IDENTIFYING CULTURAL BUILDING VALUES - METHODOLOGY REVIEW FOR ENERGY EFFICIENCY ALTERATIONS

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ABSTRACT
This paper intends to discuss methodology of identifying historical, aesthetical and other cultural values in buildings.

The existing methodology aims to identify the building as a source of knowledge and the building as a function as an architectural and aesthetical object.

The methodology most commonly used, promoted by official bodies and international charters, rests on an objectivistic view on value. The notion of authenticity and values as something intrinsic and embodied in the material present both principle and practical problems in conservation practice.

Over the last decades discussions about conservation practices and the underlying theoretical foundation, have been given more attention in research and the cultural heritage community. At the heart of the discussion is the role of heritage and conservation practice in society and communities.

Alterations of a building are almost always likely to have an impact on the defined values of that building. Each specific alteration has its own logic and can be of necessity for keeping the values (conservation), for adaption to another use or to improve or keep the technical status, such as energy improvement.

Depending on the building’s construction, architectural and cultural historical value, the alteration may have a greater or smaller impact. In order to know the effect, the values must be defined and assessed with regard to the alterations. But the impact also depends on which value system is used to identify the values in a building. A methodology based on an objectivistic value system may be difficult to handle in a refurbishment process.

Keywords
Cultural heritage, methodology, conservation, architecture, historical buildings, phenomenology.

1. Introduction
This paper is part of a project at Luleå University of Technology, that studies how buildings with historical and architectural values can be made more energy efficient. All buildings that are studied within the project are officially recognized as part of the built heritage in Sweden. Some buildings from Kiruna and Malmberget are mentioned as examples. The project also includes studying how conservation methodology and practice can be developed in order to facilitate reduction in energy usage.

2. Common methodology for identifying cultural values in buildings
There are many methods used to describe and analyse space and the historical and aesthetical importance of buildings. In her candidate thesis, Anna Rodin (2009) makes an overview of the most commonly used methods and perceptions of knowledge and perspective on aesthetical and historical values. Rodin shows that the different methods range from a scientific approach (as expressed in article 2 in the Venice charter 1964), via art historian and visual to a structuralistic tradition (Rodin 2009:6-15). John R. Mansfield also discusses the interdisciplinary nature of conservation and points to the “diffuse boundaries” and the fact that it draws its method and theory from the humanities as well as sciences (Mansfield 2008:272). This is of course a fact that always needs to be taken into consideration when discussing methods and the underlying theoretical base.

Regardless of what part or factor of space (visual or scientific), scale (building or landscape), or empirical material (historical records or inventories) used, the different methods are applied in much the same way and can be described in chronological steps. The way of using the methods correlates to doctrines such as international charters and conservation principles (Whitbourn 2008:123-130). In fact they are products of the same process, which also includes development of legislation focused on protection of built heritage such as the Swedish planning and building act (SFS 2010:900).

2.1 Data Collection and Inventory
First, data in the form of historical records and inventories of buildings and objects are collected. Most commonly this is based on a description of architectural features or descriptions of the historical records of the building. Historical methods such as differentiation between primary sources and literature are an essential part, or put in other
words. “Sound conservation depends on accurate historical data” (Cherry 2007:10) The most significant part is that the building and objects themselves are considered a primary source.

Gunnar Almenvik (2012) has thoroughly described and pointed out the principles and methods used to investigate the building as a primary source. Almenvik (2012:28) summarizes the investigation and study of a building as a primary source that can be divided into these steps: documentation, identification, age determination, analysis and interpretation.

2.2 Interpretation and Evaluation

Second, interpretation of the collected data must be conducted. And thirdly evaluation of the interpretation is carried out.

To illustrate these steps, the method or perhaps model, presented by Unnerbäck (2002) at the time employed at The Swedish National Heritage Board, can be used as an illustration. It is perhaps the most widely used method of identifying cultural values in the built environment in Sweden. The method proposed by Unnerbäck is based on identification of what he calls “main motif”, which is divided in “document value” consisting of the historical properties and features of the building, and “experienced value” which consists of the aesthetical and socially engaging properties of the building (Unnerbäck 2002:21).

These two value categories, in turn, consist of different values such as “social value”, “architectural value” and “historical value” (Unnerbäck 2002:24). The important features of a building and ‘periods of significance’ that the US authority National Park Services (cited in Legner 2010:54) refers to, are examples of such main motifs.

This categorization and specification is the equivalent to the two value categories (aesthetical and historical) that are to be found in the Venice charter (Araoz 2011:56).

The main motif is then supported by so-called “strengthening motifs”, which include factors such as, “authenticity”, “quality” and “representativity” (Unnerbäck 2002:24).

The nature and importance of authenticity and the debate of its significance is of great interest and deserves a more in depth discussion than can be presented in this paper. However, some main criticisms of the interpretations and theoretical foundation of its use in defining cultural values will be touched upon in the discussion in section 5.

2.3 The Example of Kiruna and Malmberget

The methodology described by Unnerbäck (2002) is used by heritage conservation professionals for identifying the cultural values in Malmberget and Kiruna, Sweden.

An inventory (data collection) over Malmberget was made with descriptions of each individual house and rooms concerning material use and so on (Eskerød, Svensson & Vestlund 2009).

In an attachment to the Environmental Impact Assessment (EIA), the buildings cultural and historical value in Kiruna is defined (evaluation and interpretation) on two levels (Joseph 2010): a general evaluation which includes the whole are and a specific evaluation for each building.

2.3.1 General Evaluation for the Whole Area

Architectural features and the economic historical context of the founding of Kiruna are identified as main motifs.

“Both dwellings as well as corporate and railway buildings erected throughout the style and tasteful, distinctive designs, with some expressions recur in slight variations. This applies not least to the “ink-bottle”-buildings and their “patented” design language and the panel architecture visible on several buildings […] The cultural values of the buildings are primarily in the general historical context, with the link to Kiruna’s oldest epoch, its genesis and build-up to become a regional and national economy, thriving to be a coherent symbiosis between industry and society.” (Joseph 2010: 7) (translation made by the author).

2.3.2 Individual Evaluation and Assessment

Each building is individually evaluated and assessed. Strengthening motifs such as representativity and degree of authenticity are identified.

“The three ink-bottle buildings are character buildings for Kiruna, and the oldest of its kind with many followers. The buildings are of high architectural and technical quality, and built relatively well, which contributes to their very high cultural value” (Joseph 2010:25) (translation made by the author).

2.4 “Sense of Place” – Conservation and the Phenomenology of Space

The use of the term “sense of place”, “identity of place”, “integrity of space” or its antique version “genius loci”, is often a part of the method of identifying buildings with cultural value (Wells 2010:468-469). Usually, the way sense of place is identified is not put in a transparent methodology but rather something that is related to the professionalism in heritage conservation practice. The term ‘sense of place’ is frequently used as an argument for heritage conservation by both governmental bodies and researchers as an important understanding of values (ICOMOS 2008, Legner 2010:58, Riksantikvarielämbet 2008:2, Wells 2010:477).

The idea of sense of place and experience of space can be traced to the philosophy of phenomenology. The phenomenological theory was introduced by Husserl (Bengtsson 1987a) and further developed by Heidegger and...

The Phenomenological perspective is that the world cannot be understood without the experience of the lived world being included in the understanding of it (Dovey 1999:39).

The phenomenology of space has often been used as a criticism against modernism architecture. The argument from phenomenologists like Pérez-Gomez and Norberg-Shulz is that analyses only on the geometry, abstractions and images of space cannot explain nor produce the qualitative and lived experience of space (Dovey 1999:39, Norberg-Schulz 1999:99, Wallenstein 2004:51).

The analyses and description should instead have the existing qualitative properties of space – “the ontology of space” (Bengtsson 1994:27) - as its starting point (Norberg-Schulz 1999:99). When adding or creating new space the particular identity at any given space - its genius loci (Norberg-Schulz 1999:106-114) - is what should determine what should be built and how the existing space should be altered. Only then does the built environment and space contribute to the existential identity of people (Norberg-Schulz 1999:108).

This means that alterations and additions and occasionally even interventions, in existing buildings and space should, if not totally, become an integrated part of existing space, at least consciously related to existing qualities.

The possibility of connecting emotions and bodily experiences to a terminology, historical events and space, the phenomenological approach, is often used together with identity politics as an argument for social and cultural sustainability (ICOMOS 1975, ICOMOS 1994, Jensen 2008).

It is also used by building historians and the heritage conservation community as well as architects, as a tool for analysis. Gunnar Almevik (2012:27) describes how a building historian physically moves through the empirical and primary sources in three dimensions. Phenomenology is about the ability to use the bodily experience as an instrument for both gathering data and analysing space.

3. The Impact of Integrated Conservation

Over the last decades discussions about conservation practices and the underlying theoretical foundation, has been given more attention in research and within the cultural heritage community. At the heart of the discussion is the role of heritage and conservation practice in society and communities.

The argument for an integrated conservation practice is based on the idea that heritage values no longer should be “defined as static and objective entities representing intrinsic values, applicable for well-defined kinds of cultural objects” but instead used as an instrument in “planning situations” and other transformation processes (Engelbreksson & Rosvall 2003:3).

Because of this, cultural heritage has become an outspoken political discourse. Cultural heritage has been promoted by the heritage community as well in national political agendas and by minority groups as an important part of the identity politics which spatialises individual and collective identities (Carlgberg & Møller Christensen 2003, Jensen 2008:54, Landzelius 2001:3, Proposition 2004/05:23 p.8, Ross 2007:225, Weissglass, Paju, Westin & Danell 2002:10-11).

Based on the understanding of heritage as an existential ingredient of the lives of individuals and societies, the built heritage is also more frequently used by the tourist industry and has become an integral part of city branding (Pendlebury 2009, Legnér 2009, Legnér 2010, Madgin 2010).

In urban theory the role of cultural heritage therefore ranges from empowerment of local inhabitants (Engelbreksson & Rosvall 2003:9-10) and the function of old buildings for use of small neighborhood shops or cultural activities (Jacobs 1961, Legnér 2010), to the role of advertising a city on the global market (Castells 2000:384, Orsokog 2005:34). The transformation of the city of Malmö, Sweden, from an industrial city to a knowledge based economy is only one example of how the reuse and reinterpretation of built heritage is included in urban political processes (Muckhtar-Landgren 2005:120-131). The regeneration of old industrial sites in Baltimore, USA, and Norrköping, Sweden, are typical examples of how the notion of the authenticity is closely associated with the built cultural heritage and architectural features (Legnér 2009).

3.1 Sustainability Greenwash?

At least since the introduction of the sustainability concept, cultural heritage has been seen as a part of the environment (Mansfield 2008:277). The report “Our Common Future” (1987) from the World Commission on Environment and Development established this on the global level, and national legislations such as the Swedish Environmental Act (SFS 1998:808) formalised it on national and local levels. Increasingly, cultural heritage has been promoted as part of the sustainability concept even concerning the ecological sustainability.

In the wider scope, the connection between environmental impact and the built environment is stated in reports on the national and international level. Nicholas Stern (2007:416) points to the need for both private and public investments in buildings to take the climate change into consideration, and increasing demands on lowering the climate gas emissions are occupying political bodies such as the European Commission and national law making bodies (Europe 2020 2010:9, Proposition 2008/09:162 p 11-12).

At a first glance, the increasing demands for CO₂ reductions and making the existing building stock more energy efficient seems to fit well with the concept of conservation as part of sustainable development. More and more voices are heard arguing that conservation of the built environment is also a contribution to sustainable ecological development.

Rodwell 2007 (cited in Legnér 2010:51) argues that “[r] e-use is much more energy efficient than any other type of intervention in the built environment, and conserving the built environment is therefore an important contribution to sustainable development”. Supporting this is the argument that climate gas emissions are embodied in an existing structure. Compared to a new-built building an upgraded and
retrofitted existing building is more climate neutral, since it requires less new material and construction efforts. The argument is promoted by Stephan Fickler (2013) and shown in a comparative study carried out by Eivind Selvig (2011) on an assignment from The Directorate of Cultural Heritage in Norway.

However, as Menzies (2011:34) points out, the embodied or "sunk" energy, does not make the building stock more energy efficient. In order to reduce energy usage and climate gas emissions, the reuse of buildings needs to be complemented with retrofitting and energy efficient measurements (Menzies 2011:31; Selvig 2011).

Reuse as a way of lowering climate gas emissions postulates a transformation and upgrade of the building. As an argument for conservation of cultural values, it therefore challenges some of the basic principles of conservation theory and practice.

4. Outlining of a Problem

It is evident that cultural heritage increasingly is used as a tool in many different transformation processes not only in the social and cultural contexts, but also in the economic and ecological contexts. The transformation processes include both changes of the historical fabric as well as reinterpretation of the symbolic and historical content of the heritage objects. This is sometimes described by the heritage conservation community as a threat (Araoz 2011:56), but it is also clear that this change of role of heritage conservation is promoted by the people and organisations professionally involved with heritage conservation (Ashworth & Phelps 2002:3).

In response to what he calls a paradigm shift, Gustavo F. Araoz (2011:56) argues that the integration of heritage conservation in development processes has made the former “toolkit” and old “doctrinal foundation” for conservation insufficient. Araoz argues that “[…] the theory and praxis of conservation evolved for almost centuries as an increasingly sophisticated effort to prevent form and space from undergoing changes” (Araoz 2011:56). The intention of the conservation practice that Araoz refers to is to lift the object out of the process it is currently in, to stop, or at least slow down the deterioration process, and to fixate the symbolic and aesthetic content.

Araoz exemplifies these shortcomings in the common conservation theory by discussing the Venice charter from 1964 and that it only recognizes two types of values: historic and aesthetic (Araoz 2011:56), and that the heritage conservation practice now needs to consider many more values, most of them intangible and impossible or at least difficult, to refer to any material or aesthetic. Some values such as the biological heritage and tradition, is even defined by the cycle of life and death (Araoz 2011:57), a transformation process which to anyone would seem impossible to stop or reverse.

4.1 A new Paradigm or just Patching up the Theoretical Framework?

Araoz’s argument (2011:57) is valid as an analysis of the shifting challenges that heritage conservation is facing. However, the action taken for a new paradigm or a new agenda runs the risk of becoming a lacunae, which at a distance keeps the deteriorating artwork still looking as the artist intended. A closer reading and analysis of the conservation theory and practice is therefore needed.

Returning to the argument that the re-use of buildings contributes to making the building stock more energy efficient, and that conservation of existing buildings is a way of contributing to lowering climate gas emissions caused by building and living in houses.

The very notion of re-use, and upgrading of buildings and building parts as a conservation, action implies an acceptance of transformation, alterations and interventions in the material and historical fabric as well as re-reading and re-understanding of the buildings characteristics. It is a truism that such an approach is not compatible with a set of doctrines and methods that aims to prevent form and space from changing.

In principle the idea of preventing form and space from undergoing change opposes the idea of transformation as a conservation method. In practice, the tool kit used in heritage conservation needs to fit with other types of values such as energy targets, economic investments new usages and functions and the process in which they are assessed and evaluated.

5. Discussion

Returning to arguments for a new paradigm (Araoz 2011) and that re-use of buildings is not only energy efficient and lowering climate gas emissions, but also preferable to conservation action in itself (Legnér 2010, Selvig 2011). The described theory and methods above do not give sufficient guidance in principle or a practical way to handle the transformation and refurbishment process that is needed for these goals to be achieved.

5.1 Principle

The conservation methodology and practice described above has been discussed and debated from different perspectives. It is a debate that goes back to 19th century debates on conservation principles and on the nature of a truthful restoration and authenticity between significant names such as Ruskin and Viollet-le-Duc (Araoz 2011:59, Mansfield 2008:276, Wells 2010:465). Even today in seemingly local contexts the same discussions on truthfulness and authenticity appear on a smaller scale as in single reconstruction projects such as the one at Villa Gunnnebo, Sweden (Erlinson & Johansson 2002:110).

At the core of the debate around authenticity and properties referred to a building, lies the notion and perception of value (ICOMOS 1964, ICOMOS 1994). The main issue is whether the values are intrinsic and something that is embodied in the material, or if values and meaning are something that is created in a relation between a subject and the object, i.e. attributed to the object.

The difference is not only a question of semantics or only relevant for researchers and policymakers, but also relevant in a practical sense. Depending on which value system that is used as a reference frame for identifying or defining
attributing) values, it will affect how they are perceived and handled in a transformation and refurbishment process.

In the described method above and in the case of the evaluation of the buildings in Kiruna there is little, if any, that point in the direction of how the identified values should be handled or assessed in a situation of re-use or refurbishment process. It is hard to find traces of the argument that the re-use of buildings is not only energy efficient and lowers climate gas emissions, but is also a preferable conservation action in itself (Legnér 2010, Selvig 2011). The problem could therefore be described as twofold, on a principle level and on a practical level, and that they are both dependent on each other. Neither the criticism nor the proposed alternatives are newly introductions to the debate. The context of energy efficiency targets and conservation as a way of reducing CO2 emissions makes the debate once again significant.

5.1.1 Objectivism and truthfulness

As seen in the described method above and as Jeremy C. Wells points out “[t]he dominant concept of historical significance rests in a century old empiricist-positivist paradigm that emphasizes objectivity, ‘facts and ‘truth’ whilst deprecating subjective cultural, social and experiential meanings” (Wells 2010:464). Also Muñoz Viñas (2005:81) argues that conservation is orientated to preserving material and goes further in arguing that this perspective is based on two main principles, to keep the integrity of the object and that the object consists of its physical properties and parts.

The conservation action is therefore, according to Muñoz Viñas (2005:81), a way of constituting and framing truth.

The connection between this theoretical objection and conservation practice is shown by Araoz when he points out that even though conservation theory and practice is said to identify and protect values, “the heritage professionals has never protected or preserved values, the task has always been protecting and preserving the materials, that in lyrical language of the Venice charter (ICOMOS, 1964) are “imbued with a message from the past [...]” (Araoz 2011:59). This practice can only fulfill its purpose if the historical and aesthetic values in fact are embodied in the historical (authentic) material and if the goal is to preserve the truthful or “accurate” history (Cherry 2007:10).

5.2 Objectivism and practical dilemmas

Anna Krus (2006) has analysed the value system of heritage conservation and shows that behind the idea of intrinsic values embodied in the material lies a objectivistic value system (Krus 2006:23-30). See also (Muñoz Viñas 2005:81, Wells 2010:464).

In a case study Anna Krus (2006) shows how the objectivistic values not only become problematic when they are handled together with relativistic values such as economic, they also tend to be reduced or lost.

Krus (2006) studied the transformation process of Östra stallet, a listed building in Stockholm, Sweden, which was going to be turned from an old military stable to office space and a library for The Swedish National Heritage Board.

By studying the refurbishment process and how different values are handled and assessed, Krus could show that in an refurbishment process, surplus and added values that in themselves increase the total value of the building (more economic, functional, meaningful etc.) are more likely to increase (Krus 2006:97). Values that are tied to authenticity and seen as intrinsic, are more difficult to tie to surplus values and include in the total value of a building after a refurbishment process.

One of the factors that was identified is the idea that aesthetic and historical values are embodied in the material (Krus 2006:99). Krus shows that the loss of an identified value in showing the old function of the stables was greater than it needed to be and that this was due to the material and authenticity oriented methodology in conservation practice (Krus 2006:99). A relativistic approach on showing the value of the buildings old function, could have been preserved or created in other ways, by photographs or aesthetic or architectural solutions (Krus 2006:100).

The case of Östra stallet in Stockholm also shows that the argument for re-use (Legnér 2010:51), is not totally compatible with an idea of values embodied in the material.

5.2.1 Identifying Sign - Vehicles

Another crucial aspect that Krus identified is that in a refurbishment process it is necessary to identify not simply the historical context of a building and its position in an architectural historical or economic historical context. In order to handle different values in a refurbishment process the values must be tied to the actual properties in the building that represent the values (Krus 2006:97).

The need for identifying the “vessels that carry value” as Araoz (2011:59) calls it, is something that is stressed in conservation practice regardless of if it is from an objectivistic or a relativistic perspective. For instance by Legnér (2010:54) discussing re-use and transformation of old industrial sites.

From a relativistic perspective on the (re)production of values, Landzelius uses semiotics as a way of identifying “spatial sign-vehicles” (2001:2), i.e. objects and form that people perceive and experience as meaningful. Landzelius argues that because of the fact that semiotics does not recognize “[...] essential differences between, on the one hand, new spatial objects, and, on the other, left overs from the past” (Landzelius 2001:2). The focus will therefore always be on the meaning (value) that the object or building represents rather than the material itself.

5.3 Truthfulness and “sense of place”

In phenomenology of space, the perspective of the lived and bodily experience and the existing qualities of space promotes truth as opposed to falsification. It is the lived experience that should be considered.

As discussed above, the conservation methodology is based on objectivism, authenticity and truthfulness in interventions of buildings. Put together with the phenomenological theory of place and space as something experienced by subjects is in principle an impossible combination. However, the
phenomenological experience of space is experienced as understood as ‘truth’ and ‘authentic’.

The social anthropologists Ulf Hannerz (1998) has studied globalization processes and why local cultures are considered more genuine and more important in a more a globalized and international world and connects to the feeling of truth that is described both in the notion of authenticity as well as the phenomenological understanding of place. Hannerz argues that the reason that people call situations they themselves experienced for “real” (or in the phenomenological terminology “lived”) and what they have seen on television or read about,” not real”, is that people use all of their senses in a face-to-face and bodily interaction. The feeling of “immediacy and immersion” that this creates is at least partly what “real is about” (Hannerz 1998: 27).

Moreover, the connection between identities, space and culture (experience) has also been studied by Manuell Castells (1998). Castells argue that there is no support for the idea that local environment leads to (determine) specific identities or behavior (1998:73); which is not to say that peoples’ identities are not in “significant ways related to spatial semiosis” (Lanodelius 2001: 2).

The use of the phenomenological notion of “sense of place” in architectural and heritage conservation practice has become understood as synonymous with the notion of authenticity and truth and a objectivistic perspective on value. In fact the phenomenological approach to the meaning of space and objects is based on the meaning a subject experiences in relation to space and objects within it and therefore should acknowledge values as something culturally constructed. The phenomenological perspective is therefore compatible with ethnological method, as for example illustrated by Wells (2010:467-469).

6. Acknowledgements

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7. References


[51] Wells, J.C. (2010), Our history is not false: Perspectives from the revitalisation


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