ARTICLE

# Experiencing Exhibitions: A Review of Studies on Visitor Experiences in Museums

VOLKER KIRCHBERG AND MARTIN TRÖNDLE

**Abstract** This article reviews empirically oriented studies from the United States and Europe concerning visitor experiences in museum exhibitions in order to pinpoint similarities and differences among them. In the last 20 years, only a few scholars have tackled this research question in multifaceted empirical ways, although some of them have done so extensively. By comparing theoretical and methodical issues, as well as important results, we are able to outline several analytical building blocks that compose a complex framework of visitor expectations, experiences, and outcomes. Gathering credible data on experiences of visitors in exhibitions or museums, a method dating back to the tracking records of Robinson (1928), is an ongoing challenge for the empirically inclined science of museum studies. Social scientists at universities and museums have been asking for 20 years: What are the findings regarding factors, structures, and consequences of exhibition experiences? Where are the blind spots? Which questions should be researched?

## MUSEUM STUDIES AND MUSEUM VISITOR RESEARCH

Since audience visitation is one of the core purposes of a museum, it would seem that an empirically oriented science of museum studies would be most interested in structures, factors, and consequences of the visitation experience. [1] We would expect, then, to find, in the museum studies field, a plethora of articles dealing with just this topic. But do we? In the German-speaking countries, where the authors of this article work, museum studies articles are mostly theoretically inclined; empirical studies of visitors and their exhibition experiences rate low by comparison. This observation is true elsewhere as well.

A perusal of related publications offers a view of this landscape of theory. For instance, out of 18 contributions to *Art, Museum, Context: Perspectives on Art and Culture Studie*s (Kittlausz and Pauleit 2006), not one deals with visitors or visitor experiences, although some articles do mention marketing-oriented audience development and educational programs. In Baur (2010), 12 articles consider the topic "Museum Analyses" but only one (Kirchberg 2010) looks at visitor research. Of 30 articles in *Museum Revisited* (Dröge and Hoffmann 2010) on the future of museums, only one mentions the need to scrutinize visitor experiences (as a precondition for "participatory exhibitions"). Of the 18 contributions in *Reinventing the Museum: Perspectives on Audience Development* (John and Dauschek 2008), seven articles deal with learning, and six with the societal responsibility of museums, but no article enters the arena of visitor experience.

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Even the major museum publications originating in the U.K. and the U.S. appear to be lacking articles regarding visitor experience. The two most recent—significant volumes on museum studies, edited by Macdonald (2006) and Carbonell (2007)—contain 86 articles in total, but only two, both written by Hooper-Greenhill (2006, 2007), address visitor studies. Other influential compendiums (Anderson 2004; Greenberg, Ferguson, and Nairne 2005) paint a similar picture. Out of 27 articles in Greenberg, Ferguson, and Nairne, dealing with the impact of exhibitions and curatorial concepts, only one (Ferguson 2005) reflects on the effects of exhibitions upon visitors. Ferguson, however, does not make any attempt to empirically test his proposal of a relationship between meaning and visitor experience. None of the other authors examines visitor experience or empirically analyzes it.

From the United States, *Reinventing the Museum* (Anderson 2004) contains 34 important texts spanning 90 years, starting with John Cotton Dana's lecture "The Gloom of the Museum," in which he laments the absence of visitors in museum thinking. Even in this volume, though, only six articles focus on the public and their needs as museum visitors. Of these six, only two discuss visitor experience: Falk and Dierking (2004) reintroduce their contextual model of learning in museums; and Hood (1983) presents her empirical study of visit motives and barriers. For more evidence, consider Preziosi and Farago (2004), whose book on the "idea of the museum" gathers 42 articles drawn from philosophy, sociology, art history, politics, art, cultural studies and other disciplines—but no articles that deal with visitor experience. (Some articles do explore the impact of exhibitions on "visitor identity." See, for instance, Haacke's 2005 essay "Museums: Managers of Consciousness.") Following the highly influential publication by Bourdieu, Darbel, and Schnapper (1997), museum studies have analyzed the museum as a place of social distinction and as a place for constructing identities through the appreciation of objects by collecting, conserving, and exhibiting them (Karp and Lavine 1991; Karp, Kreamer, and Lavine 1992).

We may conclude that the bulk of museum studies literature concerns cultural, historical, or critical analyses of the museum as an institution: its societal role, its politics and management issues, its function as a place for learning, leisure, and self-actualization (Falk 2009), and its curatorial and collecting issues. Rarely are the experiences of museum visitors a focus of interest.

## HURDLES IN VISITOR EXPERIENCE RESEARCH

Why has visitor experience been largely absent from museum studies? Reussner interviewed 21 directors, curators, and educators in museums in Australia, Western Europe, and North America about their experience with and their attitudes towards visitor studies (2010). Although most agreed on the importance of visitor studies, they also stressed that museums (and especially art museums) should not overestimate the utility of such research. These museum directors have been especially concerned about a loss of authority and control, as well as the declining significance of their importance as arbiters and interpreters. They generally expressed their concerns about populism.

Shettel (2008) lists several reasons why empirical analysis of exhibitions is not highly regarded. It takes time, money, and professional staff to conduct these evaluations, he notes. In his professional experience, the field of visitor studies methods and analyses is still new, and methods and evaluation procedures sometimes

may be too obtrusive to be acceptable in a museum context. It is difficult to measure a particular exhibit's effectiveness, he says. There has been a shift in "the emphasis from the exhibit-visitor interaction level to the impact of museum visits on the overall well-being" of visitors (2008, 369). Last but not least, he (like Reussner) mentions the power shift in decision-making processes: "The latter is moved from the exclusive domain of managers, curators, exhibit designers and fabricators to the co-domain of the visitor. When taken seriously, this is actually a paradigm shift. . . " (2008, 370).

Another hurdle, specific to, but not strictly limited to the study of art exhibitions, might be the sheer methodological difficulties of analyzing experiences, especially aesthetic experiences. Although empirical aesthetics as a branch of experimental psychology has a distinguished tradition (Tschacher, et al. 2012), the outcomes of this research have been, for a long time, quite marginal (Halcour 2002; Martindale 2007). Recently, empirical aesthetics has been discussed from a variety of perspectives (such as bio-aesthetics or evolutionary aesthetics), using the umbrella term "neuro-aesthetics" (Skov and Vartanian 2009). Most of these new empirical aesthetics and fine-art reception studies, however, have not yet been recognized in the field of visitor studies, or put to use in investigating visitor experience in fine art museums. A reason for this might be that most of these studies investigating aesthetic experience are laboratory based, and the methodologies deployed have not been tested in "real" environments like fine art museums (see Tröndle and Tschacher 2012). Martindale formulates this idea quite drastically in his analysis of recent trends in empirical aesthetics: "Behaviorism has certainly produced some very interesting theories and results, but they are of marginal relevance to psychology. The behaviorist era is best seen as a disaster for the discipline of psychology and an unmitigated disaster for psychological aesthetics. . . . In their desire to make psychology a rigorous science, psychologists confused experimentation with empiricism and fled into their laboratories" (2007, 123). In a complementary fashion, Tröndle, Greenwood, Kirchberg, and Tschacher (2012) show that aesthetic experience is most realistically observed and measured in an original environment that preserves the aura of the artworks in the context of a museum exhibition.

But how can one empirically grasp these subtle moments of aesthetic experience? Empirically speaking, what sort of research has been conducted over the last years on the topic of the visitor's experience of exhibitions? There exist only a few academically published, peer-reviewed articles and significant monographs, to which we will now turn our interest.[2] We will summarize these studies, their premises and inspiration, and we will particularly focus on the empirically derived results, causes, and consequences, according to these studies.

## EMPIRICAL VISITOR STUDIES OF EXHIBITION EXPERIENCES

### Falk and Dierking

For 20 years now, John H. Falk and Lynn D. Dierking have worked with a model that describes and analyzes the structures, causes, and effects of visitor experience in museums. In 1992, Falk and Dierking published a book on the museum experience that built upon prior visitor experience studies by Hood (1983) and Graburn (1984) from the 1980s. The successors to this highly influential book are Falk and Dierking's *Learning from Museums* (2000) and John Falk's *Identity and the Museum Visitor Experience* (2009).

Falk and Dierking developed a "contextual model of learning" that distinguishes factors such as why people visit museums (motives, incentives, expectations); how they visit museums (experiences, alone or in different types of social settings); and what the outcomes might be (learning, remembering). The model stresses four dimensions for this causal process of considering, experiencing, and remembering (or learning from) a visit: the personal context, the socio-cultural context, the physical context, and the flow of time.

The *personal context* combines all individual (socio-economic) predispositions and expectations that the visitor brings to the exhibition. The *socio-cultural context* is an array of cultural influences that impact the experience as well as specific social conditions under which the visit happens: for instance, the inclination to visit a museum alone, or with a few like-minded friends, or with the whole family. The *physical context* is a combination of the physical design of the museum and its exhibition(s) and also the display methods of singular (art) works or exhibits. The *time context* is the effect of the visit duration on experiences and the effect of a visit as embedded in a chronological order (from the idea, to the conduct, to the memory). The visitor experience can be explained in Figure 1.

Falk and Dierking (2000) thus emphasize that visitor experiences cannot be detached from prior expectations towards the visit, and that actual experiences during the visit cannot be separated from the memories of past visits. It's not only that every survey of experiences after the last visit is already tapping the potential archive of all remembered visit experiences. The surveying of visit memories after a certain time period (such as three to six weeks) might also crystallize the most outstanding experiences into cohesive mental "realities" because only they are remembered (and thus, probably, learned).

### Doering, Pekarik and Karns

In 1999, two articles—Doering; and Pekarik, Doering, and Karns—observed the expectations that visitors bring with them into the museum experience, and the impact of these prior expectations on visitor satisfaction. Expectations may tilt visitors' orientation towards or away from certain information, exhibits, or other objects and ideas, the researchers discovered. Additionally, expectations may influence visitors' overall assessment of the museum experience during the visit, plus their ultimate degree of satisfaction with the museum visit. Over a period of 10 years, and based on many

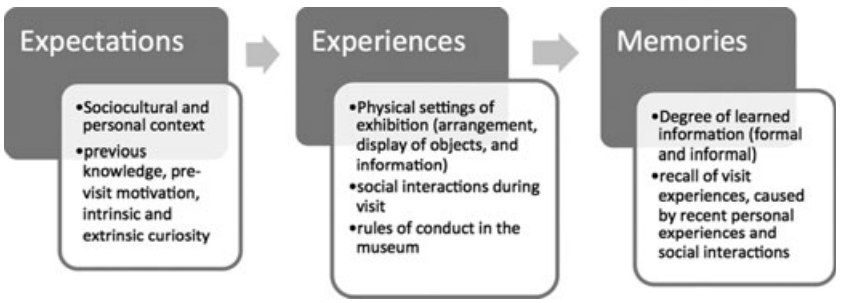


**Figure 1:** The causal chronology of museum experiences. Source: compilation by the authors from Falk et al. 1992, 2000, 2009.

visitor studies done for the diverse Smithsonian Institution (SI) museums, the visitor research team at the Smithsonian concluded

> that visitors arrive with their own visit agendas and sense of time . . . [and they] tend to frequent the museums and exhibitions that they think will be congruent with their own attitude, with whose point of view they expect to agree. . . . [Exhibitions] can be powerful tools for confirming, reinforcing, and extending existing beliefs. . . . [I]ndividuals come to museums with different entrance narratives . . . and different perspectives and expectations toward the experience of visiting a museum (Doering 1999, 80).

This "entrance narrative"[3] and its dominance in the experiences of visitors during the visit led the SI researchers to the conclusion that no analysis of visitors' exhibition experience is complete without examining visitors' socio-economic background, their pre-visit expectations, and their post-visit degree of satisfaction. This mutuality of expectations, experiences, and satisfaction levels highly resembles Falk and Dierking's (2000) causality of expectations, experiences, and memories. Falk (2009) also acknowledges the significance of the findings of Doering, Pekarik, and Karns. However, these findings are not ultimate; the SI team stresses that the task of identifying and classifying visitor experiences is a continuous research project (Pekarik, Doering, and Karns 1999, 152). Proof for this statement is that they still maintain this line of research nowadays. One of the major findings of the 1999 study was the introduction of a list of 14 experience typologies, based on long-term conversations with SI museum visitors (see Pekarik, Doering, and Karns 1999, 155). Applying factor analysis, the SI team draws four experience dimensions from these items (see table 1).[4]

The *object experience* has a focus on "something outside the visitor": for instance, the object's own authenticity, value, and beauty; the wish to own the object; and/or the fostering of one's own professional development (Pekarik, Doering, and Karns 1999, 157).

The *cognitive experience* is the intellectual stimulus to interpret and assimilate the cognitive contents of the exhibit or exhibition, with

Table 1:
List and categorization of visitor experiences based on surveys at SI museums

| | |
|---|---|
| *Object experiences* | Seeing "the real thing" |
| | Seeing rare/uncommon/valuable things |
| | Being moved by beauty |
| | Thinking what it would be like to own such things |
| | Continuing my professional development |
| *Cognitive experiences* | Gaining information or knowledge |
| | Enriching my understanding |
| *Introspective experiences* | Imagining other times or places |
| | Reflecting on the meaning of what I was looking at |
| | Recalling my travels/childhood experiences/other memories |
| | Feeling a spiritual connection |
| | Feeling a sense of belonging or connectedness |
| *Social experiences* | Spending time with friends/family/other people |
| | Seeing my children learning new things |

Source: Pekarik, Doering, and Karns 1999, 155–156.

the aim of gaining knowledge or enriching one's understanding (Pekarik, Doering, and Karns 1999, 157f).

The *introspective experience* is the reaction triggered by the object or by the exhibition, causing one to look inward, to have a personal and private (introspective) experience: for instance, by imagining other times and places; reflecting on the meaning; recalling personal memories; feeling a spiritual connection or a sense of connectedness, and so on (Pekarik, Doering, and Karns 1999, 158f).

The *social experience* is the experience of interacting with others while visiting or sharing a visit at the exhibition, right away or later after the visit: for instance, spending time with friends or family; or seeing children learning (Pekarik, Doering, and Karns 1999, 159).

Most visitors surveyed in 1999 look at the object experience as the most satisfying, and the cognitive experience as the second most satisfying. This ranking is relatively independent of the type of museum.[5] The inclination to an object experience is ranked somewhat higher at SI art museums (such as the Japanese art gallery at the Arthur M. Sackler Gallery, or the crafts display at the Renwick Gallery). The cognitive experience is somewhat better at science and natural history museums (Pekarik, Doering, and Karns 1999, 162f). Also, for all museums, the introspective experience and the social experience do not seem to be so important. (The exception is the history museum, which registers higher for introspective experiences.) The conventional expectations for appreciating objects (at art museums) and being triggered intellectually (at science museums) seem to prevail.[6] As the authors stress, there are important exceptions to this rule. They apply logistic regression analyses which show that younger visitors aged 25–44 years tend to choose social experiences as the most satisfying; whereas visitors below age 25 prefer introspective experiences. Also, female visitors tend to choose introspective experience, and male visitors tend to choose cognitive experience. However, it has to be taken into consideration that the special location of the Smithsonian Institution museums at the Washington D.C. Mall favors a museum audience that is more "touristy" and less "arts inclined." This predisposition to a tourist crowd might make it difficult to compare the findings with surveys of other museum audiences in less tourist-oriented contexts.

The most important finding of this analysis is the emphasis on pre-visit expectations as the central factor creating the "most satisfying" visitor experiences. Expectations, also named "anticipated experiences," are a mixture of "imagination and desire, inspired by . . . past experiences, by . . . the type of the museum, by reports . . ., by personal references, and by the needs of a particular occasion" (Pekarik, Doering, and Karns 1999, 169).

When the SI team compared visitors' pre-visit expectation of their experience of an item with their post-visit experience of the same item, they got mixed results. At the National Air and Space Museum, the SI team "found virtually no difference between the experiences visitors anticipated and the experiences they found satisfying" (Pekarik, Doering, and Karns 1999, 169). However, the comparison of expectations and experiences at the National Museum of American History showed considerable differences; most visitors anticipated a cognitive experience but left the museum feeling most satisfied with object experiences or introspective experiences. Nevertheless, the majority of these SI visitor studies found that the most-anticipated experiences determined the most satisfying experiences (see figure 2).

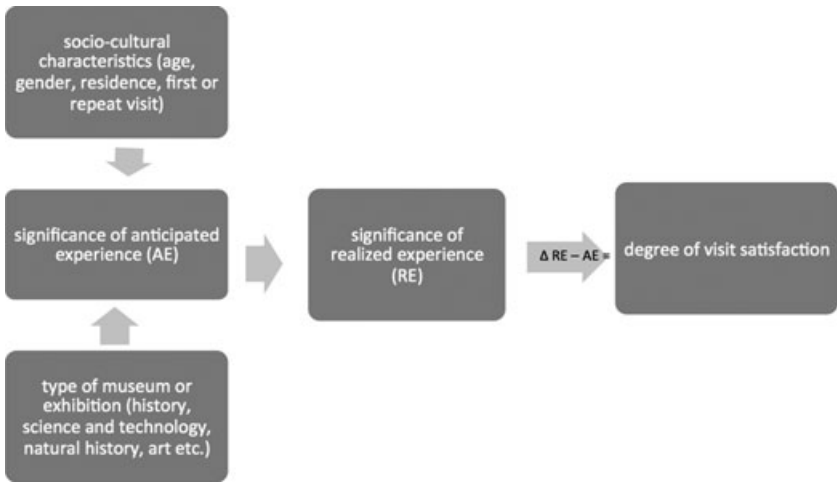


**Figure 2:** The proposed causal chain of exhibition experiences and satisfaction. Source: compilation by the authors from Doering 1999, Pekarik, Doering and Karns 1999.

### De Rojas and Camarero

The concept of satisfaction as a product of the relationship between experience and expectation has been refined by two Spanish marketing scholars whose background is consumer research (de Rojas and Camarero 2006). More than Doering, Pekarik, and Karns, the Spanish researchers stress that a satisfying museum visit is a combination of cognitive and affective stimuli. The substantial qualities of the exhibition, the emotional "charisma" of the exhibition, and the mood of the visitor generate the visit satisfaction level. This relativist quality of satisfaction is based on

> the comparison between a certain subjective experience and its previous reference basis, . . . that of a cognitive and an affective character in its relative nature. . . . [A] consumer is satisfied . . . when reaching or overtaking his/her expectations on performance of the concrete consumption good or service (de Rojas and Camarero 2006, 51).

Instead of "satisfaction," de Rojas and Camarero use the term "(dis)confirmation." However, these two terms can be read as equivalents. (Dis)confirmation is the difference between expectation and experience. Whereas confirmation is similar to satisfaction, "positive disconfirmation" has the same meaning as "increased satisfaction," and "negative disconfirmation" has the same meaning as "increased dissatisfaction."

Thus, satisfaction—as a product of confirmation or disconfirmation of expectations—is not solely based on the performance of the good or service being consumed (Oliver 1997). According to de Rojas and Camarero, there are two emotional conditions already manifesting in the visitor: pleasure, and mood (or "state of mind"). "Pleasure" is a self-referential emotional factor that amplifies the satisfaction level gained early on during the visit, after the visitor first compares expectation and experience. A positive pleasure factor will foster the increase of an already existing satisfaction level (based on confirmation or positive disconfirmation). A negative "displeasure" factor will amplify an

already attained dissatisfaction level, based on a negative disconfirmation (De Rojas and Camarero 2006, 53f). In addition, and independently of the visit, the visitor brings his or her own "state of mind" or "mood" to the exhibition (these other factors may be sickness, fatigue, exhaustion, stress, effects of heat, noise, and so on). These emotional variables also impact the satisfaction level and the individual disposition to absorb information, to pick positive or negative information, or to remember positive or negative experiences (de Rojas and Camarero 2006, 55).

De Rojas and Camarero point out that the difference between expectation and experience (or "perceived quality") creates a degree of confirmation that—via the intermediary creation of pleasure based on the confirmation experience—increases the visit satisfaction level (2006, 59f). This indirect causal route (via confirmation and the pleasure of confirmation) has a higher explanatory value than the direct causal explanation of visit satisfaction through the assessment of experiences. However, emotions as factors in visit satisfaction are not only significant for the pleasure of experiencing a confirmation of expectations. It's also the case that the visitor's mood or state of mind (which is independent of the expectation and experience of an exhibition) reinforces the satisfaction created by the pleasure factor. This study confirms many of Doering, Pekarik, and Karns's statements; it also indicates the power of emotions, either created through the exhibition ("pleasure") or brought from the outside into the exhibition ("state of mind") to affect the satisfaction indexes of a museum visit. This causal model has been tested by a survey of 150 visitors to the Centro de Interpretación de Isabel la Católica, in the Royal and Testamentary Palace in Medina de Campo, Valladolid, Spain. Path analysis generated these causal results (figure 3).

### Packer and Bond

More than Doering, Pekarik, and Karns (1999) and De Rojas and Camarero (2006), Packer (2008) and Packer and Bond (2010)

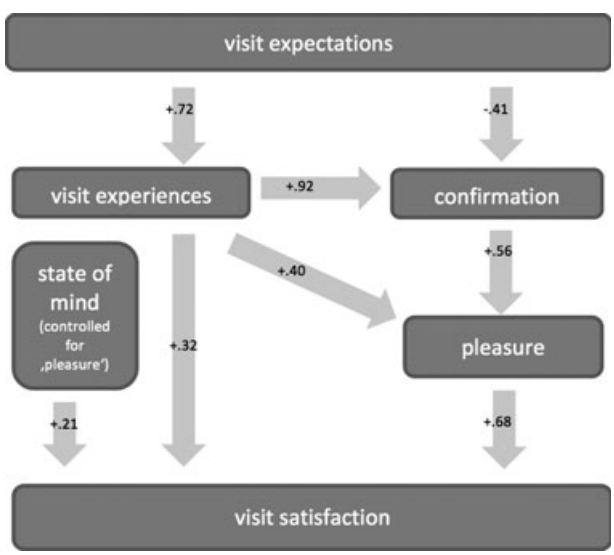


**Figure 3:** The causal diagram of visitor expectations and satisfaction. Source: De Rojas and Camarero, 2006, 59. Arrows symbolize significant causalities; numbers are standardized regression coefficients.

concentrate on identifying the outcome of a satisfying museum visit as predominantly a state of psychological well-being. Packer (2008) distinguishes three types of benefits that a museum visit might have: "psychological well-being," "subjective well-being," and "restoration." According to her, the degree of beneficial outcome depends on the four types of satisfying experiences (object, cognitive, introspective, and social, as analyzed by Doering, Pekarik, and Karns 1999) and on an additional element that she labels as "restorative," which includes fascination; being away from everyday life; extent (the capability of an environment to occupy the mind); and compatibility (Packer 2008, 37).[7] The benefits are that visitors leave a museum after being relaxed and refreshed, finding peace and tranquility, and improving thoughtfulness and reflective deliberations about what has been experienced. In a survey of 60 visitors at the Queensland Museum—a natural history, cultural heritage, science and technology museum—Packer proved a causal model that confirmed most findings of the Doering, Pekarik, and Karns team (1999), but she added "restorative experience,"a positive evaluation of the museum "service-scape" (defined as the physical features of the spaces and structures of the museum), and "ambience" to the factors of a beneficial (satisfying) museum visit (Packer 2008, 38, 50f). (See figure 4).

Building on the researches already mentioned, Packer wanted to get deeper into the details of the concept of visit satisfaction, defined as psychological well-being.[8] Though her research was based on a rather small sample and was not an exhaustive multivariate analysis,[9] she confirmed many of the SI team's findings, especially the significance of cognitive experiences for a visitor's self-acceptance, and the usefulness of a museum visit for personal growth. This result recalls the oft-mentioned reason to visit a museum for "learning" or "enriching." However, there are additional and important findings of Packer's research. These include the effects of a relaxing museum environment (the "service-scape") and the "restorative elements" of getting in an "unhurried mood" or feeling outside of everyday routines ("being away"). These features, in particular, support the strengthening of a restorative mood in the visitor, the inclination to reflect on the experiences, and the contribution to an overall high individual benefit or satisfaction level.

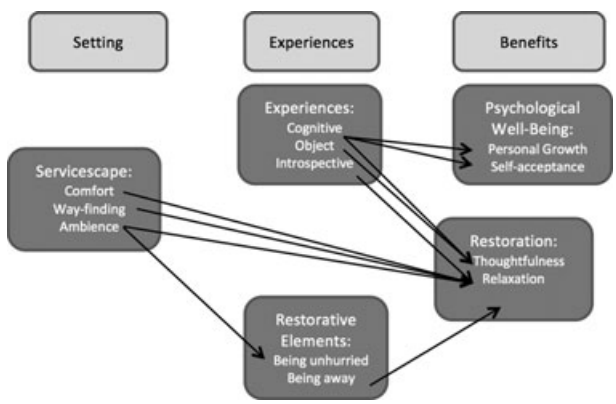


**Figure 4:** Qualitative and quantitative univariate analyses of museum settings, experiences and benefits. Source: Packer 2008, 50. The arrows symbolize significant effects between categories.

In a follow-up article, Packer and Bond (2010, 422) expanded the concept of "restoration" as an important museum function for visitors. They stressed the effects of "restorative attributes" ("fascination," "being away," "extent," and "compatibility") on the psychological well-being of museum visitors. In this empirical analysis, they went beyond the 2006 univariate interpretations and conducted a comprehensive visitor study (N = 580) with regression analyses. These results confirmed the hypotheses Packer made in 2006: the importance of "physical environment" ("service-scape"); "satisfying experiences" and "restorative attributes" (or "restorative elements"); and "restorative benefits," defined in 2006 as "psychological well-being" and "restoration" (Packer and Bond 2010, 430). Significant for our conclusions in this article are the final remarks of Packer and Bond: "Further research is also needed to test the findings of this study using physiological as well as self-report measures of restoration. It may be that there is a difference between the perception of restoration and . . . physiological effects such as reduced blood pressure or muscle tension. Although some congruence . . . has been demonstrated in natural environments . . ., this needs to be tested also in museum environments" (2010, 432).

### Csikszentmihalyi and Robinson

The scholars de Rojas and Camarero emphasized the emotional causes and effects of a satisfying museum visit (2006). Packer stressed the significance of "restorative attributes" (such as "extent") (2008; 2010). The psychology of an aesthetic experience in a museum, however, has been best formulated by the psychologist Mihaly Csikszentmihalyi, who applied the characteristics of his "flow experience" model to "aesthetic encounters" in museums. A flow experience is an autotelic experience, a heightened state of consciousness that occurs if people are deeply involved in an activity that has no or little external rewards. Csikszentmihalyi and Robinson set up a conceptual model for aesthetic experience based on Csikszentmihalyi's flow experience (1990, table 2).

The flow experience incorporates many of the qualities identified by the other researchers: Packer ("being unhurried," "being away," "personal growth," "self-acceptance"); de Rojas and Camarero ("pleasure" as amplified satisfaction);

Table 2:
Comparison of criteria defining the aesthetic experience and the flow experience.

| Criteria for the Aesthetic Experience | Criteria for the Flow Experience |
|---|---|
| *Object Focus* | *Merging of Action and Awareness* |
| Attention fixed on intentional field | Attention centered on activity |
| *Felt Freedom* | *Limitation of Stimulus Field* |
| Release from concerns about past and future | No awareness of past and future |
| *Detached Affect* | *Loss of Ego* |
| Objects of interest set at a distance emotionally | Loss of self-consciousness; transcendence |
| *Active Discovery* | *Control of Action* |
| Active exercise of powers to meet external challenges | Skills adequate to overcome challenges |
| *Wholeness* | *Autotelic Nature* |
| A sense of personal integration and self-expansion | Does not need external rewards, intrinsically satisfying |

Source: Csikszentmihalyi and Robinson 1990, 8.

and Pekarik, Doering and Karns ("seeing the 'real thing,'" "imagining other times or places," "recalling memories," "feeling a spiritual connection," "enriching my understanding," "feeling a sense of belonging or connectedness"). Based on this model, Csikszentmihalyi and Robinson (1990, 19–25) conducted a survey of 57 leading museum staff members: curators and museum directors, but also, to a lesser extent, personnel from conservation and education departments. They answered at length during a face-to-face, semi-structured (open-ended, not standardized) interview protocol. The interviews were transcribed and then explored by content analysis. The subsequent list of categorized answers yields four "experience dimensions" that these museum professionals see as typical and generally representative for all art museum experiences.[10]

First and foremost is the *perceptual dimension*: the experience of the object as a whole or as a compendium of special features, such as beauty, form, color, tactility, or evidence of the artist's process (1990, 29–33).

The second is the *emotional dimension*: joy, delight, inspiration, love, anger, hate, frustration. Most respondents were affected by artworks that surprised them, and emotions were often based on personal associations and past experiences. However, the strength of the emotional response differs. Most interviewees had some kind of affective response but a minority also described significant emotions like awe: "it hit me" or "[I was] moved to tears" (1990, 38–41).

The third is the *intellectual dimension*, also labeled as *cognitive experience*. Some of the museum professionals stress this cognitive activity as intellectual understanding, or as expedient intellectual reflection of the artworks; others define it as a potential barrier to the "real" experience of art, as an obstacle for a holistic art experience. For a majority, however, knowledge is a necessary predisposition to avoid a "naïve" observation of the artworks. It consists of familiarity with techniques, art history, and subject and symbolic matters. All of this is necessary for experiencing art.[11] Furthermore, some professionals regard their knowledge as a means to come to terms with an artwork, whereas other professionals use their knowledge to compare different interpretations. For the former group, the intellectual experience is pleasant if one can "get to the bottom" or "crack the code" to arrive at mastery and accomplishment. For the latter group, the intellectual experience is the consciousness of inexhaustibility, the experience of an artwork as "bottomless," the infinite search for different and even contradictory interpretations (1990, 41–62).

The fourth is the *communication dimension*. Many of the respondents understand their art experience as a visual, emotional, and intellectual dialogue with the artwork, an exchange of thoughts and feelings. They might also (symbolically, not concretely) communicate with the artist, and even with other viewers ("trying to get out to the public"). This dialogue can be about history, culture, space, fantasies, reminiscences. It can create a "loss of self," a feeling of transcendence or a "higher-order experience" (1990, 62–71). "Experiencing a deep connection to the artworks" or "experiencing the beauty of the artworks" creates sudden moments of being fascinated. A few seconds or minutes later we then might also tell our companion about this aesthetic experience, and why this artwork has such an emotional and/or cognitive impact on us, thus creating a dialogue *with* the artwork and, concomitantly, *about* the artwork.

The findings of this qualitative study of four dimensions of aesthetic experience was tested quantitatively with a standardized questionnaire (1990, 74). This admittedly small

Table 3:
Summary of the dimensions of aesthetic experiences in museums.

| Dimension of aesthetic experience | Exemplary items |
|---|---|
| *Perceptual dimension* | Object experience:<br>beauty, form, color, textual quality, evidence for artist's work |
| *Emotional dimension* | Emotional or affective experience:<br>joy, delight, inspiration, love, anger, hate, frustration, surprise, personal associations |
| *Intellectual dimension* | Cognitive experience:<br>understanding or reflection of artwork, confidence in applying knowledge (for closure or openness) to the artwork |
| *Communication dimension* | Interactive experience, dialogue with the artwork:<br>about the artist, history, cultures, spaces, fantasies, the past; transcendence, "loss of self," spiritual "higher order" experience |

Source: Compiled by the authors from Csikszentmihalyi and Robinson 1990, 19–71.

survey (N = 52) confirmed the four dimensions of aesthetic experiences of the qualitative survey (1990, 95).

Lantham presents Csikszentmihalyi's idea of "flow" as a transcendental experience when she explores "numinous museum experiences" in a phenomenological way (2007). The term "numen" originates in religious studies and describes an emotional experience that can be aroused in the presence of "a spiritual force or influence identified with a natural object, phenomenon or place." According to Gatewood and Cameron, three dimensions constitute this experience: First, a deep engagement that may cause the individual to lose a sense of passing time; second, a strongly affective experience; and third, experiencing the presence of something spiritual (2004). Lantham concludes:

> Numinous objects are examples of material culture that have acquired sufficient perceived significance by association to merit preservation in the public trust. They are the objects we collect and preserve, not for what they may reveal to us as material documents, or for any visible aesthetic quality, but for their association, real or imagined, with some person, place, or event endowed with special sociocultural magic. The "numinosity" of an artifact or place, the intangible and invisible quality of its significance, consists in its presumed association with something, either in the past or in the imagination or both, that carries emotional weight with the viewer (2004).

This phenomenological concept of experience as an atmospheric and immersing interaction of the beholder with the object recalls the classic book *Art as Experience* by John Dewey (1937), and the classic essay "The Work of Art in the Age of Mechanical Reproduction" by Walter Benjamin (1936). Both give fruitful descriptions of aesthetic interactions between objects and their contexts and beholders, but they are not very precise (for the purpose of empirical studies) in describing museum experiences.

## CONCLUSION

These findings do not contradict—but rather complement—each other when describing and analyzing visitor experiences. Learning-oriented results such as those found by Falk and Dierking are expanded by empirical, sociologi-

cal museum findings (by Doering, Pekarik, and Karns) and museum marketing findings (by de Rojas and Camarero). They are further amplified by educational psychological studies (by Packer) and aesthetic psychological studies (by Csikszentmihalyi and Robinson). Some studies (Doering, Pekarik, and Karns; Csikszentmihalyi and Robinson) stress pre-visit structural terms and attitudes (expectations, mood, and competence). Others (Falk and Dierking; Packer and Bond; de Rojas and Camarero) stress post-visit consequences (learning, personal growth, intensification of attachment to the museum) (figure 5).

Compiling these studies for this review, we conclude that, overall, the studies exhibit a rather homogeneous kind of knowledge concerning visitor experiences in the museum. A predominant resemblance is the general idea of chronology and causality, perpetually using the same underlying schema. There are always social, personal, or physical characteristics (pre-visit parameters) that influence the visit experiences (satisfying, confirming, or aesthetic).

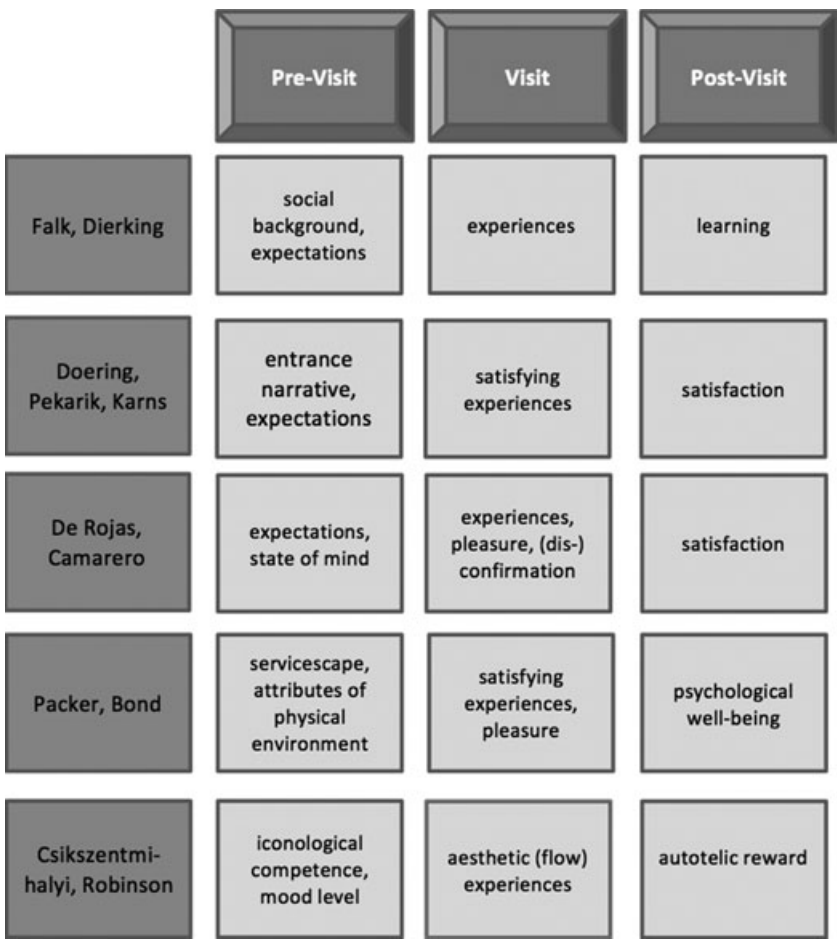


**Figure 5:** Summary of studies of visitor experiences in museum exhibitions. Source: Compiled by authors.

Subsequently, the effects of the visit experiences are always some kind of utilitarian measures of post-visit satisfaction and reward consequences, either cognitive or emotional.

## NEW DIRECTIONS FOR FURTHER RESEARCH

Although these studies have been important in investigating visitor experiences in museums, we posit that certain disciplinary biases underlie most of them. These biases shape the research, as well the research questions and/or the methods being employed.

For Falk and Dierking, a positive evaluation of a museum visit—according to their "contextual model of learning"—depends on the degree of "learning." Learning is mostly defined as recalling information that has been accumulated while visiting the museum.

Doering, Pekarik, and Karns emphasize pre-visit expectations, which indicates the sociological credentials of their research. Their work at the Smithsonian Institution has shaped their search for the museum experiences that cause visitors' satisfaction.

Packer's background in museum visitor studies, learning, and educational psychology have led her to focus on "well-being" and "restoration."[12]

The marketing researchers de Rojas and Camarero use the idea of (dis)confirmation to yield knowledge about customer (visitor) satisfaction.

Taking a critical look at the outcome of Csikszentmihalyi and Robinson's study, one might not be too surprised to find the same "flow" principles that can be traced through many publications of Csikszentmihalyi.

Are these concepts the right starting point for a multi-perspective, multi-disciplinary, and multi-methods analysis that creates broad knowledge of visitor experiences? Most of these studies have one unique purpose, following their disciplinary or methodological origins. What other questions—beyond the particularities of learning, marketing, leisure, or flow—might be possible in regard to experiencing exhibitions? From a methodological point of view, all of these empirical studies were based on questionnaires. Often pre- and post-visit surveys have been conducted, and then the similarities and differences have been analyzed. This also means that the immediate aesthetic reactions in the exhibition halls could not be observed. Furthermore, these studies address the cognitive and linguistically processed echoes of previous experience, but not the experience itself. What method could illuminate the experience of aesthetic presence, in addition to measuring other experiences? Would an interdisciplinary group of researchers formulate different questions as a multifold starting point, and thus help to overcome a potential disciplinary bias? Could a multi-dimensional methodology and triangulation of methods help to gain various insights into the topic of experiencing exhibitions? Which new methodologies from empirical aesthetics could be combined with entrance and exit surveys? Which kinds of visitor types can be found and what does this mean for museum work? It is necessary to go beyond a single-purpose or single-research question study to create an experiment design that includes research questions and research purposes of interdisciplinary quality—not only measuring visitor reflections about their experience prior to and past their visit, but measuring this experience while it occurs—a line of research that only Packer (2010) addresses.

We believe that such an interdisciplinary study would use different methodologies, engaging scientists and artists from different disciplines and theoretical backgrounds (psychologists,

sociologists, curators, media artists, audiovisual technicians, designers) and having them cooperate in developing the research design, conducting the empirical study, analyzing the data, and publishing the findings.[13] END

## NOTES

1. There are differences between the terms "museum experience" and "exhibition experience." A museum experience can encompass the museum architecture or any other peripheral settings in the museum (café, restroom, museum shop). It spans a larger environment. The exhibition experience is a part (although an important one) of the museum experience. The studies reviewed here are more interested in experiences with and in exhibitions, even though the broader museum experience might sometimes interfere.
2. There are other studies about visitor experiences that might be beneficial for this discourse, especially in the general field of leisure studies. See Williams et al. (2006; 2007) from the U.S. Forest Service Research and Development (http://treesearch.fs.fed.us/). Furthermore, there are also a handful of studies analyzing the experience of visitors in the performing arts, notably Jennifer Radbourne's et al. (2009) study on performing arts audience experiences and Susan Bennett's (1997) book on theater audiences. However, these studies have been excluded from this review, partly because their results do not fit the specific settings of an indoor museum exhibition experience, and in respect to the restricted length of an article like this. The findings from these "periphery" (relative to the museum) conditions might indeed be considered helpful for further investigations.
3. The term "entrance narrative" has its equivalent in the cultural sociological discourse on individual (or socio-economic) effects on art reception, as in Wendy Griswold's term "biographical baggage" (2003) or Pierre Bourdieu's main theoretical concept "habitus" (1990). Following Stuart Hall's Cultural Studies "encoding/decoding" concept (1973) one could stress that the receiver's power to interpret the received message in her/his own meaning is always dwarfing the power of the sender's intentions.
4. The technicalities of the principal component analysis (factor loadings, Eigenvalue, correlations) can be culled from endnotes (Pekarik, Doering, and Karns 1999, 173).
5. This seems to still be valid: In a recent compilation of surveyed "most satisfying experiences" over six SI museums, the object experience "seeing rare, valuable, or uncommon things" is still the most satisfying experience (51 percent of all visitors), followed by the cognitive experience "gaining information" (49 percent). Still, the introspective experience "reflecting on the meaning of what I saw" is only of relatively small significance for the visitors of the history museum (33 percent), according to personal communication with Andrew Pekarik, August 20, 2011.
6. One of the latest results of this research is the positing of three experience visitor types, visitors that prefer "ideas" (combining cognitive and introspective experiences), "objects" (object experiences) or "people" ("people" or "people perception" experiences). This approach understands the visitor experience as an "IPO" experience (see Pekarik and Mogel 2010). A major difference from the prior research is the locus of "people." The researchers have moved away from exploring the role of people accompanying the visitor or being observed by the visitor (children). Instead the focus is on people integral to what is being viewed (the artist explaining his work of art) or in the museum environment (storytellers or interpreters).
7. This addition is based on focus group analyses conducted by Kaplan, Bardwell and Slakter (1993).
8. Instead of the term "satisfaction," Packer uses "psychological well-being," and instead of the term "mood" she uses the term "restorative

elements" (2008). However, to stress the comparability among the reviewed articles we took the liberty to equalize her terms with our terms, especially "satisfaction."

9. A multivariate analysis is an analysis that is concerned with the reciprocal influences that factors (such as causing variables) have on each other. A univariate analysis neglects these reciprocal influences.
10. One has to keep in mind that the results of this study are not based on answers from "everyday" museum visitors but on answers of highly skilled museum professionals.
11. Erwin Panofsky (1974) classifies this type of competence in an art professional as "iconological interpretation" (a familiarity with all the intrinsic meanings and the historical contexts of an artwork). Other levels of competence are "iconographical analysis" (a familiarity with some specific themes, contexts and symbols) and "pre-iconographical description" (a sporadic knowledge of looked-at objects and events and of some history of styles).
12. See http://www.uq.edu.au/uqresearchers/researcher/packerjm.html.
13. The authors are in the process of conducting such a study and approaching these critical issues. We direct readers to the preliminary results of this endeavor: http://www.mapping-museum-experience.com/en.

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