

Urban Social Sustainability Trends in Research Literature

Amir Ghahramanpouri¹, Hasanuddin Lamit² & Sepideh Sedaghatnia¹

¹ Department of Architecture, Faculty of Built Environment, Universiti Teknologi Malaysia, Malaysia

² Department of Landscape Architecture, Faculty of Built Environment, Universiti Teknologi Malaysia, Malaysia

Correspondence: Hasanuddin Lamit, Department of Landscape Architecture, Faculty of Built Environment, Universiti Teknologi Malaysia, Johor Bahru, 81310, Malaysia. Tel: 60-7-553-7324. E-mail: b-hasanuddin@utm.my

Received: February 13, 2013 Accepted: March 11, 2013 Online Published: March 28, 2013

doi:10.5539/ass.v9n4p185

URL: <http://dx.doi.org/10.5539/ass.v9n4p185>

Abstract

During the recent decade, scholars from different disciplines have discussed social sustainability within urban studies from both academic and policy perspectives. This paper aims to review the current literature and characterize definitions and trends related to social sustainability consideration of various urban units. The methodology used in this paper is desk research. Selection of the documents from different urban related disciplines - including urban planning, urban design, urban sociology and urban policy, limited to those published during 1993 to 2012. Social sustainability definitions portray either conditions of the concept or its principles and measurement framework. The review shows that different aspects in defining and reviewing social sustainability include social equity, satisfaction of human need, well-being, quality of life, social interaction, cohesion and inclusion, sense of community and sense of place. Reviewing studies conducted in different urban units, revealed that previous attempts on urban social sustainability emphasized more on community related issues. The majority of such researches examined the urban contexts of developed countries. This paper concluded that there has been little discussion on place related issues. Therefore, the urban social sustainability of urban places is the current understudied gap in the academic literature.

Keywords: urban social sustainability, definition, urban unit, urban place, research literature

1. Introduction

Sustainability is a context-dependent concept (Maloutas, 2003) that embraces three equally important (Spangenberg & Omann, 2006) aspects/ pillars- environmental, economical and social, which need to be balanced (Dempsey, Bramley, Power & Brown, 2009). Any sustainability discussions originate from the United Nations Commission on Environment and Development (UNCED) report, Our Common Future - known as “the Brundtland report” (Partridge, 2005). Since the late 1990’s, sustainability has come to be the pervasive goal of urban planning, (Yung, Chan & Xu, 2011) and due to the growing urban population, cities play imperative roles in sustainable development (Dempsey et al., 2009). Among the three stated pillars, social aspect of sustainability is the least studied and, only has been seriously considered after the year 2000.

Scholars believe that regarding the social aspect of sustainability, there are still uncertainties in definition, criteria and measurement system until now (Landorf, 2011; Colantonio, 2010; Bramley, Dempsey, Power, Brown, & Watkins, 2009; Jenks & Jones, 2010; Hancock, 2009). Targeting the social aspect of sustainability, two irresolute conceptual interpretations can be identified, either related to environment pillar or distinct from environmental and economic (McKenzie, 2004).

The first objective of this paper is to categorize and discuss the social sustainability definitions, through reviewing the existing literature. Then in order to identify the current gap related to urban social sustainability, it reviews the scope and implementation level in various urban units in research literature.

The methodology used in this paper is desk research. Through that, a large volume of bibliographic materials was scanned and a limited number of documents have been reviewed and critiqued. The documents have been selected from varied urban disciplines- including urban design, urban planning, urban sociology, urban policy as among the articles. A comprehensive search was conducted among the articles published from 1993 to 2012, written in English and limited to Universiti Teknologi Malaysia (UTM) database (includes Emerald, JSTOR, ProQuest, ScienceDirect, Sage Journals, Taylor and Francis Online, Springerlink, Web of Science and Wiley

Online Library among others). Main keywords searched includes- but not limited to, “urban social sustainability”, “social sustainability definitions”, “social dimension of sustainability” and “sustainability of the community”. Articles were included in the review if the author discussed social sustainability along with debates related to urban environments and units. This review is a part of the current doctoral research on developing a social sustainability assessment tool for streets of Malaysia.

2. Urban Perspectives in Social Sustainability Debates

Human is the main focus in the definition of sustainability concept, but still less attention has been given to the definition of social sustainability in built environment disciplines (Dempsey et al., 2009). Distinctive considerations of social sustainability are mostly extended within urban studies (Davidson, 2009) while they have been largely divorced from the environmental debate (Davidson, 2010). During the last decade, scholars from different disciplines and interests discussed social sustainability. Table 1 contains the most prominent research centers, which concentrate on social sustainability besides their prominent researchers.

Table1. Urban social sustainability main research centers

Country	Research centers	Researcher
UK	1. Center for Analysis of Social Exclusion, LSE Cities, London School of Economics and Political Science	A. Colantonio
	2. Oxford Institute for Sustainable Development, Oxford Brookes University	T. Dixon (Until July 2012) & N. Dempsey
	3. School of the Built Environment, Heriot-Watt University	G. Bramley & Brown
	4. Berkeley Group (with University of Reading and Young Foundation)	T. Dixon, C. Bacon & S. Woodcraft
Australia	5. Hawke Research Institute, University of South Australia	S. McKenzie & L. Wilson
	6. Institute for Sustainable Futures, University of Technology Sydney	E. Partridge
	7. Institute for Social Sustainability, Murdoch University	N. Hodgson
Hong Kong	8. The Centre of Urban Planning and Environmental Management, The University of Hong Kong	R. L. H. Chiu
	9. Department of Building and Real Estate, The Hong Kong Polytechnic University	E. Chan & G. K. L. Lee
Austria	10. Sustainable Europe Research Institute (SERI)	J.H. Spangenberg & I. Omann

As shown in the Table 1, most research centers working on social sustainability are university-based institutes that are distributed in the context of developed countries- UK, Australia, and Hong Kong and Austria. “Berkeley Group” and “Sustainable Europe Research Institute” are the exceptions as they are not university-based research centers, but they are also in cooperation with universities.

2.1 Social Sustainability Definitions and Approaches

Regarding the social aspect of sustainability, this section will elaborate the previously stated two vacillating concepts - either related to environment pillar or distinct from environmental and economic. Through the first interpretation, social pillar was considered as an assisting tool for the sustainable development and was detached from sustainable debates in reality. It caused the social pillar to be set aside and sustainability to be de-socialized (Maloutas, 2003). This perspective results from the normative weight of environmental pillar (Davidson, 2009). Then scholars recognized the crucial role of social aspects and through the second interpretation, they attempted to discuss social sustainability distinct from environmental or economic sustainability (McKenzie, 2004). It caused the sustainability to become “re-socialized” (Maloutas, 2003) and the social aspect to be considered as the goal of sustainable development.

The previous all-encompassing definitions of sustainability that include all three aspects have been too broad to be usefully applied in specific contexts. Social sustainability has received far less attention in respect to the conceptual framework and the practical reporting. It was first highlighted in the Brundtland report that provided

the initial definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). The report suggested that social sustainability is aiming to preserve the environment through economic development and poverty alleviation, but it did not recommend any practical perspective (Landorf, 2011).

Defining the recently acknowledged social sustainability concept (Littig, & Griessler, 2005) is emphasized frequently in urban literature and researchers are naturally keen to know precisely what social sustainability means (McKenzie, 2004). Spangenberg & Omann (2006) identified three analytical views that surround the social sustainability discussions. They include functional approach- popular in studies of rural, urban or community sustainability, capital approach- views from economic thinking, and system approach- views each domain as a system that should be capable of reproduction. Most of the discussions on definitions, dimensions and measurement of social sustainability in urban literature are related to functional view. For example, social sustainability definitions within rural and urban studies– e.g. Polese and Stren (2000), Barron and Gauntlett (2002), McKenzie (2004) and Partridge (2005), suggested definitions that belong to functionality analysis.

As social sustainability is context dependent (Dempsey et al., 2009), various definitions of this concept have been provided and applied related to urban debates in different contexts. They aim to study and provide the conditions for the achievement of social sustainability and try to protect the term’s misapplication (Partridge, 2005). Current discussions on the social sustainability definitions either portray the conditions or define the principles and measurement framework (McKenzie, 2004).

2.2 Definitions of Conditions

In the first group, the definitions focused more on the conditions. They usually describe social sustainability as either a currently existing positive condition, or as a goal that remains to be achieved (McKenzie, 2004). Among the authors that provided definitions belong to this group, Yiftachel and Hedgcock (1993) and Polese and Stren (2000) provided comprehensive definitions. Table 2 presents these two definitions that are the most cited among the literature.

Table 2. Definition of conditions

Author	Social sustainability definition
Yiftachel & Hedgcock, 1993	Continuing ability of a city to function as a long-term viable setting for human interaction, communication and cultural development.
Polese & Stren, 2000	Social sustainability of a city is defined as development (and/or growth) that is compatible with harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups... [and] encouraging social integration, with improvements in the quality of life for all segments of the population.

Emphasizing urban perspective in defining social sustainability, Yiftachel and Hedgcock (1993) declared that “urban social sustainability is about the long -term survival of a viable urban social unit.” On the other hand, Polese and Stren (2000) emphasized on reducing the level of social exclusion through their definition. They stated that policies contributing to social sustainability must try to cause cohesion of the whole through bringing people together and increasing the accessibility to public services and employment.

2.3 Definitions of Measurement Framework

In the second group, definitions utilize measurement frameworks. These definitions present main principles and dimensions and often involve a series of indicators. These indicators can be either positive (e.g. rate of literacy) or negative (e.g. The rate of homicide) (Mckenzie, 2004). But usually scholars target the positive aspects/ indicators, while defining social sustainability through the measurement framework (Dempsey et al., 2009; Mckenzie, 2004).

The definition provided by Bramley and Power (2009) and Colantonio (2010) are being categorized in this type. Providing a working definition of social sustainability, Bramley and Power (2009) emphasized on “social equity (access to services, facilities and opportunities)” and “sustainability of the community” as the two main urban social sustainability overarching concepts. On the other hand, Colantonio (2010) also highlighted the recent shift from almost statistics-based indicators to hybrid sets which mix qualitative and quantitative data (Refer to Table 3).

Table 3. Definition of measurement framework

Author	Social sustainability definitions
Bramley & Brown, 2009	Social equity and sustainability of the community are two recognizable, overarching concepts at the core of the notion of social sustainability within an area context.
Colantonio, 2010	Traditional 'hard' social sustainability themes such as employment and poverty alleviation are increasingly being complemented or replaced by the emerging 'soft' and less measurable concepts such as happiness, social mixing and sense of place

2.4 Attributes of Social Sustainability Definitions

Future focus and process are the two most imperative attributes in preciseness and usefulness of urban social sustainability discussions (Partridge, 2005). Future focus refers to the improvement of a just society for current and future generations. Castillo, Price, Moobela and Mathur (2007) considered this characteristic and declared that "social sustainability can be defined as ensuring the well-being of current and future generations, by recognizing every person's right to belong to and participate as a valued member of his or her community" (Castillo et al. 2007).

Highlighting the maintenance conditions, "process" is another crucial characteristic. Holden (2012) emphasized process attribute and brought the "Canadian Institute of Planners" definition of social sustainability as, "A process of urban development, supported by policies and institutions that ensure harmonious social relations, enhance social integration and improve living conditions for all groups" (Holden, 2012).

Consequently, an appropriate definition or model of social sustainability needs to involve both "future focus" and "process" attributes. McKenzie (2004) and Barron and Gauntlett (2002) - in the Western Australian Council of Social Service (WACOSS), provided useful definitions and models of social sustainability, which simultaneously concern future focus (time) and process. (Refer to Table 4).

Table 4. Definitions including both future focus and process attribute

Author	Definition
Barron & Gauntlett, 2002 (WACOSS)	Social sustainability occurs when formal and informal processes, systems, structures and relationships actively support the capacity of future generations to create healthy and liveable communities. Socially sustainable communities are equitable, diverse, connected and democratic and provide a good quality of life.
McKenzie, 2004	Social sustainability is a life-enhancing condition within communities, and a process within communities that can achieve that condition.

McKenzie (2004) considered the future aspect (time concern) in relation to considering "equity" and "transmitting awareness" for future generation and the process through emphasizing "a system of cultural relations", "participation of citizens", "a system for transmitting awareness" and "maintaining that system of transmission".

3. Social Sustainability Dealing with Urban Issues

Dealing with city environments, social sustainability discussions are distributed through either academic point of view or governmental perspective.

3.1 Academic Perspective; Traditions and Aspects

Urban social sustainability is mostly related to varied disciplines (Dempsey et al, 2009; Litting & Griessler, 2005) of urban planning, architecture, psychology, sociology, policy and institutions. Different aspects in reviewing social sustainability in relation to urban studies include social equity (highlighted in almost every references), satisfaction of human need (Littig & Griessler, 2005; Gates & Lee, 2005; Ancell & Thompson-Fawcett, 2008), well-being (Barron & Gauntlett, 2002; Chiu, 2003; Castillo et al, 2007; Hancock, 2009; Magis & Shinn, 2009), quality of life (Yiftachel & Hedgcock, 1993; Polese & Stren, 2000; Enyedi, 2002; McKenzie, 2004; Colantonio, 2010), social interaction, cohesion and inclusion (Yiftachel & Hedgcock, 1993; Polese & Stren, 2000; McKenzie, 2004; Ancell & Thompson-Fawcett, 2008; Bramley & Power, 2009; Dempsey, Brown, & Bramley, 2012) sense

of community (Barron & Gauntlett, 2002 ; Castillo et al, 2007; Bramley & Power, 2009; Colantonio, 2010; Landorf, 2011, Woodcraft, Hackett & Caistor-arendar, 2011) and sense of place (Chan & Lee, 2008; Colantonio & Dixon, 2011; Yung, Chan & Xu, 2011; Yung & Chan, 2012).

3.2 Governance Perspective; Policy Application

Trying to strengthen social sustainability in Europe and UK, governments had only focused on declining poverty and financial improvement of social exclusion (Landorf, 2011). But it currently shifted to a more comprehensive approach, that target individual and social capacity, participation and well being through the last decade.

Currently cities that are emphasizing social sustainability define the concept either by themselves or adopt and use a proper existing one (Davidson, 2010). Cities belong to the first group are rare and they provide detailed conceptual thinking. A prominent example of such attempt has been related to Vancouver, Canada. Accordingly three major components -basic needs, individual capital and societal capital, and four guiding principles- equity, social inclusion and interaction, security, and adaptability, identified for Vancouver social sustainability (Colantonio, 2010). The second group includes cities that use or adopt social sustainability definitions provided for another city. Such definitions are vague or non-existent. For instance, Adelaide defines “Socially sustainable cities are equitable, diverse, connected, and democratic and provide a good quality of life” (Davidson 2010).

On the other hand, cities targeted social sustainability through introducing various concepts. Davidson (2010) brought some examples and refer to the social mix (Vancouver), liveability (Boulder), affordable housing (Ottawa), community services (Adelaide,) and street life (Dubai).

3.3 Scopes and Various Urban Units

Discussions on urban social sustainability have been scoped from macro level- regional (Spangenberg & Omann, 2006) and city (Barron & Gauntlett, 2002), to micro level urban units- urban district (Yung, Chan & Xu, 2011), neighborhood (Dempsey et al., 2009; Chiu, 2003), project (Enyedi, 2002) and building (Bollo, 2012). Studies on the first three urban units, were brought in Table 5. Based on the recent intangible soft aspects of social sustainability (Colantonio, 2010), prime attempts in urban literature commenced in relation to Anglo contexts (Davidson, 2010) and numerous studies have been conducted mostly related to the other developed countries including Australia, Canada, Hong Kong, Germany and New Zealand. Few studies focus on cities in developing nations (Weingaertner & Moberg, 2011). In emphasizing urban social sustainability in developing countries, Karuppannan and Sivam (2011) and Dave (2011) that have conducted such studies in the context of India can be referred to.

Table 5. Different urban units in social sustainability studies

	Urban unit			Country				
	Region, country	City	Neighborhood	UK	Australia	Hong Kong	Canada	Others
Spangenberg & Omann, 2006	•							•
Barron & Gauntlett, 2002 (WACOSS)		•					•	
Bradley & Lee 2005		•					•	
Gates & Lee, 2007		•					•	
Chiu, 2003			•			•		
Pongsmas, 2004			•				•	
Ancell & Thompson-Fawcett, 2008			•					•
Bramley & Power, 2009			•	•				
Bramley, et al.2009			•	•				
Dempsey, et al., 2009			•	•				
Woodcraft, et al., 2011			•	•				
Dave 2011			•					•
Dempsey, et al., 2012			•	•				
Ricardi, 2012			•		•			

As shown in Table 5, among the three stated categories of urban units, urban social sustainability have been tested more on “city” level and “neighborhood” level, specifically in the UK and Canada.

Besides “city” or “neighborhood”, “urban district” is the other important urban unit category. This urban unit has different types including “Central Business District (CBD)”, “historical district” and “urban place (e.g. public space and street)” among others. Social sustainability studies focusing on urban districts are shown in Table 6.

Table 6. Social sustainability researches on various types of “urban district”

	Types of urban district			Country		
	Central Business District (CBD)	Historical district	Urban place (e.g. Public space)	Australia	Hong Kong	New Zealand
Yiftachel, Hedgcock, 1993	•			•		
Landorf, 2011		•		•		
Chan, Lee, 2008		•			•	
Ancell and Thompson-Fawcett, 2008	•					•
Yung, Chan & Xu, 2011		•			•	
Yung and Chan, 2012		•			•	

As presented in Table 6, among the urban district types, social sustainability of “urban place” has yet to be studied. Studies on different types of urban districts, mainly highlighted place related issues of social sustainability considerations. However, such place related studies are few in number, but good examples of such practices listed in the Table 6. Place based studies of social sustainability especially in relation to “urban district” category is increasing recently and until now only Australia, New Zealand and Hong Kong have undertaken such researches, but social sustainability of urban places and public spaces have not distinctively been studied yet. Colantonio also declared that “... social sustainability of urban places is still an understudied topic” (a personal communication, 2012). Considering urban places (street level), Porta & Renne (2005) did one study in street environments, but this study emphasized on the sustainability and examined the social aspects of a sustainable scenario.

4. Conclusion

Regarding sustainability, equal importance has been given to social as well as environmental and economic pillars, but social sustainability consideration has recently been taken seriously specifically in urban studies. Although authors have reviewed and analyzed the main characteristics or features of social sustainability and attempted to formulate a general definition, but there is no all-encompassing definition for this concept. The possible reasons for this could be viewed from both academic and policy perspectives. Based on Littig and Griessler (2005), through the academic literature, it is still unclear what social sustainability really means and what are its dynamics and breaks. Additionally, from urban policy perspective, the initial focus of social sustainability is often subject to be changed and simplified in the implementation stages of national strategies.

Social sustainability is a dynamic concept with a high possibility of change over time (from year to year/decade to decade) in a place. Therefore establishment of the proper condition concerning time aspect and think about the structure and process provision, is emphasized frequently through the literature. Following outcomes are the major gaps identified through the current urban related literature on social sustainability.

As most studies have been done in relation to urban contexts of the developed countries, there is a gap in relation to social sustainability studies in developing and less developed countries that need to be discussed earnestly as that is an emerging issue. Furthermore, in urban related debates on social sustainability the major focus was on the community as the main core, but recently the place based approach of the concept is increasingly being considered in discussions. Based on macro (country and city) to micro (urban district, neighborhood, building) urban units, most studies on social sustainability, have focused on the city and neighborhood and they often contain community related debates. More recently there are some discussions on place based approaches of

social sustainability that target varying types of urban district category. Such studies are increasing in number, but are still less frequent. Therefore, the social sustainability of urban places, specifically public space can be studied in future researches.

Acknowledgement

This work is financed by the “Center for The Study of Built Environment in the Malay World” (KALAM) and International Doctoral Fellowship (IDF) provided by Universiti Teknologi Malaysia and Ministry of Higher Education of Malaysia. The authors are very grateful to Dr. Andrea Colantonio – Research Coordinator at LSE Cities, London School of Economics and Political Science (UK), for his generous guidance delivered at the beginning stage of the research.

References

- Ancell, S., & Thompson-Fawcett, M. (2008). The social sustainability of medium density housing: A conceptual model and Christchurch case study. *Housing Studies*, 23(3), 423-442. <http://dx.doi.org/10.1080/02673030802029990>
- Barron, L., & Gauntlett, E. (2002). *Housing and Sustainable Communities Indicators Project: Stage 1 Report—Model of Social Sustainability*. WACOSS (Western Australia Council of Social Services). Retrieved from http://wacoss.org.au/images/assets/SP_Sustainability/HSCIP%20Stage,201.
- Bollo, C. (2012). *Social Sustainability defined for Architecture*. Retrieved December 7, 2012, from <http://www.adpsr.org/blog/entry/3194283/social-sustainability-defined-for-architecture>
- Bradley, S., & Lee, M. (2005). *A Social Development Plan for the City of Vancouver: Moving Towards Social Sustainability*. Vancouver: CoV (City of Vancouver).
- Bramley, G., & Power, S. (2009). Urban form and social sustainability: the role of density and housing type. *Environment and Planning B: Planning and Design*, 36(1), 30-48. <http://dx.doi.org/10.1068/b33129>
- Bramley, G., Dempsey, N., Power, S., Brown, C., & Watkins, D. (2009). Social sustainability and urban form: evidence from five British cities. *Environment and Planning A*, 41(9), 2125-2142. <http://dx.doi.org/10.1068/a4184>
- Brundtland, G. H. (1987). *Our common future: The world commission on environment and development*. Oxford: Oxford University Press.
- Castillo, H., Price, A., Moobela, C., & Mathur, V. (2007). Assessing urban social sustainability: current capabilities and opportunities for future research. *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, 3(3), 39-48.
- Chan, E., & Lee, G. K. L. (2008). Critical factors for improving social sustainability of urban renewal projects. *Social Indicators Research*, 85(2), 243-256. <http://dx.doi.org/10.1007/s11205-007-9089-3>
- Chiu, R. L. H. (2003). *Sustainable Development : A New Perspective for Housing Development*. Paper presented at the 3d National Housing Conference. Retrieved from http://www.nhc.edu.au/downloads/2003/DayTwo/01_Chui_paper.pdf
- Colantonio, A. (2010). Urban social sustainability themes and assessment methods. *Proceedings of the Institution of Civil Engineers: Urban Design and Planning*, 163(2), 79-88. <http://dx.doi.org/10.1680/udap.2010.163.2.79>
- Colantonio, A. (2012). Request for guidance on social sustainability of urban public spaces. In A. Ghahramanpouri (Ed.). Johor Bahru.
- Colantonio, A., & Dixon, T. (2011). *Urban regeneration and social sustainability: best practice from European cities* (Vol. 32). Wiley-Blackwell.
- Dave, S. (2009). Neighbourhood density and social sustainability in cities of developing countries. *Sustainable Development*, 19(3), 189-205. <http://dx.doi.org/10.1002/sd.433>
- Davidson, M. (2009). Social sustainability: a potential for politics? *Local Environment*, 14(7), 607-619. <http://dx.doi.org/10.1080/13549830903089291>
- Davidson, M. (2010). Social sustainability and the city. *Geography Compass*, 4(7), 872-880. <http://dx.doi.org/10.1111/j.1749-8198.2010.00339.x>
- Dempsey, N., Bramley, G., Power, S., & Brown, C. (2009). The social dimension of sustainable development: Defining urban social sustainability. *Sustainable Development*, 19(5), 289-300.

- <http://dx.doi.org/10.1002/sd.417>
- Dempsey, N., Brown, C., & Bramley, G. (2012). The key to sustainable urban development in UK cities? The influence of density on social sustainability. *Progress in Planning*, 77(3), 89-141. <http://dx.doi.org/10.1016/j.progress.2012.01.001>
- Enyedi, G. (2002). Social sustainability of large cities. *EKISTICS-ATHENS*, 142-144.
- Gates, R., & Lee, M. (2005). Definition of Social Sustainability. *Director of Social Planning, in Consultation with the Manager of the Sustainability Group: Policy Report and Social Development to Vancouver City Council*, 1-6.
- Hancock, T. (2009). *Social Sustainability: The 'soft infrastructure' of a healthy community*. Retrieved from http://newcity.ca/Pages/social_sustainability.html
- Holden, M. (2012). Urban Policy Engagement with Social Sustainability in Metro Vancouver. *Urban Studies*, 49(3), 527-542. <http://dx.doi.org/10.1177/0042098011403015>
- Jenks, M., & Jones, C. (2010). *Dimensions of the Sustainable City* (Vol. 2). Netherlands: Springer
- Karuppanan, S., & Sivam, A. (2011). Social sustainability and neighbourhood design: an investigation of residents' satisfaction in Delhi. *Local Environment*, 16(9), 849-870. <http://dx.doi.org/10.1080/13549839.2011.607159>
- Landorf, C. (2011). Evaluating social sustainability in historic urban environments. *International Journal of Heritage Studies*, 17(5), 463-477. <http://dx.doi.org/10.1080/13527258.2011.563788>
- Littig, B., & Griessler, E. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International Journal of Sustainable Development*, 8(1), 65-79. <http://dx.doi.org/10.1504/IJSD.2005.007375>
- Magis, K., & Shinn, C. (2009). Emergent themes of social sustainability. In J. Dillard, V. Dujon, & M. C. King, (Eds.), *Understanding the Social Aspect of Sustainability* (pp. 1-16). New York, NY: Routledge.
- Maloutas, T. (2003). Promoting social sustainability The case of Athens. *City*, 7(2), 167-181. <http://dx.doi.org/10.1080/1360481032000136732>
- McKenzie, S. (2004). *Social sustainability: towards some definitions*. Hawke Research Institute, Working Paper Series No. 27, University of South Australia, Magill, South Australia.
- Partridge, E. (2005). *Social sustainability': a useful theoretical framework*. Paper presented at the Australasian Political Science Association Annual Conference, Dunedin, New Zealand.
- Polese, M., & Stren, R. (2000). *The Social Sustainability of Cities: Diversity and the Management of Change*. University of Toronto Press.
- Pongsmas, N. (2004). *Configuration of public space and social sustainability of urban neighborhood: A case study of the city of San Diego at the dawn of the twenty-first century*. Unpublished 3124479, Texas Tech University, United States -- Texas.
- Porta, S., & Renne, J. L. (2005). Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia. *Urban Design International*, 10(1), 51-64. <http://dx.doi.org/10.1057/palgrave.udi.9000136>
- Ricardi, D. (2012). Planning for socially sustainable urban communities: a qualitative study from Brisbane. *Bertelsmann Future Challenges*. Retrieved August 30, 2012, from <http://futurechallenges.org/local/planning-for-%E2%80%9Csocially-sustainable%E2%80%9D-urban-communities-a-qualitative-study-from-brisbane/>
- Spangenberg, J. H., & Omann, I. (2006). Assessing social sustainability: social sustainability and its multicriteria assessment in a sustainability scenario for Germany. *International Journal of Innovation and Sustainable Development*, 1(4), 318-348. <http://dx.doi.org/10.1504/IJSD.2006.013734>
- Weingaertner, C., & Moberg, Å. (2011). Exploring Social Sustainability: Learning from Perspectives on Urban Development and Companies and Products. *Sustainable Development*. <http://dx.doi.org/10.1002/sd.536>
- Woodcraft, S., Hackett, T., & Caistor-Arendar, L. (2011). *Design for Social Sustainability: a framework for creating thriving new communities*. Young Foundation, UK.
- Yiftachel, O., & Hedgcock, D. (1993). Urban social sustainability: the planning of an Australian city. *Cities*,

10(2), 139-157. [http://dx.doi.org/10.1016/0264-2751\(93\)90045-K](http://dx.doi.org/10.1016/0264-2751(93)90045-K)

Yung, E. H. K., Chan, E. H. W., & Xu, Y. (2011). Sustainable Development and the Rehabilitation of a Historic Urban District – Social Sustainability in the Case of Tianzifang in Shanghai. *Sustainable Development*. <http://dx.doi.org/10.1002/sd.534>

Yung, H. K. E., & Chan, H. W. E. (2012). Critical social sustainability factors in urban conservation: The case of the central police station compound in Hong Kong. *Facilities*, 30(9-10), 396-416. <http://dx.doi.org/10.1108/02632771211235224>