

Tips and Concepts for planning truly  
*“Interpretive” Exhibits*



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## **Tips and concepts for planning truly “Interpretive” Exhibits.**

By John A. Veverka

*“A mind once expanded with a new idea never  
regains its original proportion”.*

*Are your exhibits giving answers to questions that no one is asking?* Are they full of “information” but not translation of the topics in terms that the visitors can understand or relate to? Do the “look nice” (they better – you probably paid a lot for them), but the visitors don’t seem to learn or remember anything from them? If this is the case, you don’t have “interpretive” exhibits. I have noticed over the years that almost every exhibit is *called* an interpretive exhibit, while most of them don’t actually “interpret” anything – they just simply present information. The problem is that quite often there is a lack of knowledge as to what makes an interpretive exhibit “interpretive”.

The goal of this paper is to provide a general introduction into what makes an exhibit “interpretive”, and some hints on how to make your exhibits more effective in translating its message from the language of the curator or resource expert to the **conceptual language of the visitor**. Remember, YOU are not your audience.

### **What is an Exhibit?**

An exhibit is an array of cues (visual, auditory, sensory, etc.) purposely brought together within a defined boundary for a desired effect.

### **Reasons for Exhibits?**

In general, I believe that exhibits are probably one of the least cost-effective methods available for communicating with visitors – particularly if they have not been pre-tested prior to their final construction. But, given that, here are some reasons for exhibits.

- Tell a story in an ordered sequence or fashion.
- Tell a story that can’t be told or illustrated on site.
- Bring artifacts and stories to places where the visitors are.
- Bring extremes into human scale (i.e. a three-foot model of a one-inch square of soil).
- Allow visitors the freedom to pace themselves.
- Allow staff to do other things.

## **What is Interpretation?**

In planning “interpretive” exhibits, we should have an operational definition of what “interpretation” is. The definition I prefer is:

*Interpretation is a communication process designed to **reveal** meanings and relationships of our cultural and natural heritage, to the public, through first hand experiences with objects, artifacts, landscapes, or sites. – Interpretation Canada – 1978*

## **How do interpretive exhibits differ from general “informational” exhibits?**

An interpretive exhibit makes its topic “come to life” through active visitor involvement and extreme relevance to the everyday life of the visitor/viewer.

Interpretive exhibits should:

- Employ interpretive techniques and principles (Tilden’s Interpretive Principles).
- Provoke the visitor’s interest or attention.
- Relate to the everyday life of the visitor.
- Reveal the main concept in a unique, creative ending or viewpoint.
- Address the whole – illustrate the main interpretive theme of the gallery or exhibit group of which it is a part.
- Have message unity (design elements that support the theme).
- Be objective and outcome based (have learning, behavioral and emotional objectives).

## **The two basic questions an interpretive exhibit planner must ask and answer as part of the exhibit interpretive planning process are:**

1. Why would a visitor want to know this (information or topic that the exhibit is presenting)? If you can’t think of reasons visitors would want to know this – how can you “provoke” them into wanting to look at the exhibit and interact with it?
2. How do you want the visitor to **use** the information the exhibit is presenting? If you don’t want the visitor to use any of the information in the exhibit (or the visitor can’t use any of the information or concepts presented in the exhibit), then why are you giving the information to them?

There are not any “right” answers, just questions to be considered. The answers will help plan and design more visitor friendly and cost effective exhibits.

### The psychology of the exhibit – exhibit “load”.

Exhibit load is the term I use to describe the amount of time and energy (both physical and psychological) that each exhibit requires the visitor to use up in interacting with that particular exhibit. Think of the visitor coming to a museum or interpretive center with 100% enthusiasm, interest, and excitement when they first enter the exhibit area. As they move through the exhibits they are using up emotional energy and interest in the exhibits begin to drop – they start to get psychologically tired and overloaded with information and stimuli. And, usually within about 45 minutes, the visitor has had enough and heads for the gift store or the lunchroom.

Usually the exhibits with the highest “load” are the interactive ones that require mind and physical coordination – more thought process (and easier mental fatigue), and the low load exhibits are the more passive ones, such as flat work graphics, collections behind glass, paintings, etc.

The following exhibit classification matrix gives you one way to help determine the general “load” of an exhibit with the type 1 exhibits having the MOST intrinsic interest and type 3 exhibits having, in general, the least interest for visitors.

#### Exhibit Classification Matrix

##### Exhibit Activity

	Exhibit is Active	Exhibit is Passive	
Visitor is Active	<b>Type 1</b>	<b>Type 2a</b>	High Intrinsic Interest ↑ Type 1 Type 2a Type 2b
Visitor is Passive	<b>Type 2b</b>	<b>Type 3</b>	

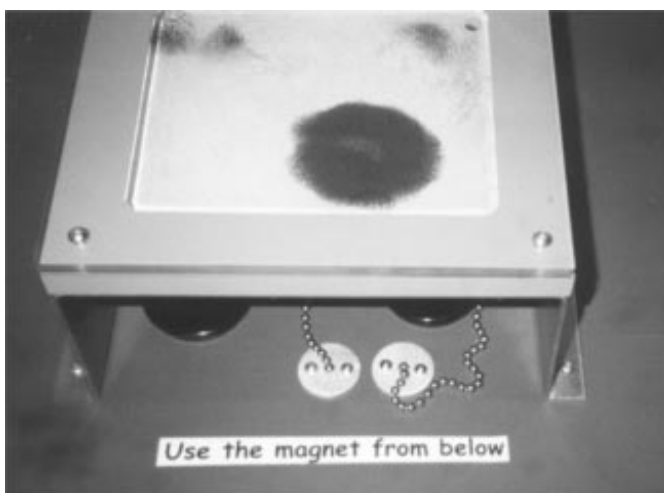
So just what does this matrix mean? Here are some examples.

**Type 1 exhibit** – The exhibit moves or has motion and the visitors moves or does something – an interactive exhibit, such as holding a live animal, or a computer activity such as the examples below. In General, they have the most intrinsic interest for visitors.



Two examples of Type 1 exhibits where the visitor does something and the exhibit does something.

In general, Type 1 exhibits have the highest intrinsic interest for visitors, and are usually the most expensive to the exhibit types to construct and maintain.



In the case of the simpler Magnet Exhibit – as the magnet is moved over the underside of the exhibit, the iron filings move in response to the magnet motion. Type 1 exhibits can be designed to be simple, like this example, while still being educationally productive.

**Type 2a exhibits** – The visitor can do something but the exhibit is inert, such as a hands on touch table or touching an animal skin. Shown below are some examples of type 2a exhibits.



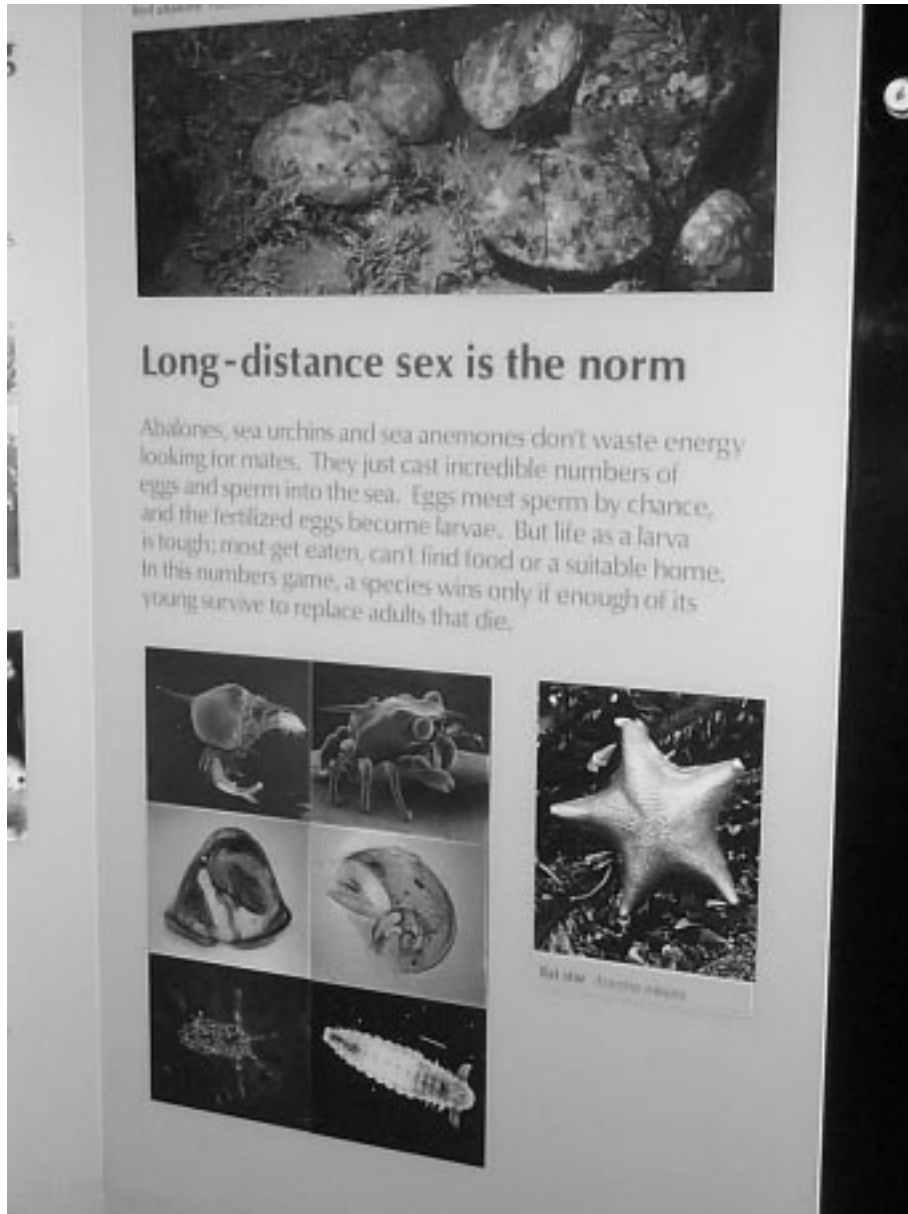
The microscope exhibit shown above (left) is a Type 2a exhibit – the visitor does all of the work, as is the geology exhibit (top right).

**Type 2b exhibits** – The visitor is passive (just looks) while the exhibit does all of the work, such as watching a video, watching a live animal in a zoo or aquarium, or watching a working model.



Watching an aquarium exhibit, such as this one at the Monterey Bay Aquarium, is an example of a Type 2B exhibit.

**Type 3 exhibits** – The visitor is passive (just looks) and the exhibit is passive (does nothing) – looking at collections in cases, looking at flat work graphics and paintings for example.

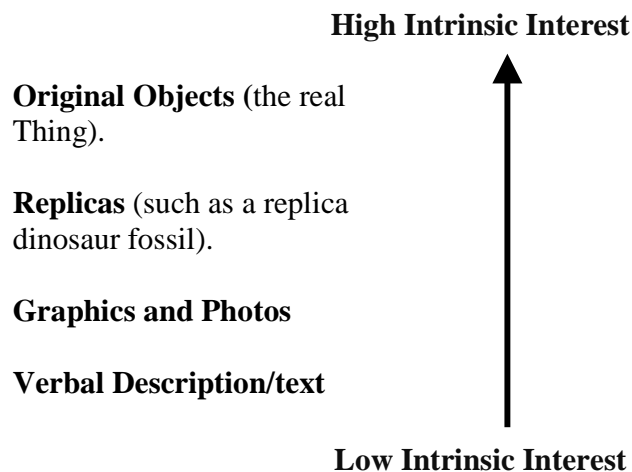


This is a good example of a type 3 exhibit that illustrates how the use of good interpretive writing can help this exhibit be more provocative and exciting.

The idea here is that as the visitor goes from cell 1 to 2 to 3 there is generally a decrease in the intrinsic interest they have in “those kinds” of exhibits. Thus, more use of interpretive techniques are required for type 3 exhibits than type 1 exhibits. Research has shown that people are more interested in dynamic, animated, changing stimuli than in inert flatwork (USDA Design Office Research Report – ca 1996). If you want to see this concept in action, go to any museum or interpretive center and “watch” your visitors.

### **The effect of exhibit content on visitor load factors.**

We also know from years of experience and research that the content of an exhibit also plays an important role in the intrinsic interest that visitors have towards exhibits. Visitors have more intrinsic interest in the “real thing” than replicas, graphics or text.



As an example:

- Here in this case is Davey Crocketts Rifle – imagine the adventures it has been a part of.
- Here in this case is a replica of Davey Crocketts Rifle (no adventures).
- Here is a photo of Davey Crocketts Rifle.
- Here are 1000 words describing Davey Crocketts Rifle.

We have a decrease in intrinsic interest as we move from “real things” to text.



In the 20 plus years I have been involved with exhibit planning, I have found is to have a good diversity of exhibit load mix. I like this general formula for most interpretive centers:

- 25% Type 1 exhibits
- 50% Type 2 exhibits
- 25% Type 3 exhibits

Of course this depends on the type of site you are working with. Most science museums are mostly type 1 exhibits. The problem is that it is easy to have “exhibit burn out” in the visitors, particularly since there is often not a strong focused interpretive theme in many science centers.

Art Museums pose the opposite problem of being all Type 3 exhibits – unless you know what you are looking at, they can be boring for some visitors and not a lot of “interpretation” goes on except at the more creative art museums with education/docent staff that can make the art “come to life” for the visitors.

You can use this concept of exhibit load and intrinsic interest to “mix and match” exhibits. For example, if you had an exhibit on Native American Stone Tools and had a lot of originals in a glass case for visitors to see, you would have a type 3 exhibit. But if you added replica tools for them to pick up and “guess how they were used – what kind of tool they were”, you would have a type 2a exhibit – of more intrinsic interest. You can have exhibits that use all 4-exhibit types within one exhibit as well.



This exhibit on Flight, being pre-tested for the Kirby Science Center in South Dakota, uses a mix of exhibit types including type 1 (hands on), working models that are observed in a wind tunnel, and interpretive graphics.

### **Hands on needs “minds on” to work properly.**

One of the big problems I have with some exhibits where people can touch things is the lack of the reason or learning concept connected with the “touching”. Take touch tables for example – a standard in most nature centers. So a person picks up and looks at a deer antler – then what? They put it down and pick up a turtle shell – then what? What is the point in the hands on activity? To have these exhibit really work you need to have some “minds on” planning or outcomes for the exhibit activity. This exhibit could be enhanced by asking “Pick up the deer antler and see how many different tools you think you could make from it – what would those tools be?”. Now the mind has a focus or objective that goes with the activity.

### **Planning Interpretive Exhibits – Outcomes please.**

In planning interpretive exhibits the element that is most important in the planning process (but almost always left out of the process) is a clear understanding of what exactly you want the exhibit to accomplish – its **objectives**. I would encourage every interpretive exhibit planner to make sure that objectives are created for every exhibit, in writing, and make sure that the exhibit designer gets and *follows* the intent of the objectives. How can an exhibit designer design a cost-effective exhibit if they have no idea as to what the exhibit is supposed to accomplish? When planning exhibits I use three kinds of objectives:

1. Learning objectives: those objectives that state just what you want the visitor to learn or remember such as “Upon completion of interacting with this exhibit the majority of visitors will be able to list three ways plants have been used for medicine”. Or “upon completion of interacting with this exhibit the majority of visitors will be able to describe the concept of “lift” in making airplanes fly”.
2. Behavioral Objectives: These are objectives that address the question “how do you want the visitors to USE the information the exhibit is presenting to them?” This is what you intend the visitor to do. An example might be: “upon completing interacting with the exhibit the majority of visitors will want to contribute to preserving historic homes in some way”. Another example might be: “upon completing interacting with this exhibit the majority of visitors will want to learn more about the history of mound builders”. The behavior can be psychological in nature as well such as: “the majority of the visitors to the interpretive center will want to make return visits more often and tell their friends what a great place this is to visit”.

3. Emotional Objectives: Emotional objectives are those objectives that will have the most impact on the visitors long term memory (and help accomplish the behavioral objectives of the exhibit). They are important as they help the designers decide on exhibit graphic selection, colors, and use of sound effects, label copy development and more. Some examples of emotional objectives: “upon completion of the exhibit viewing the majority of visitors will **feel** a sense of sadness about children working in the coal mines in the late 1800’s”. Or “upon completion of viewing the exhibit the majority of visitors will feel an increased importance in quitting smoking”. Other emotional objectives might be to increase pride in a local heritage, and even to “have fun” learning.

### **Exhibits and drawing power.**

When you are planning how your interpretive exhibits will work with visitors, here are some of the “exhibit contact steps” that occur:

**First** – exhibits must have **ATTRACTION POWER**. This means that when a visitors walks into an exhibit gallery or room and scans the exhibits, there has to be something in the exhibit (provocative header, powerful graphics, interesting artifacts, etc.) that will draw or attract the visitor to that exhibit.

**Second** – comes **Holding Power**. The exhibit has enough material (copy, artifacts, content, etc.) that once the visitor sees the exhibit up close, they are provoked or curious about it enough to stay and spend more time with it. This leads us to –

**Third** – **Engagement Power**. There is enough curiosity raised (holding power) that the visitor is willing to follow through and read label copy, do the hands on activity, watch the video, etc.

These first three steps only take about 10-15 seconds to work through. You can watch this process in action yourself by observing visitors in a museum or interpretive center.

After the visitor has read or interacted with the exhibit, the next steps in the sequence are:

**Understanding** – The material was presented in such a way (relate, reveal) that the visitor understands the main concept(s) presented in the exhibit. This then leads us to the final part of the exhibit communication sequence which is –

**Outcomes** – If the visitor understands the message or story that the exhibit presented, then the final outcome of the exhibit is that its Learning, Behavioral and Emotional objectives have been accomplished. This makes the exhibit “successful”.

## **Exhibit dollars and sense – what do we know about exhibits?**

### **What do exhibits cost?**

If you are involved in doing planning for new exhibits for a facility, or revamping a current gallery, here are some general “rules of thumb” in trying to determine your exhibit budget.

- An average cost for new exhibits for a new exhibition (an empty room) is about \$200/square feet of exhibit space. This cost may go up or down depending on specific exhibit content (computer, hi-tech exhibits, etc.).
- Out of the total cost of the exhibit project, plan to have about **25%** of your total budget for design and about **15%** for delivery and installation.

What this means is, if you have \$1.00 for your total exhibit budget, you only have **60 cents** available for the actual exhibits themselves (construction).

- If you decide to do one contract for “design” and a different contract for “build”, you can probably deduct another 10% off of the exhibit budget for the designer to develop your design “bid documents” for the construction of the exhibits.

### **TIME**

The average time you should allow for most projects is about 9-12 months for the design part of the project, and another 9-12 months for the “build” part of the project. In general, it will probably cost more and take more time than you thought it would to have your exhibit project completed.

### **Cost/contact and cost effectiveness of exhibits.**

The evaluation of your exhibits is really very important. I like to look at the “cost per contact” and cost effectiveness of exhibits as part of the total evaluation.

- A. **Cost/contact** is how much it costs you each time a visitor used the exhibit over the projected life (usually 5 years or less) of the exhibit. For example, if an exhibit cost \$100.00 to build, and over its three-year life only 100 people looked at that exhibit, the cost per contact was \$1.00.
- B. **Cost effectiveness** is looking at what you got in return for your cost/contact. What did you get in return for your exhibit cost? Continuing our example, if you spend \$1.00 per visitor contact, did you get \$1.00 in benefits from that exhibit (were your objectives accomplished?).

I have seen exhibitions that cost ten and hundreds of thousands of dollars in museums and interpretive centers that visitors hardly even look at or interact with them. I have seen some “home made” exhibits that cost very little but are very successful in accomplishing their objectives. Having “expensive” exhibits does not guarantee “successful” exhibits or cost-effective exhibits.

### **The Visitors and Exhibits – More rules of thumb.**

Over the past 20 years of working with many different exhibit design and build firms, and looking at exhibit evaluation research, here are some things we have learned:

- Visitors do not really like to read labels. If a label is over 50 words long it probably will not be read. If the label uses small type size (most exhibit labels should be at least 30 point) there is an even greater chance it will not be read. If the label is put on glass, there is even a less chance of it being read.
- Provocative headlines and graphics will draw attention.
- If you can't get the main point or concept of the exhibit across to visitors within 15 seconds, you probably won't get it across at all.
- Visitors will be drawn to exhibits that have information or artifacts of intrinsic interest to them.

- Before you write your label, ask yourself “why would a visitor want to read this?”.
- The average viewing time for a video or slide presentation within a gallery or in an exhibit is about 3 minutes before the visitor loses interest and walks away. It will be less time if the visitor doesn’t know how long the video or slide presentation is. You need to put a “press for a \_\_\_\_ minute video” direction with the presentation if you have any hope of the visitor watching the whole thing.
- The average viewing time for sit-down AV programs in small theaters is about 7 minutes before the visitors begin to lose interest.
- If you can’t fix it “in-house” with a screwdriver – don’t put it in. This sounds a bit radical, but you would be surprised at the problems many centers have with repairing expensive exhibits – finding parts, or having staff trained to do the work. If you spent a lot on exhibits and equipment (computers, AV equipment, etc.), it is best to have a service contract with someone who can come in quickly to do repairs.
- Remember Veverka’s Law for exhibit planning – “it will probably cost more than you thought, and take longer than you planned to get your exhibit project done the way you first envisioned it”.
- And lastly, remember that “YOU are not your audience”! Just because you or your staff likes frogs, birds, historic artifacts, etc. doesn’t mean that your visitors share the same feelings or have the same interests. Know your audience!
- Pre-Test and evaluate. The only way to really know if your exhibit is successful is to do a pretest to see if your objectives are being accomplished before the final exhibit construction and installation occurs. While this does add cost and time to the total project, do you really want to spend tens of thousands of dollars on something that doesn’t work or produces no benefits?

## **Summary**

An interpretive exhibit is a communication media that is designed to engage, excite, relate to, reveal to the visitor the essence of the topic or story being presented. An interpretive exhibit must utilize interpretive principles (provoke, relate, reveal, have a theme and message unity), and be built on the learning, behavioral and emotional objectives that will produce the real outcome desired for visitor. An interpretive exhibit doesn’t simply present information, but translates information or concepts from the language of the expert to the language of every-day people.

## References

Tilden, Freeman (1957) "Interpreting Our Heritage", The University of North Carolina Press, Chapel Hill.

Veverka, John A. (1994) "Interpretive Master Planning", Acorn Naturalists, Tustin, CA.

USDA Design Lab (1994) unpublished research report on Interpretive Exhibits at several USDA facilities.

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