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USING SEQUENTIAL MIXED SOCIAL SCIENCE METHODS TO DEFINE AND MEASURE HERITAGE CONSERVATION PERFORMANCE

Jeremy C. Wells*

Abstract

There is no agreed-upon definition for heritage conservation performance, but it is possible to borrow ideas from the natural resource conservation field to inform this concept. Dimensions of performance can include economic, technical, and sociocultural and experiential indices. Because heritage conservation ostensibly benefits people as its primary goal, however, the values of most stakeholders ought to play a role in defining performance. Most of these values are subjective and represent sociocultural and personal meanings and tend to differ dramatically from the positivistic, fabric-centered value system of conservation experts. Measurement implies quantification, yet many sociocultural values are based on qualitative meanings that defy direct attempts at quantification. One solution for this predicament is to employ a sequential mixed-method approach where qualitative meanings are gathered from stakeholders and then these meanings are used to inform the development of a quantitative method, such as a survey instrument. In this way, while the qualitative meanings are not being directly “measured” as such, aspects of the phenomenon behind these meanings can be measured, quantified, and subjected to statistical techniques. A brief representative case study is presented as an example of how social science methodologies can help define and measure performance.

Keywords: heritage conservation performance mixed-method social sciences

1. Introduction

As we move into the twenty-first century, the practice of heritage conservation has become increasingly multidisciplinary as it subsumes responsibilities for sustainability, economic growth, and quality of life. While it is easy to recognize the need to increase the relevance of heritage conservation in everyday people’s lives, it is increasingly difficult to determine the degree to which its practitioners are achieving success in their endeavors. This situation has led to a growing interest in determining how conservation performs over the long-term as a way to identify best practices and modify techniques that are not effective. There are, however, a number of important questions that need to be asked for which are no clear answers, such as: What is the nature of “performance” as applied to the acts of heritage conservation? How does one define various conservation acts as “beneficial” versus “detrimental” to the heritage object, site, and region as a whole that

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consider contemporary social, cultural, and personal values as well as traditional objective criteria? Who gets to create these definitions? The answers to these questions are important in trying to understand what should be measured in order to define the nature of heritage conservation performance.

If we make the assumption that heritage conservation must, at some level, benefit people, then it is essential to understand people’s values in relation to heritage to a greater extent than is now commonly practiced. The focus on the fabric of buildings and places without consideration of the values of most stakeholders is a commonly accepted practice due to limitations imposed by epistemological traditions within the discipline of heritage conservation. If part of the goal of defining performance is to include a fuller range of stakeholder’s values, then social science research methodologies will become an essential tool for the heritage practitioner. This paper will therefore explore the nature of heritage values and how they are related to potential performance characteristics, such as authenticity, followed by an assessment of mixed-method social science research approaches that can be used to define and measure heritage conservation performance. Lastly, a case study will be presented as an example of how this mixed-method approach could be applied to assessing conservation performance.

2. What is conservation performance?

The concept of conservation performance (or conservation indicators) is relatively well known in the area of natural resource conservation, but is a fairly new idea to heritage conservation. Even in natural resource conservation fields, however, there is a lack of a consensus on which indicators are more effective than others in measuring performance (McDonald-Madden et al. 2009). Such measures have typically included economic indicators, reduction and/or sustainable utilization of resources, biodiversity, and, in some cases, social and cultural measures. Conservation performance can also include measures of the technical performance of a system, such as the ability of an intervention to conserve water, or in the case of heritage, the ability of a grouting system to stabilize a masonry wall. Another approach is to base measures on the overall “health” of ecosystems and the ability of performance measures to direct ways to “heal” deficiencies (Salafsky et al. 2002). Implicit in conservation performance measures, is that they should go beyond simple description and provide ways “to systematically examine interventions [with] the ultimate goal of adaptive management … to learn to improve an ongoing project or intervention” (Stem et al. 2005, 297). In these assessments, the assumed beneficiary of the measures is the environment (or building) itself, which leads to easier quantification of items such as number of acres of land conserved, number of species protected, etc. The “soft” aspect of subjective social and cultural values—in other words, the benefits offered to people via conservation—are usually not part of the picture due to the difficulty in quantifying these aspects of performance.

While few formal heritage conservation measures appear to exist, there are a couple of examples from the United Kingdom and the United States. The “Conservation Performance Indicator” (CPI) developed by the National Trust in the United Kingdom is an objective measure of the performance of specific features present in heritage buildings and their environment (Cassar 2009, 9). The criteria are contextually developed on a case-by-case basis and prioritize the significance of the property, what happens if conservation of the site is neglected, and the overall importance of interventions. Specific areas that are addressed include benefits related to material conservation, social factors (primarily
related to being able to access the site), natural environment conservation, and economics. The end result is a numerical score, known as the CPI index, which is assessed on an annual basis for each property. In the United States, the National Park Service partnered with the National Academy of Public Administration to define measures to assess the National Historic Preservation Program (Trudeau et al. 2009). The outcome of this project was a list of objective, quantitative measures of items such as the number of properties inventoried, evaluated, designated, protected, etc.; the number of federal undertakings with a finding of no adverse impact on historic properties; and the number of visitors to historic preservation web sites. No attempt was made to understand and potentially measure the more subjective elements of conservation practice, such as the impact on authenticity that interventions may have or how conservation practice impacts people’s quality of life.

When developing a heritage conservation performance measure or indicator, it is important to first ask to what end should the measure be directed. Should it benefit the fabric of buildings and places? Should it benefit local economies? Or should it benefit people directly—i.e., add to quality of life and human flourishing? Or perhaps some combination of the above? While some measures are likely to overlap, the basic argument is that heritage conservation should, first and foremost, benefit people unlike natural resource conservation, where the implicit primary beneficiaries are ecosystems. In heritage conservation, there is already a reasonable dimension of conservation performance to assess, which is the degree to which historic environments retain their authenticity.

3. Whose values? To what end?

Through education and practice, heritage conservation professionals are trained to view their own value system, predicated on the idea that meanings are contained within historic fabric (Muñoz Viñas 2005, 86), as scientifically grounded fact. This paradigm has origins in the rise of scientism in the practice of history and archaeology in the early twentieth century. With enough diligence, accuracy, and objectivity, the purity of the past could be revealed to the researcher through “scientific accuracy and impartiality” (Williams 1904) in a methodology driven by the acquisition of facts (Matson 1957, 273). Moreover, this “science” of “substantial accuracy and perfection” should be the sole responsibility of experts in achieving historical authenticity (Kimball 1935, 359). The rise of technological methods, such as photography, which ushered in a “revolution ... in regard to scientific observation and treatment” (Michaelis 1908, 303, 304), helped to establish the objective, positivistic outlook of today’s conservation practitioner. In this period, during the early twentieth century, the idea that the building itself is a container of meanings developed, which could be read to reveal its true historical character (Peers 1917, 65, 66) in order to authentically guide restorations (Appleton 1919). Thus, the building’s fabric could present more accurate, or truthful, evidence than could any other method and was perceived as a more accurate way of determining a building’s significance than the difficult process of trying to understand people’s “personal opinions” (Brumbaugh 1950) and emotional attachments to place (Campioli 1964, 28). It is

\[\text{1 It is worth noting the irony in the stated aim of the report that promises “more meaningful performance measures,” but fails to deliver an approach to understanding the meanings people ascribe to historic preservation. The report relies instead on traditional, positivistic approaches to measurement and fails to provide much in the way of understanding qualitative meanings.}\]
these latter concepts in particular that early conservationists strove to eliminate from their practice by establishing international conservation doctrines that survive to this day (Wells 2007).

Before embarking on the challenge of defining conservation performance it is essential to understand the epistemological limitations of this dominant paradigm in the field. Salvador Muñoz Viñas (2005, 43) explains that “conservation is what the conservator recognizes as such. Thus, it is defined as it is performed, and its use and repetition is what allows us to know and understand it.” Muñoz Viñas’ idea is that because there is no formal theory of conservation, 1) conservators define their work through their previous work and 2) engage in interventions as “truth-enforcement” operations that are justified through the scientific method (43, 91). Moreover, “no relevant theoretical effort has been made the justify the validity of this approach” because the scientific method is always thought to be good and proper (ibid., 71, 79). As much as practitioners may be reticent to acknowledge, however, the dominant objective values of conservation professionals are in fact a cultural belief system and not a scientifically grounded, objective endeavor (Muñoz Viñas 2005, 86; Waterton, Smith and Campbell 2006, 347). If we begin our understanding of conservation performance with the knowledge that heritage conservation is based on antiquated “self referential” arguments (Smith 2006, 11) substantiated under the guise of scientific objectivity, we can formulate a more effective approach to defining the nature of what “performance” should be. Moreover, perhaps the idea of performance should be more inclusive of values from a wider array of stakeholders.

Laurajane Smith (2006) has conveniently packaged the values that heritage conservation professionals traditionally have for heritage places into the “Authorized Heritage Discourse” (AHD). Specifically, the AHD dictates that “the proper care of heritage, and its associated values, lies with the experts, as it is only they who have the abilities, knowledge and understanding to identify the innate value and knowledge contained at and within historically important sites and places” (ibid., 29). The AHD assumes that the meanings behind historical significance are an innate part of the fabric of buildings and places (ibid., 349) and that these meanings can be deciphered through a hermeneutical process to reveal the “true” way in which the historical object should exist (Wells 2007, 11); in other words, significance is literally assumed to be contained within the heritage object instead of within the meanings that people ascribe to the object. This perspective is a natural outcome of the scientism that pervades heritage conservation practice, which relies on distancing the observer from the phenomenon. In addition, these claims of scientific objectivity help to “cement the authority” of the discipline’s epistemological claims (Smith 2006, 278). According to Muñoz Viñas (2005, 81), “scientific conservation actually emanates from an elliptic but overwhelmingly powerful set of principles: it is guided by the unspoken material theory of conservation which is, in turn, based upon the need to preserve the object’s material ‘truth’, and the belief in scientifically grounded knowledge.” One way in which the so-called true nature of heritage objects is conserved is by directing the differentiation of new from existing building fabric as found in item 9 in the Venice Charter (ICOMOS 1964) along with numerous national doctrines, such as the Secretary of the Interior’s Standards in the United States (NPS 1995). This directive has no empirical evidence to substantiate its ethical claims and has more in common with the modern-era architectural movement’s ethical principles of “honesty” than of protecting a supposedly naïve public (Pendlebury 2009; Wells 2010b). Heritage conservationists are therefore charged with preventing the “false images” of the past from proliferating by reifying this so-called true nature of heritage buildings and places (Cliver 1992, 177) and eschewing any dalliance in “illusion” (Huxtable 1997).
What about the values of the rest of humanity—those individuals that are not professional heritage conservators and represent the majority of stakeholders? Their values are typically subjective and difficult, if not impossible, to relate to objective criteria; in fact, “objectivity simply doesn’t compute” in determining “the social and cultural values that people ascribe to aspects of their natural and cultural heritage” as Thomas King (2009, 165) explains. Mason and Avrami (2002, 25) uncomfortably reveal that “there is no simple, technical, objective way to make decisions about what heritage gets preserved and how,” which makes the goal of objective conservation performance measures a seemingly difficult proposition at best. Indeed, basing conservation performance definitions on subjective sociocultural and personal values may lead us “into a relativistic morass” where there is no potential for a consensus on what is, and is not important (Gibson and Pendlebury 2009, 9). Even a less extreme, pluralistic approach to defining heritage values still plunges most conservation professionals into “deeply uncomfortable territory” (ibid.) because they do not have the training to understand values outside of their own expert, objective perspective (Clavir 2009, 13).

Like experts, conservation performance for most stakeholders is related to the degree to which the authenticity of historical places is conserved, or in some cases enhanced.2 Through this lens, it is immediately apparent that authenticity is not a universal concept; indeed, there are many dimensions of authenticity as I have explored in detail elsewhere (see Wells 2010a) and which will be summarized briefly here. At a basic level, authenticity describes what is “real” and what is “fake.” Heritage conservation professionals traditionally define authenticity through the objective analysis of extant building or landscape fabric. Authenticity can also be constructed from sociocultural and personal meanings and experiences, however. In this sense, authenticity is not fabric-centered, it is idea-centered or meaning-centered as Jamal and Hill (2002) have shown. Thus, it is possible to have fabric-based authenticity, sociocultural authenticity, and experiential (or personal) authenticity, with the latter concept rooted in individual’s experiences of being in historic environments that can be examined through a phenomenological reduction. Place attachment—an emotional and cognitive bond with place—is a key element of both sociocultural and experiential authenticity and without it, place is not authentic from these perspectives (for more details, see Wells [2009]).

How then, is it possible to reconcile the objective, expert values of professionals with the subjective values of most stakeholders? Such an endeavor is crucial to defining conservation performance if we wish to incorporate the perspective of the majority of those who use and value historic places. I am, however, under no illusion that this paper could possibly tackle this issue in a concise way; it is therefore at least sufficient to acknowledge the plurality of values (see table 1) inherent in any historic place, from both the professional’s and everyday person’s point of view. As a first step, this practice is essential in gathering as many values as possible that are associated with an historic place. Once these values are known, the process of prioritizing which values are more important than others can begin. Gibson and Pendlebury (2009, 9), for instance, suggest a logical place to start is to address values that are in clear conflict with each other. By focusing on these dichotomies, an initial, context-dependent definition of conservation performance for a particular site may emerge.

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2 Heritage conservation doctrine dictates that authenticity, or historical integrity, cannot be “made”—it only exists; therefore the conservation professional can only prevent its loss, but not necessarily create more of it. This situation is, however, not the case for sociocultural and experiential authenticity where modifications can be made to the built environment that may, in fact, enhance the perception of authenticity.
Table 1: Comparison of the values of experts and the values of most stakeholders.

<table>
<thead>
<tr>
<th>Experience of the world</th>
<th>Heritage expert</th>
<th>Most stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective</td>
<td>Objective, detached</td>
<td>Subjective, emotional</td>
</tr>
<tr>
<td>Basis of authenticity</td>
<td>Intact fabric from certain times</td>
<td>Sociocultural and personal meanings</td>
</tr>
<tr>
<td>Nature of significance</td>
<td>Fixed through lists</td>
<td>Varies depending on context</td>
</tr>
<tr>
<td>Temporality of significance</td>
<td>Significance resides in the past</td>
<td>Significance resides in the present</td>
</tr>
</tbody>
</table>

4. Moving toward “evidence-based” conservation with mixed-methods

Assessing conservation performance from a pluralistic perspective requires special tools to understand the social, cultural, and experiential values associated with historic environments. This intersection of social science research and the built environment is well represented by the field of environmental design and behavior research that has typically been used to consider human factors in architectural and landscape design (e.g., Groat and Wang 2002; Zeisel 2006). In a simplistic sense, environmental design and behavior research looks at how human-modified and “natural” environments influence people’s perception, valuation, and experience of and reaction to place. For instance, “evidence-based design,” such as is applied to healthcare facility design, utilizes post-occupancy evaluations in an effort to identify design elements that contribute to positive patient outcomes. Designs that work are carried forth to new iterations, while failed ideas are modified or eliminated. In this way, a natural evolution of design takes place through slow, incremental improvements driven by research rooted in human values and perception. In a similar sense, the search for what constitutes “good” conservation performance should be an endeavor in which the researcher seeks evidence to substantiate claims as to what is, and is not, acceptable performance with empirical evidence based in social science research. While currently not used to a large extent in heritage studies, environmental design and behavior research offers a ready set of methods with which to explore people’s valuation of heritage places.

There is, however, no single, universal procedure that can be used to collect, analyze, and then utilize sociocultural and experiential values to define heritage conservation performance in balance with the expert/objective values of professionals. In general, there are few publications that address the use of social science research methodologies in assessing heritage values outside of the anthropological/archaeological discipline (for some examples, refer to Sørensen and Carman [2009]). In the past few decades, heritage studies has been built from what are principally ethnographic research methods. An example is Setha Low’s (2002) adaptation of existing ethnographic methods for the purpose of assessing heritage values. Low developed her “Rapid Ethnographic Assessment Procedure” (REAP) to “help conservation professionals and managers understand the complexity of social relations and cultural dynamics at play in the conservation planning and development of heritage sites” (ibid., 31). While framed in ethnographic traditions, the REAP approach also includes other social science methodologies including phenomenology and the historical/interpretive methodology. The methods utilized include physical traces mapping, behavioral mapping, transect walks, individual interviews, expert interviews, impromptu group interviews, focus
While meanings that people have for places have been assessed by both qualitative and quantitative methodologies, it is widely acknowledged that qualitative methodologies have characteristics that make them better suited for an initial step of gathering meanings because they make fewer assumptions about the nature of reality, are explicitly aware of context, and are interested in understanding processes rather than determining relationships between cause and effect (Guba and Lincoln 1994). Moreover, qualitative research approaches phenomena from the *emic* or internal perspective of people, rather than the detached or *etic* perspective of the researcher as Clifford Geertz (1973) relates in his well-cited description of the meaning behind a wink; a purely quantitative description—length of a wink, its frequency, etc.—cannot convey the meaning behind the action of one person winking at another. Thus, without a prior qualitative stage to gather meanings, the phenomenon that is being “measured” with a survey instrument, for instance, is based on the *etic* meanings of the researcher and is not necessarily representative of the meanings of the population being studied. An example would be a survey that asks respondents if they like the use of basalt as cladding on buildings; if targeted to a population that has never seen basalt on buildings, what exactly is being measured? This example is complicated by the fact that many people may not even know what “basalt” is. A prior qualitative study could establish the meanings and understandings behind stone cladding on buildings, including the language and terminology used by a particular population. In this case, the survey instrument could then be modified to ask people if they like buildings made of “black stone.” It is therefore important that the meanings which inform quantitative methods, such as survey instruments, not only measure phenomena from the respondent’s perspective, but also use language with which the respondent is familiar.

The measurement of conservation performance implies that a quantitative methodology is necessary, yet collecting and understanding the types of values that are being measured requires a qualitative methodology; in other words, it is not possible to directly measure values. How then, is it possible to move from qualitative meanings to actually measuring characteristics that are associated with conservation performance? A sequential mixed-method approach offers a way of addressing this sort of research problem in a holistic way that allows for improved internal validity (i.e., a valid cause and effect can be established through independent and dependent variables) and the reduction of measurement error for quantitative methods, such as survey instruments. A sequential mixed-method that begins with a qualitative methodology followed by a quantitative methodology provides a pragmatic way of conducting applied research through induction and deduction that is well suited for the study of people and behavior (Creswell 2007, 10). Moreover, using a qualitative methodology followed by a quantitative methodology, in this order, provides a number of unique benefits, as Alan Bryman (2008, 262) describes:

- **Triangulation:** using results of one method to help corroborate the results of another
- **Complementarity:** using one method to complement another to provide greater clarity or coherence of the results
- **Development:** the use of results from one method to inform another
- **Initiation:** the use of different methods to explore novel positions
- **Expansion:** broadening the nature of the research and increasing its depth

In sum, the importance of using a mixed-methodological design comes from pairing weaknesses with strengths; the weakness of qualitative research is that it cannot be
generalized while the weakness of quantitative research is that it cannot produce meanings. By first generating the meanings which provide an interpretive context, the results of a later quantitative study can be more fully understood and interpreted. The end goal, therefore, is to increase the validity and reliability of the entire research design through this pairing of weaknesses and strengths.

5. An example of a mixed-method study that could be applied to performance measures

Place attachment can be used as a measure for conservation performance by relating variations in emotional attachment to place with various types of interventions. If attachment is maintained or increased, it can be said that the treatment was a success and therefore would be contributing to a positive performance by either maintaining or enhancing authenticity. A case study I conducted of historic Charleston, South Carolina, USA (figure 1) examined residents’ emotional attachment to their historic neighborhood through a sequential mixed-method approach (Wells 2009). While the aim of the research was to determine the relationship between place attachment and the physical age of the neighborhood, the types of meanings that were revealed and the place attachment measures that were generated lent themselves to helping define heritage conservation performance.

The study began with a phenomenology—a qualitative methodology based on Merleau Ponty’s (1962) approach to understanding the experience of being in certain places—that incorporated informants taking photographs of any object, scene, or place of any scale that were particularly meaningful to them. I purposefully selected informants for their propensity to regularly walk in their neighborhood; all informants took their photographs while engaging in such walks. Upon taking all 24 exposures, the informants mailed the film back to me for development. The informants then used these photographs to guide the interview. The meanings collected from this process were then used to inform a web-based survey instrument that measured four dimensions of place attachment: general attachment, place identity, place dependence, and rootedness.
The qualitative phase of the study revealed that residents defined experiential authenticity through emotional attachment catalyzed by the experience of what I term “spontaneous fantasy.” Spontaneous fantasy is similar to the “vicarious experience” described by Robert Riley (1992) where the patina, or decay, in historic environments catalyzes an impromptu vision of the past in the mind’s eye that is neither premeditated nor based in historical fact. Accompanying this experience is a series of strong feelings that help to attach residents to their neighborhood. What is perhaps most interesting is that the qualitative phase of the research revealed a potential relationship between the appearance of patina in the environment and attachment catalyzed by the experience of spontaneous fantasy that was later confirmed via statistical analysis of the survey data. Spontaneous fantasy is also present at the cultural level, which I discovered in a case study of a downtown “Main Street” program in Anderson, South Carolina, where the ability of the built environment to engender spontaneous fantasies became part of the community’s sociocultural definition of authenticity (Wells 2010b). In this latter case, however, authenticity was not based on the presence of physical decay in an environment, but rather by the ability of new construction and modifications to the existing historic environment to present the appearance of historical homogeneity, in deference to conservation doctrine that dictates the “old” must be differentiated from the “new.”

Both of these studies reveal useable meanings and measures that can define and measure heritage conservation performance. For instance, if authenticity of historic Charleston is defined by its residents through the presence of masonry patina, then interventions should seek to retain this patina, and even allow it to grow over time. Moreover, the measure of performance in this case could be defined by the degree to which these interventions maximize place attachment for residents. Thus the quantitative phase of the study which measured place attachment could serve as a proxy not only for experiential authenticity, but also for measuring heritage conservation performance.
6. Conclusion

While developing definitions and measures for heritage conservation performance is an important goal, there are many questions left to be answered. This paper presented the argument that unlike natural resource conservation measures, the explicit beneficiary of heritage conservation measures should be the stakeholders who ultimately reap the benefits of an historic environment that retains its authenticity. The values of most stakeholders, therefore, should be considered in the process which defines and implements performance measures and this process can be greatly informed through the use of social science research methodologies that can integrate both traditional expert/objective values along with these subjective values. Each approach has its advantages in different contexts, but ignoring the sociocultural and experiential dimensions of authenticity in assessing conservation performance will likely lead to misunderstandings and the creation of a schism between the experts charged with maintaining heritage places and the everyday people who live, work, and recreate in these places. The key, however, is to understand what needs to be measured before engaging in a campaign to measure conservation performance.

References


