

INCLUSIVE URBANISM, SUSTAINABLE DESIGN AND COMMUNITY ENGAGEMENT: A HOLISTIC APPROACH

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ABSTRACT

There is a growing demand for cities to satisfy the needs of their different citizens. Beyond the stereotype of an “average citizen”, urbanism is beginning to introduce complementary points of view such as gender perspective or those from elders, children or lower-income people. In this context, within the scope of sustainable development and enhanced by community engagement, this paper proposes a holistic approach to improve both urban planning and design. The three concepts are connected by a what–who–how relationship, “what” being the sustainable design and planning; “who”, the inclusive urbanism; and “how”, the community engagement. The research compiles a series of case studies of inclusive urbanism (initiatives, plans and projects), developed together with community engagement. Cases are mainly from the Basque Country, completed with others from the UK and North and Central America. The methodology is based on comparing data concerning plans and projects with specific new stakeholder types (neighbours, women, elders, etc.), different engagement tools and processes, and different planning and design-related key issues (land use, density, housing, etc.) and scales, from the region to the building. The results reveal how the combination of this holistic what–who–how approach significantly contributes to improve urban plans and projects, with additional benefits to the community, the public administration and even the private sector. Despite the time, effort and challenges still to be dealt with, the research seeks to unveil how considering new points of view and enabling informed engagement are essential to achieve truly sustainable design and planning, able to meet the needs of the diverse current and future generations.

Keywords: inclusive urbanism, community engagement, sustainable urban design, participatory urban planning, engaged urbanism.

1 INTRODUCTION

There is a growing demand for cities to satisfy the needs of their different citizens, as it is becoming increasingly clear that built environments have profound influences on people’s lives and, at the same time, sustainable development can only be achieved if the design professions fully accept their social responsibilities and make more use of evidence of user needs and how to address them [1, p. xi]. Hence, urban design and planning are becoming more complex. The challenge in terms of the design, function and process surrounding the creation of urban spaces is due to a combination of changes in cities around the globe in the last decades, such as major transformations to the urban demographic profile (particularly, in terms of ethnicity and culture) and considerable changes in regard to the expectations people have of their role as citizens in the public decision-making process [2].

In this context, terms such as inclusive, engaged or participatory urbanism, among others, advocate for a different approach, basically by introducing new stakeholders and new engaging methods to the traditional urban design and planning process.

2 NEW STAKEHOLDERS FOR AN INCLUSIVE URBANISM

Inclusive design means designing products, services and environments that as many people as possible can use, regardless of age or ability. It is sometimes called universal design or design for all. It is not a new style of design but rather a new attitude or approach to design



in general (Burton and Mitchell [1, pp. 5–9]). Additionally, inclusive urbanism is also defined as the one in which different social groups mix and have equal opportunities to participate (Espino [3]). Framed by the combination of these two notions, this research compiles a series of case studies which introduce complementary points of view from the following stakeholder types.

2.1 Neighbours, local organizations and the broad community

The first straight-forward new stakeholder type are neighbours and local residents, regardless of sex, gender, age, or socio-economic situation; individually, or collectively associated in local organizations. Experience in engagement processes, however, shows this apparent diversity can be greatly enhanced when delving into more specific stakeholder types.

2.2 Women and gender-perspective urbanism

The integration of gender perspective in urban planning seeks to foster equal access to resources within the built environment (public space, housing, amenities, etc.) contributing to gender equality and eliminating any existing gender-driven inequalities. This topic has been outlined since the end of the 1980s, promoted by feminist architects and planners who observed how cities were not able to offer equal opportunities to all their citizens, particularly women [4]. Today, gender is a key consideration in the urban strategic planning process, as understanding the gender dimensions in a society highlights the different needs and views of men and women in terms of the settlements in which they live, gives insight into the power disparities in a society, and improves the degree of stakeholder commitment, thus contributing to the overall success of the process [5, pp. 22–25].

2.3 Children and young people

Children and young people are any city's future citizens. However, some authors note the concepts upon which public participation in urban planning and design have been built have not and perhaps cannot accommodate children's participation in such matters. What is needed is the incorporation into urban planning and design debates of a different concept of the child together with new strategies to involve children and give effect to their rights [6]. In this sense, Bilbao's Municipal Urban Plan participation process integrated feedback from over 1000 children through several workshops in schools within the city. Most of the contributions referred to public space, mobility and public facilities (sports centres, libraries, schools, etc.). This pilot process revealed a clear opportunity to incorporate children and young people not only in urban planning, but also in public space design and mobility plans [7].

2.4 Elders and age-friendly environments

According to the World Health Organization, health and well-being are determined not only by genes and personal characteristics but also by the physical and social environments in which people live their lives. Environments play an important role in determining the physical and mental capacity across a person's life course and into older age and also how well he or she will adjust to loss of function and other forms of adversity that may experience at different stages of life, and in particular in later years [8]. Consequently, physical environments that are age-friendly can make the difference between independence and dependence for all individuals, but are of particular importance for those growing older [9]. For instance, the Streets for Life project in the UK contributes to urban design for older



people, particularly to those with dementia, outlining the predicted large increases in the numbers of these in the western world. The project focuses on neighbourhood streets that residents find easy and enjoyable to use as they grow older in their neighbourhoods, allowing them to continue living at home if they want to [1, pp. 3–4].

2.5 Lower-income residents

Urban plans, specifically those dealing with neighbourhood-scale redevelopments, often entail gentrification as a side effect, as lower-income residents are forced to move due to the increase in property values and rental payments resulting from the physical renovation of physically deteriorated neighbourhoods [10]. According to Espino, the socially exclusionary nature of much urban development is evident all over the world: in low-income countries, where the poor are excluded in the name of “modernization”, as well as in high-income countries, where the poor are excluded in the name of “order”. Nevertheless, he explains the case of a more responsible inclusive urbanism in Casco Antiguo waterfront, Panama City, which was renovated to increase tourism. The resulting plan incorporated lower-income residents living along the waterfront, under a policy of zero evictions. The result was a revamped area that was more secure, attractive and profitable, and that had not involved any displacement [3]. On a different note, the Harlem Heat Project in New York City is another example of good practice of inclusive and engaged urbanism, addressing the need of people living in micro-urban heat islands, who lack the capacity to cope with extreme heat and are disproportionately vulnerable to heat-related health risks [11].

2.6 Other stakeholder types

The five stakeholder types mentioned above are perhaps the most evident when referring to inclusive urbanism. Nevertheless, depending on each project or plan’s scope and circumstances, there may be other stakeholder types to be impacted and thus, to be considered in the planning process. Case studies from the Basque Country included in this paper, for instance, include the following stakeholders: sportsmen and women in the design for a new sports park and facilities in Fadura, Getxo (Thinking Fadura project); both squatters occupying the building and potential public and private investors in the Strategic Rehabilitation Program for former AHV Headquarters in Sestao; or dog-owners in the leash-free dog zoning plans in Leioa and Erandio.

3 ENGAGEMENT AS A TOOL FOR SUSTAINABLE COMMUNITIES

As highlighted by UN-Habitat’s Global Campaign on Good Urban Governance, public participation in urban decision-making process is increasingly seen as the key strategy for governments and civil societies to solve urban problems. In its 2007 *Inclusive and Sustainable Urban Development Planning Guide for Municipalities*, it underlines participatory urban decision-making as a step towards an inclusive city and proposes several forms of participation for urban strategic planning: information, consultation, consensus-building, decision-making, risk-sharing, partnership and self-management. The guide emphasizes urban consultations as an effective tool for public participation, as they enable comprehensive, qualitative and effective stakeholder engagement. One of the most important and effective means of stimulating participation and civic engagement, such consultations promote openness and transparency and create a positive environment for collective problem-solving [5, pp. 16–21].



In terms of consensus-building tools and methods, both workshops and charrettes allow to plan and design new and redeveloped sustainable communities. As defined by Condon, a design charrette is a “time-limited, multiparty design event organized to generate a collaboratively produced plan for a sustainable community”. The charrette method can accept the multitude of often conflicting social, ecological and economic objectives within the concept of sustainability. As sustainability is a divergent problem, and not a convergent one, Design Charrettes provide a method for solving divergent sustainability problems [12].

Considering UN-Habitat’s guide [5, pp. 16–21] as a preliminary basis and complementing it from experience from the analysed case studies, this research considers ten forms of engagement in urban design and planning (Table 1).

Table 1: Forms of engagement in urban design and planning.

Forms of engagement	Description	
	Concept	Means
Information	One-way communication, from the project or plan, to the stakeholders.	Logo, press release, media, website, videos, posters, flyers, exhibition, information office.
Personal consultation	Two-way communication, from the plan to the stakeholders, and from these back to the plan. There is no consensus-building developed amongst stakeholders (other than visualizing the different points of view).	Individual or group interviews, surveys (in person or by phone).
Digital consultation		Digital consultation tool: via project website, forms, etc.
Paper consultation		Paper survey distributed, to be handed back by the stakeholders.
Institutionalised consultation		Planning Advisory Boards with local organizations, associations, political representatives, etc.
Consensus-building	Stakeholders interact to arrive at positions that are acceptable for the whole group.	Workshops, charrettes, meetings.
Decision-making	Stakeholder commitments and responsibilities.	Workshops, charrettes, meetings. Agreements and commitments.
Risk-sharing	Beneficial, harmful and neutral consequences are equally shared by partners.	Workshops, charrettes, meetings. Agreements and commitments.
Partnership	Stakeholders share with similar or equal status and towards a common goal.	Workshops, charrettes, meetings. Agreements and commitments.
Self-management	Participation highest level. Stakeholders take full responsibility for projects that affect them directly.	Workshops, charrettes, meetings. Agreements and commitments.

4 TOWARDS AN INCLUSIVE, SUSTAINABLE AND ENGAGED URBANISM

Considering the three concepts of inclusive urbanism, sustainable design and planning and community engagement, a what–who–how relationship can be established between the three. The “what”, sustainable design and planning, as the main goal the plan wishes to attain; the “who” are the stakeholders that are impacted by the plan; and the “how” refers to the



engagement, as the means by which the who's input can effectively contribute to the plan. Within this triple relationship, the success of the first, the "what", is conditioned to the success of the "who", also conditioned by the success of the "how".

Considering the traditional approach to the "what", it has been based on technicians' and decision-makers' capacity and good will, omitting the "who" and, consequently, the "how". However, a given plan can be greatly enhanced by a more holistic approach, if diverse points of view of those impacted by the plan are taken into account, and if there is a means by which such points of view can be introduced within the technical framework. Sustainable urbanism should thus be inclusive and engaged in order to better meet the different user needs.

This holistic approach requires research, methods and know-how but, but overall, it requires a new attitude. According to Thomson-Fawcett, the mission of good physical urbanism can be easily foiled by poor process and exclusionary practice. There is absolutely no doubt that inclusive processes and designs are difficult to achieve. However, it is important for researchers and practitioners to link with each other in order to recognize and respond better to the often obscured effects of practices that institutionalize exclusion [2].

5 CASE STUDY ANALYSIS

In order to analyse the what–who–how relationship between the three concepts, the research methodology is based on crossing data concerning different initiatives (plans, projects, regulations) with specific stakeholder types, engagement tools and processes, together with different planning and design-related issues and scales.

5.1 Parameters

The case study analysis considers the following parameters:

- *Inclusive urbanism stakeholder types*: neighbours, local organizations and the broad community (NC), women and gender (WG), children and young people (CY), elders (E), lower income residents (LI), and other (O).
- *Forms of engagement*: information, personal consultation, digital consultation, paper consultation, institutionalised consultation, consensus-building, decision-making, risk-sharing, partnership and self-management.
- *Sustainable design and planning key issues*: urban and regional overall strategy, landscape context, mobility and accessibility, public space, housing, economic activity, facilities and services, patrimony, inclusiveness, climate change, safety, recognition, use of language, governance, other.
- *Design and planning scale*: regional (R), municipal (M), neighbourhood (NB), building (BG).

5.2 Case studies

The case study analysis compiles cases from Europe (mainly from the Basque Country) and North and Central America (Vancouver, NYC and Panama City) (Table 2). The selected case studies include different stakeholder types in the following way: neighbours, local organizations and the broad community (27%), women and gender (14%), children and young people (20%), elders (7%), lower income residents (5%), and other (27%). In terms of scale, 22% are regional-scale; 25% municipal scale; 41% neighbourhood scale; and 13% building scale.



Table 2: Case studies by inclusive urbanism stakeholders and design and planning scale.

Case study	Inclusive urbanism stakeholder types						Scale
	NC	WG	CY	E	LI	O	
Basque Land Use Law 6/2006, Basque Country	•						R
Sustainability by Design, Metro Vancouver	•						R
Municipal Urban Plan (PGOU), Bilbao	•	•	•				M
Municipal Urban Plan (PGOU), Getxo	•	•	•				M
UN-Habitat Guide	•	•					M
100 Year Sustainability Vision, City of North Vancouver	•						NB
ViaIrun Urban Plan (MPGOU), Irun	•	•	•				NB
Thinking Fadura, Getxo	•	•	•	•		•	NB
Lynn Valley Charrette, District of North Vancouver	•						NB
Tonpoi Landscape Plan, Bermeo	•		•				NB
NYC Cooling Neighborhoods, NYC	•						NB
AHV Industrial Building, Sestao	•					•	BG
Matadero Building, Balmaseda	•					•	BG
Gender Equality Law 4/2005, Basque Country		•					R
Territorial Ordinance Directive (DOT) 2018, BAC		•					R
Gender perspective, Bilbao La Vieja Urban Plan (PERRI), Bilbao		•			•	•	NB
Eskolabidea, Basque Country			•			•	R
Europa Parkea, Bilbao			•				NB
Rekalde Neighbourhood Student Participation Process, Bilbao			•				NB
PERI-1 Student Participation, Durango			•				NB
Elkartoki, Basque Country			•			•	BG
Age-Friendly Environments, World Health Organization (WHO)				•			R
Euskadi Lagunkoia, Basque Country				•			R
Streets for Life, UK				•			NB
Casco Antiguo Plan, Panama City	•				•	•	NB
The Harlem Heat Project, NYC	•				•	•	NB
Bilbao Sound Strategy, Bilbao						•	M
Leash-free dog zoning, Leioa						•	M
Leash-free dog zoning, Erandio						•	M
Gazte Lonjak, Durango			•			•	M
Responsible Nightlife, Medieval Quarter, Vitoria-Gasteiz						•	NB
NoiseAbility Bilbao, Plaza Nueva						•	NB
Centre for the Arts, Huarte						•	BG

5.3 Inclusive urbanism initiatives by design and planning scale

The case study analysis compiles inclusive urbanism experiences across all four scales, from the region to the building, being the most numerous the ones related to neighbours, local associations and the broad community in general (Table 3). From the Sustainability by Design project, in Metro Vancouver, to smaller projects about new uses for building transformations in Sestao or Balmaseda, in the Basque Country. Projects for specific stakeholder groups such as women, elders and children also appear at different scales. However, the ones involving lower income residents are more focused on the neighbourhood scale, as one of the targets is usually to avoid gentrification at that scale.

Experiences show engaging, for stakeholders, in general, is easier at neighbourhood scale projects, as the built environment is closer to them than when dealing with larger scales.

It is worth mentioning that over a quarter of the selected experiences involve “other” stakeholder groups, different to the previous five. This highlights the need to identify the stakeholders at each projects’ early stage, depending on the project scope and circumstances.

Table 3: Inclusive urbanism by design and planning scale.

Design and planning scale	Inclusive urbanism stakeholder types					
	NC	WG	CY	E	LI	O
Region	2	2	1	2		1
Municipality	4	3	3			4
Neighbourhood	7	3	6	2	3	6
Building	2		1			4
	15 (27%)	8 (14%)	11 (20%)	4 (7%)	3 (5%)	15 (27%)

5.4 Sustainable design key issues by inclusive urbanism stakeholder type (Table 4)

The objective of urban planning and design is to intervene in the built environment, particularly in land uses, mix of uses, urban form, density, etc. Thus, most of the inclusive urbanism engagement processes at a neighbourhood, municipal or regional scale consider, in some way, at least the following six key issues: the first three refer to the spatial elements related to the built environment (landscape context, mobility and accessibility, and public space), while the second three refer to the built elements within the built environment (housing, economic activity and facilities). These six key issues worked specifically well, for instance, with children engagement in the Bilbao Municipal Plan participatory process.

Additionally, urban plans in Bilbao (2016–2017), Getxo (2018) and Irun (2019) added a general urban strategy and three cross-wise issues: patrimony, inclusiveness and climate change. Including climate change as a key issue in urban planning and design engagement processes is very interesting in terms of raising awareness and gathering input on green infrastructure solutions, sustainable urban drainage systems (SUDS), and urban agriculture, among others. Analysed case studies that actively work on these topics are Sustainability by Design, the City of North Vancouver 100 Year Vision and the Harlem Heat Project.

Cases that specifically deal with including gender perspective in urban planning use most of these key issues to articulate engagement, delving into gender-driven specific needs, hence adding safety, equal recognition, use of non-sexist language and governance.

Projects with children may deal with all topics, but results from the selected case studies reveal most of the input gathered relate to public space, mobility, amenities (sports centres, libraries, schools, etc.), climate change and safety.

When dealing with elders, the Basque Country Age-Friendly Environments project, Euskadi Lagunkoia, considers key issues related to mobility, public space, housing, economic activity, facilities, inclusiveness, and adds others such as communication. The Streets for Life project considers six key design principles: familiarity, legibility, distinctiveness, comfort, accessibility and safety. The case study analysis considers the first four within the public space key issue.

In projects engaging lower income residents, key issues are mainly economic activity (in terms of employment), housing (in terms of economic accessibility as well as physical conditions), safety, public space and public facilities. It is worth mentioning projects that include climate change with this stakeholder group, such as the Harlem Heat Project, as often lower income residents may suffer a greater impact, due to the lack of economic resources.

Table 4: Sustainable design key issues by inclusive urbanism stakeholder type.

Sustainable design and planning key issues	Inclusive urbanism stakeholder types					
	NC	WG	CY	E	LI	O
Urban and regional overall strategy	●	●				
Landscape context	●					
Mobility and accessibility	●	●	●	●	●	
Public space	●	●	●	●	●	
Housing	●	●		●	●	
Economic activity	●	●		●	●	
Facilities and services	●	●	●	●	●	
Patrimony	●					
Inclusiveness	●	●		●	●	
Climate change	●		●		●	
Safety		●	●	●	●	
Recognition		●				
Use of language		●				
Governance		●		●		
Other				●		●

5.5 Forms of engagement by inclusive urbanism stakeholder type (Table 5)

Information is at the base of any engagement process. All of the case studies analysed include it, although to different extents. From a press release, to a project website, targeted mailing or several month-long exhibitions. This has a double objective: to invite stakeholders to participate and to contribute to informed participation. A shared knowledge of the design or plan's baseline is key to obtain meaningful input from participants and to build consensus.

Consultation in its different forms (personal interviews, digital, paper, or institutionalised) appears in almost all case-studies. Personal interviews, both face to face or by telephone, are particularly useful in inclusive urbanism projects where key stakeholders are difficult to gather at public sessions or via other means (digital or paper consultations). For instance, immigrant women of specific cultures in the Bilbao La Vieja Neighbourhood Urban Plan.

At the same time, digital consultation enables a larger public outreach, as it provides freedom to participate whenever works best for participants and is easy to share via social

networks. Digital consultation, depending on how it is set, can greatly simplify data management, requiring less time and effort to synthesize results. On the contrary, paper consultation consumes an important amount of time but is the only means to reach specific stakeholders with little or no access to digital means (elders, for instance).

In terms of institutionalised consultation, urban plans in Bilbao, Getxo or Irún included the figure of the Municipal Planning Advisory Board as required by the Basque Land Use regulation.

Over 80% of the analysed case studies include consensus-building workshops or charrettes. These contribute significantly to building a common understanding and acceptance of the projects, by answering to specific concerns in a close environment, sharing different points of view, creating empathy amongst participants, and attempting to elaborate proposals collaboratively. Analysed projects with children, for example, use consensus-building workshops more than consultation forms.

None of the cases analysed (except for UN-Habitat's guide for municipalities) go beyond consensus-building forms, into higher level participatory forms such as decision-making, risk-sharing, partnership or self-management.

Table 5: Forms of engagement by inclusive urbanism stakeholder type.

Forms of engagement	Inclusive urbanism stakeholder types						Overall use (% of the whole)
	NC	WG	CY	E	LI	O	
Information	13	4	10	2	2	8	100%
Personal consultation	3	2		1	1	4	28%
Digital consultation	7	2			1	7	50%
Paper consultation	2	1		1		3	22%
Institutionalised consultation	3					1	9%
Consensus-building	11	4	9	1	2	8	81%
Decision-making	1						3%
Risk-sharing	1						3%
Partnership	1						3%
Self-management	1						3%

6 CONCLUSIONS

6.1 Benefits

Analysed case studies show a holistic approach engaging new specific stakeholders effectively benefits, first of all, the plan or project, enabling it to better target solutions to needs and concerns of those who will be impacted by it. It also enhances the role of stakeholders and collective consensus, increasing the general acceptance of the plan, thus preventing public opposition that may delay or invalidate it.

Second, this approach also benefits the community, increasing awareness and capacitation to make informed decisions towards a more sustainable built environment. At the same time, it contributes to generating a sense of belonging, empowerment, tolerance and cooperation amongst different stakeholder groups.

Regarding the public administration, it demonstrates the compromise with an efficient and transparent management.



Last, for the private sector, it is an opportunity to get close to potential markets, better understanding the needs of potential customers.

6.2 Challenges

The main challenges identified relate to the public administration as the key stakeholder in promoting inclusive and engaged urban planning. Politicians and technicians are still often drawn back for several reasons: time, effort, potential risk of public questioning or opposition, underestimating participants' contribution and the process overall benefits. Hence, the analysed case studies entail information, consultation and consensus-building, not attaining higher levels of participation.

Another relevant challenge is engaging the stakeholders. Information and communication are key, but often, despite important efforts, few people actually participate. Potential reasons are lack of time and interest or mistrust in the administration system.

6.3 Key considerations for inclusive, engaged and sustainable design and planning

Within this what–who–how relationship it is important to understand that the “what”’s origin are the needs of the “who”. Thus, in order to better understand and better respond to such needs, sustainable urban design and planning – the “what” – should incorporate the point of view of as many stakeholder types as affected by the plan – the “who”. This can be done at any scale and, particularly, at the neighbourhood scale. Additionally, to effectively do so, engagement – the “how” – is vital to communicate and foster informed participation, gather contributions and build consensus.

The different case studies analysed show that the combination of this holistic what–who–how approach significantly contributes to improve urban plans and projects, with additional benefits to the community, public administration and even the private sector. Despite the time, effort and challenges still to be dealt with, considering new points of view and enabling informed engagement are essential to achieve truly sustainable design and planning, able to meet the needs of the diverse current and future generations.

REFERENCES

- [1] Burton, E. & Mitchell, L., *Inclusive Urban Design: Streets for Life*, Architectural Press, Elsevier: Oxford and Burlington, 2006.
- [2] Thomson-Fawcett, M., Inclusive Urbanism. “VIEWPOINTS” *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, **1**(1), pp. 5–15, 2008.
- [3] Espino, N.A., *Building the Inclusive City: Theory and Practice for Confronting Urban Segregation*, Routledge: London and New York, 2015.
- [4] Álvarez, E.M. & Gómez, C.J., Recomendaciones para la incorporación de la perspectiva de género en el planeamiento urbano. *Ciencia, Técnica y Mainstreaming Social*, **1**, pp. 29–38, 2017. DOI: 10.4995/citecma.2017.7626.
- [5] UN-Habitat, *Inclusive and Sustainable Urban Development Planning: A Guide for Municipalities*, vol. 1, 2007.
- [6] Simpson, B., Towards the participation of children and young people in urban planning and design. *Urban Studies*, **34**(5–6), pp. 907–925, 1997.
- [7] Belausteguigoitia, J. & Imaz, C., Bilbao Aurrerago! Participación de infancia y juventud en un Plan General de Ordenación Urbana. *Proceedings of Ludantia I Bienal Internacional de Educación en Arquitectura para la infancia*, **II**, pp. 38–45, 2018.



- [8] World Health Organization, Age-friendly environments. www.who.int/ageing/age-friendly-environments/en/. Accessed on: 8 Jul. 2019.
- [9] World Health Organization, Active ageing: A policy framework. A contribution to the *Second United Nations World Assembly on Ageing*, pp. 27–28, 2002.
- [10] Belausteguigoitia, J., Urban recycling/reviving: The contribution of brownfield interventions to a more sustainable urban design. Thesis, The University of British Columbia, pp. 28–30, 2007. DOI: 10.14288/1.0100903.
- [11] Hamstead, Z. & McPhearson, T., Climate resilience means meaningfully engaging vulnerable communities in urban planning processes. *The Nature of Cities*, 2016. www.thenatureofcities.com. Accessed on: 11 Jul. 2019.
- [12] Condon, P., *Design Charrettes for Sustainable Communities*, Island Press: Washington, Covelo, London, 2008.

