No matter how they are organized, museum incubators are environments designed to hatch creative new ideas and processes and to protect them until they can fend for themselves.

Museum incubators provide a controlled environment in which exhibition professionals can experiment with nimble processes and responsive ideas and practice creating exhibitions and programs in new ways. At their best, they are physical spaces designed for ongoing installations and activities. But they can also be a daylong workshop in existing museum galleries, or a multiday “museum camp,” like the summer professional development program at the Santa Cruz Museum of Art & History.

Each museum will have particular motivations for doing this work. Some may want to try new approaches as they reinstall their permanent galleries. Some may want to improve their existing galleries and make them more visitor-friendly. Some simply want to provide professional development opportunities for staff to experiment with new methods of idea generation, exhibition development, and design.

Museum incubators are activated by some sort of rapid prototyping process that is unique to the specific museum, situation, and participants. What is a prototype? The dictionary defines it as an original model. In industrial design parlance, a prototype is usually a full-scale functional form that is, as much as possible, like the proposed end product. But I prefer to look back to the etymology of the word. In Greek, it means “primitive form” or “first impression”—a mock-up or a quick
version of an idea in its most simple instantiation. Prototypes are ideas and activities with physicality—elements with which people can interact, and which can be immediately altered to improve their effect. And it is the combination of physicality, interaction, and iteration that is most valuable in informing museum incubator ideas and designs.

I didn’t fully understand the transformative nature of the prototyping process until I went to work at the Exploratorium in San Francisco, as Director of the Center for Public Exhibitions and Programs. Frank Oppenheimer, the Exploratorium’s founder, believed that the whole organization was a work in progress, and the exhibits were all “working prototypes.” No exhibits were ever considered “finished,” which allowed room for staff to embrace experimentation in a deep and ongoing way. It kept developers and designers from jumping to design solutions too quickly, before ideas really jelled.

One of the most important aspects of this working prototype philosophy at the Exploratorium was its physical environment (in the original Palace of Fine Arts building, constructed for the 1915 Panama-Pacific Exposition) (fig. 1). The floors were made of asphalt, and when we needed to create an exhibition below floor level, we simply dug a hole in the floor, and then filled it in when the installation was over. We hung prototypes from the ceiling, taped them up on the walls—we had a completely flexible and changeable infrastructure and palate that fostered creativity. Not all museums have this kind of flexibility to work with, and that’s okay—prototyping can take place in all kinds of incubator environments.

**Center for Creative Connections**

For example, in 2007 at the Dallas Museum of Art, Bonnie Pitman, then executive director, was interested in creating more visitor-centered experiences, but staff members were not ready to experiment in their major permanent galleries. Instead, they created a new experimental space called the Center for Creative Connections (C3). The first prototype installation in C3 took three months to organize and install. It didn’t focus on one theme; instead, it provided a potpourri of experiences. Using significant objects from the museum collection, we experimented with labels and participatory elements, we juxtaposed visitor activity stations alongside museum objects, and we invited visitors to make their own displays, all without a theme or metanarrative. When the space opened, visitors wholeheartedly engaged in voting, creating, and asking questions, as well
as looking at the artworks. The visitor-animated space was a pleasant surprise to many staff members, who realized that active participation enhanced people’s experiences with the works of art.

The ensuing installations were created in a more formal exhibition mode. Curators selected an overarching theme and then selected artworks that “fit” the theme, and exhibition designers carefully choreographed an elegantly designed space. While the exhibitions contained many new types of interactive and participatory experiences with things to touch and make and manipulate, they also took much more time to create than the original prototype installation, and consumed many more resources (typical of a traditional exhibition). The prototypical nature of the space was replaced with a more formalized process.

After several years of these thematic exhibitions, Center Director Susan Diachisin, working with consultant Maria Mortati, reconceived the overall approach and redesigned the process in order to make the space more sustainable, iterative, and flexible, and more responsive to visitors and other museum events and activities. The current C3 is designed around “zones” (fig. 2), that allow flexibility and changeability in a more informal and immediate way and are much more in keeping with the nimble nature of a museum incubator.

**Astor House**

At the Golden History Museums in Colorado, Director Nathan Richie wanted to try some visitor experiments before staff began planning for the reinterpretation of their heritage site, Astor House. He offered the site as a case study to the Denver Evaluator’s Network, a group of the region’s museum professionals. Over the course of one day, the group turned the site into an experimental laboratory (with funding provided by IMLS). I joined members of the network in dreaming up different types of potential interpretations. We made and installed simple prototypes out of paper, cardboard, markers, and tape (fig. 3). Then we invited visitors and other stakeholders to experience what we had created and talked to them about the experiments.
Ideas that emerged that day have actually shaped additional interpretive efforts. As Nathan Richie explains,

Inspired by the charrette, we wanted to make the experiences changeable frequently enough to encourage new and repeat visitation . . . and we wanted to encourage people to truly feel free to explore the many spaces and touch the objects. Ninety-nine percent of objects in the Astor House had no provenance to the building, but they were treated like holy relics. Phase I (already completed this past summer) was to identify objects with provenance or special importance that we did not want handled and move them to collections storage. We ceremoniously dumped all of the ‘Do Not Touch’ signs and now we purposefully tell visitors they are welcome to open all doors and explore the objects.

**History Colorado**

Beth Kaminsky, manager of exhibit development at History Colorado, participated in the work at Astor House, and she thought this kind of quick and flexible process might help History Colorado—a large history museum in downtown Denver—rethink future gallery revisions, public programs, and temporary exhibitions. We conducted our prototyping experiments in a large all-purpose room in the museum basement.

Once a number of exhibit ideas were taped up around the room, the museum invited staff and several board members to come see them. Without the affordances of an existing gallery environment, our paper “exhibits” looked flimsy and diminutive, but the ideas embedded within those paper sketches sparked lively conversations about how to showcase significant collection objects in new ways and how to develop exhibitions around more controversial topics, such as examining the ethics and legality of guns in Colorado. Over time, this space, now called “Underground,” has become an ongoing incubator for new ideas and unusual projects—including, for example, one focusing on homeless people in Denver (fig. 4). And staff is now experimenting in the core galleries as well.

Chief Operating Officer Kathryn Hill has reflected on the process as it evolves:

The workshop launched debate, discussion, a frenzy of activity—all about who creates exhibits here and how. We haven’t completely abandoned the traditional design development process. We haven’t thoroughly re-described team roles. And we haven’t moved to a place where we can produce an exhibit as quickly, perhaps, as I’d imagined. We have, however, worked hard to relinquish iron-fisted authority over every project. We have compromised our ideas about ‘quality,’ by which we meant beautiful, built-to-last, technology-rich experiences, in order to produce exhibits that are smaller, sometimes more 2D than 3D and more thought-provoking, perhaps, than experiential.

![Fig. 4. Prototype exhibit on homelessness at History Colorado. Courtesy of History Colorado, Denver, Colorado (Scan #Z0019261)](image-url)
My last example is the Museum of International Folk Art’s Gallery of Conscience, in Santa Fe, New Mexico. The small Gallery of Conscience is in a central location, right off the main museum entrance. Like the Center for Creative Connections at the Dallas Museum of Art, the Gallery of Conscience is an experimental space within the museum, and it is being designed to engage visitors and community in new ways around issues of social justice.

Content development, label writing, design, and installation all take place in the gallery, which is open to visitors. Sometimes visitors come in, sit down, and talk with the exhibition team while an installation is being planned (fig. 5). They offer suggestions and critiques and even identify new community resources as planning evolves. In the beginning stages, objects are represented by photographs, labels are handwritten first drafts, and we don’t even paint the walls. By looking at such a rough installation, visitors can tell immediately that this is a work in progress, and that their comments might actually make a difference.

As we evolve the exhibition over time, themes are refined, objects are moved around to create more powerful juxtapositions, labels are rewritten, some ideas are discarded, and new ideas are developed—all within this incubator environment. The iterative nature of the process allows the museum to include visitor and community voices and perspectives more fully. Staff members host dialogues within the space, and comments and ideas from participants get woven into the exhibition with each new iteration.

This has not been an easy process for some staff and docents at the museum who feel that this work is below “museum standards” of production and lacks “professionalism.” And a group of exhibition design students on a recent visit expressed concerns that the prototyping aesthetic “devalued” the artwork. But overall, most visitors have a very different reaction. They spend time in this small gallery, their contributions are thoughtful and moving, and their comments are often on the order of, “Thank you so much for doing this. I wish the museum in my city did this kind of exhibition.”

Getting Started
If you wish your museum did this kind of exhibition, or if you would simply like to experiment with new ways of working, here are some simple steps to get started. If you aren’t ready to dedicate space to a full-blown incubator environment, you can start by focusing on the prototyping process:

- **Start small.** Identify an existing exhibit component or display case that could use some refreshing, or start with an idea for an exhibit that is currently in development.

- **Work cheaply.** Use butcher paper, tape, cardboard, and markers (with approval, of course).

By looking at such a rough installation, visitors can tell immediately that this is a work in progress, and that their comments might actually make a difference.
Work quickly. Schedule a mini-charrette or workshop for fellow staff, and tackle the planning together. Break into small groups of two to three people. Use images for objects, write new label text, and create your new exhibit.

Invite others. Let visitors and other staff experience the results of your work. Talk to them. Ask questions, and explain what you are trying to do.

Reflect together. Most important, after other people have engaged with your prototypes, reflect upon the strengths and weaknesses, what was accomplished, how it was done, and what new ideas emerged.

Prototype Killers
No matter how you choose to design an incubator and experiment with the prototyping process, you need to be aware of some common prototype killers that lurk in the shadows of most museums. First, there is the tyranny of process—particularly the traditional exhibition design process and the formalized label-writing process. Prototyping requires openness to discovery and the flexibility to be able to follow strange paths that might open up along the way. There’s also the specter of authority and control. It is difficult, if not impossible, to do authentic prototyping if those in charge want to limit the ideas or control the process.

Another prototype killer is the fantasy of perfection. The desire for high production values; carefully written, edited and produced labels; and refined materials and detailed finishes all get in the way of experimentation and prototyping. But perhaps the most powerful psychological constraint and prototype killer is the premature need to finish. The process on big projects is often quite slow to begin with, and museum staff members feel that they never have enough time to create their exhibitions, even if they take ten years. The idea that they have to include prototyping in the process as well is often used as an excuse NOT to do it.

In reality, if done well, prototyping can actually save time and money while deepening the types of visitor experiences you create in your galleries. You can work things out inexpensively before committing to a particular idea or design, and you can enrich the end result by learning how to get at the sweet spot of engagement, how to inspire looking and noticing, and how to activate lively conversations.

A Different Way of Working
Prototyping in a museum incubator environment catalyzes creative energy and inspires us to explore new ways of working. The beauty of this kind of work is that you don’t have to overthink it, you don’t have to be too careful, you can try all kinds of ideas and see how they feel in your space. If they are problematic, just remove them. Prototyping turns our museum practice into a much more dynamic, creative way of working, and it is an interesting and enjoyable experience for most visitors. Funders and scholars alike tend to be extremely positive about this kind of work. It makes me convinced that something important is going on here.