Article

Reviewing Neighborhood Sustainability Assessment Tools through Critical Heritage Studies

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Abstract: This article reports on a critical review of how cultural heritage is addressed in two internationally well-known and used neighborhood assessment tools (NSAs): BREEAM Communities (BREEAM-C) and LEED Neighborhood Design (LEED-ND). The review was done through a discourse analysis in which critical heritage studies, together with a conceptual linking of heritage to sustainability, served as the point of departure. The review showed that while aspects related to heritage are present in both NSAs, heritage is re-presented as primarily being a matter of safeguarding material expressions of culture, such as buildings and other artifacts, while natural elements and immaterial-related practices are disregarded. Moreover, the NSAs institutionalize heritage as a field of formal knowledge and expert-dominated over the informal knowledge of communities.

Keywords: critical heritage; sustainable development; urban sustainability; neighborhood sustainability assessment (NSA); BREEAM-C; LEED-ND

1. Introduction

The preservation of cultural and natural heritage is increasingly argued to be a vital part of sustainable urban development [1]. While preserving cultural resources is conceived as being crucial for community development and social cohesion [2,3], the preservation of natural resources is increasingly promoted not only to improve the quality of life and well-being but also as a response to climate change [4,5]. Today, planning for sustainable urban development is increasingly carried out through the use of neighborhood assessment tools (NSAs). These tools, such as BREEAM Communities (BREEAM-C) and LEED Neighborhood Design (LEED-ND), provide guidance on how to work towards sustainable urban development through establishing specific processes, criteria, and indicators. While these tools do come with several benefits, for example, through providing urban planners with a ready-made list of sustainability aspects to consider, they are firmly based in a rather rationalist planning paradigm and technocratic view on sustainability as a matter of management, rather than values and priorities (see, for example, [6,7]). In other words, these tools risk foreclosing exploration and debate on what sustainable development could and should mean for a specific community.

This article aims to critically review the ways in which notions of cultural heritage are represented in and through neighborhood assessment tools (NSA). This is done through a discourse analysis in which critical heritage studies serve as the point of departure, applied to two internationally known and used neighborhood sustainability assessment (NSAs) tools: BREEAM Communities (BREEAM-C) and LEED Neighborhood Design (LEED-ND).

In short, critical heritage studies challenge traditional conceptions of heritage as building on and re-producing established binary pairs and divides between nature and culture, material and immaterial, formal and informal, and global and local aspects of cultural heritage [8,9]. Moreover, beyond re-producing these binary pairs, traditional approaches to heritage also tend to build on a hierarchization of the elements of these pairs, i.e., favoring culture over nature, material (artifacts) over the immaterial (practices), formal (expert/official) over informal (community/unofficial), and global or universal understandings of heritage over local. Moreover, a critical heritage studies perspective suggests that heritage should be engaged with as a relational and dynamic process of interpretations, contestations, and representations [10]. A process through which the past becomes contested, negotiated, and reconstructed in the present rather than given and unquestioned, and according to which our spatial realities become re-valued and re-produced, rather than static "things" frozen in the past [11–13]. It also demands us to rethink what, how, and for what purposes we select and define artifacts and other material entities as valuable heritage.

BREEAM-C and LEED-ND are analyzed in this article following these questions: How do these tools "talk" about heritage? What aspects of cultural and natural heritage are taken into consideration, and in what way? Consequently, what understanding of heritage is re-produced through these tools? The article is structured as follows: Section 2 introduces critical heritage studies and discusses heritage in relation to sustainable development. Section 3 briefly introduces neighborhood assessment tools with a focus on the tools to be analyzed, BREEAM-C and LEED-ND. In Section 4, the research material and choice of methods are explained. Section 5 presents the results of the review of the two NSAs. Finally, Section 6 concludes the article.

2. Heritage and Sustainability through the Lens of Critical Heritage Studies

2.1. Introducing Critical Heritage Studies

Recent explorations within the field of critical heritage studies (CHS) suggest that most of the heritage works within research and practice follow established binary pairs and divides between not only nature and culture, but also the formal and informal, material and immaterial, and local and global aspects of cultural heritage [8,9]. As Harrison [13] explains, these divides hindered many heritage institutions from challenging the narrow definitions of heritage and modes of its management. Heritage is viewed as inherited property, such as historic buildings that have been passed down from previous generations and worthy of preservation due to their historical and/or cultural value. To be considered as valuable, cultural and natural resources should be monumental, aesthetic, and old; embrace historical and cultural significance; and associated with the experiences of the upper-middle-class [1]. The value of intangible aspects of heritage is increasingly appreciated and recognized, however, as categories on their terms. Such views do not see or find it challenging to address the other theoretically developed views on and empirically contextualized relations of heritage that unpack the thick processes, stories, and other intangible aspects that "wrap" around every object of tangible heritage [13]. To this end, scholars of CHS suggest that we adopt inclusive approaches that critically embrace and engage the diverse connections that form the "broader natural-cultural assemblages" [8], rather than simply debate the nature–culture divides. Along these ideas, Harrison [13] (p. 217) explains that "*heritage is not the inscription of meaning onto blank objects, places, and practices that are produced in this process but instead is produced as a result of the material and social possibilities or 'affordances' of collectivities of human and non-human agents, material and non-material entities in the world*".

What is important to notice here is the emphasis on the relations between people, nature, and artifacts. Any engagement with heritage through this perspective suggests working with heritage across a range of disciplines. Doing this does not only lead to sensitive explorations of the past and management of the different cultural and natural resources but also support challenging the traditional perceptions of material stasis and any closure enforced on heritage, whether through the authorized heritage discourses [9] or any other societal dynamics. It also proposes more nuanced

notions of material agency inspired by the entangling of natural and cultural worlds [14,15] and supported by a dynamic conception of history that sees it as a process of continuous transformations beyond any conventional divide between the past, present, and future. In a nutshell, CHS focus on the questions that extend outwards from heritage [1] and bear upon the socio-political complexities that enmesh heritage, tackling the thorny issues those in the conservation profession are often reluctant to acknowledge. By challenging the aforementioned divides, several scholars of CHS explored new methodological approaches to heritage that enabled them to unpack the socio-politically complexities that enmesh heritage and to reveal how heritage is critically related to the global challenges of climate change, pollution, overpopulation, and species extinction [13]. In this sense, Winter [1] argues that scholars of CHS should continue to address the critical questions that face our societal development, and also gain "*better understanding [of] the various ways in which heritage now has a stake in, and can act as a positive enabler for, the complex, multi-vector challenges that face us today, such as cultural and environmental sustainability, economic inequalities, conflict resolution, social cohesion and the future of cities, to name a few*" [1] (p. 533). This societal perspective on heritage promotes new explorations within heritage and sustainable development.

2.2. Linking Heritage to Sustainability

While both heritage and sustainability entail future-oriented processes, their links are often made through notions of management and development [16]. In principle, the management of heritage comprises buildings, sites, and other properties of historical, cultural, political, artistic, and/or religious significance in addition to community-related knowledge, traditions, and innovations, which are protected for future generations. A similar future-looking window is adopted for the most commonly accepted definition for sustainable development: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Within this context, the link between the two can be traced back to the emergence of the "heritage industry" in the 1980s. This industry, as explained in Ashworth [17] (p. 22), entails "*a varied collection of commercial activities, in both public and private sectors, that shape and market heritage products (. . .) intended for contemporary consumption*". Not until recently, the evaluation of the impact of heritage on sustainable development, as explained by Fouseki and Nicolau [16], adopted "one-dimensional methodological approaches by using social and economic indicators separately rather than in interconnection".

In practice, new changes were promoted through the Policy Statement on Culture as the Fourth Pillar of Sustainable Development of the Executive Bureau of United Cities and Local Governments (UCLG). This initiative builds on UNESCO's Universal Declaration on Cultural Diversity [18] and Convention on the Diversity of Cultural Expressions [19], and, ultimately, on the idea that sustainability comprising three pillars (economic, social, and environmental), does not reflect the complexity of current society [20]. As UCLG's report states, "(. . .) *culture ultimately shapes what we mean by development and determines how people act in the world*" [20] (p. 4). Nevertheless, the policy statement addresses the relation between culture and sustainable development through dual means: the development of the cultural sector itself (i.e., heritage, creativity, cultural industries, crafts, cultural tourism), and ensuring that culture has its rightful place in all public policies (e.g., education, economy, science, communication, environment, social cohesion) [20]. This suggests making policies cross-departmental and inclusive, in terms of including people's different views and interpretations, to plan for sustainable futures. While calling for the recognition of people's cultural diversity, the report, however, dwells on traditional multiculturalism policies that seek to highlight differences rather than engaging in it. In this respect, the inclusion of heritage under the cultural sector reduces the complexity of heritage into a specific process of cultural determinism. This approach goes against the critical perspective on heritage that views heritage as a process through which the multiple layers of meaning that constitute what we regard as heritage are contested and negotiated. It is evolutionary and inclusive in nature. Cultural practices, however, and in their Western-centric understanding, are exclusionary as anything

that falls outside the narrative of value would not only be regarded as not cultural but it may also become silenced and excluded.

Conceptually, another space that links heritage with sustainability is the ideological engagement with the past and future. While much of the discussion in heritage studies is focused on whose past should be preserved and what future should be projected, sustainability is also about learning from the past to construct a more just and resilient future. In this sense, both heritage and sustainability discourses engage with questions of inter- and intra-generational temporalities and spatialities. Professional heritage practices are concerned with the protection of the past through the restoration and re-use of existing structures and buildings in order to recycle materials, reduce manufacturing, and save energy [21]. Economically, heritage is viewed as a resource for new investments, employment, branding, and tourism [22,23]. Socially, through heritage, people make sense of their places, and feel ownership and attachment [24]. While heritage practices are occupied with defining and protecting the traces of the past in the present in order to inform future generations about who we were, how we lived, how and what we celebrated and mourned, and what our world views and systems of production were, sustainability focuses on fair and equitable allocation of natural and other resources within planetary boundaries and between the present (intra) and future (inter) generations. Recently, scholars of CHS exposed the exploitation of heritage for economic and political gains and called for a more justice-seeking heritage practice [9,13,25,26].

Following these conceptual principles, this article challenges any argument that view heritage as being primarily about the past and injustice, and that sustainability is about the future and justice. Instead, it is argued here that both heritage and sustainable development are essentially future-oriented processes (preserve, conserve, and maintain for the future), envisioned, negotiated, contested, designed, and managed in the present. These processes are not rooted in the past or follow an inevitable projection towards the future. Building on Borges [11], the pasts, presents, and futures are plural, uncertain, and interwoven. Any change occurring across these interlinked periods of time and spaces of power is never linear. For this reason, the ways we conceive the links between these times and spaces, and the way we frame "our valuable pasts" in the present, has significant implications in shaping "our desirable future" and our envisioned past [11]. The awareness about the ontological and political connections that frame these assemblages can lead to an active and informed role in the production of both pasts and futures.

To grow with a more critical relation between heritage and sustainability, the theoretical advances of both fields are brought into conversation, articulating CHS-inspired analytical principles to better understand the role that heritage may play in the NSAs. This will be specifically developed in the light of "life cycles" across time, politics, and sectors of development. At the center of this is the argument that heritage involves a present-centered and future-oriented processing of a tangible and intangible sense of the past. As explained in Figure 1, the life cycle that transcends the four pillars of sustainability and three imperatively interlinked periods of time involves a present-centered process of re-construction of the past and the future.

Figure 1 begins and ends in the present. Not only what we do in the present supports or jeopardizes progress towards a sustainable future. Our doing in the present also influences and is influenced by the ways in which we envision, engage with, and project the past and future. Figure 1 envisions a normative future ("future" columns) with the potential to cope with planetary limitations while securing social equity and economic justice [27]. It, however, suggests specific measures that should be taken in order to reach such a future. Following the four pillars, Figure 1 suggests the reprotection of the environment through a significant reduction of the extraction and consumption of natural resources [28] and the effective management of the emission of pollutants and other environmental stresses [29], reproduction of a more just economy through an effective shift towards new economic models based on the circularity of resources [30,31], reconstruction of the inclusive nature of societies through reconstructing decentralized and democratic forms of governance and redistribution of economic and environmental resources across societal groups [32,33], and the revitalization of the hybrid forms

of culture through a critical engagement with difference rather than a simple acknowledgment or symbolic representation. All these processes take place in the present. The prefix "re" is brought into the figure to re-emphasize the life cycle of the four pillars across time, traveling forward and backward between the past the future. The past, present, and future are brought here for analytical purposes. Time and history are fluid and entail no established divide between the three. Figure 1, however, suggests that the past and future of the four pillars are often brought into politicized processes of "heritage work" in the present.
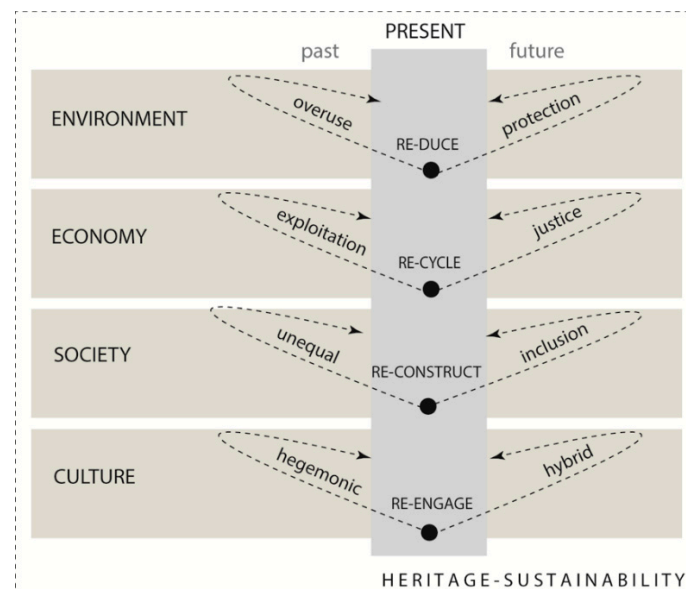
Figure 1. Envisioned conversation between heritage and sustainable development following a present-centered and a future-orientated sense of heritage.

This perspective and the "re" prefix open new avenues to address heritage in NSAs. The ways in which the past and the future are conceived and engaged with an envisioned and implemented urban change can have significant implications for sustainable urban policies. In this respect, attention should be given not only to the features of the pre-existing urban environment, but also to the processes and performances that are associated with, and lead to the production of, that built environment. In the same fashion, heritage and sustainable development should also be approached as processes in order to critically unpack and appreciate "*the relationship and connectivity between people, objects, places and practices and … not to distinguish between or prioritize what is natural, and what is cultural but instead [engage] with the various ways in which humans and non-humans are linked by chains of connectivity and work together to keep the past alive in the present for the future*" [13] (p. 229).

These theoretical principles underlie the ways in which the relations between heritage and sustainable development are explored and how BREEM-C and LEED-ND are analyzed in this article.

3. Introducing the Neighborhood Assessment Tools, BREEAM-C and LEED-ND

3.1. What Are NSAs?

Neighborhood assessment tools (NSA) are a category of impact assessment tools aimed at promoting urban sustainability by setting a standard for evaluating and certifying the sustainability of urban neighborhoods [34]. These tools started to emerge in the early 21st century, with inspiration from both environmental impact assessments for urban developments and certification tools for green buildings [34]. Present examples of NSAs include the Japanese CASBEE Urban Development, the U.S.-based LEED Neighborhood Development (LEED-ND), the British BREEAM Communities

(BREEAM-C), the German DGNB New Urban Districts, the Australian system Green Star Communities, and the Swedish Citylab Certification. While these systems have been developed for domestic use, and thus having a bias towards challenges specific for the context developed for, several of them are today marketed internationally. The NSAs, their structure, content, and use have already been scrutinized from a number of perspectives, but to the best of our knowledge, there is no published study of how these tools address heritage. There are, however, a number of studies showing that several of the systems have a bias towards ecological sustainability, while social, economic, and institutional sustainability aspects are down-played [34–36]. The conception and involvement of ecological sustainability also diverge in terms of levels of engagement, criteria, and values. Moreover, Zhou et al. [37] and Wangel et al. [38] note that NSAs tend to focus strongly on the internal sustainability of neighborhoods, while the relations between the neighborhood and its hinterlands are disregarded. There are also several studies addressing the structure of the NSAs in terms of weighting and aggregation mechanisms, mandatory vs. voluntary issues, and terminology [39–42]. In this article, we have chosen to look closer at two of the internationally more well-known and used of these systems: BREEAM Communities (BREEAM-C) and LEED Neighborhood Design (LEED-ND).

3.2. BREEAM-C and LEED-ND

BREEAM-C originated in the U.K. and LEED-ND in the U.S. Their scopes and criteria broadly reflect context-specific challenges in relation to planning practices, mobility paradigms, and building energy standards, to name a few. At the same time, both and several other NSAs have been "exported" to other countries, thus circulating context-specific problem-re-presentations from one place to another, including suggested "solutions". BREEAM-C certification, for example, has been applied in more than 70 countries around the world. Until 2018, this tool has certified over 20 urban development projects, and more than 35 are currently registered and undergoing assessment [43]. As the most widely used green building program, LEED-ND certification as of 2018 has been employed over 96,275 registered and certified projects in more than 167 countries and territories.

The LEED-ND assessment tool, as illustrated in Figure 2, includes five categories, each of which is broken down into different issues, i.e., sustainability aspects (see legend of Figure 2). A few of these issues are mandatory. The issues also have different weights, which indicate the number of credits that the assessment could score. An urban development, to become certified, should score between 40 and 49 credits. Above this threshold, the urban development is granted different statuses: "silver" if it scores between 50 and 59, "gold" between 60 and 79, and "platinum" if it gains more than 80 credits. Seeing LEED-ND as a whole, it is noteworthy that the category "neighborhood pattern & design" includes issues that can score almost 40% of the credits of the certification. The categories "green infrastructure & buildings" (26.8%) and "smart location" (25.9%) have similar weight in the rating system of LEED-ND.
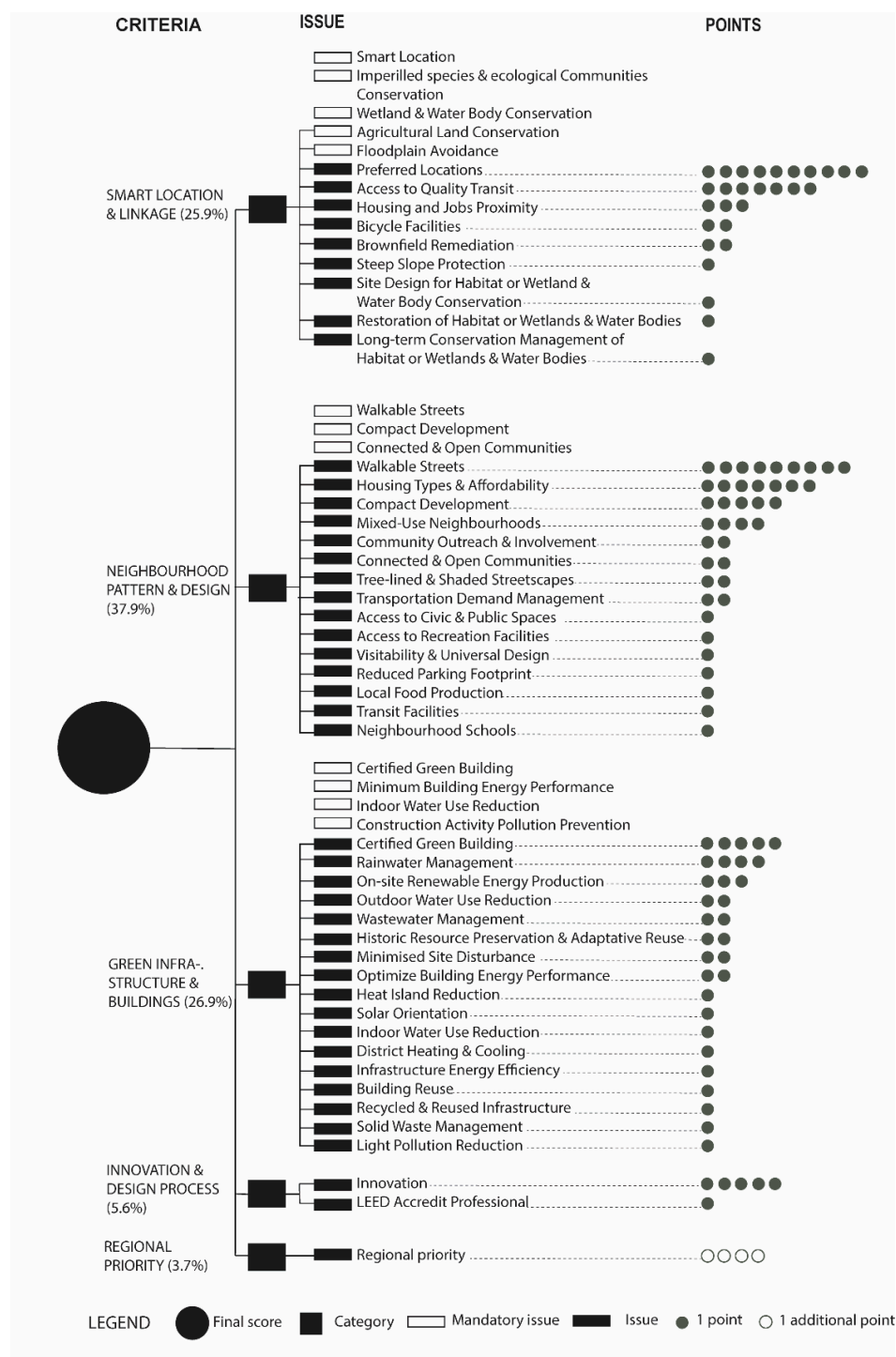
Figure 2. Hierarchical diagram with the structure of LEED Neighborhood Development (LEED-ND). Adapted from [38].

As Figure 3 shows, the structure of the BREEAM-C assessment system is structured around three phases for the implementation of the project. These phases reflect the life-time of urban development (up to the use-phase) and encompass five categories, each of them unfolds into several issues. As a whole, the evaluation system comprises of 126 credits with 30 credits being the minimum score for an urban development project to become certified. After this level, the statuses of certification are as follows: "good" (≥45 credits), "very good" (≥55), "excellent" (≥70), and "outstanding" (≥85).

BREEAM-C also defines mandatory issues as a condition for certification. Nevertheless, contrary to LEED-ND, the mandatory issues are computable in the score for accreditation.
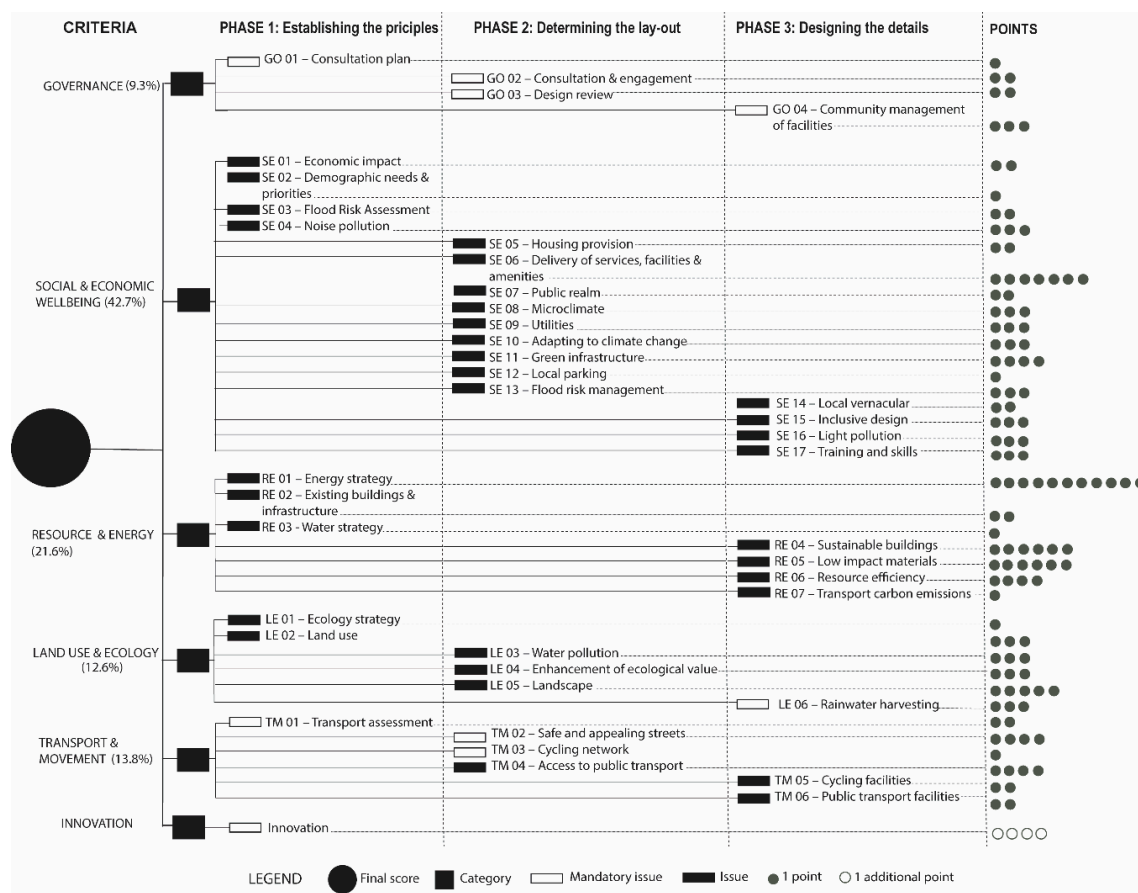
Figure 3. Hierarchical diagram with the structure of BREEAM Communities (BREEAM-C). Adapted from [38].

4. Research Methods and Material

Both BREEAM-C and LEED-ND were systematically analyzed by looking at how the past–present–future assemblages are interpreted, approached, and integrated into the assessment processes. The manual of both NSAs [44,45] were the primary sources for the analysis, but other documents such as brochures advertising the use of the NSA [43] and a reference guide for the implementation of the certification system [46], were also used. Thematically, the analyses began by mapping the recurrence of terms such as heritage, history, identity, conservation, preservation, restoration, protection, community, and context. With the purpose of unfolding the discursive constructions that frame sustainability in both NSA documents, the mandatory criteria for certification and the indicators were compared and analyzed.

The analyses of criteria focused on the interpretation of how sustainability is pledged to be reached in the NSAs. This helped to disclose the underlined assumptions that each document stipulated to "achieve" sustainability and how these assumptions relate to the past–present–future assemblages. This step was followed by the identification of any existing ontological divides between "nature and culture", "official and non-official", "personal and public", "tangible and intangible", "past and future". The inclusion of different levels of complexity in the analysis helps uncover hidden heritage-related meanings of urban sustainability while accounting for temporal continuity. The analysis also looked at the question of inter- and intra-generational cultural equality by evaluating the extent to which, and in what ways, the NSAs take into consideration notions of present and future generations. In this respect,

the framework outlined in the previous section served as a reference to "situate" these multi-layered narratives within the past–present–future, and the four pillars of sustainability.

5. The NSAs and their Conceptions of Heritage

5.1. How do the NSAs Talk about Heritage?

Wangel et al. [38] analyzed the distribution of credits in BREEAM-C and LEED-ND across 13 sustainability categories. Reviewing their analysis, we found out that cultural heritage is assigned the least credits, 2 out of 110 credits in LEED-ND and 0.9 out of 107 in BREEAM-C—none of which are mandatory. This means that it is entirely possible to certify an urban development project as sustainable without considering cultural heritage. This is also evident in the ways NSAs define cultural heritage, as presented in [38] (p. 207): "*LEED-ND raises awareness of the importance of preservation and reuse of existing buildings, landmarks*, etc. *from a social sustainability point of view, while BREEAM-C focuses on how the new development should adapt to the local character and reinforce the local identity*". Nothing additional is brought in the mandatory issues that both NSAs define for the certification of projects as sustainability. It is noteworthy that LEED-ND is more explicit concerning the normative assumptions that foreground their recommendation towards sustainable neighborhoods. For example, the mandatory requirements in LEED-ND are usually accompanied by adjectives (e.g., "smart" location, "walkable" streets, "connected and open" communities). This semantic construction gives a clue on the qualities that the development must accomplish to be considered sustainable. For example, a smart location is one that enhances a compact urban form, which is expected to deliver fewer car trips and improve public health. On the other hand, the language used to describe the mandatory criteria of BREEAM-C is more neutral (e.g., transportation, land use, communities). This impartiality may be related to the inclusion of the participatory process in the start-up phase of the development, which requires a flexible approach concerning the qualities prescribed to the new development.

The discursive analysis of heritage-sustainability relation to BREEAM-C [44] showed that the terms heritage and identity appear in the text in the different development phases of a project. For example, in the first phase of the project implementation, the tool suggests the uses of "existing buildings and infrastructures" in order to integrate the embodied carbon of remaining built structures in the site, if any, and hence protect place identity. Here becomes clear the assumption concerning the environmental gains that come with the preservation of "material" heritage; nevertheless, the specific focus on materiality and the uncritical consideration of the different tangible and intangible aspects that constitute the identity of a place are disregarded. A grammatical construction that deserves attention in the text is "*The developer commits to refurbishing any existing buildings or infrastructure that have been identified in the assessment as being of significant value to the local community or for sustainability reasons*" [44] (p. 43). The use of the preposition "or" here indicates the detachment between "value to people" and "sustainability" and, consequently, the non-strategic communication between the different aspects of heritage and the four pillars of sustainability. Conceiving heritage through the conventional focus on materiality, pastness, and scale, BREEAM-C also suggests that enhancing place "identity" can be addressed by looking at the extent to which the project embraces the local context following the criteria, "local vernacular". Significant heritage is thus what is conceived to be visible in terms of size, material, color, form, and architectural style. In this sense, the inclusion or preservation of historical elements associated with the local identity gives little attention to the elements that are viewed as being non-historic, non-monumental, or non-aesthetic [44].

When it comes to the discourse analysis of the LEED-DN, the focus on heritage is less evident. Discursively, the language of heritage can be traced to four specific locations in the manual, while the term "identity" does not appear at all. Two out of the four mentions of heritage's language, link heritage with a public institution that should be consulted to assess environmental impacts, following the criterion, among others, of site design for habitat or wetland and water body [45]. The two other mentions focus on the criteria "minimize site disturbance" (see Figure 2), which is concerned about

"the preservation of non-evasive trees, native plants and pervious surfaces" [45]. In this case, it is suggested that any heritage or champion trees of special importance to the community because of their age, size, type, historical association, or horticultural value must be preserved if found in the site [45]. Despite the little focus on the term heritage, the terminologies such as "conservation" and "preservation" are notably recurrent in the LEED-DN manual. While both terms, preservation and conservation, are different paradigms originating in different contexts—if preservation focuses on keeping objects from the past based on experts knowledge, conservation focuses on the adaptive re-use of a collection of objects from a given past by policy-makers [47]—they are used interchangeably. Nevertheless, and in most cases, these terms are associated with natural resources. For example, the LEED-ND guidelines "imperiled species and ecological communities conservation (SLL)" and "site design for habitat or wetland and water body conservation (SLL)" suggest that the authorities that deal with natural heritage and wildlife agencies or equivalent bodies should be consulted to identify significant habitat in the site and determine if any species listed as threatened or endangered or imperiled ecological communities have been or are likely to be found on the project site [45].

A CHS perspective on the ways heritage is engaged within BREEAM-C, and LEED-ND reveals a prevailing impact for the traditional divides of heritage on the assessment criteria used in both tools. These divides are likely to continue to reinforce the disconnection between objects and practices, tangible and intangible, nature and culture, official and non-official, experts and laymen, personal and collective, local and universal.

5.2. Nature–Culture

The most prevalent divide in both LEED-ND and BREEAM-C is visible in the way heritage is addressed as either natural or cultural. Both tools view cultural heritage through the specific focus on architectural and other spatial elements, and the preservation of these elements is advocated as a sustainable practice. Very little, if any, attention is given to the different experiences and processes that constitute these elements. In LEED-ND, the criteria "building reuse" advocates the protection of elements that entail historical significance. In this, protection refers to the preservation and/or adaptive reuse. The primary principle of the criteria "building re-use" is to extend the life cycle of buildings, safeguard resources, reduce waste, and reduce any environmental harm produced by the large scale of manufacturing and transportation of building materials [45]. In contrast to BREEAM-C, LEED-ND does not at all mention the value of preserving buildings for local communities. At the same time, it firmly rejects the demolition *of any historical building or contributing building in a historic district (…) or alter any cultural landscapes as* part of the project" [45] (p. 67). Its views heritage as a static "thing" frozen in the past and its authenticity resides in its "pastness" [48].

The nature–human divide is also evident in the BREEAM-C' criteria "enhancement of ecological value", which advises the development to create new habitats or increase the scale of existing habitats by connecting green spaces, and eventually creating wildlife corridors [44]. This passage suggests that the greener and wilder, the more valuable nature is conceived. Heritage here is tightly linked to the traditional conception of authenticity that is not only monumental, aesthetic, and old but also intrinsically—rather than relationally—valuable [48]. Similarly, conservation is likely to be devoted to protecting the actual divide that ensures the natureness of nature or the imagined continuity of nature. What is under focus here is how the conservation of nature (other-than-humans) follows an assumed association between greeneries and quality of life, including a healthy environment, "wellbeing", and "amenity and social provision". Critically, the care for nature, however, might sound here symbolic, if not greenwashing practices, and the premise is reduced to maximizing the advantages of having an ecological plan to help integrate green infrastructure into the development project.

5.3. Formal–Informal

Both tools differentiate between official and non-official heritage. They see the extent to which projects care for the officially listed heritage as a benchmark to assess sustainability. While LEED-ND

recommends the conservation of locally and nationally recognized artifacts with historical significance, BREEAM-C opens possibilities to include non-official heritages in the evaluated development. Exceptions to the preservation of buildings are, however, granted with the approval of a pertinent authority. In LEED-ND, official and authorized heritage practices also support the conservation of national heritage through its criteria "historic resource preservation and adaptive use" [45]

Although BREEAM-C advocates the importance of taking local identity into consideration and the virtue of co-creating heritage through community engagement, the focus remains on the inclusion of local perspectives on already defined heritage rather than exploring what can locally be called as valuable heritage. For example, the aim "*to ensure that the needs, ideas, and knowledge of the community are used to improve the quality of stakeholder engagement throughout the design planning, and construction process*" [44] (p. 21) gives little attention to the possible relationships between local communities and the existing built environment. Rather, it attempts to include people's perspectives on the masterplan. In both tools, the process of recognizing any none official aspect of heritage and including it on the list of official aspects of heritage remains predominantly top-down. It is usually dominated by the opinions and the human subject of experts. Local community groups are usually invited to the processes of heritage management to get informed and or to provide views rather than actively involving them in the decision processes.

5.4. Artifacts–Practices

Traditional modes of heritage management follow protocols, techniques, and procedures that heritage managers, archaeologists, architects, museum curators, and other experts undertake [9]. It may also be an economic and/or leisure practice and/or a social and cultural practice; however, it provides little attention to how heritage relates to societal development. Understanding heritage as processes [10] suggests the assessment of heritage through a particular emphasis on the social and cultural aspects that are produced by and producing that environment. In this sense, heritage properties cannot be conceived as blank artifacts, but instead, as Harrison [13] advocates, "*produced as a result of the material and social possibilities*" (p. 217). The value of heritage in sustainability can, therefore, be measured by looking at its continuous evolution in relation to the built environment rather than its historical significance. This suggests departing any evaluation of heritage by asking what values of heritage are appreciated in this place rather than initiating the process by asking how should we preserve the heritage of this place. This take on heritage promotes new intersections between the pillars of sustainable development and sheds light on new values of heritage that go beyond the spatially- and historically-determined approach taken by both NSAs in which the valuable heritage should be physical and embrace a historical significance.

Both LEED-ND and BREEAM-C depict similar images of sustainable urban environments when it comes to principles such as compactness and walkability. Although BREEAM-C puts extra emphasis on addressing the needs of local communities (e.g., in the criteria "demographic needs and priority"), both NSAs envisage a sustainable neighborhood as a "physical container" within which a static universal and a single-end state can be identified [49]. In this, sustainability, as defined within the context of certified NSAs, is expected to be delivered regardless of context. As outlined in the advertisement brochure of BREEAM-C [43], the criteria used to account for "climate conditions", "local standards and regulations", and "cultural variations" serve as means to assure the universality of the BREEAM tool, and thus the possibility to use it internationally. What is mean in universality here is not only about the total applicability of the tool, but also its reliance on universally recognized standards and conceptions, such as the recognition of valuable heritage through the so-called UNESCO's "outstanding universal values". Such an approach violently undermines local knowledge and other contextually-situated values.

What is critical here is the adverse influence of such an approach to the critical questions of identity, memory, and sense of place that are viewed in this article as being directly related to the politics of heritage. Even cultural representation is tackled through standard and symbolic procedures.

In BREEAM-C, it happens through public participation, which is recommended in the initial phases of the implementation of projects rather than in the initial phases of idea construction. In this, the difference is represented by referring to people's "cultural variations" without any critical engagement with difference. Indeed, public participation helps to engage the diverging views of people. The literature, however, increasingly demonstrates how public participation usually remains symbolic and/or is politicized to gain legitimacy [50]. Without critical engagement with the local communities and their everyday spaces, sustainability in certified sustainable neighborhoods is conceived and evaluated based on normative and technical terms, while heritage continues to be exploited for economic gains and within the frameworks of the heritage industry.

5.5. Spatial and Temporal Disconnectedness

Both tools not only give more attention to physical objects, but they also focus on selected versions of the past, often at the expense of others. This means that, for example, the physical traces of the medieval past are usually favored against other layers of history. The impact of this approach to heritage in the NSA is evident. Any new development is assessed and certified by the NSAs as an entity, however geographically and temporally disconnected from its wider contextual setting. Geographically, these tools create a sharp division between what is inside or part of and what is outside a development [25]. This often separates that development from the surrounding environment and the different elements of the ecological system. Exceptionally, nature elements of the immediate surroundings, e.g., trees, watersheds, views, and other monumental structures, are symbolically integrated into the design and in the criteria for certification. Furthermore, objects found on the site of development are often excavated and documented to give way for the new development to be implemented without considering the stories these objects tell in relation to their wider context.

As for temporality, the NSAs employ a specific perspective on the past–present–future dialogue, according to which they are conceived as three separate spheres ignoring the present consensus in heritage studies that views heritage as a process in continuous change. Figure 1 explains how the past and the future are constantly exposed to present-centered processes of reconstruction and suggests that ignoring these processes and the experiences associated with them can actually lead to critical consequences for any attempt to plan for a sustainable future. Present-centered refers here to the continuous re-production of authorized heritage values in the present in addition to the invention of particular values in the present to serve particular projects [10]. Moreover, present-centered practices can refer to the domination of "procedures" within the management of heritage that are often followed by experts without any critical reflection on their temporality and relevance to the context. Consequently, physical and aesthetic objects continue to dictate lists of valuable heritage, with their social values reduced to function, design, scale, and originality.

6. Concluding Remarks

This article reviewed the ways through which heritage is addressed in two internationally well-known and used NSAs, BREEAM-C and LEED-ND. A discourse analysis of the tools' documents and a conversation between the theoretical advances of the two fields of critical heritage studies and sustainability show that while aspects related to heritage are present in both NSAs, heritage is re-presented as primarily being a matter of safeguarding material expressions of culture, such as buildings and other artifacts, while natural elements and immaterial-related practices are disregarded. In specific, heritage in both tools is conceived in relation to spatiality, functionalism, technology, aesthetics, and design, and solely focused on the symbolic integration of selected elements from the life cycle of a development into the certification criteria.

The shortcoming of the NSAs continued to prevail despite the inclusion of the fourth pillar of culture. While each NSA follows a short-term view and objective, their uncritical engagement in questions that pertain to the relations between heritage and the politics of identity and memory reduces their capacity to grasp and respond to the complexity that enmeshes heritage and its role

in the development of contemporary societies. This makes any generalization of the methods and criteria used by the NSAs problematic. Both entail an ontological and ideological problem in the way local context is engaged with. This is particularly related to the ways in which heritage is approached, conceptualized, and integrated into the evaluation and certification processes.

This article thus suggests a radical change in the ontological principles and the technical frameworks of the NSA tools. Following a CHS perspective, these changes should begin by challenging all traditional divides in heritage, especially those established between and continue to separate the present from the past and future. The ambition here is to emphasize a processual meaning of heritage that not only transcends time and space but also expands towards the politics of identity, memory, sense of place, commons, and experiences. Rather than only physical, aesthetic, and historical contexts, neighborhoods should thus be approached and dealt with as spaces of community building informed by different social, cultural, and political interactions.

Finally, we argue that sewing the certified "sustainable urban patches" to the pre-existing urban landscapes calls for broader debates that include ex-post evaluations to respond to fundamental questions related to sustainable urban development: How do the NSAs interact with the political ecology of cities? Which kind of environment is being enhanced in these new developments? Are the surroundings of the certified developments preventing or inciting new forms of enclosures and gentrification? What does it mean for the city and people who live in the city? What role do the NSAs play in restructuring and rescaling urban sustainability in the changing geopolitical configurations between cities and countries? These critical heritage-inspired questions seek to address present conceptions of sustainability that claim to offer new opportunities for future generations to enjoy socially equal and inclusive urban environments.

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