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SPOLIA REVISITED AND EXTENDED: THE POTENTIAL FOR CONTEMPORARY ARCHITECTURE

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Spolia revisited and extended:
The potential for contemporary architecture

Abstract

In the fields of archaeology, art history and history, spolia have traditionally been studied as phenomena of the past. Today, the reuse of salvaged construction components and materials is primarily justified by its economic and ecological benefits, while its architectural and experiential qualities are much less discussed, if at all. Therefore, this article has two focuses, one more conceptual, and the other, more practical. Firstly, the article suggests extending the concept of spolia to contemporary architecture and discusses the usefulness of the concept in evaluating experiential values in contemporary constructions that make use of reclaimed parts. Secondly, it evaluates the potential of spoliation as a modern design tool in search of a more complex and historicity-based architectural expression. This potential is examined by defining the requirements for the extended concept, and through analyzing examples of contemporary design. Although the main focus of this article is on contemporary architecture based on old building components, the topic also has obvious implications for heritage management.

Keywords

Authenticity, ethics, heritage, materiality, reuse

Introduction

The 21st century has ushered in an increasing awareness that the capacity of the globe is reaching its limits. This has stimulated a growing interest in the more sustainable use of material resources. The aim is to take less from the geo-ecosphere and more from the anthroposphere, which includes existing building stock (Agudelo-Vera et al., 2012; Allwood et al., 2011). Although many practices still favour destructive forms of recycling, due to their ecological benefits, deconstruction and the reuse of the old construction materials and components in new buildings is now being prioritized in landmark European Union policies, such as the Waste Framework Directive (EU, 2008:10). While reuse was rare in the 20th century Western age of abundance, (Kinney, 2011a:2–3), it had long been routine practice in ancient societies, which could not afford waste. In these later times, buildings containing outstanding examples of reused structures have been investigated in archaeology, art history and history, giving rise to the modern concept of 'spolia'. Although the term is ancient, and originally related to booty, it has long been accepted as primarily referring to the early Christian and medieval architectural reuse of stone building blocks dating from the times of Graeco-Roman antiquity (Grzesiak, 2011:3; Kinney, 2011a:1; Figure 1).

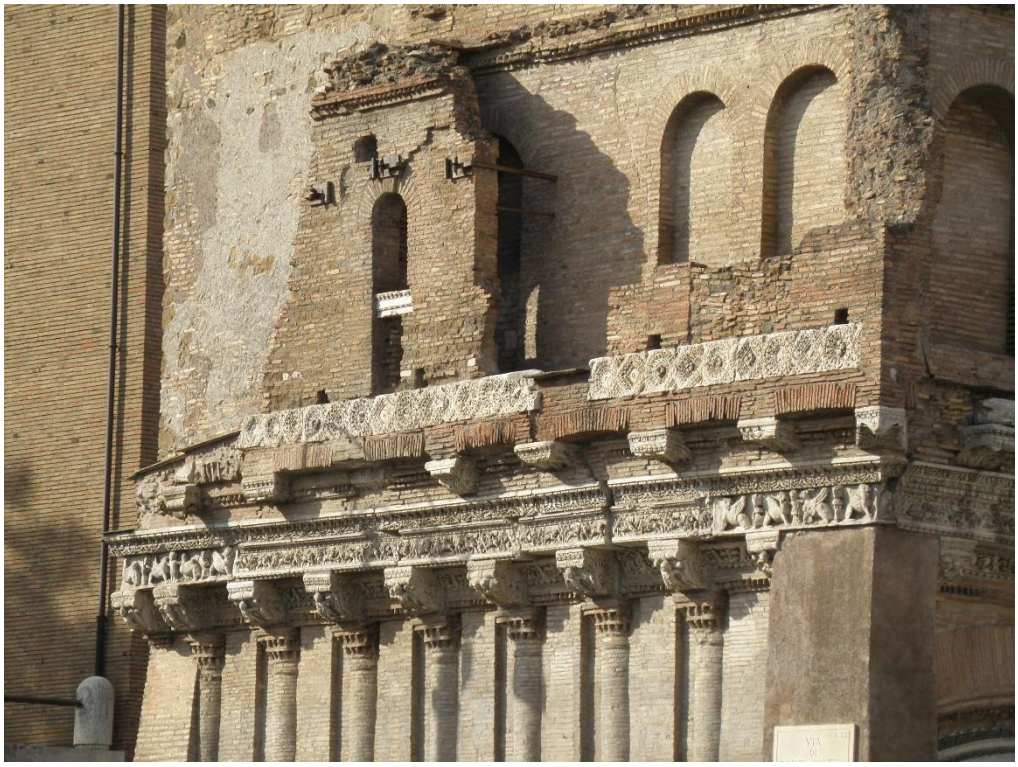

Figure 1. Casa dei Crescenzi (11th century) in Rome is a well-known example of what is traditionally understood by the term, spolia.

In this essay, we revisit spolia as a hyponym for the reuse of building components and materials that accentuate experiential values, such as historicity and authenticity. The pursuit of these values could make our concept of spolia a useful addition to modern architecture and heritage management. While contemporary reuse is mainly motivated by the ecological and, possibly, economic benefits it brings, the purpose of this contribution to the debate is to discuss the experiential qualities of historical

material, in particular the possibility of transmitting the values of the original construction through the physical relocation of some of its components into a new architectural ensemble. The whole argument is based on the idea of heritage objects being 'essential bridges between then and now', i.e. concrete evidence of passed times (Lowenthal, 1985:xxii). It is generally accepted that historical layers contribute value to built environments, and that current building stock may well become an important source of raw materials in the future. However, the chances are that many of the values that the buildings currently carry will be lost in the recycling process. Obviously, we do not refer here to listed heritage sites, but to the mundane buildings that can, nevertheless, communicate the past to the present. In this paper, we shall reflect on whether old components could pass on meaningful messages to the contemporary audience, and if architects could take advantage of this capacity in order to enrich their artistic creations.

Many authors before us have already explored the limits of extending the concept of spolia beyond its conventional definition. It has been applied to extra-European heritage (Floor, 2011; Rajagopalan, 2011), Western 20th century stone and brick architecture (Bongiorno, 2013; Meier, 2011; Wharton, 2011), the use of whole buildings in their original location for other than their first function (Esch, 2011;

Greenhalgh, 2011; Meier, 2011) as well as the metaphoric or symbolic reuse of motifs and icons without the incorporation of anything of actual historical substance (Brilliant, 1982; Liverani, 2011). Since, in architectural research, there are more established terms for describing change of function (conversion, adaptive reuse) and stylistic appropriation (eclecticism, historicism, neo-classicism), our extension of the definition is based on the traditional interpretation of spolia as the reuse of historical materials in non-primary contexts. However, our contribution adds to the existing viewpoints by formulating a definition that covers goal-oriented architectural reuse of historical substance, regardless of the material, at all times, past and present, as well as in yet unrealized projects, *i.e.* in architectural design.

Here in Finland, the built heritage is dominated by timber, which has inspired us to revisit spolia in the context of Fennoscandian wood architecture. As the region is covered with forests, wood has always been the prevailing construction material. Therefore, as can be expected, many of the most valuable heritage sites in Fennoscandia are made of timber (*cf* UNESCO World Heritage sites, Figure 2). However, this essay is predicated on a reverse standpoint. It is precisely because of the high prevalence of non-listed wooden heritage structures in Finland that we have been

motivated to study innovative opportunities for passing their values on to a contemporary audience.

Figure 2. UNESCO site of Old Rauma, Finland, an outstanding example of Nordic timber heritage. Photograph by ptj56, downloaded from Wikimedia Commons and published under the license CC BY 3.0.

The traditional building technique which has been used in Finland for over a millennium (Kärki, 1999:105) is essentially the same throughout Fennoscandia: horizontally placed logs are notched together at the corners to make rooms of a solid

and warm construction (Larsen, 1987). This simple construction technique offers another advantage: parts of these buildings, or even complete buildings, are movable. In fact, urban houses were often built from components that were 'prefabricated' in nearby villages and transported to the urban site. Here in Finland, this building technique has thus enabled the reuse of old deconstructed parts of a building, or even entire building frames (Figure 3). Any resulting visual incoherence and imperfection could be hidden under a façade of cladding. (Kärki, 1999:105). Thus, both mobility and reuse have always been inherent qualities in the Nordic building culture. Deconstructed building parts are still used for repairing old buildings; there are salvage yards that trade in such building materials, and they are increasingly common online. However, spolia as it is defined here is still not widespread. Indeed, traditionally, the origins of reused components were camouflaged rather than celebrated (Figure 4). Nevertheless, some contemporary examples that take an essentially different attitude towards the reuse of historical materials (Figure 5) have emerged, and these will be discussed in this article.

Figure 3. Reuse of logs in a granary from early 20th century, Virrat, Finland. The corner notches in the middle of the facade, which have no function there, give away the reuse. Unlike in houses, reuse was rarely camouflaged in outbuildings.

Figure 4. An aged log frame, relocated to its current site in Hauho, Finland, in 2006. The logs are carved to fit the adjoining logs seamlessly; thus they have been numbered prior to deconstruction in order to reassemble them in the same order on the new site. Once the cladding is completed, there is no outwardly visual sign that parts of the building have been relocated.

Figure 5. Untraditional, visually prominent reuse of 19th century logs in a 1980s sauna, ‘Huitukka' in Juva, Finland. The architect is Georg Grotenfelt. In contemporary Nordic architecture, saunas and summerhouses are typical buildings which can incorporate spolia. Photograph courtesy of the architect.

Despite being firmly based in Fennoscandia, our study has more global implications for the treatment of a society’s built heritage. Although it is part of Europe, Finland lies on the border in many senses: on the border between East and West, between the modern and the postmodern, and between developed and developing countries.

Finland was one of the last Western countries to industrialize and urbanize, and in doing so, it identified itself with North America rather than the rest of Europe. Finland's population shift from the country to the towns was relatively recent and rapid, taking place in virtually one decade, the 1960s. In this decade, there was widespread obliteration of the old, historical wooden towns, and the near-complete abandonment of traditional timber construction (Hankonen, 1994). Since that time, a strong modernist imperative has dominated Finnish architecture, and this still exists today. This modernism places the Finnish built heritage in a more precarious position than its counterparts in other European countries, which have older building stocks and longer experience of their management.

The Finnish conservation movement emerged only a few decades ago as a counter-reaction to the rapid changes in the country's urban landscape, and even today, it can be deemed less developed than the conservation movements in other countries. For example, both the Japanese and Chinese, whose built heritage is also largely wooden, have not only adapted Western conservation theories to suit local conditions, but they have also developed their own approaches. Finns, however, adopted the prevailing European theory of historic architectural heritage, which has its origins in the preservation of the stone-built remains of Graeco-Roman antiquities, and is thus only

partially suitable for our wooden building heritage. The debate surrounding spolia is based on these very same theories, which is why looking at the concept from the viewpoint of Nordic wood architecture can make a novel contribution to the discussion.

Definitions and interpretations

In vernacular construction, component reuse was effortlessly part of a building's lifespan, since a building's parts and materials were often designed for periodic replacement (Matero, 2007:77), especially in wooden buildings. As long as there was material left to take advantage of, a building's parts made their way down the hierarchy of buildings, from prestigious houses to more mundane constructions, such as a granary. This is still true in many parts of the world that are not characterized by the same abundance of materials as Western civilization has been. However, this kind of continual reuse, where the object retains its original function, is not usually considered as spolia. This is because, besides relocation, the concept of spolia presupposes a certain redefinition of the object in question (Kinney 2011b:112; Liverani 2011:37).

The first examples of reusing architectural components that fulfil this definition have been dated to the 4th or 5th century (Esch, 2011:13), and the concept has been part of art-historical discourse since the 16th century (Kinney, 2011a:1). Until the mid-20th century, however, the interest resided in the spoliated ancient piece, and spolia as a part of a novel artistic expression was barely recognized (Esch, 2011:13). It was not until 1969, when Arnold Esch published his ground-breaking paper 'Spolien' (Kinney, 2011a:1) that the focus in architectural research began to shift. Even so, although historians and archaeologists have kept the concept alive, designers and design researchers still remain largely unaware of its potential, at least for the time being.

In the past, there have been a number of widely differing interpretations of the significance of spolia, particularly with regard to the intentions of their makers and the degree of artistry involved. The wide diversity of materials and components combined in the earliest examples of spolia is regarded as being due to either material strictures or artistic intentions (Brandenburg, 2011:56; Esch, 2011:15; Hansen, 2003:7; Liverani, 2011:35). Some researchers have suggested that the motivation for using spolia has been purely practical (Brandenburg, 2011; Greenhalgh, 2011) while others suggest it has more noble, aesthetic, artistic or ideological purposes (Kinney, 2011a:2–5). One discourse on spolia (Liverani, 2011:35) can be characterised as a debate between

resurrection and death. On the one hand, spoliated buildings have been seen as victims of assault (Kinney, 2011a:4) or as representing a lack of creativity (Esch, 2011:13; Kinney, 2011a:1,7; Meier, 2011:223), or even as sources of something as superficial as souvenirs (Liverani, 2011:45; Wharton, 2011:187). On the other hand, spolia are generally believed to derive from an admiration for the original construction or workmanship, or a more general interest in the original culture (Esch, 2011:15,23). Plundering a salvageable building for spolia would have implied a complete disregard for those values, so Brandenburg (2011:57) argues that spolia were more likely collected from already dilapidated buildings. Rather, although the desire for spolia can occasionally result in acts of illicit or thoughtless despoliation, from a historical perspective, spolia can be seen as a positive concept, which is regarded as a means of translation and innovation, or of preservation and continuity (Hansen, 2003:7–9).

Authenticity and materiality

In Western conservation theory, the significance of historical objects, including spolia, is defined by their authenticity. When connected to the age and/or history of objects, authenticity can be referred to as *historicity*, as is done hereafter in this essay. The idea of historicity relies on an interest in historical memory and a belief that authentic artefacts retain and project at least some of their essence into the present (Brilliant,

2011a:167–8). It is however, highly debatable whether historicity lies mainly in an object's material substances (materialist approach), or whether it is a relative cultural construct (constructivist approach). There have been attempts to combine the two perspectives. Taylor (2015), for instance, has concluded that the significances of material heritage are immaterial, whereas Holtorf (2013) and Jones (2010) have acknowledged the importance of materiality for experiencing an object's historicity.

As well as defining historicity, the challenge is also how to transmit the experience thereof to the contemporary audience (Holtorf, 2013; Jones, 2010). Generations of conservationists have debated whether a historical object's essential value lies in the original fabric or the original form, and which of the two should be preserved if keeping one poses a threat to the other (Matero, 2011:1–3). Architectural conservation is traditionally based on the materialist theory, which carries the underlying assumption that buildings convey the values of the past in their materiality (Jones and Holden, 2008:95; Jones, 2009:137). In practice, the admiration for material evidence is usually expressed as a strong inclination to minimize physical losses (Kemp, 2009:61). Interestingly for our topic, however, it has been stated that having been developed in the Central European context, this theory of architectural conservation is largely rooted in stone and brick constructions, which are obviously less vulnerable to

decay than wooden structures (Tschudi-Madsen, 1985; Taylor, 2015). In East Asia, the approach to the wooden building heritage is clearly more constructivist (Jones, 2010:185). In China, for instance, the replacement of timber components with replicas crafted using the original tools and techniques is regarded as an equally acceptable alternative to fabric retention (D'Ayala and Wang, 2006:9).

In the field of architectural conservation, it is today acknowledged that conservation is a creative artistic contribution that reflects the cultural background, education and values of its makers (Jones and Holden, 2008:15). The importance of different factors – such as material, design, traditions, context and function (Orbaşlı, 2008:52) – are not considered to be either equal or explicit, but their value depends on the object being conserved, as well as the person who is interpreting it. Such an approach is prone to purification processes, in that modified, hybrid and heterogeneous artefacts are often regarded as inauthentic (Jones, 2010:188). Objects in secondary contexts or with reassigned functions are usually considered less authentic than those in their primary locations or uses (Jones, 2010:184). For instance, recently in the Finnish art museum, EMMA, three modernist murals salvaged from a condemned school were removed from the museum's collections and destroyed. The chief curator argued that the

artworks had already lost their significance when they were stripped from their original context. (Parkkinen, 2016).

Unlike with the conservation of historical objects and artefacts, in architectural conservation, the context is typically seen as a building's most important, even non-negotiable feature (Brilliant, 2011a:173; Gregory, 2008:113). This is due to the intrinsically immobile nature of buildings. Thus, relocating buildings or their components from their original context is strongly discouraged (ICOMOS, 1964: Article 7). Recently, some exceptions have been made to this rule, but only for structures that have been designed for relocation or that have previously been relocated (ICOMOS, 2013: Article 9). Symptomatically, representatives of the Finnish National Board of Antiquities have expressed disdain for salvaging activities (Härö et al., 2013). This is where the controversy over spolia occurs, since spoliation is based on both relocation and the redefinition of objects. Unlike architectural conservation, the use of spolia does not have any shared ethical guidelines. Contemporary spoliation is, however, a form of architectural design – a discipline that has principles of its own, as will be discussed later.

In modern conservation theory, visual indicators of age are seen as the media for experiencing a building's historicity (Holtorf, 2013:435; Matero, 2007:76). Thus, there is a strong aesthetic dimension to historicity (Brilliant, 2011a:167; Holtorf, 2013:439), connected to objects' and buildings' material expression (Figure 6). As the experience of continuity and time is considered to be a fundamental psychological need (Pallasmaa, 2012:76–7), the way the general public is able to connect with heritage is seen to have a growing importance in heritage management (Dumitrescu, 2016:27). Consumers dearly long for all kinds of authenticity (Gilmore and Pine, 2007), and both our built heritage and architecture in general are, indeed, increasingly 'consumed'. Nevertheless, apart from the specialists, most members of the public who encounter heritage are not able to see the difference between, say, a 200-year-old artefact and a 300-year-old one. They simply bask in 'the "aura" of old things' (Jones, 2010:183). As far back as a hundred years ago, Alois Riegl (1903:62) had already recognized two time-related heritage values; historical value, connected to documentable moments in buildings' histories, and age-value, referring to the passing of time *per se*. In our consumer society, a heritage object's ability to evoke a feeling of being from the past, *i.e.* its 'pastness', is more important than its scientifically measurable age (Holtorf, 2013:431–2). The materiality of historical objects, expressed through the patina of age, facilitates the ineffable communication between now and then (Jones, 2010:190).

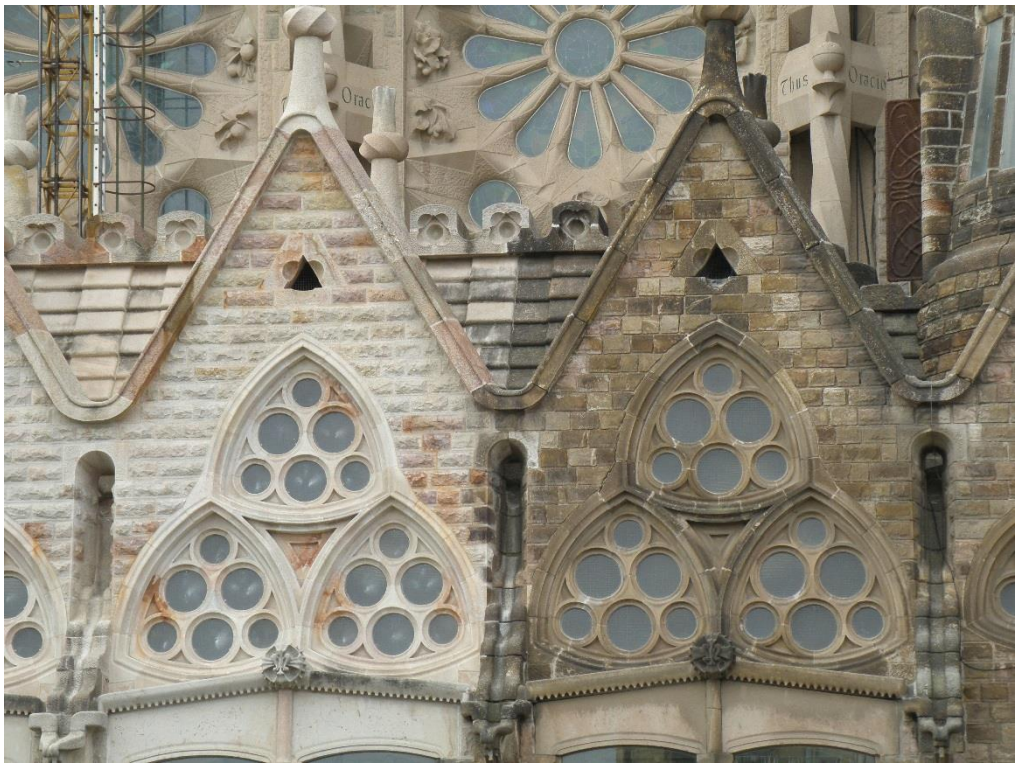

Figure 6. Sagrada Família by Antoni Gaudí in Barcelona. Still being built, the church showcases the role of patina, or the lack thereof, in the materiality of its facades.

Spolia: between historicity and pastness

Since genuinely old building parts are the essence of the concept, spolia is premised on a certain materialist approach. It seeks acceptance for the idea that historicity could be expressed, in the form of patina, in individual components or materials and, therefore, moved to other places, uses or ensembles. However, as it involves cultural objects

being removed from their original contexts, the use of spolia provides an interesting perspective on the dichotomy between materialist and constructivist traditions. Spolia's historicity questions the fundamental ethical principle in architectural conservation: that buildings and their constituent parts lose their value if removed from their original setting.

Unlike with the conservation of objects, where handling fragments of objects is an everyday occurrence, architectural conservationists are accustomed to working with whole entities. There is no doubt that some historicity is lost in spoliation, when components are taken away from their original place, setting or design, and possibly from their original function. The loss may be great from the viewpoint of the 'donating' building, yet not total from the perspective of the preserved objects. Once a building has been deconstructed, the reclaimed building parts simply leave the realm of buildings and enter that of artefacts. They remain whole, authentic components of a vanished or fragmented origin. In spoliation, the reuse of components involves a design process that changes the significance of the objects more than mere relocation does. Instead of losing interest in them, architects and architectural conservationists should recognize that such artefacts are still capable of retaining and transmitting

historical and cultural memory related not only to the workmanship, but also to their sources.

Early research on spolia in medieval structures shared this view, since the spolia were regarded as communicating about their Graeco-Roman sources (Brilliant, 2011b:250; Kinney, 2011a:7–8; Liverani 2011:39). In other words, spolia represent entities larger than themselves (Kinney, 2011b:115; Liverani, 2011:45; Wharton 2011:185). Whereas their patina immediately communicates their pastness, their provenance can be deciphered from their style and dimensioning (Esch, 2011:15), among other things (Figure 7). One should keep in mind that no whole biographies of artefacts, not even museum ones, tend to be encoded in their substance, but rather, their biographies are passed on as written knowledge (Kinney, 2011b:106). Spolia are no different: their sources can be documented (Greenhalgh, 2011:87); the information can be embedded in new buildings (Wharton, 2011), or just engraved in the components themselves. Thus, spolia can clearly retain some documentary value.

Moreover, if spoliated components hold age-value or artistic value of their own, embedded in their fabric and independent from the original building, these values can also be transmitted to new architectural ensembles. Provided that beauty can be taken

as a sign of artistry, the value is present, since the selection of spolia is typically based on an appreciation of their appearance and craftsmanship (Esch, 2011:24,26; Greenhalgh, 2011:85; Grzesiak, 2011:4; Liverani, 2011:35; Meier, 2011:225). As for the age-value, as discussed, spolia can reference precise origins, but more typically they refer to stereotypes (Liverani, 2011:44). Because parts embedded in buildings tend not to be visibly labelled, for most viewers spolia's age-related values are rather vague, and their provenance indeterminate, over an entire era, or throughout the past in general (Brandenburg, 2011:58; Kinney, 2011b: 113–4; Liverani, 2011:38,46; Meier, 2011:227).

Figure 7. Communicating documentary value to informed viewers. An art gallery in Berlin (left) has very distinguishable spolia windows (photograph courtesy of Wiewiorra Hopp Architekten). The donor building is the GDR's Palace of the Republic (right), demolished in 2006–8 (photograph by Dietmar Rabich, rabich.de, downloaded from Wikimedia Commons and published under the license CC BY-SA 4.0).

Contemporary viewers' negotiations of an artefact's historicity are affected by their ability to connect with the artefact, and this in turn is influenced by the viewer's historical and cultural informedness and the temporal distance between the viewer and the object (Dicks, 2000:220–9 as quoted in Jones, 2010:190). These negotiation processes can establish relationships between past and current experiences or objects and places, and thus strengthen the viewer's sense of identity (Jones, 2010:193–4, 197). The exchange of messages between viewers and historical artefacts, including spolia, is inevitably governed and coloured by the present (Brilliant, 2011b:176; Greenhalgh, 2011:76). Even objects that have lost their practical function may enlighten people by acting as signs of historicity (Baudrillard, 1996:73–80; Brilliant, 2011a:168). The significance of spolia is connected to the recognition of time layers in the built environment, which can be taken as tangible evidence of the passage of time, which is in itself difficult to witness and explain. Spolia, nonetheless, not only act as transmitters of the past, but also keep their original function, or gain new uses, which further strengthens their potential for creating meaning for current users.

Cultural historic context

Neither the need to connect nor the receptivity to past times are new, but were already vested in the human mind in ancient times, when spolia were first being created (Brilliant, 2011b:250–1; Esch, 2011:27). In the modern Western world these needs are, however, exacerbated by disunity and displacement (Jones 2010:197). Interestingly, the transition from Antiquity to the Middle Ages, and later the shift from an agrarian society to a modern industrialized one were transition phases that have similar features. An underpinning factor for the medieval emergence of spolia was the great value associated with traditional ornamentation, despite the significant contemporary developments in architectural and constructional techniques (Brandenburg, 2011:68). This is very similar to what one of the founding fathers of architectural conservation, John Ruskin, witnessed in the 19th century and discussed in his writings. The medieval use of spolia coincided with a cultural decline encompassing a disintegration of traditional architectural styles and an extinction of craftsmanship (Brandenburg, 2011:59). Whereas one is hesitant to call the 20th century an era of cultural decline, it has nevertheless been marked by the globalization of cultures, the internationalization of architectural styles and a revolution in fabrication techniques. In the Middle Ages, the progress eventually resulted in the devaluation of ornamentation (Brandenburg, 2011:68); and exactly the same thing happened in 20th century

architecture, as epitomized by Adolf Loos's renowned 1908 essay 'Ornament and Crime'.

Given the above situation, spolia became a medieval means of cultural continuation (Hansen, 2003:9), also connected to eclecticism, i.e. the imitation of older art (Esch, 2011:13). More recently, the increasing interest in spolia has paralleled the critique of modernism which gave rise to postmodernism (Kinney, 2011a:1), which is characterized by revisited ornamentation, iconography and nostalgia for the past (Jenks, 2011:9). In architecture, the emerging fascination with spolia has also been seen as a renewed interest in ornament or place (Meier, 2011; Figure 8).

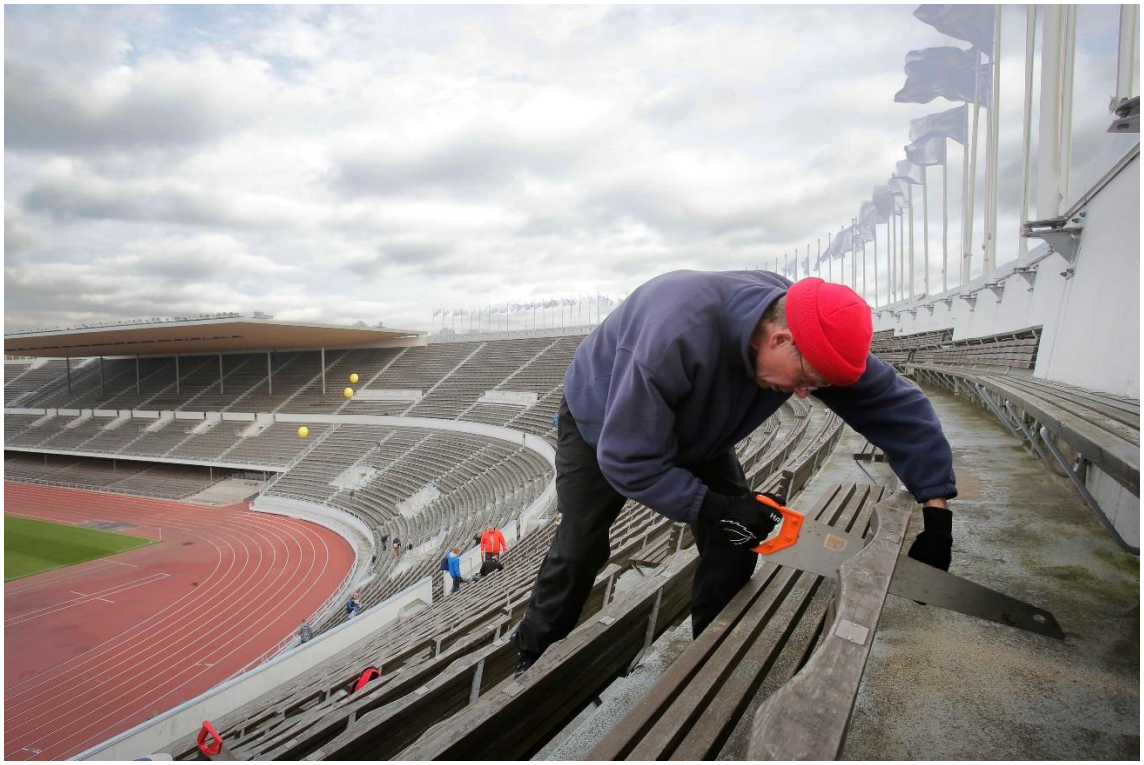

Figure 8. Pastness counts. Helsinki Olympic Stadium's (1938) wooden benches (renewed in 1993) were to be modernized, and the wood was offered for dismantling for a fee. Cheaper and technically superior virgin timber is available off the shelf, yet citizens hoarded the material, which, although not original, was old enough to seem authentic. Photograph by Sami Kero, courtesy of the photographer and Sanoma.

Designing with spolia

Historical appropriation, as artistic expression, fosters a positive attitude towards history. Living artistic traditions are founded on the meaningfulness of the traces of

the past and their projection into the current time (Brilliant 2011a:168). Without that appreciation, there would be no desire to assimilate the old into the new. (Brilliant, 2011a:168,173; 2011b:250). Therefore, the idea of spolia will not resonate with the values of all world cultures. It will be void of meaning for those who perceive history as a continuation of intangible traditions rather than through the preservation of material. Alternatively, the connotations associated with spolia can be negative, as in poverty-stricken societies or in societies relying on modernizing ideologies. Some architectural reuse will be practised in these societies, too, but for reasons of necessity, practicality or habit, rather than appropriation.

The underlying consciousness towards time (Kinney, 2011a:3) means that designing with spolia is an intentional effort to evoke some value or message from the past, associated with the piece (Esch, 2011:27; Liverani, 2011:43). This kind of artistic activity is premised on the existence of a temporal and cultural discontinuity (Brilliant, 2011a:175; Esch, 2011:24; Kinney, 2011a:8; Liverani, 2011:35,40; Meier, 2011:225,232). It is essentially an attempt to bridge a rupture (Kinney, 2011:116; Meier, 2011:226) by anchoring and relating the new to the bygone (Meier, 2011:231). Spolia are bound in the time of their origin: they cannot help announcing their pastness through their foreign style, fabrication technique and patina of age. (Esch,

2011:24; Kinney, 2011a:3; Meier, 2011:225;233). They are, as are any antiques, anachronistic, meaning that the relationship they establish with the present is inevitably disjunctive. Design incorporating spolia, however, mitigates this controversy by employing these connotations as a means of conscious communication. (Kinney, 2011:116). This makes spolia something of the past and of the present at the same time.

Architectural honesty

Like conservation, spoliation is inevitably dominated by the period of its creation (Brilliant, 2011a:175); the difference between the two is that spoliation prioritises the contemporary, while conservation tries (or often claims) to do the opposite. The spoliation has a tendency to fade out the signs of foreignness between the old and the new. However, to achieve a meaningful artistic composition which synthesizes 'then' with 'now', spolia must not be camouflaged. (Brilliant, 2011a:168–9,173). As the presence of spolia can create false impressions of historical developments (Kinney, 2011a:3), ontological aspects of the new oeuvre and its parts might be compromised if the viewer is uninformed (Brilliant, 2011a:169; 2011b:251). An illusion of (complete) historicity should, therefore, be avoided (Brilliant, 2011a:173–6), and it should rather be allowed to turn into pastness. These remarks accord with contemporary

conservation ethics, which require replacements and new additions to old fabrics to be distinguishable, so that historic evidence would be not falsified (ICOMOS, 1964: Articles 9 and 12).

Nevertheless, as has been said, spoliation is not conservation, and therefore it does not abide by its ethical principles. The use of spolia is rather guided by architectural dogmas. However, architectural design theory is largely based on the ideas of those very same 19th century philosophers who passed on conservation theory. Both theories were born hand-in-hand, and even today, architects are typically trained with regard to both design and conservation.

One of the leading principles of modern architectural design is honesty: meaning that the artistic expression should reflect the true nature of the building, its functions, construction and materials. This principle originates from John Ruskin (1880:53) who listed, for instance, avoidable architectural deceits, among which were camouflaging the true nature of substances, structures or their making (1880:61–73). From this it follows that buildings should remain truthful to their time of construction (*i.e.* new buildings should not emulate the past by adopting bygone styles or false patina) as well as their materials (*e.g.* concrete should not be clad with wood; wood should not

be painted to look like marble). Thus, the two fields of architectural design theory and conservation theory come together in the concept of spolia, as both fields are equally concerned about not compromising the ontological nature of reality, i.e. the true nature of the new architectural work and its historic parts. A patina of age has the same significance in spolia as it has in our built heritage: it indicates the pastness of the spoliated component or the heritage building.

Relationship with history

Mainstream modernist architectural theory of the 20th century was, nevertheless, solely devoted to newness and timelessness, neglecting the significance of history in architecture. Postmodernism emerged in the 1970s as a counter-reaction that strived to embed historicity into contemporary architecture. (Norberg-Schulz, 1991:91). The movement exploited architectural references, such as classicist forms and compositions, although these themselves were regarded as fake and superficial by subsequent modernist theorists (Canizaro, 2007:24; Norberg-Schulz, 1991:101). This induced another counter-dogma, critical regionalism, which emphasizes authenticity, local materials and building traditions, and history from a modernist perspective (Canizaro, 2007:32–3). Today, the reuse of building parts, in the form of spolia or otherwise, is also connected to the rising zeitgeist of sustainability. We see that the

use of spolia taps into a continuum of ecological architecture that is based on critical regionalism. Besides interests in decoration and localness, as Meier (2011) suggests, this also denotes a devotion to authenticity, materiality and sustainability in all three of its aspects (ecological, cultural and economic). Such architecture derives from modern architectural language but capitalizes on the experiential qualities of authentic historical materials and components.

Perceiving authenticity

We have so far suggested that spolia, as historical objects, remain historically authentic even when detached from buildings and used for conveying historicity, and thus create value, in the present. We have shown that designers who find meaning in historicity based on their own cultural background are likely to engage with spoliation and use it to overcome the rupture of modernism in order to reconnect with their cultural roots. We have also argued that the honesty principle, reflected in both architectural conservation and architectural design, will guide such designers. However, as well as the architect, the spolia itself and the message it is intended to convey, there is also the audience. Therefore, it is also meaningful to look at how consumers perceive authenticity.

Gilmore and Pine (2007:50) have identified five genres of authenticity: 1) natural authenticity, related to materials; 2) original authenticity, related to design; 3) exceptional authenticity, related to workmanship; 4) referential authenticity, related to contexts; and 5) influential authenticity, related to spirit. They argue that the audience values authenticity more in natural materials over synthetic ones; original designs over copies; dedicated craftsmanship over soulless mass production; references to historical memory over trivial experiences; and noble pursuits over selfish and petty goals. It is not difficult to see how spoliated timber components, handcrafted into their original shape and style by 19th century village carpenters from local, naturally grown wood, evoking pastness and reducing the environmental burden of construction, can increase the experience of authenticity. They can be used, for instance, to replace similar, foreign, industrially mass-produced components made out of modern, carbon-intensive metals. It needs to be clarified here, though, that the utilisation of such parts can only be considered as spolia when they are reused in distinguishably younger buildings. Replacing damaged parts of old buildings with old components is, on the other hand, not spolia but a traditional activity in a historical continuum.

Moreover, the innate structural properties of traditional materials, such as timber or stone, can be deemed to encourage reuse. Unlike concrete, for instance, timber has strength in compression and tension, meaning that it is fit for various structural functions, and even for changing the direction of stresses. Components made out of wood are lightweight, easily re-workable and modular; and wooden buildings are essentially composite constructions assembled from individual parts. Wooden buildings are readily deconstructable, enabling damaged parts to be exchanged and useful components to be salvaged (Figure 9). For timber, spoliation is, therefore, a structurally authentic activity, that is, an activity that can be considered as endogenous to the material and construction technique *per se*. Its structural authenticity is very different, yet no less true than that of stone, whose potential for reuse derives from its durability rather than its flexibility.

Figure 9. Spolia in timber. The reuse of the log fames of old houses (left) in a contemporary rest-stop (right). Flydalsjuvet, Norway. Right photograph (c) diephotodesigner.de, both images courtesy of 3RW Arkitekter.

Redefining spolia

After digesting the debate about spolia in the literature, and applying our own (Finnish) thinking to the topic, we are now able to suggest five key characteristics which can help define spolia. As well as taking into account the experience of historical layers that spolia are assumed to transmit, these requirements are sufficient to distinguish the phenomenon from other types of material reuse, and they account for both the necessity and facility of sensory perception. These characteristics are:

1. Reuse: By definition, spoliation must be based on genuinely historical material. The vast majority of known definitions of spolia include the idea of old components being subsumed into new ensembles. Constructions from virgin materials, even if the material or the style were manipulated to look older than they are, do not qualify as spolia.

2. Source: Spolia must have their origins as part of former architectural compositions that have since been destroyed or transformed. This requirement carries a condition of partiality, which explains why relocated whole buildings escape being classified as spolia (Figure 10). The complete destruction of the original ensemble is not a prerequisite, but a degree of artistry in its reuse is. However, even mass-produced products can potentially become spolia, as long as they originate from the buildings themselves. However, the reuse of old consumer goods in new buildings does not in itself constitute spolia (Figure 11).

Figure 10. Relocation – not spolia. Moving an entire 19th century house, Hämeenlinna, Finland. Here, the entire building is moved on a lorry but its parts could also have been numbered, deconstructed and reassembled.

Figure 11. Reuse – not spolia. Glass bottles (right) are everyday commodities, not part of any prior architectural composition. KWIECO refuge, Moshi, Tanzania, designed by Finnish architects Hollmén Reuter Sandman. Photograph by Juha Ilonen, courtesy of the architectural office.

3. Function: **Spolia need to become structural parts in the new architectural composition.** Structurality is an inherent part of the meaningfulness of spoliation. Besides load-bearing functions, structurality refers here to the components' and

materials' non-load-bearing functions, such as weatherproofing and cladding. Spolia have decorative purposes, too, but pure decoration does not in itself constitute spolia.

4. Intention: Spolia have to be visible, and are selected because of their connotations. In other words, spolia can be used for making exterior surfaces for a new building, but they should not be hidden inside structures. To act as vehicles of memory, spolia have to bear connotations, which tend to be both visual (beauty, pastness) and moral (cultural re-establishment, sustainability). In the case of mass produced objects, the industrial design of the product has to have an artistic dimension. These aesthetic qualities are more decisive for spolia than any technical assets (such as durability) or disadvantages (such as inconsistency).

5. Perception: The possibility to observe time layers transparently is crucial. To be properly understood, a recognizable gap (temporal, technical, cultural) between the spolia and the contemporary construction is necessary, otherwise the reuse should be classified as ‘continued use’ (Figures 12 and 13). This gap is often perceivable in the spoliated object's pastness. The patina of age and other material clues clarify the relationship between the spolia and the rest of the oeuvre without negating its architectural honesty or historic evidence.

Figure 12. Reuse in restoration, a form of continued use – not spolia. Reclaimed doors double for missing original doors, disposed of without documentation in an earlier renovation. Hämeenlinna, Finland.

Figure 13. Reuse with traditional style, a form of continued use – not spolia. 1990s summerhouse with older reused windows. Hauho, Finland.

In brief, spoliation is the goal-oriented reuse of observably old building parts in architecture. Building conservation and material reuse both reflect the values of a society. When reuse is motivated by both aesthetic appreciation and the value of salvaging old material, i.e. when the reuse is real spoliation, those values are not strangers to each other but two sides of the same coin. Since the loss of authenticity and provenance is inescapable in spoliation, it is obvious that a building's *in situ*

preservation is preferable to spoliation. However, in reality, retaining buildings in their original place is no guarantee in itself for the preservation of historicity. Because preservation orders usually protect a building's appearance rather than its material substance, heritage statuses have not always proven effective tools for avoiding material losses.

A great deal of spolia originates from buildings that still exist but whose original components have been replaced. As spoliation is a sign of its users' appreciation for old materials, the practice should be understood from a pragmatic perspective, i.e. it is salvaging what is still salvageable, rather than merely plundering the building. Unfortunately, in some of these cases, the spolia can retain more historicity than the extant buildings that they came from, which are often largely devoid of their original substance. These notions accord with those presented by Holtorf (2015) and Meier (2011), who point out that heritage transformation processes such as spoliation, while underlining some aspects of loss, in fact also accentuate the heritage's significance for its new users.

Design in practice

Lastly, we will briefly analyse a range of examples of contemporary timber architecture, both built and unbuilt, that encompass the variety of applications spolia may adopt. The built buildings have been published in the literature or otherwise brought to our knowledge; while the unbuilt buildings are designs created by TUT master's students who have participated in the university's specialised architecture course, which focused on the reuse of timber. Using these cases as our source material, it is possible to distinguish six levels of applications for spolia in contemporary architecture.

In the first level, the whole building frame or a major part thereof is used in erecting a new building (Figure 14). By definition, the old frame remains partly visible, but is relocated, supplemented and may be heavily transformed. Although referring to the remodelling of old frameworks for contemporary use (*i.e.* adaptive reuse) rather than spolia, Kevin Lynch (1972:170) argues that architectural ensembles can benefit from the contrast between the new and the old. According to Lynch, the resulting whole can be 'more evocative than either the original building or its replacement'.

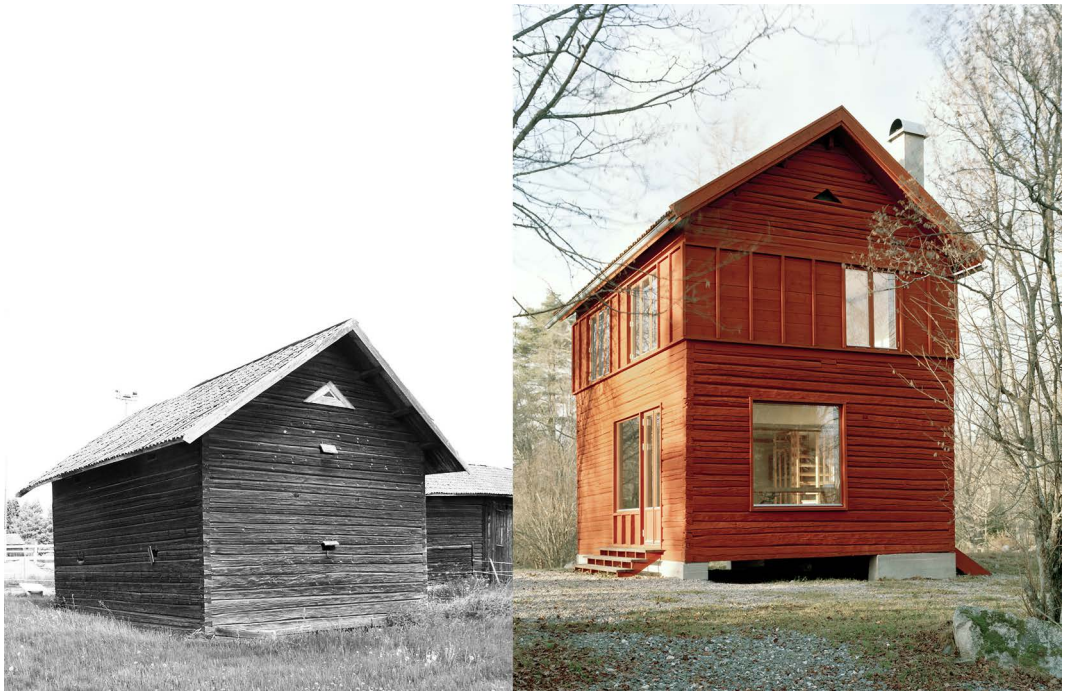

Figure 14. A relocated log frame of a granary (left) acts as the basis of a new summerhouse. Nannberga, Sweden. Right photograph (c) Mikael Olsson, both photographs courtesy of General Architecture.

Secondly, spoliated components can be utilized as independent objects in their original function (Figure 15). Although no building parts are 'independent' in the sense that they would have no clear purposes unless as part of a building, doors and windows are the most object-like and independent of a building's parts. In contemporary architectural applications, they are often showcased as artistic entities of their own in new contexts that underline their difference. Wharton (2011:190) suggests that this kind of framing is essential for attracting attention to the spolia.

Figure 15. A spoliated window in a 2009 bird-ringing station and ornithologists' sauna in Hanko, Finland. The architect is Pekka Hänninen. Photograph courtesy of the architect.

Thirdly, self-standing objects can be employed as objects, but for new purposes (Figure 16) – a strategy also mentioned in the medieval context (Greenhalgh, 2011:83). The objects remain distinguishable as they are kept intact, but their function is fundamentally (yet often reversibly) altered. As the component's function is considered to be a factor in its authenticity, this approach reduces the spolia's authenticity more than the previous one. This perception of spolia is no longer uniquely based on the component's distinguishable pastness, but also on its altered and unconventional use.

Figure 16. Spolia windows comprising glass curtain walls for a gazebo in Vaasa, Finland. Photograph by Amanda Bieber, courtesy of YLE/Strömsö.

Fourthly, materials can be utilized for their original purposes in new buildings (Figure 17). For instance, boards in facades, floors or ceilings are materials rather than parts: their purpose is to form surfaces. Uniform fields of such materials can be relocated to new buildings with minimal modification. In such cases, the contrast between the new and the old stems from the new building's modern form or a contrasting interior or exterior lining, depending on the location of the spolia.

Figure 17. The frame is made of spolia logs but the design does not adhere to the geometry of the original building. Sauna 'Karhi' in Oulu, Finland. The architect is Pave Mikkonen. Photograph courtesy of PAVE Architects.

Lastly, scrap materials from multiple sources can be utilized in two different forms, constituting application levels 5 and 6. These uses accord with the terms collage, and bricolage (or patchwork), which are often associated with spolia (Kinney, 2011a:2; Liverani, 2011:39–40; Meier 2011:225). The classification is divided into two based on the degree of the material's manipulation and the quality of the visual expression. In ‘collage’ (level 5, Figure 18) materials from several sources are used, typically for their original purpose. The different origins of the materials are not necessarily emphasized. ‘Bricolage’ (level 6, Figure 19), on the other hand, emphasizes the variety of materials and often manifests playfulness. Surfaces from numerous sources are combined, and their origins or original uses have no specific significance for their spoliation. Typical applications are interior claddings.

Figure 18. A collage facade on a summerhouse. This piece of architecture was designed by a student of architecture as a course assignment. Image courtesy of Iina Tuominen.

Figure 19. A bricolage facade on a summerhouse. This piece of architecture was designed by a student of architecture as a course assignment. Image courtesy of Szymon Galecki.

The difference between the two latter levels can also be understood through their etymology. ‘Collage’ refers to any (artistic) composition of materials from different sources. Bricolage, on the other hand, specifically refers to working with smaller pieces (Robertson, 1991:21). The physical size of the spolia thus makes the difference between the last two levels of application, and it also has a significant impact on the architectural language. In both levels, however, any vestiges of documentary value are

sacrificed for the sake of the spolia's pastness, which is what distinguishes these last two levels from the previous four, all of which have a greater potential for source recognition.

Conclusion

In this paper, we have elaborated on spoliation, a distinct form of architectural reuse, and its potential for transmitting historicity into the present. There are three types of reuse in contemporary construction. The first type is need-based, practiced typically by do-it-yourself builders, and especially prominent in precarious societies. This does not count as spolia, but rather as continued use or pure recycling, since materials are selected on the basis of their availability rather than their historicity. The second type is found in the context of restorative repair, where reclaimed building parts from a given era are substituted for missing original parts. This is practised by both educated laymen and architects, but it is clearly outside the definition of spolia, since the purpose of the reclaimed parts is to 'fit in' and form a uniform whole with the rest of the building. Only the third type, characterized by its experiential and communicative qualities, can be classified as spolia and can act as a starting point for consciously incorporating historicity into new architecture.

Reuse has long carried negative connotations. In industrialized societies, it has been associated with backwardness and marginality (Kinney, 2011a:2) and in developing countries, it carries the stigma of poverty. In the field of architecture, this is manifested in the modernist design dogma that new architecture must not embody anything referring to the old. In this paper, however, we have suggested that this perception should be challenged, as spolia could in fact pass on meaningful messages to a modern audience, at least in societies that value material references to cultural history. Spolia could also enable the audience to connect better with contemporary architecture, which has long been criticized for lacking a sense of time, place and identity. Although the value of partial preservation, which spoliation represents in an extreme form, is strongly disputed in present architectural conservation theory, it is obvious that conventional conservational practices can never be extended to entire building stocks. However, despite their 'ordinary' status, these buildings, too, have historic significance embedded in their fabric.

As building stocks mature and environmental awareness increases, many of our current buildings will receive life-cycle extensions, but an equally great number will have to be demolished for a multitude of reasons. Spoliation could offer the architects of today an approach to preserving authentic historical material that is inherently

relatable, while still meeting the new challenges set by global environmental change. We see spolia as an opportunity to reuse existing building components in an architecturally enriching and purposeful manner that is also reverent to the values of the built heritage. Spolia are compliant with the requirement of transparency, which is characteristic of both contemporary architecture and conservation. Old components incorporated into new buildings remain true to the time of their production (through style and workmanship) and to their age (through patina), whereas contemporary architecture capitalizing on spolia needs to be true to its own time as well. Architectural styles using current materials can incorporate spolia as experiential and decorative accents with meaningful structural purposes, effortlessly adapting them to the new architecture. The spolia should not merely be regarded as sad curiosities of an unrecognized past, which is how they are often interpreted today.

References

Agudelo-Vera CM, Leduc WRWA, Mels AR, Rijnaarts HHM (2012) Harvesting urban resources towards more resilient cities. *Resources, Conservation and Recycling* 64:3–12.

Allwood JM, Ashby MF, Gutowski TG and Worrell E (2011) Material efficiency: A white paper. *Resources, Conservation and Recycling* 55:362–81.

Baudrillard J (1996) *The System of Objects*, trans. J Benedict. London: Verso.

Bongiorno, B (2013) *Spolien in Berlin nach 1945: Motive und Rezeption der Wiederverwendung von Fragmenten*. Petersberg: Imhof Verlag.

Brandenburg H (2011, reprinted 2014) The Use of Older Elements in the Architecture of Fourth- and Fifth-Century Rome: A Contribution to the Evaluation of Spolia, trans. B Anderson. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.53–73.

Brilliant R (2011a, reprinted 2014) Authenticity and Alienation. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.167–77.

Brilliant R (2011b, reprinted 2014) Epilogue: Open Sesame: The Art Treasures on the World on Call. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation*

in Art and Architecture from Constantine to Sherrie Levine. Farnham: Ashgate, pp.251–4.

Brilliant R (1982) I piedistalli del giardino di Boboli: spolia in se, spolia in re. *Prospettiva* 31: 2–17.

Canizaro V (2007) Introduction. In: Canizaro V (ed) *Architectural Regionalism: Collected Writings on Place, Identity, Modernity, and Tradition.* New York: Princeton Architectural Press. pp.16–33.

D'Ayala D and Wang H (2006) Conservation Practice of Chinese Timber Structures:' No Originality Changed' or 'Conserve as Found'. *Journal of Architectural Conservation* 12(2):7–26.

Dicks B (2000) *Heritage, Place and Community*. Cardiff: University of Wales Press.

Dumitrescu A (2016) *The Management of Change in Finland's Wooden Historic Urban Landscapes: Old Rauma*. Tampere University of Technology. Publication; Vol. 1375. Tampere University of Technology.

Esch A (2011, reprinted 2014) On the Reuse of Antiquity: The Perspectives of the Achaeologist and of the Historian, trans. B Anderson. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.13–31.

European Union (2008) *Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives*. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0030:en:PDF (Accessed 31 December 2015).

Gilmore JH and Pine BJ (2007) *Authenticity: What consumers really want.* Boston: Harvard Business School Press.

Greenhalgh M (2011, reprinted 2014) *Spolia*: A Definition in Ruins. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.75–95.

Gregory J (2008) Reconsidering Relocated Buildings: ICOMOS, Authenticity and Mass Relocation. *International Journal of Heritage Studies* 14(2): 112–30.

Grzesiak L (2011) *Beyond Reuse: Spolia's Implications in the Early Christian Church.* Master's thesis, University of British Columbia. Available at http://hdl.handle.net/2429/33984 (Accessed 14 August 2015).

Hankonen J (1994) *Lähiöt ja tehokkuuden yhteiskunta.* Helsinki: Gaudeamus Kirja, Otatieto & TTKK Arkkitehtuurin osasto.

Hansen MF (2003) *The Eloquence of Appropriation: Prolegomena to an Understanding of Spolia in Early Christian Rome*. Rome: L'Erma di Bretschneider.

Holtorf C (2015) Averting loss aversion in cultural heritage. *International Journal of Heritage Studies* 21(4):405–21.

Holtorf C (2013) On Pastness: Reconsideration of Materiality in Archeological Object Authenticity. *Anthropological Quarterly* 86(2):427–44.

Härö M, Heikkilä E and Holopainen R (2013) Autioituvia taloja ei pidä purkaa. *Helsingin Sanomat*, 28 September. Available at http://www.hs.fi/mielipide/a1380260049034 (Accessed 29 October 2014).

ICOMOS (1964) *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964)*. Available at http://www.international.icomos.org/e_venice.htm (Accessed 19 January 2016).

ICOMOS (2013) *The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter)*. Available at http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf (Accessed 9 September 2016).

Jencks C (2011) *The Story of Post-Modernism: Five Decades of the Ironic, Iconic and Critical Architecture*. Chichester: Wiley.

Jones S (2010) Negotiating Authentic Objects and Authentic Selves: Beyond the Deconstruction of Authenticity. *Journal of Material Culture* 15(2):181–203.

Jones S (2009) Experiencing Authenticity at Heritage Sites: Some implications for Heritage Management and Conservation. *Conservation and Management of Archaeological Sites* 11(2):133–47.

Jones S and Holden J (2008) *It's a material world: caring for the public realm*. London: Demos.

Kemp J (2009) *Practical Ethics v2.0*: *Conservation, Dilemmas and Uncomfortable Truths*. London: Routledge.

Kinney D (2011a, reprinted 2014). Introduction. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.1–11.

Kinney D (2011b, reprinted 2014) Ancient Gems in the Middle Ages: Riches and Ready-mades. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.97–120.

Kärki P (1999) The Conservation of Wooden Towns. In: Mattinen M, Häyrynen M, Kairamo M and Tuomi T (eds) *Monuments and Sites: Finland.* Helsinki: ICOMOS, pp.103–111.

Larsen K E (1987) Some Aspects of the Development of the Wooden Towns in the Nordic Countries until the 20th Century. In: ICOMOS. *Old Cultures in New Worlds: 8th ICOMOS General Assembly and International Symposium Program Report (Vol 2)*. Washington: ICOMOS, pp.677–684. Available at http://www.icomos.org/publications/wash90.pdf (Accessed 26 May 2017).

Liverani P (2011, reprinted 2014) Reading *Spolia* in Late Antiquity and Contemporary Perception. In: Brilliant R and Kinney D (eds) *Reuse Value:Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.33–51.

Lowenthal D (1985, reprinted 2006) *The Past is Foreign Country*. Cambridge: Cambridge University Press.

Lynch K (1972) *What Time Is This Place*. Cambridge: The MIT Press.

Matero F (2011) Confronting time: On the Modalities of Conservation. *AIC news* 36(1):1,3–4.

Matero F (2007) Loss, Compensation Authenticity in Architectural Conservation. *Journal of Architectural Conservation* 12(1):71–90.

Meier H-R (2011, reprinted 2014) Spolia in Contemporary Architecture: Searching for Ornament and Place, trans. B Anderson. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.223–36.

Norberg-Schultz C (1991) The Language of Architecture. *DATUTOP Department of Architecture Tampere University of Technology Occasional Papers* 14:91–107.

Orbaşlı A (2008) *Architectural Conservation: Principles and Practice*. Oxford: Blackwell Science.

Pallasmaa J (2012) *Encounters 1,* ed. P MacKeith. Helsinki: Rakennustieto Publishing.

Parkkinen P (2016) *Saako taidemuseo tuhota teoksia? Aihe on yhä arka, vaikka seinät tulevat jo vastaan*. Available at http://yle.fi/uutiset/saako_taidemuseo_tuhota_teoksia_aihe_on_yha_arka_vaikka_seinat_tulevat_jo_vastaan/9128301 (Accessed 9 September 2016).

Rajagopalan M (2011, reprinted 2014) A Medieval Monument and its Modern Myths of Iconoclasm: The Enduring Contestations over the Qutb Complex in Delhi, India. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.199–221.

Riegl A (1903, reprinted 2003) *Le culte moderne des monuments*. Paris: L'Harmattan.

Robertson JG (1991) *Robertson's Words for a Modern Age: A Cross Reference of Latin and Greek Combining Elements*. Wiesbaden: Senior Scribe Publications. Available at https://books.google.fi/books?isbn=0963091905 (Accessed 28 December 2015).

Ruskin J (1880, reprinted 1907) *The seven lamps of architecture*. Leipzig: Bernhard Tauchnitz.

Taylor J (2015) Embodiment unbound: Moving beyond divisions in the understanding and practice of heritage conservation. *Studies in Conservation* 60(1):65–77.

Tschudi-Madsen S (1985) Principles in practice: Reflecting on the conservation of wooden architecture. *ICOMOS Information* 1985(4):18–24. Paris: ICOMOS. Available at http://www.icomos.org/publications/ICOMOS_Information/1985-4.pdf (Accessed 6 June 2016)

Wharton AJ (2011, reprinted 2014) The Tribune Tower: Spolia as Despoliation. In: Brilliant R and Kinney D (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Farnham: Ashgate, pp.179–97.