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Designers of Experiences

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Wow Moments

A methodology for measuring the experiential impact of exhibition design

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Abstract

Today's multimodal, participatory exhibitions and attractions are bound by a desire to convey information, excite the viewer, and create social and narrative experiences. The earliest exhibitions were driven by spectacle utilizing the visual impact of objects and artifacts. The 20th century witnessed the professionalization of the exhibition field with a goal to educate, interpret and explain as curators, administrators, and experts devalued spectacle in favor of content.

Advances in technology and new media, the shared, gig, and attention-economy where breadth wins over depth, talented and persuasive design firms, generational change, and a desire for entertainment and instantaneous satisfaction/gratification has ushered in a renewed appreciation for visual experiences. Design is key to this transformation. Without design at the helm and employed effectively experiential moments would fail to become lasting memories that inform and inspire an ever increasingly sophisticated audience.

This paper presents a pattern of design practice—a series of reoccurring design tropes (you could also call them principles, or conventions), overlooked, and taken for granted in the exhibition design process. Exhibition design employs these tropes within an ever evolving and trans-disciplinary field to inform a range of experiences. When assessed, these tropes can be used as a methodology for measuring the impact of “experiences” on a broad range of exhibition venues and spaces. The premise of this paper is to prove that despite rapid advances in technology, the original methods used to shape the design of exhibition and experience environments laid the foundations for the dynamic devices of display we encounter today, and that when reverse engineered, each method/principle becomes an evaluation tool to measure an expanding array of experiences.

Nothing is New

Having visited multiple exhibition environments in various parts of the world I recognized a pattern of design practice—a series of reoccurring design tropes (you could also call them principles, or conventions), overlooked, and taken for granted in the exhibition design process. These design conventions go back to the formative years of exhibition and experience making and employ many of the same tools and techniques. Collectively, they chart a methodology for understanding exhibition design, the trajectory of exhibition development and making, and introduce design theory, techniques, and tools used to deliver successful exhibition-based experiences. I have validated this methodology successfully as a pedagogical framework in the classroom and during visits to exhibition spaces to witness the tropes in various degrees of application.

This methodology can be used to assess, evaluate, and measure the impact of a multitude of experiences, and has the potential to enrich related disciplines such as architecture, graphic design, fashion design, product design and more. This is particularly germane to the rapidly expanding metaverse and fields of user interface (UI)/user experience (UX) design, that create virtual exhibition and experience spaces in which elements are digitally rendered rather than physically built and allow for remote engagement. Indeed, the virtual worlds we find in gaming, augmented reality (AR), virtual reality (VR), and mixed reality (MR) applications employ—and thus can be enriched by—the same methods that help us to better understand the success of designed experiences in physical spaces.

Professional Exhibition Design Practice: A Brief History

The accompanying timeline visualizes the origins of people-centered experiences. The chart presents a cyclical synopsis of notable exhibition and experience design events with a focus on the last 100 years. Radiating out from the center, the role of the designer and their impact, raises questions about when design was consciously commissioned to elevate the aesthetic quality, audience engagement, and standards of exhibition making. This timeline is helpful for understanding the context for each of the design tropes.

Exhibition makers tend to have a short memory span since the notion of exhibitions as places of entertainment

and interaction is nothing new.¹ Large department stores of the late 1900s, World's Fairs, and eventually museums were developed to leverage commerce, entertainment, and culture resulting in the design of popular displays and interpretive experiences. Their merchandising principle called for attractive displays, careful selection and arrangement of objects, and the facilitation of visitor movement.²

Professional exhibition design practice can be traced to the German Bauhaus School and its' founding in the 1920s. Serving to unite art, craft, and industrial design, the Bauhaus was influenced by the preceding European Arts and Crafts Movements. The Bauhaus professors and their students designed experimental “set-like” environments that were purposefully interdisciplinary combining architecture, visual communication, and theater. László Moholy-Nagy introduced “Display, Exhibition, and Stage” to the New Bauhaus curriculum in Chicago (1937). The Bauhaus model offers a successful but increasingly outdated base for contemporary design education, but it is around this time formal exhibition design practice begins.

Contemporary practice

For such a young discipline, formal exhibition design practice has been through a remarkable transformation responding to societal changes, industry, commerce, entertainment trends, design thinking, tools, technology, and shifting economic models. Museums and attractions now compete with participatory and placemaking experiences and likewise exhibition and experience makers come from a variety of disciplines and creative backgrounds. Evolving from a solitary form in the first half of the 20th century to collaborative and interdisciplinary in the post-war years, exhibition and experience design practice in the mid-late 20th century is defined by the formation of inhouse and multidisciplinary teams that include people from a variety of backgrounds to shape content as well as form. Teams of exhibition researchers, developers, interpreters, and designers blurred disciplinary boundaries and cross-pollinated. This flattened exhibit team structure was collaborative and coalesced as a group to deliver effective narrative, audience, and client-centric experiences.

With expanding opportunities, greater diversity, and increased audience engagement and authorship, the conventional client-to-designer, concept-to-

implementation design process is a model seeming less relevant. This paper proposes an approach to exhibition making that learns from the success and failures of historical precedence, and argues for a revised methodology, one that can effectively guide the design of any type of exhibition, attraction, or experience environment regardless of its content, message, size, or budget.

Methods of Evaluation

Today's multi-modal, participatory exhibitions and attractions are bound by a desire to convey information, excite the viewer, and create social and narrative experiences. But when was design employed effectively to create these experiences? After all, good design engages visitors, making them ready and willing to experience more.³ Formal and informal feedback mechanisms (front-end; formative; remedial; summative evaluation) are commonplace, however, few contemporary frameworks exist for critically evaluating the effectiveness of exhibition design and the corresponding quality of an audience's experience.

Judy Rand's *Visitor's Bill of Rights* (1996) is a touchstone for the design of experiences. While originally intended for museums it is applicable to every experience-making sector from the click of a mouse to one stomach-churning ride. Focusing on the whole person, it considers physical, intellectual, emotional, social, and cultural needs from an audience's perspective. Rand encouraged designers to use it as a standard, a set of visitor-centered goals that offers a why and what but does not dictate how—that is up to the designer's creativity.⁴ Acknowledging the continued focus on diversity, equity, and inclusion, Rand's "call to action" remains remarkably present and relevant.

Ronald Mace and design researchers at North Carolina State University (The Center for Universal Design, 1997) advocated for all people with diverse abilities regardless of their age, size, ability, or disability. Their *Universal Design Principles* apply to people-centered exhibition and experience environments.⁵ The seven principles include equitable use, flexibility in use, design that is simple and intuitive, perceptible, and understandable information, a tolerance for error that minimizes hazards, adverse consequences, accidental or unintended actions,

"I recognized a pattern of design practice—a series of reoccurring design tropes, overlooked, and taken for granted in the exhibition design process."

design that requires low physical effort with a minimum of fatigue, and design that accommodates body size, posture, or mobility. While not established as a set of evaluation tools the principles constitute a form of assessment.

Beverly Serrell's framework for assessing excellence in exhibitions *Judging Exhibitions* (2006) consists of four visitor driven criteria: Comfortable; Engaging; Reinforcing; and Meaningful. The judges use the framework during an exhibit visit and write specific notes about their reactions to the designed environment. The framework needs more design language and to be less education/curatorial focused—it addresses experiences but not aesthetics—these are harder to define because they are often subjective—the two are really interrelated. Aesthetics are an unspoken element in every designed environment—they carry the intent and meaning—leave an impression even if we can't articulate it.⁶

Patterns of Practice

The methodology this paper presents aligns with these existing evaluation methods. However, it also has the potential to serve and improve a wealth of other creative industries and disciplines. Experience design has evolved into an umbrella term that accommodates an expanding menu of sub-disciplines. Interaction, virtual reality, and artificial intelligence infiltrate and vie to overshadow the design practice of placemaking, environmental, architectural, product, theater, and visual merchandising. These sub-disciplines constitute and combine into exhibition design—the mother of transdisciplinary practice.

Designer's Toolbox

As mentioned, this evaluation method is based on a set of 12 reoccurring design tropes collectively grouped into the Designer's Toolbox. This methodology advocates

for incorporating these patterns of practice at some level into the design of every exhibition and experience regardless of its content or venue.

1. **People:** The designer's responsibility during the design development process to understand audiences, and cultivate welcoming environments to interpret content in an informative and accessible manner.

2. **Narrative:** The designer's role to organize and spatialize experiential narratives, and develop engaging methods to structure, sequence, and bring to life exhibition stories.

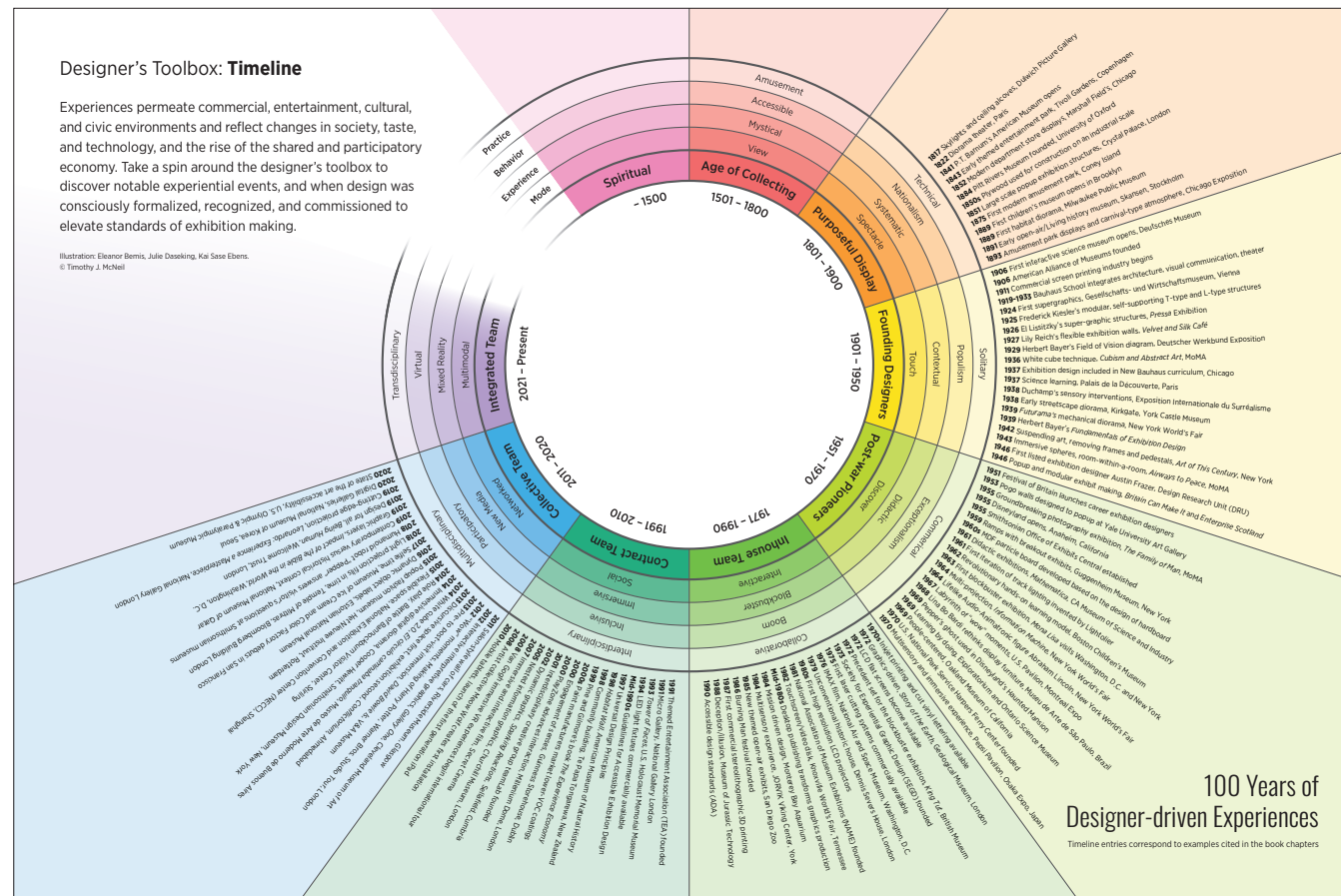
3. **Journey:** The designer's contribution to market the pre, during, and post experience, and craft comprehensive solutions that shape an entire visual message and identity.

4. **Form:** The designer's skill to sculpt the exhibition experience from a multitude of pop-up forms and build modular and memorable interventions made from a range of materials.

5. **Spectacle:** The designer's impulse to include "wow moments" to trigger people's behavioral responses using scale, color, lighting, and placement to illicit emotive reactions.

6. **Atmosphere:** The designer's duty to move "beyond the white cube" and create environments that combine multi-sensory qualities that react to origins of the material being presented.

7. **Staging:** The designer's knowledge of compositional theory and field of vision principles to add visual variety and captivating arrangements to engage people in experiences.



Charting the history of exhibition design - 100 years of designer-driven experiences

8. **Constraints:** The designer's obligation to recognize and work within limitations to create economical and practical applications for safe, object, and people-centered environments.

9. **Immersion:** The designer's desire to create "wraparound worlds" using technological tools to indulge people's innate desire for escapism and alternative realities.

10. **Wonder:** The designer's inclination to experiment with "smoke and mirrors" techniques that deploy illusion and magic to surprise and then transform people's experiential encounters.

11. **Communication:** The designer's instinctive urge for simple, understandable information that brings visual clarity, cohesion, and consistency to exhibition graphics.

12. **Learning:** The designer's proclivity for experiencing through doing, resulting in a range of passive to interactive modalities to inform, engage, and educate diverse communities.

Scoring Experiences

The next generation of exhibition and experience designers are defined by their ability to adapt, their ethics and advocacy for social justice and the environment, and their questioning of content, purpose, audiences, outcomes, and the impact of their work. All these facets mean taking risks and embracing failure as much as success. There is much at stake, and we will not accomplish this journey without feeling comfortable with testing, and the associated trial and error.

Taking the time to observe and talk with exhibit audiences, evaluate what works and what does not, and then reflect on the teams' accomplishments is a vital component of the design ideation process. The reoccurring tropes covered in this paper constitute a methodology for evaluating exhibitions and experiential design. Employ all 12 as a tool to measure the multi-modality of the design response and the engagement level of experience whether it is a museum, tradeshow, attraction, retail space, or festival.

The associated SCORECARD was developed in response to the tropes and to document the experiential quality of exhibition environments. Participants are asked to enter

their name, the title of the venue they are scoring, and then score the experience using 12 questions/prompts.

The SCORECARD is part of an ongoing project to turn the methodology into a practical tool for measuring the effectiveness of exhibition and experience design. It has been tested multiple times within a learning environment with students at the University of California, Davis in a variety of national and international exhibition spaces. What follows is a summary of this exploration and the corresponding iterations of the SCORECARD to improve access, usability, and content structure.

SCORECARD version 1.0 (May 2022)

FORMAT: A printed handout to mark-up in an exhibition. Participants record their scores by marking with a pencil on a zero to ten scale. This scale is reinforced using the prompts "no" to "yes." This version of the SCORECARD was tested with an undergraduate first-generation seminar class of 12 students who were new to the field of exhibition design and whose knowledge of exhibition/experience environments was limited or low. The course was called *Make an Exhibition* and introduced students to the field of exhibition design through a series of hands-on projects culminating in the installation of a small curated and designed exhibition. The group used the SCORECARD to evaluate an exhibition *Young, Gifted, and Black* at the Jan Shrem and Maria Manetti Shrem Museum of Art.

RESULTS: These skewed towards high scores for "Narrative" and "Learning," and lower scores for "Atmosphere" and "Spectacle"—not surprising for art exhibition featuring mostly paintings and drawings. Feedback from the class about the design and content of the SCORECARD suggested that the numerical scale (1–10) was too great; the terms needed further definition and revision; and that a digital version of the SCORECARD would be helpful as well as the printed paper version.

SCORECARD version 2.0 (July 2022)

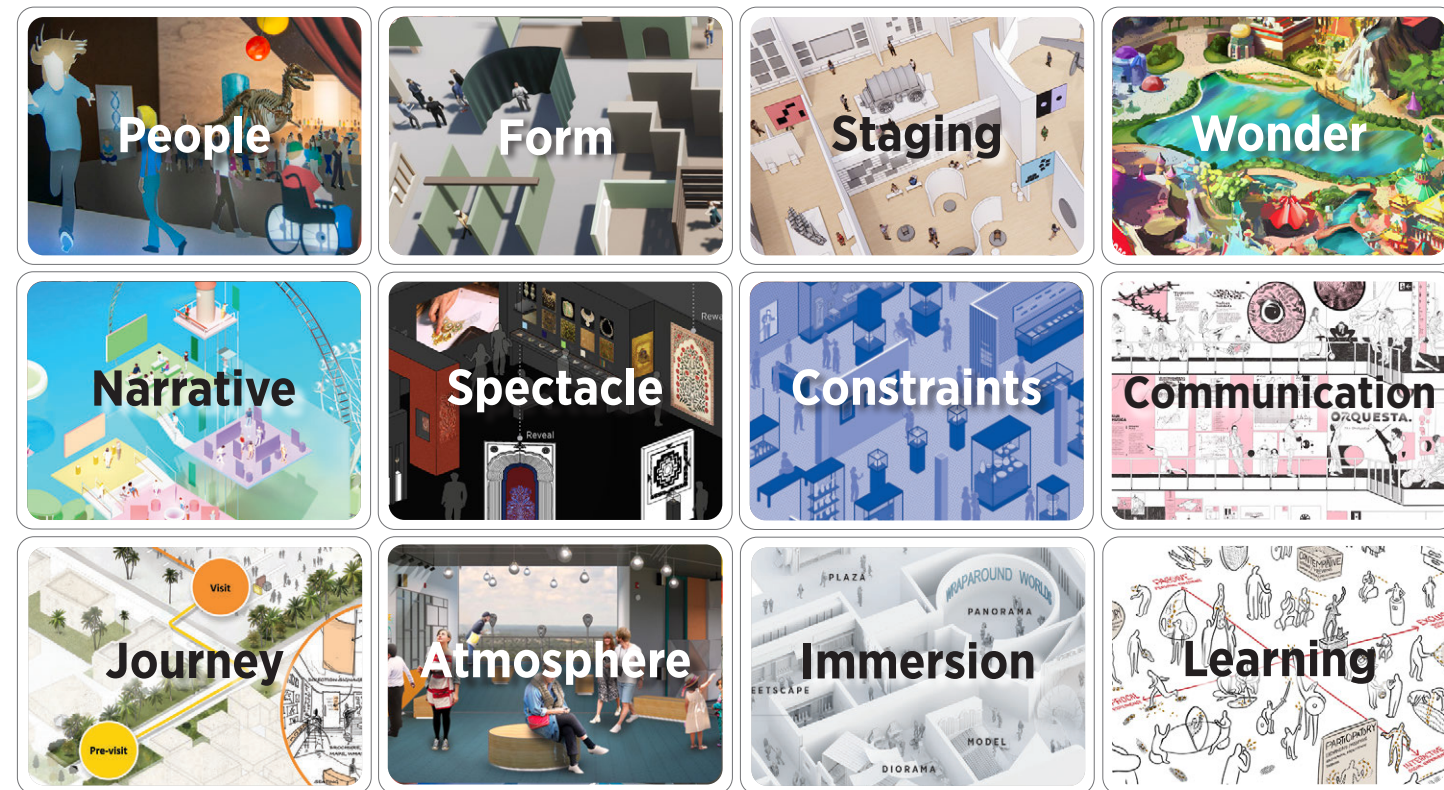
FORMAT: A digital Google survey form available through a personal handheld device (phone). Participants record their scores by selecting the circle on a zero to five scale (1 is low; 5 is high) and scroll through the 12 questions. The scale kept the prompts "no" to "yes." This version of the SCORECARD was tested with an undergraduate

study abroad program of 32 students who were familiar with the field of exhibition design and whose knowledge of exhibition/experience environments was low to medium. The program *Design in Britain* introduces students to the field of exhibition design through a series of projects, studio visits, and field trips to nearly 40 exhibition related attractions and museums in England and Scotland. The group used the SCORECARD to evaluate most of these venues during their visit.

RESULTS: These ranged dramatically because of the breadth of venues which included highly narrative based exhibitions to less content heavy immersive experiences. Generally, with practice each participant was able to identify and score all 12 of the questions proving that the tropes were omnipresent at all venues to varying degrees. At the conclusion of the program there were hundreds of completed SCORECARDS. Feedback from the participants about the design and content of this second version of the SCORECARD recommended less venues to score—too many to complete; more in-depth orientation to use the SCORECARD; streamlined prompts; a more organized and segmented structure for the SCORECARD survey design into four main categories; and that both a digital and printed version of the SCORECARD was required because some venues did not have Wi-Fi or accessible data, and not everyone has a mobile phone.

SCORECARD version 3.0 (April 2023)

FORMAT: A revised digital Google survey form available through a personal handheld device (phone). Participants record their scores by selecting the circle on a zero to five scale (1 is low; 5 is high) and scrolled through the 12 questions categorized into "Narrative," "Atmosphere," "Spectacle," and "Learning" with questions under each category. The prompts "no" to "yes" were retained. This version of the SCORECARD was tested with an undergraduate senior capstone course of 20 students who were familiar with the field of exhibition design and whose knowledge of exhibition/experience environments was medium to high. The course *Narrative Environments* introduces students to advanced exhibition design through two client-based in-depth projects and field trips to local museums and attractions. The group used the SCORECARD to score exhibit spaces at the SMUD Museum of Science and Curiosity.



Designer's Toolbox - Twelve exhibition design tropes formatted as a set of experience prompt cards

Exhibition/Experience Design Scorecard

Rate each question from 0-10

NARRATIVE	ATMOSPHERE	SPECTACLE	LEARNING
<p>Did the exhibition allow for lots of different people to get something out of it?</p> <p>0 (no) 5 10 (yes)</p>	<p>Did the shape of the space react or give context to the content presented?</p> <p>0 (no) 5 10 (yes)</p>	<p>Did the exhibition create a wow moment that stuck with you?</p> <p>0 (no) 5 10 (yes)</p>	<p>Did the exhibition graphics help you understand more about what was displayed?</p> <p>0 (no) 5 10 (yes)</p>
<p>Did the exhibition provide a narrative structure to help make exhibition concepts clearer?</p> <p>0 (no) 5 10 (yes)</p>	<p>Did the atmosphere of the space react or give context to the content presented?</p> <p>0 (no) 5 10 (yes)</p>	<p>Was there part of the exhibition that provided an immersive experience?</p> <p>0 (no) 5 10 (yes)</p>	<p>Did the exhibition provide an interactive experience that helped you learn?</p> <p>0 (no) 5 10 (yes)</p>
<p>Did the marketing for the exhibition influence your experience before and after your visit?</p> <p>0 (no) 5 10 (yes)</p>	<p>Were objects on display staged in a way that varied or excited you?</p> <p>0 (no) 5 10 (yes)</p>	<p>Was there part of the exhibition that felt like a magic trick and made you wonder how they did it?</p> <p>0 (no) 5 10 (yes)</p>	
	<p>Did safety measures to protect the objects detract or enhance your experience?</p> <p>0 (no) 5 10 (yes)</p>		
<p>Add up all your answers for final result:</p> <p>TOTAL SCORE: ____ /120</p>			

RESULTS: Participants commented that the SCORECARD aided their understanding and the design elements contributed to the overall experience—they were surprised to see that all 12 tropes were present and scored highly at the museum, particularly the “Education” category—which makes sense for an interactive science venue. Feedback from the participants about the design and content of the third version of the SCORECARD found the written and in-class contextualization of the SCORECARD very supportive; they asked for more location specificity and to choose and score one exhibit gallery or exhibit only to keep it focused; interestingly, the advanced level of the students meant that the participants questioned the SCORECARD as a viable tool for measuring such a diverse array of experience types—from theme parks to parties—and whether there could be a one-size fits all method of evaluation since some venues will clearly excel in certain categories more than others; and this group agreed that both a digital and printed version of the SCORECARD was required to make it accessible to as many people as possible.

and psychological impact—the methodology simply helps to frame the experience conversation through the lens of design.

While I believe that all exhibitions and experiences should exemplify the 12 tropes in some shape or form to be deemed effective and successful, I understand that not all will score highly in every category. It would be biased to see a lack of “wow” moments or visitor participation as more credible than an example driven by narrative and constraints—comparing an art museum to a children’s museum—but both can learn from one another and strive to include the spectrum of tropes on the SCORECARD.

The next iteration of the SCORECARD will be launched in July 2023 for the study abroad program *Design in Europe*. A less is more approach will include specific exhibits and less venues to evaluate and an improved survey interface. My goal is to expand the SCORECARD’s reach to participants in professional design/museum practice and a general audience. Perhaps everyone can keep the SCORECARD nearby next time they participate in the expanding array of experiential encounters and find themselves having a “wow” moment.

Results and Recommendations

Data from the trope-based methodology and corresponding SCORECARD reinforce the effectiveness of a much-needed historical context for exhibition and experience design—a primer for practice. It offers a revisionist approach to understanding and reflecting on exhibition making by placing contemporary practice on a continuum with historical precedence to argue that nothing is new, just improved with more efficient and enhanced tools. Armed with this deeper, richer depth of understanding enables exhibition development teams to formulate stronger concepts based on best precedence and pitch original ideas more effectively to clients and stakeholders. It is particularly relevant currently as exhibition design is central to the success of the experience and gig economy.

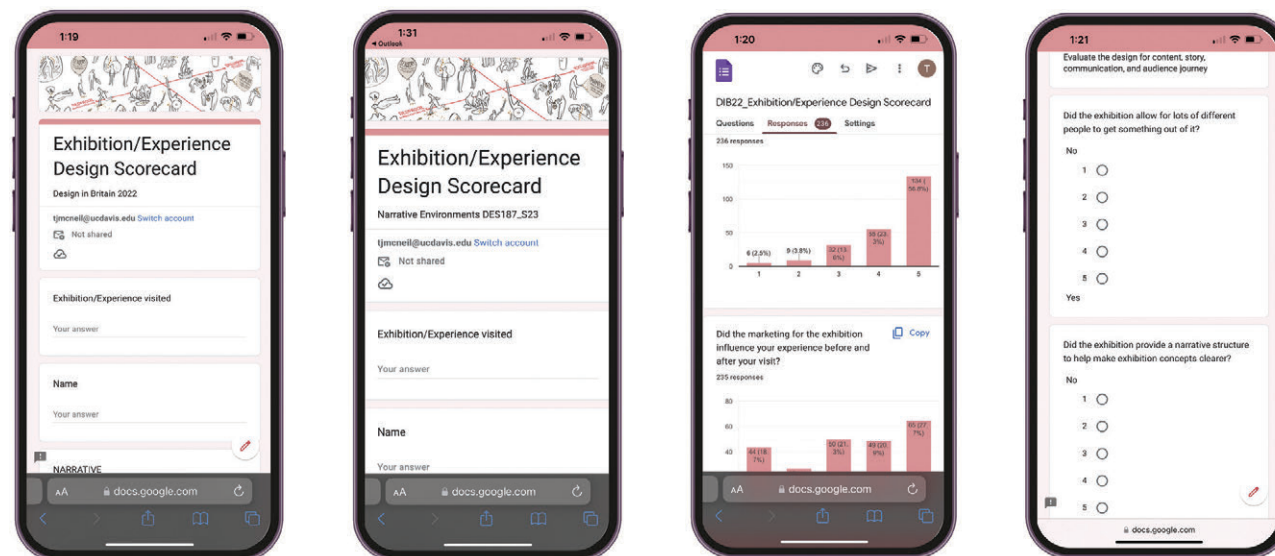
Further information

This methodology and associated SCORECARD are derived from *The Exhibition and Experience Design Handbook* (2023). The publication’s chapters follow the exhibition design process from story development, spatial planning and staging to communication and learning. Each of the 12 reoccurring design tropes form single chapters. Primary case studies—three to a chapter—are organized chronologically and exemplary of an array of commercial, entertainment, cultural, and civic spaces. Other examples reinforce the trope’s conventions over time, origins, context, and theoretical underpinnings.

Notes

The established and accepted history and theory of the exhibitions field is largely seen through a Euro-centric perspective. Important work is just beginning to redress this imbalance. Any case studies or examples I have cited are global and represent a diversity of cultures and voices. Some are lesser known, others canonized, the majority are experiences I have witnessed and feel qualified to talk about.

The groups who participated in using the current version of the SCORECARD were able to identify and successfully score all 12 of the questions demonstrating that the tropes were omnipresent to varying degrees at a variety of venues. Through the scoring process, the participants accurately gauged the components that creatively make up exhibition design and attempted to measure what constitutes an experience. I say “attempt” because measuring experiences requires a more robust means of recording people’s emotive reactions, memory,



Various iterations of the SCORECARD from a printed version to online survey forms

Thank you to the students who participated in the surveys and for their willingness to test out the SCORECARD and provide feedback. And to the designers for illustrating the 12 tropes depicted on the experience prompt cards: Kai Sase Ebens, Zoey Ward, Claire Healy, Asma AlDabal, Noor AlKathiri, Sarah AlMaghlouth, Lydia Lee, Siddhartha Das, Roger Escalante Quintero, Evan Yang, Sayaka Koike, Jean-Pierre Dufresne, John Haden, Leidy Karina Gómez Montoya, and Magnús Elvar Jónsson.

Resources

1. Kathleen McLean, *Planning for People in Museum Exhibitions*, 5. repr (Washington, DC: Association of Science-Technology Centers, 2009), x.
2. Michael Steven Shapiro and Louis Ward Kemp, eds., *The Museum: A Reference Guide* (New York: Greenwood Press, 1990), 202.
3. Beverly Serrell, *Judging Exhibitions: A Framework for Assessing Excellence* (Walnut Creek, Calif: Left Coast, 2006), 30–33.
4. Judy Rand, “The 227-Mile Museum, or Why We Need a Visitor’s Bill of Rights,” *Visitor Studies: Theory, Research and Practice* 9 (1997): 21.
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