded knowledge of design basics can foster an organized approach to exhibition design. Certain elements of design are fundamental to all visual arts. An introduction to these elements is helpful in understanding why some arrangements work - that is; they fulfill their intended function-while others do not. When a composition works, it is usually comfortable to the eye, even if the subject matter may not be. However, when design fails, people will react negatively, regardless of how beautiful or important the contents are.

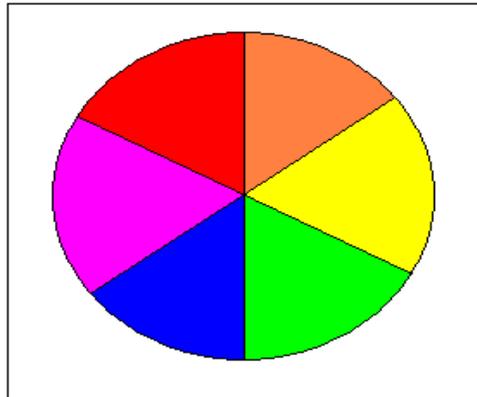
Naming the key elements of design varies, depending upon the person naming and their interests. However, there are six main elements; **Value, color, texture, balance, line and space.**(*Belcher 1991: 125 - 128*)

**Value** - Value is the quality of lightness or darkness, having no reference specifically to color. Areas that are black, have the lowest value; **areas** that are white, the highest. All the infinite between are varying degrees or shades of value. Values are associated with visual weight characteristics. Normally, darker values are attributed the quality of heaviness; lighter shades are expressed as lighter in weight. For design purposes are important for emphasis; orientation and attraction/repulsion. Judicious combining of value with the other design elements can dramatically affect the visual impact. Value is controlled by pigment, surface treatment and lighting.

**Colour** -Colour is an important when it is arranging the background of museum exhibitions. Colour is an extensive subject. To attempt to cover all aspects of colour would be inappropriate in this context. However, addressing basic principles is fitting. Few substances are entirely without colour. Some may appear colorless or mono-chromatic, but all influence light in some way. Colour requires both the physical characteristics of light energy and the action of the human brain. Colors are perceived through the filter of perception and are ascribed meanings.

When light is mixed crimson, ultramarine and green light will produce the whole visible spectrum, with red and green light will produce the whole visible spectrum, with red and green overlapping

to give yellow, red and ultramarine producing magenta and ultramarine and green giving blue. Where all three primaries overlap, white is produced. In subtractive colour mixing the printing inks of yellow, cyan and magenta are regarded as the primaries and are used extensively to produce most other colors. However in psychological terms, primaries are those colors (other than black and white) which are perceived as basic and usually red, yellow, blue and green are thought of in this way. In the analogous color system whereas complementary colors are any two which are opposite each other, as an example, red and green or purple and yellow. These give a clashing, vibrant effect when placed together. *(See Fig. - 15)(Belcher 1991: 131)*



**Basic color wheel**

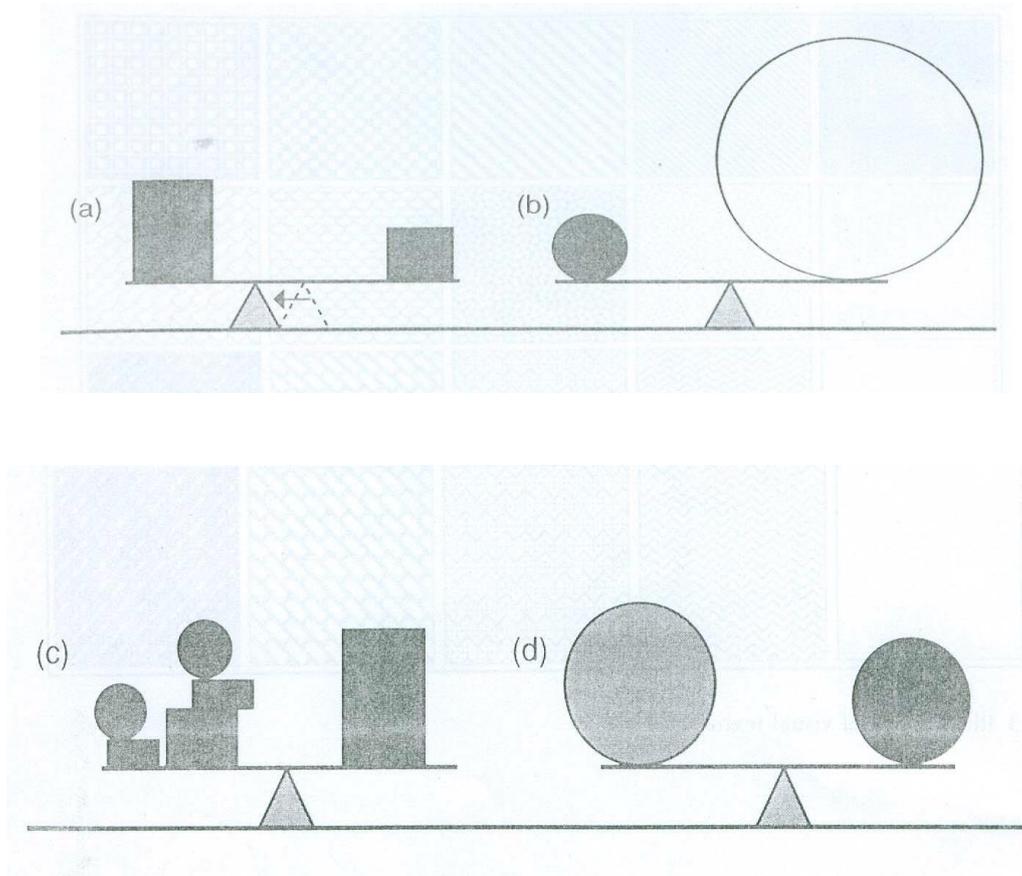
Consider the physical properties of colour. Light is a form of electromagnetic energy or radiation, the result of applying energy to a substance like a tungsten filament, a candle or a florescent gas. In all cases the consequence of energizing the materials is the emission of waves / practices called photons. The speed at which the photons travel or vibrate is referred to as their frequency. There are an infinite number of frequencies, but human eye recognizes only a small band. This narrow collection of frequencies is known as the visible light spectrum (VLS) or simply visible light. Above and below the visible band are many others. Light travels through space basically in a straight line from its source unit it reaches an obstruction-like an object. All substances influence the energy that reaches them. Light that reaches the eye affects the receptors in the retina directly. Light that reaches another object first, and then finds its way to the eye, may undergo several changes in direction and speed. Light triggers visual sensors in the retina of the eyeball. These generate a series of messages that are sent through the optic nerve to the visual centers of the brain. There the singles are given a name - a color. *(Maclagon 1993: 38)*

No matter how light energy is produced or how it is affected by objects, the human brain is the interpreter. Characteristics attributed to color relate to associations. The color from the yellow middle of the visible spectrum to red are “warm” This is probably because the radiation frequencies below red in the spectrum are sensed as heat. At the other end, toward blue, the colors are referred to as “cool”. This end is most distant from heat. It is associated with the coolness and blueness of the sky, ice, water and other natural cool substances and conditions. Other characterizations are cultural varying broadly depending upon the worldview of an individual. In this century, pink and blue signify female and male gender, respectively. However, a century ago in the United States, the reverse was true. White may stand for purity in one culture, grief or death

in another and magical properties in yet another black, red, green, complex. Colour - induced meanings are usually laden with emotional impact. In language colors signify emotions, too. Blue means sadness or depression, green represents envy and red signifies anger. Cultures vary in these kinds of associations as well.

**Texture-** Texture is the visual roughness or smoothness of a surface. In two - dimensional images on actual surface variations may exist, yet by varying the density of pigments, quality of line and strength or weakness of values, the surface may appear to have “toothiness”. Texture may also result from the actual treatment of a surface and have a tactile dimension as well.

**Balance** - Balance is the quality of visual weight distribution. When image or objects are arranged symmetrically - items of equal size and weight match across a mid-point- they are in symmetrical balance. When they are arranged so, no equivalents exist, the composition is asymmetrical. Balance can be either formal or informal. Between symmetry and asymmetry are infinite variations of balance. Typically, symmetry is formal composition. On the other hand, asymmetry is informal. Balance does not always employ object balanced against object. Another way is to balance an object (a positive element) against a non - object (a negative element - space). Adept use of negative space can dramatically enhance the visual interest of a composition, while producing a comfortable balance. (Dean 1994: 37)(See Fig. - 16)



Visual balances:

- (a) Shifting the center of balance**
- (b) Use of negative space**
- (c) Employing multiple versus single elements**
- (d) Offsetting values and volumes**

**Line-** Line is the quality of linearity. A line is a string of points with little or no space between and next to each other to lead the eye and thus suggest direction. Line gives a strong directional content to composition. It can vary in strength, density, affect visual weight, imply directionality, show containment and delineate.

**Shape-** Shape is the element of physical or spatial containment. It is the composite of all points forming the internal or external surface of a composition. Both two - and three - dimensional shapes are everywhere and infinite in variety. Some are geometrical and hard - edged, like squares, cubes, rectangles, triangles, circles and cylinders. Others are softer, more curvilinear as are living organisms. These are called organic shapes. Contracting, joining, overlapping and mixing shapes add important visual interest to any composition. The juxtaposition of organic and geometric shapes can accentuate the qualities of both. These design elements can be expanded upon much more. There are ample references that can provide future information. The essential properties of each element need to be understood by the designer. By using both experimental and traditional combinations of the design elements, compositions are built. Careful thought will produce useful designs. But intuitive leaps of imagination often inspire the most exceptions. The keys are to experiment and observe.

### **Human factors in exhibition design**

Human factors in museum exhibition processes should also be considered. This is very important in arranging the museum galleries. The human being is a design factor that influences and relates to all other composition - related considerations. Fundamental human beings have only one archetype with minor variations in size, weight, features and the like. The basic model includes a main section (trunk), appendages (arms and legs) and a head. These are symmetrically organized along the mid-line of a spinal column. Variations in girth, height, length of foot and hat-size are relatively minor, no matter how important they may be to a person's self image. The largest variations in size exist between youth and adulthood. There is roughly a 162 percent increase in height from age 5 to 20. In contrast, the difference in average height between adult males and females is less than 1 percent. Most people fit into the chart on p. 41. Those persons with special needs add other dimensions to the data. General measurements have been provided for persons in wheelchairs, since these devices add significantly to a person's spatial requirements. (*Dean 1994: 36 - 39*)

What do these human dimensions tell the designer about involving people in learning experiences? People feel most at ease in spaces that allow freedom of movement without feeling either overly confined or exposed. This relates to a sense of scale-human scale. We relate space to ourselves as the fixed unit of measurement. Ceiling heights in most homes are between 9 and 12 ft, providing space to raise our arms above our heads but low enough to feel comfortable. Spaces intended to be impressive or awe-inspiring are normally much larger and higher. Think of places such as

temples, churches, banks, public buildings and business centers. Being lost in a vast space carries the emotional sensation of being less able to control the environment. The less control a person in the more impressive, awe - inspiring the space becomes. On the other hand, spaces that is small and tight engender crowded, oppressive, smothering feelings. Many people have negative associations with such responses. The minimum comfortable space is defined by the room to swing one's arms outstretched side to side. The significance and usefulness of this factor in exhibit design vary depending upon the intended impact of the space. An intimate exhibition requires less room than does a grandiose one.

The implication of human response to space and the means by which we gather information become clearer as they relate to behavioral tendencies. Some of these behaviors are familiar to designers and have developed into some particular guidelines.

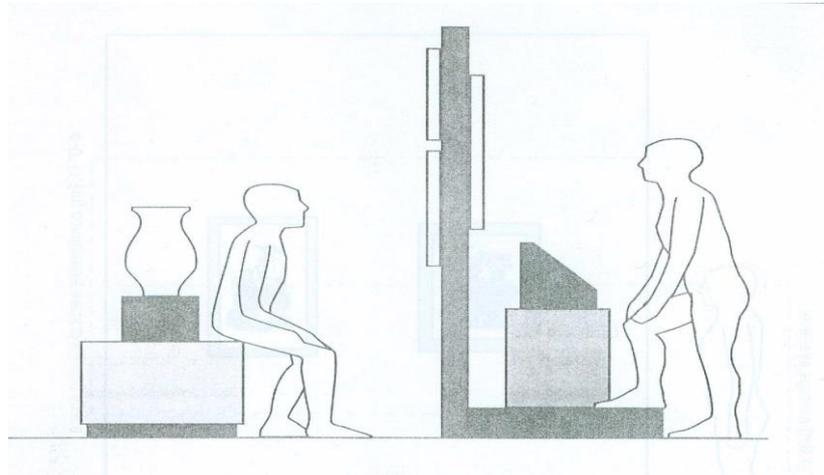
**Touching** - People have an innate predisposition for touching both as a sensory and experiential confirmation of what they see and as memory reinforcement if objects or surfaces are within reach, they will be touched. Erecting barriers to separate the viewer physically from the object is possible, of course. However, this is sometimes undesirable for design reasons. Spatial separation can protect without creating resentment. If the objects are out of reach, they are outside the touch behavior. Younger children have not learned the social conventions and must be physically prevented from touching to ensure collection safety.

**Entry response** - People will normally use the largest opening when presented with a choice and all other factors are roughly equal. This is entry response. When entering a new and largely unknown space, larger and well lit is better. It is less intimidating and leaves more room for exploring what is ahead.

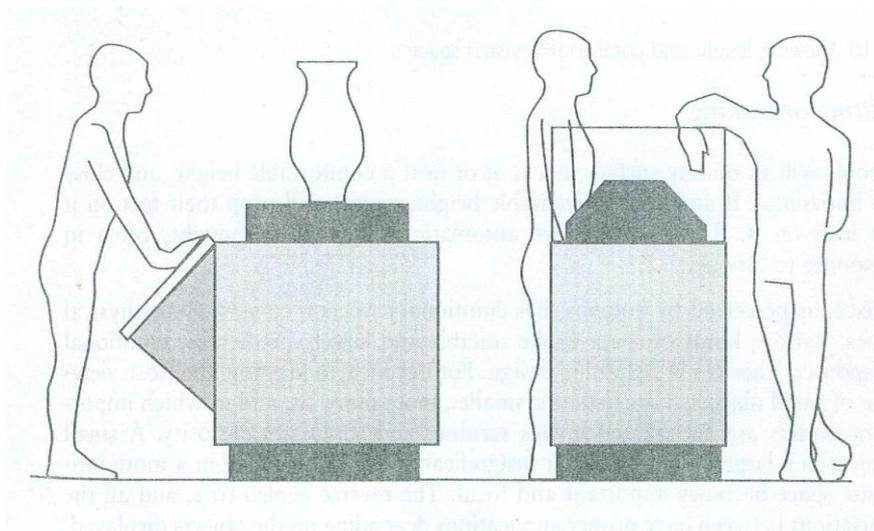
**Viewing height** - People are most comfortable and will spend more time looking and reading when printed materials and objects are comfortably placed. They should be positioned so the center of the material is at eye - level. For adults, average height is around 5ft3 in (1.6 m). The field of vision forms a cone beginning at the eyes and extending 40° above and below the horizontal axis. Distance from the objects increases or decreases the comfortable viewing area within the cone. Placing objects of graphics outside the cone leads to difficulty in viewing and fatigue. The space outside the cone of vision can be used for large, bold elements, but should be avoided for detailed ones.

**Sitting and leaning** - People will sit on any surface that is at or near a comfortable height, and close to horizontal. If anything is a suitable height, people will prop their feet on it or lean on it. These actions are automatic and without thought, often in response to fatigue. Space, as perceived by humans, has emotional associations as well as physical ones. Various kinds of spaces evoke suitable and largely predictable emotional responses. This can be helpful in design. For instance, to promote the close viewing of small objects are highlighted invites scrutiny and stimulates curiosity. A small object in a large hall may appear insignificant. The same object in a more intimate space becomes important and focal. The reverse is also true and all the variations between have proper applications depending on the objects displayed.

Therefore, we also need to pay attention to the protection of exhibit when making arrangement for exhibition sitting and leaning .Precaution should taken to ensure lesser amount of risks from the people. It would therefore be advisable to provide space for refreshments within the museum premises, comfortable chairs and air conditioners should be made available in such places. Cafeteria for purchase of food and sanitary facilities should also be provided.



***Sitting and leaning behavior - I***



***Sitting and leaning behavior - II***

Space must be defined in terms of the emotional responses aroused as below;

- Formal or informal
- Cold or warm
- Masculine or feminine
- Public or private
- Awesome or intimate
- Graceful or vulgar

Not only do people react to the space around them but also each carries a sense of space with him or her as an extension of the body and psyche. There are discernible behaviors associated with this

portable space.(Dean 1994: 46 - 49)

For arranging, an exhibition of the museums objects, a museum specialist has absorbed new scientific and technological knowledge in the modern world. The usage of new scientific and technological knowledge has made museum exhibitions and galleries more attractive and pleasant for visitors.

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