An Environmental Designer's Guide to

Display Design Principals
for
Free Standing Display Cases

Cheryl J. Mason-Middleton, BFA, Env. Design.
The Ohio State University Libraries

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

It all starts with your guests.

From an environmental design stand point, presenting a display is not unlike any other environmental design problem. It all starts with the person viewing your display. A display that no one stops to look at is simply a collection of things stored out in the open. The person who views your display is your guest and it's up to you to provide the absolute best welcome and accommodation for your guest.

In environmental design, the first things we consider is how do people live in their environments and from that we design to make it easier, more comfortable and more efficient for the people to do the activities that they *normally* do in those spaces. In other words, we don't make the people fit the space, we make the space fit the people.

In creating a display, your first consideration is to think about what will make your guest be attracted from afar, and come over to see what you have created. This is the beckoning that welcomes your guest, like the smell of freshly baked bread outside the bakery, only for you it has to be visual.

The next step is to hold your guest's attention with interesting things placed in such a way that one object invites your guest to linger a little and then points them to move to the next. You do this all the while keeping your guest from having to work hard at reading labels or doing gymnastics to see what's down on the bottom shelf of your display case.

Your final goal is to have your guest walk away happy to have stopped by, maybe to turn around to see it once again, maybe to call a friend over to see something special, but always to walk away satisfied.

Design follows certain principals that contain aesthetic and mechanical qualities all of which encompass the workings of a human being including their abilities to see different things, to move around different things and to do so comfortably and with interest.

This guide only touches the surface. It's intended to be a jumping off point in developing an eye catching and comfortable to view display in a tall display case, either free standing or against a wall. While written for OSU Libraries, the principals presented here can be used in any similar setting.

The display case shown in this guide has the following dimensions:

Exterior 70in-wide x 15 5/8in-deep x 73in-high
Interior spaces (separated by a central divider) 34 1/2in-wide x 14 3/8in-deep x 67 1/2in-high

This is only representative of a typical display case used in Thompson Library on The Ohio State University campus. However, the principals described in this guide can be applied to any display setting whether a gallery or a display case, or an open free standing display. Imagination and experimentation are the keys to good design and this guide while far from exhaustive provides a starting off point for understand basic principals.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
### Cheryl J. Mason-Middleton

Making it Comfortable, Like an Easy Chair

Consider how your audience is made. An arbitrary average human height can be considered around 5 feet, 7 Inches or about 170 centimeters tall. Around this height there are many variances, from much taller to much shorter and taking these into account, one can make adjustments to account for all possibilities. For basic demonstration purposes, this illustration presents a person of average height viewing a display case.
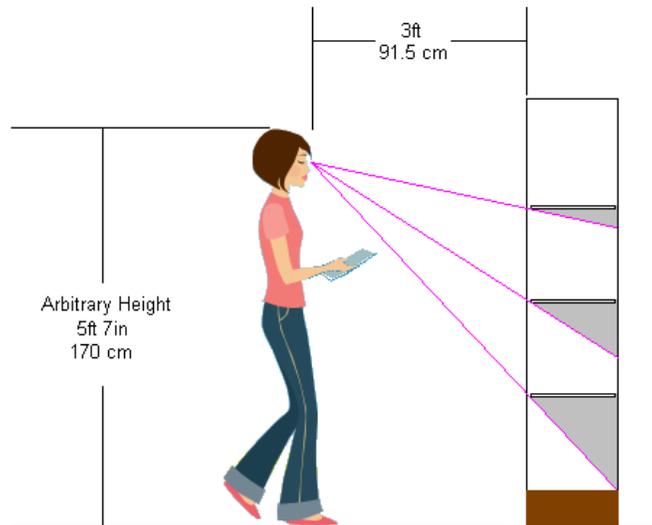
At an average viewing distance of three feet the guest can take in the entire display prior to moving closer to examine some detail that catches their attention. At this point, they should be able to distinctly identify major elements and be able to read headings to display labels.

However, there are limitations because the viewing areas may be eclipsed by display case shelves or certain elements in the display. Also, the distance from the lower shelf to the guest's eye level is farther than the top shelf. This presents problems when placing detailed objects or labels on lower shelves forcing the guest to bend over or even squat down to see what's down there. The converse may be true for a guest of much shorter stature or confined to a wheelchair. Your guest shouldn't have to work at seeing a display.
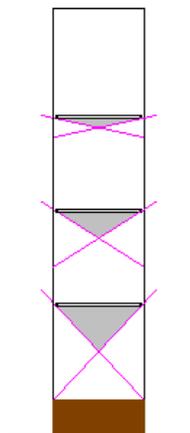
This illustration shows the same issue of blind spots in the display case if the display is viewable from both sides of the case. Part of the problem is reduced allowing for more opportunities to display items and giving a hint about what to do with the lower shelves (or higher ones as the situation may dictate).

Items on the lower shelf can be moved closer to the glass. These should be artifacts that may be taller and less detailed, and with less need for detailed labeling, requiring only simple identification.

A good measure of thumb is to place the most information and most detail on the upper middle shelf. Place medium detail on the upper and lower middle shelf and the least detail on the bottom shelf.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

A good test of how you place things and how you adjust your labeling can be accomplished by printing this page and placing it on each of the shelves. Step back three feet from the display case and see which line you can read clearly. (If you have corrected vision, use your correction. You're not testing your eyes, you're testing your display.)

Display Type Size Test

I can read this!10
I can read this!11
I can read this!12
I can read this!14

I can read this!16

I can read this!18

I can read this!20

I can read this!22

I can read this!24

I can read this!26

I can read this!28

I can read this!36

# I can read this!48

I can read this!72

The numbers on this chart represent the point size of their respective fonts. Copy and use this sheet mounted on cardboard to test the size of font that will best serve for clear reading on each shelf, and also for the angle that you will need for any labels to be seen clearly three feet away from your display case.

You Gotta Play the Angles

The next issue is the angle of labels in your display. A vertically placed label on the bottom shelf will not be as easy to read as an angled one. This illustration will give some idea of how you can angle labels for ease of viewing.
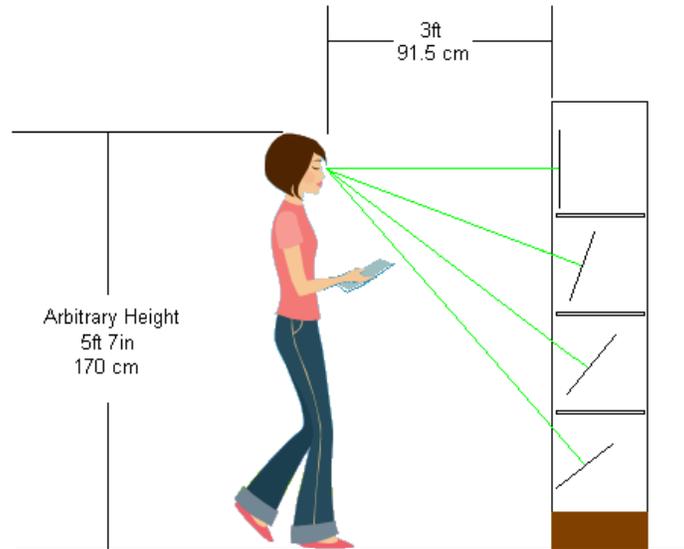
In this design the top shelf presents a label that is vertical and perpendicular to the guest's line of sight where the bottom label is lower than a forty five degree angle yet still perpendicular to the guest's line of sight. If the guest is shorter the label on the top shelf will need to be brought closer to the front edge of the shelf so the guest can read it more easily. Bringing labels closer to the front of the viewing area makes them more accessible and easier to read.

Shelf level adjustments are variable, so experimentation will be useful here. A person of average height, a person of compact stature and a more statuesque person can work together to determine what works best for a wide range of people. Remember, everyone is different and the widest possible accommodation is best for the widest possible audience.

If you design your top shelf for someone in a wheelchair and your bottom shelf for someone six feet tall, you are able to accommodate the widest possible population.

That "Come Hither" Look

You may have heard the phrase "Less is More." Shout it from the roof tops, brand it on your forehead, make it your mantra, meditate on its spirituality.

!!! LESS IS MORE !!!

You may be tempted to stuff the display case with as much as you can and you may want to have whole short stories to describe what you are displaying, but all you will be presenting is a hodge-podge and it will not attract very much attention. Less type to read, fewer things in the display case, and a sense of balanced distribution will create the sort of display that will not only attract attention, but give your guests the sense that they are seeing something special, and learning something that they hadn't known before.

There is a principal in design called the "Heaven, Humanity, Earth" principal. It centers on three main distributions centered on three main attention getting points of interest.
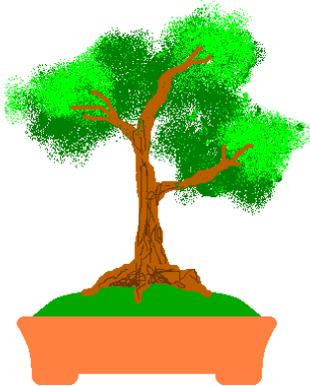
In Bonsai (the art of miniature trees), this principal is used to shape the branches around the tree. The uppermost branch is the heaven branch, usually central to the trunk, the next highest branch is the humanity branch which is placed to one side, and the lowest branch is the earth branch which balances the humanity branch.

This arrangement is very basic and has numerous variations, but the balance of design and the flow of interest remains the same. Applying it to display design, gives the same sense of balance and flow to your display, and may be varied as needed to accommodate your display plans. If we place the tree inside the display case we get an idea of how this should work.

The heaven branch is central to the upper level of the display case and is at standing eye level for an average height adult. The humanity branch is one level down and off to one side, and the earth branch is one level down from the humanity branch and off to the other side to balance the humanity branch.
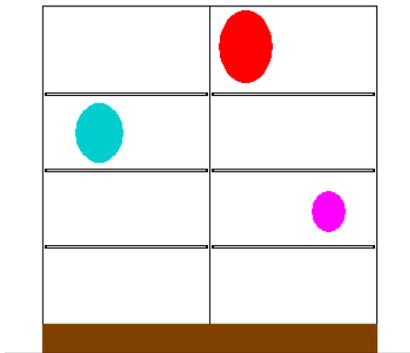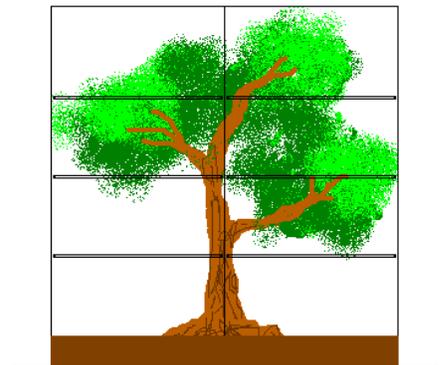
The resulting design gives a balance similar to this. Note that the sizes of the objects also vary, and while you may have side to side balance, you also need vertical balance. The lower the object in your display case, the heavier it might seem, so smaller objects may carry greater weight in lower spaces. However, this is a trap. If it feels out of balance, it probably is so experiment with your placements.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

Words Words Words

In the Libraries, we tend to be literary in our thought processes. We deal in information that is mostly expressed in words. To acknowledge a quote attributed to Confucius, "A picture is worth a thousand words." To expand upon that idea, *an object is worth a thousand pictures*.

Artifacts make displays. If I had a choice between reading about a thing and seeing a picture of it, I'd rather see the picture, but if I had the choice between seeing a picture and seeing the real thing,

I really want to see the real thing!

Text should be minimized as much as possible. No more than three SHORT paragraphs, under a SHORT heading is good for an introduction. Labeling your display is essential so your guest will know what it's all about, so there should be (from boldest to smallest) the following:

Display Title

SIMPLE Introductory Label
(no more than three short paragraphs)

Labels for each item in your display
(Item title, one or two short explanatory sentence)

References and Acknowledgements

☞*Remember the Display Type Size Test?*☜

The Display Title should be readable from a distance. It should be unambiguous telling your guest what they might find in your display. Avoid word play or ideas that merely hint: "Aquatic Reptiles of the Jurassic Era" works better than "Dino Water Sports."

A short introduction will cover basic points and generate interest in the display. You don't have to explain everything, it's not an essay. You simply need to cover enough information to compel your guest to explore further into your display.

Labels for each item should have a short name of the object and a short sentence telling about it. The name should be a bit larger and bolder than the sentence, but both should be readable without making your guest squint.

References and acknowledgements are the final thing on the list and are, frankly, optional. They can be used to give your guest some ideas about where to look for more information, and to give a pat on the back to individuals who donated items in the display, but beyond that they are not tremendously important to your presentation.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

Books

As librarians, we tend to want to put books in our display cases. This is a natural impulse because they are significant to our profession. The problem is that when we place a book in a locked display case, our patrons can't get access to it. If we are promoting the book in our collection, and making it inaccessible at the same time, we are working at cross purposes. The patron either has to wait for the display to come down, or we have to take apart our display in order to accommodate the patron.

The solution is to use facsimiles of books that may look like the real thing but aren't. This still allows us to use an artifact (a simulated one) that will still generate interest. For a book that features just the cover, a simple glued "perfect bind" of blank paper with a scan of the cover made into a dust cover looks almost like the real thing.


A display case book that looks like the real book allows you to put a book in a display case as an artifact rather than just a picture of a book.

It also gives the patron (your guest) something that generates the sort of interest needed to promote the book.

If you want to display a book open to a point of interest inside the book, you can still do this with a facsimile. You have a couple of options here. You can buy a hard bound sketchbook, use a discarded book, or have a hard bound book made for you into which you can insert facsimiles of the pages you want to present. (If you use a discarded book, be sure to disguise the title and other information on the cover.)
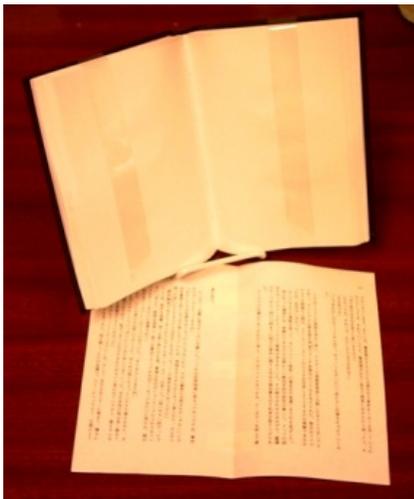
A simple tip-in of scans or copies of your pages into a hard bound representative of the original will still look the same as if you put the original into the display case.
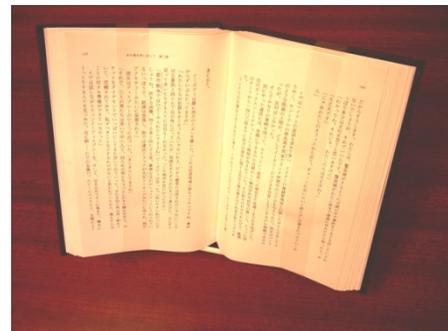
This leads to a few words about conservation of materials.

Using facsimiles helps to preserve materials in the collection as well as making the materials available while still promoting them. Display cases expose the objects in them to light and dust much longer than they would be under normal circumstances. This hastens their deterioration and shortens their useful life.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

Artifacts

As noted before, an object is worth a thousand pictures. Since 3-D printers aren't readily available as yet, we can't easily make copies of 3-D objects to put into the display case. So, considering the conservation factor, choose carefully what 3-D items you want in your display case and how you intend to display them. Paper objects are more easily reproduced.

A notable display in OSU's Thompson Library presented pharmaceutical history. Included in the display were prescriptions written in the late nineteenth and early twentieth centuries. They were facsimiles which were scanned from the originals and trimmed and folded to look like the originals.

In the display case you could not tell them from the actual prescriptions.

Because they were not simply pictures, but presented as artifacts they generated more interest in the display case.

Because the glass of the display case separated them from the viewer, there was a margin of error in the facsimiles that would pass the scrutiny of the viewer. Facsimiles give a measure of protective conservation of the originals while still exciting interest in your guest as they view the display and derive the educational opportunity the display provides.

Still, 3-D objects are better than flat paper!

Artifacts do not have to be 3-D objects, but to have two or three larger 3-D physical objects will draw greater interest to bring your guest closer to the display. Along with these larger objects a couple of smaller objects related to the larger primary attention getters can help to fill out your display.

<div align="center">

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

</div>

Planning

Display development is a process. If you truly want to make an effective display**, TAKE YOUR TIME**. Don't expect the process to be accomplished in a week. Give yourself ample time to put it all together. It's not unusual for a display design process to take six months or even a year to complete, but the results are usually well worth the effort, and you will have a finished product that will only need minor modification if you wish to show your display in different places and at different times.

<div align="center">

ONE BIG IDEA

</div>

Design your display concept around one big idea and place only supporting elements for that idea into your display. Keep things simple and clear so your guest doesn't get overwhelmed with too many things to look at or to read.

<div align="center">

Main Concept.
Three Primary Elements to support the Main Concept.
Two or three Secondary Elements for each Primary Element.

No More Than This!

</div>

By keeping things simple, you are not dumbing down to your guests, you're creating a conceptualization that is intended to have you guests want to know more. Displays are intended to educate, but they are also intended to inspire further exploration. In the exchange of knowledge in a display case, you cannot present every detail of a subject, but you can open the mind to questions that inspire.

<div align="center">

$E=MC^2$

</div>

If I tried to display all of the mathematics that Einstein used to develop his energy/mass conversion equation, it would be a boring display. If instead I presented, in a graphic way with illustrations and objects we use everyday, a little about what this equation means and how it has effects our lives, it would have greater impact and possibly inspire a future physicist.

<div align="center">

Plan around a central idea and use a few things to inspire.
Consider your guest first in your planning and how they will be affected by your display.
Keep your display simple and well balanced.
Inspire your guest,
and leave them wanting more!

</div>

If you are planning to present a display in The Ohio State University Libraries:
- To help you with graphic design, Pam McClung mcclung.26@osu.edu is always happy to assist.
- To help with display engineering and design (including creating facsimiles), Cheryl Mason-Middleton mason-middleton.1@osu.edu will gladly offer her expertise.

Please allow ample time for us to help you complete your display.

An Environmental Designer's Guide to
Display Design Principals for Free Standing Display Cases
Cheryl J. Mason-Middleton

Acknowledgement

Cheryl J. Mason-Middleton is in charge of the Ohio State University Libraries, Collection Awareness Unit. Her area of expertise is in Environmental Design with a special interest in Library Science.