The Nara Grid: An Evaluation Scheme Based on the Nara Document on Authenticity

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This paper describes an experiment to turn the Nara Document on Authenticity into a tool to understand the various aspects of authenticity of built heritage.

Introduction

In the continental European context the discussion on defining authenticity may differ significantly from the debate on authenticity in the southeast Pacific, in the United States, and probably also from the way the concept is being used in the United Kingdom. Debates in institutes and organizations have identified the difficulty in enlarging and enriching the concept of authenticity beyond its definition in the Venice Charter. This debate has been particularly important to the faculty at the Raymond Lemaire International Center for Conservation at the Katholieke Universiteit Leuven in Belgium, which owes its existence to one of the main authors of the Venice Charter, the late Professor Raymond Lemaire. We are familiar with the difficulty he faced at the meeting where the Nara document was accepted, as the concept of heritage was much widened compared to the very material-oriented concept of heritage that is embedded in the Venice Charter he co-authored. We have attempted to enrich the discussion starting from Lemaire’s tradition.

On earlier occasions authenticity has been defined as a layered concept: when different perspectives (or ways to understand) can be applied to judge the values of an object, a certain value can be assigned within each of those perspectives, or layers. Those values can be assigned independently, and each action of preservation or management can have an impact on each of those assigned values. When a choice must be made between different possible actions, it is necessary (or at least interesting) to be able to understand how different alternatives impact each layer. Assuming that the relative values for each of the layers are understood and can be compared, a maximization of values over all layers should be sought. Such an approach therefore requires being able to define those different perspectives, which today seem to encompass more than the artistic and historic values defined in the Venice Charter. There is no strict quantitative way to maximize these different values, but a methodology has been proposed that would assist in disentangling the different layers that define the authenticity of the built heritage — the Nara Grid.

The Nara Document on Authenticity and the Nara Grid

Conservation practice uses the 1964 International Charter for the Conservation and Restoration of Monuments and Sites, also known as the Venice Charter, as a basis for defining the treatment of historic buildings and sites. Many later charters and documents developed at the international level have been gradually clarifying the interpretation of that charter for different sites or considering the need for applying its concepts in different cultural contexts: the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter, 1999), the Charter for the Protection and Management of the Archaeological Heritage (1990), and the Nara Document on Authenticity (1994).

Central to the debate is the understanding of the different cultural concepts of heritage and of the variety of values attributed to that heritage. However, the applications of those insights should not be limited to the cultural context that generated them. For example, the broadened or layered concept of authenticity as recorded in the Nara Document helped to introduce the heritage value of craftsmanship (which has

Fig. 1. The central staircase of the Grand Château. Images by the author, unless otherwise noted.
long been considered an important part of heritage in Eastern societies, as in Japan, where craftspeople could be “protected” as national treasures), to the Western preservation approach, in which the value of the conservation of the original material and fabric prevailed.4 This Eastern approach was used to define a more appropriate understanding of the input of craftspeople’s skills in the preservation of tangible and intangible aspects of the heritage than was the case in the Venice Charter.5 However, the artistic and historic dimensions mentioned in the Nara Grid correspond closely with the criteria used in article (iii) of the Venice Charter: “The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence.”

The Nara Document on Authenticity states that Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgments may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.6

In an attempt to develop an instrument that would help better grasp this layered concept of authenticity, we used this description from the Nara Document to develop a grid in which aspect and dimension each represent an axis (Table 1). In this way a relationship can be visualized between the above-defined aspects and dimensions that help to make authenticity judgments.

### Table 1. The Nara Grid based on the Nara Document on Authenticity

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Dimensions</th>
<th>Artistic</th>
<th>Historic</th>
<th>Social</th>
<th>Scientific</th>
</tr>
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<tbody>
<tr>
<td>Form and design</td>
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<td>Materials and substance</td>
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<td>Use and function</td>
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<td>Tradition, techniques, and workmanship</td>
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<td>Location and setting</td>
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<td>Spirit and feeling</td>
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### Application of the Nara Grid

**The craftsman’s contribution to preserving authenticity.** After a few years of research on the repair of masonry, it was still puzzling to us that in preservation work the outcome of a project will greatly depend on the execution of the work and thus on craftsmanship, not only on the technical analysis and considerations of material preservation. In order to relate discussion to judgments that are relevant to preservation, an attempt was made to develop a framework that would present the relationship between this material-technical approach with one that would also include the impact of craftsmanship. The result was the Nara Grid.

When preservation work is carried out by a craftsman, it should contribute to the preservation of heritage in different ways: further material degradation should be stopped; craftsmanship should be preserved; the post-preservation appearance of the building should enhance its historic and artistic value; and the work should contribute to the improvement of the setting of the building in its historic environment. Thus, the craftsman’s contribution is crucial to the way that authenticity will be evaluated after the work is carried out.

The Nara Grid was completed as a checklist to help identify different dimensions and aspects that cover the values attributed to the architectural heritage.

The above example shows that the use of the grid can yield a more complex understanding of authenticity. Conservators can use it as a tool to promote discussion and wider understanding of heritage values by filling it out like a checklist.

**Surveying and documentation.** In his dissertation on the use of three-dimen-
sional techniques of documentation and dissemination in studying built heritage, Mario Santana started with identifying the link between documentation and authenticity.7 Studies that aim at protecting, promoting, or conserving a monument are based on the identification and evaluation of the heritage values inherent to it, i.e., understanding the authenticity of it and considering it as a layered concept of values.8 Documentation of this information is therefore important, and Santana’s study demonstrated that the Nara Grid could be used as a “container” of that information, as it can be disentangled following the aspects and dimensions. The result is that the actual authenticity value can be documented considering the different layers, based on the state of the fabric, and that simulations could be done considering modifications that could affect the aging process and the natural development of the object in its setting.

**Authenticity of the Grand Château Water Tower**

The example of the water tower in the Bois de la Cambre in Brussels demonstrates the use of the Nara Grid for the evaluation of the values of a historic industrial building (Table 2).9 It is part of a larger complex of two water towers built between the end of the nineteenth century and the beginning of the twentieth century in the Bois de la Cambre, a nineteenth-century public park in the southeast section of capital district of Brussels. The small water tower, known as the Petit Château, has been completely renovated in order to be reused as an office building, while the larger tower, the Grand Château, has been abandoned since it was taken out of service in the 1980s.

The history of the two water towers is connected to that of the Bois de la Cambre and of the water-supply system in Brussels in the nineteenth century. The park preserved its original landscaping characteristics, resisting pressures for broadening streets and increasing the number of structures. The only exception was the construction of equipment for the city’s water-supply system, which
included the water towers. The decline of the area began with World War II: illicit tree cutting, negligence, increasing traffic, the burning down of the pavilions, and new construction characterized the history of the park until present day. In 1976 the Bois de la Cambre was protected by law as a heritage landscape, and during recent years several urban planning decisions encouraged a restoration project of the site under the supervision of the Commission Royale des Monuments et des Sites.

The route of the aqueduct built in Brussels in the first half of the nineteenth century determined the need for and the position of the water towers in the park: towers provided the necessary pressure in the system and thus were essential to the water-supply system. Their form and function evolved with the evolution of such systems.

The Petit Château, built in 1877, had a flat-bottomed iron tank. Its capacity was 600 cubic meters, and it was the only example of that type of tank in Belgium. The increasing demand for water led to the construction of the second water tower in 1891, the Grand Château; it has a concave-bottomed tank of riveted iron sheets with L-shaped profiles and a capacity of 800 cubic meters. In both cases the building materials were brick, bluestone, and mortar, with elements of metal and wood. The early interior structure and exterior appearance of the water towers were altered in 1908, on the occasion of the Universal Exposition that took place in the Bois de la Cambre. To increase the water pressure the Grand Château was raised, and its pumping system was modernized. The water tank was accessible through a staircase constructed around the central pipe. Consequently the inner space and the bottom of the tank could be seen from downstairs at a glance. Some structural changes also occurred to the Petit Château, and a small bridge was built to connect the two water towers. They functioned as gravity-pressure tanks until a new water-supply system was introduced, at which time they were taken out of service.

Starting in the 1980s plans were made to renovate both water towers. In 1995 the Petit Château was completely renovated inside, after the tank was removed in order to house offices (although it was not in use during this study). However, for different reasons, proposals for interventions and transformations of the Grand Château have not been accepted by the Commission Royale des Monuments et des Sites. One very important reason was that the exterior appearance of the tower could not be altered, as it was part of the Bois de la Cambre protected site. Consequently, it was argued that any kind of adaptation, either public or private, had to deal with a limited number of window openings added or, preferably, none at all. Proposals that aimed at inserting floors in the inner space posed problems, as well, because they would alter the perception of the complex staircase pumping system or would require partial or total removal of the hydraulic system. During this study, undertaken in 2004, the water tower was still empty, unused, and neglected (Figs. 1 and 2).

**Preservation problems.** The study, carried out by architect Nicandra Nocera, aimed at showing a methodological approach to the preservation of the water tower. It tried to give detailed and exhaustive information in order to demonstrate that the heritage values of the water tower justified its preservation. Moreover, it presented several possible solutions in relation to restoration and reuse. The results of that research can be considered as a starting point and as support for the development of a restoration project. On the other hand, the analysis also reveals the need for further, more detailed studies.

**Assessing values with the Nara Grid.** After collecting the information in the analysis and transferring it into the Nara Grid, the evaluation of the heritage values of the structure was aimed at demonstrating that the building is
worth preserving. Several factors underline its value:

- The interesting complex of two connected water towers
- The landscape in which they stand is a public park and protected site.
- The complex is a testimonial to the historic water-supply system in Brussels and shows its evolution.
- The Petit Château is transformed, but the Grand Château has its original interior intact.
- The construction techniques and the technology used for the hydraulic system are typical of the nineteenth century.

In Table 3 the information on the towers is integrated into the Nara Grid. In this case the scientific dimension turned out to be prevailing. The Grand Château appears to be a “container” of many different heritage values of scientific importance: the craftsmanship and the ingenuity of the technical installation led to the identification of the water tower as an important piece of industrial heritage.

Many aspects and dimensions underline the authenticity of the Grand Château. The description based on the grid helps clarify the reason for the preservation of the water tower. Not only does the grid clarify the site’s authenticity, but it also helped to evaluate the best approach for its preservation: the present condition of the building and the site is favorable to the application of the principle of minimal intervention, which could be combined with the reversibility of any intervention. This conclusion was different from the solution proposed by the owner — to convert the Grand Château into an office building as was done with the Petit Château.

Saint Barbara Church: A Global Conservation Approach

The aim of the master’s thesis of Bert Lemmens on Saint Barbara Church in Diest, Belgium, was to produce a case study about ecclesiastical heritage, in particular about convent churches. As a result of the growing secularization of Belgian society, the conservation of churches and monasteries has become a great challenge for all levels of government. The decrease in the number of churchgoers, as well as of priests and nuns, has caused a significant loss of human and financial resources that are indispensable for the conservation of this heritage. Although there is no dispute about the indelible influence of monastic life on Western society, the future of this patrimony in a secularized society, where many religious communities no longer exist, is unsure (Figs. 3 and 4).

Saint Barbara Church was built at the end of the seventeenth century as the convent church of the Augustinian Monastery of Diest, approximately 25 miles (40 kilometers) east of Brussels. It replaced a fifteenth-century Gothic chapel, which had been assigned to the Augustinians in 1614 and belonged to a wider complex that was finally consecrated in 1725. Like many other religious communities, the Augustinians were forced to leave Diest in 1796. The church and monastery survived the French Revolution thanks to one of Diest’s most prominent Catholic families, the Di Martinelli. In 1845 the family sold the complex to the Dutch congregation of Crosiers, which used it again as a monastery. Today, the Crosiers live in a modern convent building, which replaced the old convent in 1962. However, except for the weekly celebrations of the Eucharist, they still use the adjacent Saint Barbara Church. So far, the future of Saint Barbara Church in terms of its conservation does not appear to be an issue. But as in many religious communities, the members of the Crosiers community are aging, and it is likely that, at least in its present form, it will come to an end and will pose serious consequences for the conservation of Saint Barbara Church.

The question arises as to how the site can be managed in the future and whether it can remain a place of worship. Transforming monumental churches partially into museums for religious art or accommodating concerts on a regular basis has become a common practice. There are some examples of smaller, ordinary churches that have been successfully reused as exhibition or performance places. Most are churches with an indisputable art-historical reputation and artistic landmarks. In the case of Saint Barbara Church, however, this caché is less evident. The art-historical literature puts it quite plainly: because the original seventeenth-century interior decoration went through a drastic nineteenth-century restoration, Saint Barbara Church is considered a second-rate Baroque church.

The challenge of the value assessment of the church was first to cast a new light on the artistic qualities of the church, judging the nineteenth-century interventions on their own artistic mer-
Table 3. Completed Nara Grid for the Grand Château

<table>
<thead>
<tr>
<th>Aspects of the sources related to documentation</th>
<th>Artistic</th>
<th>Historic</th>
<th>Social</th>
<th>Scientific</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form and design</strong></td>
<td>It has a very specific design, combines typical architectural details of the end of the nineteenth century, e.g., neo-Gothic details in the entrance door.</td>
<td>The water tower is one of the few examples left in the Brussels region and without any evident alteration. It is the last example of its type.</td>
<td>It illustrates the small-scale building process using small-scale materials for masonry and for the installations (tank, piping, equalizations).</td>
<td>The remains of the original forms permits the study of the typology and the special structure inside represent the engineering typology of the nineteenth century (bricks, limestone, ...).</td>
</tr>
<tr>
<td><strong>Materials and substance</strong></td>
<td>Original materials used are visible and are mainly in good condition; they enhance the beauty and architectural expression of the two towers connected with the passarelle.</td>
<td>The materials used come from different regions of Belgium. They show their traditional use. Some materials are not produced anymore.</td>
<td>It illustrates the small-scale building process using small-scale materials for masonry and for the installations (tank, piping, equalizations).</td>
<td>Interests in industrial heritage: evidence of materials and technology used for this type of “building machines”.</td>
</tr>
<tr>
<td><strong>Use and function</strong></td>
<td>Specific expression of water tower of the nineteenth century; combination of two towers; forms follow function but with certain expression typical of the nineteenth-century engineering constructions.</td>
<td>The water tower is a part of the system of water distribution; it shows how that worked at a particular moment in the nineteenth century.</td>
<td>Today the case of a private property (the water tower) in a public space (Bois de la Cambre). Illustration of urban development and relation between population and services.</td>
<td>The presence of the original pump system and the use of the space represent scientific evidence of the development of technology in close relationship with form.</td>
</tr>
<tr>
<td><strong>Tradition, techniques, and workmanship</strong></td>
<td>Work has been carried out as work of art. Demonstration of the skills in construction of the nineteenth century.</td>
<td>Some techniques used to carry out the works show the traditional nineteenth-century practices.</td>
<td>It illustrates the small-scale building process using the nineteenth century: its craftsmanship and techniques.</td>
<td>Possibility to study ancient techniques and craftsmanship (e.g., the iron tank).</td>
</tr>
<tr>
<td><strong>Location and setting</strong></td>
<td>Their position on the top of a small hill, related to their function, draws attention to the highest point of the Bois de la Cambre and underlines their connection.</td>
<td>The water tower was a part of the water-supply system in the Brussels region, and it is now one of the few surviving examples in this area.</td>
<td>The position of the tower is strategic to the past urban development of the neighborhood; today it is strategic for the valorization of the Bois de la Cambre cultural landscape.</td>
<td>The position itself relates to its use and shows evidence the development of the technology in the nineteenth century; this information can be investigated with scientific methods through this structure.</td>
</tr>
<tr>
<td><strong>Spirit and feeling</strong></td>
<td>The beauty of the construction in context with the Bois de la Cambre is aimed at pleasing the visitors to the neighborhood.</td>
<td>It shows the approach in the nineteenth century of how to deal with semi-public places in relation to a cultural landscape.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

its. Secondly, the value assessment had to provide an understanding of the so-called *sacral value* of the church. In the case of Saint Barbara the churchgoers and the Crosiers mentioned *sacredness* as the main quality of the site. In the spiritual sense of the word, *sacredness* refers to the capacity to embody the idea of the “House of God,” providing a place for the faithful to meet God. In the aesthetic sense of the word, it refers to the quality of the setting and the atmosphere of the church, providing the interior space with serene monumentality. In the assessment, sacredness has been valued as a separate dimension of the site.

Eventually, two different methods were used for the assessment. One was the grid derived from the Nara Document. The other was a method developed for the Administration of Monuments and Sites of the Flemish government in order to make an inventory and assessment of neo-Gothic churches in Flanders (the M&S method). Each method has a fundamentally different approach of assessing significance, and the following paragraphs discuss both the differences in results of the assessment and the similarities of both methods.

**The M&S method.** The M&S method is conceived as a checklist that evaluates the building on a fixed series of characteristics. The checklist is divided into three parts, evaluating the architecture, the interior decoration, and the environmental context of the site. Thus, the list aims at providing an overview of the values conveyed by the material fabric of the site. For each of these aspects, an open qualification in terms of uniqueness or completeness of the discussed aspect can be developed. In the case study a coherent set of qualifications for both uniqueness (unique, rare, exemplary, and remarkable) and completeness (complete, disturbed) was defined. Finally, the defined aspects of architecture, interior, and context were assigned an overall grade of A, B, or C (with A being the highest) to determine the desired level of protection. This provided a performance policy tool. For example, a BCA grade meant the architecture of the church has a certain value but does not require protection as such, while the interior decoration might be of no interest, but the distinct urban value of the building requires protection as part of the urban landscape.
This method was applied to Saint Barbara Church with the aim of making a new statement about the heritage value of the fabric and of its environment. The checklist turned out to be a useful tool to assess the findings of the architectural and art-historical analysis and to translate them into criteria for the conservation of the site.

The overall AAB grade for Saint Barbara Church made a clear statement that the architecture and interior decoration clearly represent a heritage value and that the church requires the highest level of protection. However, when it comes to reinforcing the social and financial resources of the site, this approach does not give any assessment or guidance by which to consider a meaningful new use. Since the checklist is deliberately based on the tangible fabric of the site, the method overlooks many intangible aspects of the site — traditions, uses, local practices — which are an important source for the social dimensions of a heritage site.

### The Nara Grid

In the search for a value assessment that goes beyond restricting the adaptation of the site and includes the assessment of intangible values, an evaluation was made using the Nara Grid. It aims at identifying the different heritage dimensions of the church. Contrary to the evaluatory approach of the M&S method, the Nara Grid has been conceived of as a “playground” for identifying values, a way of investigating the opportunities to actualize the meaning of the site.

Also, the findings of the architectural and art-historical analysis have been integrated here, but in a different way than in the M&S method. Instead of assigning a grade to the fabric of the site, architectural and art-historical values were disentangled in their respective artistic and scientific dimensions. In this way, the architectural value of the church as an exemplary “worshipping machine” has been separated from its artistic dimension, referring to the superposition of a single nave, choir, sacristy, and oratory on one longitudinal axis. A scientific dimension of this study focuses on the changing significance of the choir as a repository of the Sacrament. In a similar way the interior decoration of the church has an artistic dimension, which particularly values the ensemble of three retables in the choir and the sculptural quality of the herms on the confessional. But from a scientific point of view, Saint Barbara might also be an interesting object of study for seventeenth-century Augustinian iconography and nineteenth-century restoration philosophy regarding Baroque churches.

Most of the intangible values refer to the use, setting, and spirit of the church. When people speak of the atmosphere of a celebration in Saint Barbara, they often refer to the “sacral value” of the church. The setting of the celebration in the church gives the ceremony an extra dimension, making it an authentic place of worship. As mentioned above, although “holiness” or “sacredness” might be reduced to a mere architectural quality, it also has an obvious spiritual dimension, which refers to the capacity of the church building to embody the status of the “House of God.” Since “holiness” or “sacredness” is so complex an attribute, an additional “sacral” dimension was added to the grid in order to disentangle the origins from this value.

Finally, one dimension that the Nara Grid recognizes, which appeared to be of great importance when considering the value of the site and its possible developments, is the social dimension. Most of the faithful who visit the celebrations at Saint Barbara come from abroad. The church does not have a strong link with the quarter in which it is located. The poor integration within the social fabric of Diest points to a weakness of the site. It is a problem of which the Crosiers are also aware.

In the value assessment of the church, the M&S method and the Nara Grid turned out to be complementary, because they serve different goals. In order to determine criteria for the conservation of the fabric of the site, the M&S method has proved to be a performance tool, which accounts for the multilayered character of the fabric. But when it comes to understanding the complexity
and sometimes even opposing character of heritage values, the Nara Grid has provided an assessment that made the identity of the Saint Barbara Church as a heritage site more clear. It revealed the artistic and scientific dimensions of the architecture and interior decoration of the church building and sacredness as a major intangible value, but it also revealed the weak social integration of the church within the quarter.

**Evaluation of the Use of the Nara Grid**

The first case study is at the origin of the development of the Nara Grid. It demonstrated how considering “aspects” and “dimensions” allowed for a much richer evaluation of heritage values to be considered when dealing with masonry preservation, including the role of craftsmanship. While it is a tool for analysis, the Nara Grid allows us to gain insight on how different strategies may impact authenticity. The straightforward and simple representation promotes communication and exchange of ideas on the topic. The latter aspect is also demonstrated in the other case studies that have been extracted from students’ works. In doctoral dissertations the Nara Grid was used to structure the understanding of where and how documentation contributes to defining the authenticity of the built fabric. The Nara Grid was also offered to the students as a conceptual framework. In their reports the students used the grid to show their analysis and to evaluate possible preservation strategies.

In the case of the study on the church in Diest, a comparison was made between two types of evaluation schemes that can be used for churches, of which one was based on the Nara Grid. It appeared that the M&S method and the Nara Grid were complementary and that the open character of the Nara Grid allowed for integrating issues which were beyond the M&S method.

This paper tries to illustrate how the Nara Grid has been and could be used as a mental scheme to investigate and report on aspects and dimensions of authenticity of the built heritage. It can therefore be used as a transparent interdisciplinary communication tool. It is, however, not meant as a quantitative methodology that would allow “measuring” the level of authenticity. The reader is therefore invited to use it rather as a checklist and to understand the limits of its use.

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**Notes**


4. This is how article (iii) of the Venice Charter “safeguard them ... as historical evidence” was interpreted.


6. Article 13 of the Nara Document on Authenticity.


