

URBANITY IN THE OPEN SPACES IN DEVELOPING NODES ALONG MAIN ARTERIES: SÖĞÜTÖZÜ NODE ON DUMLUPINAR ROAD IN ANKARA

Ela ALANYALI ARAL*, Fulay UYSAL BİLGE**,
Güler Ufuk DOĞU DEMİRBAŞ***

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1. Jacobs et.al (2002) define the boulevard as wide paved streets made up of wide, rowed trees with walkways, seating areas, and cycle paths that serve various types of vehicles and pedestrians. Eskişehir and Konya Roads, which are not designed as boulevards in the physical manner, are named Dumlupınar Boulevard / İnönü Boulevard and Mevlâna Boulevard. These intercity roads transform their surroundings into urban spaces with rapid development, yet exceed the requirements of the definition of boulevard.

2. To ensure the continuity of the city's urbanity and urban life, public spaces for pedestrians should be provided. Boulevards are urban backbones that facilitate face-to-face communication and interaction among citizens, as well as the vehicle traffic they host. Boulevards, incorporating liveability, mobility, safety, public transport, open space needs and activities, are also defined as public spaces (Hayden, 1997) where urban experiences of the urbanite occur.

INTRODUCTION

The effects of main urban transportation arteries on the urban sprawl and the formation of new public spaces comprise a significant issue of discussion. In the case of urban roads, major arteries instigate fast development processes and bring a considerable amount of open spaces in various sizes and characters along with them. The inherent characteristics of roads yielding to urbanity and centrality, thus publicness, were defined in an earlier study regarding the provision of circulation of people and goods at different speeds (Jacobs, 1969; Nijenhuis, 1994 and Read, 2006), rendering possible the interaction of users from local and remote areas (Alanyalı Aral and Demirbaş, 2015). This earlier study elaborated the sub-spaces; spaces which are leftover beside/ under/ between/ within the circulation arteries as public spaces (Alanyalı Aral, 2008; Alanyalı Aral, 2007) and discussed pedestrians' perception of sub-spaces along urban roads in the case of Eskişehir Road in Ankara, particularly in its closest part to Konya Road which has been its most visible section with high-rise blocks since the 2000s (**Figure 1**).

Eskişehir Road, which is one of the two main intercity transportation axes connecting Ankara towards its west, has been named as Dumlupınar Boulevard (1) after 2000s. However, within the context of the current study this axis is referred to as Dumlupınar Road since it is a fast vehicular traffic road that divides the city into parts, presents a hardship for pedestrian movement, and thus does not allow a boulevard experience (2) As the backbone of the main urban transportation network, this axis is a strong vehicular bind that connects the city center with the university campuses, public buildings and settlements on the periphery of the city. The building density in this area has significantly increased since 2015 (**Figure 2**). The continuous development of the area has been bringing in more users, even though the YDA Center -the biggest building complex in the area- has not yet been activated. The current study has been realized between June 2020 -

* Corresponding Author; Department of
Architecture, METU, Ankara, TURKEY.

** Department of Architecture, Atılım
University, Ankara, TURKEY.

*** Department of Interior Architecture,
Çankaya University, Ankara, TURKEY:



Figure 1. The high-rise blocks concentrated along Dumlupınar and Mevlâna Roads in Söğütözü node (photograph taken in March 2021 from south-east).

May 2021. Despite the fact that most visitors to shopping malls and eateries were absent due to pandemic restrictions (Covid-19) in that period, the area still portrayed a well-used pedestrian zone based on users from office buildings, public institutions, and service areas such as hospitals, as well as many transit passengers.

Regarding the dual character of urban roads as both generators of urbanity and origins of many major problems, the earlier study (Alanyalı Aral and Demirbaş, 2015) focused on the street scale highlighting pedestrians' perceptions of sub-spaces along urban roads as public spaces. Questionnaires were held in sub-spaces along Dumlupınar Road in Söğütözü and the results demonstrated the priority of the perception of the negative factors such as noise, pollution, and safety issues related to

Figure 2. The recent development zones with extensive change since 2015 and the study area.



3. Lynch (1960) defines nodes as the strategic spots in a city into which an observer can enter, and as the intensive foci -or concentrations, which gain their importance from being the condensation of some use or physical character: "Many nodes, partake of the nature of both junctions and concentrations. The concept of node is related to the concept of path, since junctions are typically the convergence of paths, events on the journey. It is similarly related to the concept of district, since cores are typically the intensive foci of districts, their polarizing center" (Lynch, 1960, 41).

the vehicular traffic experienced, yet also demonstrated the high public character of the area with the rise of perception of publicness following a major road expansion which increased the traffic volume and speed.

This area has also recently been studied in terms of its public space qualities in a broader context as one of the three main regional areas along Dumlupınar Road (Uysal Bilge, 2020a); as the most urbane one closest to the city center in its east. Barbaros (2005) defined this area as a 'commercial node' for the developing urban sector due to its attractive unique location in the urban macro-form and its central role in the urban transportation network. The current study defines the area as a developing node (3) with regards to its ongoing urban intensification as a strategic spot on the axis; as a core with its use and physical character; and re-elaborates the open spaces which are mostly observed to display a dynamic quality. Open spaces in developing nodes along urban roads include both sub-spaces by the road and spaces mostly left-over between the buildings. Söğütözü node demonstrating considerable urbanity within its variety of public and semi-public spaces, highlights Montgomery's (1998, 100) theorization of activity as a prioritized definer of urban character. The study discusses the urbanity and public space characteristics while evaluating the problems concerning urban open spaces in the node and explores the relevant conditions in order to demonstrate the qualifications and potentials via the analysis of their definers, field observations and questionnaires conducted by pedestrians as the primary yet disregarded users.

LITERATURE REVIEW

Urbanity, Activity, and Public Space

As was introduced by Montgomery (1998, 98), urbanity is formed by the co-existence and interrelationships of three groups of attributes that produce good urban places: activity, form, and image. Montgomery (1998, 97) defines activity as the product of vitality and diversity, where vitality refers "generally to the extent to which a place feels alive or lively" and can be measured through pedestrian flows and movements. Vitality and diversity are promoted mainly by high vehicular and pedestrian accessibility, which bring together a variety of users. At least a proportion of activity should occur in public and associated semi-public spaces as terrain for social interaction (Bianchini, 1990).

Jacobs (1961, 161) defines diversity as a mixture of commercial, residential, and civic uses in close proximity to each other, creating pedestrian traffic throughout day and night, thus consequently adding to the safety, economic functioning, and appeal of a place. Based on this, Montgomery (1998) adds the indices like the proportion of shops, patterns of day and night-time activities, the existence of street vending, variability of cultural and meeting places besides open spaces enabling promenading, people-watching and other activities, all of which are possible within a growing fine-grained economy defined by mixed land ownership with different unit sizes.

Bertolini and Salet (2003, 134) maintain that urbanity is associated chiefly with diversity presupposing two general conditions: 1. vitality and learning potential, and 2. physical and institutional access to relevant urban qualities. In accordance with these two conditions, four essential dimensions appear in addition to the emphasis on proximity and territorial continuity: specialization and interchange, diversity and freedom of

choice, urbanity as civic exhibition, and the principle of connectivity and accessibility. While specialization and interchange are threatened by the dominance of consumption in the use of urban space and the gradual disappearance of experimental zones, diversity and freedom of choice are fostered by the “confluences of traffic flows, stations and other transport interchange points” (Bertolini and Salet, 2003, 139), and urbanity as civic exhibition relies on conditions for non-coercion of behavior; spontaneity and an informal sphere.

Specifically urban transit exchange areas display high urbanity: Bertolini (2006) defines multimodal passenger interchanges as new centers of urban activity; spaces signified not only by the multiplicity of links and mobility flows between them, but also by diverse activities -yet with the question of how to develop their potential public realm. Banerjee (2001) emphasizes the significance of transit systems including transit stations for the public realm and claims that today, it is the appropriate mix of *flânerie* and third places that dictates the script for successful public life. Multimodal passenger interchanges frequently include third places (Oldenburg, 1989) and third spaces (Soja, 1996) with various forms of socializing that are not expected.

Based on the model developed in relation to Arendt’s (1958) definition, the public realm implies an individual or a group that presents his/her/its specific qualities with the public observing them from diverse perspectives and aspects; the realization of public spaces is dependent on encounter and self-expression of many and diverse users in spaces (Alanyalı Aral, 2009). Diverse land-uses and programs instigating intense and continuous use in time, and connectivity with the city and the surroundings foster a variety and multitude of users. On the other hand, self-expression is possible through the appropriation of space, and spaces that make appropriation possible are defined by their inner physical properties like being expressive of and inviting appropriation via their repeated and intense use, besides processes of production and use (Table 1).

The Open Space Stock in Developing Nodes Along Urban Roads

A review of the relevant theorizations of roads as generators of urbanity demonstrates the significance of their implications in various scopes including the entire city, the neighborhood, and the street. Defining the urban landscape as a constellation of networks and locations within the frame of the space of places and the space of flows introduced by Castells (2000), Nijhuis and Jauslin (2015) assert that the space of flows is becoming more dominant in the contemporary city as a spatial manifestation. The flowscapes of transport, green and water landscapes define an interwoven trilogy in the macro scale, whereas transport landscape infrastructures, specifically “multi-modal transportation systems” shape conditions for urban development and offer opportunities for new types of public space (Nijhuis and Jauslin, 2015, 26).

Spaces of Places: Public Spaces in Private Property, In-betweenness and Fourth Places

The decentralization of the city centers, the vehicular density, the change in social and economic relations, thus in public investments and lifestyles, have led to changes in today’s public spaces. Commercial spaces shaped by private ownership have enabled public spaces to assume an economic role leading to the transformation in their use and character (Uysal Bilge, 2021). In most cases, new settlements and commercial areas formed on the outskirts of cities cause social segregation and spatial fragmentation

CONCEPTS & DIMENSIONS	CONDITIONS & CRITERIA
URBANITY (Montgomery, 1998)	co-existence and interrelation of activity , form, and image
ACTIVITY (Montgomery, 1998)	Vitality and Diversity (Montgomery, 1998)
	<i>high vehicular and pedestrian accessibility</i>
Vitality (Montgomery, 1998)	<i>pedestrian flows and movements :</i> the numbers of people in and around the street across different times of the day and night facilities, the number of cultural events and celebrations over the year, active street life
Diversity (Jacobs, 1961)	mixture of commercial, residential, and civic uses in close proximity to each other, creating <i>pedestrian traffic throughout day and night</i>
Diversity (Montgomery, 1998)	variety in use, the proportion of shops, patterns of day and night-time activities, street vending, variability of cultural and meeting places, open spaces enabling promenading, people-watching and other activities, mixed land ownership with different unit sizes,... <i>active street life and street frontages</i>
URBANITY (Bertolini and Salet, 2003)	<i>proximity and territorial continuity</i> (Primary condition)
URBANITY -associated with high diversity (Bertolini and Salet, 2003)	1. vitality and learning potential, 2. <i>physical and institutional access</i> to relevant urban qualities
1. specialization and interchange	less consumption in the use of urban space and no gradual disappearance of experimental zones
2. diversity and freedom of choice	the confluences of <i>traffic flows</i> , <i>stations</i> and other <i>transport interchange points</i>
3. urbanity as civic exhibition	non-coercion of behavior; spontaneity and an informal sphere
4. connectivity and accessibility	ease with which destinations may be reached
URBANITY (hubs with high diversity and accessibility) (Bertolini and Salet, 2003)	<i>optimum linkage</i> to the surrounding urban tissue and optimum <i>pedestrian accessibility</i> within the area a minimum of <i>'other' functions</i> in addition to the dominant function at district and block level permitting and facilitating <i>temporary uses</i> with primarily unprofitable but lively cultural activities
PUBLIC REALM (Arendt, 1957)	Variety and multiplicity of users Self-expression
PUBLIC SPACE (reference removed)	<i>Encounter</i> & self-expression in urban space
1. Encounter in Urban Space	Diverse functions and Programs instigating intense and continuous use in time Overall physical properties supporting intense relationships with the surrounding and the city (access, location in the city)
2. Self-expression in Urban Space (through appropriation)	Inner physical properties expressive of and inviting appropriation Processes of production and use of spaces promoting appropriation

Table 1. Concepts and dimensions of urbanity and public realm, and their conditions and criteria.

(Carr et al., 1992). Many problems arise regarding the use of these areas by pedestrians: Handy (1996, 193) differentiates between pedestrian-oriented and automobile-oriented commercial areas and asserts that having commercial activity within walking distance encourages walking. Yet there are critical attributes like the relationship between residential and commercial areas, distances, barriers such as major arterials and existence of certain types of establishments, such as restaurants that define pedestrian use (Handy, 1996, 196).

Rather than creating an urban texture, the areas on the periphery that assume a central function contain introverted settlements connected to vehicle transportation, surrounded by parking lots, and lacking green areas. With this new settlement model, spaces with diverse commercial activities are formed within single buildings that depict urban environments with no integration with their surroundings. Privatization of public spaces has transformed them into artificial environments with security measures (Punter, 1990), and most mixed-

use complexes and shopping malls in the semi-public space category are owned by private investors and depict areas with rules and limited use durations (Kwiatkowski, 2010). Their location at the city's outskirts causes uncontrolled urban sprawl, which in turn becomes major determinant of the functional-spatial structure of the city. Mierzejewska (2011) claims that private spaces open to the public differ from the public space, especially in terms of ownership, access control, governance, function, and user. However, Trancik (1986), elucidating that semi-public / semi-private spaces soften the boundary between the living public and private spaces, argues that these areas increase the diversity of urban space activities. Parallel to Trancik's opinion, Newman (1973) affirms that semi-private / semi-public spaces provide the transition between private and public spaces and that these spaces are more flexible, more transitional and harmonious. Reflecting on the concept of 'in-between', Hertzberger (1991) asserts that the intertwining of indoor and outdoor spaces, and providing maximum accessibility softens the boundaries between public and private with variances in space sizes and forms.

Banerjee (2001, 12) criticizes the privately owned and managed spaces as not being truly public for "the owner has all the legal prerogatives to exclude someone from the space circumscribed by sometimes subtle and often invisible property boundaries". In the context of newly-designed public and semi-public spaces, Aelbrecht (2016) emphasizes the significance of the informal public social interaction, introducing 'fourth places' as spaces characterized by spatial, temporal and managerial in-betweenness, and a great sense of publicness. Aelbrecht (2016, 134) defines "fourth places" as mostly "publicly accessible privately owned and managed spaces" with specific types such as thresholds, edge spaces, paths, nodes and props that frequently exist in transit hubs, shopping centers, and circulation areas with truly public and anonymous character. An awareness of the public character of such spaces is informative for planning, via principles like mediating between the public, private and nonprofit sectors, supporting small businesses of the third place variety, and including conviviality and public life as objectives of street design (Banerjee, 2001).

Spaces of Flows: Pedestrian Environment to Foster Urbanity

In the scope of open spaces in developing nodes along urban roads, particularly in transit hubs, a comprehensive discussion on the pedestrian environment shaped and dominated primarily by vehicles is necessary. When not designed with a comprehensive attitude, roads – especially that serve high-speed traffic- threaten urbanity by breaking up the continuity and integrity of neighborhoods and public spaces, cause loss of human scale, dominate the urban space with noise, dirt, visual pollution, and safety issues, resulting in invaded urban open spaces and marginalized pedestrians (Read, 2006; Robertson, 2007; Gehl and Gemzøe, 2001; Carmona, 2010; Lefebvre, 1991; Forsyth and Southworth, 2008). Urbanity and public space characteristics are defined via pedestrians' encounters and self-expression, and this prioritizes the pedestrian environment, particularly in dense transit areas where walking may not be the preferred but necessary action. Such areas illustrate high urbanity and public space characteristics due to increased land-uses fostered by the high accessibility served by the multiplicity of transport modes like metro, bus, and minibus, walking, cycling besides private cars. Yet, the problematic confrontation of pedestrians with vehicles in both circulation spaces and residual open

4. The connectivity between uses / activities refers to "the ease with which those destinations may be reached" (Handy, 1996, 184), and may be provided both via transportation system and physical layout for pedestrians. Street connectivity is defined as the number of streets directly linked by a node (Jiang et al., 2000).

5. The concept of "triangulation", as introduced by Whyte (1980, 94) refers to presence of some external stimulus which "provides a social bond between people and prompts strangers to talk to each other as though they were not".

spaces among the built stock necessitates a search on enhancing walkability in such areas to upgrade the urbanity and publicness.

Walkability is defined as the measure of how walking-friendly an environment is (Speck, 2012); the extent to which the built environment supports and encourages walking by providing pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort, and offering visual interest in journeys throughout the network. Walking has been discussed as a positive transport mode in many scopes, including health, economy, social equity, and sustainability (Seles and Afacan, 2019; Giles-Corti et al., 2016). In the urban studies literature, walking is discussed as a multidimensional construct with parameters including the physical environment attributes like city block size, topographic slope, distance to destinations and street connectivity (4) (for example; the directness of links and the density of connections), building density, urban block-street ratios and dimensions, sidewalk width and continuity, aesthetics, land use mixing, traffic volume, the number of people which inform perceived safety and liveliness (Pivo and Fisher, 2011; Ewing and Handy, 2009; Özer and Kubat, 2014). Ewing and Handy (2009) posit that physical features influence the quality of the walking environment both directly and indirectly through individuals' sensibilities and define the perceptual qualities like sense of comfort, sense of safety and level of interest which consequently shape individual reactions. Physical features inform visual qualities like imageability, sense of enclosure, human scale, transparency, and complexity at the street level (Lynch, 1960; Jacobs, 1961; Appleyard et al., 1964; Appleyard 1981; Rapoport, 1990; Ewing and Handy, 2009). However, these are insufficient to define the perception and individual reaction, which is also specified in collaboration with additional auditory, olfactory, tactile perceptions; walking speed and mnemonic meanings -if there are- attributed to the setting.

Among the models developed for a comprehensive understanding of walking in the urban scope, walking needs (Alfonzo, 2005) or pedestrian's needs (Mateo -Babiano, 2016) collect multiple dimensions of walking within a hierarchy of necessary conditions. Alfonzo (2005) defines five levels of walking needs, four of which are activity-related needs (accessibility, safety, comfort, and pleasurability) in urban spaces whereas feasibility is not a variable of physical space as being dependent on the individuals' conditions. With a discussion on relevant precedent studies (Handy, 1996; Black et.al., 2001; Southworth,1997), Alfonzo (2005, 825-6) defines the attributes of the second basic pedestrian need that is accessibility as related to measures like activities (pattern, quantity, quality, variety and proximity), connectivity between uses -as provided by the transportation system, and walking-related infrastructure involving the existence of walkable areas (paths, trails, sidewalks) and actual or perceived barriers to walking such as physical barriers (impenetrable land uses or natural features) and psychological barriers (like a wide road). Safety -as defined via parameters related to crime- is the third level of walking needs, and is followed by comfort needs which are defined via parameters derived from earlier studies (Frank et al., n.d.; Booth et al., 2000) that refer to a person's level of ease, convenience and contentment while walking in an area. The topmost walking need; pleasurability is defined regarding both physical features and experiential attributes depicting behavior patterns like use, appropriation, socialization patterns such as people-watching, triangulation (5), and involves factors of diversity and complexity,

liveliness, architectural coherence and scale, and aesthetic appeal (Alfonzo, 2005: 830). Diversity and complexity, and liveliness portray activity-based indicators like public space; other people, street vendors, outdoor dining areas, presence of mixed uses and a higher percentage of ground floor space devoted to retail (Appleyard, 1981; Cervero, 1988; Frank et al., n.d.). Activity-based variables of complexity include number of people and presence of outdoor eateries fostered by diversity: Integrating land uses, activities, transportation modes, and people creates diversity instigating complexity (Gehl, 1987) whereas the increase in controlled and predictable areas -as in development projects under unified ownership- is related to its loss (Ewing and Handy, 2009: 81). In this context, informal public spaces which add to complexity in an urban setting become visible via presence of 'fourth places' which has already been discussed._

Activity-based urbanity is further enhanced with increased pedestrian comfort levels. In that regard, Sarkar's (2003) theorization includes three comfort types for pedestrian circulation in urban networks: physical comfort in relevance to the effort to conduct pedestrian activities with attributes defining positive physical conditions for walking (adequate walkways in width, walkways free of impediments, comfortable walking surfaces, continuous sidewalks, walkways comfortable for vulnerable users, seating areas, protection from extreme weather conditions), psychological comfort connoting to pedestrians' mental satisfaction maintaining their walking speed and possibly participating pedestrian activities; and lastly physiological comfort defined by absence of noise and pollution which cause pedestrians stress.

RESEARCH: TESTING ACTIVITY-BASED URBANITY IN THE OPEN SPACES IN SÖĞÜTÖZÜ NODE

The Site - History and Recent Development

Ankara - Eskişehir State Road was first defined as a major alternative to the İstanbul Road in Yücel - Uybadin Plan in 1957, and has since made a significant change in the urban transportation network. Yücel - Uybadin Plan which offered industrial opportunities to Söğütözü and Çukurambar Regions rendered them more attractive to private capital in the industrial and commercial sectors. METU Campus and other government institutions built in the 1960s altered motor transportation along the Eskişehir Road instigating the city's expansion towards the west. The road has been a significant trigger of rapid urban development since the 1990 Master Development Plan, which was prepared in 1970 and assigned the surrounding areas along this axis to many more public institutions and university campuses. In the scope of the 2015 Ankara plan prepared in 1986, the land choice of public institutions on large plots along this road, the tendency of large and small scale industry to move away from the city center, and increase in the use of private automobiles led to many public and private sectors locating on this axis. The 1990 Master Plan Partial Revision in 1992 envisaged to develop on this main artery also housing and living spaces for upper-middle-income groups (Uysal Bilge, 2020a) in parallel with the further rise of private vehicle ownership and population growth.

The history of Söğütözü displays a significant example of rapid critical changes with piecemeal plan decisions, which has been a prevalent issue in many cities in Turkey since the 1980s: With the Zoning Law No. 3194,



Figure 3. Söğütözü node from the Dumlupınar Road -approaching from the west. YDA Center on the right (photograph taken in May 2021).

6. Atatürk Orman Çiftliği, founded in 1925 as an urban agricultural practice model, was a modernization project that aimed to produce agricultural and animal products under modern conditions by reforming the swamps and cultivating the steppe of the Republic Ankara, and the education of the people, the youth and the raising of healthy generations (Akçay, 2019). AOÇ lands which were donated by Atatürk in 1937 for public use, suffered certain land losses at different times, especially since 2010 with newly opened boulevards, roads and intersections.

7. The parcel formation on the northern side of the Dumlupınar Road in Söğütözü was planned in 1992 with General Directorate of Forestry Söğütözü Facilities, AŞOT Connection Roads and Urban Service Area Site Zoning Plan prepared by Raci Bademli, who later in 1998 prepared an alternative plan for accessibility (approved in 1999), proposing to link Dumlupınar Road and public recreation area at the far end, offering this historical green area to common share. This plan ensured accessibility and pedestrian circulation continuity towards public recreation areas. However, the approach of private capital has stopped and altered the implementation of the project towards the use of planned area for parking demands of Armada, and redirected the pedestrian route into the entrance plaza of Armada (Uysal Bilge, 2020a). This route later informed Armada Street line, yet with only controlled access with a decreased publicness.

which entered into force in 1985, the authority to plan, build, approve, implement, and alter the plan, was given to the municipal council (Resmi Gazete, 1985). The law and relevant legal regulations resulted in the loss of a holistic framework in plan production and implementation processes which was displayed as urban spatial fragmentation (Uysal Bilge, 2020a).

Until 1990, most of the lands in Söğütözü were agricultural lands owned by Atatürk's Forest Farm (6). With the plan approved in 1992, envisaged maximum height in the Urban Service Areas increased resulting in the disappearance of the human scale (Uysal Bilge, 2020a) (Figure 1, Figure 5) (7). Authorized in 1995, the Ankara 2025 Plan envisaged the dispersion of congested functions in the current urban fabric to newly developed



Figure 4. The northern side of the Dumlupınar Road from YDA Center: Mövempick Hotel and Armada Shopping and Business Center by the road, the dominance of vehicular use areas (photograph taken in February 2022).

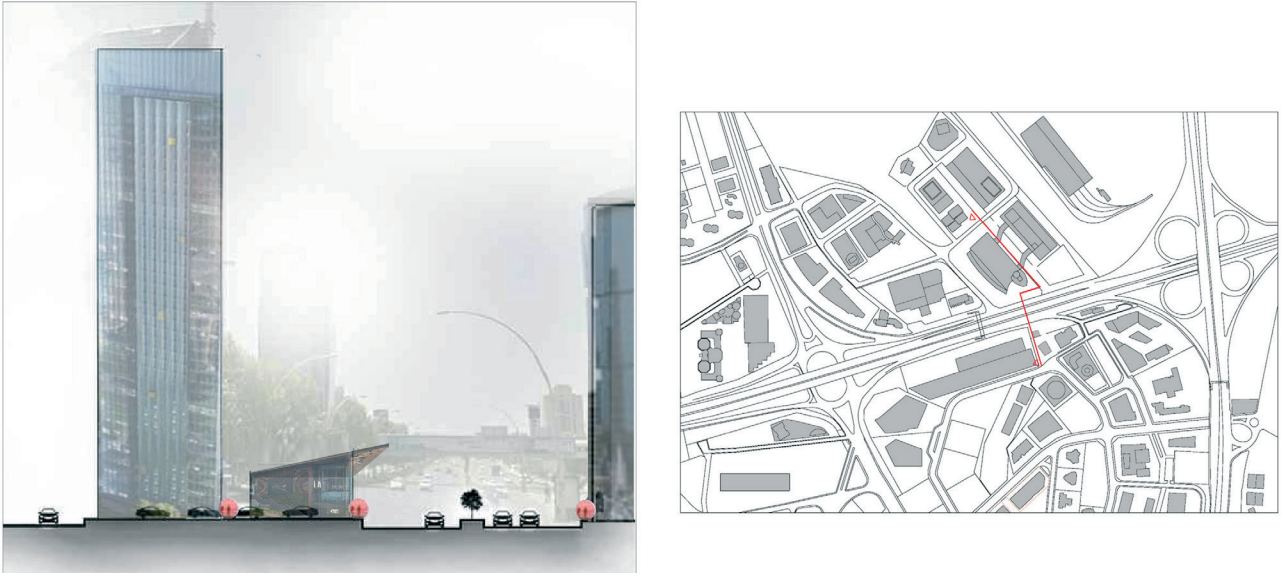


Figure 5. Section through YDA Business and Living Center and Armada 1 Business Center on Dumlupınar Road.

corridors, nodes and attraction centers, and promoted the construction of growth corridor sub-centers. Söğütözü became the hotspot for private capital with land use transformed from production-based facilities to financial services (Uysal Bilge, 2020b). The proximity of the area to the city center and the settlements of high and middle-income groups, the connection of major arteries in this area, and the presence of subway, minibus and bus stops in addition to the intercity bus terminal, caused changes in the value of the lands. The existence of Ostim, Teknokent, Cyberpark, four university campuses (METU, Çankaya, Bilkent, Hacettepe) and many public and military areas served by the Dumlupınar Road still increase the pressure and density with continuing construction sites of high buildings in private property.

In 2002, Armada Shopping and Business Center as the first high-rise and the most visible element was built (**Figure 4**) while the area became a focus development area for the city such as the localization of many other attractors such as built shopping centers, residences, public buildings on the further sites along the Dumlupınar Road. With many blocks built later, the area portrays building types today including institutional buildings, hospitals, housing estates, a huge convention and exhibition center, a political party center, a mosque, single commercial buildings, business centers besides a specific building type with combinations of housing blocks, shopping malls and offices shaped by consumption (**Figure 6, Figure 7**).

The intersection of the road with Konya (Mevlâna) Road in the east of Söğütözü physically divides this area into four unconnected sections, separating Emek and Balgat neighborhoods in the east, and Çukurambar in the south (**Figure 2**) consequently altering the development model of each region in specific ways (Günay, 2006). This node is a dense transit hub which connects various passengers of both the inner-city urban transport (subway stations, bus or minibus stops in many directions) and the Ankara



Figure 6. Properties of plots and buildings, and the boundaries of the study area.

inter-city bus terminal (AŞTİ) which is located on the north-west side of Dumlupınar Road - Mevlânâ Road junction (Figure 6).

The node portrays a use pattern more or less public on private property (Figure 6) and is highly accessible in various modes of transportation due to its location as a transit hub on a major transportation artery. This high accessibility, alongside factors such as proximity to the center and the presence of accommodation areas on both sides of Dumlupınar Road, particularly in the Çukurambar neighborhood in its south, accounts for the observed dense pedestrian use. The high-speed dense Dumlupınar Road and secondary vehicular roads with extensive car parking areas define the character of the open space stock.

Though functioning in a wider area, the node has been tested within the limits which more definitely affect its activity-based urbanity: the dense Mevlâna Road in its east and Muhsin Yazıcıoğlu and Söğütözü Streets in its west, the public green area (Söğütözü Piknik Alanı) in its north and Çukurambar neighborhood residential blocks in its south (Figure 6), which defines a walkable distance (about 800 meters) in east-west and south-north directions.

Methodology

As pedestrian-vehicle confrontation was identified to be the most commonly encountered problem in Söğütözü node, the research evaluated the variables of activity-based urbanity in a proposed model (Table 2) as derived from the literature on pedestrian needs in urban spaces. This model is based on relevant the definers of relevant walking needs which are mainly pedestrian accessibility, comfort and some parameters of pleurability (8). In this model, fourth places (Aelbrecht, 2016) are considered as examples of informal public spaces, and comfort conditions for pedestrians, which are believed to constitute the primary conditions of

8. As defined by Alfonzo (2005, 827), crime safety, referring to "whether a person feels safe from the threat of crime" as affected by "urban design characteristics related to physical incivilities and fear of crime, types of land uses and people present" was not an observed problem in the field study, therefore it is not evaluated within the scope of the present research. Traffic safety, on the other hand, a much-experienced problem in the node, was evaluated via both observations and map analysis, and questionnaires (with the semantic adjective set fast / unsafe) in the scope of pedestrian comfort and accessibility -as it also defines psychological barriers to access and maintain desired walking speed. Pleasurability, on the other hand, is partly included in the evaluation model with the variables of the activity-based factors such as diversity and complexity, and liveliness excluding the physical features defining factors of architectural coherence and scale, and aesthetic appeal.

MODEL FOR EVALUATION OF ACTIVITY BASED URBANITY IN THE NODE										
RELEVANT WALKING NEEDS	DEFINERS OF ACTIVITY-BASED URBANITY	VARIABLES	PERCEPTIONS					APPLIED METHODS		
			Noisy / Tiresome	Fast / Unsafe	Polluted / Unhealthy	Dynamic / Lively	Well-known	Enjoyable	Map Analysis	Observation
Accessibility	*The pattern, quantity, quality, variety and proximity of activities *Connectivity between uses *Walking-related infrastructure	Activities								
		Connectivity between uses (<i>pedestrian connectivity</i>)								
		Existence of walkable areas (<i>paths, trails, sidewalks</i>)								
		Physical barriers (<i>presence and number of barriers</i>)								
		Psychological barriers (<i>impenetrable / controlled landuse areas, natural features and wide roads</i>)								
		Destinations within a walking distance								
Comfort	*The relationship between pedestrians and motorized traffic *Pedestrian walkway system and street network *Urban design amenities	Adequate walkway (<i>width for diverse usage</i>)								
		Continous sidewalk								
		Comfortable for vulnerable users								
		Continous sidewalk								
		Walkway free of impediments								
		Comfortable walking surface								
		Amenities throughout a setting (<i>Seating</i>)								
		Protection from extreme weather conditions								
		Ability to maintain desired walking speed								
		Ability to participate in various pedestrian activities								
		Traffic volume								
Pleasurability	*Diversity and complexity (<i>Activity-based</i>) *Liveliness (<i>Activity level</i>)	Presence of mixed uses								
		Presence of public spaces								
		Presence of informal public spaces (<i>Fourth Places</i>)								
		High numbers of people and activities								
		Ground floor space devoted to retail & outdoor eateries								

Table 2. Model for evaluation of activity-based urbanity in the node.

concern for the node, are further detailed via variables added from Sarkar’s (2003) model for urban walkways in major activity centers. Many variables of comfort and pleasurability were found to match with the semantic adjective sets (9) sorted earlier in the 2005-2007 study (Alanyalı Aral and Demirbaş, 2015) which evaluated the pedestrian perceptions in this location; concomitantly these perceptions were integrated to the proposed model to be tested again after a considerable time span.

The evaluation necessitated a combination of qualitative and quantitative methods which would make clear both present physical conditions and activities in the node, and the perceptions of pedestrians. Many variables of accessibility (activities, destinations within a walking distance, connectivity between uses and the existence of physical and psychological barriers) were evaluated via map analysis, whereas most variables of comfort were assessed via on-site observations. On the other hand, pedestrians’ perceptions were tested in a quantitative research via questionnaires defining semantic adjectives which also highlight the contradictory condition of the node in terms of its increasing urbanity and problems rooted from dense vehicle-pedestrian encounters. A comparison between the present pedestrian perceptions with the previous ones in such a rapidly growing node was aimed by means of testing the same parameters with those tested in 2005-2007 questionnaires (Alanyalı Aral and Demirbaş, 2015). In this earlier study, the set of semantic adjectives defining pedestrians’ perceptions were extracted from a comprehensive literature research on spaces along motorways: noisy / tiresome, fast / unsafe, and polluted / unhealthy to describe the main problems found to be noise, pollution and traffic safety with their effects on pedestrians; well-known, dynamic / lively and enjoyable to test the perceived public character and urbanity.

9. Among the tested variables of activity-based urbanity in the node, those relevant to the effects of wide roads and dense vehicular traffic were seen in: Traffic volume, Features that buffer pedestrians from motor vehicle traffic and Traffic calming elements, speed limits which imply notions of noise, pollution, and traffic safety to be reflected in pedestrians’ perceptions as noisy / tiresome, fast / unsafe and polluted / unhealthy. Additionally, Ability to maintain desired walking speed relates to fast / unsafe perception -for the dominance of vehicular traffic results in interruptions in walking. Variables relating to the public character of the node were: Presence of public spaces and Presence of informal public spaces (Fourth places) relating to well-known, and High numbers of people and activities relating to well-known and enjoyable perceptions; Ability to participate in various pedestrian activities and Presence of mixed uses both of which relate to dynamic / lively and enjoyable perceptions.

The field study was conducted between June 2020 and May 2021 in the open spaces of Söğütözü node. Even though the number of users was much decreased during the pandemic period (which started in March 2020), the area was still active with users of shops, eatery and offices and transit passengers on the days there were no lockdowns. The interviews were held in June -September 2020 (34 interviews) and February-March 2021 (59 interviews) at noon between 11:30 to 13:00 when user numbers were comparably high, yet not as high as it would typically be expected. The questionnaires were held almost at the same locations with the previous study -including not only the bus / minibus stops and sub-spaces by the Dumlupınar Road, but also Armada plaza, pedestrian overpass and some inner streets and car parking areas on both sides of the road. Holding face-to-face interviews during the pandemic period -which still continues today- portrayed difficulties due to the threat of infection and inevitably resulted in the reduced number of participants, yet it was still possible to complete 93 questionnaires with similar numbers of male and female pedestrians of 20-50 years age.

RESULTS

Definers of Activity-Based Urbanity

Map analyses and observations verify that Söğütözü node portrays high vitality and diversity which accounts for its urbanity (Table 3). Figure 6 shows that the node displays a diversity of uses (commercial /mixed uses in addition to civic uses like public institutions and residential areas in close proximity - Çukurambar and gated residential areas in a walkable distance). Existence of many complexes including mixed land uses and the outdoor eatery and retail dispersed within the research area (Figure 7) in addition to the observed presence of many people in various time intervals (despite the lessening effects of the pandemic period) verify the activity-based complexity and liveliness in open spaces. Besides streets, public spaces with physical and institutional accessibility include only the Armada plaza and the street park in front of Next Level Shopping Center's main entrance whereas others (the Armada Street, Söğütözü Recreation Center, Next Level Courtyard and YDA Plaza) portray limited and controlled access (Figure 7). Informal public use, as observed via the presence of many fourth places (Figure 7, Figure 8, Figure 9), on the other hand, reveal the high public character, giving clues about the perception of the node -which was researched in questionnaires: As the area displays many spaces in private property used publicly or semi-publicly by pedestrians, it is possible to observe many types of fourth places defined by spatial, temporal and managerial in-betweenness where users socialize informally. These include seats within the plazas (Armada entrance plaza), walking-level retail areas, subway entrances and bus stops, active areas occupied by kiosks and street vendors (Figure 7, Figure 8, Figure 9).

Considering accessibility, even though the destinations, the variety of land uses and activities concentrated within a walkable distance are positive, there are many physical boundaries and controlled entrances caused by the existence of high-speed roads and privately owned lands (Figure 7), defining the node's connectivity negatively. The dense Dumlupınar and Mevlâna Roads disrupt the connectivity with the surrounding for pedestrians, in addition to the dominance of pedestrian-vehicle confrontation areas -both for crossing the roads and in extensive open-air car parking areas- which emerge as physical and psychological barriers.

Walking Needs	Attributes
Pleasurability	<ul style="list-style-type: none"> • Diversity. Existence of various -commercial, residential and civic- uses and mixed land uses (Figure 7) and variant user profile in the area verify diversity. • Complexity (activity-based). Existence of many people, street vendors and outdoor eatery / retail areas (Figure 7) verifies activity-based complexity. • Liveliness. High numbers of people and activities are observed at various time intervals. • Public spaces. Existence of plazas, parks and ‘fourth place’s (Figures 7, 8 and 9) signify the public space characteristics in the area.
Accessibility	<ul style="list-style-type: none"> • Activities. There are many activities portraying variety and proximity, with many ground-floor outdoor use areas (Figure 7). • Connectivity. Connectivity of the node towards the center and the neighborhoods in its east (Emek, Balgat) is disrupted by high-speed roads. Connectivity between public use areas in the node is loose and halted by dominance of roads and parking areas (Figure 2). • Existence of walkable areas. Sidewalks, paths, trails are not present continuously (Figures 8 and 9). • Physical barriers. Dumlupınar Road bisects the node into two. Additionally, some private areas and institutional areas are not accessible. (Figure 7). • Psychological barriers. The fast road, the overpass and the absence of sidewalks in some areas (Figures 7 and 8). • Destinations within a walking distance. The number of destinations in walking distance in the node is high (Figure 6).

Table 3. The evaluation of the activity-based walking needs in Söğütözü node in accordance with relevant attributes of pleasurability and accessibility.

The lack and discontinuity of sidewalks along the roads further add to the problems which are mainly rooted in the pedestrian-vehicle confrontation (**Figure 7**).

An evaluation of the node with regards to the attributes of comfort needs reveals that almost no measure of physical, psychological and physiological pedestrian comfort is met (**Table 4**). Attributes of pedestrian comfort in Sarkar’s model, like the adequacy and continuity of walkways with comfortable and impediment-free walking surfaces are lacking, besides the fact that there are limited amenities like seating and no protection from weather conditions. These conditions result in inability to maintain desired walking speed and participate pedestrian activities causing psychological discomfort in addition to physiological discomfort resulting from motorized vehicles causing noise and pollution.

Pedestrian Perceptions

The previous study held on the perception of sub-spaces along urban roads –in the case of Eskişehir Road in Ankara- (Alanyalı Aral and Demirbaş, 2015) showed that they were perceived primarily with their problematic

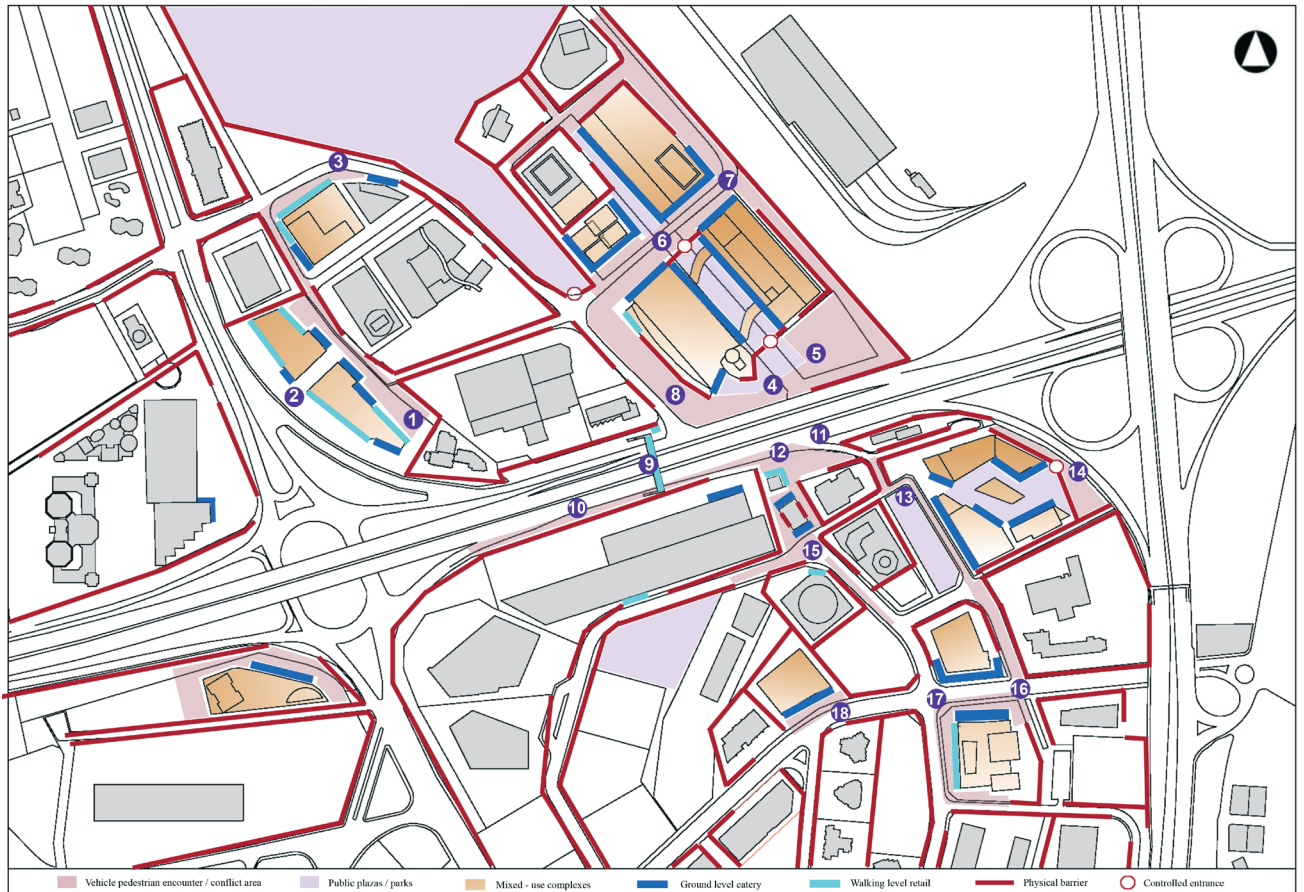


Figure 7. Ground floor conditions (ground floor eateries, walking-level retail, pedestrian-vehicle confrontation/conflict areas, plazas and parks, and physical barriers and controlled entrances for pedestrians), mixed use complexes and fourth places.

attributes –as noisy / tiresome, fast / unsafe and polluted / unhealthy - spaces, and then as public spaces –being defined as well-known, dynamic / lively and in a much smaller percentage enjoyable (**Table 5**). Since 2007 the node has developed even more rapidly, and the dominance and effects of vehicles have been enhanced.

In the current study, the same adjective sets that included those denoting traffic-related problems; noisy / tiresome, fast / unsafe, polluted / unhealthy, and those denoting public space attributes; well-known, dynamic / lively, enjoyable were questioned. As was mentioned before, the number of participants (93) remained less than half of the previous set (214), yet was still a considerable number for such a quantitative study. A comparison of the results of the questionnaires administered in 2005-2007 and 2020-2021 reveals that the overall perception of traffic-related attributes decreased with only a slight increase in perception of noisy / tiresome environment. On the other hand, perception of public space, expressed by adjectives well-known and dynamic / lively increased very significantly (well-known from 32.7 to 50.8 and dynamic / lively from 26.2 to 49.4) whereas enjoyable increased only very slightly.

The results show that the node is still primarily perceived with adjectives denoting traffic-based problems (the sum of adjectives noisy / tiresome, fast / unsafe and polluted / unhealthy is 136.5), yet slightly less when compared to the earlier set (which was 141.3), while the perception of public space attributes (the sum of adjectives well-known, dynamic / lively and enjoyable) increased significantly from 68.7 to 110.9. The most

Comfort Types	Attributes
<p>Physical</p> 	<ul style="list-style-type: none"> • adequate walkway There are no standard widths in the site. Urban equipments and street furniture block walkway. • continuous sidewalk Walkways are cut by vehicles. • comfortable for vulnerable users (physically challenged, elderly). In the site there is no ramp or the other equipments for vulnerable users. Vulnerable users can not negotiate neglected sidewalk surfaces. • walkway free of impediments Walkways cluttered with signs and street furniture in the site. • comfortable walking surface In the site there are potholes, cracks and caved on surfaces. • seating There are seating areas only in private spaces. • protection from extreme weather conditions There are no conditions that encourage walking and protect against climatic conditions (extreme wind, sun, rain) in the pedestrian circulation network in the study area.
<p>Psychological</p> 	<ul style="list-style-type: none"> • ability to maintain desired walking speed The width of pavements, the adverse conditions of the pavement surface, the vehicles and the urban equipment covering the pavement decrease the walking speed of the pedestrians in the walking path in the area. • ability to participate in various pedestrian activities The inclusion of activities in the walking path is very limited in the urban walking paths in the area. The seating areas located only in the private property areas can be included in the walking activity and there is no continuity of walking and activity.
<p>Physiological</p> 	<ul style="list-style-type: none"> • noise The survey study and observations in the pedestrian environment reveal the discontent of pedestrians against noise. Pedestrian circulation areas next to vehicle traffic are adversely affected by noise. • pollution Vehicle density in the area adversely affects the air quality, reducing the comfort level on pedestrian walkways.

Table 4. Comfort conditions for pedestrians in Söğütözü node (photographs taken in July 2020).

		Armada Shopping Mall and Business Center - Close Periphery Survey Results for 2005-2007 (Reference removed) (214 Participants)	Armada Shopping Mall and Business Center - Close Periphery Survey Results for 2020-2021 (93 Participants)
Pedestrian Perceptions	Noisy / Tiresome	60.7 %	64.5 %
	Fast / Unsafe	41.6 %	37.6 %
	Polluted/ Unhealthy	39%	34.4 %
	Dynamic / Lively	26.2 %	49.4 %
	Well-known	32.7 %	50.8 %
	Enjoyable	9.8 %	10.7 %

Table 5. Comparison of pedestrians' perceptions in 2005-2007 and 2020-2021 study periods.



Figure 8. Fourth places on the northern side of Dumlupınar Road in Söğütözü node (Photographs taken in July 2020-March 2021).



Figure 9. Activity in the area and fourth places on the southern side of the Dumlupınar Road in Söğütözü node (Photographs taken in July 2020-March 2021).

significant increases are in perceptions as well-known (from 32.7 to 50.8%) and dynamic / lively (from 26.2 to 49.4%) space which render them as the main definers of pedestrians' perceptions today after the adjective noisy / tiresome (64.5%).

DISCUSSION AND CONCLUSION

The current study evaluated activity-based urbanity of open spaces in developing nodes along major arteries in the case of Söğütözü node, focusing on the conditions for pedestrians as the target group. After a discussion on the definers of activity-based urbanity, a novel model that included the relevant definers of walking needs was developed for testing the node. This model included accessibility, comfort and pleasurability measures which explicated the virtues and problems regarding activity-based urbanity in Söğütözü node. Results of the map analysis, observations and questionnaires with pedestrians show that the node demonstrates many problems in means of pedestrian accessibility and comfort even though it portrays high pleasurability with regards to its diversity, activity-based complexity, liveliness and public spaces. The pandemic period in which the study was conducted was a limitation resulting in decreased yet evidently continuous pedestrian use through time. The number of questionnaires were considerably reduced, still the *fait accompli* urbanity of the node was observable in many spots where socialization was possible (fourth places), alongside the perceived public character which was evident in the significant increase of the perceptions as a well-known and dynamic / lively space compared to 2005-2007 period perceptions.

The study shows that problems regarding pedestrian accessibility are mostly based on impediments introduced by high-speed and dense roads, extensive areas reserved for car parking, and many privately-owned spaces with limited and controlled access considered for public use; whereas problems about pedestrian comfort stem mainly from the insufficient urban design attitude towards such a fast-developing node: High numbers of pedestrian users are confronted with unpleasant experiences such as encountering vehicular flow and its consequences, in addition to being forced to use overpasses.

As an overall outcome, poor comfort conditions accompanying physical and psychological limitations for pedestrian accessibility ensue as the main problems regarding the flourishing urbanity. Reassessment of this result with a framework derived from the discussions on the conditions of the activity-based urbanity highlights more problems including the lack of cultural events and celebrations, the variability of cultural and meeting places ensuring open spaces enabling promenading, people-watching and other activities, and mixed land ownership with different unit sizes, enhancement of which could add further to its vitality and diversity. The territorial continuity, indicated as a primary condition of urbanity by Bertolini and Salet (2003), emerges as a main problem -portrayed via lack of physical and institutional access to urban qualities; along with the dominance of consumption in the use of urban space that leads to gradual disappearance of experimental zones. For busiest hubs which already exhibit high diversity and accessibility Bertolini and Salet (2003) affirm that urbanity may even further be fostered via optimum linkage to the surrounding urban tissue and optimum pedestrian accessibility within the area, the introduction of a minimum of 'other' functions in addition to the dominant function at district and block level, and thirdly by deliberately permitting and facilitating temporary uses with primarily unprofitable but lively cultural activities. In this context providing continuity and ease in pedestrian circulation both within the node and with the surrounding neighborhoods, providing unlimited access, and adding spaces for cultural activities in addition to smaller-scale activity hubs -which may be

temporary like the street vendors and kiosks currently instigating fourth places- would add more to the node's urbanity. As in many other parts of the city, means of circulation other than vehicular traffic are largely ignored in the node, so it is necessary to increase walkability both on Dumlupınar and Mevlâna Roads and in inner open spaces via decreasing open car parking areas and upgrading sidewalk continuity and comfort. In addition to the street-scale betterments, new pedestrian routes can also be offered -like the pedestrian axis proposed in 1990s to link the north and south of Dumlupınar Road.

For upgrading the spatial qualities and reducing the problems arising from the togetherness of dense vehicular and pedestrian circulation in multimodal passenger interchanges, Bertolini (2006) suggests that the role of in-between spaces may be prioritized by increasing the level of the interaction of interiors with good-quality outer spaces. In Söğütözü node there are many fourth places portraying informal socialization as spaces with an in-between character, yet the dominance of privately owned and managed public spaces introduces control and limitations for users and use. Such spaces raise some concerns in issues like rights of free action and assembly (Nemeth, 2009 in Nemeth and Schmidt, 2011), mostly fail to serve as welcoming, inclusive retreats as public spaces and often serve as the extensions of sponsors' (owners') public image (Nemeth and Schmidt, 2011) while aiming to attract only desirable users (Whyte, 1988). Following Nemeth and Schmidt's (2011) model of publicness based on three core components; ownership, management and uses / users, the possibilities for more inclusive privately owned public spaces include dimensions like specific management regimes and techniques with a focus on the owners of spaces / legal stakeholders, managers / managements in addition to users.

In Söğütözü node, the lack of a comprehensive urban design attitude towards the node seems to be an overarching cause of many problems: Bilsel (2009, 40) asserts that the absence of any positive interrelationship in Söğütözü causes a problematic coexistence of irrelevant use types; individual building blocks and shopping centers of various sizes and heights, built regardless of urban design considerations resulting in only car parking areas which suggest no public open space pattern. Tatom (2006, 184) exemplifies how comprehensive design of urban roads - when conceived on a metropolitan scale - constitutes 'programmatically and morphologically a complete urbanism' including the creation of public spaces. Nijhuis and Jauslin (2015) assert that evaluating the effects of roads on urban open public spaces in the scope of nodes along urban arteries necessitates consideration of their spatial (formal characteristics, spatio-visual experience), ecological (green corridors, sustainability), technical (civil route design) and social (participatory and anthropometric) dimensions. Considering these dimensions, possibilities for improving Söğütözü node involve providing the continuity of green network integrating the surrounding parks like Söğütözü Recreation and AOÇ areas for the public; reducing traffic density by use of traffic planning, increasing public transport and other modes like cycling (10) rather than private-car dependence, besides some technical precautions like control of vehicular exhaust emissions. Ensuring a coherent and continuous layout of privately and publicly owned open spaces and urban green would contribute to the public life and create habitable spaces.

10. There is an ongoing bicycle route project developed by Ankara Municipality, planned to connect university campuses along Dumlupınar Road (Uysal Bilge, 2020a).

With the global epidemic experienced worldwide, it is clear that the need for public open spaces will increase day by day, which renders the

findings of the current study critical to generate design and planning goals in similar urban nodes. Söğütözü node displays its image as Ankara's topmost high-rise focus and is further anticipated to continue its development due to its location with regards to continuing urban sprawl. As an example of developing nodes along main urban arteries, the open spaces in the node need to be carefully designed for achieving their potential contribution to the city. In that regard, the outcomes of the current study are aimed to positively lay the groundwork for future betterment of the node, with positive implications for planning and design. Upgrading the urbanity in this developing node necessitates continuous observations and further questionnaires in the future, including not only users but also owners and managers of spaces for more accessible and inclusive privately owned public space management models. For further research the study also suggests considering both the attributes defining activity-based urbanity, and other variables including the appeal of the physical environment which would further affect the perception and use of urban open spaces.

BIBLIOGRAPHY

- AELBRECHT, P. S. (2016) Fourth places: the Contemporary Public Settings For Informal Social Interaction Among Strangers, *Journal of Urban Design* 21(1) 124-52.
- AKÇAY, S. K. (2019) *Ankara Kentini 21. Yüzyıl Başında Kent Hakkı Mücadeleleri Üzerinden Okumak*, Unpublished PhD. Thesis. Gazi Üniversitesi. Ankara.
- ALANYALI ARAL, E. (2009) *Redefining Leftover Space –Value and Potentiality for the City*, VDM Publishing House Ltd., Mauritius, UK.
- ALANYALI ARAL, E. (2008) Peripheral Public Space - Type in Progress, *Public İstanbul: Spaces and Spheres of the Urban*, eds. F. Eckhardt, K. Transcript Verlag, Wildner, Bielefeld, Germany; 113-40.
- ALANYALI ARAL, E. (2007) Kent İçi Otoyollarda Yol Boyu Yan-Mekânlar, *Arredamento Mimarlık* (204) 82-4.
- ALANYALI ARAL, E., DEMİRBAŞ, Ö.O. (2015) Pedestrians' Perception of Sub-spaces Along Urban Roads -Case of Eskişehir Road in Ankara, *METU Journal of Faculty of Architecture* 32 (1) 45-64.
- ALFONZO, M.A. (2005) To Walk or Not to Walk? The Hierarchy of Walking Needs, *Environment and Behavior* 37(6) 808-36.
- APPLEYARD, D. (1981) *Liveable Streets*, University of California Press, London.
- APPLEYARD, D., LYNCH, K., MYER, J. R., (1964) *The View from the Road*, The MIT Press, Massachusetts.
- ARENDT, H. (1958) *The Human Condition*, The University of Chicago Press, Chicago.
- BANERJEE, T. (2001) The Future of Public Space -Beyond Invented Streets and Reinvented Places, *APA Journal* 67(1) 9-21.
- BARBAROS, S. (2005) *Creation of the Commercial Node: Söğütözü, Ankara / Merkezi İş Alanı Odağı Yaratımı: Söğütözü*, Master Thesis, Orta Doğu Teknik Üniversitesi, Ankara.

- BERTOLINI, L. (2006) Fostering Urbanity in a Mobile Society: Linking Concepts and Practices, *Journal of Urban Design* 11(3) 319–34.
- BERTOLINI, L., SALET W. (2003) Planning Concepts for Cities in Transition: Regionalization of Urbanity in the Amsterdam Structure Plan, *Planning Theory & Practice* (4)2 131-46.
- BIANCHINI, F. (1990) The crisis of urban public life in Britain, *Planning Practice and Research* 5(3) 4-8.
- BİLSEL, C. (2009) Ankara’da Kentsel Başkalaşım Karşısında Kentsel Kimlik Sorunu: Kent Merkezleri ve Kamusal Mekânlar, *Mimarlar Odası Ankara Şubesi Bülten*. Dosya 10(2) 33-46.
- BLACK, B., COLLINS, A., SNELL, M. (2001). Encouraging Walking: The Case of Journey-to-School Trips in Compact Urban Areas, *Urban Studies* 38, 1121-41.
- BOOTH, M., OWEN, N., BAUMAN, A., CLAVISI O., LESLIE, E. (2000) Social-cognitive and Perceived Environment Influences Associated with Physical Activity in Older Australians, *Preventive Medicine*, 31, 15-22.
- CARMONA, M. (2010) Contemporary Public Space: Critique and Classification, Part One, *Journal of Urban Design* 15(1) 123-48.
- CARR, S., FRANCIS, M., RIVLIN, L. G., STONE, A. M. (1992) *Public Space*, Cambridge University Press, Cambridge.
- CASTELLS, M. (2000) *The Rise of the Network Society, The Information Age: Economy, Society and Culture* (volume 1), Blackwell publishing, London.
- CERVERO, R. (1988) Land-Use Mixing and Suburban Mobility. *Transportation Quarterly* 42 429-446.
- EWING, R., HANDY, S. (2009) Measuring the Unmeasurable: Urban Design Qualities Related to Walkability, *Journal of Urban Design* 14(1) 65–84.
- FORSYTH, A., SOUTHWORTH, M. (2008) Cities Afoot—Pedestrians, Walkability and Urban Design, *Journal of Urban Design* 13(1) 1-3.
- FRANK, L., ENGELKE, P., SCHIMID, T., KILLINGSWORTH, R. (n.d.) *How Land Use and Transportation Systems Impact Public Health: A Literature Review of the Relationship between Physical Activity and Built Form* (Working paper #1). [Access Date (01.03.2021)].
- GEHL, J. (1987) *Life Between Buildings –Using Public Space*, Van Nostrand Reinhold, New York.
- GEHL, J., GEMZØE, L. (2001) *New City Spaces* (2. rev. ed.), The Danish Architectural Press, Copenhagen.
- GILES-CORTI, B., VERNEZ-MOUDON, A., REIS R., TURRELL D., DANNENBERG, A.L., BADLAND H., FOSTER S., LOWE, M., SALLIS J.F., STEVENSON M., OWEN N. (2016) City Planning and Population Health: a Global Challenge, *The Lancet* 388 (December 10) 1-13.
- GÜNAY, B. (2006) Ankara Çekirdek Alanının Oluşumu ve 1990 Nazım Planı Hakkında Bir Değerlendirme, *Cumhuriyet’in Ankara’sı* ed T Şenyapılı, ODTÜ Yayıncılık, Ankara; 61-118.

- HALL, E.T. (1966) *Hidden Dimension*. Garden City, New York: Doubleday & Co. Inc.
- HANDY, S.L. (1996) Understanding the Link Between Urban Form and Nonwork Travel Behavior, *Journal of Planning Education and Research* 15, 183-98.
- HAYDEN, D. (1997) *The Power of Place: Urban Landscapes as Public History*, MIT Press, Cambridge, Massachusetts.
- HERTZBERGER, H. (1991) *Lessons for Students in Architecture*, 010 Publishers, Mitgevenj, Rotterdam.
- JACOBS, J. (1961) *The Death and Life of Great American Cities*, Random House, New York.
- JACOBS, J. (1969) *The Economy of Cities*, Random House, New York.
- JACOBS, A.B., MACDONALD, E., ROFE, Y. (2002) *The Boulevard Book: History, Evolution, Design of Multiway Boulevards*, The MIT Press, Massachusetts.
- JIANG, B., CLARAMUNT, C. KLARQVIST, B. (2000) Integration of Space Syntax into GIS for Modelling Urban Spaces, *International Journal of Applied Earth Observation and Geoinformation* 2 161-71.
- KWIATKOWSKI, K. (2010) Public space and its usurping appropriation, *Architektura, Czasopismo Techniczne*, 6 (2-A), Wydawnictwo Politechniki Krakowskiej.
- LEFEBVRE, H., SMITH, D. N. (1991) *The Production of Space*, Blackwell, Malden.
- LYNCH, K. (1960) *The Image of the City*, MIT Press, Cambridge, MA.
- MATEO-BABIANO, I. (2016) Pedestrian's needs matter: Examining Manila's walking environment. *Transport Policy* 45 107-15.
- MIERZEJEWSKA, L. (2011) Appropriation of Public Urban Space as an Effect of Privatisation and Globalisation, *Quaestiones Geographicae* 4(30) 39-46.
- MONTGOMERY, J. (1998) Making a City: Urbanity, Vitality and Urban Design, *Journal of Urban Design* 1(3) 93-116.
- NEMETH, J., SCHMIDT, S. (2011) The privatization of public space: modeling and measuring publicness, *Environment and Planning B: Planning and Design* 38 5-21.
- NEWMAN, O. (1973) *Defensible Place*, Mac Millan, New York.
- NIJENHUIS, W. (1994) City Frontiers and Their Disappearance, *AD Profile* 108 14-17.
- NIJHUIS S., JAUSLIN D. (2015) Urban Landscape Infrastructures -Designing Operative Landscape Structures for the Built Environment, *Research in Urbanism Series* 3(1) 13-34.
- OLDENBURG, R. (1989) *The great good place: Cafés, coffee shops, community centers, beauty parlors, general stores, bars, hangouts, and how they get you through the day*, Paragon House, New York.
- ÖZER Ö., KUBAT A.S. (2014) Walkability Perceived and Measured Qualities in Action, *İTU | A-Z* 11 (2) 101-17.

- PIVO, G., FISHER, J.D. (2011) The Walkability Premium in Commercial Real Estate Investments, *Real Estate Economics* 39 185-219.
- PUNTER, J.V. (1990) The Privatisation of Public Realm, *Planning, Practice and Research* 5(3) 9-16.
- RAPOPORT, A. (1990) *The Meaning of the Built Environment*, University of Arizona Press, Tucson, Arizona.
- READ, S. (2006) *A Brief History of Flights to the Periphery and Other Movement Matters, Visualizing the Invisible: Towards an Urban Space*, Techne Press, Amsterdam.
- RESMİ GAZETE (1985) İmar Kanunu [<https://www.resmigazete.gov.tr/arsiv/18749.pdf>] Access Date (22.06.2021).
- ROBERTSON, S. (2007) Visions of urban mobility: the Westway, London, England, *Cultural Geographies* 14(1) 74-91.
- SARKAR, S. (2003) Qualitative Evaluation of Comfort Needs in Urban Walkways in Major Activity Centers, *Transportation Quarterly* 4(57) 39-59.
- SELES, E., AFACAN, Y. (2019) Exploring the Relationship Between Health and Walkability, *Open House International* 44(1) 44-52.
- SOJA, E. W. (1996) *Thirdspace: Journeys to Los Angeles and Other Real - and - Imagined Places*, Blackwell, Malden, MA.
- SOUTHWORTH, M. (1997) Walkable suburbs? An evaluation of neotraditional communities at the urban edge. *Journal of the American Planning Association* 63 28-45.
- SPECK, J. (2012) *Walkable City: How Downtown Can Save America, One Step at a Time*, North Point Press, New York.
- TATOM, J. (2006) Urban Highways and the Reluctant Public Realm, *The Landscape Urbanism Reader*, ed C Waldheim, Princeton Architectural Press, New York; 180-95.
- TRANCIK, R. (1986) *Finding Lost Space*, Van Nostrand Reinhold, New York.
- UYSAL BİLGE, F. (2021) Evolution of Public Space, *Journal of Architecture and Life* 6 (1) 141-56.
- UYSAL BİLGE, F. (2020a) *An Exemplar Analysis and Method Proposal Intended for Development of Open Spaces Along Auto-Transport Corridors in Expanding Cities as Urban Public Space*, Unpublished PhD Thesis, Atılım University, Ankara.
- UYSAL BİLGE, F. (2020b) A Comparative Study on The Evaluation of Urban Space Qualities and Urban Activities in The Relationship Between Public Realm And Private Space. *Gazi University Journal of Science Part B: Art, Humanities, Design and Planning* 8 (2) 565-75.
- WHYTE, W. (1988) *City: Rediscovering the Center*, Doubleday, New York.
- WHYTE, W. (1980) *The Social Life of Small Urban Spaces*, Conservation Foundation, Washington, D.C.

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Anahtar Sözcükler: Kentsellik; aktivite;
kamusal mekân; yaya algısı; Ankara

ANA ARTERLER ÜZERİNDE GELİŞEN ODAKLARIN AÇIK MEKÂNLARINDA KENTSELLİK: DURLUPINAR YOLU ÜZERİNDE SÖĞÜTÖZÜ ODAĞI

Kentlerde ana ulaşım arterlerinin kentsel saçaklanmaya ve yeni kamusal mekânların oluşumuna etkileri günümüzde önemli bir tartışma konusudur. Kentsel yollar düşünüldüğünde ana arterler hızlı yapılaşma ile birlikte önemli miktarda kentsel açık mekânın da oluşumunu tetiklemektedir. Araç yolları, yakın çevre ile uzak alanlardan farklı hızlarda dolaşımın biraradalığını sağlayarak kentsellik ve merkez özelliklerini ortaya çıkaran ana unsurlardır (Jacobs, 1969; Nijenhuis, 1994 ve Read, 2006). Bu bağlamda kent içi otoyollarda yol boyu yan-mekânlar, otoyolların yanında / altında / üstünde / arasında kalan ve kamusal özelliklerine sahip mekânlar olarak tanımlanmış ve Ankara Eskişehir Yolu örneğinde yolun kent merkezine en yakın kısmı olarak Durlupınar Yolu'nun Mevlâna Bulvarı'na yakın kısmında yayaların yan-mekân algıları daha önce araştırılmıştır (Alanyalı Aral ve Demirbaş, 2015). Bu çalışmada ise Söğütözü, kentin en önemli ulaşım arterlerinden biri üzerinde hızla artmakta olan yapı ve işlev yoğunluğuyla gelişmekte olan bir odak olarak tanımlanmakta ve ortaya çıkan açık alanlar bütünü kapsamında sergilediği kentsellik özellikleri tartışılmaktadır.

Söğütözü odağı uygun olmayan koşullara rağmen sürekli yaya yoğunluğu sergilemekte, bu özelliği ile Montgomery'nin (1998) 'kentsellik' kavramının üç bileşeninden biri olarak tanımladığı 'aktivite'yi önemli bir gösterge olarak örnelemektedir. Bu çerçevede yazın taramasında öncelikle kentsellik, aktivite ve kamusal mekân özellikleri üzerinden kavramsal bir çerçeve oluşturulmuş, daha sonra gelişmekte olan odaklar özelinde açık mekân stokunun bileşenleri 'yerlerin' mekânları ve 'akışların' mekânları (Nijhuis ve Jauslin, 2015) başlıkları altında incelenmiştir. Gelişmekte olan odaklarda 'yerlerin' mekânları, özel mülkiyetteki kamusal kullanım mekânları, ara-mekânlar ve enformel kamusal mekânlar -Dördüncü Yer (Aelbrecht, 2016); 'akışların' mekânları ise kentselliği destekleyen yaya mekânları olarak ele alınarak tartışılmıştır.

Alan çalışmasında Söğütözü odağının tarihi ve güncel gelişimi incelenmiş, odaktaki açık mekânların aktivite bazlı kentsellik özelliklerini değerlendirmek için konuyla ilişkili yaya gereksinimlerini temel alan kapsamlı bir model oluşturulmuştur. Odaktaki aktivite bazlı kentselliğin tanımlayıcı unsurları harita analizleri ve yerinde gözlemlerle, odaktaki yaya algıları ise uygulanan anketlerle araştırılmıştır. Sonuçlar, yaya erişiminin koşullu ve kesintili olması yanında fiziksel, psikolojik ve fizyolojik konforun sağlanamaması nedeniyle yaya deneyimini olumsuz etkilenmekte olduğunu; bununla birlikte çok ve çeşitli aktivitelerin alana canlılık kattığını ve yapıların kamusal / yarı-kamusal kullanım alanlarına giriş ve geçişlerde pek çok sosyalleşme mekânı oluşturduğunu göstermektedir. Pandemi koşulları nedeniyle daha az ancak yine de karşılaştırılabilir sayıda kullanıcıyla yapılan anket çalışması, 2005-2007 yıllarında yapılan anket çalışmasındaki yaya algısı sorularıyla oluşturulmuş; gürültü gibi trafikle ilgili algılarının biraz artmasına karşın hava kirliliği ve trafik güvenliği sorunları algısının azaldığı, buna karşılık kamusal ve dinamik / canlı mekân algılarının belirgin bir şekilde arttığı ve gürültülü / yorucu mekân algısından sonra en yaygın algıyı oluşturduğu görülmüştür.

Sonuçlar, çok kullanımlı, büyük ölçekli ve parçalı yapılaşmaların baskın olduğu Söğütözü odağında açık alanların aktivite temelli kentsellik çerçevesinde çevresel ve iç süreklilik yanında uygun yürüme ortamını da

sağlayamadığını, bu kapsamda bütüncül bir kentsel tasarım yaklaşımıyla ele alınmasının gereğini ortaya koymaktadır. Hızla gelişmeye devam eden bu odakta oluşan kentselliğin zamansal ve mekânsal sürekliliklerle desteklenebileceği; açık mekânlardaki motorlu araç baskınlığının olumsuz etkilerinin azaltılmasına yönelik düzenlemelerle yaya konforunun sağlandığı rotalar yanında tüm kullanıcılar için erişilebilir mekânlar, özenle tasarlanmış iç-dış mekân ilişkileri, kültürel kullanımlar, küçük ölçekteki işletmeler ve zamana yayılan aktivitelerle zenginleştirilmesi gerektiği görülmektedir.

URBANITY IN THE OPEN SPACES IN DEVELOPING NODES ALONG MAIN ARTERIES: SÖĞÜTÖZÜ NODE ON DUMLUPINAR ROAD IN ANKARA

The effects of the main transportation arteries on the urban sprawl and the formation of new public spaces is an important topic of discussion today. Considering the urban roads, major arteries trigger fast development and the formation of a significant amount of urban open space together with buildings. Vehicular roads are the main elements that bring out urbanity and centrality by providing a combination of circulation at different speeds and making possible the interaction of users from local and remote areas (Jacobs, 1969; Nijenhuis, 1994 and Read, 2006). In this context, sub-spaces were defined as public spaces that are beside / under / above / between / within vehicular roads and the sub-space perceptions of pedestrians in the case of the closest part of Ankara Eskişehir Road to the city center, were investigated in an earlier study (Alanyalı Aral and Demirbaş, 2015).

In the current study, Söğütözü is defined as a developing node with its rapidly increasing built stock and function density on one of the most important transportation arteries of the city, and its urban features are discussed within the scope of the emerging open spaces. Despite the unsuitable conditions, Söğütözü node displays a constant pedestrian density, and with this feature, it exemplifies 'activity' as an important indicator, which Montgomery (1998) defines as one of the three components of the concept of 'urbanity'. Accordingly, a conceptual framework is developed on the characteristics of urbanity, activity and public space, and then the components of the open space stock are discussed within the scope of spaces of 'places' and 'flows' (Nijhuis and Jauslin, 2015) specific to developing nodes. Spaces of 'places' in developing nodes include privately owned public use spaces, in-between spaces and informal public spaces - 'fourth place's (Aelbrecht, 2016). The spaces of the 'flows', on the other hand, are discussed as pedestrian spaces that enhance urbanity.

In the case study, firstly the historical and current development of Söğütözü node is examined, and then a comprehensive model based on the relevant pedestrian needs is suggested to evaluate the activity-based urbanity in the node. The defining elements of the activity-based urbanity are explored via map analysis and on-site observations, whereas the pedestrian perceptions in the node are investigated with the applied questionnaires. The results show that the pedestrian experience is negatively affected due to the conditional and intermittent pedestrian access, as well as the inability to provide physical, psychological and physiological comfort; nevertheless, many and various activities add vitality to the area which result in many informal public spaces (fourth places) formed at the entrances and transitions to the public and semi-

public spaces. The questionnaire survey, which was conducted with fewer but still comparable numbers of users due to the pandemic conditions, included the pedestrian perception questions in the survey conducted in 2005-2007. It is seen that although today the perception of traffic such as noise increased slightly, the perception of air pollution and traffic safety problems decreased. Additionally, the perception of public space qualities like well-known and dynamic / lively spaces increased significantly and constituted the most common perception after the perception of noisy / tiresome space.

The results reveal that open spaces in the node of Söğütözü, where mixed use, large-scale and fragmented complexes are dominant, cannot provide environmental and internal continuity as well as appropriate walking environment within the framework of activity-based urbanization, and thus necessitate a holistic urban design approach. The urbanism formed in this rapidly developing node can be enhanced by temporal and spatial continuities; in addition to provision of pedestrian comfort with the arrangements to reduce the negative effects of motor vehicle dominance. The overall evaluation validates that the open spaces in the node should be enriched with accessible spaces for all users, carefully designed indoor-outdoor relations, cultural uses, small-scale businesses and activities spanning time.

ELA ALANYALI ARAL; B.Arch, M.Arch., PhD.

Received her B.Arch., Ms.Science and Ph.D (2003) in architecture from Middle East Technical University. Conducted post-doctoral research at Delft University of Technology (2008, 2012). Research topics include public spaces, leftover urban spaces, creative mapping techniques in architecture and the Ankara tumuli. earal@metu.edu.tr

FULAY UYSAL BİLGE; B.Arch, M.Arch., PhD.

Received her B.Arch. (2003) and M.Arch. (2006) from Gazi University and earned PhD degree (2020) in architecture from Atılım University. Major research interests include public spaces, lost-left over spaces, urban open spaces, liveability and urban design. fulay.uysal@atilim.edu.tr

GÜLER UFUK (DOĞU) DEMİRBAŞ; BFA, MFA, Ph.D.

Received her BFA, MFA and PhD (2001) in Interior Architecture and Environmental Design from Bilkent University. Her fields of interest include spatial orientation, wayfinding, and spatial familiarity. udemirbas@cankaya.edu.tr

