

THE THEORY AND PRACTICE OF CONTEMPORARY
PLACE RELATED CONCEPTS IN URBAN PLANNING

By

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ABSTRACT

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Since the 1990s, planning theory has focused on the planning process and the engagement of stakeholders. With increasing technologies, attitudinal changes and transformations in lifestyles, new concepts and themes in planning profession seem to emerge at increasing frequencies. Most appear to evolve over a set of good planning principles that have withstood the test of time. Contemporary concepts usually have trendy labels such as New Urbanism, Livable Communities, Sustainable Cities, Smart Cities, Cool Cities and the latest trend of Placemaking. The overarching question that guides this research is what draws planners to continually redefine and market an age-old, fundamentally basic, concept of creating safe, comfortable and attractive places for people?

The purpose of this research is to explore and understand the key characteristics of contemporary concepts in urban planning, through the lens of scholarship and theoretical literature and assess whether these concepts are impacting professional planning practice in Michigan. Hence, this dissertation explored answers to the following research questions: 1) How has professional language related to creating places for people evolved since 1990? 2) To what extent do emerging concepts in Urban Planning differ from one another? 3) What planning principles are targeted through contemporary planning concepts? 4) How often do practicing urban planners in Michigan use planning principles and contemporary concepts in their day to day work? and 5) Is there a gap between theory, as evidenced by the knowledge in scholarly literature, and practice within a Michigan context, as it relates to contemporary planning concepts? Methodology of grounded theory guided this research and qualitative research methods were employed. Content analysis of selected scholarly literature and a survey of practicing urban planners were conducted.

Ten significant contemporary planning concepts were identified and explored within this study: Creative Cities, Healthy Cities, Livable Cities, New Urbanism, Placemaking, Resilient Cities, Safe Cities, Smart Cities, Smart Growth and Sustainable Cities. The findings from literature analysis demonstrate that each concept has different focus areas and nuances, however, there are also considerable similarities between concepts. A set of 20 planning principles were derived from the scholarly literature on the 10 contemporary concepts. The most pertinent planning principles are related to accessibility, transportation and mobility; citizen participation and collaboration; and green infrastructure. The survey of professional planners, on the other hand, revealed that the principles most often used in practice were considerably different. Only the principle of citizen participation and collaboration overlapped between theory and practice. The other most frequently used planning principles in practice are facilitation of public education and awareness, interdisciplinary collaboration and public-private partnerships and data driven planning. The survey of professionals also showed that the most frequently used contemporary concept is Placemaking, while some of the other popular concepts were Livable Cities, Sustainable Cities and Smart Growth. The gap between theory and practice is best illustrated by the fact that the planning principles most often used by practitioners were related to the least used concepts in practice, or the principles embodied in the most often used concepts were not cited as the most frequently used principles in practice. This suggests that practitioners may use the trendy concept label with little understanding of the premise or principles related to that particular concept. Interestingly, practitioners use planning principles far more frequently in describing their work than popular contemporary concepts. Furthermore, this research proves that the continuous occurrence and evolution of concepts appears to be more of a theoretical exercise and it is not planning practice that is driving the creation of trendy concepts. This two-stage research of examining the theory behind contemporary planning concepts and the survey aimed to reflect on professional planning practice clearly demonstrates the disconnect between planning scholarship and practice.

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1 INTRODUCTION

"If we are to achieve results never before accomplished, we must employ methods never before attempted." Sir Francis Bacon

1.1 Problem Statement

The planning profession in the US dates back to the end of the 19th century. As Krueckeberg (1985) highlights, the special knowledge and training for city planning might be dated as early as 1893 with the opening of the World's Columbian Exposition in Chicago. The first university course in city planning was offered in 1909 at Harvard University and the first National Conference on City Planning was held the same year. Finally, founding of the American City Planning institute in 1917 marks the formation of the professional society in United States (Krueckeberg, 1985). Since then, the planning profession has evolved in different phases and each era has some particular and defined characteristics.

During the first decades (or in generally, prior the World War II), planning was focused on physical elements and land use aspects – infrastructure, roads, designating of physical space for different uses, etc. Garden City movement, City Beautiful movement and Plan of Chicago are the major achievements of that period, as well as the rise of zoning and comprehensive planning. Utilitarian and practical planning dominated the postwar era, especially important were the efforts in Urban Renewal and highway building movements (according to the Federal-Aid Highway Act of 1956) and the increase in public housing and home mortgage insurance programs (Krueckeberg, 1985). This era (1960-70s) was very traumatic for many urban areas that saw functioning neighborhoods torn down to make way for new buildings and infrastructure. This gave rise to advocacy planning and the rise of social and cultural planning movements. Jane Jacobs's "The Death and Life of Great American Cities" (1961), Martin Anderson's "The Federal Bulldozer" (1967), Herbert Gans's "Urban Villagers" (1962) and "The Levittowners" (1967) and Paul

Davidoff's "Advocacy and Pluralism in Planning" (1965), amongst others, were instrumental in making planners aware of the plight of under-represented groups in society. The 1970-80s can be characterized by yet another major shift in planning ideology with the rise of the environmental movement. Rachel Carson's book "Silent Spring" (1962) and Ian McHarg's "Design with Nature" (1969) are probably the most influential discussions from that time. It can be argued that since 1990s, planning has not seen major new movements. As Birch (2009) points out, the period from 1990s to 2009, or even to present times, can be described as *Planning revisits its roots*, when planning theorists began to rethink their approaches in the context of planning history. This period has been looking at the evolution of planning profession by learning from and thus improving it. As Birch (2009, p. 107) argues, "Issues of space and place reentered all types of planning theory discussions". This shows the importance and rediscovery of the topic of place and people. It is the era when planning theorists began to explore more democratic means such as collaborative and communicative planning. The era also gave rise to increased citizen participation and bottom up planning approaches.

Since the 1990s, planning theory has focused on the planning process and the involvement of constituents. This may be, in part, due to the changing nature of political philosophies and the rise of neoliberal tendencies advocating for efficiencies over equity and the minimal role of governments and public expenditures (Vojnovic, 2007). As the profession matures and copes with increasing technology, political change, limited government and general attitudinal changes, new concepts and themes seem to emerge at increasing frequencies. Some of these themes seem to last longer than others. Most seem to evolve over a set of good planning principles that have withstood the test of time. The critical question is why have we seen this proliferation of new concepts (labels) over the last 25 years – do they promote new ideologies and significant movements or are they a branding tool to sell the planning profession to the public?

1.2 Purpose Statement

One of the fundamental goals of the spatial planning profession is to plan for and create places for people to live work and play in. The concept of creating functional and aesthetically pleasing places for a diverse public is central to most built environment professionals. Architects and designers look to create aesthetic, well designed spaces that meet the needs of citizens, builders and real estate developers aspire to use sustainable materials and build structures that are ergonomically friendly, city planners look at issues of social integration, economic and environmental sustainability and locational networks. The underlying principal in all of these professions is to create safe, comfortable and attractive places for people. While this concept has evolved over time to address the changing needs of our society, it is not new, or even exclusive, to the planning profession. Sociologists and philosophers have stressed the importance of sense of place for decades. Yet the planning profession (more so in the US than in Europe or Asia) seems to find the need to continuously brand and rebrand the concept of planning for people as something new and exciting. Examples of this attempt to rebrand or label the concept can be noted in trendy labels such as smart growth, new urbanism, livable communities, sustainable neighborhoods, resilient cities, cool cities and the latest trend of placemaking. What draws planners to continually redefine and market an age-old, fundamentally basic, concept of creating safe, comfortable and attractive places for people? This research aims to study this phenomenon.

The purpose of this research is to explore and understand the key characteristics of contemporary concepts in urban planning, through the lens of scholarship and theoretical literature and assess whether these concepts are impacting professional planning practice, using Michigan as a case study for practicing planners.

1.3 Research Questions

Planning as communicative action has been discussed in planning theory and practice since mid-1980s and is based on the theory of communicative action (Habermas, 1984; Innes, 1995). Several scholars (e.g., Throgmorton 1991; Peattie 1987) point out that “language, discourse, and representation have become crucial foci for theorists” (Innes, 1995, p. 187). It is very likely that there lies one of the origins of accelerated development of professional language – the way planners articulate and present their ideas, but also the words or concepts they use. In a world of constant information flow, one needs to distinguish between useful and redundant information in order to be heard and understood. At the same time, the consumerist era, or marketing company era as discussed by White (2015) has created the need for marketing since 1960s when marketing became the goal of business and the customer became king. Plans, places, neighborhoods and cities can be seen as products that attract residents, investors and tourists. Planning and design therefore are largely affected by marketing techniques and theory. Place branding has become a highly important activity or a *science of its own* in the competitive arena of *the best places to live, the most livable cities, the happiest communities*, etc. In order to make profit, selling and marketing has created a number of branding slogans, which have been embedded into urban planning, architecture and design fields.

The multiplicity and broad, or even diffused use of different definitions of creating places among professionals and among wider audiences, has led to several questions that the current research intends to address:

1. How has professional language related to creating places for people evolved over time (since 1990)?
2. To what extent do emerging concepts in Urban Planning differ from one another?
3. What planning principles are targeted through contemporary planning concepts?

4. How often do practicing urban planners in Michigan use language, planning principles and contemporary concepts in their day to day work?
5. Is there a gap between theory, as evidenced by the knowledge in scholarly literature, and practice within a Michigan context, as it relates to contemporary planning concepts?

1.4 Method of Analysis

1.4.1 Introduction

The research methods are primarily qualitative in nature. Methodology of grounded theory guide this research. Qualitative methods are based generally on text and interpretation of data, where the researcher has a role as the key instrument (Creswell, 2014). In addition, the research process is emergent, which means that the initial plan for research cannot be entirely described and the process may be shifted after entering the field and starting to collect data (Creswell, 2014; Maxwell, 2012). These circumstances have been taken into consideration while designing the research.

In order to address the research questions, research methods are divided into two phases. The first three research questions are answered in phase one of this study which includes four steps:

- Step 1. Identification of Contemporary Concepts/Labels
- Step 2. Literature Scan
- Step 3. Content Analysis
- Step 4. Evaluation of Contemporary Concepts with a Focus on Planning Principles

Phase two explores the use of contemporary planning concepts in practice and compares theory and practice. Hence, the fourth research question is answered through a survey of practicing urban planners

and the fifth question is answered through an interpretation of the theoretical knowledge gained in phase one and the practical applications from the survey analysis.

1.4.2 Phase 1—Contemporary planning concepts in scholarly literature

Step 1. Identification of Contemporary Concepts or Labels

Contemporary concepts or labels were identified based on readings, coursework, discussions with professors and colleagues and attendance at planning conferences. Selected concepts or labels addressed more than one planning aspect. The ten contemporary concepts most common in planning literature (professional terminology) are as follows:

1. Creative Cities
2. Healthy Cities
3. Livable Cities (Livability)
4. New Urbanism
5. Placemaking
6. Resilient Cities
7. Safe/Secure Cities
8. Smart Cities
9. Smart Growth
10. Sustainable Cities

Step 2. Literature Scan

- a) Each concept/label was run through the ProQuest and/or Scopus search engine in order to identify when that concept gained popularity and when scholarly literature related to the concept peaked (Figure 1). Initially, the ProQuest database was used to identify articles. This

database however, did not seem to provide a sufficient set of appropriate articles. Therefore, the Scopus database was used as an alternative source in parallel with ProQuest. As Scopus provided better results for retrieving articles (better coverage, significant journals), the use of ProQuest was dropped after the fifth concept and the search was continued only with the Scopus database. This emerging search method resulted in identifying over 4,000 articles.

- b) The search was limited to full text, peer reviewed, scholarly journals and the search of key term was conducted within “Article title, Abstract, Keywords”; the searchable document type was limited to articles; the publication date was limited to 1990-2017; and the language was limited to English.
- c) The search was conducted with the quotation marks as this provides the exact match of the searchable word or expression, not any single separate words. This search resulted in over 600 articles.
- d) Peak years were identified for each concept and then used for further exploration.
- e) Ten articles from peak time periods were identified based on the frequency in which the concept or related words or terms occurred in the full text. Key words from metadata, in journal headings or references were not counted. The search resulted in 100 articles for detailed content analysis.

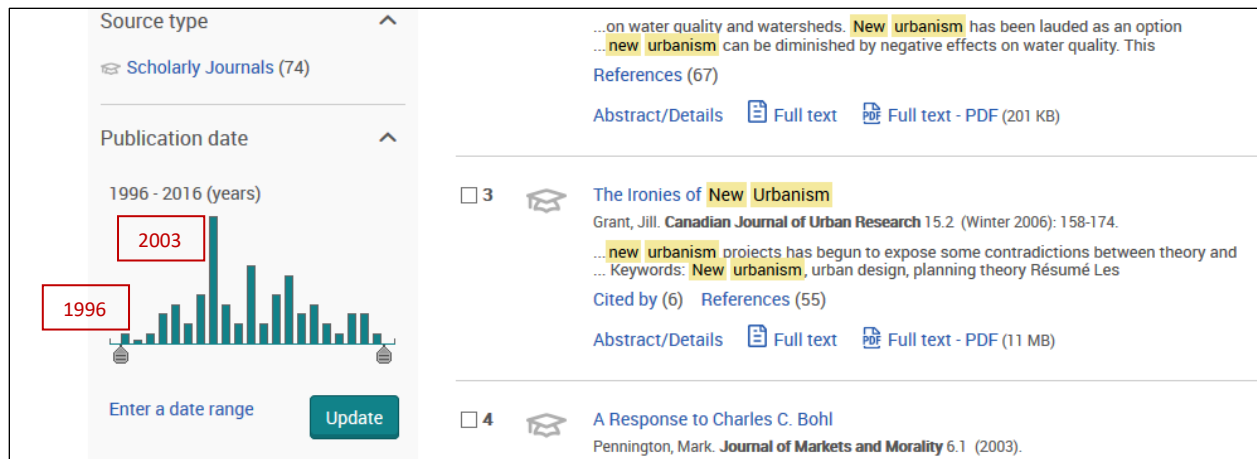


Figure 1. Screen shot from ProQuest. ProQuest allows to search peer-reviewed scholarly articles with full texts available and it provides a graphic data representation that allows one to proceed with more specific requests. As an example, the graphic search results of “New Urbanism” shows that most of the articles were published in 2003 and the first article was published in 1996. Source: ProQuest, retrieved 11.06.2016.

The literature scan resulted in:

- a) Display of concepts’ occurrence in scholarly literature and popularity, and
- b) Creation of an article bank of top ten articles focusing on each concept.

Step 3. Content Analysis

Content analysis followed a two-part process. Part One involved emergent coding of thematic areas in each article (100 articles). The selected articles were initially explored and coded with the intention to highlight the characteristic keywords, labels and themes of each concept. The coding scheme can be found in Appendix A.

Part Two was a detailed assessment of the group of ten articles for each concept. While the analysis was based on the codes recorded in the coding scheme, the resulting discussion on recurring themes within the concept was based on the depth of analysis for the entire group of articles for that particular theme. For example, urban design might have emerged as an initial thematic code for a concept but during the

detailed analysis it was obvious that only cursory attention was paid to urban design and it is not captured in the discussion of pertinent themes for that concept.

Step 4. Evaluation of Contemporary Concepts with a Focus on Planning Principles

Step 4 was to identify pertinent themes and break-out components that are characteristic of each contemporary planning concepts. These components and themes were then transcribed into planning principles. Step 4 resulted in the creation of a matrix with a focus on planning principles which guided the discussion on:

- a) Identification of common principles and ideas across the concepts
- b) Identification of unique principles and ideas that emerged from each concept
- c) Discussion of the findings from the theoretical literature

1.4.3 Phase 2–Validation: Planning concepts in practice – A Michigan example

Using the 20 planning principles recorded in Step Three of Phase One, a survey was conducted among practicing planners within the State of Michigan. The aim of the survey was to explore the knowledge, understanding and the use of different contemporary planning concepts and planning principles among planning professionals.

- a) The survey was created and distributed via Qualtrics, an online survey tool.
- b) The population of the survey was the Michigan Association of Planning (MAP) members and Michigan State University - Urban and Regional Planning program alumni.
- c) The survey was designed as a structured survey with some open-ended questions. The results were coded and qualitative analysis was undertaken.

This Survey had three core content components. The first related to the professional planner's personal values and beliefs. The second explored what planning principles have actually been implemented in current professional practice. While the third explored the use of language or common terminology in explaining and promoting one's professional work.

1.4.4 Summary

In Summary, the exploration of literature aims to answer the first three research questions and addresses the concepts as written by theorists and academics. Surveys provided insights on how the same ideas are addressed in practice by professional planners and creates a balanced understanding of the phenomena.

The outcomes of this research aim to present the concepts, ideas and trends available in the planning field and to demonstrate the differences and similarities of contemporary planning concepts. The literature analysis presents what has changed in the professional articulation and representation of ideas through time. The survey demonstrates the attitudes, practices and experiences of professionals related to contemporary planning concepts and planning principles. Eventually, the research shows the relationship between theory and practice – how the ideas and knowledge of scholars and theorists are understood and addressed by planning practitioners.

1.5 Contents and Organization

This dissertation is presented in six chapters. A brief of each chapter is as follows:

Chapter 1 – Introduction

This chapter addresses the problem statement, the research questions, the research methods and the content and organization of this dissertation.

Chapter 2 – Theoretical Framework and Literature Review

The theoretical framework focuses on two sets of theories. The first set of literature explores the framework of place related theories such as the theories of place, place attachment, the sense of place and place branding/marketing. The second set of literature is related to planning theories such as participatory, collaborative and communicative planning.

Chapter 3 – The Theoretical Basis of Contemporary Planning Concepts

This chapter is the basis for the theory, as evidenced through the knowledge in scholarly literature, in the conceptualization of contemporary planning concepts. A thorough review of ten concepts through 100 peer reviewed articles informs the discussion on the first three research questions:

1. How has professional language related to creating places for people evolved over time (since 1990)?
2. To what extent do emerging concepts in Urban Planning differ from one another?
3. What planning principles are targeted through contemporary planning concepts?

Chapter 4 – Contemporary Planning Concepts in Professional Practice – A Michigan Example

This chapter focuses on the results of the survey administered to professional planners in Michigan and helps to understand what planning principles professional planners value most, what they most often use in professional practice and provide insights into their professional vocabulary and their use of language to promote their values and work. This chapter aims to answer research question four: how often do practicing urban planners in Michigan use language, planning principles and contemporary concepts in their day to day work?

Chapter 5 – The Gap between Theory and Practice

This chapter focuses on the discussion between theory (Chapter 3) and practice (Chapter 4). It answers the final research question: Is there a gap between theory, as evidenced in scholarly literature, and practice as expressed by professional planners in Michigan, as it relates to contemporary planning concepts? It concludes with limitations of the study.

Chapter 6 – Conclusions

This chapter summarizes major findings for each research question and sheds light on the larger, overarching question of what draws planners to continually redefine and market an age-old, fundamentally basic, concept of creating safe, comfortable and attractive places for people?

2 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

"To know what you know and what you do not know, that is true knowledge." Confucius

2.1 Introduction

The theoretical framework, as evidenced by the knowledge in literature, focuses on two sets of theories or narratives. As the notion of place plays a key role in understanding the creation of places (place as an objective), the first set of literature explores the framework of place related theories. Thus, the theories of place, place attachment, sense of place and place branding are explored. The aim of place-related theories in the literature review is to observe how place and the perception of place has changed. The second set of literature is related to planning theories. For this participatory, collaborative and communicative planning theories were explored.

2.2 Place Related Theories

In order to understand the concept of the creation of place, it is important to understand the concept of place. As stated by Arefi (1999, pp. 179–180), “the contemporary discourse on place has substantially changed in the last few decades. The transformation has encompassed both the production and the meaning of place, which has been largely influenced by modernity and globalization”. Furthermore, “The modernity on place has led to its ‘commodification’ and ‘devaluation’” (Arefi, 1999, p. 180). Obviously, this change in discourse is expected as ways of life, perceptions and quality of modern lifestyle have transformed as well.

There are many scholars that have contributed to the discussions on place and space (Hubbard, Kitchin, & Valentine, 2004). One of the key authors that addresses the understanding of place is a human geographer Edward Relph. His significant work “Place and Placelessness” (first published in 1976) was

written to fill the gap in the discussion of place(s) at that time. “There were no discussions in the discipline of geography about what place means” (Relph, 2008; in Preface to Reprint). Relph’s main goal has been to identify the variety of ways in which places are experienced. In addition to the concept of place, a parallel phenomenon of placelessness was explored – “a casual eradication of distinctive places and the making of standardized landscapes that result from an insensitivity to the significance of place” (Relph, 2008; in Preface). He interweaves the discussions of rootedness, outsidership, disneyfication, museumisation, which can be seen as negative articulation for the authentic community (places). At the same time, the latter two are often magnets for attracting visitors and are an important part of the place branding. Therefore, tourism plays an important role in places and their development. Furthermore, tourism is considered one of the largest sectors of economy for many countries (Becker, 2013). In turn, the needs of tourism often challenge the needs and lifestyle of local residents (Amsden, Stedman, & Kruger, 2011). Tourism can also influence the attitudes and place attachment of local people.

Relph (2008) argues that the theories of places and techniques for *placemaking* have extensively developed by different professionals since the 1990s. According to Relph (2008; Preface to Reprint) “there is now so much research about place, and there are so many search engines to find it, that the main difficulty is making sense of it all”. As theorized by Lehar (2000), place comes into existence when the paths of people, services, goods, experiences, information, thoughts and feelings meet. Meaningfulness and the importance of a place depends on such meetings. Places are filled with activities and events. However, Relph (2008, p. 43) argues that “the basic meaning of place doesn’t come from locations, nor from the functions that places serve, nor from the community that occupies it, nor from superficial and mundane experiences - the essence of place lies in the largely unselfconscious intentionality that defines places as profound centers of human existence.” In addition to environmental experiences and the phenomenology of the place, the physical aspects, such as the setting, natural conditions and the built

environment play an important role. A place with its tangible or physical features is the stage where events can take place. For instance Kevin Lynch (1986) describes a place (city) by its structure and elements. According to Arefi (1999) the elements of locale, location and sense of place are the three elements to which the description of place is usually reduced (as cited in Agnew and Duncan, 1989). Sense of place examines people's ties and attachment to their places (Arefi, 1999). As discussed by Jackson, "sense of place" is an often used expression, mostly by built environment professionals, such that now it means very little. "It is an awkward and ambiguous translation of the Latin term *genius loci*. The current version is used to describe the atmosphere in a place and the quality of its environment" (Jackson, 1994 via Jivén & Larkham, 2003, p. 68). *Genius loci* as described by Norberg-Schulz represents the sense people have of a place, encompassing the sum of all physical as well as symbolic values in nature and the human environment (Norberg-Schulz, 1980).

There are several other definitions used in *place-related* literature that are connected to different professions, all of which refer to the same concepts. These terms have their own specific meanings and nuances, but in general they are reflecting the same ideas. These terms include *genius loci*, spirit of the place, sense of place, character, atmosphere, milieu and authenticity. Jivén and Larkham (2003) explore the meanings of these terms depending on different contexts. They argue that use of these concepts in design-related contexts appear to be uncritical and confused. They also emphasize that some meanings have changed over time, for instance *genius loci* used to have a different meaning 200 years ago than it has at present.

An important aspect of place is attributed to place attachment, which is part of a larger context of sense of place. As discussed by Amsden et al. (2011) place attachment provides insight not only into how people feel about their community but also what people do in that community – how they engage visitors, each

other and the surrounding natural resources. This research demonstrates that the most important values, meanings and experiences that create place attachment in one tourism dependent community are highly related with the beauty of the place, recreation, friends and family, pride of the place, history and community interactions, amongst others. These meanings fall into categories such as natural environment, the community, recreation and tourism spaces and the concept of “home” (Amsden et al., 2011).

John Friedmann (2010) describes a place and ultimately a good place, from a planning perspective by providing four characteristics of place, these are: 1) place as a small and three-dimensional urban space, that is cherished by the people who inhabit it; 2) fact of inhabitation, living in a neighborhood; 3) place attachment that is an invisible and subjective attribute; and 4) existence of a meeting place, a center, or a focal point. The concept of a good place is closely related to quality of life issues. For instance, the topic of quality of life is addressed by the work of El Din et al. (2013), Marans (2012), Amin (2006) and Friedmann (2000). There is an ongoing discussion on how to improve the quality of life of local people and to enhance the livability of a place. For instance, the concept of Livable City or Livable Neighborhood is often described as a compact, mixed use, diverse, healthy, green, accessible and sustainable place (“Livable neighborhoods,” 2015). A Place Diagram developed by the Project for Public Spaces initiative describes a good place with the following elements - active, safe, walkable, sittable, attractive, accessible, connected, proximity, neighborly, cooperative and diverse, among others (“What is Placemaking?,” 2015). However, it’s questionable if these all play a significant role in the quality of life context. Mostly, quality of life is largely a relative measure which depends on time, place and culture.

Din et al. (2013) studied the urban design features that could improve the quality of life in the built environment. They point out that the ability to enjoy natural landscapes provided by a variety of green

areas distributed within the neighborhood; providing activities of daily living; transit stops within walking distance; and promotion community involvement in council decision-making would contribute to the better quality of life in the community. Marans (2012) suggests periodically using measurable indicators to gauge whether policy makers and planners may be able to assess how they are doing and adjust the decision making and planning process according to the people's satisfaction rate. Insch (2010) has explored resident's satisfaction with city life by importance-satisfaction analysis and points out that the use of this analytical tool has the capability to assist urban place managers to identify and prioritize features of the city requiring attention and resources to enhance resident satisfaction. This approach may be used to help new residents to settle in and build place attachment among existing residents. It helps to highlight the key drivers of satisfaction when communicating the city's appeal and identity. It should also be taken into account that residents' expectations can change over time, but it is necessary to evaluate their sustained experience gained through residency (Insch, 2010). As the research of Insch shows the residents of the case study area value work-life balance (i.e. good job or career and leisure/family time), personal and public safety, the natural environment (i.e. landscapes, views, harbor, wildlife) and the city's community assets (i.e. parks and gardens, historic buildings, museum, university).

A different and new approach is provided by Ballas (2013), who looks at the characteristics that makes the city "happy". In fact, the happiness factor of the city is described by the happiness of its inhabitants. Ballas states that an important distinction can be made between studies of happiness, which typically analyze subjective measures via social survey questions, whereas quality of life studies usually analyze more objective factors, such as quantity and quality of natural amenities, human-created amenities and other objective factors (Ballas, 2013). Danish architect, Jan Gehl (2010) also has a strong focus towards human-scale design – he promotes a pedestrian friendly environment, walkable cities, places to go and stay and he looks at the cities from the street level, in the human's space and microclimate. For Gehl, the

urban environment must be considered through the five human senses and experienced at the speed of walking.

As people are very different, they also tend to have different value sets and expectations of places. Consequently, the aim to create a good place has many challenges and obstacles. We see and perceive the places through our values (Johnson, 1997). The values are inherited from our family, culture, society, environment and the community where we live or grow up. Places and people change and therefore values also change. Our values are influenced by our knowledge and education and our perception and expectation of places change throughout our life cycle.

It has been stated that the concepts behind place making date back to 1960s, when theorists like Jane Jacobs and William H. Whyte offered remarkable ideas about designing cities that attracted people and not just cars and shopping centers. Their work focused on the importance of lively neighborhoods and inviting public spaces. Jacobs (1961) is famous for the idea of “eyes on the street” and Whyte (1988) emphasized important components for creating social life in public spaces (“What is Placemaking?,” 2015). Ultimately, the place making concept has transformed and evolved over the years and has become part of our day-to-day vocabulary.

Cities are about people and as such, a social phenomenon. Schneekloth and Shibley (1995) emphasize the need for a more inclusive and democratic approach to the design of human environments. They encourage giving more power to people and engaging them more actively in the creation of places. Relph (2008) postulates that places have to be made from the inside out.

At the present time, the idea of creating places for people has filtered into many urban planning and design projects, as well as urban studies. Place making also seems to be a marketing tool in order to sell a product – a place and to convince the users and investors of its quality. *Placemaking* is especially popular in US, where it has lined up with other contemporary concepts and trends, for instance *livable cities*, *walkable cities*, *new urbanism*, etc. At the same time, in Europe, the creation of quality places has been in practice for centuries, but it is not necessarily called or branded as *placemaking*.

There have been several studies that address the concepts of creating places for people. Many studies that discuss the concept of *placemaking* are practical applications and case studies and they do not cover the theoretical background of creating places in a comprehensive way. Mostly scholarship on the topic is active research and promotional or marketing type research. The common understanding is that “placemaking is a people-centered approach to the planning, design and management of public spaces” (“What is placemaking?,” 2015). In other words, it is believed, that *placemaking* is creating places for people, where they like to live and work. As such, the idea of creating places is nothing new or undiscovered. However, the people and their way of life has changed throughout time and space and the perceptions of place and quality of life have transformed as well. There is a large body of literature that studies the concepts of place or the sense of place (e.g., Lefebvre, 1992 [1974]; Lynch, 1986 [1960]; Norberg-Schulz, 1980; Relph, 2008 [1976]; Tuan, 1977) and examines the characteristics of good places/cities (e.g., Gehl, 2010; Jacobs, 1961). Furthermore, the complexity of creating places lies in the interdisciplinary nature of several fields including, but not limited to, urban planning, landscape and urban design, environmental psychology, behavioral science, sociology, social policy, philosophy, construction, economics, place branding, community organizing, collaborative planning and communicative planning.

As argued by Schneekloth & Shibley (1995, p. 1), “Placemaking is not considered just about the relationship of people to their places, but it also creates relationships among people in places”. This way it is a social phenomenon that builds communities by engagement. Furthermore, they discuss that creating places is the way for people transform the places where they live and this is a universal activity that can occur with or without the assistance of professionals (Schneekloth & Shibley, 1995). As concept of creating places is interdisciplinary, connected and networked to many other fields, it should be considered in a multi-scalar picture. *Relational placemaking* is addressed by several researchers. For instance Foo et al. (2013) look at how urban vacant land has been the subject of production of place. They explore how residents perceive and act to change vacant land in their communities and their findings confirm that vacant lot interventions contribute to people interaction and community building. More philosophical approach to relational place making is presented by Pierce et al. (2011), who demonstrate it as networked politics of place and affirm that all places are relational and are always produced through networked politics.

In addition to place attachment, the significance of place identity is an important motive for people, especially for travelers (Mitchell & Murphy, 1991). Many researches point out that the essence of place can be captured by history, memory and cultural heritage. The history or “patina” of the place is often one of the main attractions for visitors and residents alike. The unique and pleasant atmosphere also attracts entrepreneurs. Historian and architect Dolores Hayden demonstrates how urban landscape history creates the sense of place and the role of place memory can be a driver for attracting visitors – by preserving urban history the urban design of a city and its economic growth can be explained (Hayden, 1988). Hayden’s work emphasizes the importance of history in making meaningful places and representing them in the physical space. The power of place is experienced by the milieu and the resident’s connection to the place (Amsden et al., 2011). However, “similar to patina, significance is

acquired only with time, it is not a designer's construct, it is not the product of the maker, but is, instead, created by the receivers. And like patina, it emerges only if the conditions are right" (Treib, 1995). History matters, but not all historic places necessarily contribute to sense of place and place attachment.

There are also a variety of criticisms of place making. For instance, Wortham-Galvin (2008) discusses and criticizes the exploitation of the concept of sense of place and the importance of place by designers and planners. Wortham-Galvin argues that *placemaking* is seen as mythology (something that is not real) and has been implicit in a contemporary design approach, particularly New Urbanism which is arguably one of the most significant urban design and planning movement in the late twentieth century. She points out that the New Urbanism's principles, the image of these places and their built forms and spaces serves up one more version of a New England village (Wortham-Galvin, 2008). In short, it exemplifies how the idea of a New England village has transformed into New Urbanism. Both are examples of place making. Wortham-Galvin illustrates her point of view with the example of the movie "The Truman Show" (1998) as a simulacrum. The critics of New Urbanism have claimed that the line between Truman's fake community of Seahaven and the illusionary reality of the actual Seaside, Florida, is nearly invisible (Wortham-Galvin, 2008). The results of creating places has thus materialized into fictional places, places that look like movie sets.

In terms of marketing, Place branding has become a part of the place making approach. It is a tool to attract residents and visitors and it could help to create or keep a sense of place. Place branding is also seen as a driver for economic development (Kotler, Haider, & Rein, 1993). In the current capitalist and consumerist world, everything tends to be for sale and therefore many things can be seen as products and thus are objects for marketing. More and more places are investing in branding campaigns in order to have a competitive edge in today's global market and to establish a reputation for themselves (Anholt,

2010 via Sevin, 2014). These places attempt to define and communicate their distinctive and defining characteristics to target audiences (Chen, 2012 via Sevin, 2014). Place branding concentrates on creating a brand management system focused on the identity and distinctive and definitive characteristics of a particular place. Sevin (2014) states that this is a social phenomenon, as a place brand is based on the perceptions of target audiences – which might or might not be influenced by the physical and communicative aspects of a given city. Furthermore, Rehan (2014) argues that urban branding can be an effective sustainability tool in urban development. The concept of urban branding is rather new and may be defined as the process by which unique physical features of the city are defined and intends to capture the essence of the place. Branding of places and cities consists of two main elements, such as place making or city building - a process that makes the place specifically attractive and place or city marketing - an effort to promote the place/city specific advantage (Helmy, 2008 via Rehan, 2014).

Kotler et al. (1993) argue that places must, like any market-driven business, become attractive ‘products’ like many other commodities by improving their economic base and communicating their special qualities more effectively to their target markets. Strategic marketing of places requires a deep understanding of how ‘place buyers’ - tourists, new residents, corporations and investors - make their location decisions (place preferences, destination marketing). Arguably “place marketing succeeds, when citizens and businesses are pleased with communities and meet the expectations of visitors and investors” (Kotler et al., 1993, p. 99). As Kotler et al. point out, the place can improve its livability, investibility and visitability by the process of four components or improvement strategies, which are urban design, infrastructure, basic services and attractions (i.e., entertainment and recreation). Urban planners and designer can contribute to these improvements.

Place branding is not related only to physical aspects of the city (design, infrastructure, basic services and attractions), but also simultaneously contribute to revitalize the economy of the place. If the setting is appealing, it attracts new residents, visitors and investors, who all contribute to the economy of the place. In addition to strategic marketing of the place, there is also a need for place development by community development, urban design, urban planning and economic development (Kotler et al., 1993).

A growing trend in place branding in recent times is through sustainable development strategies and innovative environmental initiatives combined with green image marketing. Some places have adopted the belief that it is possible to combine sustainability with economic growth and therefore environmental quality and awareness has become an increasingly important element in the competition between metropolitan regions (Anderberg & Clark, 2013), but also for smaller communities. It has become attractive to be “green” and sustainable, not only for the sake of health and quality of life, but also for stimulating growth and enhancing the attractiveness of the region. There is always a threat that to some extent the eco-branding of the region can be seen as greenwashing (Anderberg & Clark, 2013). For instance, the well marketed “green Malmö or Copenhagen” has faced the structural shift away from car traffic - it is only in the inner city where public transportation, biking and walking play significant roles for daily transport, but new peripheral shopping and business zones are mostly accessible only by motorway (Anderberg & Clark, 2013). Furthermore, sustainable development (or sustainability) has become such a broad concept that it almost resembles an ultimate goal instead of a constant process of devising and evaluating a combination of public policies and societal responses and behaviors (Balsas, 2013). Because of this ambiguity, one should be critical of sustainability, eco-branding or green marketing slogans.

Place branding, in a narrow sense, is a marketing or advertising process for a particular place with the main goal to attract visitors, which makes it largely a tourism-oriented activity, but it also contributes to

the improvement of the local community. Therefore places have become the objective of destination branding, which also includes concepts of destination image and competitiveness (Blain, Levy, & Ritchie, 2005; Qu, Kim, & Im, 2011). As many places promote similar attributes such as scenery, history and culture, the successful branding should be very unique, sustainable, believable and relevant (Blain et al., 2005). In other words, the brand should be powerful tool with the ability to create emotional appeal and brand image is considered crucial to the marketing success of a tourism destination. Similar to greenwashing, any kind of marketing is somehow a creation of illusion.

As seen, a place as the home for local residents and the destination for visitors have reciprocal relationship. Great places attract visitors and businesses (both, local and global) and tourism development might improve the quality of the place and contribute to place's economy in turn. This combination can also have downsides – tourism might change the community's social, political and economic landscapes (Amsden et al., 2011) and ultimately the sense of place and people's attitude.

2.3 Planning Related Theories

Although not directly related to planning theory, changes in political attitudes and the rise of anti-government tendencies resulting in income equalities and reduced public welfare mandates have had a profound impact on the nature and value of urban planning (Fainstein, 2001; Vojnovic, 2007). Even during the 19th century, the focus on business enhancement and economic prosperity over environmental and social planning resulted in urban stressors resulting in sanitation and environmental reform and gave voice to more contemporary planning voices that called for advocacy, collaboration and citizen participation.

An important part of the place making process is dedicated to public participation by including all members of the community as people are a clear factor in sense of place (Amsden et al., 2011). Place

making contributes in creating relationships among people in places (Schneekloth & Shibley, 1995) and builds communities by engagement. It is well known, that if people can be part of the process, they feel more engaged to the particular place and they feel part of the creation of sense of place or sense of community. That leads to stronger place attachment as well as better protection and appreciation of the built environment. As such, participatory planning and collaborative planning play important role in this process.

Citizen participation in urban planning have become a natural part of the planning process. Nevertheless, it has areas of improvement as still many people do not have a voice (e.g., minority groups) or the participation is minimal, or even just *pro forma*. As such, different methods and techniques of participatory planning have been studied and experimented. For instance, Eiter and Vik (2015) have studied effective methods for public participation in landscape planning in Norway. The objective behind their study was to facilitate public involvement in planning processes beyond the mandatory minimum of public announcements and hearings. Eiter and Vik point out that public participation was strengthened by broaching the issue in a separate chapter in the Planning Act and this approach places heavy demands on the public to stay updated at all times.

Eiter and Vik (2015) describe some effective methods used in public participation. For instance, in-depth interviews, map-making and planning charrettes, that improved the scope of public participation significantly. Another method to facilitate the public input was open office days or outreach office days, which offered special consultation opportunities with local and regional officers for people who might feel uncomfortable with active participation in larger meetings or who could not attend public meetings for several reasons (e.g. time, proximity). Every method has its advantages, but also downsides, mostly related to finances (e.g., posters vs individual letters, in-depth interviews vs focus group interviews) (Eiter

& Vik, 2015). Citizen participation helps people to feel that they can contribute to the development of a place and their voices are heard. However, different spatial planning processes require different methods and people have different preferences in terms of which tools they feel comfortable employing.

In parallel to participatory planning, new directions of communicative and collaborative planning have become important in the planning profession in recent decades. Patsy Healey (2006) and Leonie Sandercock (1998) are champions of ideas on how communities may improve their quality by collaborative and consensus-building practices. As Healey (2006, p. 7) points out, “the communicative planning theory is a foundation for a form of collaborative planning”. She discusses that “public policy, and hence planning, are social processes through which ways of thinking, ways of valuing and ways of acting are actively constructed by participants” (Healey, 2006, p. 29).

In this regard, places can be seen as products of communication. Communicative planning theory (CPT) emerged in the 1980s and has challenged the dominant theories of planning (e.g., rational planning) ever since. It provided a new theory, or an alternative theory, which has created opposing groups of scholars and practitioners. The communicative action theory is looking at planning by finding out what planners do, rather than stating what planning ought to be. It is based on several theories of communication as power, such as works from Habermas (1984), Castells (2007) and many more. Healey (2006, p. 53) argues that “planning is a process of interactive collective reasoning, and according to Habermas, the cultures and structures are formed and transformed through our communicative efforts”. As she points out, “the metaphor of dialogue and conversation is critical for Habermas’ thinking, and through ‘open’ conversation among diverse peoples, through argument based on available information, we can arrive at ‘truths’ and ‘values’” (Healey, 2006, p. 53). Thus, communicative planning can be seen as learning by doing and experiencing (Innes, 1995). However, communicative planning theory has been criticized by many authors

and as Innes and Booher (2015) argue, the most difficult obstacle is that critiques of communicative planning theory framed several dichotomies making different perspectives appear incompatible.

Innes and Booher, based on Manuel Castells' theory of communication power, discuss four contradictions in communicative planning vs classical/rational planning in present planning literature – community knowledge versus science; communication power versus state power; collaboration versus conflict; and process versus outcome (Innes & Booher, 2015). As Innes and Booher (2015) suggest, in order to bridge the multiple perspectives planning theorists should focus more research on the role of communication in planning and incorporate it into their thinking work. They make a significant note that the building of popular concepts plays a central part in planning. This has generated confusion as creating popular concepts are often misleading (branding, marketing techniques) in order to “sell” more products and make profit. The role and power of communication in planning still needs to be examined and understood. This makes much sense in the present information, communication and networking era.

In addition, another issue of citizen participation or collaborative planning is related to the changing role of the planning profession, both in theory and in practice – planners have become facilitators, mediators, or coordinators. As Forester (2012) argues that in order to integrate public participation with innovation, planners need to understand differences between dialogues, debates and negotiation. Consensus building is best achieved by mediated negotiations. Planners and decision makers should avoid several forms of tokenism and nonparticipation as illustrated by Patsy Healey (2006) and Sherry Arnstein (1969), but unfortunately, this is still taking place on many occasions, mostly through public hearings as a form of information, or even manipulation. Also Schneekloth and Shibley (1995) emphasize the need for a more inclusive and democratic approach to the design of human spaces. As it is stated by Schneekloth and Shibley (1995, p. 2), “in most industrialized countries, creating places has been assigned to and

appropriated by design-related professionals and academics who claim expert knowledge on making places. Such appropriation ultimately disempowers others because it denies the potential for people to take control over events and circumstances that take place in their lives.”

Finally, as Fainstein (2005, p. 127) argues, planning action depends on business activity and thus the planners and developers (referred as new urbanists) have generated widespread interest in planning because “they have something to sell – a particular vision of the good community and how to get it”. This is not relevant only to new urbanists, but all built environment professionals. Consequently, planning has become the marketing activity and places have become products (Kotler et al., 1993). Therefore, place making is an activity and process, or a strategy on how to attract people to select certain places where they want to live and work, or what they want to visit.

In summary, the concept of creating places (i.e., place making) is integrated into the everyday work of built environment professionals, as well as into the day to day vocabulary for politicians, decision-makers and developers and eventually received and consumed by the users. Thus, it remains an important topic in urban planning and urban design fields. As such, it is necessary to understand how professionals and people perceive contemporary planning concepts and their meanings and experiences.

3 THE THEORETICAL BASIS OF CONTEMPORARY PLANNING CONCEPTS

3.1 Introduction

This chapter is the basis for the theoretical and scholarly conceptualization, as evidenced in scholarly literature, of contemporary planning concepts. The 10 contemporary planning concepts presented in this chapter are as follows:

1. Creative Cities
2. Healthy Cities
3. Livable Cities
4. New Urbanism
5. Placemaking
6. Resilient Cities
7. Safe Cities
8. Smart Cities (Intelligent/Tech Cities)
9. Smart Growth
10. Sustainable Cities

As urban planning is an interdisciplinary field, the 10 contemporary planning concepts assessed in this study have different origins and areas of focus. New Urbanism for example originates within architecture and focuses primarily on urban design and the built environment. Safe Cities, on the other hand, stem more from traffic engineering and the psychology of place and are more focused on processes and education.

As discussed in the Methods of Analysis in Chapter 1, each concept went through a two-phase analysis. Phase one consisted of identifying ten pertinent articles for each concept employing two search engines, Scopus and/or ProQuest. Figure 2 shows the peak periods for each concept.

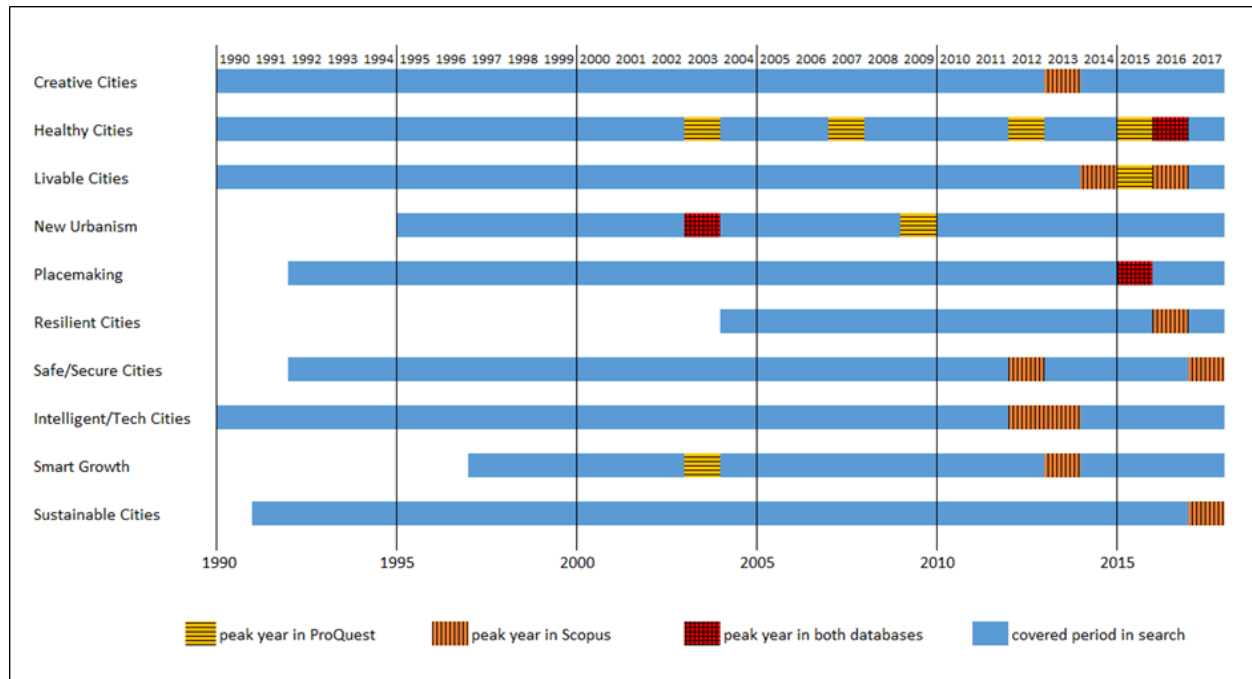


Figure 2. Display of time periods for each concept when articles occurred in search results, both databases and all search terms combined (e.g., "intelligent cities" and "tech cities"). Search criteria was set for 1990-2017.

Figure 3 displays, by concept, the number of articles retrieved from databases in order to select the final 100 articles for the content analysis.

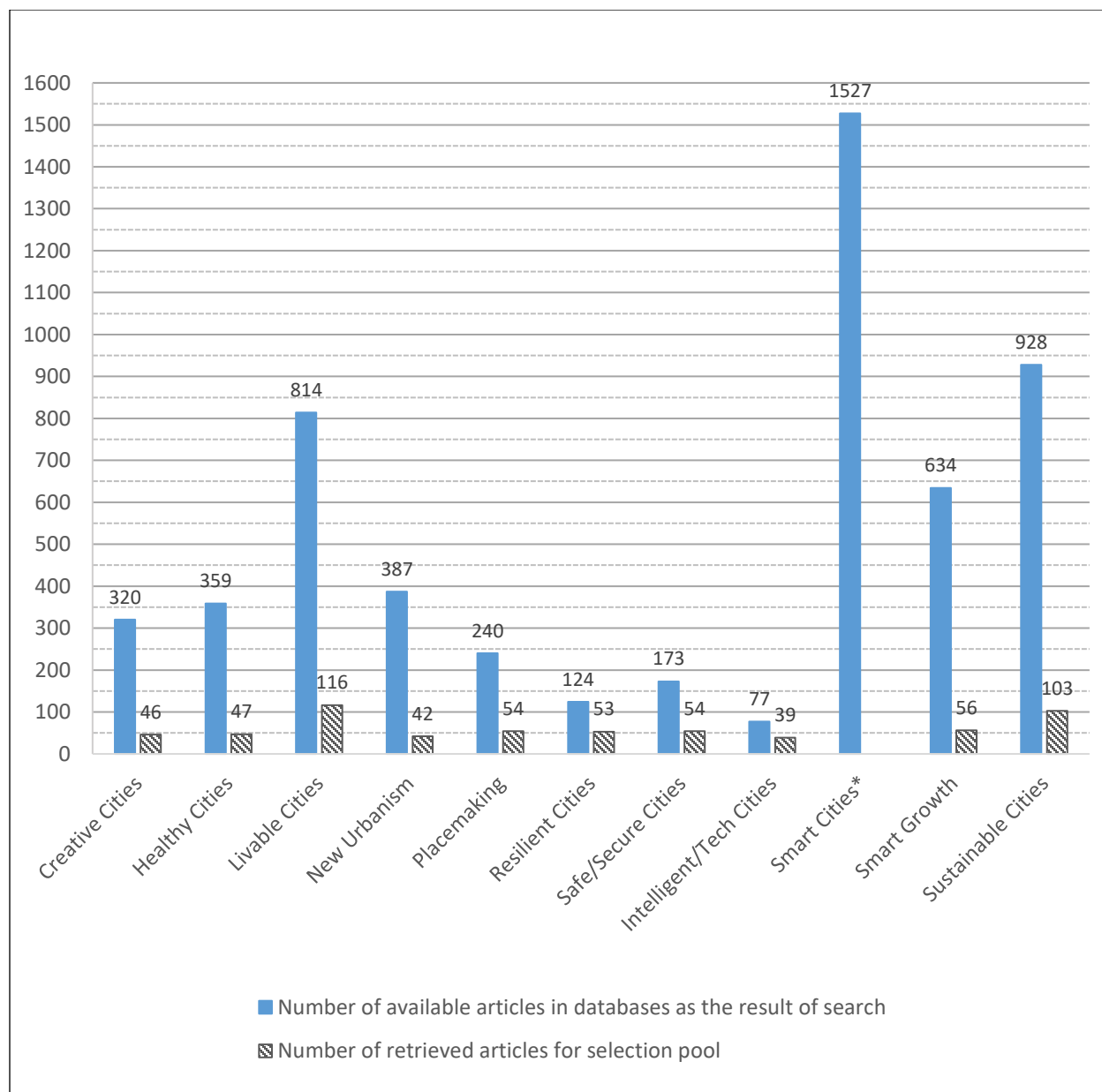


Figure 3. 610 articles were identified/retrieved from databases (4056 articles in total) in order to select final 100 articles for the content analysis.

*The concept of Smart Cities on chart is given for illustrative purposes. Instead, for feasibility reasons the concept of Intelligent Cities and Tech Cities were used to capture the concept of Smart Cities.

Part One of content analysis involved emergent coding of thematic areas in each article (100 articles). The selected articles were initially explored with the intention to highlight the characteristic keywords, labels and themes of each concept. A total of 32 codes emerged. The coding scheme can be found in Appendix A.

Part Two involved detailed assessment of the group of ten articles for each concept. The following discussion focuses on each contemporary concept and aims to reflect on three research questions:

1. How has professional language related to creating places for people evolved over time (since 1990)?
2. To what extent do emerging concepts in Urban Planning differ from one another?
3. What planning principles are targeted through contemporary planning concepts?

3.2 Part One: The Ten Contemporary Planning Concepts

3.2.1 Creative Cities

3.2.1.1 Introduction

For the concept of Creative Cities Scopus search returned 320 results overall, which covered the period from 1990-2017. The highest peak time for published articles was 2013 with 46 records, the second highest peak time was 2017 with 38 records and the third peak times were 2010 and 2014 with 36 records each (Figure 4).

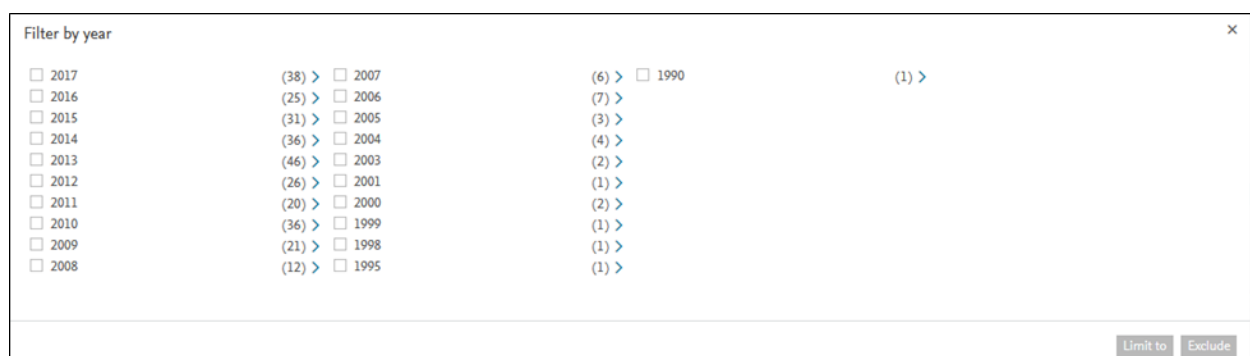


Figure 4. Extraction from Scopus search results for Creative Cities, search was conducted on October 12, 2017

The articles selected for content analysis were chosen from the first peak time of the search results, i.e. year 2013. Thus, 46 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Creative Cities: “creative cities”, “creative city”, “creative class” and “creative economy”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Grodach, C. (2013). Cultural Economy Planning in Creative Cities: Discourse and Practice: Cultural economy planning in Austin and Toronto. *International Journal of Urban and Regional Research*, 37(5), 1747–1765. <https://doi.org/10.1111/j.1468-2427.2012.01165.x>
2. Pratt, A. C., & Hutton, T. A. (2013). Reconceptualising the relationship between the creative economy and the city: Learning from the financial crisis. *Cities*, 33, 86–95. <https://doi.org/10.1016/j.cities.2012.05.008>
3. Ratiu, D. E. (2013). Creative cities and/or sustainable cities: Discourses and practices. *City, Culture and Society*, 4(3), 125–135. <https://doi.org/10.1016/j.ccs.2013.04.002>
4. Darchen, S. (2013). The Creative City and the Redevelopment of the Toronto Entertainment District: A BIA-Led Regeneration Process. *International Planning Studies*, 18(2), 188–203. <https://doi.org/10.1080/13563475.2013.774147>
5. Borén, T., & Young, C. (2013b). The Migration Dynamics of the “Creative Class”: Evidence from a Study of Artists in Stockholm, Sweden. *Annals of the Association of American Geographers*, 103(1), 195–210. <https://doi.org/10.1080/00045608.2011.628263>
6. Alamoudy, S. A. (2013). When creativity is the solution: how to transform Makkah into a creative city (pp. 1249–1258). <https://doi.org/10.2495/SC131062>
7. Darchen, S., & Tremblay, D.-G. (2013). The local governance of culture-led regeneration projects: a comparison between Montreal and Toronto. *Urban Research & Practice*, 6(2), 140–157. <https://doi.org/10.1080/17535069.2013.808433>
8. Sasajima, H. (2013). From red light district to art district: Creative city projects in Yokohama’s Kogane-cho neighborhood. *Cities*, 33, 77–85. <https://doi.org/10.1016/j.cities.2012.07.011>
9. Vivant, E. (2013). Creatives in the city: Urban contradictions of the creative city. *City, Culture and Society*, 4(2), 57–63. <https://doi.org/10.1016/j.ccs.2013.02.003>
10. Borén, T., & Young, C. (2013a). Getting Creative with the “Creative City”? Towards New Perspectives on Creativity in Urban Policy: New perspectives on creativity in urban policy.

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Creative Cities 29 out of 32 codes were identified across the selected articles. Based on the analysis of selected articles four major focus areas were identified - economic aspects, social aspects, branding and marketing related issues and physical space/built environment.

The most prevalent findings are related to economic aspects as all articles in this pool addressed these issues. Secondly, social dimensions, including arts and culture, social interaction and milieu related issues, as well as affordability and equity were widely addressed. Thirdly, branding and marketing related issues were discussed in 9/10 of articles. Finally, the built environment and physical space were discussed in the majority of selected articles. In addition, majority of articles provided some explanation of the meaning of the concept. The occurrence of pertinent themes can be seen on Table 1 and the entire Data Accounting Sheet can be found in Appendix B.

Table 1. The occurrence of pertinent themes in data collections for Creative Cities

Themes/Concepts Data Collection		Built/Physical environment	Urban design	Social aspects	Culture, Cultural Heritage, and Arts	Human scale	Equity	Affordability	Public participation	Governance	Economic aspects	Branding and marketing	Fuzziness of concepts and terminology	Terms and definitions
1	(Grodach, 2013)	x	x	x	x	x	x-	x-	x	x	x	x	x	x
2	(Pratt & Hutton, 2013)	x		x	x	x	x-	x			x	x	x	x
3	(Ratiu, 2013)	x	x	x	x	x	x-	x-	x		x	x		x
4	(Darchen, 2013)		x	x-	x-	x-		x-	x	x	x	x	x	x
5	(Borén & Young, 2013b)			x	x	x-		x-		x	x	x-	x	
6	(Alamoudy, 2013)	x	x	x	x				x	x	x	x	x	x
7	(Darchen & Tremblay, 2013)	x-	x	x	x	x	x	x-	x	x	x	x		x
8	(Sasajima, 2013)	x		x	x	x	x	x-		x	x	x		x
9	(Vivant, 2013)	x		x		x	x-	x-			x-	x		
10	(Borén & Young, 2013a)				x						x		x	x
Total:		8	5	9	9	8	6	8	5	6	10	9	6	8

- Negative attributes identified

3.2.1.2 Definitions and key terminology/ideas

Most articles provided various nuanced explanations on key terminology of the concept of creative cities (Table 2). Most of all, the concept of creative cities is related to a branding and marketing agenda in order to attract a creative class, investments and visitors. It is seen as a tool for economic success and a key factor in regional or global competitiveness. Creative cities concept appears to be a trendy strategy to promote any kind of development. In order to attract a creative class, the place needs to incorporate various qualities, including cultural facilities and amenities and diversity of attractions. Creative milieu or culturally vibrant atmosphere is required to inspire the creative class (i.e.: people who work in different creative occupations) to settle in. Literature showed that the concept of creative cities is also seen as a

planning approach to foster cultural development and urban regeneration. A majority of selected articles further highlighted the ambiguity and fuzziness of the terms and definitions surrounding the concept of creative cities.

Table 2. Explanations of the concept of creative cities in selected articles

Authors	Key terminology/ideas	Essence
Grodach, 2013	Creative city model as a reference to Richard Florida's creative class thesis. Creativity as prerequisite for economic growth and innovation. Creative city model as platform to promote economic competitiveness. Focus on educated and mobile people with skills and knowledge. Quality of place matters in order to attract creative class. Struggle to define actual meaning of creative city model, the concept can be used to promote and justify anything (marketing, redevelopment agendas).	Quality of place, place matters; economic growth; competitiveness; branding; ambiguity
Pratt & Hutton, 2013	Lack of clarity what creative economy means. Creative industry/economy generates intellectual property, but also includes any kind of systems that creates and sustains intellectual products. Has an urban focus (creative economy takes place in cities).	Economic growth; ambiguity; place matters
Ratiu, 2013	Larger metropolitan areas and urban context where creative economy takes place (in contrast to small cities). Creative cities as arenas for global competitiveness by modification of urban spaces. Competition for talented/creative people to attract them into cities. Ideological issue of city planning.	Quality of place, place matters; competitiveness; branding
Darchen, 2013	Creative city concept as a broad term, containing urban development and economic development policies. Creative city as a global policy rationale. Creative city as tool to convince/sell the regeneration projects. It can be a driver to support city's image and promote economic development. Creative city as movement/strategy that can justify many planning goals (regeneration projects).	Economic growth; branding; ambiguity; urban regeneration
Borén & Young, 2013b	Reference to a weak definition of the creative class that does not have a common class identity as the creative class is rather diverse in occupations and common trends are hard to draw.	ambiguity
Alamoudy, 2013	Concept of Creative Cities is seen as a tool for problem solving, but cannot solve all urban problems. Creative Cities as an arena for diverse cultural activities. References to Jacobs (1961) and Landry (2000). However, pointing out that the concept is vague and hard to capture. Global and regional competitiveness as driver to become a creative city. Provides a model of Creative city that is adjusted to cultural context, but most of all carries the purpose of branding (showing successes).	ambiguity; competitiveness; branding

Table 2 (cont'd)

Darchen & Tremblay, 2013	Concept of creative city as seen as a policy discourse that has systemic emphasis on culture in order to achieve economic success. Creativity as tool for economic competitiveness. Creative Cities refer to urban planning approaches that promote cultural development. Make distinction between creative city, which is a broader field in urban studies and creative class that focus on urban economics. Creative City as promotional and justifying tool for urban development.	economic growth; competitiveness; city planning approach, cultural development; branding
Sasajima, 2013	Creative city has a creative milieu/creative urban space, which promotes invention and innovation. Creative city attracts members of the creative class. Creative city as tool for re-branding and urban regeneration of the city/district. Creative City as political tool to demonstrate success in governmental policies. Creative milieu is difficult to achieve from scratch.	milieu; urban regeneration; branding; politics; urban regeneration
Vivant, 2013	Creative city concept policies of a creative economy as a magic tool for urban revitalization and economic development and creativity as a key element for innovation and growth engine. Creative City as new way of urban development.	urban development; economic growth
Borén & Young, 2013a	Points out the ambiguity of key terminology. Creativity is understood and implemented by urban elites and only simplistic or mainstream notions of creativity has been adopted. All forms (incl. vernacular) creativity have been ignored. Explores the notion of creativity. Creative cities attract creative class.	ambiguity; place matters

3.2.1.3 Focus on Economic aspects

Content analysis showed that all selected articles addressed economic aspects. Creative cities are strongly seen as drivers for economic success and competitiveness and heavily relies on the work of Richard Florida (Borén & Young, 2013b; Darchen, 2013; Grodach, 2013). The concept of creative cities is closely related to concepts of creative economy or creative industry. As most articles demonstrate, creative cities with its talented people – creative capital, is the key factor of economic growth and success, or economic competitiveness. As Pratt and Hutton (2013, p. 87) point out “in some cases creative industries have become significant players in the urban economy”. Furthermore, as Grodach (2013) highlights, the rise of the concept of creative cities gives arts and culture new emphasis within the economic field by legitimizing and recognizing it and showing the value of creative industries: “Even if certain places don’t have such economic drivers to present, it has made people in economic development think about art and culture in

a new way” (Grodach, 2013, p. 1760). Economic development inspired by creative city model has close connections with branding and promotion. Moreover, as Grodach (2013, p. 1757) states, “The creative city model dominates the language of cultural economy planning in Toronto and is employed to justify the instrumental use of culture for upscaling central-city property...”. Thus, urban regeneration projects have gained benefits from the concept of creative cities. As Darchen (2013) demonstrates, the concept of creative cities as economic development strategy has strongly influenced many cities globally, including Toronto, with urban regeneration practices. These appear as changes in physical space that aim to attract businesses, residents and tourists. By redesigning a new image of a place, the identity of the area changes and thereby boosts economic revitalization. As Darchen (2013, p. 201) states, “The objectives, in terms of revitalization, rely on the assumption – as part of the concept of the creative city – that the promotion of arts and culture [...] will lead to the revitalization of the area. [...] The concept of the creative city is used as an approach to regeneration where place-making is a priority”. Although, it is believed that creative places attract creative workers, research by Borén and Young (2013b) explain that location decisions are very complex and diverse, for example, amenities may have secondary or no influence, but employment opportunities and income are the dominant factors (as cited in Lepawsky, Phan and Greenwood, 2010) in location choices or place attractiveness. Thus, place attractiveness does not matter so much, but finding work and labor market opportunities are more significant to the creative class (as cited in Scott, 2010) as well as social factors such as family, friends and professional networks (Borén & Young, 2013b). Furthermore, Borén and Young (2013b) also contend that Florida’s assumptions and thesis on creative class mobility, which is related to a city attractiveness is not credible and cities shouldn’t use this as the basis of their economic development strategy. In addition, Sasajima (2013, p. 78) explained that “Urban development through creative city projects in Japan is related to the national government’s recent attempt to link economic development with quality of life”. As such, urban regeneration and revitalization

projects promoted through the concept of creative cities and framed in the context of a creative economy might not have positive results and remain a branding attempt that could eventually lose its meaning.

3.2.1.4 Focus on Branding and marketing

Economic development of a place can be driven by place marketing strategies in order to be globally or regionally competitive. Consequently, the creative cities concept has the strongest influence in terms of city branding (Grodach, 2013, p. 1754). Furthermore, Grodach (2013, p. 1748) argues, that “cities pursue the creative city agenda primarily as a place-marketing tool that privileges the needs and desires of particular groups [...]” and the concept is used to attract tourists, create a unique image of the city making the place competitive and inviting globally. Many investments and developments have been initiated under the name of “creative city” in order to legitimize actions (Darchen, 2013). Thus, the creative city concept is seen as a magical tool to entice development and “the creative city vision is manipulated in multiple ways” (Grodach, 2013, p. 1755). Furthermore, Grodach (2013, p. 1757) criticized these issues highlighting that “the creative city model is employed to justify the instrumental use of culture for upscaling central-city property”. Also, as argued by Darchen (2013, p. 202) the creative city concept is not used for promoting arts and culture, but “rather to promote and enhance the identity of a former underutilized downtown area with a high potential for real estate development”. Similarly, the research of Pratt and Hutton (2013, pp. 89, 91, 133) showed that the focus has not been on cultural production, but on place marketing and consumption and the instrumental use of culture is used as a tool to attract real businesses or promote tourism. This shows clear evidence that the creative city concept can be used to promote anything, as the definition of culture or creativity is broad and the production and consumption of culture employs a variety of components.

Place branding is also used to inspire certain type of creative talents to cities, but there's a significant difference between big cities and small cities. The creative cities concept is not universal and it is usually associated with big cities (Borén & Young, 2013b; Ratiu, 2013). As Ratiu (2013) points out, the creative city concept and policies are difficult to adopt in small cities as there are a number of social problems to consider such as preserving viable downtown, gentrification and integrating newcomers (as cited in Bell and Jayne, 2006, p. 12). Furthermore, as Boren and Young illustrate, "urban policy that promotes particular, rather narrowly defined, visions of city attractiveness might produce cities that actually have little appeal for some people in creative occupations and will have little impact on their locational decision making" (2013b, p. 205). A creative city doesn't occur out of nowhere or simply appear by redesigning urban space.

3.2.1.5 Focus on Built environment and physical space

As seen above, two major focus areas – economic development and place branding are closely interconnected with urban regeneration or revitalization goals and the redesigning of appealing urban spaces. However, in most cases, there was only a cursory mention of the importance of physical space and urban design, with no detailed descriptions of the attributes of such urban spaces (e.g. general adjectives such as creative, vibrant, livable were used). The importance of place and its characteristics have been mentioned mostly in relation to attracting creative talent (Grodach, 2013). Creative hubs and districts, or cultural clusters were mentioned as places where creative activity usually takes place (Grodach, 2013; Pratt & Hutton, 2013; Vivant, 2013). Mixed use neighborhoods, vibrant art scenes, outdoor activities, cultural diversity, improved streetscapes and density are some characteristics of these places. Consequently, it can be said that the quality of place matters for creative cities. As argued by Ratiu (2013, p. 131), "quality of place", measured by various indicators of so-called urban amenities and lifestyle, would be a main ingredient of viable creative cities". Darchen (2013) illustrated how creative city

concept had an influence on redesigning of John Street in Toronto, into a pedestrian friendly and vibrant space with cultural and commercial facilities. The aim of redesigning and creating a new image for the place was used as a strategy to attract creative professionals as well as visitors to the area. Similarly, landmark architecture can have an influential role (Alamoudy, 2013). However, place attractiveness, including amenities and facilities might not be the most significant factors to have an impact on locational decision making for creative professionals (Borén & Young, 2013b). This idea is supported by Darchen and Tremblay (2013, p. 142) who point out that “physical infrastructure and facilities are not sufficient to impact cultural development, and that consideration of ‘soft infrastructure’ (the people and social networks) is essential” (as cited in Brown, O’Connor and Cohen, 2000, p. 445). Finding new functions for existing buildings, including renovated historic buildings, or allowing new land uses in the area can be another characteristic in creative city project. For instance, Sasajima (2013) demonstrated how establishing a number of art venues in renovated buildings was one measurable outcome in Yokohama. Similarly, Darchen and Tremblay (2013) illustrate the case of revitalizing Toronto’s entertainment district by approving and increasing residential uses in order to eliminate nightclubs from the area. In addition to “official” spaces such as cultural districts and hubs, temporary use of spaces should be considered as an important and valuable part of the creative city as well (Vivant, 2013). Serendipity, spontaneous scenes for art and culture contribute equally to the creation of a creative atmosphere in the city. Research by Sasajima (2013) demonstrated how creation of a creative district in Japan did not succeed as it was artificially made and too homogeneous and oftentimes such cultural districts aim to serve only creative elites, not diversity of members in creative professions. These arguments illustrate that a creative milieu is difficult to create from scratch or initiate by transforming physical space. Instead, social aspects are key characteristics in the concept of creative cities.

3.2.1.6 Focus on Social aspects—culture, social cohesion and creative atmosphere and affordability

Content analysis showed the significance of issues are related to social aspects, such as culture related issues, human scale, social interaction and affordability issues. As the concept of creative cities is about promoting cultural diversity and cultural development *per se* and is framed by the creative economy, it is an expected outcome to see so much emphasis on arts and culture. As stated by Darchen and Tremblay (2013, p. 141), “The concept of the creative city refers to city planning approaches that promote the cultural development of cities [...]”. The main point, supported by several articles, is that culture and creativity, or even cultural production and consumption (Ratiu, 2013), are extremely broad and therefore people who fall under the definition of creative professionals, or creative talent is very diverse. The nature of creative professions differ significantly and should be addressed occupation by occupation (Grodach, 2013). Some occupations tend to be more desired and others are marginalized or even ignored. As Pratt and Hutton (2013, p. 94) emphasize, “despite the image of the media/creative economy as being socially liberal, tolerant and open, the harsh fact is that it is one of the most elitist and non-representative workforces of all industries”. With this they highlight widespread social exclusion. Similarly, Ratiu (2013, p. 128) echoing Tay, highlights the need to cope with “long-standing development questions such as economic and social sustainability, gentrification and local displacement, exclusion practices” in order to measure the success of a creative city (as cited in Tay, 2005, p. 225). The need to implement elementary principles of social equity, justice and participatory democracy were listed as characteristics of a sustainable creative city (as cited in Scott, 2007, p. 1478)(Ratiu, 2013).

Key characteristics of creative cities are social cohesion, human scale and creative milieu (place identity). Grodach (2013) explains that network opportunities, informal social spaces such as bars and galleries that encourage face to face communication is very important (as cited in Currid, 2007). Also, as Pratt and

Hutton (2013) illustrate, the firms and workers tend to cluster in high cost premium location because this entails rich social and knowledge infrastructure. In addition, creative cities are expected to have or generate a unique creative atmosphere, or sense of place and belonging, but as Darchen (2013) points out, they can instead create a globalized culture and anonymous places (as cited in Bailey, Miles and Stark, 2004). Social interactions are supported by the built environment – creative people need meeting places to build relationships and develop their social networks, exchange information and establish themselves in a community.

Parallel to promoting culture and a creative city agenda, creative city strategies encourages gentrification in central city areas and threatens the city's creative capital (Darchen, 2013; Grodach, 2013; Ratiu, 2013). The negative effects of gentrification were addressed in many of selected articles. It's a paradoxical phenomenon that under the guise of promoting creative cities, the redesigned urban space often become unaffordable to creative workers for work space as well as living space. Vivant (2013) argues that the project-based nature of creative professionals work conflicts with the locational aspects and the rising value of land, which makes it difficult for creative professionals to afford the desired work space or place of residence. Vivant (2013, p. 89) points out that "project-based artistic productions are risk-taking and uncertain of success", which creates limitations to choose affordable work and living spaces. Thus, the nature of precarious work and real estate values (lack of affordable housing) set limits to local creative communities. Consequently, gentrification and affordability issues are seen as negative side-effects of the creative city model. The importance of affordability, gentrification and other social factors often limit some creative classes from settling in certain places. This demonstrates the complexity and diversity within the concept of creative cities from the perspective of creative professionals and the need for more empirical data to understand the nature of individual occupations within the creative class (Borén & Young, 2013b).

3.2.1.7 Summary

The concept of creative cities, based on the content analysis, is still relatively vague. There is much discussion and often disagreement, amongst scholars as to the definition or articulation of what a creative city really means, what they can achieve or who they benefit. Most agree that it is a branding strategy to promote arts and culture to a population that enjoys and can afford these trendy amenities.

The most prominent themes of the creative cities concept are related to a creative economy, incorporating arts and culture in to a branding/marketing campaign and a focus on place attachment.

Based on the analyses, the following principles are embedded in the concept of creative cities:

- Planning addresses equity through social, economic and ethnic diversity.
- Planning incorporates arts, culture and heritage.
- Planning facilitates a sense of community cohesion and place attachment.
- Planning promotes economic growth and competitiveness.

3.2.2 Healthy Cities

3.2.2.1 Introduction

With the concept of “Healthy Cities” Scopus search returned 314 results overall, which covered the period from 1990-2017. The highest peak time for published articles was 2016 with 27 records, the second highest peak time was 2013 with 24 records and the third peak time was 2009 with 23 records (Figure 5).

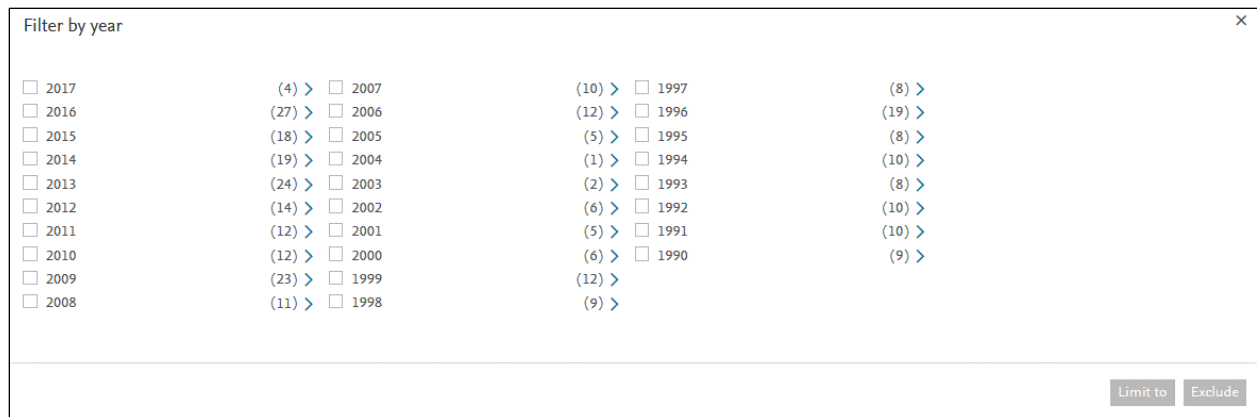


Figure 5. Extraction from Scopus search results for Healthy Cities, search was conducted on March 26, 2017

ProQuest returned 45 results overall, which covered the period from 1991-2016. The highest peak times for published articles were 2003, 2007, 2012, 2015 and 2016 with 4 records each (Figure 6).

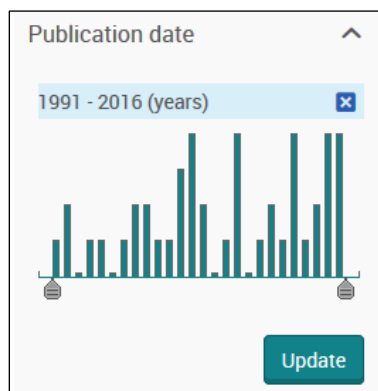


Figure 6. Extraction from ProQuest search results for Healthy Cities, search was conducted on February 5, 2017

The articles selected for content analysis was a combination of articles from both databases - year 2016 as the first peak period were used for Scopus and all five highest peak times were used for ProQuest. In total, 47 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Healthy Cities: “healthy cities”, “healthy city”,

“healthy place” and “healthy places”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Kang, E. (2016). Intersectoral collaboration for physical activity in Korean Healthy Cities. *Health Promotion International*, 31(3), 551–561. <https://doi.org/10.1093/heapro/dav020>
2. Patrick, R., Dooris, M., & Poland, B. (2016). Healthy Cities and the Transition movement: converging towards ecological well-being? *Global Health Promotion*, 23(1_suppl), 90–93. <https://doi.org/10.1177/1757975915595341>
3. Schwab, G. L., Moysés, S. T., França, B. H. S., Werneck, R. I., Frank, E., & Moysés, S. J. (2015). Research Article: Healthy Cities Fighting against Chronic Conditions. *Environmental Practice*, 17(1), 16–24. <https://doi.org/10.1017/S1466046614000477>
4. Awofeso, N. (2003). The healthy cities approach - reflections on framework for improving global health. World Health Organization. *Bulletin of the World Health Organization*, 81(3), 222–223.
5. Macfarlane, R. G., Wood, L. P., & Campbell, M. E. (2015). Healthy Toronto by Design: Promoting a healthier built environment. *Canadian Journal of Public Health*, 106(1), ES5–ES8.
6. de Blasio, A., Girán, J., & Nagy, Z. (2012). Potentials of health impact assessment as a local health policy supporting tool. *Perspectives in Public Health*, 132(5), 216–220. <https://doi.org/10.1177/1757913910391039>
7. Westphal, M. F., & Franceschini, M. C. T. (2016). The contribution of CEPEDOC to the development of the Brazilian health promotion policy [A contribuição do CEPEDOC para a construção da Política de Promoção da Saúde no Brasil]. *Ciência & Saúde Coletiva*, 21(6), 1819–1828. <https://doi.org/10.1590/1413-81232015216.08822016>
8. Hu, S. C., & Kuo, H.-W. (2016). The development and achievement of a healthy cities network in Taiwan: sharing leadership and partnership building. *Global Health Promotion*, 23(1_suppl), 8–17. <https://doi.org/10.1177/1757975916641566>
9. Miller, H. J., & Tolle, K. (2016). Big data for healthy cities: Using location-aware technologies, open data and 3D urban models to design healthier built environments. *Built Environment*, 42(3), 441–456.

10. Twiss, J., Dickinson, J., Duma, S., Kleinman, T., Paulsen, H., & Rilveria, L. (2003). Community gardens: Lessons learned from California healthy cities and communities. *American Journal of Public Health*, 93(9), 1435–8.

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Healthy Cities 27 out of 32 codes were identified across the selected articles. Based on the analysis of selected ten articles three major focus areas related to “healthy cities” emerged – process related issues, social aspects and physical space/built environment issues.

The most prevalent findings are related to seven topics: 1) public participation and collaboration, 2) governance, 3) health, 4) equity and equality, 5) safety and security, 6) education and awareness and 7) built environment, including urban design, walkability and transportation. Majority of articles addressed all these issues. The occurrence of pertinent themes can be seen in Table 3 and the entire Data Accounting Sheet can be found in Appendix C.

Table 3. The occurrence of pertinent themes in data collections for Healthy Cities

Tag/Code Data Collection		Built/Physical environment	Walkability and accessibility	Urban design	Transportation and mobility	Social aspects	Equity and equality	Security and safety	Health	Education and awareness	Processes	Public participation	Governance
1	(Kang, 2016)	x	x	x	x	x		x	x	x	x	x	x
2	(Patrick, Dooris, & Poland, 2016)					x	x		x			x	x
3	(Schwab et al., 2015)	x	x	x	x	x		x	x	x		x	x
4	(Awofeso, 2003)	x			x	x	x	x		x	x	x	x
5	(Macfarlane, Wood, & Campbell, 2015)	x	x	x	x	x	x	x	x	x	x	x	x
6	(de Blasio, Girán, & Nagy, 2012)	x				x	x		x		x	x	x
7	(Westphal & Franceschini, 2016)						x	x		x			
8	(Hu & Kuo, 2016)	x	x	x	x	x	x	x	x	x	x	x	x
9	(Miller & Tolle, 2016)	x	x	x	x	x	x	x	x		x	x	
10	(Twiss et al., 2003)	x		x		x			x	x	x	x	x
Total:		8	5	6	6	9	7	7	8	7	7	9	8

3.2.2.2 Definitions and key terminology/ideas

Some articles defined or explained of the meaning of healthy cities (Table 4). Most of all, the concept of healthy cities is related to health promotion by improving physical space and also taking care of social environment and enhancing equity through participatory governance. None of the selected articles addressed the ambiguity or fuzziness of the concept of healthy cities.

Table 4. Explanations of the concept of healthy cities in selected articles

Authors	Key terminology/ideas	Essence
Patrick, Dooris, and Poland, 2016	Healthy Cities uses 'health' as its primary lens and its strategic goals are to improve health for all, reduce health inequities and improve leadership and participatory governance for health (as cited in World Health Organization, 2013).	health, equity, participatory governance
Awofeso, 2003	WHO defines a Healthy City as "one that is continually developing those public policies and creating those physical and social environments which enable its people to mutually support each other in carrying out all functions of life and achieving their full potential".	governance, physical space, social environment
Macfarlane, Wood, and Campbell, 2015	The WHO outlines the vision of a healthy city as a city that "is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential." Healthy Cities has been described as a social movement that aims to improve the health of people living in cities.	physical space, social environment; health promotion
Miller and Tolle, 2016	A healthy city is a built environment that encourages physical, mental and social wellbeing.	physical space, health promotion

As expected, in addition to the various explanations about the concept of healthy cities noted in Table 4, majority of selected articles identified and discussed the theme of health, which was frequently supported and connected with the topics of food, safety, education, equity, participation and collaboration, governance and improvement of physical space.

3.2.2.3 Health

Content analysis showed that issues related to health were addressed in the majority of selected articles. Patrick, Dooris and Poland (2016) point out that the concept of healthy cities has been addressing health promotion since the late 1980s initiated by the World Health Organization (WHO) and has become a major global movement for public health. As Hu and Kuo (2016, p. 9) point out, "Healthy City projects have six common characteristics: commitment to health, political decision-making, intersectoral action, community participation, innovation and healthy public policy" (as cited in WHO EURO 1997, 2015). However, despite of having an urban focus, the approach has been adopted more generally for promoting health and can be applied to any community or municipality (Patrick et al., 2016). The ultimate goal of

Healthy Cities is to improve health (including addressing chronic conditions) for all people by understanding and prioritizing social determinants of health. In addition, healthy cities are seen as inclusive environments that encourages healthy lifestyles and support physical activities, have accessible built environments and support recreation, safety and mobility (Macfarlane, Wood, & Campbell, 2015; Miller & Tolle, 2016). Furthermore, Miller and Tolle (2016, p. 443) highlight the importance of physical exercise, “The pandemic of physical inactivity has been identified as the fourth leading risk factor for global mortality” (as cited in Kohl et al., 2012) and also imposes “substantial indirect (non-medical) costs on society” (as cited in Trogdon et al., 2008). This clearly demonstrates the importance of health within an urban context.

Importance of public policy that promotes health, commitment of local government, public participation and collaboration were also pointed out as key characteristics of healthy cities (Macfarlane et al., 2015). Furthermore, de Blasio, Girán and Nagy (2012, p. 216) argue that this is a broader issue by stating that “it is not merely the responsibility of the health services but it is a wide multi-sectoral social issue”. Therefore, it is important to strategically consider health and quality of life related issues in planning and decision making, not merely base decision on reaction to daily demands (de Blasio et al., 2012). Also, Hu and Kuo (2016) support that health should be a priority for city government in terms of their social, economic and political agenda. They demonstrate the success and positive impacts of healthy cities on the example of Taiwan, which can be seen as one role model for the initiative of Healthy Cities. Hu and Kuo (2016) point out how prioritizing and promoting health and achieving tangible results can be successful through several awards, for instance “Healthy lifestyle award” that assists citizens to engage in a healthy lifestyle that helps to prevent obesity or hypertension, or addressing issues of healthy aging. Prioritizing health can be seen also through providing plenty of opportunities for physical activities and recreation by opening public spaces. The research by Hu and Kuo (2016) about Taiwan demonstrates that if health is seen as priority,

Healthy City goals can be achieved. Miller and Tolle (2016) discuss the importance of big data and using modern information technology that can support healthy lifestyles and improve healthier built environments. For instance, using mobile apps to track physical activity and compete with friends or coworkers is one of the contemporary health related improvements in people's daily routines.

Additionally, content analysis showed that food access is another topic that emerged from the literature related to concept of healthy cities. Several researchers (Miller & Tolle, 2016; Schwab et al., 2015; Twiss et al., 2003; Westphal & Franceschini, 2016) point out the importance of the access to healthy food in the context of healthy cities. For example, Twiss et al. (2003) discuss the health impacts of community gardens as an example of healthy cities initiative. Community gardens provide access to food (nutrition, produce), physical activity, promote the role of public health and increase social cohesion and sense of belonging and support a commitment to sustainability.

3.2.2.4 Equity, safety and education and awareness

Content analysis showed that social aspects such as equity, safety and education and awareness were also important characteristics for the concept of healthy cities. However, it should be noted that these themes are not exclusive from the theme of health and are often mutually related.

Several scholars (Awofeso, 2003; de Blasio et al., 2012; Macfarlane et al., 2015; Westphal & Franceschini, 2016) pointed out the importance of equity related to the concept of healthy cities. For instance, Awofeso (2003) discusses the notion of equity and points out that low income households are often disadvantaged while living and working in a very bad or even life-threatening conditions. For example, the access to piped water, sewers, rubbish collection, schools and public transportation. Therefore, healthy city goal is to address and reduce unjustified inequalities of social conditions. In addition, Awofeso (2003, p. 222) points

out the paradox, that the “health promotion framework is that it inadvertently aggravates health inequality, because its messages are more likely to be put into practice by affluent communities”. This shows the gap between theory or visions and real life. Also, Hu and Kuo (2016) emphasize the importance of addressing the inequality in health and urban poverty. Their research demonstrates how Taiwanese government have allocated its resources to improve accessibility and equality. Also, they present some tangible achievements in addressing and prioritizing issues of equality (Hu & Kuo, 2016). However, most articles only mentioned the importance of equity, but did not provide a richer discussion on the topic.

Schwab et al. (2015) discussed safety and sense of security as one of the key elements of a healthy city. For instance, low level of violence and traffic accidents as an indicator were pointed out. As their research showed, “in Vancouver, it was observed that people maintain vigilance in the neighborhoods, not just for their own security, but also for their neighbors’ safety, alerting police if a suspicious stranger appears nearby” (Schwab et al., 2015, p. 22). Also, Awofeso (2003) highlighted the importance of safety by pointing out “rising levels of urban violence and terrorism have made many cities unhealthy. Both violence and terrorism promote insecurity, ethnic profiling, loss of community ethos and loss of civil liberties, factors that adversely impact on Healthy Cities activities” (Awofeso, 2003, p. 223). At the same time, the safety of built environment were addressed by Macfarlane, Wood and Campbell (2015), who illustrate the relation between encouraging more people to have healthier lifestyle through increasing the safety of pedestrians in Toronto.

Content analysis showed that increasing knowledge and expertise, raising awareness and providing information to citizens are important characteristics in healthy cities (Kang, 2016). Moreover, Schwab et al. (2015, p. 23) point out that “A “Healthy City” is not a final result, but rather an ongoing process and must be thought of as a construction of urban health through an awareness of social conscience”. Thus,

improving understanding and awareness of the relationship between the built environment and health outcomes plays an important role. As Kang (2016) suggests, providing information on citywide maps about parks, trails, cycling and walking routes and sport facilities, may increase physical activity. The research by Westphal and Franceschini (2016) showed that raising citizen awareness through different mediums, such as theatre, video, literature and music and information technology classes helped to develop a critical awareness of problems in communities. Hu and Kuo (2016) discussed the role of education and awareness on the example of Taiwan. For instance, they explained how Taiwan Alliance for Healthy Cities have formed several commissions whose responsibilities are to collect, monitor and evaluate healthy city indicators and plan for education and training related to Healthy Cities (Hu & Kuo, 2016). Also, continuous development through attending international conferences and exchanging experiences with other Asian cities, inviting famous scholars to conferences or seminars were pointed out demonstrating that the increased knowledge of experts, but “the citizens lacked the concept of Healthy City” (Hu & Kuo, 2016, p. 16). Thus, they also acknowledged the importance of engaging communities actively by showing them successful examples of healthy communities and involving them to improving their environments. Twiss et al. (2003) discussed the impacts of community gardens that include increased public consciousness about public health, various educational and training materials and public awareness of the benefits of community gardens. Their research point out that, for instance, California Healthy Cities with community gardens have experienced a wide variety of results that can be associated with its educational benefits and the research showed how participants increased the number of physical activity sessions and increased consumption of fruits and vegetables (Twiss et al., 2003).

As seen, the role of education, knowledge and awareness can occur in different levels/scales and contexts. Information and knowledge can support the goals of healthy cities. As Hu and Kuo (2016, p. 9) argue, “The

primary goal of a healthy city is to put health high on the social, economic and political agenda of city government”.

3.2.2.5 Governance, collaboration and public participation

The themes of governance, collaboration and public participation occurred in almost all of the analyzed articles. Content analysis demonstrated the importance of public participation and collaboration with other sectors are essential characteristics of healthy cities. Thus, good leadership is also important for the management of collaborative projects and facilitating community engagement (Kang, 2016). As Kang (2016, p. 551) stated, “intersectoral collaboration (ISC) is important in the health field because the complexity of determinants of health makes it difficult for one institution to resolve all health issues” (as cited in Marmot and Wilkinson, 1999). Suggested collaboration with other sectors within and outside governmental organizations may include recreation, planning and transportation (Kang, 2016). The importance of good government is emphasized also by Awofeso (2003, p. 222) who argues that although “the entry point of the Healthy Cities approach is health, its underlying rationale has always been based on a model of good urban governance, which includes broad political commitment, intersectoral planning, citywide partnerships, community participation, and monitoring and evaluation”. Macfarlane, Wood and Campbell (2015) argue that local governments are challenged by embedding health issues in all of their policies, programs and services. Nevertheless, in order to create health-supporting public policy, one of the methods to do this could be the health impact assessment (HIA) as a decision-supporting tool (de Blasio et al., 2012). Also, Kang (2016) point out that health impact assessments on land-use and other planning processes is one action strategies in urban planning. It is argued that HIA is relatively cheap and effective in forming the basis of a health-conscious planning and conceptual work, however, integrating HIA as a decision-supporting tool into the local decision-making system has not been very successful, mostly due to lack of support from political actors (de Blasio et al., 2012).

Hu and Kuo (2016) also emphasized the need for good governance and policy, intersectoral collaboration and public participation. As they discuss, public opinion is essential in order to create healthy environment and community. They stress that only through understanding the citizens' needs and problems it is possible to implement Healthy City goals successfully (Hu & Kuo, 2016). Citizen involvement gives input for analysis and actionable steps. Furthermore, as they point out, "Although the importance of government was undeniable, encouraging participation by citizen groups and private corporations was arguably more important. Through awards and other incentives, this encouragement came naturally" (Hu & Kuo, 2016, p. 15).

Also, citizen engagement can be facilitated by modern technologies such as location-aware technologies, as discussed by Miller and Tolle (2016). This allows the collection of data (big data) and increases the quantity and quality of data collection, but the critical point is the management and application of this data into practice. As Miller and Tolle (2016, p. 451) argue, "what is needed to utilize them fully are better data validation, interoperability, visualization, exploratory and analytical tools which can provide understandable, actionable knowledge to designers, planners and policymakers to aid them in better decision-making".

Emphasizing the importance of the topic of governance and participation in the context of healthy cities, is well summed up by Schwab et al.(2015, p. 23) who state that "Obstacles to target goals are often not technical or even financial, but are more closely related to governance and public participation".

3.2.2.6 Built environment and physical space

Content analyses demonstrated that issues of physical space such as walkability, transportation and urban design are important characteristics of the concept of Healthy Cities as majority of selected articles addressed these issues. It was evident that the quality of built environments have impacts on public health and health risk factors (Macfarlane et al., 2015). Thus, planning, designing and building play an important role for achieving the goals of healthy cities. Most articles addressed the physical activity and mobility issues related to health and built environment – how active transport modes (e.g., walking, biking and public transit) have been replaced by passive modes such as driving. As Miller and Tolle (2016, p. 443) discuss, “A major factor contributing to physical inactivity is changes in built environments and lifestyles that have eliminated physical activity from many routine activities”. Furthermore, as they point out, “Most adults in developed countries spend time sitting in three domains – transport, leisure and work – with much of this time at work” (as cited in Alkhajah et al., 2012; Chau et al., 2010) (Miller & Tolle, 2016, p. 443). Therefore, focusing on built environment and health and how to design communities that support active and healthy lifestyles are key components on Healthy Cities. For instance, opening public spaces and making them available for exercise can be one step towards achieving these goals (Hu & Kuo, 2016). Kang (2016) also points out that amenities such as recreational facilities, outdoor gyms, traffic calming that facilitates social safety and social cohesion can stimulate physical activities. In addition, improving options for active transport by supporting walkable environments, biking networks, or access to public bicycles can facilitate this process (Kang, 2016; Schwab et al., 2015). Also, existence and accessibility to green spaces is important factor in increasing healthy lifestyles (Miller & Tolle, 2016). As Schwab et al. (2015) state that physical activity rates of residents, depend mainly on access to recreational amenities and proximity to public facilities.

However, Miller and Tolle (2016) highlight the different impacts of built environment on different social groups. They argue that “density and accessibility may be more relevant for low-income individuals while urban design features such as neighborhood aesthetics may be more relevant for higher-income individuals” (as cited in Zhu and Chen, 2015; Miller & Tolle, 2016, p. 445). In addition, they stress on the detriments of exposure to noise, for instance high traffic streets, which can have serious health impacts on people (Miller & Tolle, 2016). Thus, the role of urban planning and design play an important role in the context of Healthy Cities. However, built environment can only support the decisions for people and provide options and alternatives for choosing a healthy and active way of life.

3.2.2.7 Summary

As data showed, the concept of healthy cities is focused on improving and promoting public health through good governance and policies, public participation and intersectoral collaboration in order to create safe built environments that support physical activities and active modes of transportation. The importance of equity and equality and education and awareness also emerged as key characteristics. Most themes were mutually connected, which shows the complex nature of the concept.

Based on the analysis, the following principles are embedded in the concept of healthy cities:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
- Planning is well designed both in terms of architecture and urban space.
- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning addresses the need for safe environments.
- Planning promotes healthy lifestyles.
- Planning facilitates public education and awareness.

- Planning values and implements citizen participation through community engagement and collaboration.
- Planning promotes interdisciplinary collaboration and public-private partnerships.
- Planning facilitates better public policy and decision making.
- Planning uses innovative technology to communicate with stakeholders and residents.
- Planning is data driven.

3.2.3 Livable Cities

3.2.3.1 Introduction

For the Concept of “Livable Cities” a search with key terms of “Livable Cities” and “Livability” was conducted. With the concept of “Livable cities” Scopus search returned 57 results overall, which covered the period from 1990-2016. The highest peak time for published articles was 2016 with 8 records, the second highest peak time was 2015 with 6 records and the third peak times were 2012-2014 with 5 records each (Figure 7).



Figure 7. Extraction from Scopus search results for Livable Cities, search was conducted on March 27, 2017

With the concept of “Livability” Scopus search returned 668 results overall, which covered the period from 1990-2017. The highest peak time for published articles was 2014 with 75 records, the second highest peak time was 2016 with 71 records and the third peak time was 2015 with 59 records (Figure 8).

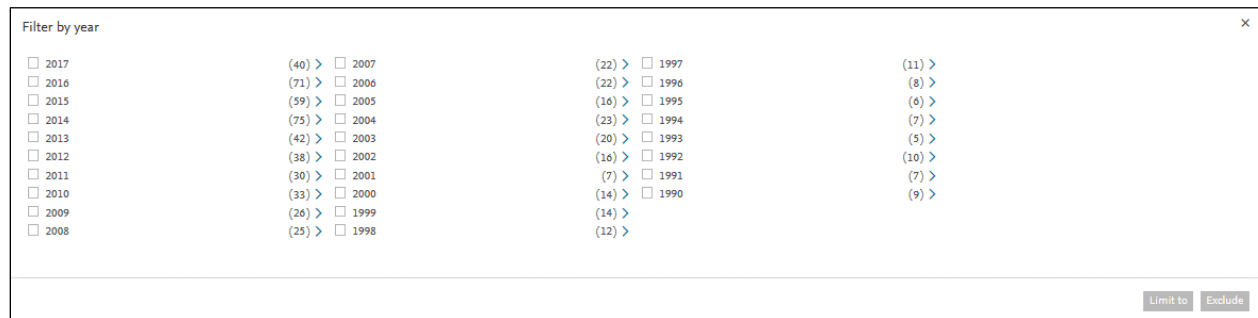


Figure 8. Extraction from Scopus search results for Livability, search was conducted on September 29, 2017

With the concept of “Livable cities” ProQuest search returned 9 results overall, which covered the period from 1992-2016. The highest peak time for published articles was 2015 with 3 records and the second highest peak time was 1992 with 2 records and the third peak times were 2000, 2003, 2011, 2014 and 2016 with 1 record each (Figure 9).

With the concept of “Livability” ProQuest search returned 80 results overall, which covered the period from 1995-2016. The highest peak time for published articles was 2015 with 10 records and the second and third highest peak times were 2007 and 2014 with 8 records each (Figure 9).

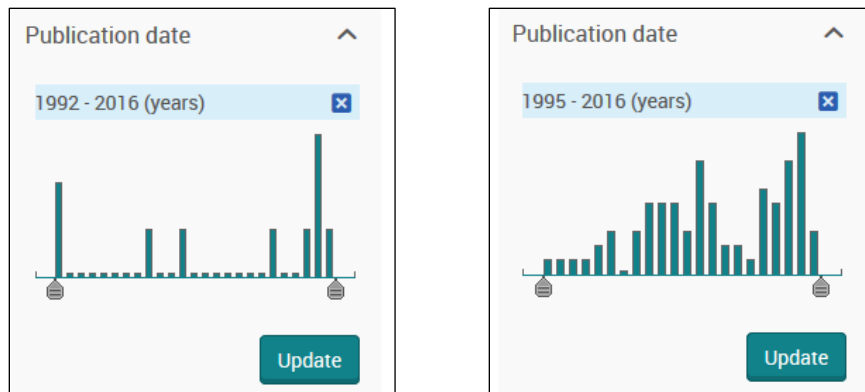


Figure 9. Extraction from ProQuest search results for *Livable cities*, search was conducted on February 05, 2017 (left) and Extraction from ProQuest search results for *Livability*, search was conducted on February 05, 2017 (right)

The articles selected for content analysis were a combination of articles from both databases and with both searched key terms. Thus, with the search term of *livable cities*, years 2015 and 2016 were used and with the search term of *livability*, year 2014 was used for Scopus database. With the search term of *livable cities*, all 9 articles were included to compile the final selection of articles and with the search term of *livability*, years 2015 and 2007 were used for ProQuest database. In total, 116 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of *Livable Cities*: “livable cities”, “livable neighborhoods”, “livable streets”, “livable communities” and “livability”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Zanella, A., Camanho, A. S., & Dias, T. G. (2015). The assessment of cities' livability integrating human wellbeing and environmental impact. *Annals of Operations Research*, 226(1), 695–726. <https://doi.org/10.1007/s10479-014-1666-7>
2. Ruth, M., & Franklin, R. S. (2014). Livability for all? Conceptual limits and practical implications. *Applied Geography*, 49, 18–23. <https://doi.org/10.1016/j.apgeog.2013.09.018>
3. Safavi, S. M., Taghi, R. M., & Kohestani, F. G. (2014). What kinds of cities are “livable?” (Case study: Tehran, Neighborhood Darake). *Advances in Environmental Biology*, 8(11), 572–588.

4. Teo, S. (2014). Political tool or quality experience? Urban livability and the Singaporean state's global city aspirations. *Urban Geography*, 35(6), 916–937.
<https://doi.org/10.1080/02723638.2014.924233>
5. Maghsoodi Tilaki, M. J., Abdullah, A., Bahauddin, A., & Marzbali, M. H. (2014). The Necessity of Increasing Livability for George Town World Heritage Site: An Analytical Review. *Modern Applied Science*, 8(1). <https://doi.org/10.5539/mas.v8n1p123>
6. Saitluanga, B. L. (2014). Spatial Pattern of Urban Livability in Himalayan Region: A Case of Aizawl City, India. *Social Indicators Research*, 117(2), 541–559.
<https://doi.org/10.1007/s11205-013-0362-3>
7. Harris, J. K., Roche, J., Estlund, A. K., Mense, C., & Baker, E. A. (2014). Partnering to Create a More Livable City: The Livable St Louis Network. *Journal of Public Health Management and Practice*, 20(4), 384–391. <https://doi.org/10.1097/PHH.0b013e31829bfc3a>
8. Rosales, J. A. (2007). Past Presidents' Award for Merit in Transportation Engineering: Road Diet Handbook. Institute of Transportation Engineers. *ITE Journal*, 77(11), 26–32, 37–41.
9. Svava, J., Watt, T., & Takai, K. (2015). Advancing Social Equity as an Integral Dimension of Sustainability in Local Communities. *Cityscape*, 17(2), 139–166.
10. Porio, E. (2015). Sustainable development goals and quality of life targets: Insights from Metro Manila. *Current Sociology*, 63(2), 244–260.
<https://doi.org/10.1177/0011392114556586>

Content analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Livable Cities 30 out of 32 codes were identified across the selected articles. Based on the analysis of ten selected articles five major focus areas related to “livable cities” emerged - physical space/built environment, economic aspects, process related issues, social and environmental aspects.

The most prevalent findings are related to eight topics: 1) general aspects of physical space/built environment, 2) walkability and accessibility, 3) transportation and mobility, 4) urban design, 5) economic aspects, 6) collaboration and public participation, 7) social aspects such as safety and health and 8)

environmental aspects, including environmental sustainability. In addition, majority of articles (7/10) provided various explanation of the meaning of the concept. The occurrence of pertinent themes can be seen on Table 5 and the entire Data Accounting Sheet can be found in Appendix D.

Table 5. The occurrence of pertinent themes in data collections for Livable Cities

Tag/Code Data Collection		Built/Physical environment	Walkability and accessibility	Urban design	Transportation and mobility	Social aspects	Security and safety	Health	Education and awareness	Public participation	Environmental aspects	Environmental Sustainability	Economic aspects	Terms and definitions
1	(Zanella, Camanho, & Dias, 2015)	x	x		x		x	x	x		x	x	x	x
2	(Ruth & Franklin, 2014)	x				x				x	x	x		x
3	(Safavi, Taghi, & Kohestani, 2014)	x	x	x	x	x	x	x	x	x	x	x	x	x
4	(Teo, 2014)	x	x	x		x				x-			x	x
5	(Maghsoodi Tilaki, Abdullah, Bahauddin, & Marzbali, 2014)	x	x	x	x	x	x	x		x	x		x	x
6	(Saitluanga, 2014)	x	x			x	x	x	x	x	x	x	x	x
7	(Harris, Roche, Estlund, Mense, & Baker, 2014)	x	x	x	x			x		x				
8	(Rosales, 2007)		x	x	x	x	x		x	x			x	
9*	(Svara, Watt, & Takai, 2015)	x			x		x	x	x	x	x	x	x	x
10*	(Porio, 2015)		x	x			x	x	x		x	x	x	
Total:		8	8	6	6	6	7	7	6	8	7	6	8	7

* Article addresses multiple concepts

- Negative attributes identified

3.2.3.2 Definitions and key terminology/ideas

Majority of articles defined or explained the meaning of livable cities (Table 6). Overall, the concept of livable cities is seen as a broad and ambiguous concept with no universally defined meaning and covers almost all areas of urban planning related to the built, social, economic and natural environments. It is an

umbrella concept to capture all positive aspects associated with urban life. Occasionally it is used interchangeably with the notion of quality of life and well-being. In addition, the concept of livable cities is related to the concept of sustainability, which is another broad and vague concept. Several researchers point out that livability is another buzzword along with sustainability and are used for place marketing purposes or as a political tool. However, it should be noted that one key characteristic of livability or livable cities is the dynamic nature of the term, because the meaning changes through time and space as people's need and aspirations are different across generations, cultures and locations. Consequently, there is no definition of livability for all. There are various efforts to measure livability. Livability involves subjective and objective measures and, as such, depends on individual values and the degree of satisfaction with their current quality of life.

Table 6. Explanations of the concept of livable cities in selected articles

Authors	Key terminology/ideas	Essence
Zanella, Camanho, & Dias, 2015	As pointed out by the report of the English Department for Communities and Local Government (2006), defining livability is a minefield. It is a relatively new policy area and therefore there are competing ideas about what should be covered by this large umbrella. Livability is the human requirement for social amenity, health and wellbeing and it includes both individual and community wellbeing. In addition, livability may be related to how easy a place is to use and how safe it feels (as cited in Newman et al., 1996; Newman, 1999). Livability describes the degree to which a place supports quality of life, health and wellbeing. A livable city should be healthy, safe, harmonious, attractive and affordable. It should also have high amenity, provide good accessibility and be environmentally sustainable (as cited in Australian Department of Infrastructure and Transport 2012). Although we can find in the literature some attempts to explain the differences between livability and quality of life, in some studies the livability concept is used interchangeably with the concept of quality of life, as some indicators are considered both in livability and quality of life assessments. While the terms embody similar concepts, the distinction lies in the difference between the presence and quality of the amenities (livability) and the user experience of those amenities (quality of life).	ambiguous; social, health, safe, usability of place; quality of life and well-being; harmonious, attractive and affordable; accessible, environmentally sustainable

Table 6 (cont'd)

Ruth & Franklin, 2014	The concept of “livability” has emerged alongside “sustainability” as a buzzword in public discourse and planning. City competitions and awards for both livability and sustainability abound. Livability is judged through the lens of the needs and wants of those who do or may live in cities. Since both the social and environmental elements that define livability vary across space and through time, any effort to promote livability must be based on an understanding of underlying geographic and dynamic behaviors of society and its biophysical environment, as well as their interactions. Life course as a typical example of how definitions of livability may vary not only across space but also across population groups. Definitions of livability therefore change not only across the life course but across generations. Recent discussions, particularly in the context of developed countries, have framed the notion of a “livable city” akin to a “desirable city.” This shift in emphasis from minimum requirements for livability to lifestyle choices has brought with it a cottage industry of national and international rankings that compare cities on the basis of material wellbeing, as well as social and environmental performance indicators. Diversity is both the scourge and banner of livability. It is the banner or hallmark of livability in the sense that diverse economies, populations and responses to social and environmental challenges strengthen cities and make them more resilient and, arguably, more livable. Diversity is the scourge of livability because it is precisely this diversity - whether in terms of age structure, class, race, or some other aspect of the population – that undermines the premise of a uniform definition of livability for all. Moreover, by allowing for the possibility that what is considered “livable” and desirable will vary over space, we allow for the likelihood that individuals and households will migrate to the cities that offer the range of amenities, goods and services they prefer.	ambiguous; changing through time and space; desirable city vs livable city; diversity
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Table 6 (cont'd)

Safavi, Taghi, & Kohestani, 2014	One of the most recent topics in the theory of urbanism in response to the decline of urban life has been addressing the concept of “livable city” that includes all aspects of environmental, social, cultural, historical infrastructure, governance and participation and applies the strategies such as new urbanization, urban smart growth and increasing development by pressing and human scale of city construction and user intermixture to create diverse options of transportation habitat, attractive and walkable neighborhood which improve the life quality and lead us to have a better environment and more sustainable urban development. The basics of livable neighborhood is introduced in Centre for Livable Cities as compactness, mixed- use, diversity, being healthy, being green, sustainability and accessibility. Elements of livability: authenticity (Cultural heritage, Sense of place, Vision and urban landscape, Technology, innovation and linkages), inclusiveness (Poverty, Security and safety, Health, Public spaces), resilience (Transportation, Natural hazards (flood and earthquake), Land use and urban services, Economy, Substructures, Pollutions and clean energy, Governance, Housing).	diversity; compact, mixed-use, health, green, sustainability, accessibility, all-encompassing
Teo, 2014	More recent approaches posit livability as a relative concept whose precise meaning depends on the place, time and purpose of the assessment and on the value system of the assessor (as cited in Pacione, 1990). Livability as a political tool by the Singaporean state through attempts to inscribe notions of livability, characterized by material consumption, modernity, prestige and conviviality, onto residential landscapes in Singapore. Pacione’s (1990) review of the urban livability literature highlights the subjective nature of the concept, urging planners to consider the city not only in its form and function, but in the mind. Cognitive mapping	ambiguous, relative; political tool for marketing; subjective nature

Table 6 (cont'd)

Maghsoodi Tilaki, Abdullah, Bahauddin, & Marzbali, 2014	Livability principles have been concluded and summated into six major domains: (1) Provide more transportation choices to decrease household transportation costs, reduce dependence on oil, improve air quality and promote public health. (2) Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation. (3) Improve the economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs. (4) Target federal funding for existing communities – through transit-oriented and land recycling – to revitalize communities, reduce public work costs and safeguard rural landscapes. (5) Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth. (6) Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban (as cited in Partnership for Sustainable Communities, 2011).	diverse; transportation; environmental sustainability; economic competitiveness; infill development; sense of place
Saitluanga, 2014	Livability is an “ensemble concept” (as cited in Myers 1988; Andrews 2001) with no precise or universally agreed-upon definition (as cited NRC 2002). It has been used synonymously with quality of life (as cited in McCann 2007; Van Kamp et al. 2003; NRC 2002) and is also related to concerns for social well-being (as cited in Smith, 1973). Definition of livability may differ from one culture to another and from time to time as the concept is relative “whose precise meaning depends on the place, time and purpose of the assessment and on the value system of the assessor” (as cited in Pacione, 2003) Both, subjective and objective measures are suggested to find out pattern of urban livability or quality of urban life (as cited on Milbrath, 1979; Andelman et al., 1998).	ambiguous; quality of life and well-being; changing in place and time; subjective and objective
Svara, Watt, & Takai, 2015	Equity is part of sustainability and sustainability creates livability. By providing services focused on equity (i.e., actions targeted to low income populations), more livable places will be created. Livability is central to the definition of sustainability developed by HUD, DOT and EPA working together under the Partnership for Sustainable Communities. It should be available for everyone in a locality. Thus livability presumes equity as well as economic opportunity and a supportive environment.	equity, sustainability; economic opportunities
Porio, 2015	Another initiative to contextualize QOL [quality of life] is the Livable Cities in Asia Indicators. This QOL framework puts a premium on health, education, environmental quality (e.g., indicators of carbon footprints, parks), housing, social services, economic capacities, safety and access to communications technology. This set of indicators can also be compared to other ‘livable cities’ frameworks that put a high premium on parks, walkability and accessibility of cities such as Dom’s ranking of New York, other American and European cities.	health, education, environment, housing, social services, economic, safety, green infrastructure, walkability, accessibility

In addition to the various explanations about the concept of livable cities and livability noted in Table 6, majority of selected articles identified and/or discussed the theme of physical space, walkability and accessibility, transportation, urban design, economic aspects, collaboration and participation, safety, health and environmental issues. In many cases the themes were mutually interwoven and embedded. As noted, the concept of livable cities is rather all-encompassing and thereby its genuine meaning remains obscure.

3.2.3.3 Built environment and physical space

Content analyses demonstrated that issues of physical space and built environment are important components of the concept of livable cities as this theme occurred in the majority of selected articles. Several elements of built environment are included in the list of principles of livability by the partnership between the Department of Transportation, the Environmental Protection Agency and United States Department of Housing: “Provide more transportation choices, promote equitable, affordable housing and increase economic competitiveness, support communities, coordination of investment policies and value of pyramids to communities and districts” (as cited in Sanford, 2013) (Safavi, Taghi, & Kohestani, 2014, p. 574). However, all these six principles are too broad and provide variety of interpretations. Similarly, the components of physical space appear/occur in the model of assessing livability in European cities, developed by Zanella et al. (2015). They propose 24 livability indicators that fall under eight dimensions: housing quality; accessibility and transportation; human health; economic development; education, culture and leisure; and solid waste and air pollutants. As Zanella et al. (2015) argue, these dimensions represent the main aspects of livability. Ruth and Franklin (2014) state “Changes along the life course of people and their communities, as well as changes in the physical and biological environment within which they live, are therefore fundamental aspects of any principles of livability” (Ruth & Franklin, 2014, p. 22).

Additionally, Safavi et al. (2014) discuss components of built environment as they relate to livability such as physical forms of cities that enhance local identity, variety of housing, efficient land use, multimodal transport, good architecture and public spaces and attractiveness. Well-designed physical space supports people's interaction in urban space and social life is also an important characteristic of livable city. According to Safavi et al. (2014) livability has tight connections to various land use management strategies such as smart growth or new urbanization, which are the basis for creating more livable communities. Mostly, they refer to walkability and multimodal transportation options.

Saitluanga (2014, p. 550) highlights that "Accessibility factors are important components of urban livability. In fact, they determine the level of infrastructural development and flow of movement". Rosales (2007) addressed the topic of road diets and importance of transport related issues to livability. As she states, "In cities throughout the world, the livability of neighborhoods is improved by putting roadways on road diets. A road diet entails removing travel lanes from the roadway and utilizing the space for other uses and travel modes. Improvements have generated benefits to users of all modes of transportation, including transit riders, bicyclists, pedestrians and motorists" (Rosales, 2007, p. 26). Rosales (2007) discusses livability impacts on road diet projects and points out that comfort and safety for pedestrians, bicycles and transit users, increased landscaping and beautification opportunities, improved quality of life and street character are issues that influence the degree of livability in the communities. Case studies showed that as a result of road diet projects, bicyclists and pedestrian activity increased and the safety of the streets improved (Rosales, 2007).

In addition, Teo (2014) discusses how manipulating and improving physical environment aims to enhance the livability of neighborhoods by balancing people's individual residences with the state (government) defined notion of livability. He points out that "housing has consistently been one of the main foci of the

state's livability project" in Singapore and housing improvements aims to increase global competitiveness of Singapore (Teo, 2014, p. 919). Thus, building and providing high quality private condominiums can be seen as an outcome of the livability efforts. In addition, various amenities such as lifts, sheltered walkways, playgrounds and parks add value to these developments (as cited in Yuen, 2004) (Teo, 2014). Also, manicured greenery, poolside fountains, sinuous walking paths, swimming pools, the gym and the football court are urban design elements that influence people's perception of livability and the sense of place as illustrated by Teo (2014). Furthermore, Teo (2014, p. 925) argues that monetary values, consumption driven lifestyle is the expression of success and "the embodied experience of local condominium residents aligns with the state-inscribed sense of place— a brand of livability characterized by a modern, prestigious, and exclusive lifestyle, which is due in part to the agglomeration of amenities and the symbolic capital that a condominium accords its residents". However, people who did not live in these high-end condominiums valued different qualities such as shared memories or coziness of their meeting places that forms their perception of livability. This demonstrates the dynamics of the concept of livability, which depend on time and space. Maghsoodi Tilaki et al. (2014) also discuss the importance of urban design and public space usage. Their research explored the connections between livability, cultural heritage site and tourism. Maghsoodi Tilaki et al. (2014) argued that improvements in safety, compatible land use, friendly environmental design and boosting public participation can increase the livability in the George Town heritage area, which eventually is part of the place marketing agenda for tourism. Thus, by enhancing places for tourism purposes, the quality of livability for local residents may increase as well.

Similarly, Svava et al. (2015) point out some key observations from the case studies of their research and state that the importance of cultural heritage, historic preservation and cultural traditions are important component as the foundation for revitalization and new development. Thus, restoring, protecting and

preserving historic built heritage contribute to the livability framework along with the aim to achieve sustainable and equitable communities.

3.2.3.4 Socio-economic values

Content analyses demonstrated that economic aspects are important to the concept of livable cities. Zanella et al. (2015), Safavi et al. (2014), Maghsoodi Tilaki et al. (2014), Saitluanga (2014) denote the importance of economic aspects, mostly along with social and environmental aspects. For example, Zanella et al. (2015, p. 699) argue that “Indicators to assess livability include Economic Development, Housing, Environmental Quality, Community Development and Equity as suggested by the Oregon Department of Transportation”. Teo (2014) demonstrates how modern, prestigious lifestyle in condominiums and economic wealth is translated to success and degree of livability. As Teo (2014, p. 925) states, “[L]ocal cosmopolitans identify their condominiums as emblems of their (and the state’s) success. To them, to own a condominium is to achieve a certain measure of livability in the objective and symbolic sense. That the state is able to live up to their demands and expectations elicits a significant acceptance of the state by this particular group of residents” (as cited in Wong & Yap, 2003). He continues by pointing out that “The hallmark of livability in global cities is viability and vitality” (as cited in Balsas, 2004) (2014, p. 933). Viability means attracting investments and creating value in the global economy and vitally means being socially active and pleasant to people who live there. Nevertheless, monetary success and prosperity is not the major goal for all urban residents, but many people value social interactions, relations, memories and enjoyment over material values (Teo, 2014). Maghsoodi Tilaki et al. (2014) discuss the importance of tourism industry as part of economic development. They argue that tourist satisfaction is influenced by improvement of livability (as cited in Muller, 1996) and livability can have an impact to tourist satisfaction based on travel services, experiences and leisure life (as cited in Kruger and Petzer, 2008). This means that if to improve livability of the city, it may affect tourism industry and

eventually the local economy. Also, Saitluanga (2014) point out that economic status is a criteria to assess social well-being or livability. He explored different scholars who have identified several domains related to quality of life, social wellbeing and inequality and demonstrated that economic indicators were identified by all scholars. Furthermore, based on previous research, Saitluanga (2014) identified six broad dimensions to measure urban livability: economic, social, household and accessibility, satisfaction from socio-economic environment and satisfaction from physical to infrastructural environment dimensions. Sets of indicators were developed that correspond to each dimension.

Zanella et al. (2015, p. 698) argue that livability depends on the degree to which a place supports quality of life, health and wellbeing and a “liveable city should be healthy, safe, harmonious, attractive and affordable”. While assessing livability of 120 European cities, a conceptual model with the dimensions and indicators developed by Zanella et al. (2015) include human health dimension with indicators such as life expectance, infant survival rate and available hospital beds in cities. Importance and promotion of safety is also highlighted as one of the cornerstones for the concept of livability by Maghsoodi Tilaki et al. (2014). As Maghsoodi Tilaki et al. (2014, p. 123) discuss, “Although new urbanists have made the concept of a safe city, livability has also the ability to reduce crime by enhancing opportunities for interaction among people, increasing the sense of community, and neighborhood watch in cities” (as cited in Hedayati et al., 2012). Furthermore, safety can be addressed by environmental design and implementing crime prevention principles. Promoting social interaction and activities in public spaces can improve neighborhood safety (as cited in Abdullah et al., 2013; Joh et al., 2012) (Maghsoodi Tilaki et al., 2014).

3.2.3.5 Collaboration and public participation

Collaboration and public participation are key characteristic of the concept of livable cities. Majority of articles addressed the importance of engagement of local communities and benefits of collaboration

(Harris, Roche, Estlund, Mense, & Baker, 2014; Maghsoodi Tilaki et al., 2014; Rosales, 2007; Ruth & Franklin, 2014; Saitluanga, 2014). According to Safavi et al. (2014), three main elements of livability elements include resilience, authenticity and inclusiveness. Inclusiveness should be part of every development initiative from the start. Furthermore, as Safavi et al. (2014) speak to the importance of enhanced social interaction and the creation of community bonds leading to a sense of belonging thereby creating livable places. Teo (2014) illustrated how residents' interaction and the use of outdoor spaces are encouraged in order to enhance the livability of the neighborhoods. Mostly, this is achieved by providing additional amenities and places for social activities that eventually should increase the sense of place and sense of belonging. Maghsoodi Tilaki et al. (2014, p. 128) state that "public participation has been accepted as one of the instruments and strategies to increase livability in the communities. Furthermore, improvement of public participation can increase livability through reducing crime in the communities as it creates public surveillance and neighborhood watch".

Thus, as the evidence shows, public participation and collaboration have an important role in the concept of livable cities. "Inclusive citizen engagement has played a critical role in improving the quality of public projects, improving relationships between the public and city government and increasing the overall quality of life for community residents" as findings from the case studies demonstrate in the research of Svava et al. (2015, p. 154).

3.2.3.6 Environmental aspects

Content analysis showed that importance of environmental sustainability and environmental quality are fundamental characteristics of the concept of livable cities (Maghsoodi Tilaki et al., 2014; Ruth & Franklin, 2014; Safavi et al., 2014; Saitluanga, 2014; Svava et al., 2015; Zanella et al., 2015). For instance, Saitluanga (2014, p. 547) points out that "most geographical inquiries on livability have been based on objective

measures of environmental quality” (as cited in Pacione, 1990). Reducing “ecological footprint”, preventing pollution and conserving natural resources within urban regions can be achieved by increasing livability in urban areas (Saitluanga, 2014). Also, Zanella et al. (2015) highlight that in addition to being economically and socially successful, livable places need to have low environmental impacts. Ruth and Franklin (2014) and Svava et al. (2015) highlight environmental sustainability and viability as the fundamental aspect of livability in the long term. Protecting natural habitats, increasing green spaces and reducing environmental pollutants are efforts to achieve clean and sustainable environment.

3.2.3.7 Summary

As content analysis demonstrated, the concept of livable cities focused on multiple themes simultaneously. The most relevant themes are physical space/built environment issues such as walkability, transportation and urban design; economic aspects as well as public participation and collaboration. The concept of livable cities and livability is a broad umbrella concept that does not have a single established definition.

Based on the analyses, the following principles are embedded in the concept of livable cities:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
- Planning is well designed both in terms of architecture and urban space.
- Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.
- Planning incorporates arts, culture and heritage.
- Planning facilitates a sense of community cohesion and place attachment.
- Planning addresses the need for safe environments.

- Planning promotes healthy lifestyles.
- Planning values and implements citizen participation through community engagement and collaboration.
- Planning promotes economic growth and competitiveness.

3.2.4 New Urbanism

3.2.4.1 Introduction

With the concept of “New Urbanism” Scopus search returned 331 results overall, which covered the period from 1995-2017. The highest peak time for published articles was 2003 with 25 records, the second highest peak time was 2013 with 23 records and the third peak times were 2010 and 2014 with 21 records each (Figure 10).

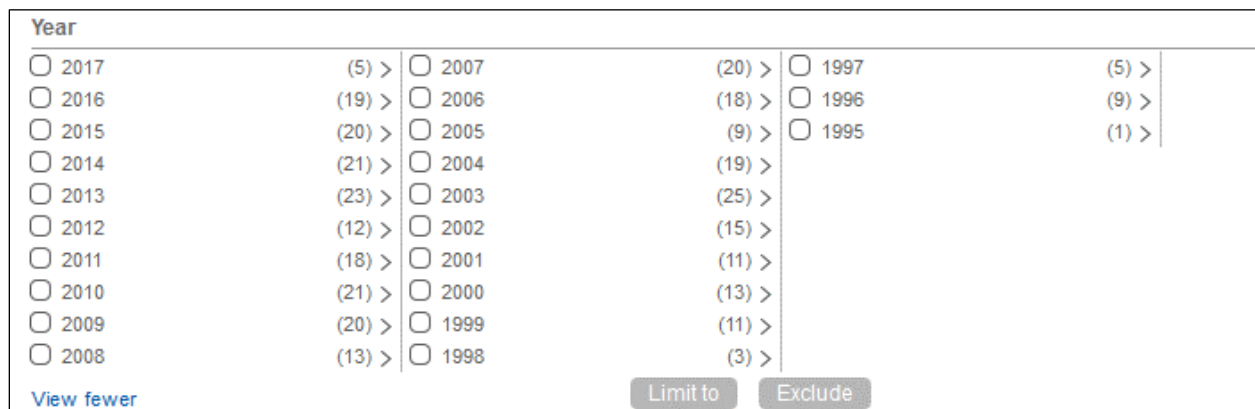


Figure 10. Extraction from Scopus search results for New Urbanism, search was conducted on February 27, 2017

ProQuest returned 56 results overall, which covered the period from 1996-2017. The highest peak times for published articles were 2003 and 2009 with 9 records each and the second highest peak times were 2004, 2006 and 2014 with 4 records each (Figure 11).



Figure 11. Extraction from ProQuest search results for New Urbanism, search was conducted on February 3, 2017

The articles selected for content analysis were a combination of articles from both databases - year 2003 as the first peak period was used for Scopus and 2003 and 2009 as highest peak times were used for ProQuest. In total, 42 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of New Urbanism: “new urbanism”, “new urban” and “new urbanist”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Berke, P. R., MacDonald, J., White, N., Holmes, M., Line, D., Oury, K., & Ryznar, R. (2003). Greening development to protect watersheds: Does new urbanism make a difference? *Journal of the American Planning Association*, 69(4), 397–413.
2. Southworth, M. (2003). New Urbanism and the American Metropolis. *Built Environment*, 29(3), 210–226. <https://doi.org/10.2148/benv.29.3.210.54281>
3. Day, K. (2003). New Urbanism and the Challenges of Designing for Diversity. *Journal of Planning Education and Research*, 23(1), 83–95. <https://doi.org/10.1177/0739456X03255424>

4. Thompson-Fawcett, M. (2003). A New Urbanist Diffusion Network: The Americo-European Connection. *Built Environment*, 29(3), 253–270.
<https://doi.org/10.2148/benv.29.3.253.54283>
5. Grant, J. (2003). Exploring the influence of new urbanism in community planning practice. *Journal of Architectural and Planning Research*, 20(3), 234–253.
6. Greenwald, M. J. (2003). The Road Less Traveled: New Urbanist Inducements to Travel Mode Substitution for Nonwork Trips. *Journal of Planning Education and Research*, 23(1), 39–57. <https://doi.org/10.1177/0739456X03256248>
7. Lee, C.-M., & Ahn, K.-H. (2003). Is Kentlands Better than Radburn?: The American Garden City and New Urbanist Paradigms. *Journal of the American Planning Association*, 69(1), 50–71. <https://doi.org/10.1080/01944360308976293>
8. Song, Y., & Knaap, G.-J. (2003). New urbanism and housing values: a disaggregate assessment. *Journal of Urban Economics*, 54(2), 218–238. [https://doi.org/10.1016/S0094-1190\(03\)00059-7](https://doi.org/10.1016/S0094-1190(03)00059-7)
9. Wang, D. (2009). Ellul on New Urbanism. *Christian Scholar's Review*, (4), 457–470.
10. Sands, G. (2009). Half A Loaf. Are New Urban “Hybrids” A Marketable Option? *Theoretical and Empirical Researches in Urban Management*, (10), 30–45.

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of New Urbanism 25 out of 32 codes were identified across the selected articles. Based on the analysis of selected ten articles three major focus areas related to “new urbanism” emerged – physical space/built environment issues, social aspects and natural environment related issues.

The most prevalent findings are related to physical space: 1) walkability and accessibility, 2) mixed use, 3) urban design, 4) density, 5) open space and 6) transportation. Secondly, human scale and sense of community and thirdly, environmental sustainability issues emerged. The occurrence of pertinent themes can be seen in Table 7 and the entire Data Accounting Sheet can be found in Appendix E.

Table 7. The occurrence of pertinent themes in data collections for New Urbanism

Tag/Code Data Collection		Built/Physical environment	Walkability and accessibility	Mixed use	Density	Open space	Urban design	Transportation and mobility	Human scale	Environmental sustainability
1	(Berke et al., 2003)	x	x	x	x	x	x		x	x
2	(Southworth, 2003)	x	x	x	x	x	x	x	x	x
3	(Day, 2003)	x	x	x	x	x	x	x	x	x
4	(Thompson-Fawcett, 2003)	x					x			
5	(Grant, 2003)	x	x	x	x	x	x	x	x	x
6	(Greenwald, 2003)	x	x	x	x	x	x	x	x	x
7	(Lee & Ahn, 2003)	x	x	x	x	x	x	x	x	
8	(Song & Knaap, 2003)	x	x	x	x	x	x	x	x	x
9	(Wang, 2009)		x	x					x	
10	(Sands, 2009)	x	x	x	x	x	x	x	x	
Total:		9	9	9	8	8	9	7	9	6

3.2.4.2 Definitions and key terminology/ideas

Several articles defined or explained the meaning of new urbanism (Table 8). Most of all, the concept of new urbanism is related to high density, mixed use, pedestrian friendly and transit-oriented developments, which are inspired by historic New England communities. Despite claiming to be urban and innovative, data showed that there is not much new in the concept as several principles have been advocated by planners and designers prior the concept being officially launched (Southworth, 2003). The concept of new urbanism has a focus on architectural forms and on the quality of urban design. Also, it was pointed out that new urbanism is the most significant movement in urban planning and architecture in 20th century. Some of the selected articles addressed the ambiguity or fuzziness of the concept as it

has a variety of sub-movements or branches and because it has been adopted and modified locally (i.e., in US) as well as internationally. Also, it is difficult to distinguish between what is new urbanist and what is not, as many new urbanist principles are not new.

Table 8. Explanations of the concept of new urbanism in selected articles

Authors	Key terminology/ideas	Essence
Berke et al., 2003	New urbanism (or neo-traditional development) has its roots in the dense, pedestrian-scale towns of the 19th century. This high-density development pattern mixes different land uses, including homes, shops, schools, offices and public open spaces (as cited in Calthorpe, 1993; Duany & Plater-Zyberk, 1991).	not new; dense, mixed use, pedestrian oriented
Southworth, 2003	Some have remarked that the New Urbanism should more correctly be called the New Suburbanism. New Urbanism has taken many of the concepts of such critics of Modernism and packaged them in a compelling way that has now reached the public: builders, home buyers, policy makers and even the Federal government. Sorting out the many variants, aliases and sub-movements of New Urbanism can be confusing, for instance neotraditional design (NTD) or traditional neighbourhood design (TND), or transit-oriented development (TOD). With its origins in architecture, New Urbanism frames and analyses problems from another perspective and envisions different kinds of solutions. [...] Rather than innovating by seeking fresh solutions it has often seemed to retreat into the history books.	ambiguity; branding; design and form based, not new
Thompson-Fawcett, 2003	While many of the principles of New Urbanism are not new, the way in which they have been packaged, evangelized and implemented is.	branding; not new
Grant, 2003	"There is nothing new in new urbanism. People promoting new urbanism have sold a lot of books, but people are moving to the suburbs for a suburban lifestyle - they don't want urbanism."	branding; not new
Greenwald, 2003	According to Kelbaugh, New Urbanist strategies fall into one of three general categories: a pedestrian pocket, a transit-oriented development (TOD), or a traditional neighborhood design (TND).	not new, transit and pedestrian oriented
Song and Knaap, 2003	New urbanism, a movement hailed as the most significant movement in urban planning and architecture in this century.	significant movement
Wang, 2009	New Urbanism is by far the most significant theory of town planning since Modernist visions of urban form in the early 20th century. New Urbanism is a pendulum swing the other way. Rather than the machine aesthetic, New Urbanists hark back to the human scale of small towns – preferably of the New England variety of yesteryear, with its Main Streets, front porches and community greens. Rather than zoning, which segregated business districts from residential ones, New Urbanists emphasize mixed-use, so that barbershop, bakery, school and theater are all within walking distance of one's home. Thus, rather than the automobile, New Urbanists promote sidewalks and bicycle trails enthusiastically.	significant movement; human scale; not new; mixed use, walkability

In addition, several articles pointed out that the concept is well promoted and has a strong branding component. As Southworth (2003, p. 216) discusses, “New Urbanism is seen as a selling point by some developers, but their claims often do not fit their projects” and eventually they appear to be suburban cul-de-sac developments instead, or differ significantly from the principles of new urbanism. Also Thompson-Fawcett (2003, p. 266) point out that “the creation of the New Urban 'brand' and its nomenclature has been a useful unifying and marketing device, making the urbanist endeavour more recognizable and acceptable to consumers, policy makers and those involved in the construction of the built environment”.

In addition to various explanations about the concept of new urbanism noted in Table 8, majority of selected articles identified and discussed the theme of physical space, urban design, walkability and accessibility, mixed use, density, open space, transportation, human scale and environmental sustainability. In many cases the themes were mutually interwoven and embedded. Hence, it can be said that the main focus area of the concept of new urbanism is related to urban design and social connectivity.

3.2.4.3 Urban design and social connectivity

Content analyses demonstrated that issues of physical space and built environment occurred in the majority of selected articles. “The principles of new urbanism include high density, mixed use neighborhoods; convenient public transit, bicycles paths and pedestrian-friendly street networks; strategically placed open spaces; and architecture designed to foster social interaction” (as cited in New Urbanism (NU), 2002; Song & Knaap, 2003, p. 219). However, as most articles demonstrated, new urbanism is primarily about urban design and architecture. For instance, Berke et al. (2003) and Lee and Ahn (2003) point out that new urban developments have highly detailed codes to regulate architectural characteristics, function, parking and elements of urban design. Moreover, as Berke et al. (2003, p. 410)

highlight, “Most of the literature on new urbanism deals with physical design, which strongly relies on persuasive graphic renderings of new urbanism and the force of normative reasoning, but gives little attention to the process of political change”. Also, Southworth (2003) discusses that new urbanism has an architectonic and formalist approach that focuses on aesthetics rather than social, political, or ecological factors. Thus, new urbanism is too technical and inflexible and don’t consider different landscapes, climate or culture with its “one size fits all” approach. Although Day (2003) points out that New Urbanism promotes ideas of locally relevant architecture, it is difficult to achieve in neighborhoods with diverse populations because there is no common shared understanding of this idea. However, the design-oriented or architectonic approach of the concept can be explained as most of the contributors have a background in architecture when looking at the current new urbanist projects in Europe (Thompson-Fawcett, 2003). Furthermore, as discussed by Grant (2003, p. 242), new urbanist “plans generally call for the city to develop urban design guidelines” and therefore many of the municipalities have hired urban designers on staff.

As discussed by Southworth (2003, p. 219), “streets and public open spaces are a major feature in most New Urbanist developments and help to structure the community and give it character”. Social life of the communities take place in these public places and therefore safety and pedestrian comfort play an important role. Consequently, urban design plays a role in creating appropriate and convenient streetscapes and public open spaces.

Content analysis showed that human scale and sense of place are important components of the concept of new urbanism. As pointed out by Berke et al., “New urbanists are typically more concerned with community architectural character, sense of place and pedestrian-oriented design” (2003, p. 399). Also, it was pointed out that the shallow front yard setbacks should encourage social interactions between

residents and people on the sidewalks. Thus, carefully designed sidewalks and public places are also emphasized as important factors in promoting social interaction, neighborliness and sense of community (Lee & Ahn, 2003; Sands, 2009).

However, there was plenty of criticism regarding the sense of place and unique character that new urbanism aims to generate. For instance, Southworth (2003) points out the skepticism of critics regarding overly charming facades as it creates resemblance to theme or amusement parks. As he stresses, “The search for identity in urban design must go much deeper than creating memorable facades” (as cited in Banai, 1996) (Southworth, 2003, p. 214). Charter recommends that neighborhood design should “reinforce the unique identity of each place by adopting a consistent and distinctive architectural style that draws on local history, culture, geography, and climate” (as cited in Congress for the New Urbanism 2000) (Day, 2003, p. 84). Also, Wang (2009) is very critical in terms of the new urbanist goal for creating sense of community. He argues that it is impossible to achieve this goal with building instant towns with rationally arranged buildings and sidewalks and physical form. He claims that mechanically fabricated sense of community erases individual identity (Wang, 2009). Wang concludes that “the biggest irony of the New Urbanist enterprise is that it submits to the same spirit of mechanization as Le Corbusier’s vision of the city-as-machine. New Urbanist townscapes are just city-machines with quainter looks” (2009, p. 463).

At the same time, as Song and Knaap (2003) demonstrate, design actually matters. Their research show that a house in a new urbanist neighborhood with smaller lots than in conventional neighborhood sell at higher prices. They state, “much of the premium comes from new urbanist features such as more internally connective street networks, more blocks, more street miles, better pedestrian access to commercial uses, and proximity to operating light rail stations” (Song & Knaap, 2003, p. 235). Thus, as

they conclude, “the price premium, or discount, of any particular neighborhood depends on the particular design characteristics it has to offer” (Song & Knaap, 2003, p. 236). Research by Sands (2009), who explored two “hybrid” new urbanist communities in Canada and the housing preferences for selecting a new home and the satisfaction of residents, revealed that the residents preferred neighborhoods with particular characteristics common to New Urbanism, for instance variety in housing types, a pedestrian friendly environment and accessibility to commercial facilities. However, the research pointed out that principles of New Urbanism are not the only way to provide a good place to live and not an only alternative to the typical suburban development (Sands, 2009). “Models that depart from the strict canons of New Urbanism may be successful, so long as they provide high quality urban design, an attractive public realm and walkable neighborhoods”, stated by Sands (2009, p. 44). This argument is supported by Lee and Ahn (2003, p. 69), who compared Radburn (i.e., Garden City example) and Kentlands (i.e., New Urbanist example) and state that “the empirical evidence for Radburn is quite persuasive: A New Urbanist plan is not necessary for promoting sociability, increasing transit use and reducing auto use, or creating a dense, mixed-use neighborhood”.

3.2.4.4 *Mixed use and density*

Content analysis showed that mixed use and density were also key characteristics within the concept of new urbanism. For instance, as Berke et al. (2003) discuss, a variety of housing types (e.g., townhouses, apartments, semis and singles) and functions (e.g., commercial, civic, residential, public spaces) is encouraged and should thereby increase the social diversity in the community. In addition, as pointed out by Day (2003), the goals of new urbanism are to provide jobs near where people live and to allow residents to walk or bicycle to their destinations. Thus, mixing uses is also a way to reduce car use. Additionally, housing for various income levels should be encouraged (Day, 2003). Attracting businesses to new urbanist communities may also prove to be a challenge in New Urbanist design, especially for large

shopping malls and car-oriented retail as it is hard to attract retailers and developers to a small scale and walkable urban space. However, Southworth (2003, p. 219) does state that “Ironically, one of the most visible impacts of New Urbanism across the United States has been the 'townscaping' of big box malls, a travesty of the concept”. This means making big boxes artificially look like a combination of multiple buildings with various decorations and styles in order to adapt them to the human scale environment.

The importance of open space occurred also from the literature. Berke et al. (2003) discussed that New urban developments also aim to increase the quantity of open space without reducing the number of dwelling units, which can be achieved by permitting high density and mixed used (including reduced parking needs). In addition, new urbanism aims to protect functional open spaces. This means that instead of creating fragmented spaces on individual lots, it promotes larger and connected green areas. For instance, as pointed out by Southworth (2003), in Kentlands (as a new urbanist example), 28 per cent of the site is public open spaces such as recreational park and neighborhood greens. Or even about half of the site can be reserved for open space as demonstrated in the research about “hybrid” new urban communities in Canada (Sands, 2009). New urbanist principles also promote creating a central public space to each community that serves as the main meeting place for people (Day, 2003). Consequently, open space has a key role in the concept of new urbanism.

3.2.4.5 Walkability and transit

One fundamental characteristic for new urbanism is walkability and non-motorized transportation. A major goal of new urbanism is to reduce driving distances (and street lengths) between locations and eventually the reliance on the automobile (Berke et al., 2003; Lee & Ahn, 2003). “Homes, shops, schools, offices, and civic buildings should all be within a short walk, preferably within a quarter of a mile”, as stated by Lee and Ahn (2003, p. 53). Consequently, this should also increase other transit modes and

reduce the need for parking spaces. Walking and biking is also encouraged by designing pedestrian friendly environments, such as having sidewalks on both sides of the street that support high density and mixed use. Lee and Ahn (2003, p. 64) point out that “Compared with the conventional suburban street pattern, New Urbanist developments generally have longer streets and more intersections (which make New Urbanist developments more costly to build and maintain)”. Also, the pedestrian and cyclist user-friendliness and safety are questionable with a greater number of crosswalks in these communities. Lee and Ahn highlight the advantages of Radburn (as an example of a Garden City) over Kentlands (as an example of New Urbanism) when comparing their walkability rate “Radburn residents walk because of the town’s functional arrangement; the plan encourages them to walk, with its pedestrian ways cutting through the mid-block parks, its small number of crosswalks, and its close connections to frequent destinations”, whereas Kentland lacks of this pedestrian separation from traffic (2003, p. 69).

Song and Knaap (2003, p. 223) discuss how higher density and better connectivity “leads to more walking and biking, fewer vehicle miles traveled, higher air quality, and greater sense of community among residents” (as cited in Benfield et al., 1999). In addition, higher density, walkability and mixed use contribute to reducing the need for parking areas and leave more room for open spaces (Berke et al., 2003).

However, Berke et al. (2003, p. 398) suggest that “New urban developments have generally not achieved the desired levels of non-motorized modes of travel that were originally publicized by new urbanists” (as cited in Crane, 1996). Additionally, Southworth (2003, p. 222) highlighted that despite advocating for high connectivity and well connected street pattern, “New Urbanism has established the cul-de-sac as its nemesis”, which is reflected in many new urbanist developments. Furthermore, Greenwald (2003) explored the assumption that New Urbanist urban design principles promote walking and transit over

private vehicle use and discussed that new urbanist development can theoretically increase the vehicle usage based on their land use practices. As Greenwald argues, although “New Urbanist design standards make walking more convenient, but still do proportionally more to facilitate automobile use compared to other forms of travel, New Urbanism might in fact lead to increased vehicle use” (2003, p. 42). Therefore, well defined transit system becomes a central idea in order to increase walking over driving (Greenwald, 2003).

3.2.4.6 Environmental sustainability

Content analysis showed that environmental concerns were also important characteristics for the concept of new urbanism as majority of articles addressed these issues. Berke et al. (2003) explored watershed protection and carried out the research in comparing environmental impacts between new urbanist and conventional developments. Mostly, their research focused on impervious surfaces. They point out that new urbanism claims to be more environmentally sustainable and greener than typical urban sprawl areas with low-density (Berke et al., 2003). Furthermore, Berke et al. argue, “The high density provides more opportunity to protect hydrologically sensitive areas, reduce size lots and the length of streets” (2003, p. 399). Thus, it is argued that new urbanist developments help to save land. For instance, as Berke et al. emphasize their findings, which demonstrate that “for the same amount of development, conventional development consumed eight times more land and generated 43% more runoff, three times as much sediment, and higher loadings of nitrogen and phosphorous than the new urban design” (2003, p. 399). Although urban developments have narrower streets, smaller lots, shallower setbacks that all contribute to reducing imperviousness, there are sidewalks on both sides of street and more intensive street network (Berke et al., 2003). In addition, Southworth (2003) discusses the sustainability aspect of new urbanism for implementing green streets or ecological design strategies. In addition, Southworth (2003) argues that narrowing streets can reduce impervious surfaces, construction costs and traffic accidents (as cited in

Swift and Associates, 2002). Using vegetation provides buffer for filtering the storm waters locally, but also improve the aesthetics of the place. Environmental sustainability is also related with impacts from travel behaviors and travel efficiencies that result with reduced vehicle use, which in turn can influence reduced pollution and travel congestion (Greenwald, 2003).

3.2.4.7 Summary

As data showed, the concept of new urbanism is focused mainly on physical aspects of built environment. It was evident from the literature that urban design, walkability, mixed use, density, open space, transit orientation, sense of community and environment were the key characteristics of the concept of new urbanism.

Based on the analysis, the following principles are embedded in the concept of new urbanism:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
- Planning incorporates a mix of land uses and diversity of functions.
- Planning exhibits appropriate densities and promotes compact development.
- Planning is well designed both in terms of architecture and urban space.
- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning values natural environments, habitats and resources.
- Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.
- Planning facilitates a sense of community cohesion and place attachment.

3.2.5 Placemaking

3.2.5.1 Introduction

With the concept of Placemaking Scopus search returned 138 results overall, which covered the period from 1992-2017. The highest peak time for published articles was 2015 with 26 records, the second highest peak time was 2016 with 22 records and the third peak time was 2014 with 20 records (Figure 12).

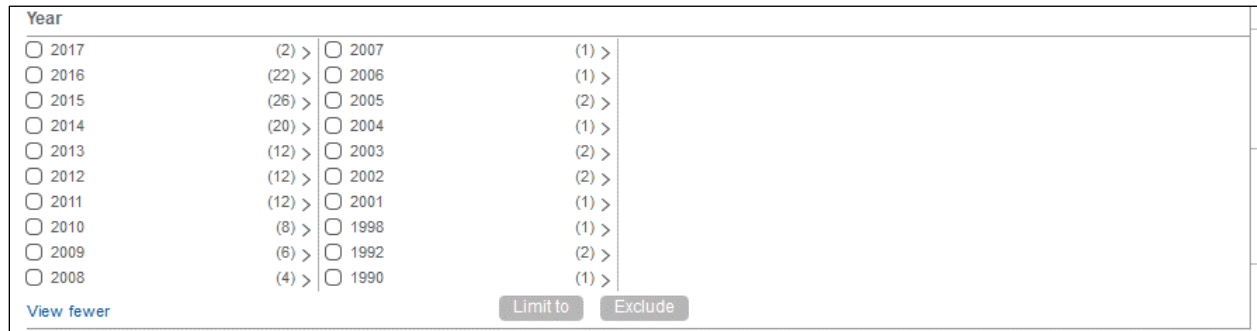


Figure 12. Extraction from Scopus search results for Placemaking, search was conducted on February 13, 2017

ProQuest returned 102 results overall, which covered the period from 1992-2016. The highest peak time for published articles was 2015 with 17 records and the second highest peak times were 2013 and 2014 with 11 records each (Figure 13).

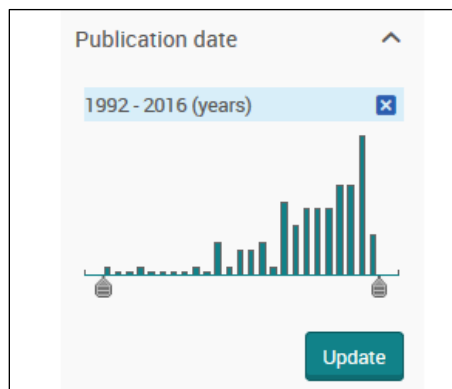


Figure 13. Extraction from ProQuest search results for Placemaking, search was conducted on February 09, 2017

The articles selected for content analysis was a combination of articles from both databases – year 2015 as the first peak period were used for Scopus and years 2015 and 2013 were used for ProQuest. In total, 54 articles were included in the selection pool.

For each article, the amount of key words from full text were counted/identified in order to rank the articles. Different key words were used for the concept of Placemaking: “placemaking”, “place-making” and “place making”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Balassiano, K., & Maldonado, M. M. (2015). Placemaking in rural new gateway communities. *Community Development Journal*, 50(4), 644–660. <https://doi.org/10.1093/cdj/bsu064>
2. Denov, M., & Akesson, B. (2013). Neither here nor there? Place and placemaking in the lives of separated children. *International Journal of Migration, Health and Social Care*, 9(2), 56–70. <https://doi.org/10.1108/IJMHS-06-2013-0012>
3. Rios, M., & Watkins, J. (2015). Beyond “Place”: Translocal Placemaking of the Hmong Diaspora. *Journal of Planning Education and Research*, 35(2), 209–219. <https://doi.org/10.1177/0739456X14568023>
4. Gleye, P. H. (2015). City Planning versus Urban Planning: Resolving a Profession’s Bifurcated Heritage. *Journal of Planning Literature*, 30(1), 3–17. <https://doi.org/10.1177/0885412214554088>
5. Fields, B., Wagner, J., & Frisch, M. (2015). Placemaking and disaster recovery: targeting place for recovery in post-Katrina New Orleans. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 8(1), 38–56. <https://doi.org/10.1080/17549175.2014.881410>
6. Marsden, T. (2013). Sustainable place-making for sustainability science: the contested case of agri-food and urban–rural relations. *Sustainability Science*, 8(2), 213–226. <https://doi.org/10.1007/s11625-012-0186-0>
7. Cheshmehzangi, A. (2015). The Reinvention of Liveability in Public Places: Interaction Mapping Analysis of Central Nottingham’s Improved Walkability. *Journal of Human Behavior in the Social Environment*, 25(5), 426–440. <https://doi.org/10.1080/10911359.2014.980594>

8. Cilliers, E. J., Timmermans, W., Van den Goorbergh, F., & Slijkhuis, J. S. A. (2015). The Story Behind the Place: Creating Urban Spaces That Enhance Quality of Life. *Applied Research in Quality of Life*, 10(4), 589–598. <https://doi.org/10.1007/s11482-014-9336-0>
9. Marsden, T., & Farioli, F. (2015). Natural powers: from the bio-economy to the eco-economy and sustainable place-making. *Sustainability Science*, 10(2), 331–344. <https://doi.org/10.1007/s11625-014-0287-z>
10. Severcan, Y. C. (2015). The effects of children’s participation in planning and design activities on their place attachment. *Journal of Architectural and Planning Research*, 32(4), 271–293.

Qualitative analysis for each article was conducted with the aim to identify areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Placemaking 19 out of 32 codes were identified across the selected articles. Two articles were identified as irrelevant for this research as no codes emerged from the content. Based on the analysis of remaining eight articles three major focus areas related to “placemaking” came forth - physical space/built environment, social dimensions and process related issues.

The most prevalent findings are related to characteristics of human scale, social cohesion and place attachment, as almost all articles in this pool addressed these issues. Additionally, built environment and physical space related characteristics and process related themes including public participation, community engagement and collaboration were addressed in majority of selected articles. The occurrence of pertinent themes can be seen on Table 9 and the entire Data Accounting Sheet can be found in Appendix F.

Table 9. The occurrence of pertinent themes in data collections for Placemaking

Themes/Concepts Data Collection		Built/Physical environment	Urban design	Human scale	Processes	Public participation	Terms and definitions
1	(Balassiano & Maldonado, 2015)			x	x	x-	x
2	(Denov & Akesson, 2013)	x		x			x
3	(Rios & Watkins, 2015)	x	x	x	x		x
4	(Gleye, 2015)	x	x				
5	(Fields, Wagner, & Frisch, 2015)	x	x	x	x	x-	x
6#	(Marsden, 2013)						
7	(Cheshmehzangi, 2015)			x			
8	(Cilliers, Timmermans, Van den Goorbergh, & Slijkhuis, 2015)	x	x	x	x	x	x
9#	(Marsden & Farioli, 2015)						
10	(Severcan, 2015)			x	x	x	x
Total:		5	4	7	5	4	6

Not relevant

- negative attributes identified

3.2.5.2 Definitions and key terminology/ideas

Most articles provided various nuanced explanations on key terminology of the concept of placemaking (Table 10). Most of all, placemaking is related to creation of meaningful places and place attachment by people who live in particular places. Secondly, it is related to the built environment with all its qualities that support the notion of belonging by providing specific sites and amenities and can support the creation of social interactions if the right conditions are met. Consequently, these two characteristics are closely connected and usually cannot exist without the other.

Table 10. Explanations of the concept of placemaking in selected articles

Authors	Key terminology/ideas	Essence
Balassiano & Maldonado, 2015	Placemaking as an empowering human act of putting an imprint on a place and becoming intimate with one's surroundings. Placemaking is a process that transforms a space into a place. Attaching meaning to space, generating feelings of belonging. Lived placemaking (residents) and facilitated placemaking (designers).	place attachment, creation of meaningful places
Denov & Akesson, 2013	The act of transforming the places one finds into the places in which one lives. Placemaking as world-making in a broad sense.	place attachment, creation of meaningful places
Rios & Watkins, 2015	Placemaking is the process by which meaning is produced through form.	creation of meaningful places; physical space
Fields, Wagner, & Frisch, 2015	Placemaking as a key planning strategy in addressing the contemporary challenges of climate change, resilience and improved livability of urban neighborhoods.	environmental sustainability; physical and social environment
Cilliers et al., 2015	Placemaking as creating appreciation for a place by its users. It's about creating lively places by providing different functions in a place. Placemaking as providing strategic interventions in a place and changing the meaning and value of that place.	place attachment, creation of meaningful places; physical and social environment
Severcan, 2015	Placemaking as a process of creating valued and meaningful places that facilitate the development of an emotional connection to a particular place.	place attachment, creation of meaningful places

3.2.5.3 Place attachment, social cohesion and human scale

Content analysis showed that areas of human scale, social cohesion and place attachment or place identity occurred in the majority (7/8) of selected articles. Placemaking is seen as the process for giving meaning and significance to a place, which is related to person's place attachment and place identity (Severcan, 2015). In other words, placemaking is a process when people create emotional and personal attachment to the place, which also involves social and cultural networks and captures people's relationship to spaces. Severcan (2015, p. 273) points out that there is a strong correlation between placemaking and place attachment. The more people have emotional connections to their places and communities, the more likely they are willing to contribute into placemaking, i.e. creation and development of that place.

Place attachment can be very specific and localized - as Balassiano and Maldonado (2015, p. 652) point out, "Placemaking does not occur everywhere and the amount of placemaking differs significantly" based on the type of people (e.g., different ethnic groups, ages). Placemaking can occur in particular sites in the

community, for instance in places where discussions of community affairs take place such as grocery or convenient stores, parks, recreational facilities, churches and schools. This demonstrates the importance of the physical space as people need meeting places. Thus, placemaking is a phenomena that creates places of belonging through community engagement (Balassiano & Maldonado, 2015; Denov & Akesson, 2013).

Place attachment is also a sensitive topic, especially in the context of disaster recovery, as places contain history and memories for people, as well as properties and place structures (Fields et al., 2015). Place attachment is particularly important characteristic in the context of placemaking as it contains a reciprocal relationship. People create meanings and emotional attachments to places and at the same time places influence people and their identities. Denov & Akesson (2013) discuss how refugee/displaced children were shaped by the places where they lived after fleeing from their homeland/country of origin to their final destination.

Similarly, social interactions play important role in the concept of placemaking. Rios & Watkins (2015) demonstrate how cultural and social events such as farmers markets or New Year's celebrations contribute into placemaking processes of the Hmong community in US. These events are crucial to the community with their traditional and specific social structure in terms of sharing knowledge and information and experiencing a sense of belonging. Therefore, the characteristic of social cohesion and social interaction is one of the key component in placemaking, which is also related to the physical setting (i.e., in order to interact with the community there must be a place where this can effectively occur). Through urban design principles places can evolve into people friendly places that increase social interaction and communication. At the same time, it can contribute to economic development of the

place. Cheshmehzangi (2015) points out that more human scale design creates more places with significantly higher livability.

3.2.5.4 Built environment and physical space

As seen above, social interaction requires physical space, which in turn requires designing and planning of that place. Thus, placemaking was also widely discussed as a physical planning and design related approach. Placemaking can be seen as an “active word” (i.e., verb) for referring to creating, (re)developing and designing places. For instance, Gleye (2015) discusses the two realms of planning and he distinguishes the placemaking realm of the profession with the policymaking stream, where the former is tightly connected to the design *per se* and a notion of a place and the latter is argued as a socio-economic approach.

For instance, in terms of elements of physical design, walkability and mixed use were seen as the most important goals of placemaking (Fields et al., 2015). As Cheshmehzangi (2015) discusses, pedestrian friendly and walkable urban environments contribute to livable placemaking by increasing social cohesion. Also, green spaces such as parks and squares (i.e., references to designed places) are considered great places for people to spend time outdoors, thus they create social networks and interaction and sense of community and therefore green infrastructure contributes to the concept of placemaking. As Cilliers et al. (2015, p. 592) state, “Using greenery is a common approach in place-making”.

The quality of public spaces and the existence of physical features and amenities were pointed out as important component of placemaking concept as well. For instance, providing places to sit and various outdoor furniture, surfaces to walk, opportunities for food (food stalls), movable containers with plants and other elements of urban design, create destinations for people and increases the value of the place.

(Cilliers et al., 2015) When people have places to meet and spend time, it generates a good base for social connections and storytelling. Furthermore, “Stories change people’s appreciation of places and change the way they feel about places” (Cilliers et al., 2015, p. 597).

However, the degree of design and physical planning related references to placemaking turned out to be rather limited. In many cases, there was only a cursory mention of the importance of physical space and urban design. For example, as Denov and Akesson (2013) point out that placemaking is not only about changing and maintaining physical spaces, but also how people connect to the community. Or Rios and Watkins (2015) echoing Shibley, Schneekloth and Hovey (2003), argue how form can produce the meaning and how urban and community design plays the primary role in placemaking.

3.2.5.5 Process related issues

Process related characteristics were mostly linked to issues of public participation, community engagement and collaboration with stakeholders. Architects, planners and designers were mentioned as professionals who intentionally facilitate placemaking by providing changes to the built environment (Balassiano & Maldonado, 2015). Thus, placemaking is part of the processes, which incorporates various elements of design and community engagement.

In several cases, the lack of public participation was highlighted as a negative phenomenon, which clearly demonstrates the importance of this issue in the literature. Several authors (Balassiano & Maldonado, 2015; Rios & Watkins, 2015) emphasize the importance of mastering and adjusting the skills sets and knowledge of community engagement by planners in order to better understand, involve and serve different communities and cultures.

Severcan (2015, p. 273) points out that there is a “strong correlation between placemaking and place attachment”. Severcan (2015) explored children’s engagement into placemaking, which demonstrates how place attachment can be enhanced through participation and engagement into planning and design process. Participation in placemaking activities increased children environmental awareness, place knowledge and place attachment. As a result, it can be said that people with strong place attachment are more likely to participate in placemaking processes and vice versa. Thus, placemaking can be seen as a community-driven, bottom-up process in the planning and design fields. This highlights the importance of the collaborative and communicative nature of the planning profession.

3.2.5.6 Summary

As data showed, the concept of placemaking is mainly focused on creation of meaningful places and place attachment and social cohesion and interactions. This is closely related to the built environment qualities such as pedestrian friendly environments, green infrastructure and human scale urban design features. Literature demonstrated that people need places to meet, which plays a key role in place attachment and social interactions. In addition, public participation and community engagement in the process of planning and designing places emerged as key characteristic to the concept of placemaking.

Based on the analysis, the following principles are embedded in the concept of placemaking:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities. Emphasis on pedestrian friendliness.
- Planning is well designed both in terms of architecture and urban space.
- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning facilitates a sense of community cohesion and place attachment.

- Planning values and implements citizen participation through community engagement and collaboration.

3.2.6 Resilient Cities

3.2.6.1 Introduction

With the concept of “Resilient cities” Scopus search returned 124 results overall, which covered the period from 2004-2018. The highest peak time for published articles was 2016 with 29 records, the second highest peak time was 2013 with 24 records and the third peak time was 2017 with 23 records (Figure 14).

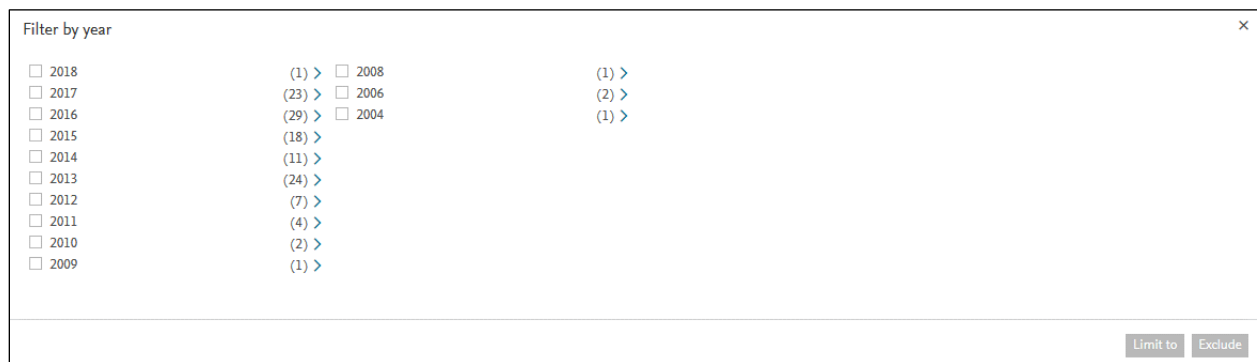


Figure 14. Extraction from Scopus search results for Resilient Cities, search was conducted on October 05, 2017

The articles selected for content analysis were chosen from the first and second peak year of the search result, i.e. year 2013 and 2016. In total, 53 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Resilient Cities: “resilient cities”, “resilient places” and “urban resilience”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. 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>
2. Tabibian, M., & Movahed, S. (2016). Towards resilient and sustainable cities: A conceptual framework. *Scientia Iranica, Transactions A: Civil Engineering*, 23(5), 2081–2093.
3. Meerow, S., & Stults, M. (2016). Comparing Conceptualizations of Urban Climate Resilience in Theory and Practice. *Sustainability*, 8(7), 701. <https://doi.org/10.3390/su8070701>
4. Beatley, T., & Newman, P. (2013). Biophilic Cities Are Sustainable, Resilient Cities. *Sustainability*, 5(8), 3328–3345. <https://doi.org/10.3390/su5083328>
5. Yanez, K., & Kernaghan, S. (2014). Briefing: Visions of a resilient city. *Proceedings of the Institution of Civil Engineers - Urban Design and Planning*, 167(3), 95–101.
<https://doi.org/10.1680/udap.13.00013>
6. 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>
7. 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>
8. Dieleman, H. (2013). Organizational learning for resilient cities, through realizing eco-cultural innovations. *Journal of Cleaner Production*, 50, 171–180.
<https://doi.org/10.1016/j.jclepro.2012.11.027>
9. Mehmood, A. (2016). Of resilient places: planning for urban resilience. *European Planning Studies*, 24(2), 407–419. <https://doi.org/10.1080/09654313.2015.1082980>
10. de Jong, M., Joss, S., Schraven, D., Zhan, C., & Weijnen, M. (2015). Sustainable–smart–resilient–low carbon–eco–knowledge cities; making sense of a multitude of concepts promoting sustainable urbanization. *Journal of Cleaner Production*, 109, 25–38.
<https://doi.org/10.1016/j.jclepro.2015.02.004>

Content analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Resilient Cities 29 out of 32 codes were identified across the selected articles. Based on the analysis of selected ten articles five major

focus areas related to “resilient cities” emerged – process related issues, environmental aspects, economic aspects, social issues and physical space/built environment.

The most prevalent findings are related to six topics: 1) process related issues such as collaboration and public participation and 2) governance; 3) environmental aspects, including environmental sustainability; 4) economic aspects; 5) social issues such as education and awareness; and 6) physical space/built environment and infrastructure issues. Most articles (9/10) provided various explanation of the meaning of the concept. The occurrence of pertinent themes can be seen on Table 11 and the entire Data Accounting Sheet can be found in Appendix G.

Table 11. The occurrence of pertinent themes in data collections for Resilient Cities

Tag/Code Data Collection		Built/physical environment	Urban design	Social aspects	Education and awareness	Processes	Public participation	Governance	Environmental aspects	Environmental sustainability	Economic aspects	Fuzziness of concepts and terminology	Terms and definitions
1	(Jabareen, 2013)	x	x	x	x	x	x	x	x	x	x	x	x
2*	(Tabibian & Movahed, 2016)	x	x	x	x	x	x	x	x	x	x		x
3	(Meerow & Stults, 2016)	x			x	x	x	x	x	x	x	x	x
4	(Beatley & Newman, 2013)	x	x	x	x	x	x		x	x	x		x
5	(Yanez & Kernaghan, 2014)	x			x	x	x	x	x	x			
6	(Desouza & Flanery, 2013)	x	x	x	x	x	x	x	x		x	x	x
7	(Lu & Stead, 2013)	x		x	x	x	x	x	x	x	x	x	x
8	(Dieleman, 2013)	x	x	x	x	x	x	x	x	x	x	x	x
9	(Mehmood, 2016)			x	x	x	x		x	x			x
10*	(de Jong, Joss, Schraven, Zhan, & Weijnen, 2015)		x			x		x	x	x	x	x	x
Total:		8	6	7	9	10	9	8	10	9	8	6	9

* Article addresses multiple concepts

3.2.6.2 Definitions and key terminology/ideas

Majority of articles explained the meaning of resilient cities or resilience (Table 12). The concept of resilient cities is seen as a broad and ambiguous with no universally defined meaning. It is an umbrella concept with close connections to sustainability. Several scholars pointed out that resilient city/resilience is a branch concept of sustainable cities/sustainability. Alternatively, it was pointed out that resilience is a tool to operationalize sustainability (Tabibian & Movahed, 2016). Mostly, the concept of resilient city is related to environmental aspects and environmental sustainability issues such as climate change, natural hazards and disasters (e.g., floods, hurricanes), carbon footprint and use of energy resources. However, urban resiliency is a broader concept and encompasses also economic, social and built environment dimensions. Thus, the concept of resilient cities is difficult to define and apply to practice. Nevertheless, as data showed, its generic nature involves more intangible, relatively unmeasurable and unpredictable values and the explanations of the concept appear to be conceptual clarification rather than practical applications. Therefore, most characteristics of resilient cities are not necessarily related to planning principles, but are more conceptual in nature. However, the most prevalent vocabulary associated with the concept of resilient cities are adaptability (accommodate, adjust, absorb, resist), ability to recover (bounce back, rebound), planning for uncertainties (future-oriented, unpredictability, being prepared, rather proactive than reactive, long-term strategy) and dealing with uncertainties and vulnerabilities in all fields (i.e., social, environmental, physical, economic dimensions). All of this requires careful management and planning, participatory governance and raising awareness and preparedness.

Table 12. Explanations of the concept of resilient cities in selected articles

Authors	Key terminology/ideas	Essence
Jabareen, 2013	Resilience is “the capacity of a system to undergo disturbance and maintain its functions and controls” (as cited in Gunderson & Holling, 2001). Inspired by the concept of the resilient ecosystem, “resilience means the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions” (as cited in UNISDR, 2010, p. 13). According to the Resilient City Framework proposed by Jabareen, a resilient city is defined by the overall abilities of its governance, physical, economic and social systems and entities exposed to hazards to learn, be ready in advance, plan for uncertainties, resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.	adaptability, recovery, plan for uncertainties, predictability; governance, physical, economic and social aspects
Tabibian & Movahed, 2016	There are many definitions of a resilient city, ranging from very narrow to very broad, reflecting different cultural values. Resilience is also linked to sustainability principles. Resilience is one of the crucial concepts for operationalizing sustainability, which follows a set of social objectives, social justice and environmental perfection. The European Environment Agency (EEA) sees a resilient city as an “urban ecosystem” that is dynamic; consuming, transforming and releasing materials and energy in an adaptive way and interacting with other ecosystems, tackling mitigation and adaptation efforts and addressing quality of life through better and greener urban planning (as cited in European Environment Agency, 2010). Authors developed urban resilience framework that consists of combination of 5 dimensions and indices in each dimension: social, economic, environmental, infrastructure and institutional.	ambiguous; sustainability; dynamic; adaptability

Table 12 (cont'd)

Meerow & Stults, 2016	The explosion in popularity of the term “resilience” has been accompanied by an equally remarkable proliferation of definitions of resilience. Some argue that the concept’s very popularity is owed at least in part to the fact that the meaning of resilience is “infinitely malleable” (as cited in Turner, 2014). Yet scholars have expressed concern that as resilience becomes ubiquitous, the term may lose any real meaning or cause confusion (as cited in Cote & Nightingale, 2011). The absence of an accepted definition has not stopped researchers from proposing various process- and outcome-focused system characteristics that supposedly enhance climate resilience (as cited in Leichenko, 2011). However, the lack of a unified understanding of resilience has made it difficult to operationalize the concept or to develop metrics for resilient systems (as cited in Leichenko, 2011; Lhomme et al., 2013). In the review of the academic literature authors identified 16 characteristics of urban systems and processes that supposedly foster resilience: robustness, redundancy, diversity, integration, inclusivity, equity, iterative process, decentralization, feedback, environmental, transparency, flexibility, forward-thinking, adaptive capacity, predictable and efficiency.	ambiguous, vague; diverse meaning
Beatley & Newman, 2013	Resilience has many meanings, of course, but at its core is the essential ability to successfully adapt to and respond to these shocks; the word derives from the Latin <i>resiliere</i>, meaning to jump back or rebound. Resilience resonates well as a concept and goal and we consider it a potent version or flavor of urban sustainability.	ambiguous; adaptability; recovery; sustainability
Yanez & Kernaghan, 2014	Seven main themes emerged as contributors to city resilience: energy, transport, food security, disaster responses, urban planning and waste and water management.	adaptability; predictability; sustainability
Desouza & Flanery, 2013	Resilience in terms of cities generally refers to the ability to absorb, adapt and respond to changes in an urban system. However, it is argued here that resilience shares much with other key contemporary urban goals such as sustainability, governance (as cited in Tompkins & Hurlston, 2012) and economic development. Because resilience, like sustainability, represents an abstract concept, it can be difficult to determine specific ways to plan for resilience. The concept of resilience has often been defined in broad or disparate terms depending on the specific application or field of study. For example, in an analysis of the various definitions for resilience especially in the context of disaster recovery, Plodinec (2009) lists over forty definitions for the term. To be resilient, or to measure the resilience of a system, we need to identify the ‘stressor’ or signal disruptor that we want to be resilient against. Four broad categories of stressors that a city needs to be resilient to – natural, technological, economic and human.	adaptability; sustainability; ambiguous; predictability

Table 12 (cont'd)

Lu & Stead, 2013	The notion of resilience is still quite fuzzy and its significance can vary substantially between policy officials and between policy documents, sometimes even within the same administration. A simple definition of resilience is the ability of a city to absorb disturbance while maintaining its functions and structures (as cited in Holling, 1987, 2001; White, 2010). In planning practice, however, the use of the term resilience is often limited in scope and often considered as a synonym for adaptation. Planning practices for resilience are often embedded in and mixed with other approaches. Resilience represents an on-going process, a time-scale of reshaping, reorganizing and developing new adaptive strategies. According to Davoudi et al. (2012), the notion of resilience in planning studies is often not used in an exact, defined way but rather as a versatile umbrella term. The notion of resilience is thus an umbrella term covering many different ideas of planning (see also Davoudi et al., 2012) and for many stakeholders remains quite abstract. While the notion of resilience can be an explicit principle in policy-making it is often fuzzily defined. On the basis of existing studies of resilience attributes, authors identify six characteristics of resilience in relation to planning for climate disturbances and flood risks: (i) attention to the current situation; (ii) attention to trends and future threats; (iii) ability to learn from previous experience; (iv) ability to set goals; (v) ability to initiate actions; and (vi) ability to involve the public.	ambiguous; adaptability; predictability; governance
Dieleman, 2013	The concept of resilience was first used in epidemiology (as cited in Garmez, 1973; Zautra et al., 2010), later introduced in psychology and has now become a new buzzword in looking at cities and climate change. Usually resilience is seen as the capacity to respond to various effects of climate change in ways that allow recovering, bouncing back, rebuilding and growing. Resilience is a more generic concept as was also expressed by the Secretary General of ICLEI when he said, "Cities need to build resilience, not only to climate impacts but to all kind of potential shocks and crises" (as cited in ICLEI, 2012).	ambiguous; adaptability, generic concept
Mehmood, 2016	Resilience is fast becoming a ubiquitous (and equally contested) concept in the contemporary planning and policy discussions and practice. It is often associated with the notion of resisting any change and bouncing back to the initial state. Resilience is not just about economy and environment but also society and culture. It does not merely refer to readiness to the surprise or isolated occurrences but also refers to long-term strategies to mitigate and adapt to socio-economic as well as environmental challenges.	ambiguous; adaptability; recovery; predictability, long-term strategy; covers economic, environment, social dimensions

Table 12 (cont'd)

de Jong, Joss, Schraven, Zhan, & Weijnen, 2015	many new categories of 'cities' have entered the policy discourse: 'sustainable cities'; 'green cities'; 'digital cities'; 'smart cities'; 'intelligent cities'; 'information cities'; 'knowledge cities'; 'resilient cities'; 'eco cities'; 'low carbon cities'; 'liveable cities'; and even combinations, such as 'low carbon eco cities' and 'ubiquitous eco cities'. Each of these terms apparently seeks to capture and conceptualize key aspects of ongoing urban sustainability efforts. Closer examination, however, reveals that policy makers, planners and developers often use the terms interchangeably. The recent and most complete definition covering the application in the greater variety of academic disciplines was given by UNISDR (2010: 13): "resilience means the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including the preservation and restoration of its essential basic structures and functions". Some claim that researchers focusing on a small number of factors may draw inaccurate conclusions, because the 'resilient city' is a complex and multidisciplinary system requiring an integrated approach to allow analysts to deal with many uncertainties and vulnerabilities which are not always easy to predict (Folke et al. 2010; Little, 2004; Jabareen, 2013).	ambiguous, adaptability, recovery, generic and broad concept; unpredictable
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In addition to various explanations about the concept of resilient cities and resilience noted in Table 12, majority of selected articles discussed the themes of various planning processes, governance and participation; environmental aspects, economic issues; social aspects including education and awareness; and physical space/built environment.

3.2.6.3 Planning, governance, participation and collaboration

Content analyses demonstrated that process-related issues are very important components of the concept of resilient cities. More specifically, governance, participatory and collaborative processes emerged from the majority of selected articles. Jabareen (2013, p. 223) points out that "resilient city planning framework includes urban governance, uncertainty oriented planning, vulnerability analysis matrix, and prevention". Also, Desouza and Flanery (2013) highlight that city's intelligent planning efforts should be focused on resilience and Lu and Stead (2013) point out the importance of the concepts of

knowledge-based planning. Also, it is important to monitor current conditions and components, but cities should put efforts to observe the trends that impact these conditions as well (Desouza & Flanery, 2013; Lu & Stead, 2013). Therefore, being resilient is an ongoing and continuous process. As an example of being well prepared and having a strategy in place, Desouza and Flanery (2013) demonstrate the case of Japan's 8.9 magnitude earthquake and tsunami. It has been said that the damage could have been worse in other countries, but as Japan had a remarkable disaster readiness program, which included strict building codes, an educated population, warning signals and constructed special defenses, the impact was somewhat contained (Desouza & Flanery, 2013). Consequently, urban resilience can be defined as a proactive rather than reactive view to planning, policy-making and strategic steering (Mehmood, 2016) and learning from past experiences is crucial in order to better understand future trends.

In order to achieve these goals, good governance and policies and participatory and collaborative processes are required. The importance of an inclusive and collaborative governance is emphasized by Jabareen (2013). He points out that collaboration and inclusive decision-making help to achieve more resilient city and governance ability to quickly restore basic services and essential activities for citizens after a disastrous event. Therefore, good governance and appropriate urban policies are required to achieve a good quality of life. Jabareen (2013) also argued that urban governance should be more integrative, deliberative, socially and eco-economically sound in order to cope with uncertainties and risks. This, in turn, requires engaging various stakeholders in the planning processes. Also, Tabibian and Movahed (2016) emphasize the need for better governance and policies and collaboration. They suggest long-term strategies for planning a resilient city, which include creation of urban density patterns; public training for increasing awareness of natural resources; revisions in urban development designs; and increasing public participation in natural resources conservation. They also point out the importance of collaboration between urban professionals, the need to raise their awareness and integrate the goal of

resilient city into their day-to-day practice (Tabibian & Movahed, 2016). In addition, Lu and Stead (2013) point out the importance of inter-sectoral collaboration between politicians and scientists. Tabibian and Movahed (2016) also highlight the need to allocate funding for basic and applied urban systems research in order to succeed to create more resilient cities.

In addition to collaboration among professionals and across departments and organizations with wide range of actors, engaging citizens to the planning for resilience is emphasized. According to Desouza and Flanery (2013, p. 96), “Public agencies realize that they cannot plan for citizens, but must plan with citizens so that information and political feedbacks flow in multiple directions”. Involving all stakeholders have shifted the main focus of planning from “promoting hard infrastructure to negotiation and collaboration among different interest groups” (Lu & Stead, 2013, p. 210).

3.2.6.4 *Environmental sustainability*

Environmental aspects and environmental sustainability is a key characteristic of the concept of resilient cities. Meerow and Stults (2016, p. 5) support this finding by stating that the majority of urban resilience definitions are more closely aligned with ecological resilience (as cited in Meerow et al., 2016). Selected articles identified a wide spectrum of vocabulary and topics related to environmental issues (stressors and actions to avoid/eliminate them) that are the main points of discussion within resilient cities. Climate change is the prominent topic in terms of resiliency (Lu & Stead, 2013). The scope of the concept is demonstrated by the occurrence of issues of environmental aspects that the concept of resilient city addresses in the selected articles as follows:

- climate change-related shocks and natural hazards/disasters (e.g., hurricanes and cyclones, hurricanes, earthquakes, tsunamis, volcanic eruptions, rising sea levels, changing rainfall patterns, droughts, floods); and related actions - climate change mitigation, climate change

adaptation, disaster risk reduction, disaster responses, preventing or reducing flood damage;

- oil crisis, declining global fossil fuel reserves, carbon footprint; reduction in all fossil fuel use, reduce greenhouse gas emissions;
- energy saving, use of renewable energy resources (techniques and technologies) such as wind and solar power geothermal sources; shift from the use of fossil fuels to the use of renewable energy; ecological energy, passive energy;
- low-carbon technologies; inventions and new practices that all are low on the use of carbon or even carbon-free;
- natural resources conservation (e.g., conservation of natural water cycles), protecting natural systems and assets, protecting water supply delivery system;
- reduce wildfire risks and maintain habitat for fish and wildlife;
- waste and water management, reducing solid waste, landfills; reduction of packaging and disposable bags;
- sustainable transport, traffic reduction, trip reduction, encouragement of non-motorized travel, transit-oriented development; walkable scale, supplemented by electric vehicles;
- various recycling, reuse and conservation programs; business waste exchange and repairing old items instead of throwing them away; use of circular or closed-loop systems, thus generating substantial amounts of energy and material from waste streams; renewal and utilization of land uses, e.g., brownfields;
- food security; creating community gardens to grow food; urban farming;
- green infrastructure such as parks and urban landscapes; tree planting and other ecological activities that actively reduce the carbon footprint and create the carbon-neutral city;

- compact urban space, intensification that uses urban land more efficiently and reduces the need for transport, energy and other resources;
- increase the wellbeing and safety of citizens.

As seen, the topics vary in scale and amplitude, from conceptual to practical, from unpredictable to man-made stressors. Thus, achieving a resilient city is a very complex ambition. Jabareen (2013, p. 224) suggests more environmental friendly life-style which contributes to the concept of resiliency: “Cities that are committed to climate change mitigation and sustainability should stimulate markets for environmentally friendly products and services, promote eco-friendly consumption, and contribute to urban economic development by creating a cleaner environment” (as cited in David, 2006, p. 11; Mercer Human Resources Consulting, 2004). The concept of resilient city is more than only environmental issues. As Lu and Stead (2013, p. 210) highlight, “Scientific groups use resilience in relation to environmental issues, and politicians and planners often use this concept as a possible solution to reducing the social and economic disturbances caused by climate changes”.

3.2.6.5 *Economic aspects*

Content analysis showed that most articles addressed economic aspects related to the concept of resilient cities. For instance, Jabareen (2013) identified the relation between economic condition and resiliency. He points out that people’s ability to cope with environmental disturbances are affected by socio-economic factors in addition to health and demographic variables (Jabareen, 2013). Lu and Stead (2013) discuss how resilience actions and strategies may benefit and enhance the city’s economic position in the long term, in addition to creating approaches for specific risk prevention strategies. Also, Beatley and Newman (2013) emphasize the importance of resilience actions that have a considerable economic value (by avoiding potential costs of damage). As Beatley and Newman (2013, p. 3334) illustrate, “Had the

original wetlands been intact and levees in better shape, a substantial portion of the US\$100 billion plus damages from this hurricane [Katrina] probably could have been avoided” (as cited in Costanza et al., 2006).

Furthermore, Desouza and Flanery (2013) discuss economic resiliency of a place. They point out that “Economic stressors are caused due to declines in job prospects, rising poverty, deteriorating housing and infrastructure, the exit of businesses, and poor investment in the future by local government agencies” (as cited in Wilson, 1996) (Desouza & Flanery, 2013, p. 93). Furthermore, de Jong et al. (2015) point out that the resilient city concept is recently associated with four major approaches and one of them is coping with shocks in the development of urban and regional economies (in addition to ecological problems, hazards and disasters, urban governance). For instance, Jabareen (2013, p. 224) illustrates that “only environmentally sound economics can play a decisive role in achieving urban resilience and climate change objectives in a capitalist world”. Moreover, “A more resilient city is one with less social inequalities and a fairer distribution of resilience resources” (Jabareen, 2013, p. 224). Poverty reduction, provisions for growth and employment, greater social equity and fresh business opportunities are examples of the economy-related goals for more resilient cities (as cited in UNISDR, 2010) (Jabareen, 2013). Consequently, economies that prioritize natural and environmental resources and cities with stable and equitable economies, play key role in the concept of resilient city.

3.2.6.6 Social aspects, education and awareness

Content analysis demonstrated that social aspects, particularly education and awareness are characteristic to the concept of resilient cities. The theme of increasing knowledge and awareness occurred in 9 out of 10 articles.

Desouza and Flanery (2013) point out the importance of social dimension for the concept of resilient cities. They state that “people play the most critical role as they determine the creation, governance and maintenance of all other components. ... Minimizing impacts to people and enabling people to bounce back from shocks is a critical criteria evaluated when measuring the resiliency of a city” (Desouza & Flanery, 2013, p. 92). Moreover, they highlight that “one of the most critical things for urban resilience planning is creating a robust social structure by understanding where critical linkages do and do not exist in their localities” (as cited in Safford, 2009, p. 139) (Desouza & Flanery, 2013, p. 97). Also, Tabibian and Movahed (2016) discuss that communities must be able to survive and function under extreme conditions during the disasters and people are the key components who direct activities, respond to needs and learn from experiences. Furthermore, Mehmood (2016) and Beatley and Newman (2013) highlight the importance of social dimension. Improving social relations between groups and communities, empowering the people in terms of socio-political decision-making and satisfying basic human needs are some key components of increasing resilience (as cited in Mehmood & Parra, 2013) (Mehmood, 2016). At the same time, Jabareen (2013, p. 222) points to the equity issues and states that “Resilience requires the inclusion of the poor, vulnerable communities, and informal places in the city and in the metropolitan area. Informal spaces are more likely to be vulnerable than others because of their low-income population and lack of infrastructure and services”. Social aspects include also human stressors such as acts of terrorism, war, crime, riots (as cited in Harrigan & Martin, 2002) (Desouza & Flanery, 2013). Consequently, resilient city needs to address these stressors as well.

Most articles highlighted the importance of education, knowledge and awareness. Lu and Stead (2013) discuss that two characteristics of resilience are ability to learn from previous experience and ability to involve public. Both, successes and failures are important to inform how to improve planning and better prepare for future disturbances (as cited in Gerard, 2011, Gerard et al., 2011, Hutter, 2010, Bernhard,

2010) (Lu & Stead, 2013). Knowledge exchange and sharing mutual experiences by global partnerships and networks is considered equally important in order to increase preparedness (Lu & Stead, 2013; Mehmood, 2016). Furthermore, as Desouza and Flanery (2013) argue, if people are aware and familiar with various stressors, it means that they are also better prepared and responsive to future episodes and eventually have potentially milder/lower impacts of stressors. Tabibian and Movahed (2016) also point out the need for public training for increasing awareness of people and suggest higher levels of public participation. Yanez and Kernaghan (2014) also support the importance of increasing the knowledge through formal or informal participatory processes.

In addition, Tabibian and Movahed (2016) point out the need for basic and applied research program in order to strengthen understanding, education and training in designing and managing resilient urban systems. Moreover, professional collaboration would increase knowledge and awareness about resilient city planning and design as well. According to Jabareen (2013, p. 222), “Contemporary cities must develop a greater awareness of the need for policies that might eventually enhance resilience” and incorporate the knowledge into city planning and risk management. Therefore, “planners must develop a better understanding of the risks that climate change poses to infrastructure, households, and communities” (Jabareen, 2013, p. 225). Consequently, knowledge-based decision-making (scientific studies of applied knowledge), learning from previous experiences, professional collaboration and capacity to communicate, build public awareness and educate, are key characteristics for resilient cities.

3.2.6.7 Built environment and infrastructure

Content analyses demonstrated that issues of physical space/built environment and urban design are important components of resilient cities. Jabareen (2013) points out that spatial planning and sustainable urban form, which deals with urban design and qualities of urban form (i.e., compactness, sustainable

transport, density, mixed land use, diversity, passive solar design, greening and renewal and utilization) are characteristics that support the promotion of resilient city. Also, Lu and Stead (2013) point out that spatial planning can play an important role in promoting urban resilience through the spatial configuration of cities based on number of recent studies (as cited in Davoudi, 2009; Fleischhauer, 2008; Gleeson, 2008; IPCC, 2007). Dieleman (2013) also supports that resilience depends on city's physical form and infrastructure. Additionally, Tabibian and Movahed (2016) state that appropriate built form and physical infrastructure is essential to tackle the crises and disturbances. They argue, that "Resilient cities are constructed to be strong and flexible, not brittle and fragile. The lifeline systems of roads, utilities and other support facilities are designed to continue functioning in the face of rising water, high winds, shaking ground, and terrorist attacks" (Tabibian & Movahed, 2016, p. 2083). Dieleman (2013) points out the reinforcement of infrastructure (e.g., construction or reinforcement of seawalls in coastal areas) and improving housing quality to make houses more resistant to extreme events as some examples how cities respond and adapt with disturbances from climate change.

Another prominent topic relates to green infrastructure. For instance, Jabareen (2013) highlights the importance of greening cities or bringing "nature into the city" that has several benefits to the urban environment such as biodiversity, urban climate, economic attractiveness, community pride and health and education (as cited in Beatley, 2000; Swanwick, Nigel, & Helen, 2003; Forman, 2002; Dumreicher, Levine, & Yanarella, 2000; MacKillop, 2012). Also, Tabibian and Movahed (2016) emphasize the importance of green infrastructure with natural drainage systems. Beatley & Newman (2013) state that making cities greener and more natural, thus biophilic, provide many ecological benefits and help to make cities more resilient. Dieleman (2013) also highlights urban farming in addition to parks and urban landscapes in order to achieve more carbon-neutral city.

3.2.6.8 Summary

As content analysis demonstrated, the concept of resilient cities is broad and multidisciplinary. It is an umbrella concept that does not have an agreed and established universal definition. Additionally, the concept of resilient cities is connected to another broad concept such as sustainability.

As the content analysis showed, the most prevalent themes were process-related issues such as collaboration and participation and governance; and environmental aspects. Social aspects, particularly education and awareness and physical space and infrastructure, emerged from the selected articles as well. Several themes are interconnected, which demonstrates the complex nature of the concept.

Based on the analyses, the following principles are embedded in the concept of livable cities:

- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning values natural environments, habitats and resources.
- Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.
- Planning addresses equity through social, economic and ethnic diversity.
- Planning addresses the need for safe environments.
- Planning facilitates public education and awareness.
- Planning values and implements citizen participation through community engagement and collaboration.
- Planning promotes interdisciplinary collaboration and public-private partnerships.
- Planning facilitates better public policy and decision making.
- Planning is data driven.
- Planning is visionary and future oriented.

3.2.7 Safe Cities

3.2.7.1 Introduction

For the Concept of “Safe cities” a search with key terms of “Safe Cities”, “Secure Cities” and “Safe routes to school” was conducted.

With the term “Safe Cities” Scopus search returned 69 results, which covered the period from 1992-2017. The highest peak time for published articles was 2017 with 11 records and the second highest peak times were 2015 and 2016 with 7 records each (Figure 15).

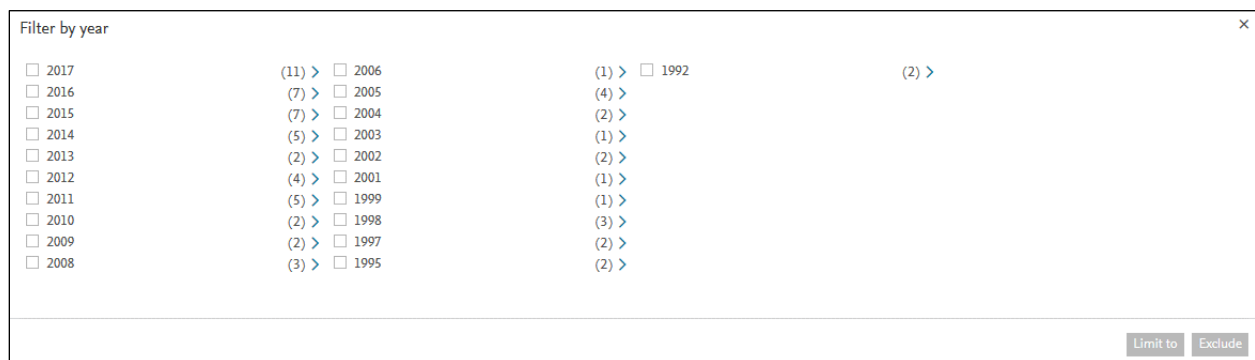


Figure 15. Extraction from Scopus search results for Safe Cities, search was conducted on October 11, 2017

With the term “Secure Cities” Scopus search returned only 5 results in total, which covered the period from 1994-2017 with one article in 2017, 2016, 2015, 2004 and 1994.

With the term “Safe routes to school” Scopus search returned 99 results overall, which covered the period from 1998-2017. The highest peak time for published articles was 2012 with 13 records, the second highest peak time was 2009 with 11 records and the third peak times were 2008, 2011 and 2016 with 9 records each (Figure 16).

Filter by year

☐ 2017	(2) >	☐ 2007	(8) >
☐ 2016	(9) >	☐ 2005	(1) >
☐ 2015	(7) >	☐ 2003	(3) >
☐ 2014	(8) >	☐ 2001	(1) >
☐ 2013	(7) >	☐ 2000	(1) >
☐ 2012	(13) >	☐ 1999	(1) >
☐ 2011	(9) >	☐ 1998	(2) >
☐ 2010	(7) >		
☐ 2009	(11) >		
☐ 2008	(9) >		

Limit to Exclude

Figure 16. Extraction from Scopus search results for Safe routes to school, search was conducted on October 12, 2017

The articles selected for content analysis was a combination of articles from all searched key terms. For the concept of Secure Cities all 5 articles were included to filter out the final selection of articles, for the concept of Safe Cities all peak periods (2017, 2015 and 2016) were used and for the concept of Safe routes to school first two peak years were included (2012 and 2009). In total, 54 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Safe Cities/Secure Cities: “safe cities”, “safe city”, “safe places”, “secure cities” and “safer cities”. For the Safe Routes to School article collection the following key words were used: “safe routes to school”, “safe routes” and “SRTS”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Chiodi, S. I. (2016). Crime prevention through urban design and planning in the smart city era: The challenge of disseminating CP-UDP in Italy: learning from Europe. *Journal of Place Management and Development*, 9(2), 137–152. <https://doi.org/10.1108/JPMD-09-2015-0037>
2. Gribanova, G., & Vulfovich, R. (2017). Modern City Safety as a Complex Problem. *Public Administration Issues*, (Special Issue (electronic edition)), 83–100. <https://doi.org/10.17323/1999-5431-2017-0-5-83-100>

3. George, R., & Mawby, R. I. (2015). Security at the 2012 London Olympics: Spectators' perceptions of London as a safe city. *Security Journal*, 28(1), 93–104.
<https://doi.org/10.1057/sj.2013.37>
4. Sandberg, L., & Rönnblom, M. (2016). Imagining the ideal city, planning the gender-equal city in Umeå, Sweden. *Gender, Place & Culture*, 23(12), 1750–1762.
<https://doi.org/10.1080/0966369X.2016.1249346>
5. Keramitsoglou, I., Sismanidis, P., Analitis, A., Butler, T., Founda, D., Giannakopoulos, C., ... Kiranoudis, C. T. (2017). Urban thermal risk reduction: Developing and implementing spatially explicit services for resilient cities. *Sustainable Cities and Society*, 34, 56–68.
<https://doi.org/10.1016/j.scs.2017.06.006>
6. Yon, A., & Nadimpalli, S. (2017). Cities for whom? Re-examining identity, to reclaim the right to the city for women. *Australian Planner*, 54(1), 33–40.
<https://doi.org/10.1080/07293682.2017.1297317>
7. Frayne, B., & McCordic, C. (2015). Planning for food secure cities: Measuring the influence of infrastructure and income on household food security in Southern African cities. *Geoforum*, 65, 1–11. <https://doi.org/10.1016/j.geoforum.2015.06.025>
8. Cradock, A. L., Fields, B., Barrett, J. L., & Melly, S. (2012). Program practices and demographic factors associated with federal funding for the Safe Routes to School program in the United States. *Health & Place*, 18(1), 16–23.
<https://doi.org/10.1016/j.healthplace.2011.08.015>
9. Stewart, O., Vernez Moudon, A., & Claybrooke, C. (2012). Common ground: Eight factors that influence walking and biking to school. *Transport Policy*, 24, 240–248.
<https://doi.org/10.1016/j.tranpol.2012.06.016>
10. McDonald, N. C., & Aalborg, A. E. (2009). Why Parents Drive Children to School: Implications for Safe Routes to School Programs. *Journal of the American Planning Association*, 75(3), 331–342. <https://doi.org/10.1080/01944360902988794>

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Safe Cities 25 out of 32 codes were identified across the selected articles. Two articles were identified as irrelevant for this research as no codes emerged from the content. Based on the analysis of remaining eight articles, the

most prevalent findings were related to safety and security; the built environment; and equity and health related issues. The occurrence of pertinent focus areas can be seen in Table 13 and the entire Data Accounting Sheet can be found in Appendix H.

Table 13. The occurrence of pertinent themes in data collections for Safe Cities

Tag/Code Data Collection		Built/Physical environment	Equity and equality	Security and safety	Health
1	(Chiodi, 2016)	x	x	x	
2	(Gribanova & Vulfovich, 2017)	x	x	x	x
3#	(George & Mawby, 2015)				
4	(Sandberg & Rönnblom, 2016)		x	x	
5#	(Keramitsoglou et al., 2017)				
6	(Yon & Nadimpalli, 2017)		x-		
7	(Frayne & McCordic, 2015)	x			x
8	(Cradock, Fields, Barrett, & Melly, 2012)	x		x	x
9	(Stewart, Vernez Moudon, & Claybrooke, 2012)	x		x	x
10	(McDonald & Aalborg, 2009)	x	x	x	x
Total:		6	5	6	5

Not relevant
- Negative attributes identified

3.2.7.2 Definitions and key terminology

Almost none of the selected articles provided any explanations (definitions) about the concept of Safe Cities – What is a Safe City? Content analysis demonstrated that security and safety is mostly related to

crime prevention through planning and design, gender equality issues and traffic safety and stranger danger (i.e., fear of strange people) in the context of safe routes to school (SRTS) program.

3.2.7.3 *Security and safety*

Most articles addressed aspects of safety and security. As demonstrated by Chiodi (2016), urban planning and design can influence reduced occurrences of crime by investing in policies and programs that foster safe communities. Chiodi (2016) states that crime prevention is possible via widespread e-participation in public policy. Thus, safer cities are possible through citizen engagement. Gribanova and Vulfovich (2017) add to the discussion on how crime prevention and safety can be achieved and enhanced by targeted and active policy. They point out that the position of police force in the structure of the country's organizational systems plays an important role. Consequently, individual and context-based approaches to policing are more effective as each place has a unique profile and crime and safety dynamics differ from place to place (Gribanova & Vulfovich, 2017).

Safety issues were also discussed by Cradock, Fields, Barrett and Melly (2012), McDonald and Aalborg (2009) and Stewart, Vernez Moudon and Claybrooke (2012) within the context of safe routes to school. "The Safe Routes to School program was created to address declining rates of walking and bicycling to school in the US, as well as physical inactivity, safety, traffic congestion and air quality in the vicinity of schools" (Cradock et al., 2012, p. 22). Their research shows how the Safe Routes to School program can contribute to creating safe cities. Stewart et al. (2012) explored factors that influenced the choice of active travel to school (including walking and biking) and one of the common factors was parental fear of traffic and crime. As they point out, "In making the choice, the first issue parents considered was their child's ability to travel alone to school based on his or her capabilities to safely navigate traffic and social interactions" (Stewart et al., 2012, p. 241). In terms of social interactions and crime concerns, kidnapping, bullying, gang activity, or homelessness were major concerns cited by parents despite low risks based on

various reports (ibid, p 243). In addition, McDonald and Aalborg (2009) explored the reasons why parents drive their children to school even with distances less than two miles. Two main reasons were convenience and safety. However, dangers from social interactions seemed to be more relevant than concerns from traffic (McDonald & Aalborg, 2009, p. 336). As McDonald and Aalborg (2009, p. 340) emphasize, “While safety is an important concern, our study suggests that in urban and higher density suburban areas improving traffic safety is not sufficient to convince families to change their school travel behavior”. Therefore, alternatives to walking and biking as physically active modes of transport should be considered and increasing the safety in terms of social behavior should be addressed.

3.2.7.4 Built environment and physical space

Content analysis showed that built environment related issues are important characteristics for the concept of safe cities. The theme addressed issues of good design, importance of infrastructure and amenities and walkability.

In terms of good design and effective use of the built environment, the idea of “eyes on the street” was highlighted (Chiodi, 2016). This spontaneous surveillance is considered to be one of the main crime prevention techniques. Thus, active life in streets and public spaces, mix use and diversity of activities can contribute to enhance safety. In terms of design methods, better visibility by better lighting and lines of sight were mentioned (Chiodi, 2016; Sandberg & Rönnblom, 2016). As Sandberg and Rönnblom (2016, p. 1755) emphasize, “In this way, physical planning of the city becomes a question of planning the safe city”. However, physical design is not sufficient, people should be motivated to observe and report suspicious activity. As Chiodi (2016, p. 141) argued, “People must actually care to signal or to react to something dangerous happening, and that happens only when people are involved in the neighbourhood”. Thus,

place identity and place attachment are important characteristics while creating safer cities and physical planning and design can contribute to creating such places by fostering social cohesion.

Another characteristic for being a safer city, is the existence of physical amenities, especially when choosing a mode of transport (Cradock et al., 2012). For instance, the lack of sidewalks, bike paths, lighting, greenery, attractive facades, street connectivity, major streets and railroads are all obstacles for choosing walking or biking over driving (Stewart et al., 2012). McDonald and Aalborg (2009) while exploring the safe routes to school program and parents' driving preferences argued that investing into physical infrastructure may not be sufficient, but a safe environment could support the initiative. Changing attitudes and perceptions are more important, as they highlight that "Increasing the proportion of children walking to school, which is a goal of the SRTS program, requires changing the behavior of children who are currently driven to school but live close enough to walk" (McDonald & Aalborg, 2009, p. 335). Furthermore, the effect can be long-term, as McDonald and Aalborg (2009) point out, changing the mobility behaviors, may cause a decrease in accidents if higher number of people are on foot or bicycle (as cited in Jacobsen, 2003). In addition to importance of existing physical amenities, health related benefits were also mentioned in the context of safe routes to school program. Furthermore, an environment that encourages kids to walk, bike or use other physically active transport initiatives will contribute to improving children's health and healthy lifestyles (Cradock et al., 2012; McDonald & Aalborg, 2009; Stewart et al., 2012). While addressing and promoting physical activity, it "may contribute to obesity prevention efforts, particularly among young children" (Cradock et al., 2012, p. 21).

3.2.7.5 Equity and equality

Content analysis showed that equity is one of the key characteristic for the concept of safe cities. Mostly, three subtopics emerged from the content analysis – general equity concerns, gender equality and aspects of low-income group.

In order to address safety Chiodi (2016) points out the importance of addressing the needs of the most vulnerable populations. It should start with a planning process that avoids social exclusion and residential enclosures and avoid physical barriers and gentrification. As Chiodi (2016, p. 141) states, “What should be promoted instead is an open urban environment that involves people and encourages cooperation among citizens and institutions, because inclusion also implies equal access to amenities and services”. In addition, Gribanova and Vulfovich (2017) also emphasize the importance of addressing the needs of the most vulnerable social groups and achieving “safer cities”, “inclusive cities”, or “just cities” by implementing policies that provide opportunities for them and include effective crime prevention approaches. As they explain, “To a large extent the root causes of crime lie in the social environment, this is why the fundamental problem is to ensure coherence and consistency between the crime prevention and the social policy in the city” (Gribanova & Vulfovich, 2017, p. 87).

More precisely, gender related equity issues were addressed by Sandberg and Rönnblom (2016) and Yon and Nadimpalli (2017). Sandberg and Rönnblom highlight, that gender equality is a sign of a safe city. They demonstrate how a strategic and comprehensive approach can help to achieve gender equality in a city through an example of Umeå in Sweden, where a specific board to oversee gender equality have been in place since 1989. This board has policies for gender mainstreaming as a self-evident strategy (Sandberg & Rönnblom, 2016, pp. 1754, 1759). Sandberg and Rönnblom (2016) illustrate similar efforts with several successful examples and point out that several other cities are following Umeå’s example to raise the

awareness and address equality issues. Moreover, they see this strategy as part of city branding and they argue that “being portrayed as a city with unequal opportunities for women and men is bad for city branding” (Sandberg & Rönnblom, 2016, p. 1755). Women’s rights to the city were also addressed by Yon and Nadimpalli (2017). They point to social isolation as the major concern, as well as intersectional discrimination (i.e. age, race, gender and ability) (Yon & Nadimpalli, 2017).

Equity issues also occurred within the context of the Safe Routes to School Program, by indicating that low income families could directly benefit from SRTS programs. McDonald and Aalborg (2009, p. 340) say that it is known that minority and low-income youth walk to school at rates two to three times those of white students (as cited in McDonald, 2008b). It happens mostly because they have no other options. Stewart et al. (2012, p. 246) also emphasize that the resource barrier is important to consider in SRTS proposal reviews, because “lower income areas are also often exposed to greater crime and traffic dangers” (as cited in Zhu and Lee, 2008). As stated by McDonald and Aalborg (2009, p. 340), the program goals of increasing walking and making walking safer might conflict, as “if to encourage more children to walk by choice may take resources that could otherwise be used to improve traffic safety in low-income and minority areas that have high walk rates and high pedestrian injury rates”. This demonstrates how creating safer places could also address the equality issues in society.

3.2.7.6 Summary

As data showed, the concept of safe cities focused mainly on social aspects and physical space/built environment issues. No established definitions for the concept of safe cities occurred. The major concerns were traffic safety and crime prevention. The importance of physical space and design and equity and equality issues also emerged.

Based on the analyses, the following principles are embedded in the concept of safe cities:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
- Planning is well designed both in terms of architecture and urban space.
- Planning addresses equity through social, economic and ethnic diversity.
- Planning addresses the need for safe environments.
- Planning promotes healthy lifestyles.
- Planning facilitates public education and awareness.
- Planning facilitates better public policy and decision making.

3.2.8 Smart Cities

3.2.8.1 Introduction

The concept of Smart Cities turned out to be too varied and ambiguous in academic literature. The initial article search in Scopus returned 1527 results over a wide spectrum related to the meaning of “smart”. As such, for this research, the concepts of tech cities and intelligent cities were used to further define the concept of Smart Cities.

For the key term “tech cities”, Scopus search returned 22 results, which covered the period from 2001-2017. The highest peak time for published articles was 2013 with 3 records, the second highest peak times were 2004, 2012 and 2015 with 2 records each and the remaining years had each one article published (Figure 17).

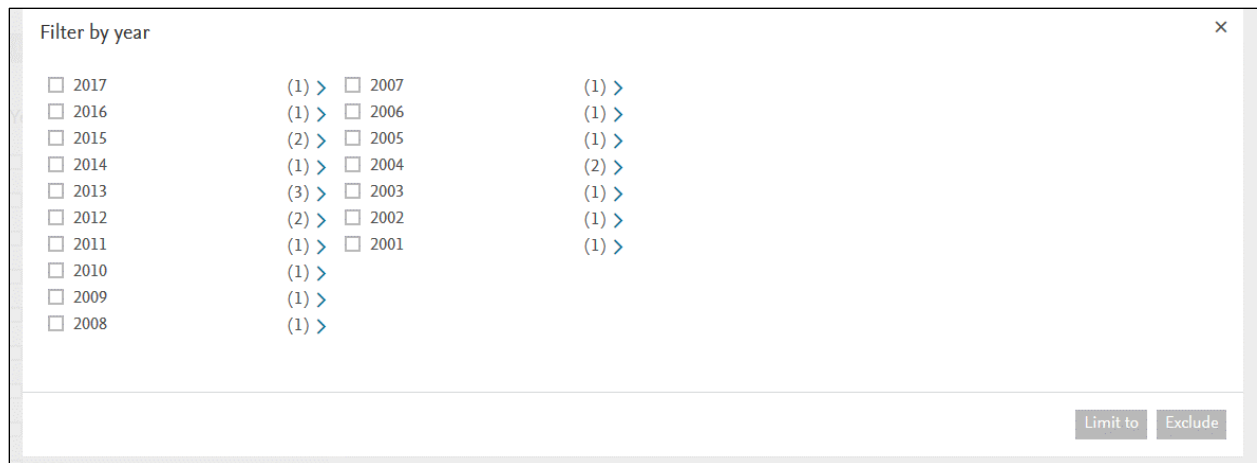


Figure 17. Extraction from Scopus search results for Tech Cities, search was conducted on October 14, 2017

For the key term “intelligent cities”, Scopus search returned 55 results, which covered the period from 1990-2017. The highest peak time for published articles was 2012 with 10 records, the second highest peak time was 2015 with 7 records and the third peak times had 6 record each in 2010, 2013 and 2014 (Figure 18).

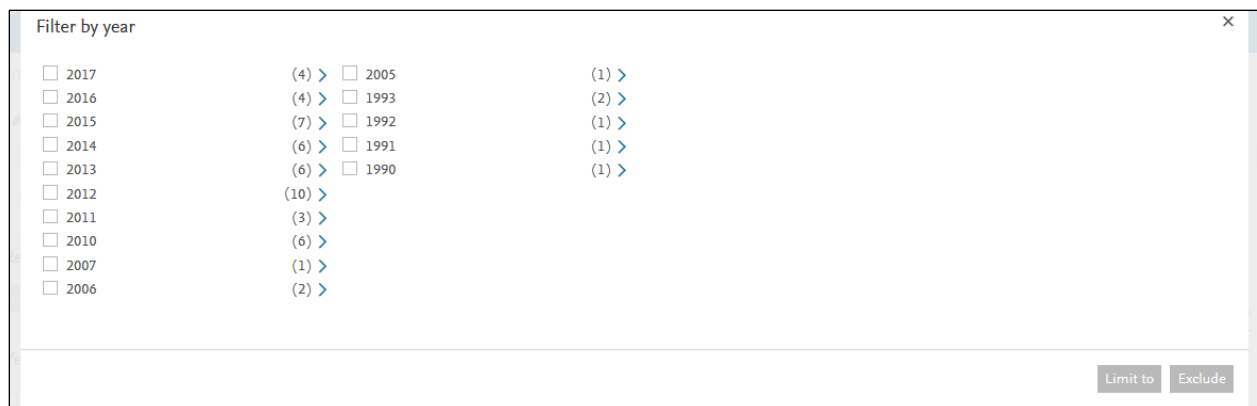


Figure 18. Extraction from Scopus search results for Intelligent Cities, search was conducted on October 16, 2017

The articles selected for content analysis was a combination of articles from both searched key terms. For the concept of tech cities all 22 articles were used to create the final selection of articles and for the

concept of intelligent cities first two peak periods (2015 and 2012) were used. In total, 39 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. The following variations of key words were used for the concept of Smart Cities: “tech cities”, “tech city”, “technology cities”, “technology city”, “intelligent cities”, “intelligent city”, “smart cities”, “smart city”, “innovative cities” and “innovative city”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Echeverri-Carroll, E., & Ayala, S. G. (2009). Wage differentials and the spatial concentration of high-technology industries. *Papers in Regional Science*, 88(3), 623–641.
<https://doi.org/10.1111/j.1435-5957.2008.00199.x>
2. Batty, M., Axhausen, K. W., Giannotti, F., Pozdnoukhov, A., Bazzani, A., Wachowicz, M., ... Portugali, Y. (2012). Smart cities of the future. *The European Physical Journal Special Topics*, 214(1), 481–518. <https://doi.org/10.1140/epjst/e2012-01703-3>
3. Nathan, M., & Vandore, E. (2014). Here Be Startups: Exploring London’s “Tech City” Digital Cluster. *Environment and Planning A*, 46(10), 2283–2299.
<https://doi.org/10.1068/a130255p>
4. de Jong, M., Joss, S., Schraven, D., Zhan, C., & Weijnen, M. (2015). Sustainable–smart–resilient–low carbon–eco–knowledge cities; making sense of a multitude of concepts promoting sustainable urbanization. *Journal of Cleaner Production*, 109, 25–38.
<https://doi.org/10.1016/j.jclepro.2015.02.004>
5. Schuurman, D., Baccarne, B., & De Marez, L. (2012). Smart Ideas for Smart Cities: Investigating Crowdsourcing for Generating and Selecting Ideas for ICT Innovation in a City Context. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(3), 11–12.
<https://doi.org/10.4067/S0718-18762012000300006>
6. Malek, J. A., Razak, N. A., & Nor, N. F. M. (2012). Post intelligent city development and hyperrealism of E-Community in Malaysia. *WSEAS Transactions on Information Science and Applications*, 9(4), 125–135.

7. Bunnell, T. (2015). Smart city returns. *Dialogues in Human Geography*, 5(1), 45–48.
<https://doi.org/10.1177/2043820614565870>
8. Vicini, S., Bellini, S., & Sanna, A. (2012). The City of the Future Living Lab. *International Journal of Automation and Smart Technology*, 2(3), 201–208.
<https://doi.org/10.5875/ausmt.v2i3.134>
9. Foord, J. (2013). The new boomtown? Creative city to Tech City in east London. *Cities*, 33, 51–60. <https://doi.org/10.1016/j.cities.2012.08.009>
10. Nathan, M. (2011). East London Tech City: Ideas without a strategy? *Local Economy*, 26(3), 197–202. <https://doi.org/10.1177/0269094211405929>

Eventually, as one article was identified as irrelevant for this research as no codes emerged from the content, the following article from the pool of Sustainable Cities were added to the collection of articles as it addressed the concept of smart cities:

11. Anthopoulos, L. (2017). Smart utopia VS smart reality: Learning by experience from 10 smart city cases. *Cities*, 63, 128–148. <https://doi.org/10.1016/j.cities.2016.10.005>

Qualitative analysis for each article was conducted to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). The ambiguity of the concept is further demonstrated by the fact that 31 out of 32 codes were identified and mentioned to some degree in the selected articles. Based on the analysis of selected articles the prominent themes identified related to the creation of and support for a digital economy and the creation and deployment of intelligent information and communications technologies (ICT) for governance. The occurrence of pertinent themes can be seen on Table 14 and the entire Data Accounting Sheet can be found in Appendix I.

Table 14. The occurrence of pertinent themes in data collections for Smart Cities

Tag/Code Data Collection		Built/Physical environment	Services	Education and awareness	Governance	Modern technology and innovation	Economic aspects	Fuzziness of concepts and terminology	Terms and definitions
1	(Echeverri-Carroll & Ayala, 2009)	x	x	x		x	x	x	x
2	(Batty et al., 2012)	x	x	x	x	x	x	x	x
3	(Nathan & Vandore, 2014)	x	x		x	x	x		
4*	(de Jong, Joss, Schraven, Zhan, & Weijnen, 2015)	x	x	x	x	x	x	x	x
5	(Schuurman, Baccarne, & De Marez, 2012)			x	x	x	x	x	x
6	(Malek, Razak, & Nor, 2012)		x			x			x
7#	(Bunnell, 2015)								
8	(Vicini, Bellini, & Sanna, 2012)		x	x		x	x	x	x
9	(Foord, 2013)	x		x	x	x			x
10	(Nathan, 2011)	x		x	x	x	x		
11*	(Anthopoulos, 2017)	x	x		x	x	x	x	x
Total:		7	7	7	7	10	8	6	8

* Article addresses multiple concepts

Not relevant

3.2.8.2 Definitions and key terminology/ideas

Most articles provided various explanations on key terms used within the concept of smart cities (Table 15). Most articles also addressed the ambiguous nature of the concept of smart cities. Terms such as smart cities, knowledge cities, or intelligent cities are often used interchangeably despite having various differences (de Jong et al., 2015; Schuurman, Baccarne, & De Marez, 2012). The dominant idea related to smart cities is the presence of digital technologies and platforms/systems (infrastructure). However, intelligent or smart solutions might not always be ICT based, smart design can exist without technological support (Anthopoulos, 2017). The concept of smart city has also generated a new vocabulary (crowdsourcing, sensing, data mining, mobile maps, big data, modelling, etc.) and new methods for

solving urban issues. As stated in a recent research by Anthopoulos (2017, p. 128), “Today the Smart city domain is being characterized by an emerging market that provides novel solutions for cyber-physical integration in the urban space”.

In general, smart cities are seen as cities that use ICT for providing multiple services such as mobile parking, transportation planning, inform and facilitate city planning and governance through online participation tools, data collection and analysis and have a high concentration of high-tech companies, usually in clusters or hubs (e.g, Batty et al., 2012; Foord, 2013; Nathan & Vandore, 2014; Schuurman et al., 2012).

Table 15. Explanations of the concept of smart cities in selected articles

Authors	Key terminology/ideas	Essence
Echeverri-Carroll & Ayala, 2009	No single definition of high-technology industries or firms. High-tech cities are with high-tech spatial concertation.	ambiguous; technology
Batty et al., 2012	Smart city is a city where ICT is merged with traditional infrastructures, coordinated and integrated using new digital technologies. Smart city has many synonyms – intelligent cities, virtual cities, digital cities, information cities, but all have focus to ICT. The term smart has been adopted into city planning through the cliché smart growth. ITC component in planning related issues refers to the idea that ICT is the platform/overall basis/tool to facilitate planning process. All services are designed and managed by using ICT.	ambiguous; technology
de Jong et al., 2015	In this bibliometric study, researchers explore 12 dominant city categories, including sustainable cities, digital cities, smart cities, intelligent cities, knowledge cities and state that in practice these terms often appear to be used interchangeably, which creates terminological fuzziness or even confusion. Study explores relationships between different terms and their key words and not providing a solid definition.	ambiguous

Table 15 (cont'd)

Schuurman et al., 2012	Smart cities have defined next to similar but different concepts such as digital cities, intelligent cities or ubiquitous cities. Concept of smart city is more user-centered and others are more technological deterministic in nature. All aim to develop sustainable and participatory communities. Concepts are often used interchangeably, but have different arguments to be seen separately. In practice a lot of cities use the concept of smart city to refer to their digital city-initiatives. Smart city concept has a collaborative aspect between different stakeholders. A city needs to be digital, wired and intelligent in order to become smart, but it does not happen automatically.	ambiguous; participation
Malek, Razak, & Nor, 2012	Intelligent city refers to a city that has a complete information technology infrastructure, telecommunication system, electronic technology and mechanical technology.	technology
Vicini, Bellini, & Sanna, 2012	Case study of a living lab that is seen as a real-life example of a smart city or intelligent city, which focuses on users, ICT, researchers and businesses. Researchers point out the existence of variety of definitions regarding the concepts of smart city and intelligent city.	technology; participation; ambiguous
Foord, 2013	Explores London as an early advocate of the creative city concept and how it has become a Tech city. Article is not providing a solid definition of tech city/smart city. An emergence of a new hybrid firms – creative digital agencies. Digital cluster as a derivate from creative cluster, where the concept of cluster played a key role.	tech-based clusters
Anthopoulos, 2017	Refers to ambiguity of the concept of smart city and questions its feasibility and potential. Smart city provides novel solutions for cyber-physical integration in the urban space. Explores components/requirements for cities to be considered smart as there are many cities that self-claims to be a smart city.	ambiguous; technology; branding

3.2.8.3 The digital economy

The concept of smart cities is closely aligned to concepts of digital economy, digital ecosystem, or digital industry and is seen as driver for economic success and competitiveness (Anthopoulos, 2017; Batty et al., 2012; Nathan, 2011). Anthopoulos (2017, p. 146) states, “smart city enhances local economic capacity regardless the city size”. Research by de Jong et al. (2015) also illustrate that one of the characteristics of smart city is that it improves administrative and economic efficiency (as cited in Caragliu et al., 2011) and one of the six ingredients of smart city is smart economy (as cited in Giffinger and Gudrun, 2010; Lee et al., 2013). Vicini et al. (2012) also highlight the nature of smart city as business-oriented city, which produce socio-economic value (as cited in Schaffers et al., 2011). Important economic aspects are also

evident in the research of Echeverri-Carroll and Ayala (2009, p. 623) who argue that “workers in high-tech cities earn on average 17% more than those in low-tech cities [...]” and “high-tech cities actually make workers more productive”.

Smart/tech cities have a high degree of talented and skilled people. As Echeverri-Carroll and Ayala (2009, p. 626) note that high-technology firms prefer to locate in cities with large amounts of skilled workers, because this environment makes workers more productive and facilitate the development of new products and processes (as cited in Zuker et al., 1998; Moretti, 2004). Therefore, higher productivity contributes to economic success. Similarly, Nathan and Vandore (2014) point out that “clusters generate and attract new entrants, who may enhance knowledge spillovers, increase level of competition, or both” (as cited in Markusen and Venables, 1999).

All selected articles identified and discussed the notion of modern technology and innovation and the presence of tech-savvy workers. High-tech industries are characterized by innovative firms employing technology-oriented workers with at least a college degree (Echeverri-Carroll & Ayala, 2009). This supports the importance of scientific and technical knowledge and higher concentration of high skilled and educated people in smart cities. As Nathan and Vandore (2014, p. 2285) note, “digital and creative industries are knowledge intensive, with low entry barriers – and so feature large number of small, young firms”. Human capital is considered an important driver of economic development (as cited in Yu, 2004) (Echeverri-Carroll & Ayala, 2009).

The built environment and social networks are also important in supporting this digital economy. High tech firms have tendency to locate in clusters (Nathan & Vandore, 2014). Echeverri-Carroll and Ayala (2009) point out that the importance of ‘buzz’ plays important role, which is the result of the co-location

of economic activities. Also, it is believed that people in a buzz environment interact and cooperate with other like-minded people (Echeverri-Carroll & Ayala, 2009). Thus, the face-to-face contact, formal or informal, is a crucial component/characteristic for smart cities. As Foord (2013, p. 55) point out, “The proliferation of tech-celebrity events, meet-ups, hacks and mentoring schemes contribute to a growing sense of an ‘ecosystem’ of interconnected individuals for whom place based face-to-face contact is particularly important”. Consequently, direct social interactions require physical meeting places and are facilitated by spatial proximity. Nathan and Vandore (2014, p. 2285) also point out, that “soft infrastructure, such as bars and cafes, helps in sourcing collaborators and opportunities, and offers places to get work done” (as cited in Currid, 2007).

Regarding the work space, competition for physical space also take place by competing industrial users such as financial services or professional services (as cited by Pratt, 2009) (Nathan & Vandore, 2014). Consequently, digital firms may face some gentrification issues. Research by Nathan and Vandore (2014) supports the idea that physical place matter for high skilled digital workers, for instance central location, physical accessibility, relatively cheap space, proximity to clients, or sociocultural features such as food and coffee places and nightlife. Also, cultural milieu as a source of inspiration and ideas and strong sense of community are important features for digital workers in smart cities (Nathan, 2011; Nathan & Vandore, 2014).

3.2.8.4 E-governance and the deployment of digital technologies

Content analysis showed that majority of selected articles highlighted the importance of smart government (or e-government) and mobile/online services as key characteristics for smart cities. Providing online services and products for cities is considered making cities smart or smarter (Batty et al., 2012; Vicini et al., 2012), for instance healthcare, mobility, wayfinding and transportation planning (incl.

traffic flows, congestions), communication and information, energy controlling, safety and security etc. Governments can engage and coordinate users of several services (Batty et al., 2012, p. 497). Available open data is another characteristic to smart cities. This means that city governments are making public data available in many different formats to wide audiences and as Batty et al. state (2012, p. 500), “this is also part of the transparency agenda in contemporary government, but it also relates to questions of confidentiality and privacy”.

Contemporary digital applications serve and facilitate city planning and governance by providing “new intelligence functions that utilize much wider participation in decision-making as well as real time construction and use of a variety of simulations and optimizations relevant to decision support” (Batty et al., 2012, p. 507). Therefore, concept of smart city provides an opportunity for citizens to be more engaged and influence the governance of their cities. “Smart cities are equitable cities”, as stated by Batty et al. (2012, p. 516). At the same time, researchers acknowledge that new technologies have a tendency to polarize and divide at many levels and there’s a need to address these issues (Batty et al., 2012, p. 485). The role of internet, social inclusion, provision of high quality services and empowerment of citizens with information are prominent features of smart cities as highlighted also by de Jong et al. (2015, p. 36). However, it can be argued that access to smart city services or communications are not available to all members of society (Anthopoulos, 2017). For instance, access to internet or smart phones, which is essential to using smart city products and services, creates social exclusion and impact the quality of life for those who cannot afford or have no aptitude to use modern technology.

In terms of using technology in smart cities, research by Batty et al. (2012, p. 482) demonstrate that being smart does not only mean the ability to automatize different services or functions, but how to monitor, understand, analyze, synthesize and plan the city to improve its efficiency, equity and quality of life. Thus,

as Batty et al. (2012) point out, the aim of the concept is to improve the performance of cities, improve their competitiveness and provide new ways to tackle poverty, social deprivation and poor environment (as cited in Harrison et al., 2010, p. 54).

Smart city is associated with innovation, smart homes, smart government, urban infrastructure management, smart grid, living labs, sensor networks, cloud computing and the internet of things among others. These all refer to strong ICT component of the concept (de Jong et al., 2015). One goal of smart cities is to use ICT to engage with the community to solve key problems of cities. Batty et al. (2012) demonstrate the use of online participation tools to identify problems and find possible solutions in areas of the built environment, urban design, transportation and mobility and urban and regional planning. Also, several online products and services are developed to better fit users' needs and users input is requested to enhance the outcomes. Thus, crowdsourcing, end-user participation and co-creation processes have become part of the innovation processes and is characteristic to smart cities (Schuurman et al., 2012; Vicini et al., 2012).

In general, smart city is about collecting (mining) and analyzing big data to provide input in to future decision-making within city management and planning. Batty et al. (2012, p. 506) argue, "one of the reasons why so many companies and governments are embracing the ideas of the smart city is that there is now a widespread view that to remain competitive and be ahead of the game, cities must mobilize ICT to become ever smarter in pursuit of their competitive advantage". The presence of educated citizens can help to achieve this progress with their innovative solutions. Therefore, there's no surprise that city branding and marketing promote the concept of smart cities. Anthopoulos (2017, p. 147) identifies a set of features that a city should incorporate in order to become a smart city: cities should have a smart agenda, cities should provide open data, mobile services or Apps and have some smart infrastructure.

Another important point made by Batty et al. (2012, p. 512) is that with the emergence of internet and information technology, urban planning has experienced paradigm shifts. As ICT has become an essential tool to help planners and decision makers in their work, the development of information infrastructure and availability almost to everyone, is one of the major shifts. This allows the routine collection of data, in real time, which aids in solving problems more efficiently. Secondly, people's spatial behavior and travel patterns have changed and the ability to collect information in real time (routine data sensing) is resulting in massive amounts of data that require new tools and knowledge to use and analyze this information. Finally, the importance of visualization and the role of social media and access to the web is considered crucial (as cited in Song et al., 2010, p. 327). Thus, ICT helps to understand how people perceive their environments, what their daily patterns and interactions are and understand people's expectations for the city. Similarly, Malek et al. (2012) illustrate these changes by the idea of hyperreality - how ICT and digital/internet systems have impacted people's everyday lives and behavior, for example e-mails, texting, television, shopping, finding information and entertainment. All these changes in people's everyday life should inform the planning and management of contemporary cities.

3.2.8.5 Summary

As data showed, the concept of smart cities is still relatively vague. There is much discussion of multiple perspectives of the concept and concept-related framework amongst scholars. However, the most prevalent theme related to smart cities is the presence of digital technologies (ICT) that aims to provide better services to citizens and facilitate local governments in city planning and management. From the perspective of digital workers, socio-cultural aspects such as face-to-face communication and location of work space are key characteristics.

Based on the analysis, the following principles are embedded in the concept of smart cities:

- Planning incorporates arts, culture and heritage.
- Planning facilitates a sense of community cohesion and place attachment.
- Planning values and implements citizen participation through community engagement and collaboration.
- Planning facilitates better public policy and decision making.
- Planning uses innovative technology to communicate with stakeholders and residents.
- Planning is data driven.
- Planning promotes economic growth and competitiveness.

3.2.9 Smart Growth

3.2.9.1 Introduction

With the concept of “Smart Growth” Scopus search returned 483 results overall, which covered the period from 1997-2017. The highest peak time for published articles was 2013 with 41 records, the second highest peak time was 2014 with 37 records and the third peak time was 2016 with 36 records (Figure 19).

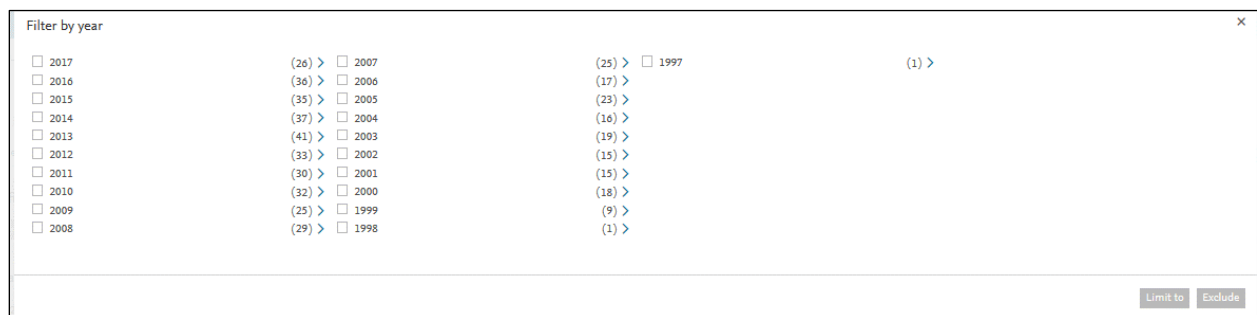


Figure 19. Extraction from Scopus search results for Smart Growth, search was conducted on September 27, 2017

ProQuest search returned 151 results overall, which covered the period from 1999-2017. The highest peak time for published articles was 2003 with 15 records, the second highest peak time was 2011 with 14 records and the third peak times were 2012 and 2013 with 13 records each (Figure 20).

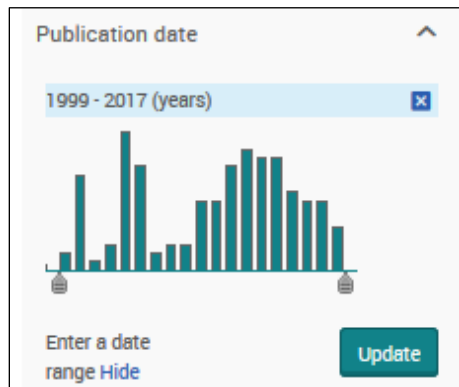


Figure 20. Extraction from ProQuest search results for Smart Growth, search was conducted on September 27, 2017

The articles selected for content analysis were a combination of articles from both databases– year 2013 as the first peak period was used for Scopus and year 2003 as the first peak period was used for ProQuest. In total, 56 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Smart Growth: “smart growth”, “managed growth” and “smart cities”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Yang, Y., & Stockard, J. (2013). Do Smart-Growth Environments Benefit Single Mothers? Evidence from Thirty MSAs Using the American Housing Survey Data. *Journal of Planning Education and Research*, 33(4), 411–426. <https://doi.org/10.1177/0739456X13499935>
2. MacLeod, G. (2013). New Urbanism/Smart Growth in the Scottish Highlands: Mobile Policies and Post-politics in Local Development Planning. *Urban Studies*, 50(11), 2196–2221. <https://doi.org/10.1177/0042098013491164>

3. Dierwechter, Y. (2013b). Smart Growth and State Territoriality. *Urban Studies*, 50(11), 2275–2292. <https://doi.org/10.1177/0042098013478230>
4. Goetz, A. (2013). Suburban Sprawl or Urban Centres: Tensions and Contradictions of Smart Growth Approaches in Denver, Colorado. *Urban Studies*, 50(11), 2178–2195. <https://doi.org/10.1177/0042098013478238>
5. Pavlot, L., & Gorman, H. S. (2013). Environmental Reviews and Case Studies: Public Participation and Smart Growth in Silver Spring, Maryland. *Environmental Practice*, 15(2), 156–168. <https://doi.org/10.1017/S1466046613000069>
6. Dierwechter, Y. (2013a). Smart city-regionalism across Seattle: Progressing transit nodes in labor space? *Geoforum*, 49, 139–149. <https://doi.org/10.1016/j.geoforum.2013.06.008>
7. McCauley, S. M., & Murphy, J. T. (2013). Smart Growth and the Scalar Politics of Land Management in the Greater Boston Region, Usa. *Environment and Planning A*, 45(12), 2852–2867. <https://doi.org/10.1068/a45307>
8. Filion, P. (2003). Towards smart growth? The difficult implementation of alternatives to urban dispersion. *Canadian Journal of Urban Research*, 12(1), 48–70.
9. Tomalty, R., & Curran, D. (2003). Living it up: the wide range of support for smart growth in Canada promises more livable towns and cities. *Alternatives Journal*, 29(3), 10–18.
10. Herrschel, T. (2013). Competitiveness AND Sustainability: Can “Smart City Regionalism” Square the Circle? *Urban Studies*, 50(11), 2332–2348. <https://doi.org/10.1177/0042098013478240>

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Smart Growth 30 out of 32 codes were identified across the selected articles. Based on the analysis of selected ten articles, five major focus areas related to “smart growth” emerged - physical space/built environment, social aspects, process related issues, economic and environmental sustainability aspects. In addition, all articles provided some explanation of the meaning of the concept. The occurrence of pertinent themes can be seen on Table 16 and the entire Data Accounting Sheet can be found in Appendix J.

Table 16. The occurrence of pertinent themes in data collections for Smart Growth

Tag/Code Data Collection		Built/Physical environment	Walkability and accessibility	Mixed use	Density	Open space	Transportation and mobility	Equity	Affordability	Public participation	Environmental Sustainability	Economic aspects	Terms and definitions
1	(Yang & Stockard, 2013)	x	x-	x-	x-	x	x-	x-	x-				x
2	(MacLeod, 2013)		x	x	x	x	x-	x-	x	x-	x		x
3	(Dierwechter, 2013b)			x	x	x	x	x			x		x
4	(Goetz, 2013)	x	x	x	x		x			x		x	x
5	(Pavlot & Gorman, 2013)	x	x	x	x-	x-	x-	x	x-	x-	x	x-	x
6	(Dierwechter, 2013a)			x	x	x	x-	x-	x-	x		x	x
7	(McCauley & Murphy, 2013)	x	x	x	x	x	x		x	x		x	x
8	(Filion, 2003)	x	x	x	x	x	x				x	x	x
9	(Tomalty & Curran, 2003)	x	x	x	x		x	x	x	x	x	x	x
10	(Herschel, 2013)	x				x	x		x-	x	x	x	x
Total:		7	7	9	9	8	10	6	7	7	6	7	10

- Negative attributes identified

3.2.9.2 Definitions and key terminology/ideas

All ten articles defined or explained the meaning of smart growth (Table 17). Overall, smart growth is seen as a reaction to sprawling urbanization with the aim to manage urban growth and make environmentally, economically and spatially more efficient, thereby smart, decisions. The aim of smart growth is also to save or protect land and open space, create more compact, dense and mixed use urban environments that are pedestrian and transit friendly, thus, seeking to reduce car dependency and adverse environmental impacts. The concept of smart growth has very close connections to New Urbanism. In fact, several articles addressed Smart Growth and New Urbanism as synonymous concepts whereas others pointed out that Smart Growth is an offshoot of New Urbanism. Public-private partnerships,

collaboration and coalitions and market-based approaches were also noted as characteristic of smart growth. Also, data showed that smart growth is often part of a political agenda for future development. However, the approaches regarding the concept are broad and cover different areas and scales - from political to spatial and from conceptual and theoretical to practical approaches. Hence, it is rather complicated endeavor to capture the essence of this concept. Moreover, as Tomalty and Curran (2003, p. 11) justifiably highlight that “many long-time planning professionals and environmental activists question how smart growth differs from good land-use planning”. As the concept of smart growth is rather all-encompassing, its genuine meaning and purpose remains obscure.

Furthermore, similar to other broad concepts, smart growth creates confusion and is used whenever convenient. For instance, as Filion (2003, p. 53) points out, “Actors with highly divergent urban agendas invoke smart growth to justify their stands on various urban issues and in doing so multiply interpretations given to this concept. For example, environmentalists champion radically altered urban forms, where energy consumption and waste production are drastically reduced. At the other end of the spectrum is the liberal use of the smart growth label by municipal administrations and developers alike, who affix it to virtually any change to urban areas”. Additionally, the notion of smartness is discussed by Herrschel (2013), who points out the trendiness of ‘smart’ in the policy discourses (e.g., smart cities). He argues that this points to efficacy of policies, which aims to produce the desired outcomes with the most effective use of resources and contrasting it to notion of ‘unintelligent’ or ‘dumb’ growth (Herrschel, 2013). Consequently, the concept of smart growth serves also as a good and favorable marketing and psychological tool to encourage/conduct/conduce/promote desired development.

Table 17. Explanations of the concept of smart growth in selected articles

Authors	Key terminology/ideas	Essence
Yang & Stockard, 2013	Smart growth environments as urban forms that exhibit the “compact and mixed-use” physical characteristics. While not identical to New Urbanism, smart growth aligns itself closely with New Urbanism in the use of “traditional” neighborhood design. A smart-growth environment, particularly at a regional scale, saves land, protects open space and likely allows greater efficiency in public infrastructure investment (as cited in Burchell et al. 2005; Litman 2006).	compact and mixed use, design; open space, economically efficient
MacLeod, 2013	In 2000 Smart Growth America emerged as a focal point for advocating sustainable metropolitan growth at various government levels, pressing vigorously for reduced energy consumption, improved environmental air quality, civically responsible infrastructures and ecologically sustainable housing at affordable rates (as cited in Downs, 2005; SGA, 2009). New Urbanism and Smart Growth are convergent (not quite synonymous) as stated by Duany (as cited in Zimmerman, 2001).	environmental sustainability; affordability; close relation to New Urbanism
Dierwechter, 2013b	Smart growth seeks to promote and stop growth, amongst other goals, using an eclectic array of territorial management tools often separated from one another on the ideological spectrum.	land management tool, growth management
Goetz, 2013	There has been a surge of interest in sustainable urban growth, featuring concepts such as smart growth, new urbanism, growth management, affordable housing, infill and transit-oriented development and urban growth boundaries. A distinguishing characteristic of smart growth has been its acceptance and embrace of neoliberal approaches to urban redevelopment, featuring public–private partnerships and, in many cases, private-sector-led development. Smart Growth has emphasis on a market-based approach to limit sprawl and encourage infill development.	ambiguous; collaboration; private-sector-led development; sprawl management; compact
Pavlot & Gorman, 2013	The concept of smart growth, an offshoot of the architectural and planning community’s New Urbanism movement, emerged in the 1990s among those in the environmental policy community seeking an alternative to automobile-centered sprawl (as cited in Knaap and Talen, 2005). Smart growth, according to the Smart Growth Network (as cited in SGN, 2005), a coalition of public and private organizations, encourages development that: 1. Creates a range of housing opportunities and choices; 2. Creates walkable neighborhoods; 3. Encourages community participation and stakeholder collaboration; 4. Fosters distinctive, attractive communities with a strong sense of place; 5. Makes development decisions predictable, fair and cost effective; 6. Mixes land uses; 7. Preserves open space, farmland, natural beauty and critical environmental areas; 8. Provides a variety of transportation choices; 9. Strengthens and directs development towards existing communities; 10. Takes advantage of compact building design.	close relation to New Urbanism; mixture of housing, walkability, participation and collaboration, sense of place, economically efficient, mixed use, open space, transportation choices, compact

Table 17 (cont'd)

Dierwechter, 2013a	Coalescing around a breezy but influential catchphrase—smart growth—the US planning profession, in particular, has ostensibly enjoyed fruitful alliances with state lawmakers, governors, mayors, councilors, federal officials, business associations, environmental groups and labor unions. Heading into the mid-2010s, for all its battle scars, smart growth constitutes a core component of the expected governance agenda of numerous large metropolitan regions and even a few US states. Much like the rational comprehensive model that dominated planning doctrine for so long, smart growth is more of a methodology or a broad heuristic than a grand theory (as cited in Beauregard, 2012). It offers guidelines – principles and axioms – for how to go about planning by foregrounding what is supposedly important about sustaining urban space as political communities imagine and activate their respective futures. It is helpful because it is normative and prescriptive and more geographically substantive than the rational comprehensive model.	collaboration; governance agenda; normative and prescriptive guidelines
McCauley & Murphy, 2013	Smart-growth strategies address regional planning and land-development concerns through market-based incentive programs aimed at increasing development densities and coordinating other land-management priorities. The smart-growth agenda developed in the mid-1990s as a response to the low-density and functionally separated development patterns that had come to characterize American suburbia.	dense, compact, land management tool; growth management
Filion, 2003	It represents a reaction to mounting resentment towards the adverse consequences of prevailing forms of urbanization: air pollution, high development costs and deteriorating quality of life. The smart growth concept calls for forms of urbanization that are more compact, transit- and walking-friendly, conducive to high-quality urban life and less environmentally damaging and infrastructure hungry than present urbanization patterns. Smart growth is primarily a reaction to the sprawling form of urbanization. In essence, smart growth advocates forms of development that abate land and infrastructure requirements and are less car reliant than present patterns.	environmental sustainability, economic efficiency; compact, walkability, transit, growth management
Tomalty & Curran, 2003	The idea behind smart growth is that with the right land-use, development and public finance strategies, we can enhance the quality of life in communities, preserve ecological integrity and save infrastructure and other costs over the long term. Many long-time planning professionals and environmental activists question how smart growth differs from good land-use planning. Given its broad meaning, the term smart growth (not surprisingly) is open to co-optation. In the US, a large number of statewide citizen groups have organized under the smart growth banner to control sprawl, while the National Association of Home Builders trumpets smart growth as a reason to continue building low-density housing on the urban fringe.	economically efficient; environmentally sustainable; ambiguous

Table 17 (cont'd)

Herrschel, 2013	The notion of 'smartness' in managing urban growth emerged in the US in the early 1990s (as cited in Downs, 2005; Burchell et al., 2000) as a central feature of the new smart growth concept. In its essential rationale—and there are many variations in its definition (as cited in Knaap and Talen, 2005)—it is an inherently North American, specifically US-based, concept and needs to be understood in its specific neoliberal, locality-centric and 'home rule' context with its strong sense of local self-government. 'Smart growth' emerged as a concern about the environmental, social and economic costs of continuous suburban sprawl (as cited in Alexander and Tomalty, 2001; Dierwechter, 2008). The concept is thus inherently political. Smart growth seeks to facilitate a shift in values, priorities and perspectives from a narrow, short-term and often monetary, perspective, to a broader, more holistic and longer-term view embracing both collaborative political processes and spatial perspective.	growth management; ambiguous; political land management tool; collaboration; spatial approach to land management
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In addition to various explanations about the concept of smart growth noted in Table 17, majority of selected articles identified and discussed the theme of physical space, transportation, mixed use, density, open space, walkability and accessibility, affordability, equity, collaboration and participation, economic aspects and environmental sustainability. In many cases the themes were mutually interwoven and embedded. Built environment and physical space issues were the main focus of the concept of smart growth.

3.2.9.3 Built environment and physical space, economic efficiency and environmental sustainability

Density and Mixed Use

Content analyses demonstrated that issues of physical space and built environment occurred in the majority of selected articles. Most articles discussed or mentioned densification, compact, mixed use development with a range of housing choices and public spaces, pedestrian friendly environments that provides choices of transportation modes and good access to (basic) services and employment, as

characters of smart growth. Clustered, infill and brownfield development in urban cores are also associated with smart growth. Conserving and protecting rural land and open space are also aims of the smart growth agenda. However, mixed use, density and transit related themes were the most prevalent and debated.

Although mixed use and higher densities are desired outcomes of smart growth, they are not preferred qualities for all population groups. For instance, Yang and Stockard (2013) explored the satisfaction of single mothers and two parent households and they found that single mothers are most satisfied with living in a compact region with clusters of exclusively single-family dwellings, which are close to green and open space, without the immediate presence of nonresidential uses and with basic shopping nearby. Yang and Stockard (2013, p. 413) also point out that “Burton’s (2000, 2003) correlational analysis of data regarding cities in the United Kingdom found that “compactness” had negative impacts on domestic living space, affordable housing, crime levels, and walking, with stronger negative impacts for low-income households”. However, improved public transportation use, reduced social segregation and better access to facilities are positive impacts of compactness for low-income households (as cited in Burton, 2000, 2003) (Yang & Stockard, 2013). Also, Pavlot and Gorman (2013) while exploring the satisfaction and awareness of smart growth of local stakeholders, point out the general concerns regarding increased density in the low-density areas. They highlight that the effect of statewide smart growth plans “often involved one group of people making sacrifices for the benefit of others” (Pavlot & Gorman, 2013, p. 165). Furthermore, they illustrate, how some stakeholders were concerned about loss of character caused by new patterns of development and residents of neighborhoods expressed the preference to stay in low-density suburbs. Also, Tomalty and Curran (2003, Living with density section, para. 6) point out that “Citizens do not envision living in a high-rise jungle, but they do favour low-rise, townhouse neighbourhoods that remain within half an hour drive of agricultural and resource lands and significant

natural areas”. In addition, Tomalty and Curran (2003) discuss that some smart growth recommendations are unrealistic such as mixed use (e.g., shops and services within neighborhood) as is not economically viable in suburban neighborhoods when most people can access large retail areas within short driving distances.

Also, the importance of public spaces was addressed by several articles. For instance, Pavlot and Gorman (2013) were exploring the stakeholders’ satisfaction and they point out that the most consistent concern expressed about development in Silver Spring’s town center was the need for public gathering spaces. Although developers were required to provide public spaces in their property, the overall result were too scattered. Consequently, as these spaces were also privately owned and guarded spaces, they were not used effectively and were unattractive destinations to people.

Transportation and mobility

Majority of the evidence in/from data is related to transportation issues. As Dierwechter (2013b, p. 2277) supports, “Stripped to its basics, US smart growth refers to the deliberate densification of development in new and established communities, especially near transport infrastructure” (as cited in Adams, 2010). Also, Pavlot and Gorman (2013, p. 157) discuss that “Transportation is another aspect of the state’s effort to encourage smart growth”. The focus of all scales of government (e.g., federal, state, city-regional and local) is to improve transportation choices and increase mobility, especially when people are becoming more transit reliant (Dierwechter, 2013a). However, as Dierwechter argues that investments to improve transportation infrastructure could benefit areas, which are populated “by social elites who already enjoy multiple mobility choices” rather than serve areas with suburban working poor who are excluded from the “nodal geographies of smart sustainability” (Dierwechter, 2013a, p. 145).

Smart growth investments are often related to transportation oriented large infrastructure projects. Dierwechter (2013b, p. 2285) points to spending on highway projects as “the preferred transport investment in most smart growth toolkits”. The aim of these investments are to improve existing facilities and to transform highways into more complex spaces rather than encourage sprawl (Dierwechter, 2013a). For instance, according to Dierwechter (2013a, p. 2285) the majority of the “early ARRA [American Recovery and Reinvestment Act] highway disbursements in the Seattle-Tacoma city-region during 2009 were ‘smart’”. For example, the construction of HOV (high occupancy vehicle) lanes which benefit bus riders and commuters who make the effort to car pool is well compatible with the smart growth principles in terms of equity and ecological aspects (Dierwechter, 2013b). Goetz (2013) demonstrates the importance of transportation and transit oriented approach of smart growth with his research on the Denver metropolitan area. The example of Denver illustrates positive effects of transit oriented development, which includes for instance the 16th Street pedestrian retail mall and the redevelopment of the area around Union Station and Coors Fields. As he points out, “the most ambitious smart growth project in the metropolitan area has been the Regional Transportation District (RTD) FasTracks programme that will add 122 miles of light and commuter rail transit and 18 miles of bus rapid transit in six corridors radiating outward from a redeveloped Union Station” (Goetz, 2013, p. 2188). Furthermore, he highlights that, “vastly expanded rail transit system was a significant departure from the automobile/highway orientation of the post-war period”, especially in the context where the effort to build a regional rail system were voted down for more than three decades (Goetz, 2013, p. 2188). As a result, employment density and population have been increasing in its transit and pedestrian-oriented urban centres since 1990 (Goetz, 2013).

Filion (2003) argues, that is difficult to fight against the values, attitudes and preferences of majority of North Americans who willingly live in environments that they are most familiar with. In order to increase

walking levels and provide and promote public transit (i.e., reduce car dependence), appropriate density should be arranged. Filion (2003) proposes a strategy that would consist of channeling high-density residential developments and workplaces to corridors with a multi-purpose boulevards, where retail and institutions would coexist. According to Filion (2003), this would create alternatives to car dependent suburbs providing walkable environments with high densities, public spaces and services.

Economic and environmental sustainability aspects

Most decisions in smart growth are driven by the goal of economic efficiency. As Goetz (2013, p. 2181) illustrates, “It has been estimated that the savings from a controlled growth scenario as opposed to uncontrolled growth in the US for the period 2000–25 include 4 million acres saved from conversion to urban land, \$12.6 billion saved in water and sewer infrastructure costs, \$109.7 billion saved in road infrastructure costs and 49.6 million daily vehicle miles not travelled, which would result in substantially improved air quality and significantly lower greenhouse gas emissions (as cited in Burchell et al., 2002)”. Also, Filion (2003) pointed out that less spending on infrastructure would reduce urbanization expenses. Thus, it would save natural resources and promote more livable communities.

Similar to economic efficiency, environmental sustainability and environmental protection are overall goals for smart growth. According to Pavlot and Gorman (2013, p. 167), “Smart growth lies at the juncture of environmental policy and regional planning, with the end goal being development that is environmentally and socioeconomically sustainable and just”. Also, Dierwechter (2013b, p. 2277) highlights that “smart growth involves a comprehensive strategy of regional sustainability that suggests economic efficiency, environmental protection, a high quality of life and social equity can be achieved through concerted and negotiated land use policies” (as cited in Scott, 2008, p. 17). Saving land, protecting open space, densifying urban cores with compact and mixed-use environments, reducing car dependence

by providing public transport/transit modes and promoting walking and biking, encouraging energy efficiency, are all smart growth's efforts to achieve more environmentally sustainable outcomes.

3.2.9.4 *Equity and affordability*

Content analyses demonstrated that themes of equity and affordability occurred in the majority of selected articles. However, mostly these issues were in the form of rhetorical statements that highlighted the importance of these issues with little discussion. Mostly, the topics of equity and affordability were addressed only in a theoretical sense. For instance, Tomalty and Curran (2003, p. 11) point out that “while land use is a large part of smart growth, it is also about addressing regional equity - about who pays for new roads and infrastructure, about the affordability of housing, the property value benefits of healthy ecosystems, and the true costs and benefits of economic development”.

Yang and Stockard (2013, p. 413) discuss the importance of equity and point out that the “social equity achievement of smart growth development is taken for granted”. They discuss how smart growth aims to benefit disadvantaged groups, for instance low income families or single mothers. However, as they highlight that “Some studies have shown that the smart growth movement in the United States generally lacks adequate engagement of minority and low-income residents” (as cited on Rast 2006; Day 2003) (Yang & Stockard, 2013, p. 423). Furthermore, “as urban forms become more compact, regions tend to witness more serious housing affordability problems for economically vulnerable groups” (as cited in Burton 2000, 2003; Kahn 2001) (Yang & Stockard, 2013, p. 412).

Although smart growth aims to create equitable and affordable environments, there is evidence that people had to move because housing and rental prices were rising. Keeping it affordable is seen as a real

challenge. Eventually, instead of promoting people to live close to work, it has the opposite effect and gentrification takes place (Pavlot & Gorman, 2013).

3.2.9.5 Collaboration and public participation

Collaboration and public participation components are key characteristics of smart growth. Majority of articles addressed the importance of these issues. For instance, MacLeod (2013) discussed the public engagement process for the Scottish Highlands and the effects of design charrette. His research revealed the conflicts between some political authorities and developer's power and public opinion. The research by MacLeod (2013) indicated that although design charrette is seen as a strongly engaging process, it can also turn out to be formalistic with many predetermined decisions. As MacLeod (2013, p. 2212) illustrates, "This system gives the superficial appearance of engagement and legitimacy, whilst focusing on delivering growth expedited through some carefully choreographed processes for participation which minimise the potential for those with conflicting views to be given a meaningful hearing".

Nevertheless, several articles illustrated the importance and effective collaboration between stakeholders, partnerships, alliances, coalitions, networks and other forms of cooperation. Tomalty and Curran (2003, Citizen Engagement section, para. 3) point out that "Smart Growth BC [the non-profit group in British Columbia] has made citizen education and involvement a priority". Also, they highlight that Ottawa is working with the community in order to develop basic design guidelines for development areas and then developers should follow these guidelines (Tomalty & Curran, 2003). "Negotiated coordination and collaboration is central to the concept of 'smartness'" in the concept of smart growth (Herrschel, 2013, p. 2333). The engagement on stakeholders and different types of collaboration play key role in the concept of smart growth.

3.2.9.6 Summary

As content analysis demonstrated, the concept of smart growth focused mainly on the built environment, such as transportation, density, mixed use, walkability and open space. Transportation and mobility related issues were the central focus of the data. The importance of affordability, equity and collaboration and participation also emerged as well as economic and environmental sustainability aspects were addressed as key characteristics for the concept of smart growth. It can be said that compared to New Urbanism, Smart Growth is more regional and large-scale oriented and is clearly a transportation focused approach, whereas new urbanism is a more urban design focused approach.

Based on the analyses, the following principles are embedded in the concept of smart growth:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
- Planning incorporates a mix of land uses and diversity of functions.
- Planning exhibits appropriate densities and promotes compact development.
- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning values natural environments, habitats and resources.
- Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.
- Planning addresses equity through social, economic and ethnic diversity.
- Planning values and implements citizen participation through community engagement and collaboration.
- Planning promotes interdisciplinary collaboration and public-private partnerships.
- Planning promotes economic growth and competitiveness.

3.2.10 Sustainable Cities

3.2.10.1 Introduction

With the concept of “Sustainable cities” Scopus search returned 928 results overall, which covered the period from 1991-2018. The highest peak time for published articles was 2017 with 103 records, the second highest peak time was 2015 with 98 records and the third peak time was 2016 with 93 records (Figure 21).

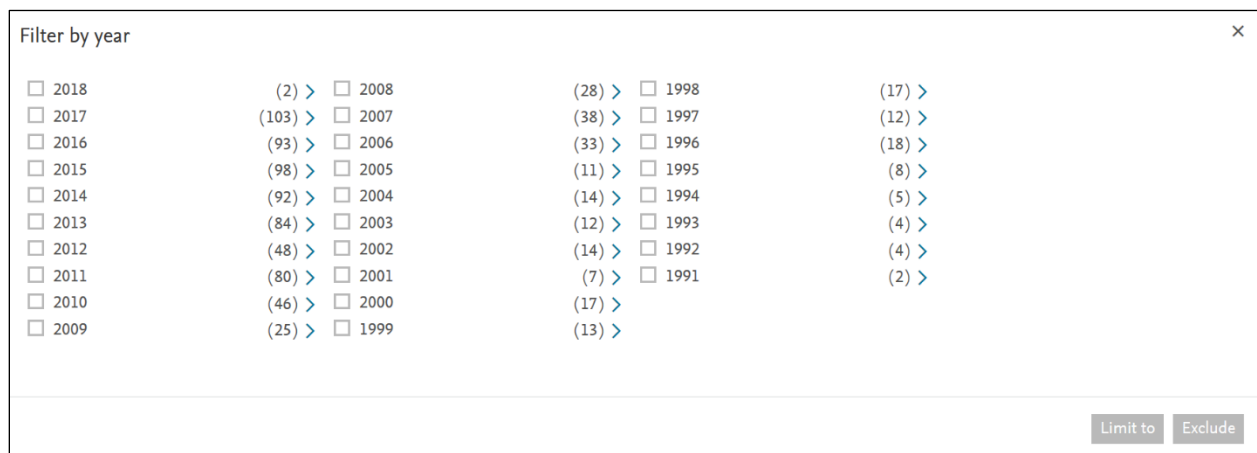


Figure 21. Extraction from Scopus search results for Sustainable Cities, search was conducted on October 15, 2017

The articles selected for content analysis were chosen from the first peak year (i.e., 2017) of the search result. Thus, in total, 103 articles were included in the selection pool.

For each article, the frequency of key words from full text were identified in order to rank the articles. Different following key words were used for the concept of Sustainable Cities: “urban sustainability”, “sustainable cities”, “sustainable city”, “green cities”, “green city”, “eco cities” and “eco city”. The final selection of articles are as follows, ranked by the total frequency of key words in the full text of an article:

1. Fu, Y., & Zhang, X. (2017b). Trajectory of urban sustainability concepts: A 35-year bibliometric analysis. *Cities*, 60, 113–123. <https://doi.org/10.1016/j.cities.2016.08.003>

2. Ahvenniemi, H., Huovila, A., Pinto-Seppä, I., & Airaksinen, M. (2017). What are the differences between sustainable and smart cities? *Cities*, 60, 234–245.
<https://doi.org/10.1016/j.cities.2016.09.009>
3. Bibri, S. E., & Krogstie, J. (2017). ICT of the new wave of computing for sustainable urban forms: Their big data and context-aware augmented typologies and design concepts. *Sustainable Cities and Society*, 32, 449–474. <https://doi.org/10.1016/j.scs.2017.04.012>
4. Anthopoulos, L. (2017). Smart utopia VS smart reality: Learning by experience from 10 smart city cases. *Cities*, 63, 128–148. <https://doi.org/10.1016/j.cities.2016.10.005>
5. Haarstad, H. (2017). Constructing the sustainable city: examining the role of sustainability in the “smart city” discourse. *Journal of Environmental Policy & Planning*, 19(4), 423–437.
<https://doi.org/10.1080/1523908X.2016.1245610>
6. Griggs, S., Hall, S., Howarth, D., & Seigneuret, N. (2017). Characterizing and evaluating rival discourses of the “sustainable city”: Towards a politics of pragmatic adversarialism. *Political Geography*, 59, 36–46. <https://doi.org/10.1016/j.polgeo.2017.02.007>
7. Mosannenzadeh, F., Bisello, A., Vaccaro, R., D’Alonzo, V., Hunter, G. W., & Vettorato, D. (2017). Smart energy city development: A story told by urban planners. *Cities*, 64, 54–65.
<https://doi.org/10.1016/j.cities.2017.02.001>
8. Fu, Y., & Zhang, X. (2017a). Planning for sustainable cities? A comparative content analysis of the master plans of eco, low-carbon and conventional new towns in China. *Habitat International*, 63, 55–66. <https://doi.org/10.1016/j.habitatint.2017.03.008>
9. Hamman, P., Anquetin, V., & Monicolle, C. (2017). Contemporary Meanings of the “Sustainable City”: A Comparative Review of the French- and English-Language Literature: Contemporary Meanings of the “Sustainable City.” *Sustainable Development*, 25(4), 336–355. <https://doi.org/10.1002/sd.1660>
10. Roggema, R. (2017). The Future of Sustainable Urbanism: Society-Based, Complexity-Led, and Landscape-Driven. *Sustainability*, 9(8), 1442. <https://doi.org/10.3390/su9081442>

Qualitative analysis for each article was conducted with the aim to identify focus areas and principles in the coding scheme (see Methods of Analysis in Chapter 1). For the concept of Sustainable Cities 30 out of 32 codes were identified across the selected articles. While codes were identified during the first phase of analysis, three major focus areas emerged as a result of further analysis of all selected articles – process

related issues, environmental aspects and physical space and mobility. In addition, most articles (8/10) provided various explanation of the meaning of the concept. The occurrence of pertinent themes can be seen on Table 18 and the entire Data Accounting Sheet can be found in Appendix K.

Table 18. The occurrence of pertinent themes in data collections for Sustainable Cities

Tag/Code Data Collection		Built/physical environment	Walkability and accessibility	Urban Design	Transportation and mobility	Social aspects	Services	Equity	Public participation	Governance	Modern technology and innovation	Environmental aspects	Environmental sustainability	Economic aspects	Fuzziness of concepts and terminology	Terms and definitions
1	(Fu & Zhang, 2017b)	x		x	x	x	x	x	x	x	x	x	x	x	x	x
2	(Ahvenniemi, Huovila, Pinto-Seppä, & Airaksinen, 2017)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
3	(Bibri & Krogstie, 2017)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4*	(Anthopoulos, 2017)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	(Haarstad, 2017)				x	x	x		x	x	x	x	x	x	x	x
6	(Griggs, Hall, Howarth, & Seigneuret, 2017)				x	x		x	x	x	x	x	x	x	x	
7	(Mosannenzadeh et al., 2017)				x	x	x		x	x	x	x	x	x	x	x
8	(Fu & Zhang, 2017a)	x	x	x	x	x	x			x	x	x	x	x		x
9	(Hamman, Anquetin, & Monicollie, 2017)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	(Roggema, 2017)		x	x	x	x		x	x	x	x	x	x	x		x
Total:		6	6	7	10	10	8	7	9	10	10	10	10	10	8	8

* Article addresses multiple concepts

3.2.10.2 Definitions and key terminology/ideas

Majority of articles explained the meaning of sustainable city or urban sustainability (Table 19). Overall, the concept of sustainable cities is seen as a broad and ambiguous concept with no universally defined meaning. It is an umbrella concept with close connections to various other related concepts such as smart

city, eco-city, low-carbon city, green city, compact city and smart energy city. According to Fu and Zhang (2017b) who conducted bibliometric analysis of major city concepts, the “smart city” and “sustainable city” are the most prominent of all city concepts. Also, content analysis of selected articles demonstrated that the concept of smart city has the strongest connection with the concept of sustainable city as about half of the selected articles directly addressed the ideals of smart city in terms of urban sustainability, achieving sustainability goals, or as examples of sustainable city.

The concept of sustainable city is mostly related to ecological and environmental aspects and environmental sustainability issues such as reducing impacts of climate change, smart energy use and improved environmental quality. Nonetheless, sustainable city is a much broader concept and addresses mobility and, to a limited extent, socio-economic dimensions as well. The concept of sustainable cities is difficult to define and apply to practice. The nature of the concept is more conceptual clarifications and manifestations of social and environmental consciousness. As Hamman et al. (2017, p. 354) state, “‘sustainable city’ is a genuinely political repertoire, which does not reflect any kind of self-evident economic or environmental focus”.

Table 19. Explanations of the concept of sustainable cities in selected articles

Authors	Key terminology/ideas	Essence
Fu & Zhang, 2017b	To date, a multitude of city concepts intending to depict a more sustainable and prosperous urban future have been contrived and debated. Of these concepts, the “smart city” and “sustainable city” are the most outstanding and persistent. However, other, comparatively less, prominent city types have also received much attention, although some have lost momentum with the vicissitudes of urban discourse. “Eco-city,” “low-carbon city,” “green city,” and “digital city,” for example, are all representatives as their prime might be in the past. There are also less popular terms, such as “livable city” and “information city” as well as other concepts, whose day may yet come but are overwhelmed by competing new terms. To date, urban sustainability has become an umbrella concept covering “ecological modernization,” the “green economy,” “regenerative sustainability,” “the ecological city as economic city,” “social justice,” and so on (as cited in Barton, 2000; Cole, 2012; Mol, 2003; World Bank, 2010). Very recently, the term “smart city” is gaining maturity and becoming more popular and with the quantity of published papers with the keyword “smart city” even surpassing those containing “sustainable city” (as cited in De Jong, Joss, Schraven, Zhan, & Weijnen, 2015). The “sustainable city” literature has always been the most important in focusing on the issue of urban sustainability. Nonetheless, its vitality has not diminished with time, but, instead, has constantly adapted to new variations that particularly address the most contemporary issues of the time. There is little doubt whether a booming in the “?-city” literature will be seen in the future.	multitude of city concepts; ambiguity, broad/umbrella concept with variations of terms bibliometric study of sustainable city, smart city and eco/low-carbon/green city
Ahvenniemi, Huovila, Pinto-Seppä, & Airaksinen, 2017	Addressing sustainability through Smart City; comparing sustainable and smart cities, suggest a new term ‘smart sustainable city’. In recent years, there has been a shift in cities striving for smart city targets instead of sustainability goals (as cited in Marsal-Llacuna, Colomer-Llinàs, & Meléndez-Frigola, 2015). However, these are interconnected and often smart cities share similar goals as sustainable cities. A large variety of smart city definitions exist (as cited in Albino, Berardi, & Dangelico, 2015) and not all definitions reflect their relation with the sustainability targets. Selecting a set of urban sustainability frameworks was even more challenging because of the tremendous number of existing performance measurement systems.	ambiguous, multitude of city concepts particularly close connection to Smart City

Table 19 (cont'd)

Bibri & Krogstie, 2017	Smart sustainable cities; focus on ICT. There are various definitions of what a sustainable city should be. Based on the literature on compact city, eco-city and new urbanism as the most prevalent and sustainable models of sustainable urban form as instances of sustainable city (e.g. Bohl, 2000; Hofstad, 2012; Jabareen, 2006; Jenks, Burton, & Williams, 1996a, Jenks, Burton, & Williams, 1996b; Joss, 2010; Girardet, 2008; Rapoport & Vernay, 2011; Williams, 2009), a sustainable city can be understood as a set of approaches into practically applying the knowledge of urban sustainability and related technologies to the planning and design of existing and new cities or districts. According to authors, a sustainable city can be described as an urban environment designed with the primary aim of contributing to improved environmental quality and protection and social equity and well-being over the long run, which can be attained through adopting sustainable development strategies to foster advancement and innovation in built environment, infrastructure, operational functioning, planning and ecosystem and human service provisioning, while continuously optimizing efficiency gains.	ambiguous, vague; diverse meaning; multitude of city concepts environmental quality, social equity, innovation
Haarstad, 2017	Framing urban sustainability through Smart Cities. 'Smart city' seems like a textbook example of an 'empty signifier' in urban planning (as cited in Davidson, 2010); that is, a concept virtually void of any substantive meaning. A number of researchers have noted that there is no precise definition of the term (as cited in Caragliu, Del Bo, & Nijkamp, 2011; Dameri & Rosenthal-Sabroux, 2014). While Davidson (2010) has suggested that sustainability operates like an 'empty signifier,' others emphasize that the meaning of 'sustainability' is highly dependent upon contexts in time and space.	ambiguous; depending on time and space particularly close connection to Smart City
Mosannenzadeh et al., 2017	Addressing sustainability through the Smart Energy City (SEC). The boundaries between SEC, smart city and sustainable city are nebulous (as cited in Hollands, 2008; Kitchin, 2015). Authors define SEC development within the wider concepts of smart city and sustainable city. ... The smart city is not a substitute nor a continuation, nor an addition to the sustainable city; the smart city is a cutting-edge urban development strategy that enables integration of various urban systems in order to enhance sustainability. Shmelev and Shmeleva (2009, p. 10) define sustainable city as "a holistic system, in which social, economic, environmental and institutional aspects of development are harmoniously integrated".	ambiguous; holistic system; connections with smart city and sustainable city. smart energy city

Table 19 (cont'd)

Fu & Zhang, 2017a	Addressing sustainability through the eco-cities and low-carbon cities. Of all sustainable city concepts, eco-cities and low-carbon cities have received a national endorsement in China, with such pilot towns under construction nationwide. There are also other sustainable city concepts, such as smart cities, sponge cities and resilient cities, but they are almost all at the broader whole city level and so far, there are no such master plans for new towns. The analysis also reveals that, although eco-cities and low-carbon cities are both terms under the umbrella concept of “sustainable city”, their practice in new town planning has distinctive foci.	ambiguous; umbrella concept; multitude of city concepts eco-cities and low-carbon cities
Hamman, Anquetin, & Monicolle, 2017	Authors identify four figures of the ‘sustainable city’: the ‘green city’, the ‘city of short distances’, the ‘just city’ and the ‘participatory city’. There is ultimately no single or absolutely prevailing model of ‘sustainability’ or the ‘sustainable city’ – the ambiguities of the 1987 Brundtland Report or the 1992 Rio Earth Summit (as cited in Zaccai, 2012) have still not been cleared up. The different figures and areas identified in this paper suggest that the ‘sustainable city’ is a genuinely political repertoire, which does not reflect any kind of self-evident economic or environmental focus. There is no clear consensus on what the ‘sustainable city’ is. Some have assigned a practical value to the term, which in their view changed the ways of making the city (as cited in Baker and Eckerberg, 2008; Lam et al., 2014). Others have denounced it as a tool for legitimizing growth-oriented policies (as cited in Swyngedouw, 2007).	ambiguous; multitude of city concepts; diverse meanings; political tool bibliometric study of ‘sustainable city’ in French- and English-Language Literature
Roggema, 2017	Addressing sustainability through the Green urbanism, sustainable urbanism and eco-city. Green stands for cities that have clean air and water, pleasant streets and parks, are resilient in the face of natural disasters and have a low risk at infectious disease outbreaks and they encourage green behavior (as cited in Kahn, 2006). The complexity of the entire city is difficult to grasp, as the interrelations, dependencies and connectivity between all subsystems in the city are complex by nature. Earlier research (as cited in Roggema & Thomas, 2017) therefore proposed to deconstruct urban complexity in 15 systemic layers. Amongst these urban systems are the zero-carbon city, the climate resilient city, the densified city, the inhabitable city, the affordable city, the healthy city, the metabolic city and more.	ambiguous, multitude of city concepts; environmental qualities

3.2.10.3 Governance, participation and collaboration

Content analyses demonstrated that process-related issues are important components of the concept of sustainable cities. More specifically, governance, participatory and collaborative processes and the importance of modern technology and innovation emerged. The sustainable cities concept can be considered as an umbrella for the smart city concept, particularly the themes of using modern technologies (e.g., information and communication technologies), or smart and participatory governance. In several cases, the concept of sustainable city was synonymous with eco-cities, low-carbon cities, or smart cities.

Governance, or participatory governance was deemed an important characteristic of sustainable cities. Ahvenniemi et al. (2017) point out the need for the integration of citizen-led, participatory, localized and procedural approaches in contrast to top-down approaches in the sustainability framework. Bibri and Krogstie (2017) also highlight the importance of participatory governance in the context of smart sustainable cities (as cited in Caragliu, Del Bo and Nijkamp, 2009). In similar vein, Haarstad (2017, p. 435) points out that “By opening up urban governance to citizens, academics, and other stakeholders, and creating bridges in fragmented governance arrangements, it can foster a dialogue on what it means and should mean to live in a sustainable city”. The importance of participatory governance is also directly addressed by Griggs et al. (2017), Hamman et al. (2017) and Roggema (2017). For example, Hamman et al. (2017), who conducted a bibliometric study of the contemporary meaning of sustainable city in English- and French-language literature, suggest four figures of sustainable city: the ‘green city’, the ‘city of short distances’, the ‘just city’ and the ‘participatory city’. “The figure of the participatory city emerges in the entire body of literature. It characterizes the procedural dimension of the ‘sustainable city’” (Hamman et al., 2017, p. 351). Roggema (2017) proposed six design principles that are required to create a sustainable

city, which includes components of citizen engagement and urban governance and leadership (i.e., components of society-based urbanism, green urbanism, or sustainable urbanism).

Smart cities are often considered a subset of sustainable cities. Several authors suggest using the hybrid term of 'smart sustainable city' (Ahvenniemi et al., 2017; Bibri & Krogstie, 2017). Fu and Zhang (2017b) conducted an extensive bibliometric study on urban sustainability and while comparing smart city and sustainable city, they state: "Unsurprisingly, all the clusters in the "smart city" are heavily interwoven with Internet technologies and their application in the operation and governance of cities, whereas the "sustainable city" literature continues on its original track, deliberating on the social-eco-economic tripartite structure of urban sustainability. It also includes various technologies that are newly developed in the planning, construction, operation and governance of contemporary cities, but these new technologies, particularly information technology (big data and cloud computing), is never the center of the "sustainable city" literature" (as cited in Batty et al., 2012; Zubizarreta, Seravalli, & Arrizabalaga, 2015). However, the concept of sustainable cities has evolved from early 1990s and with the emergence of a smart city in the 21st century (Fu & Zhang, 2017b), the contemporary meanings of sustainable city has involved to include the deployment of modern technologies. Ahvenniemi et al. (2017, p. 234) point out that "there is a much stronger focus on modern technologies and "smartness" in the smart city frameworks compared to urban sustainability frameworks". Mosannenzadeh et al. (2017) explored sustainability/sustainable city through the smart city concept, particularly through Smart Energy City. According to the research by Mosannenzadeh et al. (2017, p. 57), "expert focus group concluded that the smart city is (ought to be) a component of the sustainable city. [...] for example, the sustainable city includes more solutions compared to the smart city. That is because smart city solutions are traditionally characterized by application of ICT (as cited in Mosannenzadeh & Vettorato, 2014; Papastamatiou, Doukas, Spiliotis, & Psarras, 2016), while sustainable solutions might or might not be ICT-based". The

importance of modern technologies was also addressed by Fu and Zhang (2017a) who explored 12 different master plans of eco cities, low-carbon cities and conventional new towns in China and found that technological innovation was one of the five distinctive planning principles in their case studies. Also Roggema (2017) highlights the importance of technology and innovation in order to achieve sustainability in eco-cities as instances of sustainable cities.

3.2.10.4 Environmental sustainability

Environmental sustainability is a key characteristic of sustainable cities. Improving environmental quality, environmental protection, climate change and energy efficiency are tenants of environmental sustainability within sustainable cities. Ahvenniemi et al. (2017) state that the sustainability framework contain a large number of indicators measuring environmental sustainability. Fu and Zhang (2017b) point out the theme of carbon emission reduction. They state, that “the carbon discourse not only provides the low-carbon city as the new approach to achieving a more sustainable urban form, but also introduces a series of terms such as “low carbon”, “carbon neutral”, “zero carbon”, and “carbon footprint,” further expanding the sustainable urbanization research field with a new dimension” (as cited in Chen & Zhu, 2009; Gossop, 2011; Liu et al., 2009) (Fu & Zhang, 2017b, p. 114).

Landscape design, eco-design, or green urbanism (green infrastructure) emerged also as important characteristic to sustainable cities. For instance, Bibri and Krogstie (2017, p. 458) point out the importance of green infrastructure in sustainable urban planning and state that “greening urban spaces renders them more sustainable” (as cited in Dumreicher et al., 2000). Greening urban spaces can contribute to sustainability by moderating urban climate extremes, preserving and enhancing the ecological diversity, maintaining biodiversity and protecting urban habitats, improving the urban image and the quality of life, supporting health and healthy lifestyles, reducing pollution and increasing economic attractiveness in

urban areas (e.g. Beer, Delshammar, & Schildwacht, 2003; Gilbert, 1991; Jabareen, 2006; Niemela, 1999; Von Stulpnagel, Horbert, & Sukopp, 1990; Ulrich, 1999; Von Plummer & Shewan, 1992) (Bibri & Krogstie, 2017, pp. 458–459).

Selection of various vocabulary and topics that were addressed in the context of environmental aspects and environmental sustainability for sustainable cities are as follows: reducing environmental impact, closed cycles, energy management, renewable energy, maximize energy efficiency, green alternatives, efficient waste systems, zero-waste, waste and recycling, local sourcing of resources/materials, local food and short supply chains, green economic sectors, greener way of production, design of green landscapes, integrating nature in the city, green transportation, sustainable transport, urban pollution reduction, decrease transport needs and encourage walking and cycling, land and resource saving, water, landscape and urban biodiversity, preserve ecosystems, passive design for buildings and districts, ecologically friendly design, emphasize design scalability and spatial proximity (Bibri & Krogstie, 2017; Fu & Zhang, 2017a, 2017b; Griggs et al., 2017; Roggema, 2017).

Aspects of environmental sustainability are prevalent in the research of Ahvenniemi et al. (2017) who explore the differences between sustainable and smart cities. They found that the majority of the indicators of urban sustainability frameworks (i.e. sustainable city) under/across 10 sectors are formed by Natural environment (16%), Built environment (13%), Water and waste management (14%), Transport (12%) and Well-being, health and safety (16%) (Ahvenniemi et al., 2017). Bibri and Krogstie (2017) highlight that sustainable urban forms can be achieved by compactness, density, diversity, mixed-land use, sustainable transport, ecological design and passive solar design and big data and context-aware applications can have a significant impact by supporting these strategies. As literature showed, the topics

of environmental sustainability vary in scale and amplitude, from conceptual to practical and from global to local. The concept of sustainable cities is a multidisciplinary framework to address urban developments.

3.2.10.5 Built environment and mobility

Content analyses demonstrated that issues related to the built environment, particularly transportation and mobility are important in sustainable cities. The research of Fu and Zhang (2017b) on bibliometric studies found that in terms of physical space issues, the clustering analysis revealed high frequency keywords in 6 clusters for sustainable city such as public transport, urban form, architecture, city logistics, mobility, sustainable transport, urban park, urban planning and urban design. It is important because as Fu and Zhang (2017b, p. 116) argue, “keywords, in most cases, are powerful indicators of one particular article to reveal the main article topics or issues involved, and therefore the clusters of co-occurring keywords should identify the most frequently mentioned concepts, giving a clue to the most discussed issues in the research field”. Similarly, Hamman et al. (2017) lexical analysis highlighted the topics of transport and mobility and urban design (green spaces). Their findings on extensive analysis of literature support the importance of these topics as key characteristics for the concept of sustainable cities.

In terms of the theme of transportation and mobility, Bibri and Krogstie (2017, p. 453) highlight that sustainable cities strive to “promote carbon-neutrality and reduce pollution, decrease transport needs and encourage walking and cycling, provide efficient and sustainable transport” among other goals. In turn, providing sustainable transport is related to other fields such as environmental sustainability, equity and land use planning, energy management and public health. Fu and Zhang (2017a) also point out that eco-cities and low-carbon cities have emphasis on greener transportation. Various transportation modes are suggested as model of green public transportation such as bus transport, cable cars, trains and water transportation. Fu and Zhang (2017a) conclude that eco- and low-carbon cities advocate public

transportation modes with distinctive foci. Walking and cycling are also enthusiastically encouraged in the master plans of eco-cities (Fu & Zhang, 2017a) and promoted in design principles for green urbanism (Roggema, 2017). As Fu and Zhang (2017a) illustrate that the commercial, service and financial sectors are located within the walking distance in eco-cities and the walking and biking paths are well designed in order to provide more pleasant views and aesthetic experience and encourage people to use them. Hamman et al. (2017) also spotlight the walkability aspect and suggest a “city of short distances” as a key component of sustainable cities.

3.2.10.6 Economic and social aspects

Economic and social aspects themes appear within the context of sustainable cities but the discussion is more at a conceptual level rather than anything concrete or well defined. For instance, while comparing the concepts of sustainable and smart city, Fu and Zhang (2017b, p. 113) pointed out that “the ‘sustainable city’ concentrates more on the tripartite relationship of social-eco-economic realms (as cited in Jabareen, 2006), while ‘smart city’ has a more technological genesis and deals more with the social-economic realms of cities”. Bibri and Krogstie (2017, p. 452) mention that “smart urban sustainability consists of four dimensions: physical, environmental, economic, and social, which should be enhanced in terms of goals and be in balance in terms of concerns over the long run—with support of urban computing and ICT—to achieve the sought after smart form of urban sustainability”. Ahvenniemi et al. (2017) highlight that the urban sustainability frameworks (i.e., sustainable city) focus strongly on social aspects. Consequently, “understanding of the relationships between people, their activities and the environment is key to achieve sustainability” and “the spatial distribution of activities and accessibility of different services – especially urban forms, functions and their connections – are crucial aspects of a sustainable city that uses its resources most efficiently” (as cited in Bourdic, Salat, & Nowacki, 2012) (Ahvenniemi et al., 2017, p. 235).

Hamman et al. (2017) proposed 'just' city' as one of four main variants of sustainable city based on their statistical and lexical analyses. As they argue, "The just city manifests a critical approach of socio-environmental inequalities, defined as the confirmation or combination of socio-economic inequalities in the field of urban environment. [...] Analyses address the everyday life of residents in terms of 'quotidien' [daily], 'bien-être' [well-being], 'qualité de vie' [quality of life] and 'santé' [health], promoting (sometimes in activist language) more social and environmental 'justice' and 'equality', occasionally also in terms of 'race'/'racism'" (Hamman et al., 2017, p. 351). Also, Griggs et al. (2017) discuss the importance of social justice and equity within the concept of progressive reformism as a discourse of the sustainable city. Griggs et al. (2017) illustrated the idea with a response from an interviewee who argued that "the environmental dimension of sustainable development has no purchase in poor areas, social justice has strong purchase. You have to sell the city as a just city first". Additionally, Roggema (2017, p. 8) highlights the importance of equity in eco-cities and states that the social order of eco-cities "reflects fundamental principles of fairness, justice, and reasonable equity" (as cited in Ecobuilders, n.d.).

3.2.10.7 Summary

As content analysis demonstrated, the concept of sustainable cities is a broad and multidisciplinary concept. The ambiguity and all-encompassing nature of sustainable cities illustrates the complexity of the concept, which seems to create confusion and provides unlimited ways of interpretations by scholars. The most prevalent themes of sustainable cities were process-related issues such as collaboration and participation and governance; environmental aspects; and mobility.

Based on the analyses, the following principles are embedded in the concept of sustainable cities:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.

- Planning addresses green infrastructure such as parks, public spaces and landscaped areas.
- Planning values natural environments, habitats and resources.
- Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.
- Planning addresses equity through social, economic and ethnic diversity.
- Planning values and implements citizen participation through community engagement and collaboration.
- Planning promotes interdisciplinary collaboration and public-private partnerships.
- Planning facilitates better public policy and decision making.
- Planning uses innovative technology to communicate with stakeholders and residents.

3.3 Part Two: Discussion on Embedded Principles

The detailed analysis of each contemporary concept yielded 20 planning principle in four major categories:

A. Built Environment

1. Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
2. Planning incorporates a mix of land uses and diversity of functions.
3. Planning exhibits appropriate densities and promotes compact development.
4. Planning is well designed both in terms of architecture and urban space.
5. Planning addresses green infrastructure such as parks, public spaces and landscaped areas.

B. Natural Environment

- 6. Planning values natural environments, habitats and resources.
- 7. Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.

C. Socio-Economic Environment

- 8. Planning promotes economic growth and competitiveness.
- 9. Planning addresses equity through social, economic and ethnic diversity.
- 10. Planning incorporates arts, culture and heritage.
- 11. Planning facilitates a sense of community cohesion and place attachment.
- 12. Planning addresses the need for safe environments.
- 13. Planning promotes healthy lifestyles.

D. Process and Communication

- 14. Planning facilitates public education and awareness.
- 15. Planning values and implements citizen participation through community engagement and collaboration.
- 16. Planning promotes interdisciplinary collaboration and public-private partnerships.
- 17. Planning facilitates better public policy and decision making.
- 18. Planning uses innovative technology to communicate with stakeholders and residents.
- 19. Planning is data driven.
- 20. Planning is visionary and future oriented.

Built Environment

A majority of the concepts addressed at least one planning principle within the built environment dimension (Table 20). New Urbanism addressed all elements and Smart Growth discussed most of the

principles (4/5) in the built environment category. Smart Cities did not address or focus on any of the built environment principles. However, Creative Cities and Resilient Cities, while not directly addressing any specific principle, mentioned the importance of physical space and its qualities in a general manner. The principles most often addressed (across the concepts) were accessibility and mobility, green infrastructure and urban design and architecture.

Natural Environment

Less than half, four planning concepts addressed both principles of the natural environment category. New Urbanism, Smart Growth, Resilient Cities and Sustainable Cities have a clear focus on valuing natural environments and resources and addressing environmental sustainability. In addition, Livable Cities emphasized the importance of environmental sustainability as a fundamental characteristic of a city.

Socio-Economic Environment

All concepts addressed at least one planning principle with a socio-economic dimension. Livable Cities and Creative Cities addressed more than half of the principles with different focus. At the same time, concepts of New Urbanism, Placemaking, Sustainable Cities, Smart Growth, Healthy Cities and Resilient Cities only concentrate on one or two principles in this category. The most addressed principles (across the concepts) appeared to be equity, community cohesion and place attachment, followed by the principle of safe environments and economic growth and competitiveness.

Process and Communication

Healthy Cities, Resilient Cities, Smart Cities and Sustainable Cities addressed most of the principles in this category. Livable Cities, Placemaking, Safe Cities and Smart Growth focused only on one or two principles while concepts of Creative Cities and New Urbanism did not address any of the principles. The most

common principles (across the concepts) appeared to be citizen participation and collaboration and facilitating better public policy and decision making.

It is evident that New Urbanism and Smart Growth have considerable emphasis on the Built Environment. Healthy Cities and Placemaking also deal with the built environment in a tangential manner. Natural Environment category is well addressed by New Urbanism, Resilient Cities, Smart Growth and Sustainable Cities. Livable cities and Creative Cities have significant spotlight on the Socio-Economic Environment. In terms of Process and Communication, the concepts of Healthy Cities, Resilient Cities, Smart Cities and Sustainable Cities demonstrate a strong emphasis on related planning principles. Interestingly, the concept of Safe Cities does not demonstrate a clear focus on any particular dimension. Table 20 sums up the overall results of these findings demonstrating the distinctive focal points in the contemporary planning concepts as addressed in scholarly literature.

Table 20. The focus on the planning dimensions across contemporary planning concepts. Color highlighting refers to clear focus on particular dimension

Category/Dimension of Planning principles:		Planning Concept	Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
1	Built Environment [with 5 principles]			3	2	5	3	1	2		4	2
2	Natural Environment [with 2 principles]				1	2		2			2	2
3	Socio-Economic Environment [with 6 principles]		4	2	5	1	1	2	3	3	2	1
4	Process and Communication [with 7 principles]			6	1		1	6	2	4	2	4

4 CONTEMPORARY PLANNING CONCEPTS IN PROFESSIONAL PRACTICE – A MICHIGAN EXAMPLE

4.1 Introduction

A survey of Michigan practitioners was conducted in order to explore understandings, perceptions and experiences of professional planners towards planning principles and contemporary concepts in urban planning. The survey was available online (Qualtrics survey tool) from January 24th to March 17th, 2018. The survey was distributed via the MSU Urban and Regional Planning Alumni Network and the Michigan Association of Planning (MAP) online newsletter (Michigan Planner E-dition magazine). In total, 28 respondents completed the survey. The survey instrument can be found in Appendix L and demographic data can be found in Appendix M.

The aim of the survey was twofold: 1) to see how practitioners valued and used a set of principles, derived from the literature, in their work and 2) whether they employed contemporary concept terminology in their practice. Three core content components were designed for the survey: the first question asked for respondents' personal values and beliefs; second question explored what planning principles professionals have actually had the opportunity to implement in their current professional practice; and the third question explored the use of language or concept terminology in explaining and promoting their work.

4.2 Survey Analysis

4.2.1 *Assessment of beliefs and values*

The first core question asked respondents to rate the importance of a set of planning principles based on their personal beliefs and values (on the scale of 1 to 10, where 1 is not important and 10 is absolutely essential). An option for “not applicable/don't know/unsure” was also provided.

The set of planning principles were derived from the literature (see Chapter 3) and presented in four thematic areas as follows:

A. Built Environment

1. Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
2. Planning incorporates a mix of land uses and diversity of functions.
3. Planning exhibits appropriate densities and promotes compact development.
4. Planning is well designed both in terms of architecture and urban space.
5. Planning addresses green infrastructure such as parks, public spaces and landscaped areas.

B. Natural Environment

6. Planning values natural environments, habitats and resources.
7. Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.

C. Social Environment Socio-Economic Environment, in theory part

8. Planning promotes economic growth and competitiveness.
9. Planning addresses equity through social, economic and ethnic diversity.
10. Planning incorporates arts, culture and heritage.
11. Planning facilitates a sense of community cohesion and place attachment.

12. Planning addresses the need for safe environments.

13. Planning promotes healthy lifestyles.

D. Process and Communication

14. Planning facilitates public education and awareness.

15. Planning values and implements citizen participation through community engagement and collaboration.

16. Planning promotes interdisciplinary collaboration and public-private partnerships.

17. Planning facilitates better public policy and decision making.

18. Planning uses innovative technology to communicate with stakeholders and residents.

19. Planning is data driven.

20. Planning is visionary and future oriented.

The analysis of beliefs and values demonstrate that more than 50% of all respondents rated all principles as “highly important” (scale values 8-10 combined). Table 21 demonstrates the ten most valued principles in practice. Principles that were assessed by more than 80% of respondents as “highly important” were:

- Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities,
- Planning incorporates a mix of land uses and diversity of functions,
- Planning values and implements citizen participation through community engagement and collaboration,
- Planning facilitates better public policy and decision making
- Planning is visionary and future oriented.

Table 21. Top ranked values and beliefs of planning principles

Rank- ing	Planning principle/statement Planning...	All respondents, n=28		
		Values		
		rated Not important at all (1)	rated as Highly important (8-10)	rated NA/don't know/ not sure
1/2	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	0%	89%	0%
1/2	...incorporates a mix of land uses and diversity of functions.	0%	89%	0%
3/4	...values and implements citizen participation through community engagement and collaboration.	0%	86%	0%
3/4	...facilitates better public policy and decision making.	0%	86%	0%
5	...is visionary and future oriented.	0%	82%	0%
6/7/8/ 9	...addresses green infrastructure such as parks, public spaces and landscaped areas.	0%	79%	0%
6/7/8/ 9	...values natural environments, habitats and resources.	0%	79%	0%
6/7/8/ 9	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	0%	79%	0%
6/7/8/ 9	...facilitates a sense of community cohesion and place attachment.	0%	79%	0%
10	...facilitates public education and awareness.	0%	75%	0%

In addition, respondents were given an opportunity to express additional comments about what planning is if they felt that there was something missing in the defined list of statements. Respondents provided the following insights:

- “Planning is a reflection of society & nature. Done correctly, planning and zoning can sustain, strengthen and protect what is best about both; while planning and zoning done incorrectly can exacerbate the weaknesses in both.”

- “Planning is the practice that reflects the collective vision, goals and aspirations of the community.”
- “Planning promotes economic growth and competitiveness.”
- “Planning is an activity that utilizes broad based knowledge to solve problems and is visionary.”
- “Regulations are one thing, but being realistic through not over-regulating is important. Form-based code seems to be an efficient tool and overall, good planning should inspire confidence into the development world and not act as a deterrent.”
- “Flexible, open to change, recognizes there isn't one right answer.”
- “Inclusive and gives a voice to the voiceless.”
- “Appreciating the public realm and taking advantage of any unique local assets in order to further promote and attract new energy to the community; promoting a local identity that makes your community stand apart and showcases your local strengths.”

4.2.2 Assessment of the use of planning principles in professional practice

The second core question asked the respondents to rate the same planning principles based on their use in the respondent's current professional practice (on the scale of 1 to 10, where 1 is never/not at all and 10 is always). The option for “not applicable/don't know/unsure” was also provided.

The analysis of the use of principles in professional practice demonstrate that 68% of respondents practiced the principle of implementing citizen participation through community engagement and collaboration “most often” (scale values 8-10 combined). Table 22 demonstrates ten most often used principles in practice.

Table 22. Ten most often used planning principles in professional practice

Rank -ing	Planning principle/statement Planning...	All respondents, n=28		
		Use in practice		
		rated Never (1)	rated as Most often used (8-10)	rated NA/Don't know/ Unsure
1	...values and implements citizen participation through community engagement and collaboration.	4%	68%	14%
2	...facilitates public education and awareness.	4%	64%	18%
3	...promotes interdisciplinary collaboration and public-private partnerships.	4%	57%	14%
4	...is data driven.	0%	50%	14%
5	...is visionary and future oriented.	4%	46%	18%
6	...incorporates a mix of land uses and diversity of functions.	0%	39%	18%
7/8/ 9	...values natural environments, habitats and resources.	4%	36%	25%
7/8/ 9	...facilitates a sense of community cohesion and place attachment.	4%	36%	18%
7/8/ 9	...facilitates better public policy and decision making.	4%	36%	14%
10/ 11	...exhibits appropriate densities and promotes compact development.	0%	32%	18%
10/ 11	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	0%	32%	18%

4.2.3 Assessment of the use of terminology of contemporary planning concepts

The third core question asked respondents how often they used the ten contemporary planning concepts in describing and/or promoting their professional work (on the scale of 1 to 10, where 1 is never/not at all and 10 is always). The contemporary concepts were derived from the literature analysis: Creative Cities, Healthy Cities, Livable Cities, New Urbanism, Placemaking, Resilient Cities, Safe/Secure Cities (incl. Safe Routes to School), Smart Cities (Intelligent Cities, Tech Cities), Smart Growth and Sustainable Cities.

The analysis (Table 23) demonstrates that the only concept rated as “most often” (8-10) used by more than 50% of respondents was Placemaking. While not used very often, some of the popular concepts (used more than 50% of the time) were Livable Cities (68% of respondents), Sustainable Cities (61% of respondents) and Smart Growth (57% of respondents). The least used concepts were Smart Cities (61% of respondents), Resilient Cities (57% of respondents) and Safe Cities (50% of respondents). Creative Cities and New Urbanism were cited as never used by 32% and 29% of respondents respectively.

Table 23. Use of terminology in professional work (All respondents, n=28)

Concept	Never (1)	Less than half of the times (1-5)	More than half of the times (6-10)	Most often used (8-10)	Unsure/ Don't Know
Placemaking	11%	18%	75%	57%	7%
Smart Growth	7%	36%	57%	36%	7%
New Urbanism	29%	43%	46%	32%	11%
Sustainable Cities	4%	32%	61%	29%	7%
Livable Cities	11%	21%	68%	25%	11%
Creative Cities	32%	46%	39%	18%	14%
Safe Cities	11%	50%	46%	18%	4%
Smart Cities	18%	61%	29%	18%	11%
Healthy Cities	11%	46%	43%	14%	11%
Resilient Cities	14%	57%	32%	14%	11%

As all defined contemporary concepts are strongly oriented towards urban environments (i.e., they are city-concepts), the filter to select only respondents who work within the city/town geographical level were applied. A total of 13 respondents (46%) fell in this category.

The analysis (Table 24) of this group of respondents demonstrates that the concept of Placemaking is also rated as “most often” used (scores 8-10) by the highest percentage of respondents (69%). Similarly, while not used very often, some of the popular concepts (used more than 50% of the time) were Livable Cities (85% of respondents), Sustainable Cities and Creative Cities (69% of respondents each) and New Urbanism

and Smart Growth (62% of respondents). The least used concepts were Resilient Cities and Safe Cities (69% of respondents each), Smart Cities (62% of respondents) and Healthy Cities (54% of respondents). One-third of the respondents never used Creative Cities (31%).

Table 24. Use of terminology in professional work (City/Town respondents, n=13)

Concept	Never (1)	Less than half of the times (1-5)	More than half of the times (6-10)	Most Often (8-10)	Unsure/ Don't Know
Placemaking	8%	15%	85%	69%	0%
New Urbanism	15%	38%	62%	46%	0%
Smart Growth	8%	38%	62%	46%	0%
Sustainable Cities	0%	31%	69%	38%	0%
Creative Cities	31%	31%	69%	31%	0%
Healthy Cities	8%	54%	46%	23%	0%
Livable Cities	8%	15%	85%	23%	0%
Smart Cities	23%	62%	38%	23%	0%
Safe Cities	15%	69%	31%	15%	0%
Resilient Cities	15%	69%	31%	8%	0%

The comparison of both groups of respondents demonstrates that the concept of Placemaking is rated as the “most often” used concept (scores 8-10) by the highest percentage of respondents in both cases. Similarly, New Urbanism, Smart Growth and Sustainable Cities are the most used concepts for both groups, however the percentage of “city respondents” were higher in all instances. Resilient Cities, Safe Cities and Smart Cities were the least used concepts overall for both groups of respondents.

In addition, respondents were given an opportunity to express additional comments to reflect their thoughts and perceptions on the given concepts. Three respondents provided following insights:

- “I am focused predominately on transportation planning- in particular aviation planning so many of the concepts you have listed are not applicable to the aviation industry. We may use

some very basic elements from them but not as robustly as necessary to answer your questions well.”

- “My experience has been in rural and suburban areas. The questions listed seem, for the most part, to be oriented towards cities. Rural and suburban planning is not addressed.”
- “I don't specifically work in planning but have still encountered a few of the above terms in my day-to-day work.”

4.2.4 Participants’ insights of important planning elements

At the very beginning of the survey, introduction section asked to name the three most important elements of planning/planning principles. All respondents provided answers to this question (thus, 84 entries were retrieved). This question demonstrates the most important ideas of the respondents. The aim of this question was to capture the important elements of planning without interfering respondents’ perceptions with defined principles in the survey.

The analysis of this question demonstrates that majority of respondents prioritize community engagement, public participation and collaboration. This was mentioned 24 times (which is 3 times more than the second most mentioned element). The second most mentioned component of planning is social environment (i.e., people’s needs, orientation to people, public interest), which was stated by 8 respondents. The third most important elements were good design (i.e., quality design) and ethics and professional integrity according to 7 respondents. The findings of the most important elements of planning from this question aligns well with the findings from the assessment of valuing and using defined planning principles in core questions 1 and 2. As stated earlier, the principle that was assessed as “highly important” and “most often used” was citizen participation through community engagement and collaboration.

5 THE GAP BETWEEN SCHOLARSHIP AND PRACTICE

5.1 Introduction

The discussion in this chapter is presented in two parts. The first part addresses the theoretical findings of this body of work. Drawing on the content analysis in Chapter 3, the first part discusses what planning principles are embedded in each of the contemporary concepts. This discussion clearly shows major overlaps in concepts and speaks to the initial hypothesis that these concepts are not major movements in planning and many of them (Sustainable Cities, Intelligent Cities, Smart Growth, New Urbanism, Placemaking, Livable Cities and Creative Cities) are engineered as trendy terms and use language to promote basic planning principles. Others are nuanced to a particular focus and limited in scope (Resilient Cities, Healthy Cities and Safe Cities), but still focus in on basic planning principles.

The second part draws on Chapter 4 and addresses the gap between scholarship and practice and sheds light on the larger, overarching question of what draws planners to continually redefine and market an age-old, fundamentally basic, concept of creating safe, comfortable and attractive places for people? It concludes with limitations of the study.

5.2 Discussion on Findings from the Literature Analysis

As this discussion is based on the 20 identified planning principles, it is segmented into the four main categories of built environment, natural environment, socio-economic environment and process and communication.

5.2.1 Built environment

Seven contemporary concepts (Healthy Cities, Livable Cities, New Urbanism, Placemaking, Safe Cities, Smart Growth and Sustainable Cities) demonstrated clear principles of accessibility, including motorized and non-motorized, pedestrian friendly amenities (Table 25).

Table 25. Matrix of the occurrence of planning principles across contemporary planning concepts in Built Environment category

Planning principles: Planning...		Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
1	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.		x	x	x	x		x		x	x
2	...incorporates a mix of land uses and diversity of functions.				x					x	
3	...exhibits appropriate densities and promotes compact development.				x					x	
4	...is well designed both in terms of architecture and urban space.		x	x	x	x		x			
5	...addresses green infrastructure such as parks, public spaces and landscaped areas.		x		x	x	x			x	x

Healthy Cities emphasized active transport modes (e.g., walking and biking) and public transit that supports active and healthy lifestyles. Thus, walkable environments, biking networks and other types of physical activity were highlighted. The concept of Livable Cities promotes multimodal transportation choices and walkability. In addition, the impact of road diets was addressed, which also enhances walkability, safety and livability in the community. New Urbanism promotes all transit modes (transit-oriented developments), including walking and biking. However, as literature showed, new urbanism developments often have difficulties in reducing car dependence (e.g., by attracting businesses and services in the area and inconvenient street patterns) and instead may result in increased vehicle use. Placemaking emphasized pedestrian-friendly and walkable environments (vs. other transit modes), where

social interaction can occur. Safe Cities focused on active transportation modes, especially walkability and the importance of supportive infrastructure and amenities (such as sidewalks, bike paths, street connectivity). This, in turn, was related to issues of health (physical inactivity) and traffic congestion. Transportation issues were the major foci of the concept of Smart Growth - improving transportation choices and increasing mobility, transit-oriented development and investment in large infrastructure projects such as highways or bridges. Issues of public transit and walkability were also addressed. However, despite the similarities in principles of New Urbanism and smart Growth, it can be pointed out that Smart Growth is more regional and large-scale oriented and is clearly a transportation focused approach, whereas New Urbanism is a more urban design focused approach. Sustainable Cities promote various transportation modes, particularly sustainable or green transportation such as bus transport, cable cars and trains for public transportation and walking and cycling. Its focal point is on increasing the efficiency of transportation by decreasing transport needs and addressing environmental sustainability (e.g., carbon-neutrality and pollution reduction). As seen, all concepts highlight the need for walkable environments (non-motorized transportation) and nearly half of the concepts promote increasing the multimodal transportation choices.

Planning principles that address a mix of land uses, diversity of functions and appropriate densities and compact development were the focus of two concepts, New Urbanism and Smart Growth. Both concepts addressed similar characteristics in terms of these elements. Moreover, literature demonstrated evidence that these two concepts are very similar and Smart Growth was often considered an offshoot of New Urbanism. However, as a distinction, Smart Growth is associated with clustered, infill and brownfield developments and its major focus is managing urban growth (tool for land management).

Planning principle that addressed well-designed architecture and urban space were discussed in five planning concepts: Healthy Cities, Livable Cities, New Urbanism, Placemaking and Safe Cities. The central theme in Healthy Cities was related to open public spaces and urban design (not particularly on architecture of buildings) such as recreational facilities, outdoor gyms, green spaces that provide opportunities for physical activities, recreation and spaces that support healthy lifestyle. Livable cities focused on general aspects of the importance of physical space, such as variety of housing, efficient land use, various amenities and good architecture and public spaces. Placemaking highlight the importance of quality of place where people can meet and socially interact. Therefore the importance of urban design and landscape design (green infrastructure) plays an important role in Placemaking concept. However, no detailed discussions on urban design elements were provided, but it was presented on a conceptual level that stresses the need of existence of good quality meeting places. Safe Cities also addressed the need for good design and amenities, effective use of built environment that supports social interaction and consequently improves safety. As such, active life and diversity of activities that are supported by built environment enhances safety. Crime prevention through landscape design was also addressed. Thus, better visibility through better lighting and lines of sight were noted. New Urbanism was the most focused concept on architectural forms and on the quality of urban design. It is an aesthetic and architectonic approach to urban development. Elements of architecture such as porches, location of garages, decorations, variety of housing types, streetscapes and open public spaces (e.g., central square in the community) are central features in New Urbanism.

The principle of green infrastructure was represented in six concepts (Healthy Cities, New Urbanism, Placemaking, Resilient Cities, Smart Growth and Sustainable Cities). The importance, existence and accessibility to green spaces were promoted in Healthy Cities (in terms of physical activities) and Placemaking (in terms of social interaction). Placemaking also addressed the need for cultural and social

events such as farmers markets and various festivals, which often take place in outdoor spaces like parks or squares. New Urbanism, Smart Growth, Resilient Cities and Sustainable cities addressed green infrastructure in the context of environmental protection and sustainability. For instance, New Urbanism promotes saving land by protecting and preserving open space and creating connected networks of open space. Using ecological design strategies are characteristic to New Urbanism. Similarly, Smart Growth supports conserving and protecting rural land and open space. Even more environmentally sustainable approach was embodied in the concept of Sustainable Cities and Resilient Cities. In fact, greening urban spaces or bringing nature into the city contributes to sustainability goals and helps mitigate urban climate extremes, promotes carbon neutrality, protects and maintains biodiversity and reduces pollution. Thus, landscape design, eco-design, or green urbanism play a key role in Sustainable City and Resilient City concepts.

5.2.2 *Natural environment*

Resilient Cities and Sustainable Cities had particular foci on environmental aspects and sustainability (Table 26). Both of the concepts clearly addressed climate change, natural hazards and disasters (e.g., floods, hurricanes), carbon emission reduction, use of energy resources, environmental protection and improving environmental quality through sustainable transport, smart/efficient energy use, or efficient land use planning. In addition to the benefits and importance of green infrastructure, New Urbanism addressed issues of impervious surfaces, travel behavior (emphasis on walkability), congestion and need for parking as part of its environmental sustainability efforts. Smart Growth promotes densifying urban cores, reducing car dependence by providing public transport and promoting walking and biking, encouraging energy efficiency as efforts to achieve more environmentally sustainable outcomes.

Table 26. Matrix of the occurrence of planning principles across contemporary planning concepts in Natural Environment category

Planning principles: Planning...		Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
6	...values natural environments, habitats and resources.				x		x			x	x
7	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.			x	x		x			x	x

All four concepts signify the importance of environmental issues. Sustainable Cities and Resilient Cities are more large scale, climate change and natural disaster oriented, whereas New Urbanism and Smart Growth are more local scale (district or site scale) although their aim is to also address climate change issues.

5.2.3 Socio-economic environment

Four planning concepts (Creative Cities, Livable Cities, Smart Cities and Smart Growth) demonstrated clear evidence of promoting economic growth and competitiveness (Table 27). Creative Cities demonstrated strong evidence for being a tool for economic success and a key factor in regional or global competitiveness. Furthermore, the concept is related to a branding and marketing agenda in order to attract the creative class, investments and visitors. However, it is also seen as a trendy strategy to promote any kind of development, justify and legitimize action and is criticized for the instrumental use of culture in order to attract businesses or promote tourism. Livable Cities also aims to increase economic competitiveness and wealth and is used for place marketing purposes or as a political tool. Nevertheless, one of its aims is to create jobs and support communities, thus enhance the livability of the place (local scale). Smart Cities also aim to improve their competitiveness. Smart Cities are business-oriented cities

with talented and knowledgeable people who have higher productivity, which contributes to economic success. Hence, Cities compete to attract high-tech industries and tech-savvy workers. Smart Growth focus is on economic growth by clustered, infill and brownfield developments in order to achieve efficiency. Smart growth may be considered a market-based approach to limit or manage sprawl.

Table 27. Matrix of the occurrence of planning principles across contemporary planning concepts in Socio-Economic Environment category

Planning principles: Planning...		Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
8	...promotes economic growth and competitiveness.	x		x					x	x	
9	...addresses equity through social, economic and ethnic diversity.	x					x	x		x	x
10	...incorporates arts, culture and heritage.	x		x					x		
11	...facilitates a sense of community cohesion and place attachment.	x		x	x	x			x		
12	...addresses the need for safe environments.		x	x			x	x			
13	...promotes healthy lifestyles.		x	x				x			

The principle of equity was embodied by five planning concepts (Creative Cities, Resilient Cities, Safe Cities, Smart Growth and Sustainable Cities). Creative Cities pointed to social and economic diversity. Particularly, issues related to gentrification and affordability were addressed as negative effects of Creative Cities that often set limitations for some creative classes, as well as other residents. Resilient Cities focused on poor and vulnerable communities and emphasized the need for fairer distribution of resilience resources and the need to consider informal places in the city. Safe Cities emphasized gender equality and low-income groups as the most vulnerable populations. It highlights the need for a planning process that avoids social exclusion and need for gender mainstreaming policies. Smart growth

highlighted the importance of equity and affordability only in a theoretical sense. Similarly, Sustainable Cities pointed to the importance of social justice and equity with little discussion. The importance of equity were mostly addressed as fundamental goal and manifestation of social consciousness with little practical evidence or application.

Planning that incorporates arts, culture and heritage was represented in three concepts – Creative Cities, Livable Cities and Smart Cities. Mostly, components of art and culture are evident in the concept of Creative Cities, where arts and culture play the central role. Creative Cities have diverse cultural activities and significant numbers of creative workers in creative occupations. It also has creative milieu and urban space that supports invention and innovation. Creative Cities are also seen as a tool for revitalizing former brownfield areas by promoting arts and culture. Similarly, Smart Cities emphasize a cultural and diverse atmosphere that encourages and supports the creative class in networking and collaborating with each other. Cultural urban milieu with galleries, theatres, bars, cafes, are part of a vibrant and attractive urban space that supports high-tech workers and nurtures their inspirations and ideas. Livable Cities highlights the importance of cultural heritage and historic preservation and protection that also contributes in the sense of place and consequently improves the livability of the place.

Five planning concepts, Creative Cities, Livable Cities, New Urbanism, Placemaking and Smart Cities demonstrated clear evidence of focusing on sense of community cohesion and place attachment. Creative Cities and Smart Cities highlight the need for social spaces that encourage face to face communication, build relationships, develop social networks, exchange information and attract creative and tech-oriented people to a community. Direct social interactions require physical meeting places and are facilitated by spatial proximity. Livable Cities also promotes social interaction in urban space to create community bonds leading to a sense of belonging and thereby enhances livability of communities. Social interactions

and place attachment were the major focus in the concept of Placemaking. Creation of meaningful places that support the notion of belonging and create social interactions. Thus, people need meeting places, as well as cultural and social events to encourage a sense of community. In contrast, a more design-based approach to community cohesion was expressed by the concept of New Urbanism. Open public spaces, porches, streets and other architecture and urban design elements are seen as prerequisite for social interactions, building sense of place and the sense of community. However, literature demonstrated significant amount of criticism regarding the sense of place and unique character of the neighborhoods claiming that new urbanism developments often resemble theme parks or movie sets.

The principles of safe environments, healthy environments (healthy lifestyles) and education and awareness were represented by less than half of the planning concepts – Healthy Cities, Livable Cities, Resilient Cities and Safe Cities. Healthy Cities and Safe Cities had a clear focus on all of these planning principles.

Four concepts, Healthy Cities, Livable Cities, Resilient Cities and Safe Cities had clear evidence of focusing on the need for safe environments. The focus on security and safety in the concept of Safe Cities were related to crime prevention through planning and design strategies and through citizen engagement. In addition, traffic safety and stranger danger (i.e., fear of strange people) were addressed within the safe routes to school (SRTS) program. Active life in streets and public spaces (i.e., spontaneous surveillance), mix use and diversity of activities are efforts to increase safety in Safe Cities. Healthy Cities addressed safety of built environment, traffic safety (emphasis on pedestrians) and urban violence. Livable Cities highlighted the notion of safety by environmental design and implementing crime prevention principles, addressing traffic safety and increasing social interactions in order to improve safety. Resilient Cities

focused on strong and reinforced infrastructure and utilities that should be able to continue functioning in the face of natural disasters or human stressors (terrorism, riots, war and crime).

The principle of healthy environments (promotion of healthy lifestyles) were clearly demonstrated by the concepts of Healthy Cities, Livable Cities and Safe Cities. Healthy Cities encourage healthy lifestyles and support physical activities and highlight the importance to accessibility to healthy food (for instance demonstrating benefits of community gardens). Health promotion was supported and connected with the topics of safety, education, equity, participation and collaboration, governance, improvement of physical space and healthy aging. Livable Cities also highlight the importance of health in the context of livability and the overall quality of life and well-being. Safe Cities focused on health-related issues, specifically the need for physical activity, within the context of the safe routes to school program, which points to declining rates of walking and bicycling, physical inactivity and air quality due to traffic pollution.

5.2.4 *Process and communication*

Public education and awareness was the distinct concern within the Healthy Cities, Resilient Cities and Safe Cities concepts (Table 28). The main focus of Healthy Cities is health promotion. Thus, increasing knowledge and expertise, raising awareness and providing information to citizens is extremely important. This includes improving awareness of the relationship between the built environment and health such as information of fitness amenities in parks, trails, recreation areas, or introducing community gardens and healthy food. Also, sharing knowledge about successful stories between experts on how to achieve healthy environments is considered crucial. Involving citizens in community development can improve the overall understanding of healthy lifestyles. Safe Cities stressed education and awareness in the context of changing attitudes, perceptions and increasing motivation. For instance, changing attitudes towards walking, raising awareness towards gender-equality or increasing motivation for observing and reporting

crimes and violations. Consequently, if people have more information and understanding, they are more likely to take action and adopt new ideas, or even change their daily routines. Resilient Cities also emphasized the benefits of increasing knowledge and awareness. Public trainings, raising awareness and increasing familiarity with various stressors generates better preparedness and responsiveness for possible future situations.

Table 28. Matrix of the occurrence of planning principles across contemporary planning concepts in Process and Communication category

Planning principles: Planning...		Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
14	...facilitates public education and awareness.		x				x	x			
15	...values and implements citizen participation through community engagement and collaboration.		x	x		x	x		x	x	x
16	...promotes interdisciplinary collaboration and public-private partnerships.		x				x			x	x
17	...facilitates better public policy and decision making.		x				x	x	x		x
18	...uses innovative technology to communicate with stakeholders and residents.		x						x		x
19	...is data driven.		x				x		x		
20	...is visionary and future oriented.						x				

Seven planning concepts (Healthy Cities, Livable Cities, Placemaking, Resilient Cities, Smart Cities, Smart Growth and Sustainable Cities) demonstrated clear focus on the principle of citizen participation and collaboration.

Participatory governance through community engagement was strongly promoted in Healthy Cities, because it is believed that only through understanding the needs and problems of citizens it is possible to

achieve Healthy City goals. Emphasis and importance of citizen engagement and inclusiveness were clearly indicated in the concepts of Livable Cities, Placemaking, Resilient Cities, Smart Cities, Smart Growth and Sustainable Cities. Placemaking stresses the importance of public engagement as this contributes into place attachment. Smart Growth points out the importance of public participation and demonstrates the process of design charrettes as a form of public participation. However, it also indicates criticism of this process as formalistic and dictated by developers and where predetermined decisions can be carefully hidden behind the well-articulated and visualized pictures. In contrast, Smart Cities focus on digital participatory features that provide citizens the opportunities to be more engaged and influence government and for the government to get better input from citizens, as well as provide information and services. Thus, the use of ICT helps to solve key problems of cities. Public participation was prominent also regarding designing better and high-quality services to residents and visitors through crowdsourcing, end-user participation and co-creation processes. Thus, “e-participation” is the key topic in Smart Cities.

The principle of interdisciplinary collaboration and public-private partnerships was represented in the concepts of Healthy Cities, Resilient Cities, Smart Growth and Sustainable Cities. Collaboration with stakeholders was highlighted as important element in Smart Growth and Sustainable Cities. At the same time, the importance of inter-sectoral collaboration between politicians and scientists, between urban professionals, across departments and organizations with wide range of actors, was well articulated particularly in the concept of Resilient Cities. Knowledge sharing, raising awareness of urban professionals and integrating the goal of a resilient city into their day-to-day practice was seen as a crucial component. Healthy Cities also highlighted the inter-sectoral collaboration as one institution cannot solve all health-related problems, thus the collective efforts should be made in promoting health in all fields.

Five concepts – Healthy Cities, Resilient Cities, Safe Cities, Smart Cities and Sustainable Cities demonstrated clear evidence of facilitating better public policy and decision making. Quite often this principle was interrelated with the two previous principles of public participation and intersectoral collaboration. Healthy Cities highlighted the need for political commitment to prioritize health in all fields and policies within city governance and the need for good leadership to manage collaborative projects and facilitate community engagement. Similarly, the concept of Resilient Cities argue that a city's planning efforts should be focused on resilience. Better governance and policies are required to become a resilient city. Particularly, knowledge-based planning, strategic and uncertainty-oriented planning, monitoring current conditions and observing trends are required for resilient city policy-making in order to be proactive and increase preparedness for various stressors and disasters. Crime prevention through public policies and citizen engagement was the focus of Safe Cities. Strong focus on ICT usage in the concept of Smart Cities, in order to inform and facilitate city planning and governance, was evident in the analyzed data. This involves online participation tools (e-government), online services, data collection and analysis (big data) and availability of open data.

Three planning concepts (Smart Cities, Healthy Cities and Sustainable Cities) demonstrated clear focus on the principle of deployment of innovative technologies to communicate with stakeholders and residents. The dominant component of Smart Cities is the presence of digital technologies and platforms as demonstrated within the previous principle of better policy and decision making. Digital applications and collected data (big data, real time data sensing) help to inform planning processes through various models, simulations, visualizations and communication platforms. Furthermore, the possibilities of digital technologies have generated paradigm shifts in the planning profession. It is not only about how planners do planning work and how technology can support them with better decision-making, but also how day to day life has changed because of the availability of mobile and digital technologies and systems. The use

of digital technologies was also evident in the concepts of Healthy Cities and Sustainable Cities. The focal point of Healthy Cities was collecting health-related data and promoting healthier lifestyles (e.g., tracking physical activity, raising awareness). At the same time, the use of modern technologies, for instance sustainable transport (e.g., real time traffic information, congestions) and collecting environment-related data (e.g., air quality, energy consumption) is also evident in the concept of Sustainable Cities. Furthermore, with the evolution of the Sustainable Cities concept, technology-oriented elements of the Smart Cities offshoot are increasingly being embedded into Sustainable Cities.

Simultaneously with the use of innovative technologies, data-driven planning principles are being addressed. Both, Smart Cities and Healthy Cities demonstrated clear evidence of this principle through data mining and/or crowdsourcing. The reference to data driven planning was clearly represented in the concept of Resilient Cities as well, although the use of modern technologies was not directly addressed, authors did point to the need for decisions based on science, knowledge and learning from previous experiences.

Despite the fact that the fundamental nature of the planning profession is future orientation, Resilient Cities was the only concept that clearly demonstrated any evidence of visionary and future oriented planning. It can be said that the reason lies on the nature of the concept, as it aims to plan for uncertainties, long-term strategies and predicts future trends in order to increase preparedness for potential future stressors. Thus, the concept of Resilient Cities is strongly proactive and future-oriented.

5.2.5 Summary

As demonstrated, each concept has different focus areas and nuances in addressing the defined planning principles. However, there are also considerable similarities between concepts.

Based on the findings presented, the most pertinent planning principles across all (10) concepts are:

- accessibility (transportation/mobility) (represented in 7 concepts),
- citizen participation and collaboration (represented in 7 concepts),
- green infrastructure (represented in 6 concepts).

In addition, at least half (5/10) of the concepts had a clear focus on the following planning principles:

- well-designed architecture and urban space (urban design),
- environmental sustainability,
- equity,
- sense of community cohesion and place attachment,
- better public policy and decision making.

5.3 Links Between Scholarship and Practice

5.3.1 Comparison of values and the use of principles in practice

When comparing the five most valued principles (i.e., rated as “highly important” with scores 8-10 by the highest percentage of respondents) with the five “most often used” principles, various gaps are apparent (Table 29).

The most valued and important principles (i.e., accessibility and mix of land uses and diversity of functions rated by 89% of respondents), do not appear among the five “most often used” principles. However, the principle of mix of land uses and diversity of functions occurs as the 6th most often used principle. Thus, this is close to the highest valued and most used principles. The other three “highly important” principles are 1) citizen participation through community engagement and collaboration, 2) better public policy and

decision making and 3) visionary and future oriented planning. Only two of them (citizen participation and visionary and future oriented planning) appear as the most often used principles in practice.

Table 29. Top 5 principles ranked by values and beliefs (left) and by use in practice (right). The overlap between principles is color highlighted

		Values	Use in practice			Use in practice	Values
#	Planning principle	rated highly important (8-10)	rated as most often used (8-10)	#	Planning principle	rated as most often used (8-10)	rated highly important (8-10)
1	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	89%	39%	1	...values and implements citizen participation through community engagement and collaboration.	68%	86%
2	...incorporates a mix of land uses and diversity of functions.	89%	32%	2	...facilitates public education and awareness.	64%	75%
3	...values and implements citizen participation through community engagement and collaboration.	86%	68%	3	...promotes interdisciplinary collaboration and public-private partnerships.	57%	68%
4	...facilitates better public policy and decision making.	86%	36%	4	...is data driven.	50%	68%
5	...is visionary and future oriented.	82%	46%	5	...is visionary and future oriented.	46%	82%

As a result, these two principles (citizen participation and visionary and future oriented planning) appear in both assessments (overlapping) as both are rated as “highly important” and “most often used”.

Furthermore, the principle of citizen participation through community engagement and collaboration is the most highly rated principle as the “most often used” principle in practice by respondents. This indicates the high priority of this principle.

When assessing the five most rated principles as “most often used” in professional practice, then in addition to the principles of citizen participation and visionary and future oriented planning that appeared as common principles in the value assessment category, also principles of facilitation of public education and awareness, interdisciplinary collaboration and public-private partnerships and data driven planning appear as the most rated principles in practical use. In addition, one of the highest valued principle - accessibility was rated only by 32% of respondents as the “most often used” principle. This demonstrates the discrepancy of values and beliefs and actual practice.

Alternative comparison only with “city/town respondents” (n=13) demonstrates that the most important principle is the mix of land uses and diversity of functions, but it does not appear among the five most used principles. The “most often used” principle in practice (i.e., rated as “most often used” with scores 8-10 by the highest percentage of respondents) is interdisciplinary collaboration and public-private partnerships, which does not appear among the five highest valued principles. This finding is different compared to the findings of all respondents. Also, these findings reflect a slightly different focus by “city/town respondents”. Analysis shows that the common/overlapping principles for both assessments (i.e., values and practical use) are: 1) citizen participation, 2) facilitation of public education and awareness and 3) facilitation of a sense of community cohesion and place attachment.

As a result, the analysis on comparisons of values and practical use for both groups (i.e., all respondents and city/town respondents) demonstrates the dominant principle assessed as “highly important” and the “most often used” is citizen participation through community engagement and collaboration.

5.3.2 Connections between concepts and principles in scholarship and practice

Comparing the findings from the literature and the survey demonstrate whether there is a gap between theory and practice. As explained in Chapter 3, theory shows considerable overlap within contemporary planning concepts. Many concepts embody the same planning principles with varying focus areas and nuances in addressing these principles. Thus, the differences between concepts are based mostly on details. Also, as demonstrated in Chapter 3, most contemporary concepts focus on multiple planning dimensions at the same time.

Findings from practice indicate that planning principles are more important than contemporary planning concepts. Also, planning principles are not always implemented in practice despite their high values. Differences in findings from the literature and survey results as they relate to the most pertinent and most used planning principles are presented in Table 30. The gap between theory and practice is evident when comparing these findings. Literature analysis resulted in eight planning principles that occurred as most pertinent across all concepts. At the same time, four principles were identified as the most often used in practice. Out of these eleven principles (identified through theory and practice) only citizen participation and collaboration principle overlapped in theory and practice. Thus, the gap between theory and practice is evident.

Table 30. Most pertinent planning principles across all (10) concepts from literature (left) and the most often used planning principles from survey (assessed at least by 50% of the respondents as “most often used”). The overlap between principles in theory and practice is color highlighted.

#	Most pertinent principles from literature [theory]	Across all 10 concepts (100%)	#	Most often used planning principles from survey (rated with scores 8-10) [practice]	Assessed at least by 50% of the respondents
1	...values and implements citizen participation through community engagement and collaboration.	7 (70%)	1	...values and implements citizen participation through community engagement and collaboration.	68%
2	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	7 (70%)	2	...facilitates public education and awareness.	64%
3	...addresses green infrastructure such as parks, public spaces and landscaped areas.	6 (60%)	3	...promotes interdisciplinary collaboration and public-private partnerships.	57%
4	...is well designed both in terms of architecture and urban space.	5 (50%)	4	...is data driven.	50%
5	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	5 (50%)			
6	...addresses equity through social, economic and ethnic diversity.	5 (50%)			
7	...facilitates a sense of community cohesion and place attachment.	5 (50%)			
8	...facilitates better public policy and decision making.	5 (50%)			

The most often used planning principles rated by practitioners, all of which relate to the process and communication dimension, are:

- citizen participation through community engagement and collaboration,
- facilitation of public education and awareness,
- interdisciplinary collaboration and public-private partnerships and
- data driven planning.

Planning concepts encompass a set of planning principles and according to these findings, only the concepts of Healthy Cities and Resilient Cities correspond to all the most often used principles in practice (i.e., both concepts embody these four most used principles). However, the focus of these concepts are considerably different (e.g., health promotion and environmental sustainability). Furthermore, at the same time, the most often used concepts in practice are Placemaking, Livable Cities, Sustainable Cities and Smart Growth. Interestingly, the concept of Resilient Cities was assessed as one of the least used concepts (by 57% of respondents) and Healthy Cities were assessed as “used less than half of the times” by 46% of respondents.

Discrepancy also appears when comparing the use of contemporary concepts in professional practice. The concept of Placemaking is used by 75% of respondents more than half of the times (and by 85% of City/Town respondents), which makes it the most frequently used contemporary concept at the present time compared to other concepts. The most pertinent principle for the concept of Placemaking (from literature) is facilitating a sense of community cohesion and place attachment through the creation of meaningful places and encouraging social interactions. This is related to built environment qualities such as pedestrian friendly environments, green infrastructure and human scale urban design features. Also,

public participation and community engagement in the process of planning and designing places emerged as a key characteristic. However, the practice of using these principles shows a different picture. Only the public participation and community engagement principle overlaps between theory and practice. Only about 30% or less of survey respondents assessed built environment principles as “most often used” and only 36% of respondents assessed the principle related to a sense of community and place attachment as “most often used”. Thus, if professionals use the concept of Placemaking most frequently at the present time, the use of corresponding principles are uncharacteristically low.

Similarly, the second highest frequently used concept is Livable Cities, used by 68% of respondents more than half the time (and by 85% of City/Town respondents). The most relevant themes are physical space/built environment issues such as walkability, transportation and urban design; economic aspects as well as public participation and collaboration. In addition, as literature showed, the concept of livable cities is a broad umbrella concept that does not have a single established definition. However, the practice of using these principles shows a different picture. Only the public participation and community engagement principle overlaps between theory and practice. Also, only about 30% or less of respondents assessed the built environment principles as “most often used”. Thus, if professionals use the concept of Livable Cities relatively frequently, the use of corresponding principles is uncharacteristically low.

Consequently, these findings illustrate the gap between theory and practice. The most often used planning principles are related to concepts that are amongst the least used concepts in practice. Or vice versa, the principles embodied in the most often used concepts don’t appear as the most frequently used principles in practice. In essence, practitioners use concepts with little understanding of the principles related to these concepts.

The creation of concepts with overlapping principles that do not translate into practice keep occurring in theory. However, practitioners don't seem to find the need to express their work through these trendy concepts. Practice does not seem to fit neatly into any particular concept as principles seem to be easier to define, understand and use than popular contemporary concepts.

Thus, it appears that the continuous occurrence and evolution of concepts is more of a theoretical exercise. It seems that contemporary concepts, after reaching their peak, disappear in a relatively short time without any lasting practical implications. New and innovative technologies (virtual environment) that are strongly represented in the concept of Smart Cities may have longer-lasting implications, but technologies are tools rather than fundamental principles in planning. Besides, new technologies are embedded into everyday life in many fields these days. Thus, it's not particularly a product or principle of urban planning.

The findings from the survey illustrate that principles commonly and most used by practitioners converge into the process and communication realm. This reflects the current focus of the profession and aligns with communicative planning theory. The role of planners is seen as facilitators for processes, deliberative discussions, public engagement and collaboration with stakeholders. This requires good communications skills to explain and articulate one's work to other people. It may be related to branding and selling strategies to convince citizens, politicians and developers to accept various ideas (old or new). Furthermore, it may be related to the predominant culture of a consumption society. People are accustomed and attracted to new things. The same can be applied to planning profession - in order to convince people to apply and accept good planning principles that have stood the test of time, it needs to be presented in a new and attractive manner. While this may be true of our society as a whole, the survey results indicate that planning professionals don't really use trendy concepts to sell or represent their work.

If the use of contemporary concepts is more of a theoretical exercise, one can speculate whether trendy names for concepts that embody various elements and aspects are necessary to convince possible readers to open a book or read an article. Perhaps from a theoretical standpoint, it is also an effort to attract students and promote scholarship and dialogue. However, as seen, many concepts are too ambiguous with no established definitions or meaning. Consequently, these concepts create confusion and may function as “empty signifiers” despite of high frequency of use. Still, all these possible reasons are assumptions and the quintessential reason why this phenomenon of evolving concepts, at increasing frequencies, continues to gain momentum remains the source for future research.

5.3.3 Limitations of study

There are several limitations to this study. For the theoretical assessment, the selection method for the articles used in the content analysis came from two online databases (ProQuest and Scopus) and were chosen from the years when the number of articles peaked. As such, there might have been pertinent articles for these contemporary concepts that were missed. The set of articles chosen for analysis provided significant information in order to learn about the particular concept and a different set of articles may or may not have made a significant difference.

The survey component of this research involves a number of limitations. Firstly, the survey focused only on Michigan and, as such, the findings can only be applicable in a Michigan context. Furthermore, the number of respondents was relatively small (28 respondents in total), it was not possible to break down responses for multiple cross tabulations. However, getting more data would not make a difference as the results don’t rely on statistics, but aims to understand the perceptions and meaning for people who experience planning practice. Thus, it’s based on interpretation of data. Secondly, the survey asked participants to rate all principles and concepts and did not ask respondents to specify the reasons why

they rated the way they did. Especially, regarding contemporary concepts, the survey did not ask respondents to elaborate or explain why they provided particular answers and what motivated them to use (or not use) certain contemporary concepts. For instance, the survey did not ask whether these concepts are or are not relevant at this time, or if their job or current position influenced their use of certain concepts.

Despite the various limitations to the study the significance of this research is not diminished. The research provides evidence of how different contemporary planning concepts differ from one another and what they embody and it provides insights as to how professional planners in Michigan apply planning concepts and principles in their daily practice. Finally, this research demonstrates the gap between theory, as evidenced in the literature, and professional practice in Michigan.

6 CONCLUSIONS

The purpose of this research was to explore and understand the key characteristics of contemporary concepts in urban planning, through the lens of scholarship and theoretical literature and assess whether these concepts are impacting professional planning practice. This dissertation explored answers to the following research questions:

1. How has professional language related to creating places for people evolved over time (since 1990)?
2. To what extent do emerging concepts in Urban Planning differ from one another?
3. What planning principles are targeted through contemporary planning concepts?
4. How often do practicing urban planners use language, planning principles and contemporary concepts in their day to day work?
5. Is there a gap between theory and practice as it relates to contemporary planning concepts?

The first three research questions were answered through the exploration of literature. The fourth research question was answered through a survey of practicing urban planners and the fifth question was answered through an interpretation of the theoretical knowledge gained from literature analysis and the practical applications from the survey analysis. The following summarizes the major findings for each research question.

1. How has professional language related to creating places for people evolved over time?

Urban Planning in the US dates back to the end of the 19th century. Early movements in planning revolved around the physical infrastructure in cities and was spurred by crisis in sanitation and hygiene in urban settlements. For the first half of the 20th century, planning was dominated by physical or built environment movements such as the City Beautiful, the Garden City, Urban Renewal and large-scale engineering and

infrastructure development. The second half of the 20th century saw the rise of the environmental and social movements in planning. As the field matured, planning became more process oriented and focus shifted to from *what* to plan to *how* to plan. Theorists discussed advocacy and equity in planning and how best to involve citizens in communicative action. Instead of big visions and movements, the planning profession focused on guiding principles for good planning practice. In recent times, however, there has been a multitude of new contemporary planning concepts that have emerged in literature and practice. In the last 25 years, ten new, significant, contemporary planning concepts have been identified: Creative Cities, Healthy Cities, Livable Cities, New Urbanism, Placemaking, Resilient Cities, Safe Cities, Smart Cities, Smart Growth and Sustainable Cities. These contemporary concepts were further explored within this study. The following chart (Figure 22) is a good indication of when these concepts started to appear in planning literature and when their peak activity was recorded by search engines of science databases. As can be noted, the concepts are not mutually exclusive and co-exist in time.

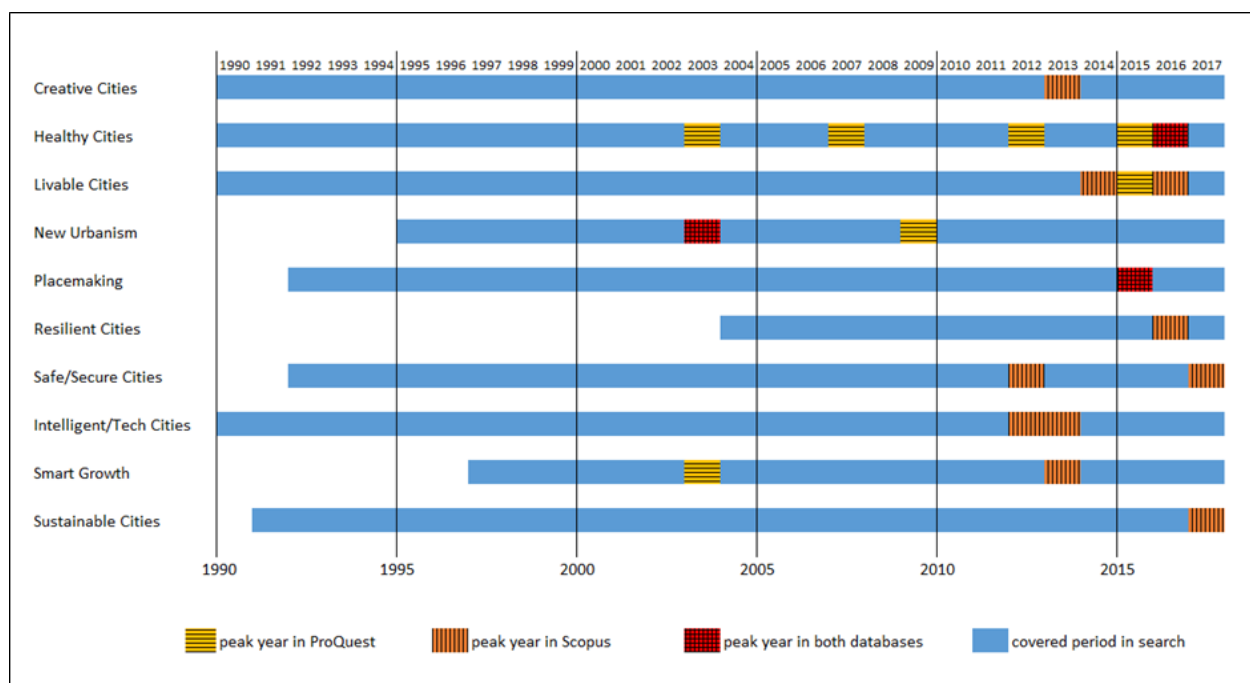


Figure 22. Display of time periods for each concept when articles occurred in search results, both databases and all search terms combined (e.g., “intelligent cities” and “tech cities”). Search criteria was set for 1990-2017.

Professional language and/or terminology has evolved over time from big, impactful movements in the physical realm to environmental and social movements to process related theories and most recently to a multitude of contemporary, trendy urban concepts that revolve around a set of planning principles discussed earlier.

2. To what extent do emerging concepts in urban planning differ from one another?

This question is best answered through the lens of planning principles embedded in each of the ten contemporary concepts. In general, however, one can note that most of the concepts are similar in their scope. The difference is largely on their primary focus area. For example, New Urbanism focuses on the built environment and urban design while creative cities may focus on arts and culture as a means to attract a creative economic class. Some concepts are rather focused on a singular element such as health, safety or deployment of technology. However, even these focused concepts embody more than one planning principle. In essence, the concepts are similar in the big picture, the difference is nuanced and perhaps based on the primary focus.

3. What planning principles are targeted through contemporary planning concepts?

As noted in Chapter 3, the 10 contemporary planning concepts all address multiple guiding principles in planning. A list of 20 principles were noted from the content analysis of the contemporary planning concepts. These principles can be grouped under 4 dimensions and are presented as follows:

A. Built Environment

1. Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.
2. Planning incorporates a mix of land uses and diversity of functions.

3. Planning exhibits appropriate densities and promotes compact development.
4. Planning is well designed both in terms of architecture and urban space.
5. Planning addresses green infrastructure such as parks, public spaces and landscaped areas.

B. Natural Environment

6. Planning values natural environments, habitats and resources.
7. Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.

C. Socio-Economic Environment

8. Planning promotes economic growth and competitiveness.
9. Planning addresses equity through social, economic and ethnic diversity.
10. Planning incorporates arts, culture and heritage.
11. Planning facilitates a sense of community cohesion and place attachment.
12. Planning addresses the need for safe environments.
13. Planning promotes healthy lifestyles.

D. Process and Communication

14. Planning facilitates public education and awareness.
15. Planning values and implements citizen participation through community engagement and collaboration.
16. Planning promotes interdisciplinary collaboration and public-private partnerships.
17. Planning facilitates better public policy and decision making.
18. Planning uses innovative technology to communicate with stakeholders and residents.
19. Planning is data driven.
20. Planning is visionary and future oriented.

As demonstrated in Chapter 5, each concept has different focus areas and nuances in addressing the defined planning principles, but there are considerable similarities between concepts. Consequently, the most pertinent planning principles across all (10) concepts are: accessibility, transportation and mobility (represented in 7 concepts), citizen participation and collaboration (represented in 7 concepts) and green infrastructure (represented in 6 concepts). In addition, five concepts had a clear focus on the following planning principles: well-designed architecture and urban space; environmental sustainability; equity; sense of community cohesion and place attachment; and better public policy and decision making. Thus, eight out of 20 principles have major overlap across the concepts. The rest of the principles have minor overlaps across concepts based on the focus of the concept. The following Table 31 summarizes these findings.

Table 31. Matrix of the occurrence of planning principles across contemporary planning concepts

Planning principles: Planning...		Creative Cities	Healthy Cities	Livable Cities	New Urbanism	Placemaking	Resilient Cities	Safe/Secure Cities	Smart Cities	Smart Growth	Sustainable Cities
1	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.		x	x	x	x		x		x	x
2	...incorporates a mix of land uses and diversity of functions.				x					x	
3	...exhibits appropriate densities and promotes compact development.				x					x	
4	...is well designed both in terms of architecture and urban space.		x	x	x	x		x			
5	...addresses green infrastructure such as parks, public spaces and landscaped areas.		x		x	x	x			x	x
6	...values natural environments, habitats and resources.				x		x			x	x
7	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.			x	x		x			x	x

Table 31 (cont'd)

8	...promotes economic growth and competitiveness.	x		x					x	x	
9	...addresses equity through social, economic and ethnic diversity.	x					x	x		x	x
10	...incorporates arts, culture and heritage.	x		x					x		
11	...facilitates a sense of community cohesion and place attachment.	x		x	x	x			x		
12	...addresses the need for safe environments.		x	x			x	x			
13	...promotes healthy lifestyles.		x	x				x			
14	...facilitates public education and awareness.		x				x	x			
15	...values and implements citizen participation through community engagement and collaboration.		x	x		x	x		x	x	x
16	...promotes interdisciplinary collaboration and public-private partnerships.		x				x			x	x
17	...facilitates better public policy and decision making.		x				x	x	x		x
18	...uses innovative technology to communicate with stakeholders and residents.		x						x		x
19	...is data driven.		x				x		x		
20	...is visionary and future oriented.						x				

4. How often do practicing urban planners in Michigan use language, planning principles and contemporary concepts in their day to day work?

The survey results provided some key insights. Firstly, professional planners in Michigan value or believe in almost all of the planning principles to a large extent. However, they do not have the opportunity to apply or use many of them in their practical work. While the survey did not explore why this occurred one can hypothesize that geography, scale, position and responsibilities play a role. The following Table 32 shows the top 10 valued principles.

Table 32. Top 10 most valued principles by survey respondents

Ranking	Planning principle/statement Planning...	rated as highly important (8-10)
1/2	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	89%
1/2	...incorporates a mix of land uses and diversity of functions.	89%
3/4	...values and implements citizen participation through community engagement and collaboration.	86%
3/4	...facilitates better public policy and decision making.	86%
5	...is visionary and future oriented.	82%
6/7/8/9	...addresses green infrastructure such as parks, public spaces and landscaped areas.	79%
6/7/8/9	...values natural environments, habitats and resources.	79%
6/7/8/9	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	79%
6/7/8/9	...facilitates a sense of community cohesion and place attachment.	79%
10	...facilitates public education and awareness.	75%

In comparison, the table for most used principles in practice show a dramatic decrease in the percent of respondents that use these principles often. The most often used planning principles from survey were citizen participation through community engagement and collaboration; facilitation of public education and awareness; interdisciplinary collaboration and public-private partnerships and data driven planning, all of which relate to the process and communication dimension. The following Table 33 demonstrates the top 10 most used principles and their corresponding percentage of users.

Table 33. Top 10 most used principles and their corresponding percentage of users

Ranking	Planning principle/statement Planning...	rated as most often used (8-10)
1	...values and implements citizen participation through community engagement and collaboration.	68%
2	...facilitates public education and awareness.	64%
3	...promotes interdisciplinary collaboration and public-private partnerships.	57%
4	...is data driven.	50%
5	...is visionary and future oriented.	46%
6	...incorporates a mix of land uses and diversity of functions.	39%
7/8/9	...values natural environments, habitats and resources.	36%
7/8/9	...facilitates a sense of community cohesion and place attachment.	36%
7/8/9	...facilitates better public policy and decision making.	36%
10/11	...exhibits appropriate densities and promotes compact development.	32%
10/11	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	32%

The second major insight from survey results showed that practitioners were more apt to use planning principles rather than align with the contemporary concepts. The following Table 34 ranks the contemporary concepts by use in practice.

Table 34. Use of terminology in professional work (All respondents, n=28)

#	Concept	Most often used (8-10)
1	Placemaking	57%
2	Smart Growth	36%
3	New Urbanism	32%
4	Sustainable Cities	29%
5	Livable Cities	25%
6	Creative Cities	18%
7	Safe Cities	18%
8	Smart Cities	18%
9	Healthy Cities	14%
10	Resilient Cities	14%

The most frequently used concept is Placemaking, which was the only concept rated as “most often” used by more than 50% of respondents (57%). While not used very often, some of the other popular concepts were Livable Cities, Sustainable Cities and Smart Growth. This finding, pertaining to concepts, is interesting as it clearly indicates that this rapid emergence of contemporary concepts seems not to have any major or long-lasting impact on planning practice. Placemaking is the newest contemporary concept and shows some use in practice, however, the rest of the concepts do not appear to be significant for practitioners. It is clear then that it is not planning practice that is driving the creation of trendy concepts but rather theoretical discussions that seem to promote them.

5. Is there a gap between theory and practice as it relates to contemporary planning concepts?

This research demonstrated that there is a considerable gap between theory and practice as it relates to contemporary planning concepts. Differences in findings from the literature and survey results as they relate to the most pertinent and most used planning principles are presented in Table 35. The gap between theory and practice is evident when comparing these findings. Literature analysis resulted in

eight planning principles that occurred as most pertinent across all concepts. At the same time, four principles were identified as the most often used in practice. Out of these eleven principles (identified through theory and practice) only citizen participation and collaboration principle overlapped in theory and practice. Thus, the gap between theory and practice is evident.

Furthermore, the data showed that the most often used planning principles are related to concepts that are amongst the least used concepts in practice. Or vice versa, the principles embodied in the most often used concepts don't appear as the most frequently used principles in practice. In essence, practitioners might use concepts with little understanding of the principles related to these concepts.

Table 35. Most pertinent planning principles across all (10) concepts from literature (left) and the most often used planning principles from survey (assessed at least by 50% of the respondents as “most often used”). The overlap between principles in theory and practice is color highlighted.

#	Most pertinent principles from literature [theory]	Across all 10 concepts (100%)	#	Most often used planning principles from survey (rated with scores 8-10) [practice]	Assessed at least by 50% of the respondents
1	...values and implements citizen participation through community engagement and collaboration.	7 (70%)	1	...values and implements citizen participation through community engagement and collaboration.	68%
2	...demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	7 (70%)	2	...facilitates public education and awareness.	64%
3	...addresses green infrastructure such as parks, public spaces and landscaped areas.	6 (60%)	3	...promotes interdisciplinary collaboration and public-private partnerships.	57%
4	...is well designed both in terms of architecture and urban space.	5 (50%)	4	...is data driven.	50%
5	...addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	5 (50%)			
6	...addresses equity through social, economic and ethnic diversity.	5 (50%)			
7	...facilitates a sense of community cohesion and place attachment.	5 (50%)			
8	...facilitates better public policy and decision making.	5 (50%)			

Also, research findings indicate that practice does not seem to fit neatly into any particular concept as principles seem to be easier to define, understand and use than popular contemporary concepts. Thus, it appears that the continuous occurrence and evolution of concepts is more of a theoretical exercise and more relevant to theoretical scholarship rather than professional practice.

Summary

The urban planning profession has certainly evolved over time and the professional language around planning has changed over the years. However, planning is based on guiding principles that have withstood the test of time. Contemporary urban planning is more process oriented and professional planners understand and respect the role of citizens in decision making. Planning also aims to address emerging issues such as climate change and food insecurities in theory and practice. Practitioners and professional planners don't see the need to reinvent and rebrand the planning discipline in order to accomplish their day to day work. Regardless of this, scholars seem to find the need to continuously rebrand the profession and attach labels and trendy titles to create emerging concepts. These concepts get the passing attention of practitioners and the public in general and then fade into the background while the basic guiding principles continue to impact the practice and profession of urban planning. It is a common perception that academics are not in sync with what goes on in practice. Perhaps there is some truth in this statement. This research clearly indicates that if scholars and academics are to be relevant in practice, more conversation with practitioners is critical. There is a greater need for academics and theorists to understand emerging trends, technical advances and new applications in practice to better educate the next generation of professional planners than to create professional language and terminology that is irrelevant to professionals at the frontline of planning practice.

APPENDICES

APPENDIX A:

Coding Scheme

Table 36. Coding Scheme - Emerging Themes from Literature

Theme/ Concept	Tag/Code (Parent)	Tag/Code (Child)	Definition
Built/Physical environment	PHYS		General references to the built environment, or references to the importance and/or presence of built/physical environment with no detailed descriptions on specific aspects.
Walkability and accessibility	PHYS	WALK/ACCESS	References to the importance, possibilities and/or presence of walking or biking (i.e., active physical transportation modes) between destinations, accessibility to destinations, and wayfinding.
Mixed use	PHYS	MIXED USE	References to the importance and/or presence of mixed use areas.
Density	PHYS	DENS	References to the importance and/or presence of high(er) density and compactness (vs. low density, sprawl).
Compactness	PHYS	COMPACT	References to the importance and/or presence of compact built environment that is well accessed (with short distances), usually in mixed use areas.
Open space	PHYS	OP SPACE	References to the importance and/or presence of open space (e.g., parks, squares, and other forms of public open space); outdoor green spaces (green infrastructure).
Urban design	PHYS	DESIGN	References to designed environment/space, e.g. its functionality, facilities, equipment, green space, urban furniture; supports the use of space; evidence that highlights the importance of urban design or existence of design.
Transportation and mobility	PHYS	TRANSP	References to the importance of transportation and mobility and mixed transportation modes (combination of different types of transportation modes such as car, public transportation, bike routes, etc.), and/or transit oriented environments that are not designed exclusively for cars.
Social aspects	SOCIAL		References to general descriptions and aspects of the social/human environment with no detailed descriptions on specific aspects, including mentions of human capital.
Culture, Cultural Heritage, and Arts	SOCIAL	CULT/ARTS	References to the importance and/or presence of cultural, cultural heritage aspects (historic sites and objects) and arts.
Social Diversity	SOCIAL	SOCIAL DIV	References to the importance and/or presence of different social groups/social status; diversity of people regardless their age, ethnicity, income, religion, sexuality, etc.
Mixed income	SOCIAL	INCOME	References to the importance and/or presence of economic diversity of people (mixed income).
Services	SOCIAL	SERVICE	References to the importance and/or presence of different services provided for people; accessible (accessibility to) services.

Table 36 (Cont'd)

Theme/ Concept	Tag/Code (Parent)	Tag/Code (Child)	Definition
Human Scale and Social Interactions	SOCIAL	SCALE	References to the importance of human scale; sense of place (incl. atmosphere, milieu), sense of belonging, or place attachment, and social cohesion (interaction). Human scale as perceivable space for people ("microclimate" of the space) - ground level, walkable, and people-oriented urban development based on anthropometric measures.
Equity	SOCIAL	EQUITY	References to the importance and/or presence of social equity and inclusion, and equality of people; the right to the city, just city.
Security and Safety	SOCIAL	SAFE/SECURE	References to the importance and/or presence of safety and security of people and crime prevention activities.
Health	SOCIAL	HEALTH	References to the importance and/or presence of public health, and healthy lifestyles (incl. promotion) and health-related well-being or quality of life.
Agriculture and Food Accessibility	SOCIAL	AGRIC/FOOD	References to the importance and/or presence of agriculture/farming, and access to food.
Affordability	SOCIAL	AFFORD	References to evidence that describes affordability issues (affordable housing, affordable workspace), including gentrification processes.
Education and awareness	SOCIAL	EDUC	References to the importance of education and knowledge, and raising awareness (information).
Processes	PROCESS		General references to process related issues, including descriptions of various general tasks of built environment professionals or local government (e.g., city planning, designing, maintenance plans and management).
Public Participation	PROCESS	PARTICIP	References to evidence of processes that involve public/community participation and engagement, and involvement and collaboration with stakeholders. Also descriptions of references that emphasize the importance of public participation as well as descriptions of bottom up vs top down initiatives.
Living Lab	PROCESS	LAB	References to evidence of various living laboratories (test areas).
Governance	PROCESS	GOV/POLITICS	References to importance and/or presence of government processes, which may include descriptions of bottom up vs top down initiatives; aspects of policy- and decision making and political issues.
Modern Technology and Innovation	PROCESS	TECH	References to the importance or use of modern and diverse technologies to solve urban problems, smart and innovative solutions; use of information and communication technologies (ICT); descriptions of virtual-digital and high-tech technologies or environments.

Table 36 (Cont'd)

Theme/ Concept	Tag/Code (Parent)	Tag/Code (Child)	Definition
Environmental aspects/natural environment	ENV		References to general descriptions and aspects of the importance of natural environments with no detailed descriptions on specific aspects.
Environmental Sustainability	ENV	SUST	References to the importance of environmental sustainability, such as resource or energy efficiency actions that aims to prevent pollution, protect climate, support biodiversity, preserve habitats, mitigate hazards and support aesthetics of the environment; any kind of environmentally friendly decisions and precautionary actions.
Economic aspects	ECON		References to general descriptions and aspects of importance of economic aspects with no detailed descriptions on specific details; references to economic development (economic growth).
Economic sustainability	ECON	ECON SUST/DIV	References to the importance of resource efficiency, evidence that supports development (employment and business activity) and economic diversity.
Branding and Marketing	BRAND		References to evidence that directly mention/describe the use of certain concept/term for marketing and branding purposes, and competitiveness.
Fuzziness of concepts and terminology	FUZZY		References to evidence that describe the ambiguity of concepts; references to various understandings of what some concept mean and showing the variety of meanings of the same concepts; statements of multiplicity of concepts/terminology.
Terms and definitions	TERM		References to evidence of multiplicity and variety of definitions of concepts or key terminology; descriptions that provide explanations of various terminology/concepts.

APPENDIX B:

Data Accounting Sheet for the Concept of Creative Cities

Table 37. Data Accounting Sheet - Occurrence of Codes in Data Collections for Creative Cities

Tag/Code Data Collection		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON	ECON SUST/DIV	BRAND	FUZZY	TERM	NOTES
1	(Grodach, 2013)	x		x	x		x	x	x	x	x			x	x	x-	x			x-	x		x		x	x	x		x		x	x	x	urban cultural policy making; promotes economic competitiveness; gentrification; place matters; strongest influence in terms of city branding
2	(Pratt & Hutton, 2013)	x								x	x				x	x-				x									x		x	x	x	urban focus; magnet for investment and tourism; financial crisis; social exclusion is widespread
3	(Ratiu, 2013)	x						x		x	x			x	x	x-				x-	x		x					x	x		x		x	too philosophic; CC is rather an issue of big cities; competition for talented people
4	(Darchen, 2013)	x	x	x			x	x		x-	x-					x-				x-		x	x		x				x		x	x	x	CC as tool to legitimize actions, “magic tool” to sell anything related to culture; CC as policy rationale; placemaking
5	(Borén & Young, 2013b)								x	x	x		x	x	x-					x-	x	x			x				x		x-	x		creative class mobility aspects; job, funding, networks, family matters over the place attractiveness; branding; education matters
6	(Alamoudy, 2013)	x						x		x	x		x								x	x	x		x				x	x	x	x	x	Concept of CC is adjusted into cultural context in order to brand (show success stories); strange article...
7	(Darchen & Tremblay, 2013)	x-	x	x				x		x	x				x	x	x			x-			x		x				x	x	x		x	Creativity as tool for economic competitiveness. CC as justifying and branding tool
8	(Sasajima, 2013)	x	x	x						x	x	x			x	x	x			x-					x				x		x		x	CC is used for re-branding and regeneration purposes. CC as political tool and governmental policies. Japan
9	(Vivant, 2013)	x								x			x		x	x-				x-									x-		x			real estate values set limits to creative workers; affordable housing; uncertainty of creative industry
10	(Borén & Young, 2013a)										x																		x			x	x	Not relevant in terms of planning principles... Explores “What is creativity?” for policy makers
	Total:	8	3	4	1	-	2	5	2	9	9	1	3	3	8	6	3	-	-	8	4	3	5	-	6	1	1	1	10	2	9	6	8	Showing general trends, important themes (codes)

- Negative attributes identified

APPENDIX C:

Data Accounting Sheet for the Concept of Healthy Cities

Table 38. Data Accounting Sheet - Occurrence of Codes in Data Collections for Healthy Cities

Tag/Code Data Collection																													NOTES					
		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST		ECON	ECON SUST/DIV	BRAND	FUZZY	TERM
1	(Kang, 2016)	x	x	x				x	x	x							x	x			x	x	x		x	x				x				Collaboration is important in order to promote physical activities. Focus on collaboration. HC have more activities and initiatives to support health.
2	(Patrick et al., 2016)									x						x		x					x		x							x	Compares HC with Transition Towns. Community participation, equity, diversity, governance, and health are important topics.	
3	(Schwab et al., 2015)	x	x					x	x	x	x	x		x	x		x	x	x		x		x		x		x	x						Healthy environment can prevent chronic diseases. Health promotion and good governance. Physical engagement and security.
4	(Awofeso, 2003)	x							x	x						x	x				x	x	x		x		x	x					x	HC as larger umbrella to address issues of inequality and conditions of poor. Public health and personal health issues.
5	(Macfarlane et al., 2015)	x	x	x				x	x	x	x			x	x	x	x	x			x	x	x		x				x				x	Collaboration and civic participation have great role. Improving health of people in cities.
6	(de Blasio et al., 2012)	x								x						x		x				x	x		x		x							Policy making, governance, Health Impact Assessment (wasn’t successful in practice)
7	(Westphal & Franceschini, 2016)															x	x		x		x													Not very relevant... Policy development in Brazil – health promotion policy. Does not show what HC are.
8	(Hu & Kuo, 2016)	x	x				x	x	x	x	x			x		x	x	x			x	x	x		x	x		x	x			x		Good governance. Taiwan as success story. Awards to promote HC and health. Good policies. Prioritizing health.
9	(Miller & Tolle, 2016)	x	x		x			x	x	x					x	x	x	x	x			x	x			x	x						x	Big data. Use of technology can help in decision making for healthy cities. One of the best articles...
10	(Twiss et al., 2003)	x						x		x					x			x	x		x	x	x		x									Community gardening. Health benefits of community gradening.
	Total:	8	5	2	1	-	1	6	6	9	3	1	-	3	4	7	7	8	4	-	7	7	9	-	8	3	4	3	3	-	1	-	4	Showing general trends, important themes (codes)

APPENDIX D:

Data Accounting Sheet for the Concept of Livable Cities

Table 39. Data Accounting Sheet - Occurrence of Codes in Data Collections for Livable Cities

Tag/Code Data Collection																														NOTES					
		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON		ECON SUST/DIV	BRAND	FUZZY	TERM	
1	(Zanella et al., 2015)	x	x		x		x		x		x					x	x	x		x	x						x	x	x			x	x	Assessing livability of 120 Eur cities. Dimensions and indicators were developed. Human wellbeing and env. Impact components.	
2	(Ruth & Franklin, 2014)	x								x													x					x	x			x	x	livability changes during a life course, different expectations and needs; desirable place; providing diversity could help to achieve it	
3	(Safavi et al., 2014)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x		x		x	Collection of everything, overwhelming; involves almost everything that can be counted for good urban environment (covers almost all codes).
4	(Teo, 2014)	x	x					x		x					x-								x-			x				x		x	x	Understanding of livability differs for different social groups – material luxury for wealthy and memories, coziness, sense of place for less wealthy people.	
5	(Maghsoodi Tilaki et al., 2014)	x	x				x	x	x	x	x			x	x		x	x					x			x				x		x	x	Tourism as the driving force to increase livability. Livability helps to improve tourism. Physical space, health, safety, design, public participation.	
6	(Saitluanga, 2014)	x	x							x				x			x	x	x			x					x	x	x				x	x	Exploring people’s satisfaction with livability: objective and subjective measures; livability index is higher in the center of city; location matters.
7	(Harris et al., 2014)	x	x					x	x										x				x												Health, physical activity; transportation and land use as livability. Collaboration between partners.
8	(Rosales, 2007)		x					x	x	x					x		x				x		x												Road diet benefits on livability; mostly improves safety
9*	(Svara et al., 2015)	x							x		x		x	x		x	x	x	x	x	x	x	x		x	x	x	x	x				x	Equity as dimension of sustainability that helps to improve livability (livability is explained by sustainability). Sustainable=livable	
10*	(Porio, 2015)		x					x			x		x	x	x	x	x	x		x	x				x	x	x	x	x					Assessment of quality of life and sustainability (3 frameworks); QOL indicators; not quite accurate and suitable frameworks; wide range of indicators that cover almost everything – QOL=livability	
	Total:	8	8	1	2	1	3	6	6	6	5	1	4	4	5	5	7	7	2	4	6	1	8	-	5	3	7	6	8	-	4	5	7	Showing general trends, important themes (codes)	

* Article addresses multiple concepts
- Negative attributes identified

APPENDIX E:

Data Accounting Sheet for the Concept of New Urbanism

Table 40. Data Accounting Sheet - Occurrence of Codes in Data Collections for New Urbanism

Tag/Code Data Collection		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON	ECON SUST/DIV	BRAND	FUZZY	TERM	NOTES
1	(Berke et al., 2003)	x	x	x	x	x	x	x		x		x			x						x						x	x	x					Watershed protection. Comparison of env impact and sustainable dev. Between NU and conventional dev. Impervious surface – not much difference in terms of env impact
2	(Southworth, 2003)	x	x	x	x		x	x	x	x		x			x		x				x							x	x			x	x	Reflection and critics on NU. “transect planning”
3	(Day, 2003)	x	x	x	x		x	x	x	x	x	x			x		x			x	x	x	x					x						Social diversity in NU
4	(Thompson-Fawcett, 2003)	x						x														x	x								x			NU paradigm has expanded widely. What US can teach to Eur. History of NU, development of the movement.
5	(Grant, 2003)	x	x	x	x	x	x	x	x	x					x		x	x			x		x				x	x	x		x	x	x	Influence of NU and sustainable dev. Little is achieved, only few elements have been implemented.
6	(Greenwald, 2003)	x	x	x	x		x	x	x		x	x			x												x	x					x	Testing if NU promotes walking and transit. Connections btw lands use and transport. TOD, TND, ped pocket. NU increases vehicle use.
7	(Lee & Ahn, 2003)	x	x	x	x	x	x	x	x			x			x															x		x		Comparing Am Garden City and NU. How to reduce car traffic and increase walkability. GC it better many ways.
8	(Song & Knaap, 2003)	x	x	x	x		x	x	x					x	x												x	x	x				x	People are willing to pay more for NU features (amenities). Location and good architecture matter.
9	(Wang, 2009)		x	x							x				x		x																x	Fabrication of sense of community. NU physical form does not create sociability. NU as technical phenomena.
10	(Sands, 2009)	x	x	x	x		x	x	x	x	x			x	x			x									x							Adopted and modified versions of NU are quite popular. How people of NU assess their home preferences. People are willing to pay more for some features (NU).
	Total:	9	9	9	8	3	8	9	7	5	4	5	-	2	9	-	4	2	-	1	4	2	3	-	-	-	5	6	5	-	4	2	5	Showing general trends, important themes (codes)

APPENDIX F:

Data Accounting Sheet for the Concept of Placemaking

Table 41. Data Accounting Sheet - Occurrence of Codes in Data Collections for Placemaking

Tag/Code																												NOTES						
		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV		SUST	ECON	ECON SUST/DIV	BRAND	FUZZY	TERM
1	(Balassiano & Maldonado, 2015)														x							x	x-										x	PM as process for giving a meaning to a place. Focused on place attachment
2	(Denov & Akesson, 2013)	x								x	x				x																		x	Place attachment and identity have the central focus in this article
3	(Rios & Watkins, 2015)	x						x			x				x							x											x	a little relevant; did not open the meaning of placemaking
4	(Gleye, 2015)	x						x								x																		evolvement of the planning profession; PM is seen as physical planning/design related approach; PM equals design
5	(Fields et al., 2015)	x	x	x	x			x	x		x				x							x	x-			x-				x			x	PM in the context of disasters. Most important goals of PM are walking/walkability and mixed use.
6#	(Marsden, 2013)																																	irrelevant; didn't see connection for the research; using the term "sustainable placemaking", but does not open the concept, however uses it frequently
7	(Cheshmehzangi, 2015)		x						x	x					x			x											x	x				Mentions "use" and "comfort". Discusses the benefits of walkable places, walkability, but does not explain the concept of PM.
8	(Cilliers et al., 2015)	x					x	x		x					x		x					x	x										x	Green spaces create social interactions, thus contribute to placemaking. Discusses the method of storytelling, and the issues of sense of community.
9#	(Marsden & Farioli, 2015)																																	not relevant
10	(Severcan, 2015)														x							x	x										x	Discusses place attachment through participation. Explores children's engagement into placemaking. PM as verb for creating, (re)developing places (ie design).
	Total:	5	2	1	1	-	1	4	2	3	3	-	-	-	7	1	1	1	-	-	-	5	4	-	1	-	-	1	2	-	-	-	6	Showing general trends, important themes (codes)

Not relevant

- Negative attributes identified

APPENDIX G:

Data Accounting Sheet for the Concept of Resilient Cities

Table 42. Data Accounting Sheet - Occurrence of Codes in Data Collections for Resilient Cities

Tag/Code Data Collection		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON	ECON SUST/DIV	BRAND	FUZZY	TERM	NOTES
1	(Jabareen, 2013)	x	x	x	x	x		x	x	x		x	x			x	x	x			x	x	x		x		x	x	x			x	x	Framework for planning/creating resilient cities. Its focus is on environmental and sust. issues.
2*	(Tabibian & Movahed, 2016)	x			x			x	x	x		x	x	x	x	x	x	x			x	x	x		x		x	x	x				x	Resiliency as part of sustainability. Env & sust issues are considered most significant in terms of resiliency.
3	(Meerow & Stults, 2016)	x														x		x			x	x	x		x		x	x	x			x	x	Comparing understanding of concepts btw scholars and practitioners. Urban climate change focus. Env is central def of resiliency
4	(Beatley & Newman, 2013)	x	x				x	x		x					x		x	x	x		x	x	x				x	x	x				x	Greening urban space: health benefits, social, environmental benefits. Importance of nature in the city.
5	(Yanez & Kernaghan, 2014)	x	x	x	x				x			x		x		x			x		x	x	x		x		x	x						Poster competition: visioning resilient cities. Food security and production was emphasized.
6	(Desouza & Flanery, 2013)	x						x		x						x					x	x	x		x	x	x		x			x	x	How to enhance res by planning, designing and managing. Governance, collaboration. Being ready & prepared, & adapt the sit.
7	(Lu & Stead, 2013)	x								x											x	x	x		x		x	x	x		x	x	x	Process-related approach. Education, engagement. Marketing! Case study of Rotterdam.
8	(Dieleman, 2013)	x	x					x	x	x	x	x							x		x	x	x		x	x	x	x	x			x	x	Education, teaching, collaborative actions, dec-making, eco-cultural innovation (raising awareness), climate change
9	(Mehmood, 2016)		x						x	x					x				x		x	x	x			x	x	x					x	Resilient thinking, sust lifestyle, environmental concerns. Bottom-up initiatives: transformation towns
10*	(de Jong et al., 2015)			x	x	x		x									x					x			x		x	x	x			x	x	General/multiple concepts; key article; bibliometric research; Covered also in the pool of articles of Smart Cities
	Total:	8	5	3	4	2	1	6	5	7	1	4	2	2	3	5	4	4	4	-	9	10	9	-	8	3	10	9	8	-	1	6	9	Showing general trends, important themes (codes)

* Article addresses multiple concepts

APPENDIX H:

Data Accounting Sheet for the Concept of Safe Cities

Table 43. Data Accounting Sheet - Occurrence of Codes in Data Collections for Safe Cities

Tag/Code Data Collection		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON	ECON SUST/DIV	BRAND	FUZZY	TERM	NOTES
1	(Chiodi, 2016)	x		x				x		x					x	x	x					x	x		x	x							x	e-participation (ICT); built environment (design) and place attachment, social cohesion; city management and maintenance
2	(Gribanova & Vulfovich, 2017)	x								x				x	x	x	x	x		x	x	x	x-		x-	x			x					crime prevention; governance – who has authority; each city should considered individually (profiling); targeted and active policy
3#	(George & Mawby, 2015)																																	Not relevant. Explores security and safety during London Olympics 2012. Not about the concept.
4	(Sandberg & Rönblom, 2016)							x								x	x				x	x	x								x			Not much about “safe city”.
5#	(Keramitsoglou et al., 2017)																																	Not relevant
6	(Yon & Nadimpalli, 2017)															x-																		Addresses the code “equity”. Right to the city
7	(Frayne & McCordic, 2015)	x								x			x					x	x			x												Access to food, food security.
8	(Cradock et al., 2012)	x	x						x								x	x			x						x							
9	(Stewart et al., 2012)	x	x	x	x				x				x				x	x								x	x							SRTS
10	(McDonald & Aalborg, 2009)	x	x						x	x						x	x	x			x			x			x							Why parents drive to school
	Total:	6	3	2	1	-	-	2	3	4	-	-	2	1	2	5	6	5	1	1	4	4	3	-	3	2	2	2	1	-	1	-	1	Showing general trends, important themes (codes)

Not relevant
- Negative attributes identified

APPENDIX I:

Data Accounting Sheet for the Concept of Smart Cities

Table 44. Data Accounting Sheet - Occurrence of Codes in Data Collections for Smart Cities: Tech Cities, Intelligent Cities

Tag/Code Data Collection																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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* Article addresses multiple concepts

Not relevant

APPENDIX J:

Data Accounting Sheet for the Concept of Smart Growth

Table 45. Data Accounting Sheet - Occurrence of Codes in Data Collections for Smart Growth

Tag/Code																														NOTES					
		PHYS	WALK/ACCESS	MIXED USE	DENS	COMPACT	OP SPACE	DESIGN	TRANSP	SOCIAL	CULT/ARTS	SOCIAL DIV	INCOME	SERVICE	SCALE/COMM	EQUITY	SAFE/SECURE	HEALTH	AGRIC/FOOD	AFFORD	EDUC	PROCESS	PARTICIP	LAB	GOV/POLITICS	TECH	ENV	SUST	ECON		ECON SUST/DIV	BRAND	FUZZY	TERM	
1	(Yang & Stockard, 2013)	x	x-	x-	x-	x-	x		x-	x		x	x	x	x	x-	x-	x		x-													x	Method; Satisfaction of neighborhood for single mothers and 2 parents households in SG neighborhood. Dense, mixed use. Single mothers’ hoouseholds have several disadvantages – lower income, affordability, access to publ transp, groceries.	
2	(MacLeod, 2013)		x	x	x	x	x	x	x-		x	x		x	x	x-		x	x	x	x	x	x-		x-		x	x			x	x	x	How ideas and visions can travel globally – the impact of new urbanists. Democratic planning is discussed, how NU is not so inclusive and democratic after all.	
3	(Dierwechter, 2013b)			x	x		x		x							x			x									x					x	hard to relate; too conceptual	
4	(Goetz, 2013)	x	x	x	x				x														x							x		x	x	Transport and transit oriented development seems to be the most important improvement of SG in Denver. Despite of SG, urban land expansion still occurs.	
5	(Pavlot & Gorman, 2013)	x	x	x	x-	x	x-	x-	x-		x	x		x	x-	x	x-			x-		x	x-				x	x	x-	x			x	SG is an offshoot/branch of NU. Key idea is how to attract developers (fiscal planning). People value historic/cultural landmarks, sense of place/community, the need for public gathering space. High density and mixed use are central terms. New appr-s to zoning	
6	(Dierwechter, 2013a)			x	x		x		x-							x-				x-			x		x					x			x	smart city-regionalism: metropolitan smart growth; those people who live in transportation centers/nodes do not need the service as they already have multiple mobility choices (elites); env justice/service equity – do people in need access transit choices	
7	(McCauley & Murphy, 2013)	x	x	x	x		x		x											x		x	x		x-					x			x	new patterns of governance and land management – networked form of gov (collaboration btw diff stakeholders); who has the power/authority to make land manag decisions, conflict btw state and local authorities and regulations (funding dictates the power). SG vs local landscape character	
8	(Filion, 2003)	x	x	x	x	x	x	x	x																				x	x			x	x	Density and public transp should be considered together, density is not a sufficient condition to raise the car-free transit options; provides a corridor model for SG, nodal strategy; fitting SM into present situation
9	(Tomalty & Curran, 2003)	x	x	x	x	x			x						x	x		x		x	x		x						x	x			x	x	Central question – who benefits from growth? Critics of SG, pointing out its controversies. Weird article (feels incomplete...)
10	(Herschel, 2013)	x					x		x	x										x-		x	x		x		x	x	x		x		x	notion of smartness (vs smart growth); smart city regionalism; not addressing SG directly, but explores new term where SG is one component; fusion of competitiveness and sustainability; policy making focus	
	Total:	7	7	9	9	5	8	3	10	2	2	3	1	3	4	6	2	3	2	7	2	4	7	-	4	-	3	6	7	1	2	4	10	Showing general trends, important themes (codes)	

- Negative attributes identified

APPENDIX K:

Data Accounting Sheet for the Concept of Sustainable Cities

Table 46. Data Accounting Sheet - Occurrence of Codes in Data Collections for Sustainable Cities

Tag/Code Data Collection																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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* Article addresses multiple concepts

APPENDIX L:

Survey Instrument

SURVEY OF CONTEMPORARY CONCEPTS IN URBAN PLANNING (Online)

Research Participant Information and Consent Form

You are being asked to participate in a research study of exploring understandings, perceptions, and experiences of planning principles and contemporary concepts in urban planning by taking this survey. From this study, the researchers hope to learn how planning practitioners work and use contemporary planning concepts and planning principles in their work. Your participation in this survey will take about 10-20 minutes to complete.

This survey is part of the dissertation research in Urban and Regional Planning program at the Michigan State University. The title of the PhD Dissertation is “The Theory and Practice of Contemporary Place Related Concepts in Urban Planning”.

Participation in this research project is completely voluntary and you have the right to refuse to participate in the survey, change your mind, or withdraw at any time. You may choose not to answer specific questions or to stop participating at any time.

You will not directly benefit from your participation in this study. Data collected during this study will be kept confidential, and information about you will be kept confidential. Your participation in this research study will not be shared during or after the study with anyone outside of the research team.

Sirle Salmistu, Doctoral Student at the Michigan State University, is available to answer any questions you may have and can be reached at salmistu@msu.edu or 517- 755-9831. You may also contact Dr. Zenia Kotval, the Principal Investigator at kotval@msu.edu or 517-353-9362.

If you have questions or concerns about this study, such as scientific issues, please contact the researcher or the principal investigator. If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University’s Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

By clicking on the button below, you voluntarily agree to participate in this online survey.

Thank you for your participation!

- ☐ I consent to participating in this research

Page Break

This research started with a content analysis of over 100 scholarly articles related to contemporary urban planning concepts. The following planning principles are a result of this literature analysis. The principles are grouped into four thematic areas: a) the Built Environment, b) the Natural Environment, c) the Socio-Economic Environment, and d) the Process and Communication.

This Survey has three core content components:

- Question 1 relates to your personal values and beliefs,
- Question 2 explores what planning principles you have actually had the opportunity to implement in your current professional practice, and
- Question 3 explores your use of language or common terminology in explaining and promoting your work.

Page Break

Planning Principles and Contemporary Planning Concepts

Introduction

Please name the three most important elements of planning/planning principles:

- ☐ 1: _____
- ☐ 2: _____
- ☐ 3: _____

Page Break

1. This question relates to your personal values and beliefs.

Please rate the importance of the following principles/statements based on your personal beliefs and values (on the scale of 1 to 10, where 1 is Not important at all and 10 is Absolutely essential).

Built Environment

	Not important at all 1	2	3	4	Somewhat unimportant 5	Somewhat important 6	7	8	9	Absolutely essential 10	Not applicable/Don't know/Unsure
1. Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. Planning incorporates a mix of land uses and diversity of functions.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. Planning exhibits appropriate densities and promotes compact development.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. Planning is well designed both in terms of architecture and urban space.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Planning addresses green infrastructure such as parks, public spaces, and landscaped areas.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Natural Environment

	Not important at all 1	2	3	4	Somewhat unimportant 5	Somewhat important 6	7	8	9	Absolutely essential 10	Not applicable/Don't know/Unsure
6. Planning values existing natural environments, habitats, and resources.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Socio-Economic Environment

	Not important at all 1	2	3	4	Somewhat unimportant 5	Somewhat important 6	7	8	9	Absolutely essential 10	Not applicable/Don't know/Unsure
8. Planning promotes economic growth and competitiveness.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Planning addresses equity through social, economic, and ethnic diversity.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. Planning incorporates arts, culture, and heritage.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11. Planning facilitates a sense of community cohesion and place attachment.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

12. Planning addresses the need for safe environments.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13. Planning promotes healthy lifestyles.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Process and Communication

	Not important at all 1	2	3	4	Somewhat unimportant 5	Somewhat important 6	7	8	9	Absolutely essential 10	Not applicable/Don't know/Unsure
14. Planning facilitates public education and awareness.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15. Planning values and implements citizen participation through community engagement and collaboration.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16. Planning promotes interdisciplinary collaboration and public-private partnerships.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
17. Planning facilitates better public policy and decision making.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
18. Planning uses innovative technology to communicate with stakeholders and residents.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
19. Planning is data driven.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
20. Planning is visionary and future oriented.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Planning is (please provide your thoughts if you think that there's something missing in the list above):

Page Break

2. This question explores what planning principles you have actually had the opportunity to implement in your current professional practice.

Please rate the same planning principles based on their use in your current professional practice (on the scale of 1 to 10, where 1 is Never/Not at all and 10 is Always).

Built Environment

	Never 1	2	3	4	Less than half of the time 5	More than half of the time 6	7	8	9	Always 10	Not applicable/Don't know/Unsure
1. Planning demonstrates clear principles of accessibility including motorized and non-motorized, pedestrian friendly amenities.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. Planning incorporates a mix of land uses and diversity of functions.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. Planning exhibits appropriate densities and promotes compact development.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

4. Planning is well designed both in terms of architecture and urban space.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Planning addresses green infrastructure such as parks, public spaces, and landscaped areas.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Natural Environment

	Never 1	2	3	4	Less than half of the time 5	More than half of the time 6	7	8	9	Always 10	Not applicable/Don't know/Unsure
6. Planning values existing natural environments, habitats, and resources.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. Planning addresses environmental sustainability including mitigation and minimizing of negative impacts on natural resources and reducing the carbon footprint.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Socio-Economic Environment

	Never 1	2	3	4	Less than half of the time 5	More than half of the time 6	7	8	9	Always 10	Not applicable/Don't know/Unsure
8. Planning promotes economic growth and competitiveness.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Planning addresses equity through social, economic, and ethnic diversity.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. Planning incorporates arts, culture, and heritage.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11. Planning facilitates a sense of community cohesion and place attachment.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12. Planning addresses the need for safe environments.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13. Planning promotes healthy lifestyles.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Process and Communication

	Never 1	2	3	4	Less than half of the time 5	More than half of the time 6	7	8	9	Always 10	Not applicable/Don't know/Unsure
14. Planning facilitates public education and awareness.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15. Planning values and implements citizen participation through community engagement and collaboration.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16. Planning promotes interdisciplinary collaboration and public-private partnerships.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
17. Planning facilitates better public policy and decision making.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
18. Planning uses innovative technology to communicate with stakeholders and residents.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
19. Planning is data driven.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
20. Planning is visionary and future oriented.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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3. This question explores your use of language or common terminology in explaining and promoting your work.

Good planning principles are often reflected in contemporary planning concepts. How often have you used the following terminology in describing and/or promoting your professional work (on the scale of 1 to 10, where 1 is Never/Not at all and 10 is Always)?

	Never 1	2	3	4	Less than half of the time 5	More than half of the time 6	7	8	9	Always 10	Not applicable/Don't know/Unsure
a) Creative Economy/Cities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b) Healthy Cities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c) Livable Cities (Livability)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d) New Urbanism	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e) Placemaking	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f) Resilient Cities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g) Safe/Secure Cities (incl Safe Routes to School)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
h) Smart Cities (Intelligent Cities, Tech Cities)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
i) Smart Growth	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
j) Sustainable Cities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

If you wish to reflect on the above concepts, please share your thoughts and perceptions below:

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4. Would you be willing to participate in an in-person or Skype interview (approximately one hour) in order to discuss and share your experiences and perceptions of contemporary planning concepts in planning practice?

If you answer "Yes" to the question, please provide your name, phone number and/or e-mail address so we can contact you. Please note that providing your contact information is voluntary, and your identity will be kept confidential.

☐ Yes. You may contact me (please provide your contact):

☐ No

Page Break

Background and Demographic Information

5. You work in (select only one):

☐ a) Private sector

☐ b) Public sector

☐ c) Non-Profit Organization

☐ d) Other (please specify): _____

6. Your educational background is in (select all that apply):

☐ a) Planning

☐ b) Landscape Architecture/Landscape Design

☐ c) Architecture

☐ d) Other (please specify): _____

7. You have been working in the planning field (select only one):

- ☐ a) less than one year
- ☐ b) 1-5 years
- ☐ c) 6-10 years
- ☐ d) 11-20 years
- ☐ e) more than 20 years

8. Your current professional practice relates the most to the following geographical level(s) (select all that apply):

- ☐ a) Metropolitan/Regional
- ☐ b) City/Town
- ☐ c) Rural
- ☐ d) Other (please specify): _____

9. Are you (select only one):

- ☐ a) Male
- ☐ b) Female
- ☐ c) Prefer not to answer/Other

10. What is your age? (select only one)

- ☐ a) 18 to 24
- ☐ b) 25 to 34
- ☐ c) 35 to 54
- ☐ d) 55 to 64
- ☐ e) 65 and older

Page Break

By clicking on the "next" button you are about to finish this survey. If you'd like to review your answers before submitting please use the "back" button.

Sirle Salmistu, Doctoral Student at the Michigan State University, is available to answer any questions you may have and can be reached at salmistu@msu.edu or 517-755-9831. You may also contact Dr. Zenia Kotval, the Principal Investigator at kotval@msu.edu or 517-353-9362.

Thank You!

APPENDIX M:

Demographic and Background Data of Survey

Demographic and background data of the respondents

The survey asked in which sector the respondent currently works. 57.14% (16) respondents stated that they work in public sector, 21.43% (6) said they work in private sector and 21.43% (6) said Other (incl. higher education, university research). None of the respondents work currently in non-profit organization. All people (n=28) answered this question. Consequently, the majority of respondents currently work in the public sector.

The survey asked which geographical level(s) respondent's current professional practice relates the most. 17.86% (5) of respondents said Metropolitan/Regional, 46.43% (13) said City/Town, 14.29% (4) said Rural and 35.71% (10) said Other (incl. state/federal level, international). All people answered this question. Respondents could choose multiple choices. Consequently, the majority of respondents work in the city/town geographical level.

The survey asked about respondent's educational background. 96.43% (27) of respondents said Planning, 7.14% (2) said Landscape Architecture/Landscape Design, 3.57% (1) said Architecture and 25% (7) said Other (incl. geo-spatial analysis; public policy/administration/environmental; agriculture; geography; water infrastructure and planning; business; and political science). All people answered this question. Respondents could choose multiple choices. Consequently, the majority of respondents have educational background in planning.

The survey asked how many years the respondent have been working in the planning field. 0% said less than one year, 40.74% (11) said 1-5 years, 3.7% (1) said 6-10 years, 33.33% (9) said 11-20 years and 22.22% (6) said more than 20 years. 27 respondents answered this question. Consequently, the majority of

respondents have between 1-5 years of professional experience. If to put the separation line to 10 years of experience, then the majority of respondents (55.55%, 15 respondents) have more than 10 years of experience and 44.44% (12) have less than 10 years of experience.

The survey asked respondent's age. 3.57% (1) of respondents said 18-24, 25% (7) said 25-34, 67.86% (19) said 35-54, 0% said 55-64 and 3.57% (1) said 65 and older. All people answered this question. Consequently, the majority of respondents are between 35-54 years old.

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