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A conceptual framework for planning for urban resilience through the neighbourhood scale

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Abstract
Urban resilience has been studied in different aspects such as ecology, community, space, planning, or governance. However, there is a lacuna in how urban resilience can be achieved in an integrated approach regarding different scales and aspects. This paper aims to fill this gap by linking macro/urban and micro/human systems in Planning for Urban Resilience (PUR). Based on this, the phenomenon (PUR) is introduced first. Secondly, the neighbourhood scale (NS) is defined in PUR via its interdisciplinary/ intersectional character. Thirdly, a conceptual framework is suggested to engage the NS with planning processes for urban resilience. The method is based on qualitative research using the grounded theory approach. The limitations emerged in the practical aspect of the conceptual framework and time management during the data gathering phase. The data is gathered from the literature regarding the main theories on planning and urban resilience using scientific databases. For the analysis, open, axial, selective coding steps are followed with an additional conceptual framework analysis technique. This research reveals several notes: a) The intersections between urban and human systems regarding PUR emerge the NS, b) NS as a concept in resilience has three main contexts: spatial, administrative, social, c) NS as an interface amid different layers can link the macro and micro scales as well as theory and practice, d) The conceptual framework can be used in strategic planning processes via integrating local scales/ actors to urban systems regarding urban space, governance, neighbourhood, e) Different contexts have potentials to be explored regarding resilience.

Keywords
Governance, Grounded theory, Neighbourhood scale, Planning, Urban resilience.

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1. Introduction

While cities and societies struggle with risks or deteriorations, including hazards and ecological or cultural shocks, they must also sustain their lives. In this regard, the resilience concept supplies a comprehensive understanding through a dynamic approach while bridging relevant disciplines. Today, it is necessary to foresee, plan and act to survive amid increasing social, cultural, or ecological instabilities. However, the more complex our lives become, the more we need holistic and dynamic approaches/actions in the urban context. The resilience concept provides a comprehensive understanding through a dynamic approach while bridging relevant disciplines. Resilience in the urban context has different fringes regarding various disciplines and aspects. In the literature, there are various contexts, regarding environmental risks (Godschalk, 2003), governance (Bixler et al., 2020; Fastiggi et al., 2021, Adger, 2005), neighbourhood/community (Murray & Zautra, 2011; Berkes & Ross, 2013; Otsuki et al. 2018), space/ physical environment (Hassler & Kohler, 2014; Magoni, 2017; Sharifi, 2019), urban planning (Desouza & Flanery, 2013; Pizzo, 2015; Brunetta & Salata, 2019), infrastructure (Lehman, 2018), urban systems (Chelleri, 2012), human geography (Zimmerer, 1994) or ecology/natural environment (Gunderson, 2000; Pickett, et. al., et al., 2004; Cumming, 2011; Evans, 2011). In addition, some studies include approaches that involve different layers of urban systems such as sustainable planning, management, economy, land use and society (Jenkins, 2005; Jha et al., 2013; O'Sullivan et al., 2014).

Despite numerous works on urban resilience, few studies (Jha et al., 2013; Sharifi, 2019) try to link different scales. Besides, it is not clear how to integrate these multi-scaled and complex urban systems both in theory and action (Wang et al., 2018), in other words, using the concept and its application to urban life is blurred (Leichenko, 2011; Masnavi et al., 2019). Also, the redundancy of concepts and theories in the literature, such as resilience planning or urban/neighbourhood/spatial/community resilience, creates confusion. Additionally, there is no trace of integrating the urban and human scales while considering a holistic resilience approach through the city's social, spatial or administrative aspects. Besides there are some works with an emphasis on place-based solutions that have the potential for integration of different scales, they generally focus on a specific context, such as urban policy regarding planning (Coaffee, 2013; O'Sullivan et al., 2014), community/ neighborhood (Cutter et al., 2008; Kwok et al., 2018; Lamb & Vale, 2024) or spatial concern (Rockefeller, 2014; Sharifi et al., 2021; Dastjerdi et al., 2021; Moreno et. al., 2021).

Hence, the research question of this research occurs; Is it possible to fill the gap between different scales and disciplines regarding urban resilience via planning processes? Therefore, this research focuses on bridging different aspects of urban and human systems under the umbrella of planning for urban resilience. Accordingly, exploring the embedded interfaces of urban resilience, planning and neighbourhood systems is crucial. Bridging the macrosystems (urban scale) and microsystems (human scale) in an inter-scale context - neighbourhood- can support achieving urban resilience via its local, dynamic and interdisciplinary character. So, this paper aims to fill the gap by linking neighbourhood scale (NS) with planning processes for urban resilience, using the potentials of urban and human systems by developing a conceptual framework. To provide this, in Section 2, the background of the research is discussed regarding main approaches and theories: a) resilience research is examined considering the ambiguity of the term and the gap between different disciplines and scales, b) theories are considered such as urban systems/ politics-governance/ human ecosystem/ socio-spatial approaches; in Section 3, the methodology is described concerning the research questions and purpose of the paper; in Section 4, data analysis is conducted while shaping the theory; in Section 5, the conceptual framework is built as a result; finally, outcomes are discussed.

2. Background: Resilience and the urban context: Concepts, theories

2.1. Resilience and extent: An ambiguity or a tool?

Regarding the research problem, urban resilience and planning need to be clarified while using both simultaneously regarding the macro and microsystems.

Resilience as an isolated term is meaningless without a context, therefore, there are numerous definitions in resilience discourse triggering the place/context specific approaches (Pearson et al., 2013; Mehmood, 2016; Parés et al., 2018; Sharifi, 2019). While all these efforts open a dynamic thinking way, the mixed-use or flexibility of the term cause vagueness simultaneously (Pickett et al., 2004; Norris et al., 2008; Ahern, 2011; Davoudi et al., 2012). The lacuna amid these redundant approaches waits for contextual interpretation. Despite this contextual need, the city is an extremely complicated and dynamic system with many aspects regarding resilience, and it is hard to develop a formula that responds to all issues. In this context, small and cross-scale scales with different dynamics become more critical (Chaskin, 2008; Masnavi et al., 2019). Thus, the second question regarding the research problem arises: Can an optimum and integrated interface in urban systems and scales achieve resilience in the planning processes through time and space? In this regard, while Jabareen (2013) underlines the difficulty of developing a unified conceptual framework, approaches that define resilience as a "sustainable network" (Godschalk, 2003), a "process and a product" (Vale, 2014) or a "strategy" (Ahern, 2011) are promising. Therefore, this research suggests using this vague character as a potential key, in linking the urban scale to the human scale related to the aforementioned question.

2.2. Planning resilience in the urban context

Finding its roots in the 1970s in ecology, the term resilience refers to the capacity of a system to return to equilibrium after a disturbance (Holling, 1973; Davidson, 2010). Thanks to its dynamic character, the resilience approach was welcomed by different disciplines, such as anthropology, socio-cultural disciplines or urban planning. The 2000s were the cornerstone of the change of the terminology related to complex systems theory regarding social-ecological resilience beyond the sustainability approach (Berkes et al., 2003, p. xi; Davidson, 2010; Galantini & Tezer, 2018; Zhang & Li, 2018; UN-Habitat, 2019). The resilience approach as an umbrella that links different disciplines like environmental physiology, geography or cultural theory, was valuable to understand better and create creative possibilities for complex systems through change (Folke, 2006; Coaffee, 2013). Besides, the current urban and human systems paradigm has become integrated (Monstadt & Coutard, 2019; Lehmann, 2018). On the other hand, the urban resilience literature focusing on specific topics continues. These include ecosystems (Pickett, et al., 1997; Alberti, 2008; Tyler & Moench, 2012; Kim & Lim, 2016), urban systems/planning (Allan & Bryant, 2011; Ribeiro & Gonçalves, 2019; Lu & Stead, 2013), built environment (Sharifi, 2019; Samuelsson et al., 2019; Meshkini, et al., 2021), socio-cultural systems (Breton, 2001; Norris et al, 2008; Berkes & Ross, 2013; Kulig et al., 2013), community (Nguyen et al., 2023) and governance which is particularly prominent (Smit & Wandel, 2006; Fastigi et al., 2021).

Urban resilience gains its strength only if an urban system with its social, ecological and technical networks across temporal and spatial scales is engaged regarding the stakeholders both in theory and action (Meerow et al., 2016; Magoni, 2017). Furthermore, it should be evaluated with the city's various aspects considering physical (infrastructure, land use, buildings) (Fleischhauer, 2008; Bouzarovski et al., 2011; Hassler & Kohler, 2014; Moreno et. al., 2021), non-physical (Sharifi, 2019), natural (Valente et al., 2002), economic (Drobniak, 2013), institutional/governance (Masnavi et al., 2019; Huck, et al. 2020; Korosteleva, 2020) and social features (Chelleri, 2012; Poortinga, 2012; Ostadtaghizadeh et al. 2015). Interestingly, these arguments found a reflection in the COVID-19 pandemic.

While the pandemic is not the focus of this paper, it reflects the need for a permeable and holistic relationship between the micro-scale (home and its surroundings, i.e. neighbourhoods) and the macro scale (city or politics), which is important in resilience processes. Despite this, the interface of searching resilience criteria in learning capacity, robustness or adaptability in the urban context is still ambiguous (Mehmood, 2016). To summarize, urban resilience studies focus mainly on specific aspects: governance-management (institutions, community engagement etc.), community-neighbourhood (culture, physiology, networks etc.), built environment (urban design, neighbourhood etc.), urban planning and ecological studies (natural sources, landscape, transportation etc.).

Herein, the gap between urban resilience and planning occurs. Planning theory's changing meaning and scope in favour of framing problems or being prepared for different possibilities emerge from the strategic perspective (Albrechts, 2004; Friedman, 2008; Davoudi& Strange, 2009), including spatial concerns. While recovery processes have recently focused more on the social capacities of cities, there is a trend towards the critical role of the physical environment in this process (Allan & Bryant, 2011). Meanwhile, the unforeseen character of hazards or adversities forces us to look from a strategic perspective. Besides, recent changes raise the question of how urban planning, practitioners and planning theory can respond to social-spatial inequality, climate change or governance (McGuirk, 2001; Legacy et al., 2019) while concerning the theory-practice balance and different actors (Albrechts, 2004). Planning might be a tool if its interdisciplinary character is used to increase the resilience of a system (Stumpp, 2013; Magoni, 2017). Despite this, few works focus on the relevance of planning and urban resilience (Wilkinson, 2011; Davoudi, 2012; Mehmood, 2016). In this regard, an "evolutionary resilience" (Davoudi, 2012) or resilience as a paradigm for planning (Pizzo, 2015) are some ongoing debates to link planning and urban resilience. Therefore, planning theory and its transdisciplinary character concerning cities, including urban design, community planning, economic development, and management (Friedman, 2008; Fainstein, 2005; Levy, 2017) wait to be linked to urban resilience. There is an increasing need for new perspectives in urban planning (Eraydın & Taşan-Kok, 2013; Pede, et. al., et al., 2023)

Therefore, the literature seems to miss an integrative approach to bridging urban planning, resilience, governance, and local scales (physical or social). In other words, urban systems (macro-scales) and human systems (micro-scale) await to be integrated into urban resilience and planning processes. When bridging complicated concepts such as planning, resilience, and the city, it is vital to define the intersection points. Accordingly, this research seeks a deep understanding of the core phenomena while describing the relationships amid the components or processes. Then it suggests a conceptual framework to link the urban and human systems.

3. Research methodology

Due to the complexity of theories and related topics as mentioned above, it was hard to see or understand the relationships and processes amid them. Therefore, to find a pathway, it was necessary to dig and understand the literature, theories or other data, to discover whether the aforementioned link is possible. Therefore, this research used a qualitative research paradigm using the grounded theory approach. (Figure 1).

The grounded theory approach is defined as a way of building/discovering theory from the data (Glaser & Strauss, 1967, p. 3; Strauss & Corbin, 1990, pp. 23-26; Bowen, 2006; Creswell, 2013, p. 83; Chun Tie, et al. 2019), while its main argument is to provide a comprehensive understanding of the network of interconnected concepts/relationships (Miles & Huberman, 1994, p.18; Jabareen, 2009). Data can be collected from various sources purposively, including observations, literature, and documents (Charmaz, 2006; Chun Tie et al., 2019; Glaser, 2007), besides visual documents, drawings (Flick, 2009; Mey & Dietrich, 2017), discipline-oriented

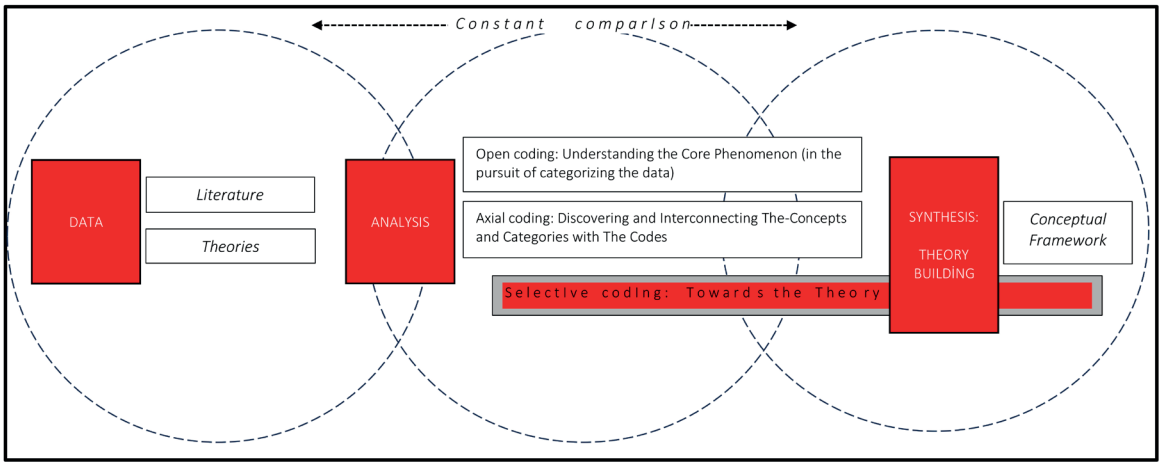

Figure 1. *Methodological flowchart.*

theories (Jabareen, 2009) or data created by the researcher (Morgan, 2022), while representativeness and meaning are key criteria (Flick, 2009:257). Data analysis unfolds simultaneously with the data collection process (Egan, 2002; Chun Tie et al. 2019) and mainly consists of coding, constant comparisons and theorizing (Creswell, 2013, pp.195-197). The techniques used in the analysis are open coding, axial coding and selective coding steps in general, either based on Strauss and Corbin's (1990 cited in Creswell, 2013, p. 117) systematic approach or Charmaz's (2006 cited in Creswell, 2013) more flexible approach. In a slightly different way, Jabareen (2009) suggests a conceptual framework analysis technique that can be defined as identifying a phenomenon's major concepts while getting its empirical data from the theories and literature [1]. What is common is the transformation of raw data into a meaningful 'idea' through understanding/organizing/coding, thematizing/categorizing and synthesizing (Glaser &Strauss, 1967; Charmaz, 2006; Creswell, 2013; Pandit, 1996). Constant comparison is the main principle of the analysis process, which is checking the new data with the analysis data until no surprising data is obtained- saturation- [2]. (Glaser& Strauss, 1967; Carley, 1993; Charmaz, 2006).

3.1. Data limitations

The research had two main limitations. First limitation was due to the permeability between disciplines and topics caused by the flexibility of the concept of resilience. It took a long time to understand and link the studies and therefore the data collection was done in two phases. The second limitation based on the grounded theory research itself, which cannot be limited to data collection, documentation and analysis and requires interpretation. Based on this, the conceptual framework needs to be developed in stages, supported by further research to enhance its practical implications.

3.2. Data collection

The data came from the literature based on scientific research. The data-gathering process was based on two periods. The first period was held between April 2020 and December 2020, following a preliminary understanding process in which the impacts of the COVID-19 pandemic were observed and related to the topic. Although the pandemic is not the focus of this research, it changed the direction of ongoing preliminary research on the role of place and local scales in urban and social life. The house and its surroundings regarding community, place and urban systems and their connection to larger systems triggered this research. Therefore, the literature research was conducted through the lens of a quest for urban-social coping processes related to urban planning and local scales. The second period was held between November 2023 and January 2024, and it was mainly used to validate the conceptual framework shaped in the previous process with new references and notes. Scopus, Web of Science, Google Scholar, and Marmara University

databases were used to collect the data, especially for the second phase, while Google Scholar database was used mainly for the first phase. The research articles and book/book chapters were the data selection criteria, while considering the number of citations, relevance and publishers. Additionally, intergovernmental organizations' websites were used for the common approaches. The search keywords were urban resilience, resilience and planning, neighbourhood resilience, neighbourhood scale and resilience, community resilience, urban resilience and scale, urban resilience and governance, resilience and urban form, spatial resilience; as well as main theories such as planning, and resilience, and neighbourhood and specific resilience concerns such as neighbourhood/ local scales, culture, sociology, psychology or / ecology. (Table 1).

3.3. Data analysis

For the analysis, Strauss and Corbin's (1990) grounded theory analysis steps were followed in general, while Jabareen's (2009) conceptual framework analysis technique was partially imported [3]. They are intertwined as both try to identify a phenomenon via its significant concepts, processes and relationships. At the same time, there is a slight difference between the two regarding using theory and literature for empirical data. Therefore, the data analysis process consists of three phases:

3.3.1. Open coding

This phase was based on an understanding and segmentation of the phenomenon's main arguments, theories, and concepts. During the process, notes (diagrams/sketches, handwriting notes, and Word documents) and folder groups were used to understand the general framework of the phenomenon, as well as the differentiations. Herein, beginning with the main theories, -planning, resilience, urban resilience- through the lenses of logical categorizing, the codes were found in two phases.

In the first phase, Integration of Different Disciplines (geography, sociology, planning, urban systems…),

Table 1. *Theories and main approaches in literature as the data source.*

Main Searching Keywords (Grouped)	Reference(s)
Planning Theory (including strategies)	Albrechts, 2004; Alexander, 2016;; Fainstein, 2005; Friedmann, 2008; Legacy, et. al., 2019; Lehmann, 2018; McGuirk, 2001. **Governance** Adger, 2005; European Governance, 2001; Wagenaar, 2007
Resilience Theory (including terminology)	Davidson,2010; Davoudi, 2012; Holling,1973; Masten, 2001; Meerow et al., 2016; Smit, & Wandel, 2006 **Socio-ecological** Adger,2000; Ernstson et. al.,2009; Folke, 2006; Zimmerer, 1994
Urban Resilience	Ahern, 2011; Amaratunga et al., 2019; Allan & Bryant, 2011; Korosteleva, 2020; Meerow & Newell, 2019; Pizzo, 2015; Ribeiro & Gonçalves, 2019; The Rockefeller Foundation, 2014; Wilkinson, 2011 **Hazards** Godschalk, 2003 **Implementation/Practice** Chelleri, 2012; Mehmood, 2016; Monstadt & Coutard, 2019; Pickett et al., 2004; Stumpp, 2013; UNISDR, 2017 **Urban Planning** Desouza & Flanery, 2013; Eraydın & Taşan-Kok, 2013; Jabareen, 2013; Magoni, 2017; Masnavi et al., 2019; O'Sullivan et al., 2014; Sharifi, & Yamagata,2018 **Strategic Planning** Cruz et al., 2013; Sharifi & Yamagata, 2014; UN-Habitat, 2019; Vale, 2014
Resilience and Community (in the scope of urban resilience) (Including phycology, health and scale/place-based emphasis)	Aldrich & Meyer, 2015; Andrew et al., 2020; Berkes & Ross, 2013; Chaskin, 2008; Cutter et al., 2008; Graham et al., 2016; Kulig et al., 2013; Lyon, 2014; Magis,2010; Murray & Zautra, 2011; Norris et al., 2008; Ostadtaghizadeh et al., 2015; Otsuki et al., 2018; Sonn & Fisher, 1998; Wang et al., 2018 **Physiology/ Health/ Place attachment** Kirmayer et al., 2009; Ma et al., 2023; Poortinga, 2012; Renschler et al., 2010
Resilience And Governance (in the scope of urban resilience)	Bixler et al., 2020; Coaffee, 2013; Fastiggi et al., 2021; Huck et al., 2020; Shamsuddin, 2020 **Resilience and sustainability** Galantini& Tezer, 2018; Zhang & Li, 2018
Resilience and Spatial Concern (in the scope of urban resilience) (including urban space, green areas, buildings, activities, place)	Boeing, 2018; Bouzarovski et al., 2011; Brunetta & Salata, 2019; Fleischhauer, 2008; Flouri et al., 2014; Hassler & Kohler, 2014; Lu & Stead, 2013; Marcus & Colding, 2014; Meshkini et al., 2021; Samuelsson et al., 2019; Sharifi, 2019; Stollmann, 2016; Dastjerdi et al., 2021
Resilience and NS (in the scope of urban resilience) (including spatiality)	Breton, 2001; Kourtit et al., 2022; Kwok et al., 2018; Larimian et al., 2020; Parés et al., 2018; Pearson et al., 2013; Sharifi, 2016; Stevenson & Petrescu, 2016; Xiao & Van Zandt, 2012 **Gentrification** Pearsall, 2012 **Urban form** Feliciotti et al., 2016; Ma et al., 2023; Moreno et al., 2021; Sharifi et al.2021
Resilience and Ecology/ Nature/ Landscape (in the scope of urban resilience) (including spatial interest)	Alberti, 2008; Cumming, 2011; Evans, 2011; Kim & Lim, 2016; Leichenko, 2011; Tyler & Moench, 2012; Valente et al., 2022
Resilience and Covid-19 (in the scope of urban resilience) (including local scale emphasis)	Afrin et al., 2021; Banai, 2020; Chu et al., 2021; Hananel et al., 2022; Liu et al., 2023; Pede et al., 2023; Sharifi & Khavarian-Garmsir, 2020
Neighborhood System (not including resilience)	Galster, 2001; Kearns & Parkinson, 2001; Kennett & Forrest, 2006; Lewicka,2010; Martin, 2003; Mehta & Bosson, 2010; Mumford, 1954; Rohe, 2009; Özbek Eren, 2017; Schwirian, 1983; Wilkerson et al., 2011

Table 2. *Understanding the core phenomenon-in the pursuit of categorizing the data (Open coding).*

Main Theories	**Representative References and Quotations from The Main Theories Regarding Resilience Thinking, Planning and Urban Resilience**	*Open Coding Step 1*	*Refined Codes (after revisiting the urban resilience regarding constant comparative) Step 2*
PLANNING THEORY	• transdisciplinary character (Friedman, 2008) • emphasis on strategic plans rather than project plans (Albrechts, 2004) • reimagining the participation (Legacy, 2019) • *"... abandoning abstract generalizations about "planning" to develop mid-level theories for planning practices such as spatial planning"* (Alexander ,2015). *Urban planning:* • to integrate ecosystem services into the social practice of urban planning by using cross-scale interactions (Ernstson, et.al, 2009) • to manage urban interfaces, either ecological or social (Lehmann, 2018)	*Integration of Different Disciplines (geography, sociology, planning, urban systems...)* *Different Aspects of Urban Systems (economy, ecology, space, planning, infrastructure...)* *Integration of Different Scales (territory, city, neighborhood...)* *Planning as a Strategy (visions, local plans, projects...)* *Flexibility/Connectivity (networks, social bonds, urban planning, theory-practice harmony...)* *Politics/ Governance (urban planning, global and local dynamics, participative approaches...)* *Context (city, community, place-based, geographical aspect...)*	*Integration of Human- Urban Systems (planning-governance, scale, connectivity...)* *Integration of Different Systems (ecology-economy; social-ecological; social-spatial...)* *Strategic Planning / Planning Scale (feedback and waving between up-down and bottom-up)* *Connectivity (community, institutions...)* *Importance of Inter-Scale Approach* *Community/ Neighborhood (activities, personal-community resilience, social bonds...)* *Physical Environment/ Place-Based Aspect (built environment, urban design, landscape...)* *Urban Structure (morphology, scale-context...)* *Recovery / Sustainability (planning, social-natural resources...)*
RESILIENCE THEORY and URBAN RESILIENCE	• resilience is a more strategic than normative concept (Ahern, 2011) • *"...designing, planning, and managing" (*Desouza & Flanery, 2013) • the importance of implementation of urban resilience policy; practical approach: who, when, why, where, what (Meerrow et al., 2016) • *"complex phenomenon, non-deterministic"*; interlinked concepts: governance, prevention, planning, vulnerability (Jabareen, 2013) • *"...from stability to dynamism..."* (Galantini & Tezer, 2018) • incorporation of crucial concepts in both resilience theory and urban theory (Meerow et al., 2016) • an umbrella term that needs context (Davoudi, 2012) • *"resilience of a place"* (Mehmood, 2016) • the policy implementation roadmaps are lacking (Shamsuddin, 2020) • institutional connectivity among different actors (Huck et al., 2020) • *"... meso-scale urban form elements are related to urban resilience"* (Sharifi, 2019)		

Different Aspects of Urban Systems (economy, ecology, space, planning, infrastructure…), Integration of Different Scales (territory, city, neighbourhood…), Planning as a Strategy (visions, local plans, projects…), Flexibility/Connectivity (networks, social bonds, urban planning, theory-practice harmony…), Politics/ Governance (urban planning, global and local dynamics, participative approaches…), Context (city, community, place-based, geographical aspect…) were found as primary codes.

In the second phase, after revisiting the urban resilience literature as a part of constant comparison and refining the first codes, the final codes were found as follows: Integration of Human- Urban Systems (planning-governance, scale, connectivity…), Integration of Different Systems (ecology-economy, social-ecological, social-spatial…), Strategic Planning / Planning Scale (feedback and waving between up-down and bottom-up), Connectivity (community, institutions…), Importance of Inter-Scale Approach, Community/ Neighborhood (activities, personal-community resilience, social bonds…), Physical Environment/ Place-Based Aspect (built environment, urban design, landscape...), Urban Structure (morphology, scale-context…), Recovery / Sustainability (planning, social-natural resources…) (Table 2).

3.3.2. Axial coding

Following the coding phase, similar or repetitive approaches were grouped, relations amid different approaches were juxtaposed, singularities were eliminated. None of the codes can be evaluated solely; they interact with each other by their very nature. (e.g., governance is related to both social structure and urban planning, the physical environment is related to both ecology and urban structure or planning scale is related to both planning and community). Therefore, the codes were grouped via a clustering approach through the lenses of the mainstream approaches. Once the logical flow was constituted between the codes and main theories, the initial categories emerged as follows: Social-Ecological System, Socio-Cultural System, Urban Systems, and Spatial Systems.

Simultaneously, the main categories were constituted by revisiting the previous phases via notes and other techniques (merging, elimination…). Table 3 represents the logical flowchart of unfolding the initial categories into meaningful and main categories through revisiting, checking, eliminating and refining the previous phases. This process mainly involved checking the relations between the theories and the main categories and simultaneously unfolding the initial categories in

Table 3. *Obtaining the main categories by axial coding.*

Initial Categories	Representative References and Quotations from The Mainstream Approaches in Urban Resilience *(Some references occur in several topics. These repetitions enhance the categorization process)*	Main Categories
Social-Ecological System	• "…social-ecological resilience, with its focus on the governance of linked social-ecological systems, is of interest to the field of planning…" (Wilkinson, 2011) • phenomenon of change related to complex systems theory regarding social-ecological resilience (Davidson, 2010). • "…the resilience perspective emerged from a stream of ecology that addressed system dynamics, in particular ecosystem dynamics, and where human actions early became a central part of understanding the capacity of ecosystems to generate natural resources and ecosystem services". (Folke, 2006) • "ecological and social resilience may be linked through the dependence on ecosystems of communities and their economic activities"; "…social resilience is defined as the ability of communities to withstand external shocks to their social infrastructure…" (Adger, 2000) • community/neighbourhood level as a good context in the recovery process from hazards via its sociocultural, economic, infrastructural, institutional or administrational dimensions (Renschler et al., 2010; Kwok et al., 2018; Andrew et al., 2020). • focus on the spatial features of urban planning through the vulnerability of spaces (Brunetta & Salata, 2019), green space (Flouri et al., 2014) • few studies concern land use regarding the urban scale, quality of life and biodiversity (Valente, et. al., 2022). • "…improve the link between urban design and planning and ecology". (Pickett et al., 2004).	Health/Nature/Biodiversity Geography/Place
Socio-Cultural Systems (including physiology, place)	• significance of community participation (Amaratunga et al., 2019). • can be defined as the ability of a social system to overcome trauma or challenges in a common sense (Kirmayer et al, 2009; Berkes & Ross, 2013) • "neighbourhood co-governance" (Liu et. al, 2023) • cultural resources (Magis, 2010) • questioning how communities and people withstand shocks, change or adaption (Adger, 2000; Magis, 2010; Berkes & Ross, 2013) • individual's health (Kirmayer et al, 2009; Masten, 2001) • blurred interface between individual experiences and community resilience (Otsuki et al., 2018; Banai, 2020) • communities are the frontline in preparing for and dealing with the aftermath of disasters positively (Sonn & Fisher, 1998; Kwok et al., 2018) with their place attachment features (Norris et al., 2008) • communities, like resilient individuals, can cope positively with adversity (Sonn & Fisher, 1998) via their incarnate, discarnate, and chimerical dimensions (Lyon, 2014).	Community Neighborhood Culture Social Bonds/Daily Life Physiology/Attachment/Memory
Urban Systems (emphasis on linking the subsystems of a city including urban planning)	• "…re-discovering of 'self-governance…'" (Korosteleva, 2020) • "…institutional connectivity – defined as institutionalized forms of vertical, horizontal or cross-territorial interaction – to systematically…" (Huck et al. 2020) • "… major flows within and between natural and built systems, in regard to the natural supply and human demand" (Lehman, 2018) • social, economic, institutional, and governance aspects (Masnavi et al., 2019) • connectivity of community and institutions (Coaffee, 2013) • interaction of infrastructural, institutional, spatial, social and economic dimensions of an urban system still awaits (Allan & Bryant, 2011; Amaratunga, et al., 2019; Ribeiro & Gonçalves, 2019) • emphasis on the physical, socio-economic, and institutional structure of the city can increase resiliency (Fleischhauer, 2008; Wagenaar, 2007; Magoni, 2017) • need to connect bottom-up neighbourhood development initiatives with city-wide systems (European Governance, 2001; Smit & Wandel, 2006) • "…city as a complex system of objects and processes (buildings and communities) …" (Allan & Bryant, 2011)	Community Culture Integration of Human /Urban Systems Ecology/ Natural Systems Economy
Spatial Systems (place-based, local scales, physical environment, activities…)	• a "mesoscale" approach which is related to neighbourhoods (Sharifi, 2019) • lack of spatial or geographical aspect in resilience (Cutter et al., 2008; Marcus & Colding 2014; Pizzo, 2015). • "…the linkage between resilience and spatial planning, identifying how planning can create more resilient cities". (Cruz et al., 2013) • "…how to apply its principles to physical and social elements of cities" (Godschalk, 2003) • "…urban resilience can be studied in four dimensions: social resilience, economic resilience, organizational and institutional resilience, and local or biophysical resilience (natural and built environment in the urban system)" (Masnavi et al., 2019) • different scales and management are some keywords (The Rockefeller Foundation, 2014) • "…comprehensive plans rarely include physical elements that enhance the urban and regional resilience…"; emphasis on scale, neighborhood; "…rethinking the urban system with its different scales that combine the neighbourhood and the city" (Banai, 2020) • the complexity of the resilience concept in transferring it to the built environment (Cumming, 2011; Vale,2014). • the house and the activities around its closed environment are effective in the resilience process (Xiao & Van Zandt, 2012; Samuelsson et al., 2019; Cruz et al., 2013) • "…relations between social resilience and micro-level socio-spatial change in the built environment…" regarding apartment typology (Bouzarovski, et al., 2011) • emphasis on physical scale (Sharifi & Khavarian-Garmsir, 2020; Afrin, et. al., 2021; Chu, et. al., 2021; O'Sullivan et al., 2014) • in the pursuit of resilience attributes in urban design via: "Diversity, Social capital, governance…" (Allan & Bryant, 2011) • "… difficulty to relate neighbourhood activity to city-wide systems …multiple levels using inter-scalar processes…" (Stevenson & Petrescu, 2016) • "…design is often not the solution, but a positive way to gather the resource of different knowledge cultures" (Stollman, 2016)	Physical Environment Urban Structure Spatial Features

an axial loop for saturation. Therefore, the main categories were found in five groups as follows: i) Integration of Human /Urban Systems-Ecology-Economy; ii) Community- Neighborhood- Culture; iii) Health/Nature/Biodiversity-Geography/Place, iv) Social Bonds/Daily Life-Physiology/ Attachment/Memory-Community Culture; v) Physical Environment-Urban Structure-Spatial Features. This section is discussed comprehensively in Section 4.

3.3.3. Selective coding

Following the clarification of the main categories and following the constant comparison principle, these categories were analyzed to understand the relationships and processes. While reassembling the codes, initial categories and main categories to reach a clear understanding of the phenomenon and after a refining process, the core categories were defined as Spatial Potentials, Social Potentials, Administrative Potentials. Simultaneously, the literature highlighted the neighbourhood, including urban resilience, planning, and scale, via their subcomponents. They were found in a logical context which explored the NS.

Once introduced with NS, first, the data were questioned purposely to clarify and catch the saturation, second,

Table 4. *Evolution of axial coding to selective coding: Towards the NS.*

Main Categories	Core Categories	Sub-categories (of the core category)	
Physical Environment Urban Structure Spatial Features	Spatial Potentials	Physical-Spatial Features/ Morphology Natural Resources/ Ecology Landscape	a
Community Neighborhood Culture	Social Potentials	Attachment Culture/ Social Resources Economy Physiology (human, community)	b
Health/Nature/Biodiversity Geography/Place			
Social Bonds/Daily Life Physiology/ Attachment/Memory Community Culture	Administrative Potentials	Planning Politics Governance/ Administration Institutions/ Networks	c
Integration of Human /Urban Systems Ecology/ Natural Resources Economy			

the components of NS were checked to determine whether they were connected to the previous phases, especially to the core categories and third, how NS connects to the core phenomenon was checked. The appropriateness and the relationship between the codes, initial categories, main categories, and core categories have been constituted. This phase revealed that NS is a tool for bridging the theory and practice via its subcomponents that link to the core category via its sub-categories. The process is summarized in Table 4 and discussed comprehensively in Section 4.1.

4. Data and theory intertwined: Towards the conceptual framework and neighbourhood scale as an emerging concept in between theory and reality

Herein, the research question turns into a deeper direction and prepares the third question: How could urban resilience be implemented into planning processes? Resilience highlights the pathway of planning processes but the question of how to interact with the phenomena regarding the infrastructural, institutional, spatial, social and economic dimensions of an urban system still awaits (Allan & Bryant, 2011; Amaratunga et al., 2019; Masnavi et al., 2019; Ribeiro & Gonçalves, 2019). Rethinking the urban system with its different scales and contexts is vital in this regard. Planning is meaningful within a context while it comes to life through activities via "mid-level theories" (Ernstson et al., 2010; Alexander, 2015).

Therefore, an intersectional scale might be a tool while bridging the urban and human systems. Scale [4] depends on the context; it might be a community or a city that is linked to urban resilience. In this regard, if we remember Tuan's (1977) approach, place exists in different scales and contexts; this could also be a home or the earth. In such a relative perception of place, some scales' meanings or extents change over being in place geographically. Thus, as a strategy, the scale can be evaluated as a comprehensive and social context beyond its physical limits (Marston, 2000; O'Sullivan, et al., 2014) and contextual references in every scale may vary.

Based on this, there might be some contexts/ scales; a community, a neighborhood, a city or ?. Community or neighbourhood might be a context which is common in the literature (Sonn &

Fisher, 1998; Norris et al., 2008; Kulig et al., 2013; Vale, 2014; Magoni, 2017; Kwok et al., 2018; Pearson et al., 2013). Both levels are suitable contexts in the recovery process from hazards via its sociocultural, economic, infrastructural, institutional or administrational dimensions. Community resilience is related to the community's social-ecological (Berkes & Ross, 2013), cultural (Magis, 2010; Andrew et al., 2020) aspects besides the psychologic (Kirmayer et al., 2009; Renschler, 2010). On the other hand, neighbourhood resilience is related to the engagement of local resources by community members (Pearsall, 2012; Xiao & Van Zandt, 2012; Sharifi, 2019) and based on economic or ecological capacities, place–people relations (Stollman, 2016) and context-specific factors like built environment or social capital (Parés et al., 2018; Kourtit, et. al., et al., 2022). Platts-Fowler & Robinson (2013, pp. 29-30) state that the main differences between community resilience and neighbourhood resilience are the bounce-back period, the complexity of the community concept and scale, while underlining that neighbourhood is a more practical context. In support of this, Stevenson & Petrescu (2016), pointing to the neighbourhood, emphasize the importance of the interfaces between the city and building levels concerning policy imperatives, but at the same time argue that neighborhood has been overlooked. The neighborhood resilience generally lacks a geographical aspect (Cutter et al., 2008; Marcus & Colding 2014; Pizzo, 2015). This might be because of the difficulty of transferring the term into the built environment (Vale, 2014). Other possibilities for an optimum scale research, the city or wider systems are out of the scope due to their complexity.

Herein, we introduce the neighbourhood scale (NS), defined as a kind of strategic pathfinder. The neighbourhood, with its spatial, communal, administrative, and planning aspects, is amid different disciplines, scales, layers or space theories that bond macro and micro scales, bottom-up governance policies, or society with its embedded codes, which can act like a pathfinder for the resilience paradigm. It has a context beyond the physical or socio-political limits; therefore, it refers to a 'scale'. With its intersectional character, NS, which is related to urban and human systems, touches the human, urban and environmental systems and can serve the resilience process. Herein the need for revisiting the categories of the core phenomenon regarding the neighborhood as a system occurs. Figure 2 presents the categories, and the sub-categories intersect the embedded features of the neighbourhood. The embedded features of the neighbourhood have the potential to link the urban systems related to the thematic

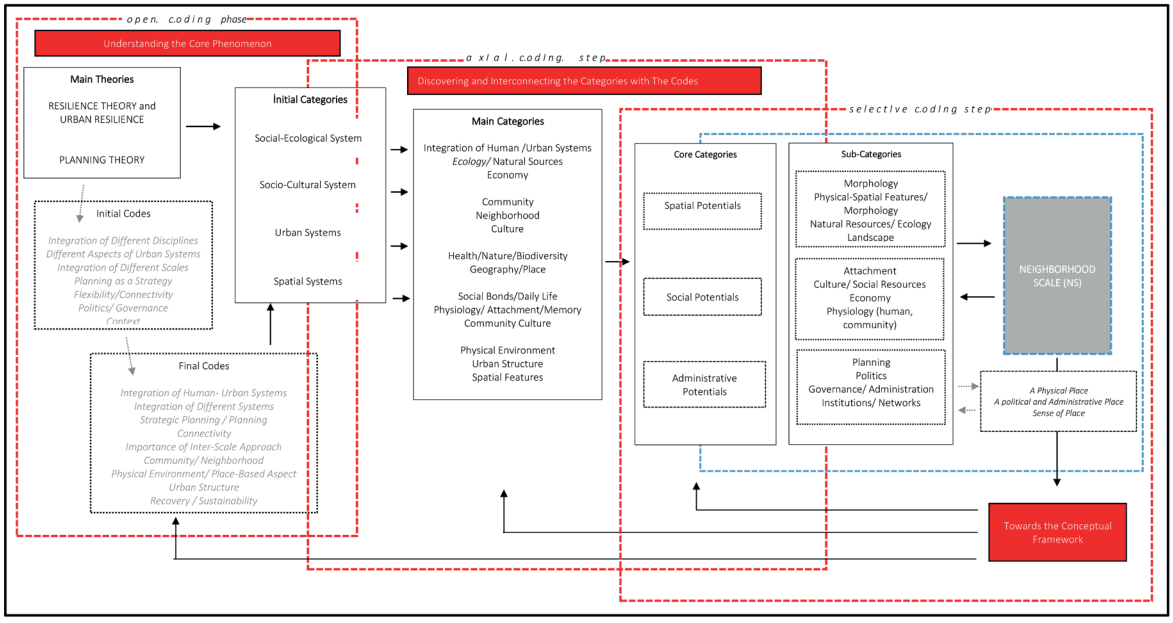

Figure 2. *Explanation of the application of the research method and developing a conceptual framework.*

categories/concepts given in Figure 2. Critical thresholds like spatial, institutional, social or planning gain importance. This part of the study briefly reflects the discovery of the NS and an introduction to its unfolding process, as a tool for generating the theory. It also reflects the logical continuation of the axial coding while opening the selective coding phase. Based on the core categories (Spatial Potentials, Social Potentials, Administrative Potentials) simultaneously, the literature highlighted the NS via its subcomponents.

4.1. Unfolding the neighbourhood scale (NS) and linking to the core phenomenon

When the NS is unfolded, it is seen that it reflects a system character through its layers. It corresponds to a dynamic and complex system and can be evaluated in three contexts: "physical, political, and place" (Özbek Eren, 2017). Each of the components is interdependent with its subsystems. The NS has different thresholds and interfaces which cannot be limited solely to one dimension because it is hard to define where the extent of the community meets the urban or vice versa. The socio-cultural character, human scale, governance, urban infrastructure, and planning aspects of NS are vital in building resilience, making it possible to build a bridge while revisiting space theories and resilience.

Numerous terms are relevant to neighbourhoods like district, borough, suburb, parish, quarter, ghetto, community, or mahalla [5] (Özbek Eren, 2017). Explaining the differences between them is far from the scope of this work, but the difference is generally hidden in the context of the study. Neighbourhood, as a term, points out a community or neighbors that share a common geography and culture in an urban or rural context (Mumford, 1954; Keller, 1968; Oxford English Reference Dictionary, 2002). But it has deeper meanings contextually, depending on time and culture. For example, at the beginning of the 20th century, the modern paradigm and social and political conditions influenced the concern of neighbourhood [6], [7]. In the 1980s, the postmodern paradigm again affected the neighbourhood 'idea' in the context of perception, culture or traditional features which were the main arguments and found a reflection as 'new urbanism' [8]. Martin (2003), underlines that the term neighbourhood is "not self-evident" and needs to be redefined for every unique case regarding population, place attachment, physical boundaries, or administrative functions (Kennett & Forrest, 2006). For example, social/behavioral sciences define it as an "experimental place" (Martin, 2003), a place where people share values with "cyclic collective needs" (Keller, 1968, p. 44), a physiological "reservoir" (Kearns & Parkinson, 2001) or a place-attachment (Lewicka, 2010). Geographical/physical/place-based approaches define it as a unit with functions and relationships in a specific place (Katz, 1994; Galster, 2001) or a place with "social and physical organization" (APA, 1960). Political and economic aspects of a neighbourhood is also significant (Schwirian, 1983; Lancaster, 1966, pp. 132-157; Hallman, 1987) besides the emphasis on its hybrid character like social-spatial (Mumford, 1954; Keller, 1968; APA, 1960, Galster, 2001). A neighbourhood is a place and culture-specific phenomenon; it is a part of our "habitus" (Bourdieu, 1977) through social, daily, and mental rituals. Hence, the context-specific character of a neighbourhood emerges from the culture and geography in which the interpretation occurs. For example, we find local names, e.g. 'quarter' in Europe or 'mahalla' in Türkiye/Middle East [9].

The neighbourhood is important and meaningful because daily life goes in it while at the same time, it links to the urban system regarding sustainable neighbourhood development (Rohe, 2009; Sharifi, 2016) and resilience research. Besides, the practical processes wait for a determination. Herein, while noting that NS could be a tool, the fourth question occurs: How urban resilience principles could be implemented into NS? Understanding the components and dynamics of neighbourhood and to determine the interfaces with urban resilience criteria/characteristics is proposed.

So far, the analysis reveals that NS acts as a tool for bridging theory and practice via its subcomponents. Based on this it becomes clear that the conceptual framework should address both macro and micro scales, including spatial, administrative and social-perceptual aspects. Therefore, first the mentioned interfaces need to be discovered and explained -unfolding process-, second, the interconnections between the urban resilience and these interfaces need to be discovered. Hence, regarding these processes, neighbourhood strategies await to be defined, and the below sub-categories of NS could be used for this purpose as a part of selective coding those link to the sub-categories of core categories which are: a) Physical-Spatial Features/ Morphology, Natural Resources/ Ecology, Landscape; b) Attachment, Culture/ Social Resources, Economy, Physiology (human, community); c) Planning, Politics, Governance/ Administration, Institutions/ Networks

4.1.1. A physical place: Morphology, scale, ecology

The neighbourhood defines a geographical place on earth and has its physical features like boundaries, architecture or ecology. So, it is a part of urban morphology produced by cultural codes concerning politics, demography or topography. Its physical features are predominant (Mehta & Bosson, 2010; Wilkerson et al., 2011) in sociability, sense of place or cognitive mapping. Although there is a difference between social and spatial disciplines, it is an omitted point that all social activities are actors in a specific geography, whereas space is the expression of culture.

There is an emphasis on the physical, socio-economic, and institutional structure of the city can increase resilience (Fleischhauer, 2008; Boeing, 2018). Nevertheless, the literature mainly focuses on the spatial features of urban planning through the vulnerability of spaces (Brunetta & Salata, 2019), green space (Flouri et al., 2014) or a mesoscale approach which is related to neighbourhoods (Sharifi, 2019), besides a few studies concerning land use regarding the urban scale, quality of life and biodiversity (Valente et al., 2022). So, while building resilience in the urban context, space and sociality need to be merged which is relatively new (Magoni, 2017; Banai, 2020). Cruz (et al., 2013) emphasize that spatial planning still awaits to be linked to urban resiliency. Although there are opposing views about the complexity of the resilience concept in transferring it to the built environment (Cumming, 2011; Vale, 2014), some empirical research attempt to achieve this. Research about urban pattern (streets, density, green areas) (Feliciotti, et al., 2016; Meshkini et al., 2021; Ma, et al., 2023), built environment (apartment buildings) (Bouzarovski et al., 2011), eye-level experiments including diversity and connectivity (Samuelsson, et al., 2019) or the house and its surrounding activities (Xiao & Van Zandt, 2012; Samuelsson et al., 2019) are efforts in this regard. The spatial organization of an urban part is important in terms of affecting social bonds, communication, or helpdesk feasibility. As Stollman (2016) emphasizes, if design is not understood as "a solution" but might be a tool to constitute a livelihood neighbourhood via participative processes, then it is possible to mention resiliency.

NS is predominant in building resilience via its physical/environmental features. As a part of selective coding, this unfolding process links to 'spatial' core category.

4.1.2. A political and administrative place: Planning, governance, institutions

Friedmann (2008) says that one meaning of planning is a kind of consciousness among the actors. Even if the matter is the spatial strategic plan, governance should consider the moral, administrative or economic agreements for all actors (Albrechts, 2004). As a part of resilience and planning approaches, urban governance is a collective behavior that helps the system to transform into a better phase (Kim & Lim, 2016). Despite this, implementing urban resilience in planning is still in the early stages (Fastiggi et al., 2021) and the policy implementation roadmaps are lacking (Shamsuddin, 2020).

The resilience processes require a full engagement between the actors such as community, stakeholders and policymakers. Security, policymaking, the society's socio-economic structure, and the city's ecology and different spatial scales should be considered (Coaffee, 2013; Evans, 2011). As Fainstein (2005) criticizes in planning theory, the governance approach is seen as a politically incomplete point for the city itself and for a better quality of life. Local governments have "wide-ranging responsibilities" during disasters since they are the first to encounter the problems (Amaratunga, et al., 2019). Recent studies highlight the need to connect bottom-up neighbourhood development initiatives with city-wide systems (European Governance, 2001; Smit & Wandel, 2006; Stevenson & Petrescu, 2016) besides the significance of community participation (Adger, 2005; Amaratunga et al., 2019) and neighbourhood planning as a place-based approach (Platts-Fowler & Robinson, 2013, p. xi). Whereas the main arguments on governance/management generally stay at the city governance scale (Sharifi & Khavarian-Garmsir, 2020; Afrin et al., 2021; Chu et al., 2021) with few exceptions such as neighbourhood unit (Liu et al., 2023). Briefly, planning and governance procedures/phases are involved and find their reflection in local scale connections between the stakeholders and actors.

In this regard, Bixler (et al., 2020) emphasize the "network closure" in resiliency implementation processes regarding the connectivity of the social capital, including social organizations or agencies - institutions. If visions, solutions, stakeholders or community, and the integration of the implementation and management phases of strategies and actions could be implemented on a local scale (Huck et al., 2020; Wagenaar, 2007), then it is possible to mention building resilience.

The neighbourhood, which has the potential for space and social structure connectivity and serves as a resilient city, is a significant scale that has generally been missing in top-down approaches (Kwok et al. 2018). The empirical research in resilience literature regarding the neighbourhood emphasizes several outputs. For example, community-based organizations might be effective during the resilience, especially in the recovery process, triggering community engagement (Graham et al., 2016), psycho-social aspects (participation, safety etc.), urban-social diversity (Hananel, et.al., 2022) can be useful for linking the top-down approaches with bottom-up perspectives (Larimian, et al., 2020).

Beside the mentioned social inner dynamics, the local administrations such as mukhtars (Türkiye experiment) are important bonds/stages with the neighbors as a micro extension of the central government. So, they can link the NS with the city, regarding governance.

This unfolding process links to the 'administrative' core category as a part of selective coding and reveals that the NS, with its governance and institutional features, serves to build resilience.

4.1.3. Sense of place: Place-attachment, community, culture

A sense of place has psychological bonds on various levels. Place attachment, sociability, culture, social norms, spatial features, or memory are some interfaces that meet humans and the environment. We as humans, perceive and experience our surroundings, which becomes a 'place' in time. Residential areas are dominant places for people where daily life goes on. Accordingly, there is a common view that the NS is an optimum scale in which place attachment is readable (Galster, 2001; Lewicka, 2010).

Social systems have the human at the base and depend on questioning how communities and people withstand shocks, change or adaption (Adger, 2000; Magis, 2010; Berkes & Ross, 2013). In this regard, feedback processes (Davidson, 2010), capacity, ability, or memory (Vale, 2014) are determinative, while Otsuki et al. (2018) and Banai (2020) pay attention to the blurred interface between individual experiences and community resilience. Nevertheless, local communities are the frontline in preparing for and dealing with the aftermath of disasters positively (Sonn & Fisher, 1998; Kwok et

al., 2018; Aldrich & Meyer, 2015) with their place attachment features (Norris et al., 2008; Longstaff et al. 2010). Like resilient individuals, competent communities can cope positively with adversity (Sonn & Fisher, 1998) via their incarnate, discarnate, and chimerical dimensions (Lyon, 2014; Kourtit et al., 2022).

Furthermore, the social connectivity and networks among the neighbors provide a strong solidarity. The empirical research regarding the sociocultural aspect of NS, public spaces, belonging, information and community interaction are potentials of a neighbourhood (Platts-Fowler & Robinson, 2013). Changes in social or perceptional environment such as gentrification (Persall, 2012) may cause decreasing the resilience. On the contrary, strong place attachment thresholds may create social initiatives or city-wide impacts that foster resilience (e.g. Validebağ Gönülleri Derneği, 2024, Arnavutköy Semt Girişimi, 2021).

The neighbourhood scale provides social connectivity and emotional bonds via public spaces such as streets or squares, urban design character such as building heights, morphology or creative potential for personal experiments. Compared to urban resilience or human/building-scale resilience, its inter-scale character achieves different aspects that are effective in resilience processes and link both systems. The explanation for this character is hidden in the communities' dynamism, in other words culture, which holds the place- attachment, social features and perceptional/emotional components (memory, meaning, etc.) and could be evaluated in planning resilience processes via NS.

This unfolding process as a part of selective coding links to the 'social' core category.

5. The conceptual framework: Planning for urban resilience (PUR) and neighbourhood scale

Following the unfolding process, the second stage is to implement the characteristics of urban resilience in NS and to define how a strategic pathway could be suggested for building resilience [10]. Therefore, the city as a system and its resilience planning process could be constituted in a permeable approach with its subsystems.

NS, with its urban, economic, administrative, social, ecological, psychological, and planning dimensions, provides a framework for planners to prepare and recover processes from hazards. The dynamics of NS provide communication, gathering/acting, socially/psychologically recovering, and connection to the city's resilience processes; the chimerical aspect simultaneously holds the physical, social, and perceptional/emotional components. So, the conceptual framework suggests a new approach to planning for urban resilience (Figure 3). If we define the planning to foresee, plan and act, the NS will provide an interface linking a city's macro and micro scale dynamics.

The analysis results reveal that PUR via NS consists of three main aspects: NS, planning for urban resilience, and governance. After the conceptual framework was developed as the result of synthesizing that explains how urban resilience could be planned through the neighbourhood scale, the theory is proposed to be modelled/ activated/ applied in three phases:

- 1) Exploring the Intersections Between Macro and Micro Systems,
- 2) Bridging the Gap: Planning, Urban Resilience and NS (Understanding the Relationship Amid Planning, Urban Resilience, NS; Unfolding The NS: The Embedded Interfaces),
- 3) Integration and Implication. This phase introduces the integration of the processes and relationships while including the implication process regarding the actors or stakeholders related to those dimensions of NS and involved with the planning processes. The proposed model highlights the way of planning urban resilience through NS for planners, policymakers, and local administrations/mukhtars.

In line with the strategic planning approach in three stages (developed from Albrecht, 2004; Wilkinson, 2011; Allan & Bryant, 2011; Meerow & Newell, 2019), the suggestion for the implementation of strategic plans into

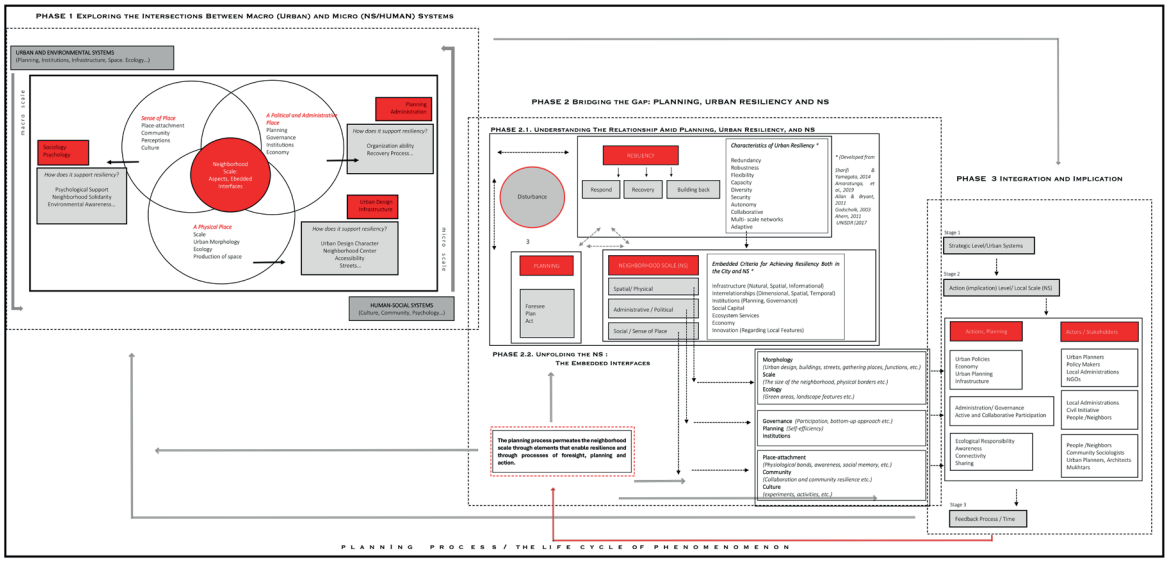

Figure 3. *The evolution of planning for urban resilience through the neighborhood scale.*

the NS begins with urban planning process via 'neighbourhood strategies'.

Therefore, the third phase of the model has three thresholds:

- Strategic level/urban systems (policies, decisions, social and spatial design etc.),
- Action (implication) level/ local scale (NS) (physical environment projects, enhancing social connectivity, governance etc.),
- Feedback process/time (reflecting the local experiments/realities to upper stages).

The strategic level is connected to the urban policies regarding resilience, the local scale includes the implication of upper theoretical approaches, and the feedback stage loops the urban plan approaches to the human-building scale in the neighbourhood. Once the cycle/ integrative approach is constituted, the macro /urban and micro /human scales could be involved and provided to act as a whole via NS, then planning for urban resilience might be more effective and applicable for all stakeholders.

6. Results and discussion

When this research began with the research questions, on the one hand, there were the discussions, theories, and literature about planning for urban resilience -including governance, urban design /spatial features or infrastructure-. On the other hand, there were the social/human scales regarding resilience, including community and neighbourhood. The pathway for finding a holistic and realistic pathway to merge the urban/human systems in planning urban resilience was blurred. Whereas the answers were hidden in the intersections of these topics. Simultaneously with a theory quest and a deep analysis process, the findings presented a satisfying pathway for the engagement of the different scales both in theory and action. Once conceptualizing the NS for PUR via its interdisciplinary and intersectional character that touches both the macro/ urban and micro/human scales, it provided a base for linking the socio-spatial scales. The findings reveal several notes as given below:

- The intersectional relationship of a suburban system has several potentials when integrating into the larger urban scale. Regarding this research, the intersections between urban and human systems emerged the NS. It is an interface between different disciplines and layers that links the macro and micro scales.
- NS as a concept in urban resilience has three main contexts: spatial, administrative and social. NS as a part of the urban system/ecology and, in addition to being a part of the human system, holds different aspects in which critical thresholds become important. NS as a small part of urban governance has the potential to link the habitants to the planning authorities. With its social aspect, NS helps us understand a neigh-

bourhood's inner dynamics, such as social bonds, memories, or daily routines that may create unique responses emerging from immanent correlations that cannot be foreseen. This inter-scale approach includes planning and related aspects while being dynamic and referencing to 'place'.

- The suggested conceptual framework can be used in strategic planning processes for hazards or disturbances via its aforementioned character meeting the efficient, autonomous, diverse, interdependent, and collaborative features of resilience. The NS can easily communicate (collaboration: social, administrative aspects), gather and act (small, efficient, interdependent, autonomous features: physical, social, and administrative aspects), socially and psychologically recover (strong, autonomous features: a sense of place aspect), and connect to the city's resilience processes.

Before concluding, some keynotes should be mentioned for further research. First, this study aimed not to propose a 'solution', but rather to offer a perspective on how to approach unique and dynamic situations via a conceptual framework for understanding the relationship between the urban and human systems regarding NS. However, it is still necessary to deepen the critical questions for linking processes via experimental and empirical data. As aforementioned, the neighbourhood is a place-specific phenomenon. Its inner social and human aspects create uniqueness, so it is hard to define a one-size-fits-all formulation. Furthermore, human behaviour or community reflections have subjectivity, which creates unforeseen aspects based on background codes such as memory, culture or geography. The inner dynamics shape the action, so the planning processes should contemplate these place-culture specific conditions.

Second, although there are general approaches to urban resilience and criteria, there is a lacuna about how to implement this process into city subsystems during the planning processes. That may be because of the young history of urban resilience planning, as well as the diversity of planning approaches. But the abstract and blurred concepts should be clarified on behalf of daily lives, such as the human scale. If we define our expectations from the planning theory/process as "a better quality of life" -as Fainstein (2005) describes this may create a more realistic/less abstract approach. In this sense, it is possible to turn the planners' critiques that planning theory is far from the action (Friedman, 2008; Alexander, 2015) into an advantage.

Third, for such complicated and theoretical studies, the methodology is crucial. While there is a rich literature on applying different methodologies, potential methodologies that can contribute to newly developed place-specific studies should be evaluated. Using the ground theory approach, this research highlights the blurred connection between theory and practice, which needs to be enhanced with other local experiments and knowledge.

Fourth and lastly, although the literature pays attention to resilience regarding the rescue and recovery processes, the main paradigm -survival in terms of the value of humans in the cosmos- seems to be neglected. The idea of the quality of life and continuity of human, society and urban life -the ontological aims-, seem to be overlooked among the superabundant works, and it becomes hard to understand what resilience is for. As Masten (2001) says, after 30 years of work, the great surprise of resilience research is the ordinariness of the phenomena. That means resilience is a kind of survival that depends on the system's properties, extent, and scope. So, when we tackle urban systems in this context, we find NS as an optimum interface amid different scales, disciplines, or space theories that can be useful in combining these diffusional viewpoints while surviving the processes of planning and acting for a future with memories which coded as meaning, time, and space.

Endnotes

[1] This is different from conceptual analysis because the latter is a technique that tries to understand the meaning of a given concept (Furner, 2006), while the other tries to discover relationships (Jabareen, 2009).

[2] Boeije (2002) criticizes the lack of logical explanations for this phase.

[3] Jabareen's (2009) analysis is based on developing a conceptual framework through an eight-phase qualitative analysis process. This is very close to mainstream analysis procedures: open coding, axial coding and selective coding. At the same time, Jabareen (2009) details the data gathering and analyzing process by suggesting using "sources of data as theories generated by theories in multiple disciplines". Therefore, in this study, the partial use of this technique refers to the data composed of main theories in multiple disciplines, namely planning, urban resilience, and NS.

[4] Discussed in the "4.2. Neighbourhood Scale as a Concept" section.

[5] Mahalla is the local name of a neighbourhood in Islamic /Turkish urban life/space.

[6] The term community is used as often as a neighbourhood in literature, but there is a hidden nuance between the two, especially in the spatial aspect.

[7] Neighbourhood unit planning (Johnson, 2002) is an approach from those years, as it was defined at the beginning of the 20th century by Perry (APA, 1960). The social-political approaches found reflections in this context (Grigsby et al., 1983).

Johnson, L. D. (2002). Origin of the Neighbourhood Unit. Planning Perspectives, 17, 227–245.

[8] For further reading, please see Katz (1994).

[9] The name is still in use, although its meaning has changed relatively. In the past, it had socio-cultural, morphological, political, and perceptional aspects composed of neighbours who shared common values (Alada, 2008; Özbek Eren, 2017).

For further reading please see below:

Abu Lughod L., (1987). The Islamic City International Journal of Middle East Studies, 19(2), 155-176.

Alada, A.B. (2008). Osmanlı Şehrinde Mahalle. İstanbul: Sümer Yayınevi.

Cerasi M.M., (2001). Osmanlı Kenti. İstanbul: YKY.

[10] Among the various determinations of resilience characteristics, a summarized approach is followed (including urban planning, design and processes: Redundancy, robustness, flexibility, capacity, diversity, security, autonomy, collaborative, multi-scale networks, adaptive, through the infrastructure (natural, spatial, informational), interrelationships (dimensional, spatial, temporal), institutions (planning, governance), social capital, ecosystem services, economy, innovation (regarding local features) of the city regarding the response, recovery and building back processes (developed from Sharifi & Yamagata, 2014; Amaratunga et al., 2019; Allan & Bryant, 2011; Godschalk, 2003; Ahern, 2011; UNISDR, 2017).

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References

Adger, N. W. (2000). Social and Ecological Resilience: Are They Related? *Progress in Human Geography, 24* (3), 347–364.

Adger, W. N. (2005). Vulnerability. *Global Environmental Change*, *16* (3), 268-281. https://doi.org/10.1016/j.gloenvcha.2006.02.006

Afrin, S., Chowdhury, F.J., Rahman, M., (2021). COVID-19 Pandemic: Rethinking Strategies for Resilient Urban Design, Perceptions, and Planning. *Frontiers in Sustainable Cities*, 3, 1-13. https://doi.org/10.3389/frsc.2021.668263

Ahern, J. F. (2011). From Fail-Safe to Safe-To-Fail: Sustainability and Resilience in The New Urban World. *Landscape and Urban Planning, 100* (430), 341-343. https://doi.org/10.1016/j.landurbplan.2011.02.021

Alberti, M. (2008). Modelling the Urban Ecosystem: A Conceptual Framework. In J. M. Marzluff, E. Shulenberger, W. Endlicher, M. Alberti, G. Bradley, C. Ryan, U. Simon, C. Zum Brunnen (Eds.), Urban Ecology: An International Perspective on the Interaction Between Humans and Nature (pp.623-646). Springer.

Albrechts, L., (2004). Strategic (Spatial) Planning Reexamined. *Environ-*

ment and Planning B: Planning and Design*, 1*(5), 743-758**.** https://doi.org/10.1068/b3065

Aldrich, D. P., & Meyer, M. A. (2015). Social Capital and Community Resilience. *American Behavioral Scientist, 59*(2), 254-269. https://doi.org/10.1177/0002764214550299

Alexander, E.R., (2015). There is no planning—only planning practices: Notes for spatial planning theories. *Planning Theory, 15*(1), 91– 103. https://doi.org/10.1177/1473095215594617

Allan, P., Bryant, M. (2011). Resilience as a framework for urbanism and recovery. *Journal of Landscape Architecture*, 6 (2), 34-45. https://doi.org/10.1080/18626033.2011.9723453

Amaratunga, D., Sridarran, P., Haigh, R., (2019). *Making Cities Resilient Report 2019: A snapshot of how local governments progress in reducing disaster risks in alignment with the Sendai Framework for Disaster Risk Reduction*. Retrieved from https://www.undrr.org/publication/making-cities-resilient-report-2019-snapshot-how-local-governments-progress-reducing.

Andrew, S. A., Bacot, H., Craw, M. (2020). A Multiorganizational Cooperation Framework for Neighbourhood Disaster Resilience. *State and Local Government Review, 52*(1), 53-66.

APA (American Planning Association), (1960). *Neighbourhood Boundaries* (Report No 141). https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/pas/at60/pdf/report141.pdf

Arnavutköy Semt Girişimi. (2021). *Bu semt Arnavutköylüler tarafından koruma altına alınmıştır*. https://www.megarevma.net/semt_girisimi.htm

Banai, R. (2020). Pandemic and the Planning of Resilient Cities and Regions. *Cities, 106*, 102929. https://doi.org/10.1016/j.cities.2020.102929

Berkes, F, Colding, J, Folke, C. (2003). Introduction. In *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press.

Berkes, F., Ross, H. (2013). Community Resilience: Toward an Integrated Approach. *Society & Natural Resources, 26* (1), 5-20. https://doi.org/10.1080/08941920.2012.736605

Bixler, R. P., Lieberknecht, K., Atshan, S., Zutz, C. P., Richter, S. M., & Belaire, J. A. (2020). Reframing urban governance for resilience implementation: The role of network closure and other insights from a network approach. *Cities*, 103, 102726. https://doi.org/10.1016/j.cities.2020.102726

Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality And Quantity, 36*, 391-409.

Boeing, G. (2018). Measuring the complexity of urban form and design. *Urban Design International, 23*(4), 281-292. https://doi.org/10.1057/s41289-018-0072-1

Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge University Press. Trans. Richard Nice (Original work published 1972).

Bouzarovski, S., Salukvadze, J., & Gentile, M. (2011). A socially resilient urban transition? The contested landscapes of apartment building extensions in two post-communist cities. *Urban Studies, 48*(13), 2689-2714.

Bowen, G. A. (2006). Grounded theory and sensitizing concepts. *International journal of qualitative methods*, *5*(3), 12-23. https://doi.org/10.1177/160940690600500304

Breton, M. (2001). Neighbourhood Resiliency. *Journal of Community Practice, 9*(1): 21-36.

Brunetta, G., Salata, S. (2019). Mapping Urban Resilience for Spatial Planning. *Sustainability*, *11*(8), 2331.

Carley, K. (1993). Coding choices for textual analysis: A comparison of content analysis and map analysis. *Sociological Methodology*, 75-126.

Charmaz, K. (2006). *Constructing Grounded Theory*. Sage Publications.

Chaskin, R. J. (2008). Resilience, Community, and Resilient Communities: Conditioning Contexts and Collective Action. *Childcare in Practice, 14*(1), 65-74. https://doi.org/10.1080/13575270701733724

Chelleri, L. (2012). From the Resilient City to Urban Resilience. *Documents d'anàlisi Geogràfica, 58*(2), 287-306.

Chu, Z., Cheng, M., Song, M. (2021). What determines urban resilience against COVID-19: City size or governance capacity? *Sustainable Cit-*

ies and Society, 75, 103304. https://doi.org/10.1016/j.scs.2021.103304

Chun Tie, Y., Birks, M., Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*, 7, 1–8.

Coaffee, J. (2013). Rescaling and Responsibilising the Politics of Urban Resilience: From National Security to Local Place-Making. *Politics, 33*(4), 240-252. https://doi.org/10.1111/1467-9256.12011

Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change, 18* (4), 598-606.

Creswell, J., W. (2013). *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (3rd ed.). SAGE.

Cruz, S. S., Costa, J. P. T., de Sousa, S. Á., Pinho, P. (2013). Urban resilience and spatial dynamics. In A. Eraydın, T. Taşan-Kok (Eds), *Resilience thinking in urban planning*. Springer, pp.53-69.

Cumming, G. S. (2011). Spatial resilience: integrating landscape ecology, resilience, and sustainability. *Landscape ecology,* 26, 899-909. https://doi.org/10.1007/s10980-011-9623-1

Dastjerdi, M. S., Lak, A., Ghaffari, A., & Sharifi, A. (2021). A conceptual framework for resilient place assessment based on spatial resilience approach: An integrative review. *Urban Climate*, *36*, 100794. https://doi.org/10.1016/j.uclim.2021.100794

Davidson, D. J. (2010). The Applicability of the Concept of Resilience to Social Systems. *Society and Natural Resources, 23* (12), 1135-1149. https://doi.org/10.1080/08941921003652940

Davoudi, S., Strange I., (2009). Space and place in the twentieth-century planning: An Analytical Framework and a historical review. In: Davoudi, S. and Strange, I. (eds.) *Conceptions of Space and Place in Strategic Spatial Planning*. Routledge, pp. 7-42

Davoudi, S., (2012). Resilience: A Bridging Concept or a Dead End? *Planning Theory & Practice, 13* (2), 299-333. https://doi.org/10.1080/14649357.2012.677124

Desouza, K. C., Flanery, T. H. (2013). Designing, Planning, and Managing Resilient Cities: A Conceptual Framework. *Cities*, 35, 89-99. https://doi.org/10.1016/j.cities.2013.06.003

Drobniak, A. (2013). The urban resilience–economic perspective. *Journal of Economics and Management*, *10*, 5-20.

Egan, T. M. (2002). Grounded Theory Research and Theory Building. *Advances In Developing Human Resources*, 4(3), Sage, 277-295.

European Governance (2001). European Governance: A White Paper. Retrieved from: http://europa.eu/rapid/press-release_DOC-01-10_en.html

Eraydın, A., Taşan-Kok, T. (2013). Introduction: Resilience Thinking in Urban Planning. In: A. Eraydın, T. Taşan-Kok (Eds), *Resilience Thinking in Urban Planning*. Springer, pp. 1-17.

Ernstson, H., van der Leeuw, S.E., Redman, C.L., Meffert, D.J., Davis, G., Alfsen, C., Elmqvist, T. (2010). Urban transitions: on urban resilience and human-dominated ecosystems, *Ambio, 39*(8), 531-545. https://doi.org/10.1007/s13280-010-0081-9

Evans, J.P. (2011). Resilience, Ecology and Adaptation in The Experimental City. T*ransactions, 36,* 223–237. https://doi.org/10.1111/j.1475-5661.2010.00420.x

Fainstein, S. S. (2005). Planning theory and the city. J*ournal of Planning Education and Research, 25*(2), 121-130.

Fastiggi, M., Meerow, S., Miller, T. R. (2021). Governing urban resilience: Organizational structures and coordination strategies in 20 North American city governments. *Urban Studies, 58(*6), 1262-1285. https://doi.org/10.1177/0042098020907277

Feliciotti, A., Romice, O., & Porta, S. (2016). Design for change: five proxies for resilience in the urban form. *Open House International, 41*(4), 23-30.

Fleischhauer, M. (2008). The Role of Spatial Planning in Strengthening Urban Resilience. In: Pasman, H.J., Kirillov, I.A. (eds) *Resilience of Cities to Terrorist and other Threats*. Springer.

Flick, U. (2009). *An introduction to qualitative research* (4th edition). SAGE Publications.

Flouri, E., Midouhas, E., Joshi, H. (2014). The Role of Urban Neighbourhood Green Space in Children's Emo-

tional and Behavioral Resilience. *Journal of Environmental Psychology, 40*, 179-186.

Folke, C. (2006). Resilience: The Emergence of a Perspective for Social-Ecological Systems Analyses. *Global Environmental Change, 16*, 253–267. https://doi.org/10.1016/j.gloenvcha.2006.04.002

Friedmann, J., (2008). The Uses of Planning Theory. *Journal of Planning Education and Research, 28*(2), 247-257.

Furner, J. (2006). Conceptual analysis: A Method For Understanding Information As Evidence, And Evidence As Information. *Archival Science, 4*, 233-265. https://doi.org/10.1007/s10502-005-259 4-8

Galantini, Z. D. Y., Tezer, A. (2018). In the complex epoch is sustainability 'out' resilience 'in'? *A|Z ITU Journal of The Faculty of Architecture, 15*(3), 41-59. https://doi.org/10.5505/itujfa.2018.77598

Galster, G. (2001) On the Nature of Neighbourhood. *Urban Studies, 38*(12), 2111–2124. https://doi.org/10.1080/00420980120087072

Glaser, Barney G. (2007). All is data. *Grounded Theory Review 2* (6), 1-22.

Glaser, B. G., Strauss, A. (1967). *The discovery grounded theory: strategies for qualitative inquiry*. Aldin Publishing.

Godschalk, D. R. (2003). Urban Hazard Mitigation: Creating Resilient Cities. *Natural Hazards Review, 4*(3), 136-143. https://doi.org/10.1061/(ASCE)1527-6988(2003)4:3(136)

Graham, L., Debucquoy, W., Anguelovski, I. (2016). The influence of urban development dynamics on community resilience practice in New York City after Superstorm Sandy. *Global Environmental Change*, *40*, 112-124. https://doi.org/10.1016/j.gloenvcha.2016.07.001

Grigsby, W., M. Baratz, M ve D. Maclennan. (1983). The Dynamics of Neighbourhood Change and Decline, Research Report Series: No.4, Department of City and Regional Planning University of Pennsylvania, Philadelphia.

Gunderson, L. H. (2000). Ecological resilience—in theory and application. *Annual review of ecology and systematics, 31*(1), 425-439. https://doi.org/10.1146/annurev.ecolsys.31.1.425

Hallman H. (1987). *Neighbourhoods- Their Place in Urban Life*. SAGE.

Hananel, R., Fishman, R., Malovicki-Yaffe, N. (2022). Urban diversity and epidemic resilience: The case of the COVID-19. *Cities*, *122*, 103526. https://doi.org/10.1016/j.cities.2021.103526

Hassler, U., Kohler, N. (2014). Resilience in the Built Environment. *Building Research & Information, 42* (2), 119-129. https://doi.org/10.1080/09613218.2014.873593

Holling, C.S., (1973). Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics, 4,* 1–23. https://doi.org/10.1017/9781009177856.038

Huck, A., Monstadt, J., Driessen, P. (2020). Building Urban and Infrastructure Resilience Through Connectivity. *Cities, 98*, 102573. https://doi.org/10.1016/j.cities.2019.102573

Jabareen, Y. (2009). Building a conceptual framework: philosophy, definitions, and procedure. *International journal of qualitative methods, 8*(4), 49-62. https://doi.org/10.1177/160940690900800406

Jabareen, Y. (2013). Planning the Resilient City: Concepts and Strategies for Coping with Climate Change and Environmental Risk. *Cities, 31*, 220–229. https://doi.org/10.1016/j.cities.2012.05.004

Jenkins, P. (2005). Space, Place and Territory: An Analytical Framework. In: C. Hague & P. Jenkins (Eds) *Place Identity, Participation and Planning*. Routledge, pp. 19-38.

Jha, A. K., Miner, T. W., Stanton-Geddes, Z. (2013). *Building urban resilience: principles, tools, and practice*. World Bank Publications.

Katz, P. (1994). *The New Urbanism-Toward an Architecture of Community*. Hong Kong. McGraw-Hill.

Kearns, A., Parkinson, M. (2001). The Significance of Neighbourhood. *Urban Studies, 38* (12), 2103–2110. https://doi.org/10.1080/00420980120087063

Keller, S., (1968). The Urban Neighbourhood- A Sociological Perspective. New York: Princetown University.

Kennett, P., Forrest, R. (2006). The Neighbourhood in a European Context. *Urban Studies, 43* (4), 713–718. https://doi.org/10.1080/00420980600597368

Kim, D., Lim, U. (2016). Urban re-

silience in climate change adaptation: A conceptual framework. *Sustainability, 8*(4): 405. https://doi.org/10.3390/su8040405

Kirmayer, L. J., Sehdev, M., Whitley, R., Dandeneau, S. F., Isaac, C. (2009). Community resilience: Models, metaphors and measures. *International Journal of Indigenous Health, 5* (1), 62-117.

Korosteleva, E. A. (2020). Paradigmatic or Critical? Resilience as A New Turn in EU Governance for The Neighbourhood. *Journal of International Relations and Development, 23*, 682–700. https://doi.org/10.1057/s41268-018-0155-z

Kourtit, K., Nijkamp, P., Türk, U., & Wahlstrom, M. (2022). City love and neighbourhood resilience in the urban fabric: A microcosmic urbanometric analysis of Rotterdam. *Journal of Urban Management, 11*(2), 226-236. https://doi.org/10.1016/j.jum.2022.04.004

Kulig, J. C., Edge, D. S., Townshend, I., Lightfoot, N., Reimer, W. (2013). Community Resiliency: Emerging theoretical insights. *Journal of Community Psychology, 41*(6), 758-775.

Kwok, H., Paton, D., Becker, J., Hudson-Doyle, E. E., Johnston, D. (2018). A Bottom-Up Approach to Developing a Neighbourhood-Based Resilience Measurement Framework. *Disaster Prevention and Management, 27*(2), 255-270. https://doi.org/10.1108/DPM-07-2017-0169

Lamb, Z., & Vale, L. J. (2024). A Neighbourhood Unit for Equitable Resilience. *Built Environment*, *50*(1), 185-210. https://doi.org/10.2148/benv.50.1.185

Larimian, T., Sadeghi, A., Palaiologou, G., Schmidt III, R. (2020). Neighbourhood social resilience (NSR): Definition, conceptualisation, and measurement scale development. *Sustainability*, *12*(16), 6363. https://doi.org/10.3390/su12166363

Legacy, C., J. Metzger, W. Steele and E. Gualini (2019). Beyond the post-political: Exploring the relational and situated dynamics of consensus and conflict in planning. *Planning Theory, 18*(3), 273 –281. https://doi.org/10.1177/1473095219845628

Lehmann, S., (2018). Implementing the 'Urban Nexus' approach for improved resource efficiency of developing cities in Southeast Asia. City, *Culture and Society, 13*, 46-56. https://doi.org/10.1016/j.ccs.2017.10.003

Leichenko, R. (2011). Climate Change and Urban Resilience. *Current Opinion in Environmental Sustainability, 3*(3), 164-168.

Levy, J. M. (2017). Contemporary Urban Planning. Routledge.

Lewicka, M. (2010). What Makes Neighbourhood Different from Home and City? *Journal of Environmental Psychology, 30,* 35–51. https://doi.org/10.1016/j.jenvp.2009.05.004

Liu, Z., S. Lin, T. Lu, Y. Shen and S. Liang (2023). Towards a constructed order of co-governance: Understanding the state–society dynamics of neighbourhood collaborative responses to COVID-19 in urban China. *Urban Studies, 60*(9), 1730-1749. https://doi.org/10.1177/00420980221081314

Longstaff, P. H., Armstrong, N. J., Perrin, K., Parker, W. M., Hidek, M. A. (2010). Building resilient communities: A preliminary framework for assessment. *Homeland Security Affairs, 6* (3), 1-23.

Lyon, C. (2014). Place Systems and Social Resilience: A Framework for Understanding Place in Social Adaptation, Resilience, and Transformation. *Society & Natural Resources, 27* (10), 1009-1023. https://doi.org/10.1080/08941920.2014.918228

Lu, P., Stead, D. (2013). Understanding the notion of resilience in spatial planning: A case study of Rotterdam, The Netherlands. *Cities*, *35*, 200-212. https://doi.org/10.1016/j.cities.2013.06.001

Ma, L., Ye, R., Ettema, D., & van Lierop, D. (2023). Role of the neighborhood environment in psychological resilience. *Landscape and Urban Planning*, *235*, 104761. https://doi.org/10.1016/j.landurbplan.2023.104761

Magis, K. (2010). Community Resilience: An Indicator of Social Sustainability. *Society and Natural Resources, 23* (5), 401–416. https://doi.org/10.1080/08941920903305674

Magoni, M. (2017). Resilience Thinking and Urban Metabolism in Spatial Planning: Which Possible Integrations. *City, Territory, and Architecture, 4*(1), 1-8. https://doi.org/10.1186/

s40410-017-0074-0

Marcus, L., Colding J. (2014). Toward an Integrated Theory of Spatial Morphology and Resilient Urban Systems. *Ecology and Society, 19*(4): 55. http://dx.doi.org/10.5751/ES-06939-190455

Marston, S. A. (2000). The Social Construction of Scale. *Progress in Human Geography, 24*(2), 219–242. https://doi.org/10.1191/030913200674086272

Martin, D. G. (2003). Enacting Neighbourhood. *Urban Geography, 24*(5), 361-385. https://doi.org/10.2747/0272-3638.24.5.361

Masnavi, M. R., Gharai, F., Hajibandeh, M. (2019). Exploring Urban Resilience Thinking for Its Application in Urban Planning. International *Journal of Environmental Science and Technology, 16*(1), 567-582. https://doi.org/10.1007/s13762-018-1860-2

Masten, A. (2001). Ordinary Magic. Resilience Processes in Development. *The American Psychologist, 56* (3), 227-38. https://doi.org/10.1037//0003-066X.56.3.227

McGuirk, P. M., (2001). Situating Communicative Planning Theory: Context, Power, and Knowledge. *Environment and Planning A: Economy and Space, 33*(2), 195-217. https://doi.org/10.1068/a3355

Meerow, S., Newell, J. P., & Stults, M. (2016). Defining urban resilience: A review. *Landscape and Urban Planning, 147*, 38-49. https://doi.org/10.1016/j.landurbplan.2015.11.011

Meerow, S. and J. P. Newell (2019). Urban Resilience for Whom, What, When, Where, and Why? *Urban Geography, 40*(3), 309-329. https://doi.org/10.1080/02723638.2016.1206395

Mehmood A. (2016). Of Resilient Places: Resilient Urban Planning. *European Planning Studies, 24* (2), 407-419. https://doi.org/10.1080/09654313.2015.1082980

Mehta, V., Bosson, J. K. (2010). Third Places and the Social Life of Streets. *Environment and Behavior, 42*(6), 779–805. https://doi.org/10.1177/0013916509344677

Meshkini, A., Hajilou, M., Jokar, S., (2021). The role of land use patterns in earthquake resilience: a case study of the Ahvaz Manba Ab neighbourhood. *Natural Hazards, 109*, 2027–2051. https://doi.org/10.1007/s11069-021-04909-0

Mey, G., Dietrich, M. (2017). From Text to Image–Shaping a Visual Grounded Theory Methodology. *Historical Social Research, 42(4),* 280-300. https://www.jstor.org/stable/44469370

Miles, M. B., Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). Sage Publications.

Monstadt, J., Coutard, O. (2019). Cities in an era of interfacing infrastructures: Politics and spatialities of the urban nexus. *Urban Studies, 56*(11), 2191–2206. https://doi.org/10.1177/0042098019833907

Moreno, C., Allam, Z., Chabaud, D., Gall, C., & Pratlong, F. (2021). Introducing the "15-Minute City": Sustainability, resilience and place identity in future post-pandemic cities. *Smart Cities, 4*(1), 93-111.

Morgan, H. (2022). Conducting a qualitative document analysis. The Qualitative Report, 27(1): 64-77. https://doi.org/10.46743/2160-3715/2022.5044

Mumford, L. (1954). The Neighbourhood and the Neighbourhood Unit. *The Town Planning Review, 24*(4).

Murray, K.E., Zautra, A. J. (2011). Community Resilience: Fostering Recovery, Sustainability, and Growth. In: M. Ungar (Eds) The Social Ecology of Resilience.: Springer, pp. 337-346.

Norris F. H., Stevens S. P., Pfefferbaum B., Wyche K. F., Pfefferbaum R L. (2008). Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness. *American Journal of Community Psychology, 41*(1-2), 127-150.

Ostadtaghizadeh, A., Ardalan, A., Paton, D., Jabbari, H., Khankeh, H. R. (2015). Community disaster resilience: A systematic review on assessment models and tools. *PLoS Currents,* 7. https://doi.org/10.1371/currents.dis.f224ef8efbdfcf1d508dd0de4d8210ed

O'Sullivan, B., Brady, W., Ray, K., Sikora, E., Murphy, E. (2014). Scale, Governance, Urban Form and Landscape. *Planning Practice and Research, 29*(3), 302-316. https://doi.org/10.1080/02697459.2014.929846

Otsuki, K., Jasaw, G., Lolig, V. (2018). Linking Individual and Col-

lective Agency for Enhancing Community Resilience in Northern Ghana. *Society & Natural Resources, 31* (2), 151-165. https://doi.org/10.1080/08941920.2017.1347971

Oxford English Reference Dictionary. (2002). Neighbourhood. In Oxford English Reference Dictionary (2nd edition, p.970)

Özbek Eren, İ. (2017). *Mahalle: Yeni Bir Paradigma Mümkün mü?* Tuti Kitap (Nefes Yayınevi). ISBN. 6059218351.

Pandit, N. R. (1996). The creation of theory: A recent application of the grounded theory method. *The Qualitative Report*, 2(4), 1-15.

Parés, M., Blanco, I., Fernández, C. (2018). Facing the great recession in deprived urban areas: how civic capacity contributes to neighbourhood resilience. *City & Community, 17*(1), 65-86.

Pearsall, H. (2012). Moving out or moving in? Resilience to environmental gentrification in New York City. *Local Environment*, *17*(9), 1013-1026.

Pearson, A. L., Pearce, J., Kingham, S. (2013). Deprived Yet Healthy: Neighbourhood-level Resilience in New Zealand. *Social Science & Medicine, 91*, 238-245.

Pede, E., Scalas, M., & Staricco, L. (2023). Towards Neighbourhoods as Minimum Units of Resilience?. In G. Brunetta, P. Lombardi, A. Voghera (Eds.), Post Un-Lock: From Territorial Vulnerabilities to Local Resilience (pp. 71-80). Springer.

Pickett, S. T., W. R. Burch, S. E. Dalton, T. W. Foresman, J. M. Grove and R. Rowntree (1997). A conceptual framework for the study of human ecosystems in urban areas. *Urban Ecosystems* 1, 185-199.

Pickett, S. T. A., Cadenasso, M. L., Grove, J. M. (2004). Resilient Cities: Meaning, Metaphor, And Models for Integrating the Ecological, Socio-Economic, and Planning Realms. *Landscape and Urban Planning, 69*(4), 369–384. https://doi.org/10.1016/j.landurbplan.2003.10.035

Pizzo, B. (2015). Problematizing Resilience: Implications for Planning Theory and Practice. *Cities, 43*,133-140. https://doi.org/10.1016/j.cities.2014.11.015

Platts-Fowler, D., Robinson, D. (2013). Neighbourhood Resilience in Sheffield. England: Sheffield Hallam University.

Poortinga, W. (2012). Community resilience and health: The role of bonding, bridging, and linking aspects of social capital. *Health & Place, 18*(2), 286-295. https://doi.org/10.1016/j.healthplace.2011.09.017

Renschler, C. S., Frazier, A. E., Arendt, L. A., Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010). *Developing the 'PEOPLES' resilience framework for defining and measuring disaster resilience at the community scale*. In: Proceedings of the 9th US National and 10th Canadian conference. Toronto, pp. 25-29.

Ribeiro, P. J. G., Gonçalves, L. A. P. J. (2019). Urban resilience: A conceptual framework. *Sustainable Cities and Society, 50,* 101625. https://doi.org/10.1016/j.scs.2019.101625

Rohe, W. M. (2009). From local to global: One hundred years of neighbourhood planning. *Journal of the American Planning Association, 75*(2), 209-230. https://doi.org/10.1080/01944360902751077

Samuelsson, K., Colding, J., Barthel, S. (2019). Urban Resilience at Eye Scale: Spatial Analysis of Empirically Defined Experiential Landscapes. *Landscape and Urban Planning, 187*, 70-80.

Schwirian, K.P. (1983). Models of Neighbourhood Change. *Annual Review of Sociology, 9*, 83-102. https://doi.org/10.1146/annurev.so.09.080183.000503

Shamsuddin, S. (2020). Resilience Resistance: The Challenges and Implications of Urban Resilience Implementation. *Cities, 103*, 102763.

Sharifi, A., Yamagata, Y. (2014). Resilient urban planning: Major principles and criteria. *Energy Procedia, 61*, 1491-1495. https://doi.org/10.1016/j.egypro.2014.12.154

Sharifi, A. (2016). From Garden City to Eco-urbanism: The quest for sustainable neighbourhood development. *Sustainable Cities and Society*, 20, 1-16. https://doi.org/10.1016/j.scs.2015.09.002

Sharifi, A. (2019). Urban Form Resilience: A Meso-Scale Analysis. *Cities,* 93, 238-252. https://doi.org/10.1016/j.cities.2019.05.010

Sharifi, A., Khavarian-Garmsir, A. R. (2020). The COVID-19 pandemic: Impacts on cities and major lessons for urban planning, design, and management. *Science of The Total Environment, 749*, 142391. https://doi.org/10.1016/j.scitotenv.2020.142391

Sharifi, A., Roosta, M., & Javadpoor, M. (2021). Urban form resilience: A comparative analysis of traditional, semi-planned, and planned neighborhoods in Shiraz, Iran. *Urban Science, 5*(1), 18. https://doi.org/10.3390/urbansci5010018

Smit, B., Wandel, J. (2006). Adaptation, Adaptive Capacity and Vulnerability. *Global Environmental Change, 16*(3), 282-292. https://doi.org/10.1016/j.gloenvcha.2006.03.008

Sonn, C. C., Fisher, A. T. (1998). Sense of Community: Community Resilient Responses to Oppression and Change. *Journal of Community Psychology, 26* (5): 457–472. https://doi.org/10.1002/(SICI)1520-6629(199809)26:5%3C457::AID-JCOP5%3E3.0.CO;2-O

Stevenson, F., Petrescu, D. (2016). Co-Producing Neighbourhood Resilience. *Building Research & Information, 44* (7): 695–702. https://doi.org/10.1080/09613218.2016.1213865

Stollmann, J. (2016). Neighbourhood resilience in mass housing: co-production via research-by-design. *Building Research & Information, 44*(7), 737–753. https://doi.org/10.1080/09613218.2016.1217386

Strauss, A., Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage.

Stumpp, E. (2013). New in town? On Resilience and "Resilient Cities'. *Cities*, *32*, 164–166. https://doi.org/10.1016/j.cities.2013.01.003

The Rockefeller Foundation (2014). City resilience framework. New York Ove APUR & Partners International Limited. https://www.rockefellerfoundation.org/report/city-resilience-framework/

Tuan Y. F. (1977). *Space and Place*. University of Minnesota Press.

Tyler, S., Moench, M. (2012). A framework for urban climate resilience. *Climate and Development*, *4*(4), 311-326. https://doi.org/10.1080/17565529.2012.745389

UN-Habitat (The United Nations Human Settlements Programme), (2019). *The Strategic Plan 2020-2023.* https://unhabitat.org/sites/default/files/documents/2019-09/strategic_plan_2020-2023.pdf

UNISDR (The United Nations Office for Disaster Risk Reduction), (2017). *How To Make Cities More Resilient a Handbook for Local Government Leaders*. https://www.unisdr.org/campaign/resilientcities/assets/toolkit/Handbook%20for%20local%20government%20leaders%20%5B2017%20Edition%5D_English_ed.pdf

Validebağ Gönülleri Derneği, (2024). *Validebağ Korudur Koru Kalacak,* http://www.validebag.org

Vale, L. J. (2014). The Politics of Resilient Cities: Whose Resilience and Whose City? *Building Research & Information, 42* (2): 191–201. https://doi.org/10.1080/09613218.2014.850602

Valente, D.; Marinelli, M. V.; Lovello, E. M.; Giannuzzi, C. G.; Petrosillo, I., (2022). Fostering the Resiliency of Urban Landscape through the Sustainable Spatial Planning of Green Spaces. *Land*, *11*(3), 367. https://doi.org/10.3390/land11030367

Xiao, Y., Van Zandt, S. (2012). Building Community Resiliency: Spatial Links between Household and Business Post-disaster Return. *Urban Studies, 49*(11), 2523–2542. https://doi.org/10.1177/0042098011428178

Wagenaar, H. (2007). Governance, Complexity, and Democratic Participation. *The American Review of Public Administration, 37*(1): 17–50. https://doi.org/10.1177/0275074006296208

Wang, Y. C., Shen, J. K., Xiang, W. N., Wang, J. Q. (2018). Identifying characteristics of resilient urban communities through a case study method. *Journal of Urban Management, 7*(3), 141-151. https://doi.org/10.1016/j.jum.2018.11.004

Wilkerson, A., Carlson, N. E., Yen, H. I., Michael, Y. L. (2011). Neighbourhood Physical Features and Relationships with Neighbors: Does Positive Physical Environment Increase Neighborliness? *Environment and Behavior, XX*(X), 1–21. https://doi.org/10.1177/0013916511402058

Wilkinson, C. (2011). Social-ecological resilience: Insights and is-

sues for planning theory. *Planning Theory, 11*(2), 148-169. https://doi.org/10.1177/0013916511402058

Zhang, X., & Li, H. (2018). Urban resilience and urban sustainability: What we know and what do not know? *Cities, 72*, 141-148. https://doi.org/10.1016/j.cities.2017.08.009

Zimmerer, K.S., (1994). Human Geography and the 'New Ecology': The Prospect and Promise of Integration. *Annals of the Association of American Geographers, 84*, 108–125. https://doi.org/10.1111/j.1467-8306.1994.tb01731.x