Assessing social value in housing design: contributions of the capability approach

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ABSTRACT

A conceptualisation of social value in the built environment is provided from the perspective of the capability approach (CA). The CA is a theoretical framework that has been used to assess inequality and poverty, particularly in less-developed countries; its multidimensionality and flexibility make it a useful approach in advanced economies as well. The CA can be a theoretical underpinning to assess the social value created in the built environment, particularly in its spatial dimension. Its use is explored to assess the design features of housing schemes and the wider environment as a fundamental conversion factor in creating capabilities and achieving valued functionings. In addition to theoretical considerations, a capability-based assessment of social value is presented for housing design.

PRACTICE RELEVANCE

The CA offers a promising approach to architects, designers and policymakers. The core idea of expanding the freedoms and opportunities of inhabitants in terms of capabilities can serve as a guiding principle for creating social value through housing design. Key themes from the Quality of Life Foundation's *Quality of Life Framework* can be harnessed to define social value in housing: control, health, nature, wonder, movement and community. This illustrates the links between social value and capabilities, focusing on spatial relationships and scales. A CA-based assessment of social value is presented that can assist practitioners.

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1. INTRODUCTION

Capturing the social value (SV) of housing design through post-occupancy evaluation (POE) is receiving greater attention from the research and industry communities, particularly in the UK (Hay *et al.* 2017; MacDonald 2020; Hay *et al.* 2016). In order to improve the quality of life in the built environment, an ongoing question relates to measurement: How can SV, *i.e.* 'the economic, social and environmental wellbeing of the relevant area' (Public Services (Social Value) Act 2012; UK Government 2012), be adequately assessed, and what metric(s) should be used?

The aim of this paper is to contribute to the discussion in the field of architecture by drawing on the theoretical framework of the capability approach (CA) and by focusing on the design aspects of SV. The intention is to contribute to the wider discussion on the evaluation of SV and quality of life as well as to propose the CA as a valid theoretical and methodological base to assess the SV created by the built environment, particularly in the context of advanced economies. It aims to answer the following research question: How might the CA provide insights, dimensions and indicators for assessing SV in housing design?

More specifically, this paper argues that the CA, based on the work of Amartya Sen, offers convergence with SV and quality-of-life agendas in the built environment, particularly in housing (UKGBC 2020). Historically, the CA has been used to evaluate development, particularly in agrarian, developing country contexts. Moving beyond the mere measurement of gross domestic product (GDP), development should focus on expanding individuals' substantive freedoms (capabilities), so that people may choose among alternatives in order to live the life they have reason to value (Robeyns & Byskov 2021). Therefore, it is possible to identify a first convergence between the CA and an interest in people's quality of life, and a second convergence between the CA and a multidimensional approach such as SV hinged on the triple bottom line of sustainability for housing evaluation.

This paper also argues that SV can be assessed through the evaluation of freedoms and opportunities, and aspirations and needs of a community, *i.e.* by operationalising the CA. A SV perspective is aligned with the CA as it focuses on what individuals, groups and communities have reason to value and also on what Sen identifies as 'comprehensive outcomes' which 'include actions undertaken, agencies involved, processes used, *etc.*' (Sen 2009: 215).

Both general contributions to the CA and its more recent applications to housing issues are used to highlight current research gaps and methods (Clapham & Foye 2019; Foye 2021; Frediani 2019, 2021; Kimhur 2020). Indeed, there are shared research strands within the literature on SV in the built environment (Raiden *et al.* 2018; Raiden & King 2021a, 2021b), notably the issue of identifying shared values among key stakeholders and giving voice to those who are directly impacted by projects. Thus, the practical focus of the discussion on SV and its holistic assessment points to possible ways and methods to operationalise the conclusions reached in this paper.

The contributions are both theoretical (from a review of the literature) and methodological (a capability-based assessment of the SV created in housing by analysing the impacts of design decisions on the residents' capabilities).

The paper is structured as follows. Section 2 provides an overview of SV and how it has been articulated in the built environment sector. The discussion focuses on the ethical and theoretical underpinnings of the concept and the role of architecture and design. Section 3 presents the CA and relevant contributions to conducting evaluations in the housing sector. Section 4 describes an evaluative framework for assessing the SV of housing design through the CA. The conclusion outlines further research avenues to develop an improved SV design framework at the intersection of academic and practice-oriented discourses.

2. SOCIAL VALUE IN THE BUILT ENVIRONMENT SECTOR AND ARCHITECTURE

2.1 CONCEPTUAL FOUNDATIONS OF SOCIAL VALUE IN THE BUILT ENVIRONMENT

SV is understood as an umbrella term that encompasses the wider economic, social and environmental impacts of a particular activity. Since the concept can be applied to a wide range of sectors, there is a variety of interpretations and definitions. The term is often used interchangeably with others such as social impact, or associated with discussions on social sustainability, rendering it difficult to find an all-encompassing definition that satisfies the range of actors involved. This can explain its malleability and the diversity of methods by which it is identified, monitored, measured and demonstrated. However, there are shared notions that come to the fore among the definitions found in the literature (UKGBC 2021). First, there is agreement that SV is about maximising or increasing benefits to communities and wider society once the organisation's goals are achieved. This is commonly referred to as creating additional value by going the extra mile rather than carrying on doing business as usual, which requires innovation and usually focuses on financial values. Second, the short-, medium- and long-term impacts of activities need to be considered, as well as the broader outcomes in the wider community. Third, it is focused on improving the quality of life of those directly affected, which overlaps with the triple bottom line of sustainability, *i.e.* social, environmental and economic wellbeing.

SV has become very prominent, especially in the UK, following the advent of the Public Services (Social Value) Act 2012 (UK Government 2012; UKGBC 2020, 2021). Since then, progress has been made in incorporating the idea of quantitatively measuring the impact of projects on communities. Efforts have therefore been made to unify and agree on a common approach to the built environment. Organisations such as the UK Green Building Council (UKGBC) have led the development of a common agenda for the sector through reports including *Delivering Social Value: Measurement* (2020) and *Framework for Defining Social Value* (2021), which provide an overview of the steps needed to determine it. However, the literature tends to focus on SV during the construction phase rather than the SV of buildings in use (Samuel 2020), *i.e.* the opportunities and possibilities that a building or place enables for the users. This is because the construction sector was quick to respond to the challenges and potential of the Act. As a result, most attention is paid to the employment opportunities, training and apprenticeships created or to targeted procurement that supports local supply chains.

Similarly, there is still no clarity or consensus on a standardised method to measure value, which prevents benchmarking and collaboration across the sector. As different stakeholders interpret value depending on their interests and activities, it is challenging to communicate objectively and accurately something that is inherently subjective, and it is difficult to translate all outcomes into financial metrics. All this is because each development and each affected community has particular circumstances and it is not so easy to hastily prescribe targets and universal metrics to assess them (Raiden *et al.* 2018; Raiden & King 2021a, 2023). Social Value UK (2023: n.p.) recognises this:

> Social value is a broader understanding of value. It moves beyond using money as the main indicator of value, instead putting the emphasis on engaging people to understand the impact of decisions on their lives.

The literature on this topic indicates that the process of defining the SV of a project depends on three important steps: identifying stakeholders, understanding what is in their interest and agreeing on the intended outcomes (UKGBC 2020, 2021). More recently, Raiden & King (2021a, 2021b, 2023) have provided a more detailed account of good practice for SV in the built environment that is worth considering. According to the authors, seven principles are required to attain a comprehensive understanding of what SV looks like in a particular activity: (1) identify and involve stakeholders; (2) understand what changes; (3) value the outcomes that matter; (4) collect relevant data, information and knowledge; (5) assess and measure the impact and validate value; (6) be transparent; and (7) report outcomes, seek to verify and benchmark. Similarly, as

a novel contribution to the discussion, they link SV to the achievement of the United Nations' Sustainable Development Goals (SDGs). In this sense, assessing SV in the built environment can contribute to reporting on the SDGs, an aspect that not only underlines its relevance for the sector but also brings it to the forefront of the international agenda (Caprotti *et al.* 2017; UN General Assembly 2015; UN 2017). This aspect is also echoed in The Royal Institute of British Architects' (RIBA) *Sustainable Outcomes Guide*, where SDGs are linked to specific outcomes, including the creation of SV (Clark & HOK 2019).

2.2 THE ETHICS OF SOCIAL VALUE AND MIXED-METHODS MEASUREMENT

In addition to the lack of consensus on a common definition, the practical focus of SV and its gradual implementation have prevented the establishment of a solid theoretical underpinning. The development of common ground between the different actors involved could help to gain clarity about the ultimate goal and focus of SV. Raiden & King (2021a, 2023) discuss the possibilities of a mixed-methods approach to assessing SV as opposed to the more commonly used cost–benefit analysis (CBA) or social return on investment (SROI) (Fujiwara & Campbell 2011; Watson *et al.* 2016; Watson & Whitley 2017). The preponderance of these methods has been accentuated by tools such as the UK Social Value Bank, used to monetise 'social impacts' and championed by leaders in the housing sector such as HACT (2023), or the Social Value Portal and the National TOMs (Themes, Outcomes and Measures) (Social Value Portal 2023). However, the question of whether it is possible to convert all the outcomes generated by a project into financial estimates remains in the backdrop yet to be clarified. The diverse nature of value requires a holistic approach. Therefore, a mixed-methods approach taking equal heed of the qualitative component of the assessment has been recommended to obtain a more reliable account of the impacts on people's quality of life (Samuel 2022). It also allows researchers and practitioners to adapt to the specific circumstances of the exercise. More importantly, it can provide complementary information on the often-overlooked intangible outcomes that are not easily expressed in financial terms.

According to Raiden & King (2021a, 2023), the mixed-methods approach is justified on the grounds that it can contribute to more informed decision-making aiming at 'doing the right thing'. This concept refers to ethics, more specifically deontological ethics, in which an action is morally judged on the basis of the action itself (*i.e.* the motives that underlie it) rather than on the basis of its outcome or consequences (Alexander & Moore 2021). Thus, the authors contend that SV in the built environment can be ethically justified from a non-consequentialist standpoint and from a Rawlsian ideal of a just society with institutions that aim to maximise the welfare of the worst off:

> By this logic, considering, creating and delivering social value is the right thing to do, regardless of the consequences.
>
> (Raiden & King 2021a: 264)

A theoretical basis can indeed help to unify the discourse across the sector, clarify what is meant by SV and, more importantly, encourage the development of good practice, collaboration and consensus among stakeholders. However, one cannot help but question the paradox that arises from basing it on a non-consequentialist ethical justification. Indeed, when it comes to finding a methodology that provides access to a richer information base for decision-making, it is clear that outcomes matter and that just aiming at doing the right thing is not enough. This issue is addressed in Section 3, where a theoretical framework is proposed for SV.

2.3 SOCIAL VALUE IN ARCHITECTURE AND DESIGN

In the field of design, various authors have addressed the concept of design value, most of them agreeing on the triple bottom line of social, environmental and economic values as a common starting point to understand it (Serin *et al.* 2018). This has enabled designers to engage in discussions about the value they create, focusing on both the process and the outcome of design, and placing it in context within the wider discussion about sustainability and sustainable development. In this vein, SV has been adopted primarily by influencing procurement and the selection of environmentally

sound materials, as well as by encouraging collaborative design processes that involve local residents, communities and the views of future inhabitants in decision-making. Participatory design and co-creation workshops could be examples of this. Consequently, the focus has been on the design praxis and the development of innovative strategies to incorporate environmental and social concerns in an economically viable fashion. However, when it comes to assessing the SV produced by buildings in use and the extent to which this can be attributed to their spatial features, there is a less clear-cut relationship. This causal link is important both because it can shed light on the impact of buildings on their inhabitants through POE, which is still an uncommon practice among architectural firms and developers (Durosaiye *et al.* 2019; Hadjri & Crozier 2009), and because it draws attention to the importance of design and the role of architecture in creating value.

As this issue is gaining momentum, RIBA, in collaboration with the University of Reading, published the *RIBA Social Value Toolkit for Architecture* (Samuel 2020), a document compiling some of the key aspects architects should consider in order to create and measure SV in their projects, a notable first step towards involving architects in the debate. More recently, Samuel (2022: 76) has proposed a definition of the SV of housing that puts the residents' wellbeing before other considerations:

> fostering positive emotions whether through connections with nature or offering opportunities for an active lifestyle, connecting people and the environment in appropriate ways and providing freedom and flexibility to pursue different lifestyles (autonomy).

Similarly, the Quality of Life Foundation (QoLF) & URBED have published *The Quality of Life Framework* (2021), discussed below, an evidence-based framework that identifies six themes in the built environment that affect people's quality of life and are critical to creating people-centred places where residents can flourish (Morgan & Salih 2023). This article aims to further theorise and build on the work done so far.

3. THE CAPABILITY APPROACH

3.1 BACKGROUND AND KEY CONCEPTS

The CA is a normative framework for the evaluation of individual wellbeing that originated in the work of economist and philosopher Amartya Sen (Robeyns 2005; Sen 1987, 1992, 1999, 2005). It has been mainly applied to the field of poverty studies, development and welfare economics:

> According to the capability approach, the ends of well-being, justice and development should be conceptualized in terms of people's capabilities to function; that is, their effective opportunities to undertake the actions and activities that they want to engage in, and be whom they want to be.
>
> (Robeyns 2005: 95)

The notion of *capabilities* can be understood as the real freedoms and opportunities that people have access to, often referred to as a person's 'capability-set' (*e.g.* being adequately nourished). Here, 'real' freedom means that:

> one has all the required means necessary to achieve that doing and being if one wishes to. That is, it is not merely the formal freedom to do or be something, but the substantial opportunity to achieve it.
>
> (Robeyns & Byskov 2021: n.p.)

The condition, good or commodity that contributes to the formation of a capability is known as a *conversion factor*, which therefore is broadly linked to having access to resources, whether available at the individual (*e.g.* physical health) or the collective (*e.g.* social norms) level. When capabilities are achieved, by way of choice of the concerned individual (for living the life she or he has reason to value), they become *functionings*. Therefore, the CA is useful as a normative framework to help conceptualise social phenomena and to evaluate wellbeing.

When addressing urban planning issues, it is also useful to think of capabilities as specifically conditioned by where one lives, *i.e.* by space (which may be appreciated at different geographical scales), and particularly by one's proximate environment when it comes to housing. The notion of *territoire*- or place-based capabilities has been proposed by Loubet *et al.* (2011) to take account of the role of local features on opportunities for the local population, hence on resident wellbeing. Definitions of *territoire* abound (*e.g.* see Paquot 2011 for a perspective according to disciplines). A simple definition that works for present purposes is a portion of space that has been appropriated by human beings, not in the sense of legal ownership, but of a geographically specific organisation (Courlet 2007).

Indeed, *territoire* is born of initiatives taken around one or more productive activities by a group of actors, which create know-how, networks and a shared identity. Thus, *territoire* is a social structure built by relationships among its spatially anchored inhabitants, so that the organisation of social life and production is rooted in *territoire*. The enhancement of local resources is dependent upon the coordination of the actors, who are linked by both geographical and institutional proximity. Actor strategies, over time, give rise to *territoire*. However, *territoire* is not only an economic entity but also a living structure whose social and political aspects, among others, influence individuals.

Thus, generally, *territoire* is a physical space that differs from other areas by a shared history, collective functioning modes, privileged relationships between actors, *etc.* Therefore, its physical limits do not necessarily align with political–administrative boundaries. In practice, it is multiscalar, from a portion of a municipality to groupings of municipalities. Since *territoire* is a construction of stakeholders, the embeddedness of individuals in a given place also influences the opportunities they have. Local traditions, institutions and the local economic fabric have an influence on the preferences of individuals and the life choices available to them. In short, just as people shape the *territoire*, the *territoire* influences the individuals who reside there, even temporarily.

Given this close relationship between people and places, some of the capabilities obtained at the individual level are closely linked to the context in which individuals live. The 'structures of living together', defined as structures that belong to a particular historical community, and which are irreducible to interpersonal relations, then constitute a space for evaluating living conditions (Deneulin 2008; Deneulin & Stewart 2002). Thus, a *territoire* is a structure of living together, encompassing a set of resources, stakeholder strategies and public policies. And the concept of place-based capabilities may be put forward: individual capabilities that are 'anchored' in *territoire*, stemming from the latter, and which can only be obtained at that scale. Such capabilities refer to individual opportunities linked to embeddedness in a given place, and may be represented as shown in Figure 1.

From an asset-based community development perspective (Green & Haines 2012), an individual has access to endowments that include different types of capital, both material (financial, physical, natural) and immaterial (cultural, human, political, social). Those endowments have value only insofar as they enable the realisation of something to which this individual gives value. Consequently, the diversity of individuals in relation to their ability to convert the characteristics of endowments into a capability, and ultimately a functioning, must be considered: this is the notion of (function of) conversion. Conversion depends not only on personal characteristics (physical and intellectual abilities, personal background) but also on the opportunities available to the individual. These opportunities are a function of the institutional environment, market conditions, public policies, social norms, *etc.* This is why knowing the circumstances of the individual, including his or her environment, is just as important as knowing what he or she has.

Territoire is present at the level of endowments and opportunities, but in a variable manner. Indeed, some of them may be considered 'generic' such as state laws, while others are 'specific' to the location such as natural capital endowments. The individual then converts endowments, opportunities and personal characteristics into capabilities, some of which are a-spatial (*e.g.* accessing higher education if one has a high-school-leaving certificate), others place based (*e.g.* producing under the European Union's Protected Designation of Origin (PDO) system). It is the sequence of 'conversion' and then 'choice' that enables one to move from endowments–opportunities–personal characteristics to capabilities and then to achieved functionings.
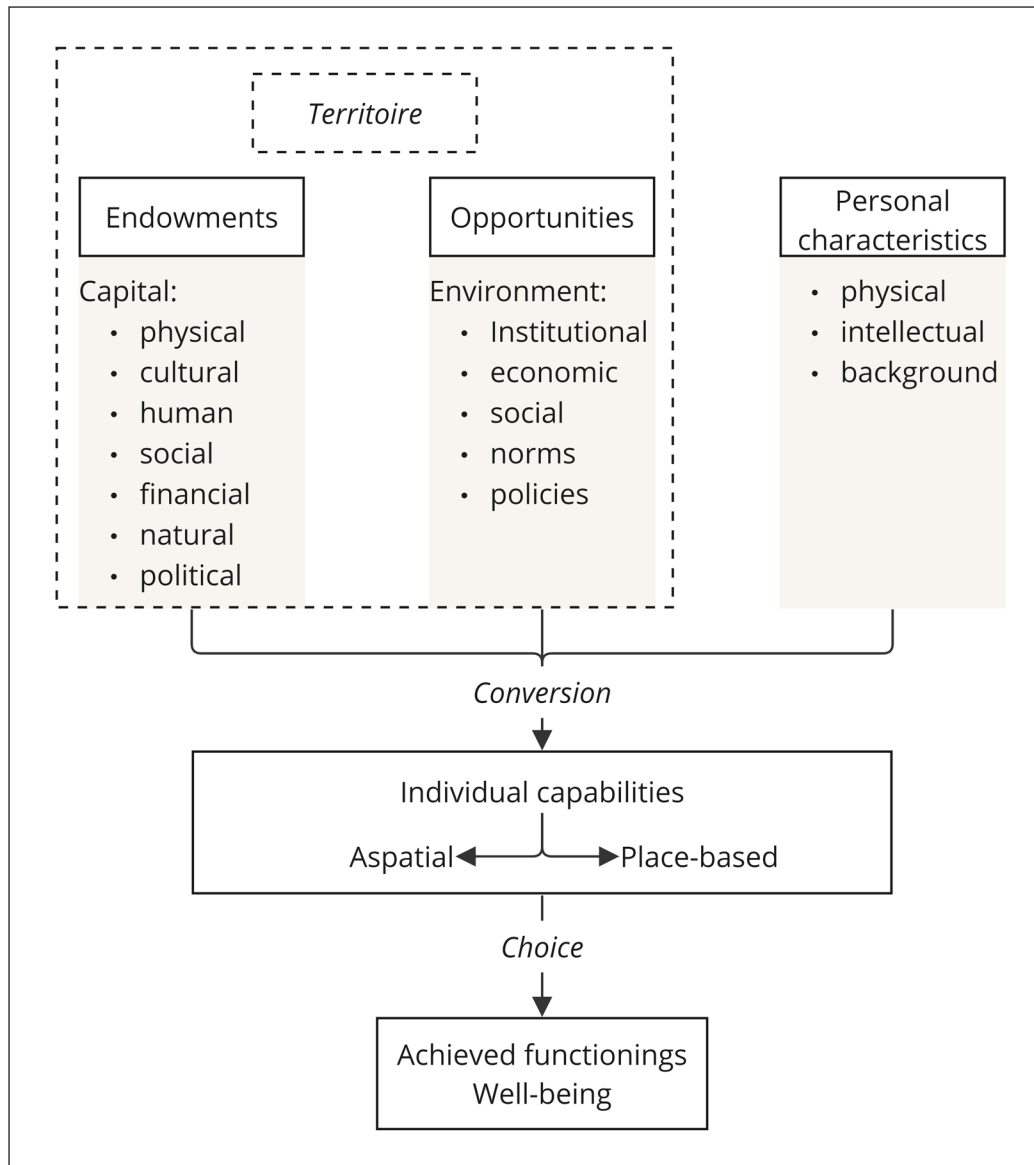
Figure 1. Capability approach (CA): from *territoire* and resources to place-based capabilities.

Source: Adapted from Loubet *et al.* (2011).

In conclusion, the concept of place-based capabilities allows for a better understanding of the contribution of space to individual capabilities, and thus to achieved functionings, hence wellbeing. Moreover, the concept of capability makes for a policy–practice framework in which identifying resources becomes less important than its purpose—*i.e.* to increase the freedoms of residents, to increase their possibilities of being and doing—particularly with respect to location-specific projects such as buildings and neighbourhoods.

3.2 THE CAPABILITY APPROACH AND HOUSING

Whereas Sen has constantly refused to provide a definite list of capabilities, arguing that the most relevant functionings depend on circumstances, other researchers have argued in favour of a list of 'central' capabilities in order to make the CA more operational. Nussbaum (2006: 74), in particular, has proposed the most quoted of such lists, based on:

> a conception of the dignity of the human being, and of a life that is worthy of that dignity

i.e. (1) 'life', (2) 'bodily health', (3) 'bodily integrity', (4) 'senses, imagination, and thought', (5) 'emotions', (6) 'practical reason', (7) 'affiliation', (8) 'other species', (9) 'play' and (10) 'control over one's environment'.

Directly connected with the focus of this article, 'bodily health' includes several related capabilities, one of which is 'having adequate shelter'. Other central capabilities are related to housing, such as 'bodily integrity', which includes 'to be secure against violent assault', or 'affiliation', which includes 'being able to live with and toward others' or 'play', which includes 'being able [...] to enjoy recreational activities', or 'control over one's environment', which includes 'being able to hold property'. Therefore, one understands that space, and the peculiarities of places, are critical to determine one's living conditions, hence level of wellbeing.

Though capabilities and functionings can offer valuable insights into what people value and what they are able to attain in the context of housing, applications of the CA to housing studies are somewhat recent. Clapham & Foye (2019) have investigated its potential to assess housing outcomes. In a report for the UK Collaborative Centre for Housing Evidence (CaCHE), they explored contributions of the CA from a macro-perspective of the housing sector, with an interest in policymaking/evaluation. They propose to move beyond the mainstream metrics to measure the success of housing policies, and to use the CA as a lens through which to analyse the housing sector in its capacity to grant freedoms and opportunities to their beneficiaries. By contrasting the metrics that are often used in the assessment of housing outcomes, *i.e.* economic, quantitative and objective, and qualitative and subjective, the authors make the case for a fourth route that uses capabilities as a metric. Indeed, when used in parallel, oftentimes metrics can cast contradictory results. For instance, a household living in a house labelled as not adequate by the Decent Homes Standard could simultaneously report to be happy in their home and excel on a life satisfaction survey (Clapham & Foye 2019).

Analogous enquiries have been conducted in Germany (Coates *et al.* 2015) and the Netherlands (Haffner & Elsinga 2019), demonstrating its replicability in other Western European contexts, but also pinpointing the dilemma of either measuring capabilities or functionings. Due to feasibility and time constraints, especially when carrying out extensive studies with large population samples, these authors argue it can be more straightforward to focus on functionings (outcomes) and not on capabilities (opportunities).

The questions of who defines what values are pursued and who monitors and construes progress and achievements are central to applying the CA. Foye (2021: 124) suggests focusing more on:

> The effective freedoms that people have in their homes and neighbourhoods to do and feel the things they have reason to value

rather than on the mere record of units delivered and square metres regenerated. Another critical requirement when deciding what capabilities are relevant and fostered is the consensus reached among actors involved in the scheme (especially those most affected by the outcomes of the evaluation). Clapham & Foye (2019: 401) and Foye (2021) advocate using *empowered deliberative democracy*, which demands a more active approach toward participation in decision-making. By focusing on a community's capabilities when setting the targets for a regeneration plan, the risk of undue paternalism is also mitigated (Foye 2021).

Kimhur (2020) reviewed the possible applications of the CA in housing policy. The author contends that whilst its operationalisation can be challenging, there is fertile ground for further input from empirical enquiry focusing on identifying the multiple capabilities relevant to housing. However, like Clapham & Foye (2019), the discussion remains at the policy level and its necessary shift away from pure economic variables toward human flourishing and social justice. Similarly, other authors dealing with other spatial scales have proposed the CA as a theoretical and methodological basis for promoting urban policies aimed at improving people's quality of life (Blečić *et al.* 2013). Their approach is an important attempt to develop a framework for assessing the spatial quality of places by identifying in advance certain capabilities to be tested later with questionnaires. However, given the emphasis on participatory methods to identify relevant housing-related capabilities, the proposed assessment (see Section 4) is more consistent with Clark *et al.* (2019).

Overall, in housing studies the CA is a developing conceptual framework with a well-grounded theoretical basis. It focuses on people's development, emphasising their choices and concomitant

wellbeing; it can comprehend objective and subjective valuation; and it is open enough to allow adaptation to specific contexts. Scholars have proposed it as a comprehensive approach to housing research at a policy level, but there is a gap in its application to other dimensions of housing.

This is why the CA can be considered as a promising approach, given that its normative character can inform housing design and the process of establishing what makes for a good space from a resident's perspective. Homes should allow people to live and do the things that they have reason to value. While this capability may not be exclusive to the design of the built environment, design certainly plays a relevant role in enabling capabilities related to housing. Indeed, when these are translated into functionings, SV is created. Within the CA lies the potential to inform housing research in an integrative framework, whereby housing becomes a fundamental element to deliberate on social inequalities, justice, ethics and human development in a transdisciplinary approach. SV can come to the fore as the concept that brings this potential forward into current debates, through local processes of deliberative democracy, whereby capabilities and SV objectives may be established in a given project (Clapham & Foye 2019; Crocker 2008; Foye 2021).

4. HOUSING DESIGN ASSESSMENT: ENABLING CAPABILITIES TO FOSTER SV

This section considers housing as a key conversion factor: the impact of space and the environment on people's quality of life. Hence, the interest in controlling one's environment to affect capabilities.

It is proposed that the CA can be used to conduct spatial analyses by assessing capabilities at the architectural scale in an advanced economy context. Therefore, questions arise about the process of ascertaining the capabilities that are directly affected by housing and its associated built environment and the role of architecture and design in creating spaces that enable people to flourish and live the lives they have reason to value.

Arguably, the extent to which the design expands capabilities should inform the appraisal of the SV of a building. From a practice perspective, this proposal provides an opportunity to learn from experience, whether from unintended consequences of ill-considered design or from good places where people can thrive. Therefore, a definition of SV based on the CA is in line with Samuel's (2022) definition mentioned in Section 2.3. It must put people (inhabitants) at the centre and thus focus on the improvement of their wellbeing as its ultimate end. It is about creating places that promote people's freedom to choose the lifestyle(s) they value, and its assessment must take into account comprehensive outcomes, as outlined by Sen (2009), using quantitative and qualitative methods.

As discussed, financial proxies, CBA and key performance indicators (KPIs) can be powerful tools to demonstrate the value created. However, they cannot be the sole methods for assessing and demonstrating outcomes, let alone dominate the discussion on SV. In the CA, resources, including income, are relevant because they are a means to an end, and they are treated accordingly. These measures are instrumental, but the focus needs to be on inhabitants' lives and the opportunities and freedoms to which they have access. In a capability-informed SV assessment, financial proxies are seen as resources, but the impact on society is construed by the expansion of people's capabilities. Accordingly, the assessment should be performed considering the opportunities and freedoms that individuals possess as a way to determine their quality of life and wellbeing improvements.

Empowering inhabitants and giving them a say through consultation and deliberation is also key, as emphasised in more recent conceptualisations of SV. This aspect is closely linked to the idea of having control over one's environment and the concept of agency in decision-making, another aspect that can be informed by the CA, deliberative democracy and participatory methods (Frediani 2019, 2021; Frediani & Hansen 2015). Similarly, both SV and the CA are based on the principles of deliberation, community empowerment and a horizontal relationship between actors, notions that are crucial for determining goals and outcomes. In this respect, SV is closely linked to the CA, as it focuses on what individuals, people and communities have reason to value. If the sector

starts thinking in terms of people's capabilities rather than monetary values when assessing its impact on society, action will be directed to where it is most needed. However, this aspect needs further research and is beyond the scope of this paper, especially the decision-making processes that enable this outcome to be reached. Case studies are instrumental in depicting how public reasoning and participatory processes can lead to more equitable housing solutions that empower communities.

With this in mind, variables that represent capabilities can be identified based on six broad dimensions defined by the QoLF: control, health, nature, wonder, movement and community. The objective is to point the researcher's attention toward links between SVs and capabilities, including issues of layers and scales. In this perspective, the approach advocated here is inspired by the long-lasting debate in capability-related theory: setting broad categories to examine, *i.e.* the six QoLF dimensions, relates to Nussbaum's (2006) 'list approach', while emphasising deliberative democracy and participatory methods, which leaves open the choice of variables that would best describe each of these categories, relates to Sen's 'open-ended approach'. The combination of the two makes for an informative theoretical framework that can be more readily applied in, and more useful for, practice, as the aim is to provide dimensions and indicators for assessing SV in housing design.

Indeed, housing aspirations, needs and everyday housing practices can provide hints about the values embedded by the inhabitants in the spaces that make up their living environment (Frediani 2021). By asking inhabitants to identify positive or negative aspects of their neighbourhood (What do you think is valuable in your estate/neighbourhood? or What do you think could be improved in your estate/neighbourhood?), one can conduct a place-based asset mapping (Alexiou *et al.* 2022; Frediani 2021). This focus helps to steer the discussion around the six themes outlined by the QoLF, which are directly related to SV and are consistent with the CA. Indeed, the emphasis is on the ends rather than the means, namely, on valuable things afforded by the built environment, which have a strong influence on people's freedoms and therefore contribute to inhabitants' capability sets.

These outcomes may be appreciated at different geographical scales: the individual dwelling (*e.g.* freedom from toxic construction material), neighbourhood, town/city and global society (*e.g.* a walkable neighbourhood leads to fewer GHG emissions). Using this valuation exercise enables the identification of both generic and specific capabilities as well as used or underused spaces in the place being studied. Further, if the built environment is framed as a fundamental conversion factor, then places can be designed to enable the generation of capabilities of residents, so that they lead the lives they have reason to value.

The discussion regarding what constitutes a conversion factor is recurrent in the CA. Indeed, taking the perspective of housing/neighborhood/space as conversion factors, one could argue in favour of ambiguity. For example, designing (or not) bike lanes determines the extent to which a bicycle (good/resource) may be converted into a capability/functioning (ability to move about safely and quickly). On the other hand, stairs (as a resource) allow inhabitants to access their home (capability) depending on their ability to climb them (conversion factor), *i.e.* making housing/neighborhood/space themselves resources that can be converted into capabilities. Robeyns (2006) underlines the distinction between conversion functions (the degree to which a person, based on their different abilities, can transform a resource into a functioning) and conversion factors (how much functioning one can get out of a good or service, commonly classified as personal, social and environmental conversion factors). Housing/neighborhood/space are environmental conversion factors because they 'emerge from the physical or built environment in which a person lives' (Robeyns & Byskov 2021: n.p.). Therefore, the distinction function (internal ability) versus factor (external good or resource) seems useful to clarify potential ambiguities.

Accordingly, the 'Capability-wheel' (Figure 2) serves as a heuristic representation of the explained relationships: At the centre of the assessment is the inhabitant who is directly influenced by housing and its associated built environment, which in turn is represented by the intersection of the

different themes of the QoLF. The diagram contains the main concepts to be considered, starting with the perceived barriers, represented as constraints and unfreedoms, then the capability space, characterised by opportunities and freedoms, and finally the aspirations and needs.
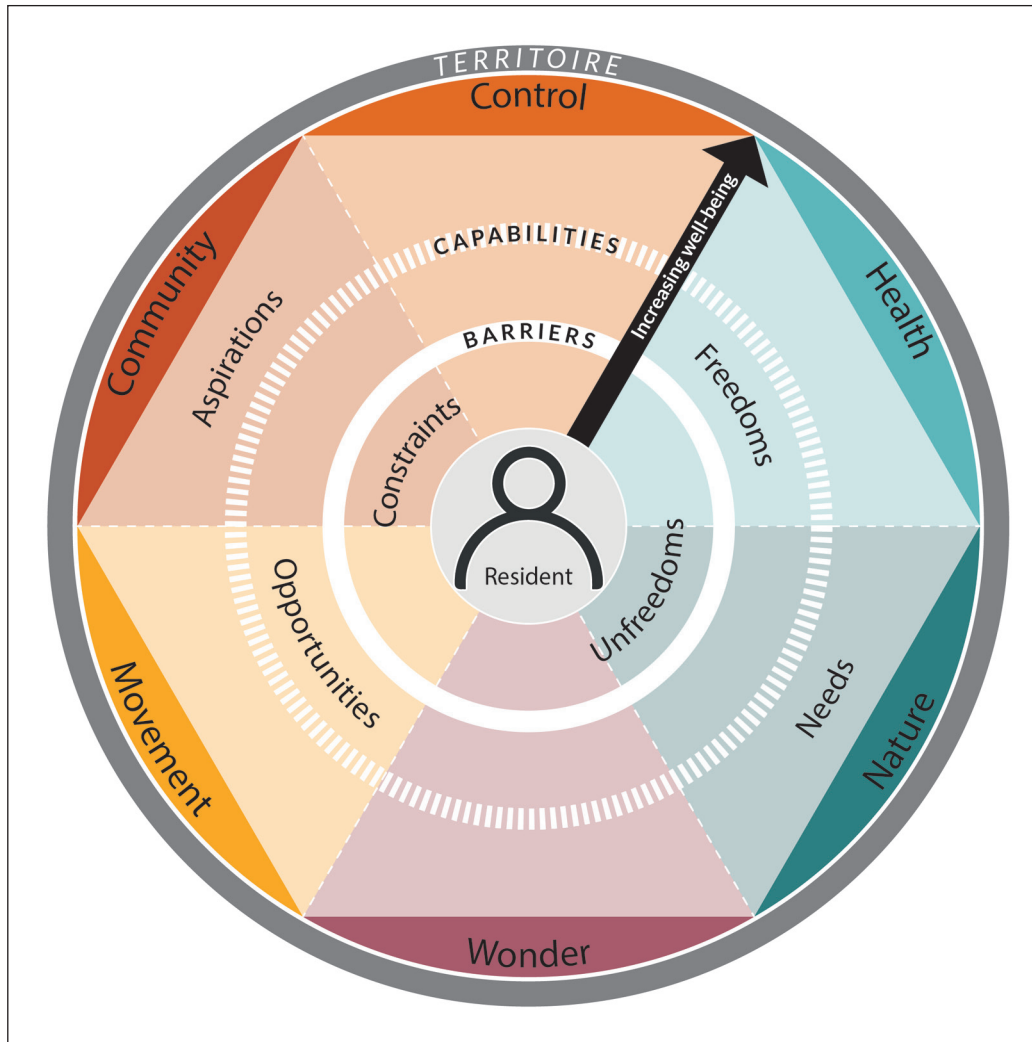
Figure 2: Capability-wheel developed using the themes of the Quality of Life Foundation (QoLF), designed to support place-based asset mapping.

Examples of variables, as arranged by QoLF dimensions, include:

- *Control:* housing options for a range of income levels; feeling safe when moving about in the neighbourhood; having a say in projects that impact the estate/neighbourhood; possibility to buy or rent, *etc.*

- *Health:* improved local air quality; no use of toxic materials in building design; no lead pipes; possibility to exercise in the neighbourhood; availability of quality food in the neighbourhood, *etc.*

- *Nature:* access to at least one park; everyday landscape includes plants and greenery; birds can nest in the neighbourhood; information available about the local biodiversity, *etc.*

- *Wonder:* accessibility of adequate play areas for different age groups; existence of indoor and outdoor spaces to congregate as a community; information available about the local heritage, *etc.*

- *Movement:* possibility to walk or to use public transportation for everyday life (*e.g.* work, children school, groceries); existence of mobility options for handicapped people; presence of bicycles lanes; multimodal options, *etc.*

- *Community:* availability of public spaces; a place with a strong sense of identity; connection between the neighbourhood and the rest of the city; ability of receiving guests without shame, *etc.*

Overall, the exercise is aimed at providing a depiction of the residents' capability set linked to the themes proposed by the QoLF and reflecting on the built environment as a key conversion factor. Depending on feedback from appropriate actors, *i.e.* repetition or emphasis of certain views, these in turn can be used to determine a relative weighting and, in this sense, set community priorities in relation to SV targets.

In conclusion, the connection between SV, capabilities, *territoire* and the QoLF can be summarised as follows. Increasing SV (*i.e.* value beyond money, including the engagement of people to understand the impact of decisions on their lives) is the goal, the CA provides the theoretical framework (with its strengths such as the concepts of capabilities, functionings and conversion factors, as well as its weaknesses that relate to several unsettled debates and ambiguities), and the QoLF provides a finite number of dimensions to use the CA in practice, *i.e.* what to look at in housing design, and more broadly the built environment, to assess SV. *Territoire* gives a spatial embodiment to this process since the built environment obviously refers to (one of the) uses of space.

5. CONCLUSIONS

The enactment of the Public Services (Social Value) Act 2012 in the UK has had an impact on the way the construction sector operates. Tenders and procurements are increasingly asking providers to demonstrate the additional value they contribute to society. Assessing social value (SV) is gradually becoming a common practice in the sector, and for this, it is essential to have a common approach to navigate the different stages and actors involved in creating this added value. Housing providers have a critical stake in the process. They have a responsibility to create places where inhabitants can thrive and respond to the well-documented housing crisis affecting both advanced and developing economies. There is an urgent need to provide affordable and sustainable housing solutions to meet demand, with a particular focus on reducing inequalities and for the most vulnerable. The capability approach (CA) can serve as a theoretical basis to define what SV can look like in the sector, particularly in housing.

This paper contributes to the development of evidence-based design practice, which tends to be neglected in architectural research (Groat & Wang 2013). The proposed housing assessment framework provides practitioners with a useful understanding of the inhabitant's perspective. This approach can help to balance the social, economic and environmental facets of projects, as well as strengthen the role of research in design. This also contributes to the research dedicated to understanding how buildings work from the inhabitants' perspective. Indeed, housing design should focus on enabling individuals to lead the lives they have reason to value. This aim is in line with the need for architects to be more present in discussions about SV and to demonstrate the potential of design to unpack and create value within communities through post-occupancy evaluation (POE).

It is possible, as Raiden & King (2021a, 2023) suggest, to develop a mixed-methods approach to evaluate and measure SV. However, the reported tensions between the CA and the 'project approach' or 'managerialist paradigm', which have been rightly described by scholars in the development field (Ferrero Y de Loma-Osorio & Zepeda 2014), should also be carefully considered if it is to be applied to SV, as a short-term focus can obscure the view of the consequences of projects. Practitioners and scholars in the field of SV agree that it is important to consider the long-term impact of operations and that the value increases and multiplies over time. However, in the construction sector, a limited scope of operations, a transient interest in communities and a project-based mindset are still commonplace. This paper highlights the need for an assessment that includes the residents' lived experiences, considers the social dimension of places, and shows what buildings can do for the quality of life of their inhabitants.

The CA deals with both the means and the ends, and the relations between the two. The connection between capability bundles and the fact that some functionings are instrumental for individuals to access other capabilities has been asserted in CA research. Housing, and the associated functioning of being adequately sheltered, becomes a fundamental conversion factor for the expansion of people's freedoms. This approach can contribute to a better understanding of the SV multiplier effect and how it changes over time (Raiden *et al.*, 2018). Longitudinal studies of SV can benefit from using the CA to assess the extent to which the output of a project expands people's capabilities and how these are instrumental in the long-term development of a community.

The use of CA as a normative framework for assessing residents' capabilities holds promise for developing an improved SV design framework, a taxonomy of spaces that generate SV, and improving the housing sector's evaluation through consideration of capabilities, spatial analysis and SV. The adequacy of the CA to engage with human diversity is a key advantage that can help determine SV within different communities.

> It is society that dictates social value, not experts, and the creation of social value must be built on an intimate understanding of what value means to those communities.
>
> (Raiden *et al.* 2018: 95)

Both SV and capabilities are context dependent and cannot be assumed or imposed. As the literature in both areas shows, participatory methods are crucial to reveal them.

The assessment proposed in this article is a way of developing a cogent SV strategy that puts the capabilities of residents at the centre of housing design, *i.e.* considering the 'comprehensive outcomes' of operations and putting people's quality of life as the focus of the evaluation exercise. This can be applied not only to the spatial analysis but also to the whole SV chain and to the different components of housing projects (design, planning, construction, management, monitoring and evaluation).

The CA can be the ethical and methodological compass for the conceptualisation, operationalisation and assessment of SV. More broadly, it can also contribute to the expansion of the social sustainability agenda, which is often neglected in projects, as opposed to environmental and economic assessments, which tend to receive more attention and resources. By focusing on what people have reason to value, the weighting of social outcomes is balanced against the other two. In the same vein, as suggested by other researchers, SV can help achieve the Sustainable Development Goals (SDGs) and the *New Urban Agenda*. This potential can be further augmented when SV is viewed through the lens of the CA and its inherent human-centred interest.

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REFERENCES

Alexander, L., & **Moore M.** (2021). Deontological ethics. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Metaphysics Research Lab, Stanford University.

Alexiou, K., Hale, V., & **Zamenopoulos, T.** (2022). Design capital: Unearthing the design capabilities of community groups. *International Journal of Design,* 16(2), 33–46. DOI: https://doi.org/10.57698/v16i2.03

Blečić, I., Bibo Cecchini, A., & **Talu, V.** (2013). The capability approach in urban quality of life and urban policies: Towards a conceptual framework. In S. Serreli (Ed.), *City project and public space* (pp. 269–288). Springer. DOI: https://doi.org/10.1007/978-94-007-6037-0_17

Caprotti, F., Cowley, R., Datta, A., Broto, V. C., Gao, E., Georgeson, L., Herrick, C., Odendaal, N., & **Joss, S.** (2017). The new urban agenda: Key opportunities and challenges for policy and practice. *Urban Research & Practice*, 10(3), 367–378. DOI: https://doi.org/10.1080/17535069.2016.1275618

Clapham, D., & **Foye, C.** (2019). *How should we evaluate housing outcomes?* UK Collaborative Centre for Housing Evidence.

Clark, D. A., Biggeri, M., & **Frediani, A. A.** (2019). *The capability approach, empowerment and participation: Concepts, methods and applications.* Palgrave Macmillan. DOI: https://doi.org/10.1057/978-1-137-35230-9

Clark, G., & **HOK.** (2019). *Sustainable outcomes guide*. The Royal Institute of British Architects (RIBA). https://www.architecture.com/knowledge-and-resources/resources-landing-page/sustainable-outcomes-guide

Coates, D., Anand, P., & **Norris, M.** (2015). A capabilities approach to housing and quality of life: The evidence from Germany. In *Open discussion papers in economics* (Issue 78). The Open University, Economics Department. https://www.econstor.eu/handle/10419/147529

Courlet, C. (2007). Du développement économique situé. In H. Gumuchian & B. Pecqueur (Eds.), *La ressource territoriale* (pp. 32–44). Economica, Anthropos.

Crocker, D. A. (2008). *Ethics of global development: Agency, capability, and deliberative democracy*. Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511492594

Deneulin, S. (2008). Beyond individual freedom and agency: Structures of living together in Sen's capability approach to development. In S. Alkire, F. Comim & M. Qizilbash (Eds.), *The capability approach: Concepts, measures and application* (pp. 105–124). Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511492587

Deneulin, S., & **Stewart, F.** (2002). Amartya Sen's contribution to development thinking. *Studies in Comparative International Development*, 37(2), 61–70. DOI: https://doi.org/10.1007/BF02686262

Durosaiye, I. O., Hadjri, K., & **Liyanage, C. L.** (2019). A critique of post-occupancy evaluation in the UK. *Journal of Housing and the Built Environment*, 34(1), 345–352. DOI: https://doi.org/10.1007/s10901-019-09646-2

Ferrero Y de Loma-Osorio, G., & **Zepeda, C. S.** (2014). Rethinking development management methodology: Towards a 'process freedoms approach'. *Journal of Human Development and Capabilities*, 15(1), 28–46. DOI: https://doi.org/10.1080/19452829.2013.877425

Foye, C. (2021). Ethically-speaking, what is the most reasonable way of evaluating housing outcomes? *Housing, Theory and Society*, 38(1), 115–131. DOI: https://doi.org/10.1080/14036096.2019.1697356

Frediani, A. (2019). Participatory research methods and the capability approach: Researching the housing dimensions of squatter upgrading initiatives in Salvador da Bahia, Brazil. In D. A. Clark, M., Biggeri & A. A. Frediani (Eds.), *The capability approach, empowerment and participation: Concepts, methods and applications* (pp. 261–288). Palgrave Macmillan UK. DOI: https://doi.org/10.1057/978-1-137-35230-9_10

Frediani, A. (2021). *Cities for human development: A capability approach to city-making*. Practical Action. https://books.google.co.uk/books?id=tdWazgEACAAJ

Frediani, A., & **Hansen, J.** (2015). *The capability approach in development planning and urban design*. Development Planning Unit. https://www.ucl.ac.uk/bartlett/development/sites/bartlett/files/wp_173-178_special_issue_on_capability_approach_final.pdf

Fujiwara, D., & **Campbell, R.** (2011). *Valuation techniques for social cost–benefit analysis: Stated preference, revealed preference and subjective well-being approaches: A discussion of the current issues*. HM Treasury. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/209107/greenbook_valuationtechniques.pdf

Green, G. P., & Haines, A. (2012). *Asset building and community development*, 3rd ed. Sage.

Groat, L. N., & Wang, D. (2013). *Architectural research methods*. Wiley.

HACT. (2023). *UK Social Value Bank: Demonstrating social value*. Housing Associations' Charitable Trust (HACT). https://hact.org.uk/tools-and-services/uk-social-value-bank/

Hadjri, K., & Crozier, C. (2009). Post-occupancy evaluation: Purpose, benefits and barriers. *Facilities*, 27(1–2), 21–33. DOI: https://doi.org/10.1108/02632770910923063

Haffner, M. E. A., & Elsinga, M. G. (2019). Housing deprivation unravelled: Application of the capability approach. *European Journal of Homelessness*, 13(1), 13. https://repository.tudelft.nl/islandora/object/uuid%3Af612e3ac-ce6f-4b5e-9b14-0fad4338ed30

Hay, R., Bradbury, S., Dixon, D., Martindale, K., Samuel, F., & Tait, A. (2016). *Pathways to POE*. The Royal Institute of British Architects (RIBA).

Hay, R., Samuel, F., Watson, K. J., & Bradbury, S. (2017). Post-occupancy evaluation in architecture: Experiences and perspectives from UK practice. *Building Research & Information*, 46(6), 698–710. DOI: https://doi.org/10.1080/09613218.2017.1314692

Kimhur, B. (2020). How to apply the capability approach to housing policy? Concepts, theories and challenges. *Housing, Theory and Society*, 37(3), 257–277. DOI: https://doi.org/10.1080/14036096.2019.1706630

Loubet, F., Dissart, J.-C., & Lallau, B. (2011). Contribution de l'approche par les capacités à l'évaluation du développement territorial. *Revue d'Économie Régionale & Urbaine*, 2011/4 (October), 681–703. DOI: https://doi.org/10.3917/reru.114.0681

MacDonald, P. (2020). *RIBA post occupancy evaluation: An essential tool to improve the built environment*. The Royal Institute of British Architects (RIBA).

Morgan, M., & Salih, H. (2023). Resident review: Assessing the impact of new homes on people's health and wellbeing. *Perspectives in Public Health*, 143(2), 71–72. DOI: https://doi.org/10.1177/17579139231157530

Nussbaum, M. C. (2006). *Frontiers of justice: Disability, nationality, species membership* (The Tanner Lectures on Human Values). Belknap/Harvard University Press. DOI: https://doi.org/10.2307/j.ctv1c7zftw

Paquot, T. (2011). Qu'est-ce qu'un 'territoire'? *Vie sociale*, 2011/2, 23–32. DOI: https://doi.org/10.3917/vsoc.112.0023

Quality of Life Foundation & URBED. (2021). *The quality of life framework*. URBED & Quality of Life Foundation. https://www.qolf.org/framework/

Raiden, A., & King, A. (2021a) *Social value in practice*. Routledge. DOI: https://doi.org/10.1201/9781003024910

Raiden, A., & King, A. (2021b). Social value, organisational learning, and the sustainable development goals in the built environment. *Resources, Conservation and Recycling*, 172. DOI: https://doi.org/10.1016/j.resconrec.2021.105663

Raiden, A. & King, A. (2023). Added value and numerical measurement of social value: A critical enquiry. *Buildings & Cities*, 4(1), 767–782. DOI: https://doi.org/10.5334/bc.330

Raiden, A., Loosemore, M., King, A., & Gorse, C. (2018). *Social value in construction*. Routledge. DOI: https://doi.org/10.1201/9781315100807

Robeyns, I. (2005). The capability approach: A theoretical survey. *Journal of Human Development*, 6(1), 93–117. DOI: https://doi.org/10.1080/146498805200034266

Robeyns, I. (2006). The capability approach in practice. *Journal of Political Philosophy*, 14(3), 351–376. DOI: https://doi.org/10.1111/j.1467-9760.2006.00263.x

Robeyns, I., & Byskov, M. F. (2021). The capability approach. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. https://plato.stanford.edu/archives/win2021/entries/capability-approach/. DOI: https://doi.org/10.4324/9780429020612-9

Samuel, F. (2020). *RIBA social value toolkit for architecture*. The Royal Institute of British Architects (RIBA). https://www.architecture.com/-/media/GatherContent/Social-Value-Toolkit-for-Architecture/Additional-Documents/RIBAUoR-Social-Value-Toolkit-2020pdf.pdf

Samuel, F. (2022). Measuring wellbeing and social value. In *Housing for hope and wellbeing* (pp. 73–82). Routledge. DOI: https://doi.org/10.4324/9781003031888-7

Sen, A. (1987). *Commodities and capabilities,* Oxford University Press.

Sen, A. (1992). *Inequality reexamined*. Russell Sage Foundation.

Sen, A. (1999). *Development as freedom*. Oxford University Press.

Sen, A. (2005). Human rights and capabilities. *Journal of Human Development*, 6(2), 151–166. DOI: https://doi.org/10.1080/14649880500120491

Sen, A. (2009). *The idea of justice*. Penguin. DOI: https://doi.org/10.4159/9780674054578

Serin, B., Kenny, T., White, J., & **Samuel, F.** (2018). *Design value at the neighbourhood scale: What does it mean and how do we measure it?* UK Collaborative Centre for Housing Evidence. DOI: https://doi.org/10.13140/RG.2.2.16049.43360

Social Value Portal. (2023, February 10). *The national toms*. Social Value Portal. https://socialvalueportal.com/solutions/national-toms/

Social Value UK. (2023, April 5). *What is social value and why does it matter?* Social Value UK. https://socialvalueuk.org/what-is-social-value/

UK Government. (2012). *Public Services (Social Value) Act 2012*. UK Government. https://www.legislation.gov.uk/ukpga/2012/3

UKGBC. (2020). *Delivering social value: Measurement*. UK Green Building Council (UKGBC). https://www.ukgbc.org/ukgbc-work/delivering-social-value-measurement/

UKGBC. (2021). *Framework for defining social value*. UK Green Building Council (UKGBC). https://www.ukgbc.org/ukgbc-work/framework-for-defining-social-value/

UN. (2017). *New urban agenda*. United Nations (UN). https://habitat3.org/wp-content/uploads/NUA-English.pdf

UN General Assembly. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*, 21 October 2015 (A/RES/70/1). United Nations. https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/291/89/PDF/N1529189.pdf?OpenElement

Watson, K. J., Evans, J., Karvonen, A., & **Whitley, T.** (2016). Capturing the social value of buildings: The promise of Social Return on Investment (SROI). *Building and Environment*, 103, 289–301. DOI: https://doi.org/10.1016/j.buildenv.2016.04.007

Watson, K. J., & **Whitley, T.** (2017). Applying social return on investment (SROI) to the built environment. *Building Research & Information*, 45(8), 875–891. DOI: https://doi.org/10.1080/09613218.2016.1223486

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