

Building Museums: A Handbook for Small & Midsize Museums

By Robert Herskovitz, Timothy Glines, & David Grabitske (2012)

Recommendations for Improving a Second Edition

By Paul C. Thistle

21 May 2013

I believe that the above publication is so important for the field that, after writing my review for the Pioneer America Society in *Material Culture*, I have taken the time to examine this book line by line. What follow are my editorial suggestions for improving this resource should a second edition ever be contemplated. References include: page “p.” paragraph “b.” [standing for text “block”], & sentence “s.”

- p. v: I recommend dot leaders to make identifying proper page numbers in the Table of Contents easier, since the distance between reference & the relevant page number ranges up to 5 3/8 inches. The lack of dot leaders makes efficient & effective use of this section more difficult than necessary.
- p. 4, b. 2, s.1: A good place to emphasise that much money, effort, & time—not to mention physical plant inefficiencies for the life of the building—can be unredeemably wasted with a lack of attention to the details outlined in this resource. Your comment on p. 8, b.1, s.2 deserves more than 1 repetition.
- p. 4, b. 3: You should mention here & elsewhere for emphasis that, in many respects, museums must be prepared to hold the noses of contractors to the specifications in order to assure that their profit on the project is not obtained by shortchanging the client on materials & other shortcuts. E.g. a specification of “[named product] or approved equal” is often surreptitiously substituted by contractors with the least expensive product that will soon be covered over with ongoing construction. In this light, daily site inspection by someone familiar with the specs is an absolute necessity that should be stressed later at p. 6, b. 4, s. 2; p. 43, b.3; p. 103, b. 2, s. 1; & p. 133, b. 1, s. 5 as well as in Chapter 7 in my view. Repetition to reinforce the learning is necessary I believe.
- p. 5, b. 4, last s.: You should add the idea “...lessons & exigencies such as constraints imposed by available funds.”
- p. 6, b. 2: Less expensive options above & beyond visiting should include simple consulting with museum folks who have built museum spaces previously. A phone call to an experienced colleague can answer many questions & glean many valuable recommendations.
- p. 8. b. 1, s. 3: I recommend that you clarify that “all stakeholders” include the entire

community—not just parties with specific interests in & connections to the museum. See my comments at p. 28 artist’s rendering caption.

- p. 8, b. 3 & 4; p. 9, b.1; p. 11, b. 1; p. 17, b. 1: I recommend that you at least mention here what I believe is an absolute requirement for a museum to have an up-to-date strategic plan *before* considering construction. Needs assessment is one thing, but overall strategic direction surely must be a prerequisite for any major building programme, especially in light of the caution about services made at p. 9, b.1. I also strongly recommend at least one reference be listed to support the complex strategic planning process in your Further Reading appendix pp. 169-174.
- p. 14(-15), b.2, s. 4: I have a personal bias against use of the illogical term “deaccessioning” (sic) following the argument made by Dennis K. McDaniel (1990) "Letters: Linguistic Lessons" *Museum News* 69(6): 6.
- p. 15, b. 3, last s.: I recommend that you comment briefly here & address the ins & outs of phasing a construction project (e.g. complexities of potentially different contractors & additional start-up costs etc.) in Ch. 6.
- p. 18: I recommend that access by the disabled (with reference to the ADA which also should be added to your Further Reading pp. 169-174) be included here. This should be above & beyond its reference in the Renovation Decision text box on p. 19, bullet 4. In this light, addition of a Further Reading reference to a source on the “universal design” concept would also be helpful. E.g. Fletcher, Valerie, Siegel, Betty, & Bloomer, Ray. 2011. Going Beyond: What Does Universal Design Look Like? *Museum* 90(2): 40-45.
- p. 20, b. 1, bullet 6: Add new bullet referring to soil contamination. Many historic sites may encounter this problem.
- p. 24., b. 1, s. 3: Given the acknowledged importance of a facility programme, I strongly recommend that you delete the reference to it being “optional.” I believe this wording actually undermines one of the main points of your book.
- p. 24, Key sidebar: I recommend adding “stay true to your vision” to this box in the highest position.
- p. 25 flow chart: In my view based on my facility design experience, reading, & attendance at a workshop on adaptive reuse of heritage structures for museum purposes offered by the Canadian Conservation Institute, the architect should be the first to start drawing straight lines. Your organic bubble diagram on p. 39 should be the only one to appear here. Otherwise, the Education box might just end up with the Education offices being actually constructed too far away from the Gallery to make it an efficient & effective building. Let’s permit the architect wrestle with all the straight lines &

adjacency requirements while we allow museum folks to think & sketch adjacencies in organic terms at this stage.

- p. 26, b. 1: I recommend strongly that museum planners have their needs identified (in writing if at all possible) well in advance of meeting with an architect “or some other facilitator” for the first time. This is especially important in my view if the architect/facilitator has no prior museum facility design experience. I fear that an architect or other person unfamiliar with museum projects, if s/he leads the process at a first meeting, will naturally take the museum folks down a path heading in a non-museum focussed—if not a wrong—direction. The museum clients must establish their needs & desires as *the* starting point for the design project. Please lay the responsibility for leading this first meeting at the feet of the museum clients—this regardless of whether or not they know anything about architectural design. They are the *museum* experts on the design team—not to mention the body who will be paying for the project—& need to accept these responsibilities here at the very outset.
- p. 27, b. 2, point 4: I recommend that you expand this section by inclusion of such items as lighting levels & HVAC noise levels so as to emphasise the very wide range of details that need to be considered. I have been in a brand new museum where the main exhibition space is made very uncomfortable for visitors & docents because of the unacceptably loud rumble of fans & white noise emanating from the HVAC system. Reiterate this point at p. 57, b. 1, bullet 8 to complement the concern about flooring noise.
- p. 28 artist’s rendering caption: from my own rather negative experience regarding community understanding of a major museum adaptive reuse project, I would recommend that this caption and/or a section in the text urge museum planners to place particular emphasis on ensuring that the community is provided with full & complete information on the justifications & professional museological goals for the construction project. My own failure to attend to this in the early stages, as well as my neglect of providing opportunities for open public input during the planning & design phases resulted in some later unfortunate conflict in the local media centering on ‘why on earth do we need all this trouble & expense for a simple museum facility?’ Being resolutely proactive in the early stages is a crucial concept for museum planners to understand in this regard. Communities need to be well educated about museum purposes for & professional perspectives on the project.
- p. 28, b. 2, s. 1: I recommend rewording this sentence to clarify that it must be the museum planners who identify the functions of the facility, not the architect.
- p. 29, b. 2, s. 1; p. 29, b. 3; p. 32, b. 2; p. 66, b. 1, bullet 1: Please ensure that readers understand that the *most intensive users* of the new museum building (i.e. staff & volunteers) must be centrally involved in identifying their requirements for every space in the facility as well. It is not only visitors who must be properly accommodated.

Reiteration of the necessity for museum worker needs be considered beyond its rather late introduction on p.47, s.1 & b. 1, s.2 & mention again at p. 50, b. 3. is necessary I believe. Please emphasise more than once that museum workers need to participate fully in the imagining process. In my view, this must involve visualising exactly how they will need to operate day-to-day, & minute-by-minute in the new facility (e.g. when 2 full busloads of visitors arrive at the same time & to recognise the unnecessary inefficient extra steps or unergonomic reach from a staff position demanded by an unfortunate choice of location for built-in features). Let's try our absolute best to avoid making the entire life cycle of a new building difficult to work in for staff & volunteers. I believe that this is an onerous ethical responsibility for museum designers that deserves more emphasis in this book.

- p. 29, b. 2, bullet 6: A cautionary comment here concerning the increased cost of controlling natural light in this setting would be worthwhile. Make reference to the photo & caption on p. 54. A similar reference would be useful for reinforcement at p. 85, b. 3.
- p. 29 (-30). b. 4, bullet 2: I recognise that this publication cannot cover every single consideration, but it might be useful here to introduce the implications of the concept of “sweep rate” difference between exhibition & retail spaces. The significantly slower rate in retail space probably justifies its location after exhibition space rather than before on the preferred traffic route. See Beverly Serrell (1998) *Paying Attention: Visitors and Museum Exhibitions*. Washington: Smithsonian Institution Press.
- p. 32, b. 2, bullet 7: I recommend that you change this point to read “How will . . .” In my view, there should be no professional archival option suggested here.
- p. 33 (-34), b. 2, bullet 7: Please make clear here the need for private break space for staff & volunteers—especially on stressful high traffic large event days.
- p. 34, b. 2, s. 3 Collections Storage: It would be useful I think to give some sort of explanation about the 15-20 year planning horizon stated here. Given that buildings normally last well beyond 2 decades, why is the contemplated future of the building being planned identified as being so short?
- p. 35, b. 1: Add another bullet to encourage serious consideration of the implications of common, cubicle, or private office work spaces.
- p. 36, b. 1, bullet 1: Please point out here that both clean (e.g. mount making & mounting artifacts) & dirty (e.g. panel construction & painting) exhibition construction spaces will be necessary.
- p. 36, b. 1, bullet 5; p. 64. b. 2: Add new bullet here &/or in the above section regarding the need to consider workplace health & safety regulations concerning such issues as proper ventilation, etc. (cf. citing this need at p. 64, b. 1, bullet 10).

- p.38, b. 2, s. 2: I feel strongly that this section & particularly the bubble diagram on p. 39 would be more effectively placed in Ch. 1 to replace the flow chart “straight lines.” See my comment at p. 25 flow chart.
- p.38, b. 3, s. 3; p.38 (-39), b. 3, bullet 6: I recommend emphasis here that this consideration must include as wide a range of circumstances as possible, including details such as finishes. For example, I have worked in a museum where the floor between elevator from exhibition preparation spaces to the exhibit gallery was finished with ceramic tiles. The bump, bump, bump . . . bump of artifact trolleys en route to the gallery was an extremely unfortunate artifact of inattention to how the finished building would actually function. We should attempt to advise museum planners to avoid such errors whenever possible. We should stress that attention to significant details is needed above and beyond the obvious elements such as floor plans.
- p. 39, b. 2, last s.: I recommend that we set a higher standard than “satisfactory” here. I believe that “optimal” be substituted as the goal.
- p. 43, b. 1, s. 5: I believe that reiteration of the encouragement to be intensively involved in the detailing of the design elements in order to reduce errors & want of thought to an absolute minimum is highly desirable here when referring to paying for redesign—the costs of which increase exponentially as project time moves on.
- p. 50, b. 2. s. 1-2: Is reference to heritage finishes needed here?
- p. 50, Key sidebar: Apart from “complete accuracy,” I believe that matching the facility program should be listed here too.
- p. 57: Add new bullet to identify the need to review *elevations* especially in the exhibition gallery (but elsewhere as well) to ensure the placement of switches, electrical panels, vent grills, & other fixtures such as the proper location of electrical outlets will not interfere with proposed placement of display cases & other exhibition elements. The stated goal should be maximum uncluttered wall space & detailed forethought on placement of exhibit elements so as to avoid blocking fixtures that will require regular access.
- p. 60, b. 1, bullet 8: I believe that your intent here would be more effectively communicated by changing the wording to “Does the electrical plan include enough outlets? (Now is the time . . .).”
- p. 60, b. 2, bullet 7: We are not “installing” at this stage. This should read “(Now is the time to show all the outlets possible.)”
- p. 61, b. 1, bullet 2: I recommend adding the words “. . .working on” collections here.

See my comment at p. 93, b. 3, s. 3.

- p. 62 photo caption: I recommend that you use this illustration to make an additional point here about the importance of smooth transitions between different floor surfaces and the avoidance of threshold bumps at doorways along all artifact routes. Architects cannot be depended upon to call up such museum specific finish details & so museum planners need to assume this responsibility. Cf. my point at p.38, b. 3, s. 3.
- p. 63, b. 1, bullet 6: Please add bullet to identify the need to attend to proper ergonomics for work stations. We should consider it an ethical responsibility to avoid unnecessary physical repetitive strain injury to museum workers related to awkward work station design in office & all other work positions.
- p. 66, b. 1, bullet 1: I recommend reinforcing the point about “convenience” either here and/or at ??? by referring to consider the *full life cycle* of buildings. Proper attention placed on efficiencies at the design stage can avoid millions of future completely unnecessary & therefore wasted staff steps (many of which—in the case of janitors for example—will be carrying loads) resulting from poor design choices. This onerous responsibility needs to be emphasised.
- pp. 69-70, HVAC: I recommend a restatement here of the point about the new approach to strict standards for temperature & RH for every category of the collection made on p.78. b. 2, s. 2. It bears repetition for emphasis.
- p. 70, b. 1, s. 4: I recommend adding the idea to “supervise” the architect’s & engineers’ work to the recommendation to “discuss” the HVAC systems with them. From my own bitter experience, discussions & formal instructions do not always get translated into specifications & other construction documents unless these details are followed up carefully by the client.
- p. 71, Keys sidebar, bullet 1: My first reading of the book was frustrated by the lack of “specified range of fluctuation” here. I recommend addition of a note or footnote to refer the reader directly to the relevant temperature & RH standards cited on pp. 78-79, 81.
- p. 77, b. 3, LEED: I recommend that this book cite at least one resource on “green museums” here, either on-line information or a publication like: Sarah S. Brophy & Elizabeth Wylie (2008) *The Green Museum: A Primer on Environmental Practice*, New York: AltaMira Press.
- p. 79, b. 3, last sentence: Given the serious damage to both building fabric & collections housed in humidified heritage buildings renovated to implement museum climate control equipment without vapour barriers, I strongly recommend that one example or another of the danger be provided to readers. Failing this, you should supply at least a reference to

an outside source. I have done contract work in a museum where spring brought melted ice that had built up on the rafters raining into collections storage areas. Cautionary tales are legion & should be used here to demonstrate the absolutely critical significance of your recommendation here. I believe it is understated as written. Incompletely informed good intentions can lead to serious disasters that should be avoided at all costs.

- p. 85, b. 1, s. 3: I have never lived in places with very warm climates. Are vestibules not required for buildings that are cooled for much of the year & not just in cold climates?
- p. 85, b. 4, s. 2 & 3: I would rather that you state “do not allow architect or mechanical engineer [whose responsibility this surely is] to place sensors” appropriately.
- p. 89, Sensitivity to Light chart: Moderate column, last item, Wood requires editing to return the words “cherry, pine, walnut” from the 1st to the correct 2nd column.
- p. 91, b. 3, Lighting Plans: This would be a good place to reference the need to ensure work space light levels are also important & required here (e.g. 500 lux 1m AFF; cf. maintenance & cleaning in exhibit galleries; inventory reading catalogue numbers in storage areas, etc.).
- p. 93, b. 1, last sentence: I would appreciate some advice here or elsewhere at pp. 94-96 about the impact of the need to find another type of lamp once incandescent bulbs are no longer allowed or manufactured.
- p. 93, b. 3, s. 3: I recommend editing this sentence so as to admit that storage areas are indeed legitimately work spaces as well. They must accommodate certain work tasks such as safe loading & unloading of artifacts onto and from shelves, inventory & reading catalogue numbers, finding dropped pieces or pencils, cleaning the space, etc. Low light levels can make storage rather dingy & uncomfortable places to carry out necessary work tasks that cannot be done elsewhere.
- pp. 99-103 Security: Please add one sentence where most appropriate in this section about the need to regularly test security systems. I have experience in a museum that depended on a non-functioning “panic button” for use by front desk/gift shop staff for many years to summon police in an emergency. When I tested it, we discovered that the service provider had never reset the button on their control panel & indeed had lost track of the fact that it was supposed to be part of our security system monitoring contract. Testing & staff training should be mentioned.
- p. 102, b. 1, last sentence: Please consider revising this sentence. I fail to see how a properly designed physical plant & security system could ever allow “inadvertent” wandering of an unauthorised person into a secure area. I believe this idea should never be contemplated here. The whole point of security is to prevent such events.

- p. 103, b. 1, last sentence: The responsibility to create a maintenance plan should rightly be placed on the shoulders of the equipment suppliers, not the museum clients. Provision of a maintenance plan should be called up in the specs for building components. Otherwise, we are relying on museum clients to be expert at everything and to produce maintenance manuals for equipment and other building components that may be extremely complex. Such expectations of museum clients are unreasonable.
- p. 103, Choice of Materials: This section also should include a section on drywall, particularly in the case of renovation projects. Gypsum board is highly productive of dust from cutting to fit through sanding mudded joints. Renovation projects need to specify the requirements for dust control. New construction also needs to specify the cleaning of forced air HVAC systems.
- p. 109, b. 2, s.1: This statement may require some qualification here. Additional design work may be required if—as it commonly happens—bids for the work contemplated come in over budget regardless of how careful the review of the bid documents by the museum planners has been (cf. p 113, b. 4, last s.). Changes to the designs are an important method of reducing construction costs to match available funds.
- p. 109, b. 4, last s.: You may want to reinforce the point about costs here by referring to the exponential increase in the cost of changes as project time progresses. Cf. your point about change orders at p. 116, b. 1, s. 4. This caution bears repeating & you may wish to refer to the Value Engineering section at pp. 116-117.
- p. 111, b. 1, s. 1 & Key sidebar: I recommend a cautionary tale or other means of intensifying the focus here to ensure that this point receives sufficient emphasis. For example, my own failure to follow up on my facility program requirement to have floor loadings to accommodate mobile storage shelving units ended up with renovation that failed to include the necessary load bearing capacity. As a result, the long-planned adaptive reuse project ended up with a collections storage area that was nearly full the day we finished installing our holdings on fixed shelving. The devil certainly lives in such details (cf. p. 133)! Much time, energy, and money can be wasted in a construction project by neglect of any single detail & your readers need to understand this clearly. In the Key sidebar, I also would recommend that you state that hiring a consultant does not relieve the museum's building committee from ultimate responsibility for ensuring the professional museological vision is preserved—particularly if the consultant has no background knowledge about museum requirements.
- p. 112, b. 2, Bid Solicitation: I have found it useful to make a request for previous client references in bid solicitation documents. This recommendation might be added here.
- p. 115, b. 1, s. 3: In my experience, attentive daily site inspections by museum

representatives should be recommended here. In one adaptive reuse project with which I was involved for example, specifications that called up the best available vapour barrier mastic “[product name] or approved equal” was substituted by the contractor with the cheapest locally available mastic. Had I not been on-site the day that vapour barrier was begun to be installed & identified empty mastic tubes that were not to spec, this inadequate work soon would have been covered over with drywall. I recommend that this book point out that *some* contractors will attempt to make their profit by using the least expensive materials and by taking other shortcuts around the specifications. Museum construction planners must be prepared to hold contractors’ noses to the specifications—uncomfortable a task as this may be.

- p. 115, b. 5, s.1: I recommend adding “and the building committee” to the end of this sentence. I do not believe that museum representatives should be allowed to abdicate their ultimate responsibility for project oversight. This is particularly important in my view if the project manager has no detailed knowledge of museum requirements.
- p. 118, Site Prep text box: Bullet 1 or elsewhere in the text or glossary might well introduce the concept of “selective demolition” in the case of renovation projects. An added bullet referring to recycling materials from demolition also would fit here.
- p. 118, b. 4, s. 1: In my experience in Canada, arranging for the testing & inspection of work at key stages of the project is the responsibility of the architect. Here again, museum planners should not be expected to know all the building code regulations that require inspections, but should get all such reports (or at least notification of same) from the architect.
- p. 123, b. 1, s. 1: I recommend that at least one museum representative needs to be part of the prefinal walkthrough. I also think this paragraph should clearly state here that inspectors need to create & distribute a formal list of the deficiencies.
- p. 123, b. 1, s. 3 & p. 123, b. 3, Punch List: In Canada, we use the term “Deficiencies List” which seems to me to be a much clearer indicator of the purpose & significance of this document.
- p. 124, b. 1, s. 4: In my view, the construction contract should include a requirement for the *contractor* to supply the as-built drawings. By all means task the construction manager with ensuring that these drawings are provided & (in the following paragraph) the architect & engineers to compile them, but make it a legal requirement in the contract for the contractor to *supply* them.
- p. 125, b. 1: In light of my personal interest in problems surrounding museum worker task saturation, time poverty, and stress under normal conditions in this field (see Thistle, Paul C. 2011. Problem Statement. Museum Worker Task Saturation Wiki

<http://groups.yahoo.com/group/museumworker/> accessed 1 May 2013), *Building Museums* makes no mention of the impact of a design and build project on the well-being of museum board, staff, and volunteers. The onerous tasks of preparing to construct new museum spaces, raising sufficient funds, supervising the project, & the extremely strong pressures to open the finished product as soon as possible are characterised by extremely high stakes. These overbearing pressures & additional work take a *very* heavy toll on everyone involved in a museum construction project. It is crucial, therefore, that rest and recovery also are part of the planning for a capital project. Otherwise, museum workers (who already are fully loaded camels *before* a capital project is even contemplated) are liable to burn and drop out under the high intensity exigencies that construction and its immediate aftermath engender. Generally, such R & R will have to await completion of settling in & opening.

- p. 125, b. 2, last s.: Add the word “construction” to the end of this sentence. As noted above, a great deal of intensive work, that very often is accompanied by extreme pressures to be open to the public a.s.a.p., remains for staff & volunteers.
- p. 126, b. 2, last s.: Add the idea that objects in need of conservation treatment could & should be identified for future attention.
- p. 131, Appendix I, 3. Exhibits, b. Exhibit Development, bullet 3: Specify the need for both clean & dirty work areas.
- p. 132, 5. Education: Add h. Auditorium.
- p. 132, 6. Administrative Support: Add m. Volunteer space. In my experience, using staff spaces for volunteer docent gathering before school programmes, etc. (e.g. during scheduled staff lunch times) does not always work & consideration should be given to the need for & affordability of separate volunteer gathering & work space.