PERCEPTIONAL ANALYSIS OF THE ROLE OF INDIVIDUAL TREES IN THE URBAN IMAGE

A CASE STUDY IN BUDAPEST

FAEGYEDEK TELEPÜLÉSKÉPI JELENTŐSÉGÉNEK PERCEPCIONÁLIS VIZSGÁLATA

BUDAPESTI ESETTANULMÁNY

SZERZŐ/*BY:* NÁDASY LÁSZLÓ, VALÁNSZKI ISTVÁN

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ABSTRACT

Urban trees are an important part of urban image, character and cityscape, and the ecosystem services they provide have been extensively studied. However, years after the introduction of new urban image protection and urban design tools in Hungarian practice, the importance of individual trees is still a relatively obscure topic in research.

In our research, we studied which individual trees are the most prominent within a study area in Southwestern Budapest using a perception-based method. 74 participants were asked to walk through the study area and choose a maximum of 10 individual trees that they considered the most impactful in their surroundings from an urban image standpoint. The results show that while a very wide variety of trees were chosen by at least one person, certain trees received significant amounts of votes, with some being selected by more that 20% of participants. Our results suggest that people with and without a professional background concerning trees had similar opinions, with some differences.

Our research shows that – contrary to traditional, maintenance-centered tree evaluation methods –, the species and health condition of individual trees are less significant features from an urban image standpoint. On the other hand, location and contrast – in colour or form – are highly important.

Keywords: cultural ecosystem services, urban trees, cityscape, perceptional survey

1. INTRODUCTION

Urban trees and the ecosystem services they provide have been in the focus of growing professional and public attention worldwide and in Hungary. Several new standards [1; 2], design manuals [3, 4] and publicly accessible databases [5] have been created during the last decades. Tree evaluation tools are becoming more available thanks to online calculators [6] and an increasing amount of publicly accessible literature [7]. Most tree appraisal methods used in Hungary are focused on providing a monetary value for individual trees, with less attention on their urban context and determining role in the cityscape. According to the most prominent Hungarian tree evaluation method [7], the value of a single tree is the product of six factors: the base (nursery) price of the tree; its age; its level of protection and urban location (in terms of zoning); the condition of its crown and crown base; its health and viability; and the dendrological value of its species.

Even though the role of inherent aesthetic properties of individual trees in public preference [8] has been studied and location as a factor in the value of trees has been prominent in several evaluation methods [7; 9; 10; 11; 12], most research focuses on species selection [13] in the absolute (monetary) value of trees, while their impact on the cityscape and urban context is rarely studied. This is due to that assigning an monetary value to trees has been the most efficient and effective way of protecting specimens from developers and making decisions about maintenance priorities.

With the recent emergence of new, cityscape-based urban design tools – Urban Image Handbooks and Urban Image Protection Legislation - in Hungary, the aesthetic and cultural importance of urban trees has gained another aspect of relevance. However, even though official guidelines [14] specifically name green surfaces as an aspect of cityscape that needs to be addressed in both handbooks and legislation, the role of trees and other urban plants in these new design tools has not appeared as a prominent research topic.

Nevertheless, trees in the urban/built-up context can be interpreted as cultural ecosystem services (CES). Ecosystem services in general provides necessary and beneficial services for human well-being [15; 16]. There are several types of classification, however, the most common is the following: provisioning services, regulating services, supporting services, and cultural services [16; 17]. CES are those nonmaterial benefits, which are obtained from ecosystems through spiritual enrichment, recreation, aesthetic experiences, cognitive development and reflection [16]. They influence life quality and human well-being. Besides other ecosystem services, they are also important in every society and community and it is also urgent to increase public awareness of CES to protect the environment from future degradation causes [18;19]. In recent years, several CES-related research have been carried out, which represent a wide range of approaches to defining, assessing and mapping CES [20]. Since researchers, practitioners and decision-makers from many disciplines are dealing with the CES-concept, the meaning and interpretation of it differ according to the socio-cultural background, geographic

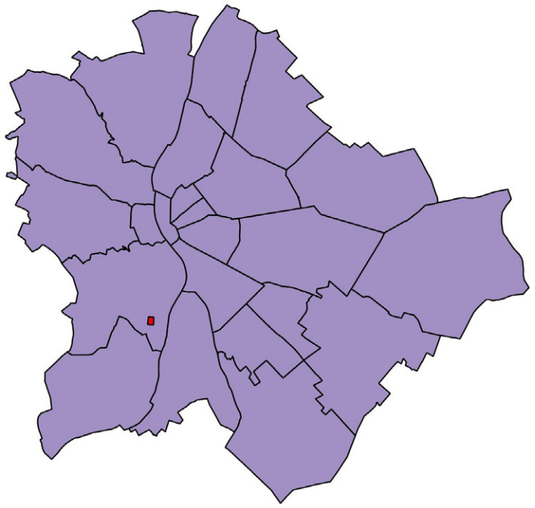

Fig. 1: location of the study area (red) within Budapest
Fig. 2: Borders and layout of the study area. (base map: Google Satellite)

location and professional background [17; 21]. In this way, several classifications exist, among which the most commonly used are the following categories developed by MEA (2005): spiritual and religious; recreation and ecotourism; aesthetic; inspirational; educational; sense of place; cultural heritage. In our research urban trees are part of the aesthetic-perceptional category.

The Millennium Ecosystem Assessment expressed the lack of recognition of CES in landscape and urban planning. In close connection with this, it also states the importance of the improvement of citizens to participate in the planning and management processes [16; 22], which was also emphasized by the European Landscape Convention [23]. This is especially relevant in the cases of CES evaluation. Traditionally the data gathering is mainly carried out by surveys (e.g. questionnaire surveys), frequently with participatory mapping [24; 25]. However, recently significant technological advances (e.g. crowd-sourcing geo-information) have also influenced the added value of the public participatory information and they have redefined the role of these types of information [26; 27]. Related to our research topic, one can find several international and some Hungarian examples for participatory involvement during green infrastructure evaluation and development (e.g. New York City's Street Tree Map, Melbourne's Urban Forest Visual or Budapest's Tree Cadastre).

Based on the above, the goal of our research is to study which individual trees have the most visual impact on the surrounding urban landscape using perception-based survey methods. In addition, we wish to analyse what properties determine which trees become the most visually important and whether the opinion on the visual importance of trees is significantly different between people whose professional background involves trees and lay people.

For our study, we formulated the following research questions:

- Which individual trees are considered the most important from a cityscape perspective by people?
- Are there objectively "outstanding" trees or are all trees more or less equally selected based on personal preferences?
- Are there identifiable properties - either inherent or situational - that make trees more likely to be selected as visually important in the urban landscape?
- Are there significant differences between the opinion of people with a tree-related professional background and non-professionals?

2. MATERIALS AND METHODS

Study area

The study area is located in Albertfalva, in the 11th district of Budapest, in the Southwestern part of the city (Fig. 1). The boundaries are Vegyész, Karcag, Építész and Fehérvári Streets, with a total area of 0.15 square kilometres (Fig. 2).

The area was chosen partially due to its easily accessible location and also because it includes single-family houses, multi-family apartment buildings and large prefabricated housing complexes in a relatively small area. There are several public green spaces as well, including playgrounds, a park and several public sports facilities. The streets are typically parallel or perpendicular to each other, making the structure of the study area easy to comprehend and appreciate.

Another aspect of the area that makes it a good fit for our research is that the vast majority of trees visible from publicly accessible locations are actually standing on private property or very close to the property line, making trees easy to identify and evaluate. Out of the estimated 1100 trees, 799 are located at a publicly accessible place. The vegetation is rather diverse as well - the Eastern, oldest part of the study area having been built between 1929 and 1931, the area is home to trees of many ages. The dense network of private and public areas also adds to the variety of plants. Conifers, trimmed broadleaf hedges, perennials, annuals, fruit trees, traditional roadside trees and more are all represented here. The Western part, characterised by high-rise housing estates - built during the state socialist era - and an adjoining park that has in recent decades been equipped with modern sports equipment, outdoor gyms and modern playground sets, is home of a large number of middle-aged trees (Fig. 3), interspersed with an occasional remnant of older periods and newly planted young ones.

The population of the study area is very diverse, ranging from students to families with small children and elderly couples. The surface of the study area is mostly flat, with the exception of the Western park, which is approximately 1 meter higher than other parts of the area; however, due to the

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Fig. 3: Middle-aged trees in the Western park along Fehérvári Road. (PHOTO CREDIT: TAMÁS ZELEI)
Fig. 4: A blooming silver linden (Tilia tomentosa) (PHOTO CREDIT: BIANKA KÉRI)
Fig. 5: A cypress oak (Quercus robur 'Fastigiata'), an example of a tree located in a private garden. (PHOTO CREDIT: ZSUZSANNA ILLYÉS)

elevated part being blocked from view by the housing estates from most of the study area, the prominence and visual importance of individual trees is not significantly altered by topographical factors like elevation.

Methods

Participants were asked to walk through the study area and select up to 10 trees that they considered the most significant in the area from the standpoint of the urban landscape (streetscape/cityscape). They were specifically asked to choose individual trees rather than spectacular tree lines or clumps (the elements of which could still be selected as individuals). Other restrictions included:

- the chosen trees must be visible from public spaces or areas open to the public
- the visual importance of the trees must not stem from them being dead or in poor health
- trees should not be judged by their temporary display (flowering, leaf coloration)

Participants were only told to choose a maximum of 10 trees – no other restrictions were placed on the number of trees to select.

Participants were also asked a set of questions about themselves. Besides their hometown (or, in the case of Budapest, district), age and gender, they also had to state whether they had any professional background in landscape architecture, horticulture or arboriculture. The aim of this question was to study whether trees chosen by professionals and non-professionals show significant differences.

The survey was primarily disseminated on social media, in both landscape architecture related groups and groups of non-professionals. Additionally, all participants were encouraged to recruit others, regardless of their professional background. The goal was to have approximately the same amount of professionals and laymen fill the survey.

The timeframe of the field study was between May 10 and July 25. This period of time was selected to reduce seasonal interest to a minimum - by this time, the flowering of trees with a spectacular spring bloom display, like crabapples *(Malus × purpurea),* ornamental cherries *(Prunus serrulata),* maples *(Acer spp.)* etc. is already finished. Also, by this time, all deciduous trees have their foliage fully developed, but the autumn leaf coloration, as well as the pest-induced leaf browning of horse chestnut *(Aesculus hippocastanum)* trees is not yet visible. Naturally, certain seasonal interests are still present during this period, like the flowering of goldenrain trees *(Koelreuteria paniculata)* and lindens *(Tilia spp.),* but these generally provide less visual contrast than spring-blooming species, and therefore have a lower impact on the streetscape (Fig. 4).

Participants were given the same instructions, along with a map showing the borders of the study area and a Microsoft Excel (.xlsx) spreadsheet they were asked to fill in. Each chosen tree had to be identified in an unambiguous manner, using either coordinates or street addresses. Everyone was also asked to take photographs of each tree as well, to ensure correct identification. Participants could also include comments about each tree, but this was not mandatory.

The results were compiled using Microsoft Excel and Google Sheets. The most commonly chosen individual trees were later precisely geolocated using a Garmin GPSMap 64 handheld GPS. The location of the trees was visualized on Google Satellite images, using Google MyMaps and QuantumGIS.

3. RESULTS AND DISCUSSION

A total of 73 participants completed the survey. 35 of them (48%) had some form of formal education or professional experience related to trees, while 38 (52%) had no such expertise (lay people). This means that our original goal of collecting a comparable amount of data from professionals and non-professionals was completed. The vast majority of participants (86%) are Budapest residents, but none of them live in the study area itself. 53 participants submitted 10 eligible trees, with only 5 people selecting 5 or fewer trees. We received a total number of 669 votes for trees within the study area, as well as 12 ineligible selections (these being trees that are located outside of the study area).

A surprisingly high number of different trees was selected by at least one person – 193 individual trees occurred in at least one survey. This means that approximately 19% of all trees in the study area made it to the top 10 list of at least one participant. 79 trees were only selected one and 42 two times. 160 of the chosen individual trees are located on public or publicly accessible land and only 33 are on private property (Fig. 5).

6 | 7 | 8 | 9 | 10 | 11

Fig. 6: Location of „top trees" (individual trees chosen by 10% or more of participants). Base map: Google Satellite
Fig. 7: Tree #1 (PHOTO CREDIT: ISTVÁN VALÁNSZKI)
Fig. 8: Tree # 24 (PHOTO CREDIT: SZILVIA MÉSZÁROS)
Figure 9: Tree #4 (PHOTO CREDIT: BARBARA KÉRI)
Fig. 10: Tree #3, an example of a tree dominating a corner between Gyékényes Street and Abádi Square (PHOTO CREDIT: BARBARA KÉRI)
Fig. 11: Tree #13, an example of a tree towering over surrounding landscape elements in Fegyvernek Street (PHOTO CREDIT: KINGA GAÁL)

There are, however, trees that were chosen by a significant number of people – 54 individuals were selected more than 3 times –, suggesting that these have an objectively prominent presence beyond personal preferences.

27 trees appeared on 7 or more (approximately 10% or more) spreadheets. These can be considered the most outstanding individuals from the standpoint of the urban landscape. Figure 6 shows the location and species of these "top" trees. It is worth noting that the taxon composition of this group is very varied, with 18 different species and varieties being represented. This shows that the species of individual trees is not the singular decisive factor in selection. Another interesting result is that some species generally considered popular and valuable, like horse chestnut *(Aesculus hippocastanum),* cypress oak *(Quercus robur 'Fastigiata')* or tulip tree *(Liriodendron tulipifera)* are not represented in the most popular trees, even though all of them occur in the study area.

14 trees were selected by 15% or more (11 or more) participants. 3 trees were chosen by at least 15 people, meaning that they made the list at least 20% of the time - it can safely be said that these three individual trees are objectively the most significant in the study area from an urban image standpoint. These three trees are quite different from each other in both location and other properties.

Tree #1 (Fig. 7), a red-leaf Norway maple (*Acer platanoides* 'Crimson King') received 18 votes. It is standing on a street corner, and its purple foliage makes a dramatic contrast against surrounding green-leaved plants, especially from Abádi Square, one of the most important viewpoints within the area. Tree #24 (Fig. 8), a large silver linden *(Tilia tomentosa)* is the largest and tallest individual in its vicinity, which is further emphasized by its location on top of a slope. It is also standing across a side alley in Fegyvernek Street, making it immediately visible to anyone turning that corner. It's probably due to these circumstances that it received 18 votes. Tree #4 (Fig. 9), a Norway maple *(Acer platanoides)* got the most selections by far – 33 participants included it in their lists. It is the tallest landscape element in Gyékényes Street, towering over trees and buildings alike. Its visual importance is enhanced by the ivy *(Hedera helix)* growing on its trunk, which gives it an unique appearance, even though it is considered detrimental to the long-term health of the tree and makes its trunk impossible to inspect.

According to our results, location is a major factor in choice (see Table 1). 10 out of the 27 most commonly chosen trees are standing on or very close to corners, which makes these the first ones to appear when approaching their respective streets (Fig. 10). Being situated in a prominent spot can make even relatively small and nondescript trees significant in the landscape. Another 11 trees are the tallest specimens in their vicinity, or are the largest landscape elements (including houses and other plants) from at least

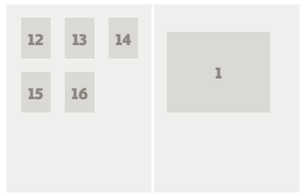


Fig. 12: Tree # 6 is the only red-leaved tree in its surroundings, creating contrast (PHOTO CREDIT: ZSÓFIA BOGNÁR)

Fig. 13: The globose crown of tree #11 makes it stand out (PHOTO CREDIT: ISTVÁN VALÁNSZKI)

Fig. 14: The dense crown of this dwarf maple distinguishes it from others (PHOTO CREDIT: VIVIEN FÜSTÖS)

Fig. 15: Tree # 25 standing in the centre of a playground (PHOTO CREDIT: JUDIT DOMA-TARCSÁNYI)

Fig. 16: Tree #5, with its conical crown, standing on a street corner (PHOTO CREDIT: VERA CZABÁN)

Table 1: Choices of professionals and non-professionals regarding the „top trees" (percentages above 10% highlighted in green) and the most notable visual attributes of these specimens

# (Fig. 6)	Taxon	Percentage of selections		Noteworthy visual attributes
		Professionals	Non-professionals	
1	Acer platanoides 'Crimson King'	37,1%	13,2%	Location on corner; Colour contrast (purple leaves)
2	Morus alba	25,7%	10,5%	Unusual appearance (multiple trunks); Tallest specimen in vicinity
3	Morus alba	25,7%	10,5%	Location on corner; Tallest specimen in vicinity
4	Acer platanoides	48,6%	42,1%	Unusual appearance (ivy on trunk); Tallest specimen in vicinity
5	Tilia tomentosa	17,1%	2,6%	Location on corner
6	Prunus cerasifera f. atropurpurea	5,7%	13,2%	Colour contrast (purple leaves)
7	Tilia tomentosa	28,6%	10,5%	Colour contrast (silver-backed leaves); Tallest specimen in vicinity
8	Koelreuteria paniculata	14,3%	10,5%	Shape contrast (twisted branches)
9	Acer campestre	11,4%	10,5%	Location on corner
10	Juglans regia	11,4%	18,4%	Tallest specimen in vicinity
11	Acer platanoides 'Globosum'	11,4%	18,4%	Shape contrast (globose crown)
12	Acer saccharinum	20,0%	10,5%	Colour contrast (silver-backed leaves); Tallest specimen in vicinity
13	Ulmus minor	14,3%	23,7%	Unusual appearance (tilted trunk); Tallest specimen in vicinity
14	Salix alba	14,3%	5,3%	Colour contrast (silver-backed leaves); Unusual appearance (one-sided hanging crown)
15	Acer platanoides 'Crimson King'	8,6%	10,5%	Colour contrast (purple leaves)
16	Koelreuteria paniculata	2,9%	15,8%	Unusual appearance (twisted, horizontal branches; visible scar)
17	Fraxinus pennsylvanica	11,4%	13,2%	Location on corner; Unusual appearance (two, heavily tilted trunks)
18	Celtis occidentalis	8,6%	13,2%	Location on corner; Unusual appearance (hanging branches)
19	Catalpa bignonioides 'Nana'	5,7%	28,9%	Location on corner; Unusual appearance (globose crown)
20	Tilia tomentosa	14,3%	18,4%	Location on corner; Tallest specimen in vicinity
21	Acer platanoides	17,1%	5,3%	Location on corner
22	Fraxinus angustifolia	5,7%	13,2%	Unique location (standalone, highly visible from main road), Tallest specimen in vicinity
23	Tilia tomentosa	11,4%	7,9%	Location on corner
24	Tilia tomentosa	22,9%	26,3%	Tallest specimen in vicinity
25	Platanus × hispanica	28,6%	7,9%	Unique location (centre of playground)
26	Abies nordmanniana	14,3%	7,9%	Shape contrast (tall, narrow crown)
27	Styphnolobium japonicum	11,4%	18,4%	Tallest specimen in vicinity

one major viewpoint (Fig. 11), even if they're not situated on corners.

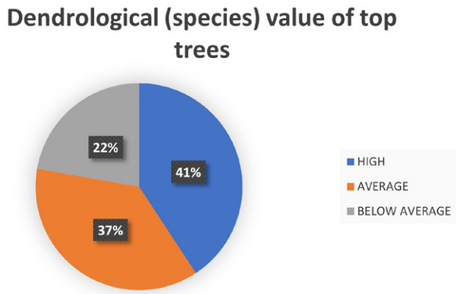
Contrast seems to be another major factor in tree selection. Several of the most selected trees are significantly different from all surrounding individuals in leaf coloration (#1, #6, #7, #12, #14) or crown shape (#8, #11, #26). (Fig. 12-13) It is also worth mentioning that the most commonly chosen tree in Karcag Street (which got 6 votes, almost making it to the top list) is a dwarf Norway maple (*Acer platanoides* 'Globosum'), which "stands out" from the dense row of normal-sized trees lining the street with its much smaller, denser crown (Fig. 14).

We analysed the most commonly chosen trees by their occurrence in spreadsheets completed by professionals and non-professionals as well. We compared whether the "top trees" of the area were selected by professionals and non-professionals as well. Table 1 shows the percentage of professional and non-professional participants choosing each individual tree. 16 out of 27 top trees (60%) were selected by a significant proportion of experts and laymen alike, showing that overall, people have similar preferences regardless of their professional background.

Our results show that 6 trees were more popular among professionals than non-professionals. Among these, #5, a silver linden *(Tilia tomentosa)* was only selected by one non-professional participant, while others got more votes – but still less than 4 (10%). It is notable that several of these trees are standing in a location that's particularly challenging from a design standpoint – #21 is located in the middle of a parking lot, #23 and #25 are in central (focal) points in parks with playgrounds (Fig. 15), while #14 and #26 are in narrow front gardens in front of buildings. Tree #5 is particularly interesting: it has a picturesque, almost symmetrical crown shape that, apparently, attracts professionals more than laymen (Fig. 16).

On the other hand, 6 trees were selected by more than 10% by non-professionals, while receiving less votes from experts. Only one (tree # 15) of these received more than 2 votes from professionals, making them significantly less popular amongst them. The reason behind this disparity can potentially be that several of these trees belong to taxa with less "prestige" in professional circles – black cherry plum *(Prunus cerasifera 'Nigra')* – tree #6 –, hackberry *(Celtis occidentalis)* - tree #18 – and goldenrain tree *(Koelreuteria paniculata)* – tree #16 – are all commonly seen taxa with a reputation of being problematic to maintain, while narrow-leaved ash *(Fraxinus angustifolia)* – tree #22 - is extremely common and therefore uninspiring. In addition to this, trees #6, #16 and #19 all have visible health and/or condition issues (Fig. 17) that could have made them less valuable in the eyes of experts.

It's worth mentioning that several trees chosen by a significant proportion of participants have properties that would be considered problematic by traditional, maintenance-centered tree



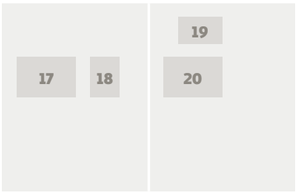


Fig. 17: Tree #19 has leaf discoloration and distortion due to pests, but its shape and location still made it a popular choice. (PHOTO CREDIT: EMÍLIA LÁSZLÓ)
Fig. 18: Visible scarring on the branches of tree #16 (PHOTO CREDIT: ANDRÁS CSURGAY)
Fig. 19: Proportion of high, average and below-average dendrological values in the most selected 27 trees
Fig. 20: Tree #17, a green ash (Fraxinus pennsylvanica), an example of a tree with below average dendrological value (PHOTO CREDIT: MÁRTON SZAPPANOS)

evaluation methods, including amorphous or asymmetrical crown shapes (#6, #14), visible scars (#16) (Fig. 18) and forked main branches (#13, #17). The ivy on the trunk of tree #4 – a feature several participants commented on as "interesting", "eye-catching" and "spectacular", is also considered an issue – a health risk – by tree maintenance experts. According to most widely used tree evaluation methods, these would more or less radically reduce the numerical or monetary value of these trees, while our results show that these "deformities" can actually make them more eye-catching and prominent in the urban landscape. It is worth mentioning, however, that the reason these attributes are considered disadvangeous by traditional evaluation methods is that they can signal or cause health and stability issues, which can endanger the long-term survival of these plants. Naturally, trees that are hazardous or impossible to save should not be kept in place only because of their contribution to the urban image. However, in order to fully maintain the aesthetical value and ecosystem services of these trees, both their health and visually attractive features have to be taken into consideration during maintenance works.

Our results are interesting regarding the dendrological value of trees as well. According to the most commonly used Hungarian tree evaluation method [7], only 11 (41%) of the 27 most often selected trees belong to a species with high dendrological value, while 6 (22%) of them are representatives of taxa with "below average" dendrological value (Fig. 19). (Being "below average" in this category means a 0.5 multiplier in the valuation process.)

What's more, 2 of the 3 trees receiving the highest amount of votes, #1 and #4 belong to such "low-value" taxa, the latter being the most selected individual tree of the whole area, and was also the most significant tree according to both non-professionals and professionals. This suggests that species-related dendrological value has practically no role in the cityscape importance of trees. (Fig. 20)

While our results have successfully answered our research questions, there are multiple ways in which it could – and should – be expanded. One question is how much seasonality impacts preferences, which follow-up studies in autumn, winter and spring could give an answer to. Another aspect that needs further studying is whether factors like age or gender have a major impact on tree preferences. Differences between the opinions of locals and others are also a topic for later research. In order to ensure that our results are more or less universally applicable, further studies in different study areas are necessary. Our results suggest that with sufficient research and refinement, a perception-based evalutation method could potentially be integrated into the system of urban image conservation and urban design, as well as municipal green surface management policies.

4. CONCLUSIONS

Our results show that the most commonly used evaluation methods in Hungary cannot be directly used to determine tree value from an urban image standpoint. We have found that having a perfect, typical crown shape and ideal health is less important from a cityscape perspective than location and contrast. Also, tree-related dendrological value is almost irrelevant in this regard. While the selections of people with and without a relevant professional background show a major overlap, suggesting that their preferences are very similar, there are interesting differences as well. Our results show that, in order to correctly assign priorities in and urban image conservation tools, new evaluation procedures have to be implemented.

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ÖSSZEFOGLALÓ

FAEGYEDEK TELEPÜLÉSKÉPI JELENTŐSÉGÉNEK PERCEPCIONÁLIS VIZSGÁLATA – BUDAPESTI ESETTANULMÁNY

A városi fák a település- és utcakép, valamint a helyi karakter meghatározó elemei, az általuk nyújtott ökoszisztéma-szolgáltatások pedig népszerű kutatási témát jelentenek. Ugyanakkor még ma, évekkel a magyar településkép-védelmi eszközrendszer új elemekkel történő kibővítése után is csak viszonylag kevés ismerettel rendelkezünk az egyes fák, mint településképi értékek meghatározó szerepének hátteréről.

Kutatásunkban egy Dél-Budán kijelölt mintaterületen percepcionális módszerrel vizsgáltuk az egyes faegyedek településképet meghatározó szerepét. 74 résztvevőt kértünk meg arra, hogy járják be a 15 hektár kiterjedésű vizsgálati területet és nevezzék meg azt a legfeljebb 10 faegyedet, amelyek szerintük a településképben leginkább meghatározó szerepet töltik be. Eredményeink azt mutatják, hogy bár igen nagyszámú fát választott ki legalább egy résztvevő, egyes egyedek szignifikánsan magas számú szavazatot kaptak – közülük néhány fát a résztvevők több, mint 20%-a választott ki. Eredményeink alapján elmondható továbbá, hogy a fákkal kapcsolatos szakmai háttérrel rendelkező kitöltők és a laikusok hasonló véleményt fogalmaztak meg, ugyanakkor kisebb eltérések is megfigyelhetők.

Kutatásunk alátámasztja, hogy – a hagyományos, fenntartói szemléletű faérték-számítási módszerektől eltérően – a faegyedek faja, illetve egészségügyi állapota kevésbé jelentősen befolyásolja a faegyedek településképi értékét. Más tényezők, mint az elhelyezkedés vagy a környezettel kontrasztban álló szín vagy forma, jóval meghatározóbbak.