

# Investigating Indicators of Place Identity (IPI) in historic urban public spaces Based on examination of Altstadt Münster

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**Abstract**— the loss of place identity that plays a vital role in urban structure and urban spaces is one of the problems of modern urban spaces and a controversial discussion in urban development literature. The importance of this concern is related to socio-cultural and conceptual aspects of urban spaces as a context of urban life. Due to the emphasis on the role of automobiles, traffic problems, inattention to the real needs of urban residents, pedestrian mobility and ignoring the people, urban development is facing failure because the people's environment, which is entirely connected to their history and culture, is ignored. This includes failing to take into account a sense of identity, relationship between people and their environment, shaping the dimension of place Identity and its indicators and social interactions.

Urban public spaces have been considered as an important part of cities during history which have continuously reflected the cultural, social, and economic contexts of cities. In the wave of modernization, majority of urban public spaces have changed their functions and Identity and considered as a traffic node, therefore, it becomes important to evaluate and investigate the use of contemporary urban public spaces and the indicators which effect on regeneration of place identity in urban spaces, and to understand the relationship between people and their physical environment in such urban spaces.

The purpose of this research is to place identity urban public spaces uses, and to the relationship between people and their physical environment. In this research, comprehensive literature review is undertaken to identify a potential problem, worthy a research and formulate a research framework. The research method is "analytical- descriptive". In order to address these questions, this thesis employs a methodology that combines direct field observations, Questionnaire, SPSS Analysis (Chi Square Test, Somer's d Test, Mann-Whitney Test, Kruskal-Wallis H and SWOT analysis ...), and as applied to investigate the indicators and dimension of place Identity in historical urban spaces of Altstadt Münster. Thus, the value of this research is in studying the relationship between the people and the physical settings of urban public spaces through using a mixed methodology(qualitative and quantitative) and exploring SPSS as a tool to describe and investigate dimension and indicators of place identity in historical urban public spaces. Analyzing this relationship and finding the indicators will add insights into place identity and urban public spaces theories and practice which could lead to further studies to improve Design's policies and strategies for regeneration of place identity in the historical squares and the Major factors in Regeneration of place identity in historical urban spaces for planning process.

## Key word

*Place identity; urban public spaces; physical environment; Dimension of place Identity and Indicators of place Identity; SPSS; Mixed methodology*



## 1 INTRODUCTION

Nowadays place identity is like a lost chain and urban spaces are forming and developing not only based on their original identity but also on the basis of blind imitation of modern symbols and patterns without considering local patterns. Indeed, modernization period can be considered as the beginning of dissociation and fading of considering the identity dimensions of urban spaces and urban social life. The capitulation by exotic symbols led to forgetting the original local symbols and changed the issue of place identity to the most complex and disputable theoretical topic in urban planning.

In fact, the wave of modernization like a heavy storm has frightened all inhabitants of modern world. The fear of destruction of socio-cultural, politico-historical and physical structures, and, the most important one, losing the specific

identities of places are among the waves of modernization. This issue has many destructive and negative effects on our cities, and fundamental actions should be taken to overcome architectural and environmental plan and design without identity and to give identity to them. Nowadays, the phenomenon of duality and confusion between historical and cultural identity in our cities, on the one hand, and ever-increasing growth of socio-spatial developments of new urbanization, on the other hand, changed to a national and public issue. The powerful historical and cultural history of urbanization custom in cities and increasing growth of globalization phenomenon contributed to intensification of the challenge and appearance of identity crisis, such as crisis of urban and place identity. Facing such duality and crisis requires a long-

term strategic approach and a comprehensive scientific attitude.

The axes of sustainable development of place identity are the establishment of connection and interaction between socio-cultural, politico-historical and Physical values that could not find their suitable position in Iran, Germany and many countries. This research is concerned with the regeneration of place identity in urban public spaces particularly public squares and to investigate and enhance the dimension of place identity in urban public spaces that focus on reinforcing relationship between people and their physical environment as is argued by several scholars including Lynch (1960), Tuan (1974), Relph (1976), Proshansky (1978), Canter (1977), Norberg-Schulz (1980), Prohansky et.al. (1983), Punter (1991), Montgomery (1998) and Carmona (2010).

The case study of this research is the historic area of *Münster* which located at the heart of the Münsterland Region (Altstadt) and as a multi-faceted city that has been introduced as the capital city of bicycle in Germany and has won an award of the best quality of life in the world. This city is as a good example of regeneration of place identity in urban public spaces. As a matter of fact, the place identity of its urban spaces has been influenced by the Westphalian Peace, accompanying culture of tolerance and the focus of municipality on renewal of historic monuments and places that are shaped the identity of Altstadt Münster. Conservation and maintenance of monuments and buildings, the presences of people in urban spaces are the main aims of municipality after WWII. As a matter of fact, about the 91% of building substance in the Altstadt and the inside Promenade Ring was devastated during the WWII, Therefore, post WWII development given rise not only fundamental physical alternation, but demographic and ethnographic changes as well that would considerably create the battle between people, cultures and place, and reconstruction of city core since this neo-historical was with concentration on new 'old' image of city against the modernism and postmodernism character of city (*Municipality of Münster*). Physical patterns of this city manifest features of identity, history and culture and the Image of city has been shaped based on socio-cultural and political structures and the history of city. In this research indicators of place identity in urban public spaces of Münster's Altstadt such as Domplatz, Prinzipalmarkt (the main market place), Promenade, Salzstraße and etc. will be examined and the role of past through individual and collective memory will be studied in various literature of place identity, place experience and urban public spaces.

For dealing with requirements for fulfilling the theoretical development of place identity in urban public spaces, this research draws considerably on classical works, involving the theory of place by Relph(1976), Canter(1977), Punter(1991) and Montgomery(1998), Theory of identity, dimension of place identity and the Correlation of them the with place identity in urban public spaces with focus on the relationship between people and their physical environment in many different ways that significant dimension can be categorised into seven notions such as 'place identity' (Proshansky, 1978; Proshansky et al., 1983), 'sense of place' or 'rootedness' (Relph, 1976; Buttimer, 1980; Tuan, 1980), 'place dependence' (Stokols & Shu-

maker, 1981) and 'place attachment' (Gerson et al., 1977, Low & Altman 1992, Williams et al. 1992), placelessness (Relph,1970). Moreover, pattern of urban public spaces (Krier,1979) , Image of the City (Lynch,1960), Principles for designing urban spaces, Uses of urban public spaces Carmona(2010),Urban spatial design theories (Trancik,1986), characteristics of urban public space (Zukin,1995) and (Carr et al.1992). In terms of the research methodology, this research applies mixed methods (qualitative and quantities) via field direct observation, participation of users through questionnaire in historical urban public spaces of both cities.

## 2. Literature review

The notion of identity is a wide context. This concept is more prevalent in social sciences; furthermore, it has been assigned to clarify the "uniqueness" of an individual or a thing between various views, perspectives and goals, like, individual identity, political identity, ethnic identity, social identity and place identity. The word identity comes from the Latin "identitas" which is defined as "the fact of being who or what a person or thing is" in the Oxford English Dictionary (*Oxford English Dictionary, 2012*).

Erik H. Erikson, German psychologist and psychoanalyst, that his ideas were greatly influenced by Freud and believes the shape of identity is via personal experiences and tasks during life process and identity is influenced by social interaction as well. In more concrete terms, identity combination illustrates a sense of "a present with an anticipated future" (Erikson, 1968, p. 30). For Erikson, identity is not static, and demonstrates a self-image and Identity is the understanding of similarity in time and affiliated to the understanding of the others. Moreover, as mentioned by Gleason in 1983, Using the word of identity dates back to 16th century and until the mid of 1950's identity is used to describe "the unity of the self" by the philosophers (cited in Kaymaz, 2013, p; 739). According to Wendt "identities are relatively stable, role-specific understandings and expectations about self" (1992,P;397).Furthermore, Katzenstein(1996)claims which identity is evolving images of self and other and is reciprocally built up (P;59). Based on McCrone's view (1998), individuals assume different identities at different times and within different contexts which may not even be centred around coherent self( P;32). Paris et al. (2001) also argued that people is continually working on forming, reforming and shaping their identity because of understanding themselves'... partly in relation to their own histories and anticipated futures' (2001, p.257). Kidd (2002) defined identity as '... the characteristics of thinking, reflecting and self-perception that are held by people in society' (p.24). In addition, he recognized three types of identity;

-Individual identity – the unique sense of personhood held by each person in their own right.

- Social identity – a collective sense of belonging to a group, identifying themselves as having something in common with other group members.
- Cultural identity – a sense of belonging to a distinct ethnic, cultural or sub-cultural group.

"Identity is our understanding of who we are and of who other people are, and, reciprocally, other people's understanding of themselves and of others (which includes us)." (Jenkins 2004, P. 5). Castells defines identity as people's source of meaning and experience that is constructed on the basis of a cultural attribute, or a set of cultural attributes, that is given priority over other sources of meaning (Castells M. 2009, P.4). Some aspects of the identity can be described as follow:

- Uniqueness of a thing or a person is central to the identity concept.
- Identity requires comparison between things of individuals.
- Meaning and experience play an important role in perception of the identity.

Identity is never a stable construct; on the contrary it is a continuously evolving and dynamic phenomenon.

Identity involves interaction with others (Kaymaz, 2013).

	Oxford	Gleason, 1983	Wendt, 1992	Castells, 2009	Erikson, 1968	Katzenstein, 19	Jenkins, 2004	Hall	Lalli, 1992	Casey (2001)	Deakin, 1992
<b>The Concept of Identity</b>											
The fact of being who or what a person or thing is	■										
The unity of the self		■									
Identities are relatively stable, role-specific understandings and expectations about self"			■								
Identity as "people's source of meaning and experience				■							
Identity is shaped by the individual's experiences and tasks throughout the life cycle, it is also influenced by the social interaction					■						
Points out that identity is evolving images of self and other and is mutually constructed						■					
Identity is a person's capacity to know 'who is who' and 'what is what'							■				
Individuals assume different identities at different times and within different contexts								■			
Identification is a process, and identity is a condition									■		
Identity is created both internally in the mind, and through the body's interaction with the outside world--there is no place without self, and no self without place										■	
Identity" is linked to specific aspects of self-definition.											■

Table 1: The Concept of Identity. Modified by Heydari, 2015

### 2.1. Definition of Place Identity

Identity manifests itself on many levels, one of which is place. Place plays an important role in developing and maintaining self- identity and has considerable effect on human well-being and behaviour as well(Najafi, Shariff, 2011). The relationship between place and person is reciprocal. place has

an impact on shaping self-Identity and then users of place try to make , alter and keep their physical environment in the way to show their own identity. Views on places have gone 'physical determinism' that surroundings, colour, dimensions and shapes that have important impact on behaviour, bonds between people and environment as dynamic and interactive (Franck, 1984, cited in Hauge, Lappégard,2007). Places impact upon priorities for physical environment which we live in. On the other hand, places are affected by our identities which mean the relationship between place and identity is two-way. Cognitive and affective reactions of users towards places are taken place by experience of place, likewise, experience is as a main factor for developing the human-place linkage. Some factors, such as intensity, duration, content and result of the experience has a considerable consequence on people's perception of places.

Identity's aspects link to place can be described as ' Place-identity'. This term has been arisen since the late 1970s (Proshansky, 1978). Place identity or place-based identity concentrates on a cluster of opinions about both notions of place and identity in the field of urban planning, urban design, geography, landscape architecture, environmental psychology, urban sociology and so on and focuses on the relationship between people and the environmental psychology. According to Proshansky (1978), place identity is defined as 'those dimensions of self that define the individual's personal identity in relation to the physical environment...' (p. 147). The physical environment has impact on identity; Place-identity is considered as the individual's incorporation of place into the larger concept of self (Proshansky, Fabian and Kaminoff, 1983) and refers to bonds of people with places. Moreover, place identity has been defined as a potpourri of memories, conceptions, interpretations, ideas, and related feelings about specific physical settings, as well as types of settings"(Proshansky,1983, p. 60). This term involves 'those dimensions of self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioural tendencies and skills relevant to this environment' (Proshansky, 1978, p. 155). In addition Proshansky and his colleague claimed that place identity is contained of a "cluster of positively and negatively valence cognitions of physical settings"( Proshansky, Fabian, & Kaminoff, 1983, p. 62). Lalli (1992) argued that place identity is as a part of self-identity and measurement of place identity is based on dimensions of uniqueness and features of a place, connection and continuity with individual past in a place, feeling in the place like feeling at home, perception of freedom and familiarity, and commitment to the place. As Widding claimed in 1983; The word 'identity' has two aspects, sameness (continuity) and distinctiveness (uniqueness), thus the concept of 'Place-identity' should integrate both aspects. Moreover, applying the concept of identity for a place may contain two notions, the first notion refers to the term 'place' and means a set of characteristics of place which insure the distinctiveness and continuity of place in time.

One of the indicators of place identity is place attachment that place identity is more than attachment and considers as the main foundation of self identity such as gender, social lev-



el and is consists of understanding and perception based on environment. As a matter of fact, these perception can be classified into two categories; the first one involves opinion, values, recollection, and environment (setting), the second one includes linkage between various setting (home, school, and neighbourhood (Proshansky & Fabian, 1987). Place identity based on symbolic interactionist approach can be seen as containing the meaning and symbols which person attributes to a physical environment (Cuba & Hummon, 1993), moreover become the determination elements and signs of self-identity (Proshansky, Fabian, & Kaminoff, 1983). Aalteration of Place-identity happens throughout a person's lifetime (Proshansky & Fabian, 1987). Five main functions of place-identity has been investigated as ; recognition, meaning, expressive-requirement, mediating change, and anxiety and defense function. Place-identity becomes a cognitive "database" against which every physical setting is experienced (Proshansky et al., 1983).

Based on work of Twigger-Ross and Uzzell's (1996), the processes of place and identity have four principles which play a significant role in our relationship to places; distinctiveness, continuity, self-esteem and self-efficacy. According to Cuba and Hummon (1993), place identity is "an interpretation of self that uses environmental meanings to symbolize or situate identity" (pp. 112). Besides, Relph (1976) has pointed out that there is a deep attachment between individual and a place that becomes "a vital source of both individual and cultural identity and security, a point of departure from which we orient ourselves in the world" (p. 43). As a matter of fact, the identity of place is expected not to be as a part of an individual's self-identity when person for a first time visit a place, but after inhabiting in the place for a while, identity of place could be adjusted to individual's self-identity. That is to say, Integration of 'identity of place' into individual's 'place identity'. The place identity concentrates on the correlation between people and the environmental psychology and absence of place identity reduces attachment and variety of place experience and meaning of place as well. In addition lack of place identity as one of the controversial issues of contemporary cities. Dimension of Place identity (Proshansky, 1978; Proshansky et al., 1983) based on literature review can be as following; Place attachment (Altman and Low, 1992), Place dependence (Stokols and Shumaker, 1981), Spirit of place (Norberg-Schulz 1980, 1971), Sense of place and Genius Loci (Relph 1976), Topophilia (Tuan, 1974, 1977), Placelessness (Relph 1976).

## 2.2. Dimension of place identity in Urban Public Space regarding emotional aspects

Place identity ,place attachment , sense of place and place dependence are considered as constructs for measurement (William, et al., 1995, Moore and Graefe, 1994) of quality of urban public spaces .Furthermore, place identity is influenced by both aspects of physical and the emotional aspects of environmental experience and is related to the symbolic value of a place which gives meaning and intention to life and be as a sign of sense of belonging and attachment to places, and sense of well-being for people as well (Proshansky et al., 1995).

-Place attachment is defined as the development of affective link between people and particular places (Hidalgo and

Hernandez, 2001), likewise, this notion is development of feeling in place which are very familiar to individuals who belong to places (Altman & Low, 1992; Gifford, 2002). Physical characters and symbolic meaning of urban public spaces and places have impact on place attachment (Stedman, 2003). Fried (2000) believes that attachment to urban public spaces as 'the affective ties to local environments' (p.194). The person's attachment to places can occur for a reason either emotionally or physically (functionally). As a matter of fact, personal bonds with places arise from the experiences that person had with particular places in his past, According to (Carr, et al., 1992), 'Such spaces will come to have a special meaning and may help to support a sense of continuity between different stages of a person's life.'(P.193). Two factors that increase and build the personal attachment in places and fulfill the needs of their users, can be considered as memories of places that each person had, and the second factor is participation of people for designing and implementation of new places. Furthermore, the degree of attachment to urban public spaces is not same for their users; therefore, investigating which group of people have more attachment and how design these spaces for these groups can considerably increase the meaning and sense of attachment. Sense of ownership in places helps people make it as their own places and take advantage of them frequently.

-Sense of place involves experience of place and subjective dimension of place, that people's interpretation and perception of sense of place are influenced by features and combination of physical components of built environment (Najafi, Shariff, 2011). The Connection of nature, social and cultural context of urban space, history of urban spaces and so on play significant role in reinforcing sense of place for users and emphasize the role of past and history of places in the present places. As mentioned by Lynch(1960) Two important factors like physical characteristics and appearance have considerable impacts on sense of place and make places more legible and Permeable that can be recognized, organized and navigated by users of places.

-place dependence is functional meanings of place, which is associated with the perceived strength of association between a person and specific place and related to the quality of the current place and the quality of other substitute places that are comparable to the current place (Ujang, 2010, p.65)

-Topophilia includes 'all emotional connections between physical environment and human beings' (Tuan, 1974). Topophilia takes an aesthetic form of a place and landscape (Ibid.) for instance the place where we grew up and have our roots. In addition the aesthetic is a main reason that majority of people have a connection to their environment and urban spaces. The pattern of movement through a city has a significant effect for making Topophilia, actually, different types of patterns join distinct groups, making urban spaces as meeting points and Topophilia is considered as a necessary target for regeneration of urban spaces (Dale, Newman & Newell, 2014).

-Spirit of place is related to the unique aspects of a urban place; can be considered as the intangible weave of culture, as the tangible physical pattern of a place and interpersonal aspects. As mentioned by Hough (1990), Identity is formed by

the natural environment and people’s reactions to the places they inhabit and the changes they make to them (P.180). According to Proshansky (1978), place identity is defined as 'those dimensions of self that define the individual’s personal identity in relation to the physical environment...' (p.147).

### 3. Research methodology

#### 3.1. Materials and methods

This research is applied. And quantities and qualities methods have been used. The purpose of this research aims to provide a deeper insight and achieve indicators of place identity (IPI) in historic urban public spaces in Altstadt Münster. In order to collect data, questionnaire, participant observation, discourse analysis and mapping a range of physical elements have been used. Therefore, choosing an appropriate research methodology is quite important and a challenging issue that faces most social science researchers. Since the present re-

search is an Explanatory, Descriptive, Qualitative and Quantitative study, the most parts of it are based on the direct observation and literature review. Also, content analysis has been used in quantities method. In order to analyze data, SPSS software is used. There are four possible models of combination of qualitative and quantitative methods that in this research used the fourth model, the two methods are used equally and in parallel to cross-validate and build upon each other's results.

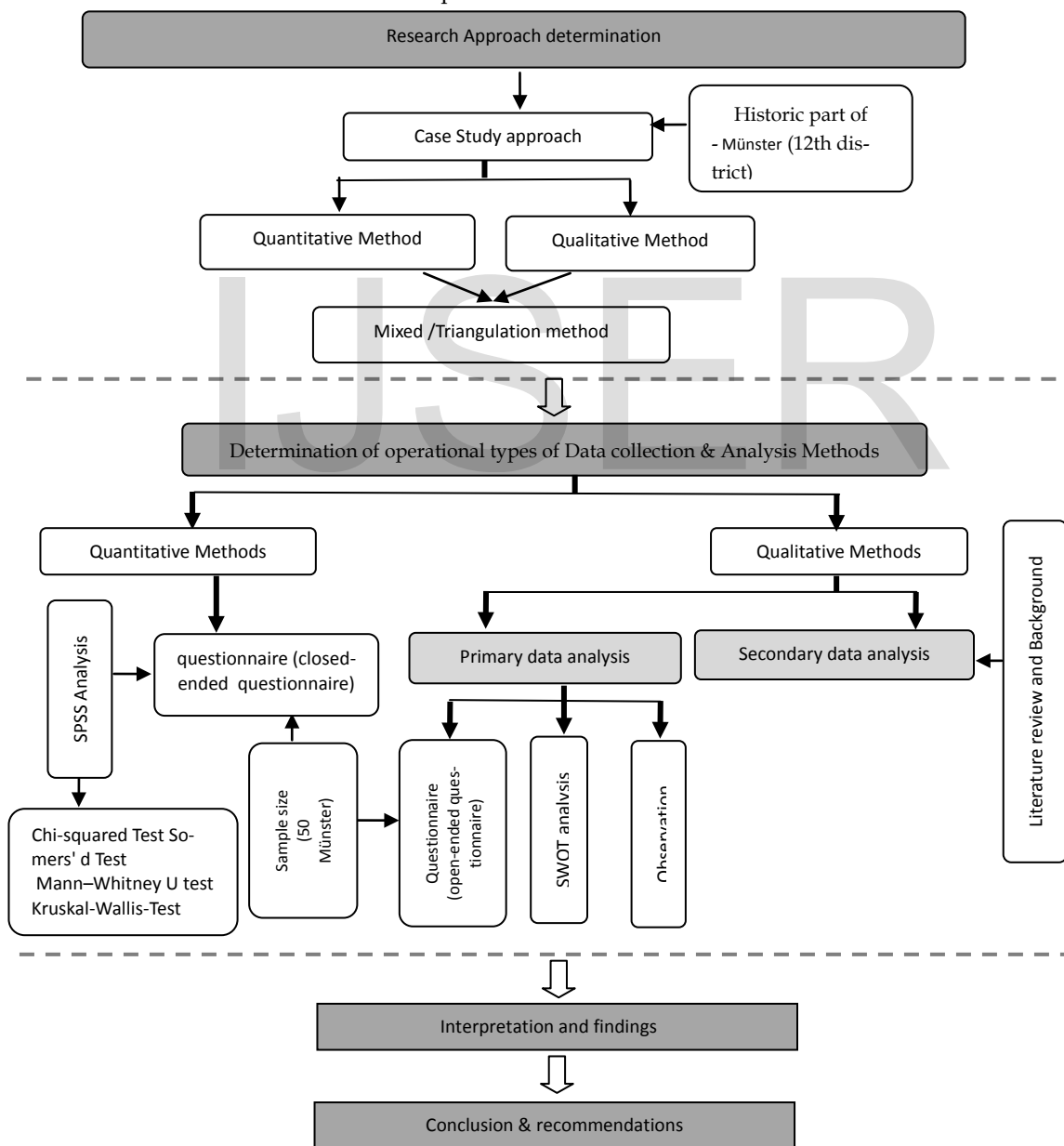


Figure 1. The Research Methodology, Source: Heydari,2016

ny and its history dates back over 1,200 years ago. Moreover, a part of the Peace of Westphalia which ended the 30 years and 80 years War was held in Münster in 1648 (Municipality of Münster). Nowadays, it is considered as a modern city with 300,267 populations in 2015, and was selected as a city with the highest quality of life (International Awards for Liveable Communities) in the world since 2004 furthermore, as one of the 42 agglomeration zones and one of the largest cities of Germany in area (Municipality of Münster). The system of Transportation in Münster is based on environmentally friendly public transport and is considered as a cycling capital of Germany with considerable priority on the bicycle. Public transportation (ÖPNV) involves different types of railway services for accessibility to diver's destinations. In addition to this, The transportation plan for linkage between the city centre and the city suburbs of Münster has been based on public transport and bicycle. In terms of using the public transportation, the connection between the city suburbs and residential areas is well and about 300 meters walking to the next stop (Stadt Münster, stadtentwicklung, stadtplanung, verkehrsplanung).

Since 1950, promotion of the bicycle traffic in Münster has been considered in urban planning and development of city, and the first network for cycle path is the green belt as the circular promenade surrounding the Altstadt which connects to main artery roads. A secondary network is cycling path in all residential areas with connection to main networks (Stadt Münster, stadtentwicklung, stadtplanung, verkehrsplanung). Current Issues for promotion of cycling program in Münster is based on; Improving cycling infrastructure and focusing on 'traffic safety', Improving the Information and communication, Development of Service (Oellers, 2011, P.229). The portion of pedestrians such as the other cities in Germany has a declining (Fig.6.8). Therefore, the planning approach has focused on new plan which named as 'a city of short distances'. the system of planning in Altstadt is based on pedestrian mobility and in a specific time there is a accessibility for cyclist and buses as well. As a matter of fact, walk-ability in Altstadt provides a situation that user can navigate and perceive the old town and its urban spaces easily, moreover, the 'Image-ability', sense of place and other dimension of place identity increase.



Fig 2: Classification of Münster city, Stadt Münster  
 Stadt Münster

The old part of Münster involves the most valuable historical buildings and the significant fabric which reflect the past, history and the culture of city. Urban layout of Altstadt forms the

centre of city and consists of historic urban spaces and building such as Promenade, Domplatz, Prinzipalmarkt, churches, gabled buildings, arcades for making a pleasant stage and backdrop and etc.

The Image of the Altstadt with its church towers, the Prinzipalmarkt, the city hall, the houses and other important elements of city was remind of its features and identity in the pre-war period. The pattern of reconstructed building is according to style and sizes of their previous model without changing them. The remarkable urban spaces such as Promenade, Domplatz (Cathedral Square), Prinzipalmarkt, Hindenburgplatz and etc. have been preserved, regenerated before the war. The multi-cultural character of Münster have created tangible and intangible elements that contribute to the character of the historic urban spaces and effects on shaping the sense of place, place attachment, sprit of place and other dimension of place identity. Existence of enclosed spaces which can be as appealing places for attendance of people and are surrounded by arcades and rows of columns, buildings create symmetrical, balanced space such as Prinzipalmarkt, Domplatz, Therefore, the perception of the residents towards the character of Altstadt has been increased.



Figure 3. The map of historical, Description: Part of Engraving by Matthäus Merian shows Münster, North Rhine-Westphalia, (Topographia Germaniae, Edition Topographia Westphaliae, 1642)

#### 4. Discussion



### 4.1. Characters of Urban public spaces in shaping the concept of place identity in Altstadt Münster

Urban spaces particularly historic urban spaces have significant role in shaping the mental image which subsequently, shape the identity of places. The quality of the urban fabric and public space, enclosed urban public space with buildings which have the specific architectural design and integration of urban axes as the important factors for enhancing the sense of place, sense of attachment, sense of invitation and collective memory in urban public spaces.

Reconstruction of historic urban spaces got a lot of attention after the Second World War. The historical centre of Münster is an early medieval city dating back 1200 years that has maintained the same landscape, urban fabric and architectural history. Altstadt of Münster involves collection of old buildings, covering an area of Area of 119,489 hectares (Stadt Münster), and the distinguished structure of city is the location promenade around the historical area (as a green belt), the shops, churches and unique public buildings which are along narrow and winding streets in a city. Altstadt is the combination of both historical and modern city with the reflection past, preservation of historical structure, context and monuments and diversity of functions are all concurrently as the groundwork for future plans which effect on the sustainable development of Münster. In addition to this, Structural changes, globalization, Demographic development, new lifestyles are the main factors that have influences on reassessment of its location, qualities and its future opportunities (Hanke, 2011). As argued by Cohen (2001), urban conservation plays an important role in preservation of both historical site and urban development within city context. Therefore, due to sustainable development and urban conservation this city, the features and dimension of place identity will be preserved through time and constantly changing world.

'The city plan, or ground plan (comprising the site, streets, plots and block plans of the buildings); secondly, building fabric (the 3-dimensional form); and thirdly, land and building utilization' (Conzen, 1960, p.4) that are the fundamental elements of the physical form of cities. These elements can be found in cities as different as Münster, Rome etc. as a matter of fact, the considerable physical differences that are found in cities owing to the combination of these three element that make remarkable patterns for each cities and create particular image of city and Identity for each of them. A compact Structure of Altstadt with remarkable urban spaces such as Domplatz, Prinzipalmarkt, Salzstrasse etc. are considered for social activities, meeting place, trading place,...in the central part of Münster, in addition to this the design of modern buildings, LWL museum, new city library and the Stubengasse with the features of the modern city, have been integrated within this historical context.

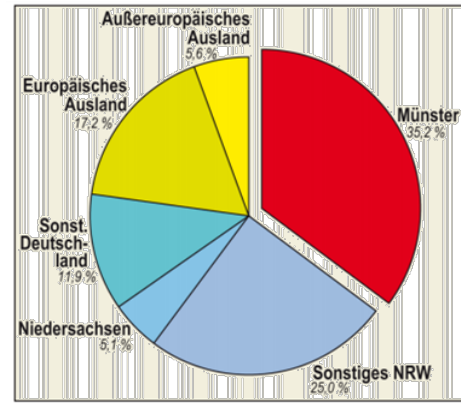


Figure 4. 'Sculpture project' of Münster 2007, Origin of visitors. (Hauff and Heineberg, 2011, P.390)

urban spaces	Historical Period	Identity	Physical features and characteristics	Function
Domplatz (Cathedral)	medieval period Gothic period	Traditional architectural style With strong sense of place & attachment	enclosed and introvert spaces with human scale and details on bodies squares and facades	Socio-cultural, religious
Salzstrasse	1346 (medieval period)	baroque and modern architectural style	human scale	Social, commercial
Prinzipalmarkt	12th century (medieval period)	With strong sense of place & attachment, Spirit of place, place dependent	spaces with human scale and details on street-wall and usage of fundamental components and details on facades	Social, commercial, political
Stubengasse	2009	Usage of modern architectural components with historical roots	Large scale, geometrical form	Social and commercial

Table 2: classification of features of urban space in Altstadt Münster

### 4.2. Examination of favorite urban public space in histori-

cal district of Münster.

According to survey and participation of people (50 questionnaires) in shaping the place identity of historical urban public space Münster, the favorite urban public spaces that people have more emotional connection with them are, Domplatz with 80%, Prinzpalmarkt with 78% and Promenade with 44%.

#### 4.3. Analysing the dimension of place identity in historic urban public spaces of Münster Through correlation analysis (SPSS)

In this research has been used the chi-square test to determine whether two variables were independent or dependent. We now look at the same problem using dichotomous variables. When the Sig is less than .005 which means there is a significant correlation between two variables. Therefore, in this study has been examined the correlation between place identity and assumed indicators of place identity. By statistical convention, we use the 0.05 probability level as our critical value. If the calculated chi-square value is less than the 0.05 value, we accept the hypothesis. If the value is greater than the value, we reject the hypothesis. Therefore, because the calculated chi-square value is greater than the we accept the hypothesis.

*Somers' delta* (or *Somers' d*) is a nonparametric measure of the strength and direction of association that exists between an ordinal dependent variable and an ordinal independent variable. This test is appropriate for distinguishing between a dependent and independent variable which are measured on an ordinal scale ([statistics.laerd.com/spss-tutorials/somers-d-using-spss-statistics.php](http://statistics.laerd.com/spss-tutorials/somers-d-using-spss-statistics.php)).

Apart from the indicators of place identity such as Shopping, window shopping & walking (Welcoming spaces with high sense of invitation), Visiting of Museums, Historic buildings & etc., Visiting of Restaurants and Cafes (Variety and Sense of invitation), Visiting of Friends & Relatives (Sense of invitation), Visit of Authorities & Doctors, etc. and Seeking for job which are mentioned and examined, there are significant indicators with focus on urban design of public spaces which have influences on regeneration of place identity and its dimension in historical urban public space of Münster. Outdoor lighting of Urban spaces (Legibility and aesthetics). Design and Quality of Restaurants and Cafes, Security in Altstadt Münster, Free seating areas in public spaces (High Sense of invitation), Quality of design of facade and bodies in urban spaces, Playing opportunities for children, Urban cleaning facilities, The quality of the green areas with place intended for having a rest, Variety of land-uses (Variety, Permeability & Sense of invitation), Variety of Events, Celebrations & Activities, Accessibility to public transportation (Permeability, Legibility & Sense of invitation), Designation of old district to pedestrian, Walk-ability (Permeability, Legibility & Sense of invitation).

#### 4.3.1. Mann-Whitney U Test and Kruskal-Wallis Test

The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed. The Mann-Whitney U test is often considered the nonparametric alternative to the independent -test although this is not always the case. In this research, Mann-Whitney U Test has been used for examining the dimension of place identity in historical urban public space in Münster. The **dependent variable** have been measured the **ordinal level**. In addition, the ordinal variables involve Likert Items such as 'rarely, *Several times per year, Several times per month, Several times per week*' and '*Much too little, Too little, Exactly right, Too much*' and '*not at all connected, weak connected, Partly, strongly connected*' and '*not at all/ I cannot judge it, less, Partly, yes, so much*'. The likert scale survey has been considered for examination of not only dimension of place identity through Mann-Whitney U test and Kruskal-Wallis Test and also investigation of its indicators through Chi-Square Test and Somers' d Test.

The Kruskal-Wallis H Test is a rank-based nonparametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. It is considered the nonparametric alternative to the [one-way ANOVA](#), and an extension of the [Mann-Whitney U test](#) to allow the comparison of more than two independent groups and dimensions. In this research, the dimension of place Identity such as Place attachment, Sense of place, Spirit of place, place dependence and Topophilia are examined through [Mann-Whitney U Test](#) and Kruskal-Wallis H Test, measured on 4-point scale as mentioned above between two groups of people in Historical urban spaces of Münster. Statistical mean gives important information about the data set at hand, and as a single number provides a lot of insights about analysing the dimension of Place identity in Altstadt Münster.

This research has been examined through nonparametric tests, which means no requirement for assumptions about population characteristics and the population variance is not homogeneous. This Test has been used with ordinal or nominal data and examined with Chi-square, Somers'd, Kruskal-Wallis tests and Mann-Whitney U test.

Mann-Whitney U test and Kruskal-Wallis test are conducted to evaluate the dimension of place Identity in historical urban public spaces of Münster which the results of Tests are considered in the expected direction and significant with  $p \leq .05$ . In addition to this, when the  $p$  value  $\leq .05$ , there is a significant correlation between urban public spaces and dimension of place identity in Altstadt Münster. Moreover, the measurement of Mean can be categorized into 4-point scale *little* ( $1 < \text{Mean} < 1.75$ ), *About Right* ( $1.75 < \text{Mean} < 2.5$ ), *Too Much* ( $2.5 < \text{Mean} < 3.25$ ), *Far Too Much* ( $3.25 < \text{Mean} < 4$ ), has been considered for examination of Strength and weakness of Place identity's dimensions. These Dimensions of place Identity is based on participant's answers and Mann-Whitney U test are examined in both cities and due to the  $P$  value of less or equal .05, have been accepted and applied in historical urban spaces of Altstadt Münster. Place attachment, Sense of place, Topophilia and Spirit of place with the Sig. of 0.00, and place dependence with Sig. of .036 have been approved in Altstadt



Münster.

Analysing Strength and weakness of Place identity's dimensions in Altstadt Münster have been categorized according to measurement of Mean into 4-point scale; *Little* ( $1 < \text{Mean} < 1.75$ ), *About Right* ( $1.75 < \text{Mean} < 2.5$ ), *Too Much* ( $2.5 < \text{Mean} < 3.25$ ), *Far Too Much* ( $3.25 < \text{Mean} < 4$ ). According to Table 5, in Altstadt Münster, Sense of attachment, Sense of place, Topophilia and Spirit of place are evaluated 'Too much' and Place dependence is examined 'About right'.

Case Summaries						
City		Place attachment	Sense of place	Place dependence	Topophilia	Spirit of place
Münster	N	50	50	50	50	50
	Mean	2.7025	2.6783	1.9400	2.9900	2.6213

TABLE 1. EVALUATION OF PLACE IDENTITY'S DIMENSION THROUGH THE MEASUREMENT OF MEAN IN BOTH CITIES

#### 4.3.2. Investigation of the correlation between dimensions of place identity

All of the different dimension of place identity have been used in relation to place and urban public spaces, such as 'Spirit of place', 'sense of place', 'Place dependence', 'place attachment', 'Topophilia' are difficult to separate, and might have parallel definitions which present the positive bond to a place. The correlation between dimension of place Identity and their indicators have been examined.

'Place identity' is attachment in terms of emotional or symbolic meanings that are assigned by an individual. The physical landscape or place becomes part of a person's self-identity.<sup>10,11</sup> to Proshansky (1978), place identity is defined as 'those dimensions of self that define the individual's personal identity in relation to the physical environment...' (p. 147). 'Place attachment' is part of place identity, but place identity is more than attachment and sometimes is considered as a 'sense of place' This concept is defined as the development of affective link between people and particular places (Hidalgo & Hernandez, 2001), likewise, this notion is development of feeling in place which are very familiar to individuals who belong to places (Altman & Low, 1992; Gifford 2002). Moreover, it can be considered as a person-place bond that evolves from specifiable conditions of place and characteristics of people (Kaplan,1993). 'Place dependence' is an attachment based on function. The value of a specific place depends on its ability to satisfy the needs or behavioral goals of an individual or group as compared to other place alternatives (Stokols, Shumaker. 1981, P.608). Moreover, Place attachment is also reflected in the functional bonding between people and places described as place dependence (Stokols; Shumaker 1981). Place dependence is associated with the perceived strength of association

between a person and specific place which is related to the quality of the current place and the quality of other substitute places that are comparable to the current place (Ujang, 2010, p;65). 'Sense of place' has been used to identify the individual character of a place (Norberg-Schultz, 1980;Stedman, 2003), reflects the definition of 'place identity'. Sense of place is described as an awareness of a positive feeling for a place (Tuan,1974). 'Spirit of place', Relph's view is (1976), the spirit of place is the representation of the affective sense and spiritual relations that people attach to places which can only be experienced in a holistic and indivisible feeling. Tangible cultural heritage located in a place could reflect the spirit of place in many ways. 'Topophilia' is utilized for depicting strong identity or sense of place between specific people and the effective bond between people and place.



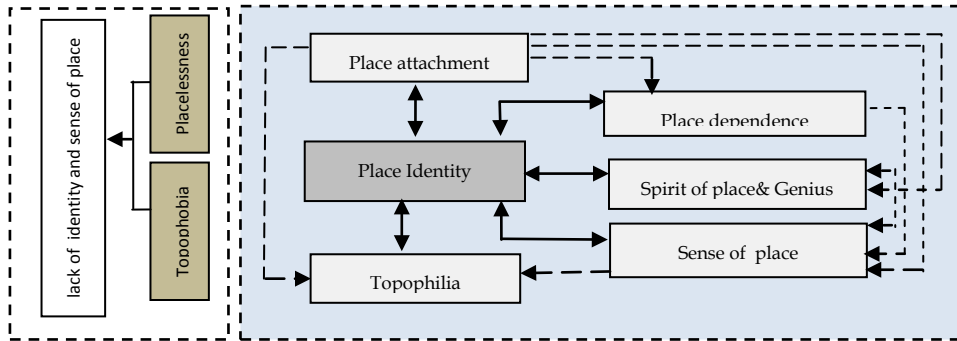
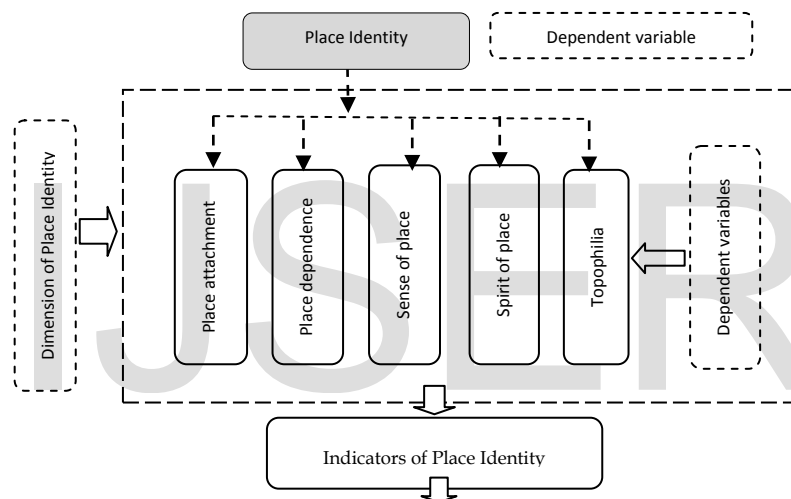


Figure5. Correlation of place Identity's Dimension

### 4.3.2.FINDING THE INDICATORS OF PLACE IDENTITY IN HISTORICAL URBAN PUBLIC SPACES OF MÜNSTER

According to 50 Questionnaires, SPSS analysis, Chi-Square Test and Somers'd Test, the indicators of place identity can be considered as below;



- Shopping, window shopping & walking (Sense of place)
- Visiting of Museums, Historic buildings & etc. (Place attachment, , Sense of place, Spirit of place)
- Visiting of Restaurants and Cafes (Sense of place, Place attachment, Spirit of place and sense of invitation)
- Visiting of Friends & Relatives (Spirit of place and sense of invitation)
- Outdoor lighting of Urban spaces ( Legibility &aesthetics, Sense of place and connection between people and places )
- Quality of Restaurants & Cafes (the Spirit of place and place attachment)
- Security in old district (Sense of place and Topophilia)
- Free seating areas in public spaces (High Sense of invitation, Spirit of place and place attachment)
- Quality of design of facade and bodies in urban spaces (Sense of place and Topophilia)
- The quality of the green areas with place intended for having a rest (Sense of place and Topophilia )
- Variety of land-uses(Variety, Permeability &Sense of invitation, Sense of place, Spirit of place and place attachment)
- Accessibility to public transportation( Permeability, Legibility & Sense of invitation, place attachment , Permeability, Legibility and Sense of invitation)
- Designation of old district to pedestrian, Walk-ability (Permeability, Legibility& Sense of invitation, place attachment, Sense of place and Spirit of place,..)
- Reminding the historical events in urban public spaces (place attachment, Sense of place and Spirit of place in historical urban public spaces)
- The effect of atmosphere of historic context on visitor's behaviour(place attachment)
- The connection between people and historic urban spaces'(place attachment, sense of place, Topophilia and individual identity)
- Way of coming to urban spaces(Sense of place, Permeability, Legibility and Sense of invitation)

Figure 1.indicators of place identity in historic urban public space of Münster

## CONCLUSION

Urban planners and designers should consider that planning

the new and modern urban spaces in city cannot always meet the needs of its users. Urban planner should that urbanism is a combination of old experiences and new techniques so the designers should contemplate old patterns and don't hide them just due to their oldness. notice that each culture and society has a specific identity for its urban space that is related to culture and beliefs of each society. The purpose of this research was to define place identity and investigate IPI in historical urban public spaces and Analyze the dimension of PI in historic urban public spaces of Münster through Correlation Analysis with SPSS. The five dimension that were examined in urban public spaces Münster are Place attachment, sense of place, spirit of place, place dependence and Topophilia. Moreover, how these dimension effect on shaping the IPI and make a strong connection between people and their places.

The IPI have been investigated based on the data collected from the questionnaire, the **Chi-Square Test**, Somers' d Test, **Mann-Whitney U Test** and **Kruskal-Wallis Test**. The finding suggests that further improvement on connection between people and their surrounding is required to be able to secure the sense of place identity and its dimension in urban space. The emotional form of linkage arises from the attached users can provide vital information on the actual values of the urban spaces. The emotional connection with place attributes and characteristics can be used as indicators of place identity as well. The importance of the physical attributes, Structural-Functional and Socio-Cultural in historical urban spaces is evident for encouraging continued sense of attachment, sense of place and spirit of place. Place identity is an important dimension of social and cultural life in urban areas and is strongly linked to sense of place, sense of attachment, Topophilia and sense of belonging. Factors effecting on shaping the identity of in Urban spaces;

- Regeneration of historical buildings and monuments as important elements for shaping place identity
- pedestrian-oriented field analysis
- Rehabilitation and Reconstruction of historic body of urban public spaces
- Improving the social activities
- Variety of Land-uses and activities related to identity of urban squares

In addition to this, connectivity, Sociability, Activity, Image, integration, legibility, Connectivity, Consideration of precedence of pedestrian spaces(walk-ability) are the most important contributing factor for regeneration of place identity in urban spaces. Place identity is a perception of meanings that person attributes to a place through his/her interaction with urban spaces. The present Research was an attempt to draw a general picture of the issue under discussion. The results of the survey examination of the opinions of different groups of people in Münster showed that highlighting the historical buildings as the most important elements of urban spaces rehabilitating and reconstructing old constructions, establishing activities and uses relating to the identity of the place, creating sign and symbols contributing to the identity of urban spaces, creating a democratic space, a proper mental image, facilitating the gathering of people in large numbers are assumed to contribute to the identity of urban Public spaces.

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