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THE AESTHETICS OF SPONTANEOUS URBAN-INDUSTRIAL VEGETATION

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Abstract: In shrinking cities not all fallow areas can be recycled for urban-industrial use. However, due to financial problems, the remaining open spaces also cannot all be converted into traditional urban parks, because such green spaces require intensive care: they need to be designed, prepared (soil and relief preparation), planted and managed (irrigation, mowing, cutting, replanting). For this reason, in some regions of Europe, particularly in the Ruhr area (Germany), urban-industrial fallows spontaneously covered by vegetation have officially been declared urban green spaces. However, although the arguments are evident, the concept of spontaneous vegetation as larger components within urban green spaces is still not commonly accepted in Central Europe and even more rarely considered outside Europe. The reason is that ruderal vegetation is regarded by most people as an indicator of neglect and abandonment and therefore is seen as ugly and dirty. By considering all available published relevés, this paper shows that a particular group of ruderal communities, the associations of Dauco-Melilotion, is species-rich and contains many beautiful eye-catchers as well. Uncoloured flowers (“grey”) never represent more than 30% of the community, mostly even less than 25%. Yellow is most important in all cases, mostly with white on the second and pink-violet in the third position. Blue and yellowish-green are always present, too. Additionally, this vegetation type met all other criteria mentioned in the literature as important for the acceptance of green spaces. It presents its rich colour optimum from June to September, i.e. a period of four months. This is much longer than what can be stated for most flowerbeds in traditional parks. As in large parts of Central Europe summers will become drier and hotter and many of the typical ornamental plants as well as most lawns already needing irrigation under present climate conditions, park planners and managers have to reconsider their concepts with regard to the choice of adapted species. Spontaneous ruderal vegetation is adapted in any case, because its composition is the result of the habitat conditions. Giving more space to this vegetation type would allow more nature experience for city dwellers and more leisure activities than traditional green (because it is more tolerant of disturbance), contribute to biodiversity, save costs and water, and thus represent a substantial step towards a sustainable city.

Key words: Brown field, *Dauco-Melilotion*, ruderal vegetation, spontaneous vegetation, shrinking cities, sustainable city, urban fallows, urban green spaces

Introduction

Numerous papers have been published on the value of urban nature, [e.g. 1, 7, 83, 44, 79]. “Promotion of the development of spontaneous nature in the inner city” is one of the demands that have to be fulfilled by an “ideal city from an ecological view” [86]. Sometimes „aesthetics“ is mentioned as one of these values; however, in such cases generally remnants of natural biotopes [e.g. 8] or urban forests, parks and public gardens are implied (see the reviews of [72, 67]). Galindo & Rodriguez [16] show that „naturalness“ and, within this main feature, the sub-feature „existence of vegetation“, are the most important criteria for giving the attribute “highly aesthetic” to an urban site. In contrast, the same authors identify “lack of maintenance“ and, in particular, „neglect/abandonment“, as the second important reason (behind „lack of naturalness“, in particular “lack of vegetation”) for giving low aesthetic values. Ruderal vegetation is regarded by most people as an indicator of just this unappreciated status of neglect and abandonment. Case studies in Germany asking about the attractiveness of different types of urban green spaces revealed a lower rank for wasteland than for the municipal park, the botanic garden and green courtyards; however, an equal rank as that of highly structured vegetation as can be found in some district parks and in green squares [42]. In group discussions on the value of protection of different types of green spaces, green fallow land of former industrial areas received the lowest rank [60]. Even to people that use such areas for recreation and leisure activities, spontaneous urban vegetation may be nevertheless associated with mess and noise [28].

Traditional urban green spaces, however, require an intensive amount of care: instead of occurring spontaneously and structuring themselves they have to be designed in advance, constructed (soil preparation) and built. Trees, shrubs and herbs have to be planted and grass needs to be sown. These initial measures are followed by the regular demands of maintenance: cutting of trees and shrubs, fertilizing of flowers, mowing of lawns, and, as necessary, watering during periods of drought.

Especially, popular and therefore often planted, abundantly blossoming ornamental plants seldom meet their natural requirements. Therefore, they react very sensitively to disturbances that cause them to grow weakly and/or die back – thus creating the need to plant anew. Already Hard [20] has indicated that cultivation and conservation of spontaneous vegetation is more reasonable from an ecological and economical point of view, and, moreover, the utilization of spontaneous vegetation allows a broader range of activities. This is demonstrated with special regard to children's playgrounds [23]. Although the arguments are evident, the concept of spontaneous vegetation as larger components within urban green spaces is still not commonly accepted in Central Europe.

Only former areas of coal and steel industry form an exception to the rule. After the closing down of the respective industries, the spacious industrial areas and the accompanying transportation areas suddenly turned into large fallows. Thus neither time nor financial capacities allowed their transformation into traditional urban parks. Some of these German industrial and traffic fallows were declared as nature preserves or places for nature discovery [58]. Thoughts about conservation on „brown fields“ in urban areas also circulate widely in the UK [e.g. 17]. In America [e.g. 35] and Asia [e.g. 31], papers on „urban green space“ almost exclusively deal with parks and remnants of the natural or agricultural landscape.

With the exception of extreme habitats, such as regularly flooded areas, in the long run in Central Europe all vegetation turns into woodlands. In the Ruhr district [75] and Berlin [39], many urban fallows have already turned into urban woodlands. This means that also the conservation of typical ruderal vegetation needs some amount of maintenance in order to preserve it [21, 22, 78].

Management directions are offered by [55] – but even though the conservation and fostering of ruderal vegetation demands some care, the amount of manpower and financial expense is lower by far when compared to traditional green spaces because the initial measures of their establishment can be omitted. Also the further expenses for watering, fertilizing and the replanting of dead plants are spared.

Besides the consideration of cost-saving, one should not forget that green spaces have to be attractive to the public. Some authors (see Discussion) have shown that species-richness and the existence of bright-coloured flowers induces attractiveness. “Beauty” is highly relevant for all people in influencing their attitude towards wilderness areas [2]. This paper will show that a particular group of ruderal communities, the associations of the Dauco-Melilotion, is both species-rich and contains many beautiful eye-catchers. Additionally, all other criteria mentioned in literature as important for the acceptance of green spaces will be discussed

Methods

The Central European literature on spontaneous urban vegetation was screened for relevés of plant communities of the alliance *Dauco-Melilotion* (Onopordetalia, Artemisietea). We considered only well-defined communities widespread in most urban-industrial areas of Central Europe:

- *Artemisio-Tanacetetum vulgaris* Siss. 1950 nom. inv.
- *Echio-Melilotetum* R. Tx. 1947

- *Echio-Verbascetum* Siss. 1950 (for differences between *Echio-Melilotetum* and *Echio-Verbascetum* see [81])
- *Berteroëtum incanae* Siss. et Tidemann in Siss. 1950
- *Dauco-Picridetum hieracioides* (Farber 1933) Goers 1966
- *Resedo-Carduetum nutantis* Siss. 1950.

Characteristic habitats of all these communities are urban-industrial fallow areas [80]. Particularly the *Artemisio-Tanacetetum* and the *Echio-Melilotetum* also grow on unused open spaces within residential areas, with fragments even around street trees [77] and on unpaved banquettes in the inner city [41].

The two most important character species of Echio-Verbascetum, *Verbascum thapsus* and *Verbascum densiflorum*, only rarely occur in the same plot. Therefore, we differentiated between a *Verbascum thapsus*-facies and a *V. densiflorum*-facies of this community. As we wanted to present the typical (average) colour spectrum of each community, we considered all character species and additionally those species which, when considering all communities, had a sum of constancy classes >VI (constancy classes are explained in Table 1).

From the constancy of the species we calculated the constancy of flower colours. Some species, in particular those that are wind- or self-pollinated, have inconspicuous flowers. We summarized this group, mainly consisting of grasses (Poaceae), *Artemisia vulgaris* and *Erigeron canadensis*, as “grey”. The colour spectra presented in this paper show the percentage of each colour in relation to the constancy sum of all colours represented in the upper layer of the particular community. Ground creepers, rosette species of low size and tiny therophytes were not considered, because they do not contribute to the floral display of these communities. As not all species are in flower at the same time, we also present the flower phenology of each community. The flower period of the species was taken from [65].

Results

The upper layer (height >50 cm) of the communities of *Dauco-Melilotion* (Table 1) contains the following constantly occurring species that have comparatively large (>1 cm) coloured flowers or smaller flowers that form large flower stands (in alphabetical order): *Carduus acanthoides* and *C. nutans* (pink), *Cichorium intybus* (blue), *Cirsium arvense* and *C. vulgare* (pink), *Daucus carota* (white), *Echium vulgare* (blue), *Hypericum perforatum* (yellow), *Linaria vulgaris* (yellow), *Melilotus albus* (white), *M. officinalis* (yellow), *Oenothera* spp. (yellow), *Pastinaca sativa* (yellowish-green), *Picris hieracioides* (yellow), *Tanacetum vulgare* (yellow), *Reseda lutea* (white), *R. luteola* (yellowish-green), *Silene latifolia* subsp. *alba* (white), *Verbascum densiflorum* and *V. thapsus* (yellow).

Table 1: Species composition of *Dauco-Melilotion* communities growing in urban areas in Central Europe

Association	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Number of relevés	**222**	**226**	**20**	**18**	**72**	**57**	**15**
Character species of the communities							
Tanacetum vulgare	**V**	III	II	II	III	II	II
Melilotus albus	I	**V**	II			II	
Melilotus officinalis		**IV**	II	I	I	II	
Verbascum densiflorum		I	**III**	**V**			
Verbascum thapsus		I	**V**	I	I	II	
Berteroa incana		II			**V**		I
Picris hieracioides			II			**V**	
Carduus nutans							**V**
Character species of the alliance							
Daucus carota	III	IV	V	IV	III	V	II
Hypericum perforatum	II	II	V	V	II	III	II

Carduus acanthoides	I	I	I	II	I	II	I
Linaria vulgaris	I	I	II	II	I	II	I
Oenothera biennis agg.	I	III	IV	II	II	II	III
Echium vulgare		II	III	II	II	I	II
Reseda lutea		II	II	II	I	I	III
Reseda luteola			I	II	I	I	II
Cichorium intybus	I	I			I	II	
Pastinaca sativa	II	I				I	II
Character species of order and class							
Artemisia vulgaris	V	V	IV	III	IV	IV	V
Solidago canadensis	III	II	II	II	I	I	
Urtica dioica	II	I	III	II		II	I
Silene alba	II	II	II	III	II		II
Cirsium vulgare	II	II	III	II		II	
Convolvulus arvensis	I	II				I	II
Solidago gigantea	I		III				II
Companions, upper stratum							
Dactylis glomerata	IV	III	II	I	III	IV	II
Cirsium arvense	IV	III	IV	II	II	III	II
Elymus repens	III	II	II	I	III	III	II
Erigeron canadensis	II	II	V	III	III	II	III
Tripleurospermum perforatum	I	III	IV	II	II	II	II
Poa pratensis agg.	II	II	I	I	I	II	II
Arrhenatherum elatius	III	II	II	I	II	III	II
Plantago major	I	II	I		I	II	I
Achillea millefolium agg.	III	III		II	III	IV	III
Festuca rubra	II	II		I	I		I
Holcus lanatus	I	II	III	II			I
Poa palustris	I	II	II	I			I
Erigeron annuus	I		II	II	I	I	
Rumex crispus	II		II	I		I	I
Companions, ground stratum							
Medicago lupulina	II	IV	II	II	II	III	I
Plantago lanceolata	III	II	I	II	III	III	III
Taraxacum officinale agg.	III	III	II	II	II	II	II
Poa compressa	I	III	III	II	I	II	II
Trifolium repens	II	II	I	II	II	I	I
Lolium perenne	II	II	I		II	I	II
Arenaria serpyllifolia agg.		II	V		II	I	III
Diplotaxis tenuifolia			II	II	II	I	II
Cerastium holosteoides		I	II	II			II

Footnote: *shortened synoptic table: all character species of the associations and all other species that have a constancy sum of at least VI (e.g. constancy I in six associations, or I in four or five associations and additionally II in another association, or I in three associations and additionally III in another association, or II in three associations etc.) are listed; constancy classes + und r were not considered; constancy classes: V: > 80%; IV: > 60% - 80%; III: > 40% - 60%; II > 20% - 40%; I > 10% -20%.

Species of the ground layer were not considered for the colour spectra (Fig 1 and 2).

Column 1: *Artemisio-Tanacetetum*: Dannenberg (1995): 33 relevés; Dettmar (1992): 12 relevés; Fijałkowski (1967): 8; Frost (1985): 23; Gödde (1986): 30; Hetzel (1988): 11; Hetzel & Ullman (1981): 12; Kienast (1978): 34; Nezadal & Heider (1994): 37; Pyšek & Pyšek (1988): 2; Rostanski & Gutte (1971): 4; Springer (1985): 5; Wittig et al. (1999): 8; Wollert (1991): 2.

Column 2: *Echio-Melilotetum*: Brandes (1977): 4; Brandes (1980): 13; Dannenberg (1995): 44; Dettmar (1986): 13; Fijałkowski (1967): 15; Frost (1985): 10; Gödde (1986): 29; Hetzel & Ullman (1981): 4; Kienast (1978): 10; Nezadal & Heider (1994): 10; Olsson (1978): 4; Pyšek (1991): 4; Rebele (1986): 19; Reidl (1989): 13; Rostanski & Gutte (1971): 2; Springer (1985): 6; Wittig et al. (1999): 13; Wollert (1991): 13.

Column 3: *Verbascum thapsus*-community ("Echio-Verbascetum"): Frost (1985): 1; Gödde (1986): 17; Griese (1999): 1; Reidl (1995): 2; Sauerwein (1988): 1; Springer (1985): 3; Wittig (n.p.; Ruhr district, 2000): 3, Wittig et al. (1999): 5.

Column 4: *Verbascum densiflorum*-community ("Echio-Verbascetum"): Gödde (1986): 9; Griese (1999): 1; Springer (1985): 3; Wittig et al. (1999): 5.

Column 5: *Berteroetum incanae*: Bornkamm (1973): 1; Brandes (1977): 6; Bredereck (n.p. Frankfurt/M, railway stations, 1993): 6; Gödde (1986): 12; Hetzel (1988): 2; Hetzel & Ullmann (1981): 1; Lotz (n.p.; Frankfurt/Main, east port, 1993): 5; Nezadal & Heider (1994): 23; Rebele (1986): 3; Springer (1985): 8; Wittig et al. (1999): 5.
Column 6: *Dauco-Picridetum*: Brandes (1977): 8; Brandes (1989): 2; Bredereck (n.p., Frankfurt/M, railway stations, 1993): 5; Dannenberg (1995): 3; Gödde (1986): 8; Hetzel & Ullmann (1981): 16; Kopecky (1982): 3: Lotz (1993): 3; Reidl (1989: see above): 1; Springer (1985): 2; Wittig et al. (1999): 6.
Column 7: *Resedo-Carduetum nutantis*: Brandes (1989): 1; Dannenberg (1995): 5; Dettmar (1992): 10; Gödde (1986): 6; Hetzel (1988): 1; Sissingh (1950): 4.

Fig. 1 shows that all the above-mentioned colours are present in each of the seven communities analyzed. Uncoloured flowers ("grey") never represent more than 30% of the community, in three cases even less than 25%. Disregarding the uncoloured flowers, yellow and white are most important in six of the seven communities, and pink always occupies the third position. Taking the lowest percentage of uncoloured flowers for ranking the colourfulness, the *Verbascum densiflorum* facies of Echio-Verbascetum takes first position. Resedo-Carduetum shows the most equal distribution of all colours, but has the second highest ratio of "grey".

The flowering of the Dauco-Melilotion communities (Fig. 2) starts in May with six species and three colours (yellow, white and pink). In June, the colour optimum is reached (all colours present), but the number of species with coloured flowers increases up to August (June 13, July 23, August 24). For September a slight, and for October a strong, decrease in the number of coloured flowers has to be admitted, but, up until the end of the vegetation period, 11 species are in flower and all colours are represented.

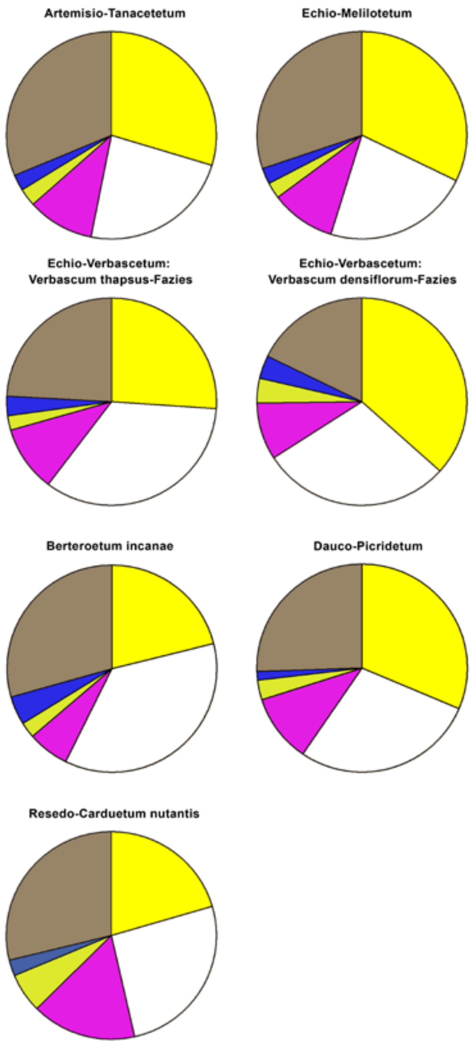

Fig. 1: Colour-spectra of Dauco-Melilotion communities

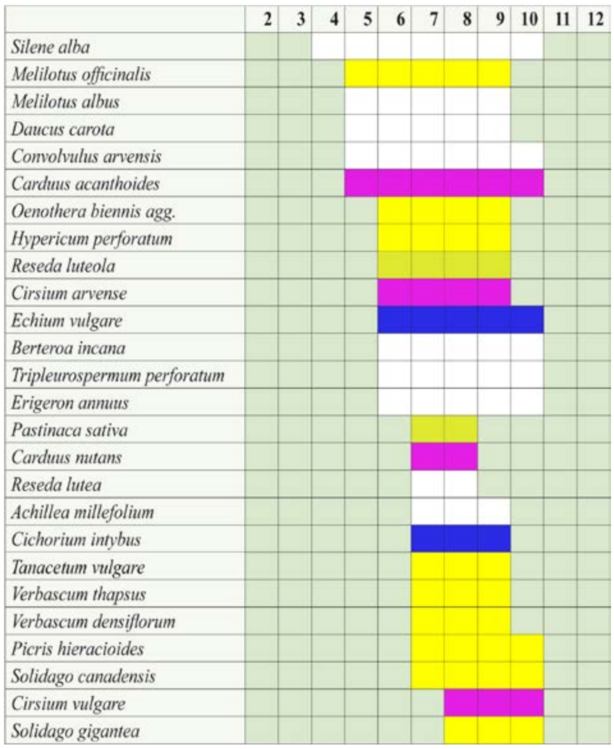

Fig. 2: Colour-phenology of Dauco-Melilotion communities

Discussion

Public awareness of and interest in biodiversity is particularly influenced by people’s experience of nature in their everyday life [64]. When asked for their spontaneous associations considering the term „biodiversity“, the majority of those interviewed named phenomena not belonging to their everyday life, e.g. rainforests and oceans [59]. “If there is to be broad-based public support for biodiversity conservation, the places where people live and work should be designed so as to provide opportunities for meaningful interventions with the natural world” [45, p. 430; see also 46]. For inhabitants of metropolises and large urban agglomerations, natural and rural environments are situated far away and therefore not part of daily life. Particularly for children, there is an urgent need for chances to experience “nature”, “wilderness”, “biodiversity”, or however we might call spontaneously developed urban vegetation and the adherent biocoenoses, within their immediate surroundings. “Here, nature is 'up close and personal' rather than distant or remote” [47, p.23]. This close contact provides many opportunities for people to learn about, and appreciate, wildlife [71]. The critical age of influence seems to be lower than 12 years [4]. According to a survey of 860 households in Halle an der Saale (Germany), people agree that "children need a place within the urban housing environment where they can play in the open air and can experience nature” [51]. Traditional urban parks are not ideally suited for allowing children to have “positive adventures” in the natural environment, because the traditional park vegetation is not tolerant of disturbance [22]. In contrast, „wilderness in the city“ offers children a positive experience of nature [27]. Spontaneous ruderal communities such as Echio-Verbascetum and Artemisio-Tanacetetum have been rated as a vegetation type well-suited to nature experience areas [43].

As already mentioned in the Introduction, even in those countries that have some experience in “going spontaneous” [29], i.e. in declaring urban ‘brown fields’ as part of the urban green space, ruderal vegetation is not generally appreciated. Still “the aesthetic experience delivered by derelict sites is predominantly governed by disharmony, disarray and chaos, instead of harmony, order and unity" [50, p. 271]. But "ecology will not become a driving force in the development of society and our cities in particular without aesthetics. Ecological aesthetics must attack the contradictions between urban landscapes and other projects of social, political and economic life" [30, p. 306]. Therefore, in order to make spontaneous vegetation more attractive and alternative to ornamental plantings in the city” [40], we have to ask what is rated as “aesthetic” and „attractive“ or, in more simple terms, what is liked and what is disliked.

According to [72], preference or liking is comparatively high, if the following conditions are fulfilled:

- complexity (moderate to high number of independently perceived elements in the scene);
- existence of a focal point, and other order or pattern also present;
- ground surface judged by the observer as favourable for physical activities;
- a deflected or curving sightline;
- perceived threat is negligible, see also [9].

Generally, the three latter criteria are met by sites covered by the communities treated above, or, if not, can easily be achieved. As such areas are frequently used for walking, jogging or cycling [33], they are obviously perceived as favourable for physical activities. A deflected or curving sightline sometimes is present, resulting from the history of the area or can be obtained by designing curved footpaths and allowing some (not to much: see below) trees and shrubs to grow along these paths. In open landscapes, as formed by the low vegetation of the Dauco-Melilotion communities, perceived threat is negligible. But a high density of shrubs has strong negative effects on acceptance. Low shrub density and grassy or herbaceous ground cover provoke strong positive effects [72], and this is exactly the characteristic picture of areas covered by Dauco-Melilotion.

The existence of some trees and shrubs will create a higher complexity and represent focal points, i.e. it will contribute to meet the first two criteria mentioned above for liking. But according to [74] only such members of a set of objects that are sufficiently distinct from their surroundings are visually labelled and therefore consciously perceived. Benkowitz & Köhler [3] show the importance of a species-rich vegetation: from an aesthetic point of view most children preferred a species-rich vegetation compared to a species-poor vegetation. “The reason for their choice was, in general, the presence of particular 'eye-catching' plants."

This is a problem for many ruderal communities, because their dominant species are wind-pollinated [80, 36] and for this reason have small, inconspicuous flowers, so that the total area covered by them is more or less regarded as boring. But our results show that this is not true for the Dauco-Melilotion communities. On the contrary, this urban-industrial vegetation is characterized and dominated by many eye-catchers (Fig.3–5).

According to our own observations, Artemiso-Tanacetetum represents a rather stable stage that can persist from five to ten years. All other Dauco-Melilotion communities will be replaced by less attractive vegetation types (*Rubus armeniacus* community, *Calamagrostis epigejos* stands) after a shorter time, in some cases with an interregnum of Artemiso-Tanacetetum, ultimately leading to urban forest, e.g. Epilobio-Salicetum capreae, *Robinia pseudacacia* forest, *Ailanthus altissima* forest. To guarantee the existence of the Dauco-Melilotion communities, succession has to be suppressed or periodically reset. This is not necessary over the whole area, because in some small and scattered plots undisturbed succession can be allowed. Activities of the users will prevent some other parts of the area from succession. A mosaic of different successional stages will also favour a high diversity of phytophagous insects [70].

Planners obviously keep it self-evident that derelict urban land has to be converted into accepted new landscapes [37] and that this includes vegetation management [24]. In the Ruhr district, pieces of art have been placed in the fallow areas in order to serve as focal points and to demonstrate that these areas are not neglected [13]. Therefore, it should be no problem to convince urban stakeholders and decision makers into the necessity of such management measures. Remembering the criteria of [72], not all the entire remaining area has to be maintained as covered by colourful flowering communities. Some randomly distributed plots would be enough to function as focal points. On the other hand, many investigations have proved that just the early successional stages are important habitats of rare and threatened species, [e.g.17, 32]. Therefore, from the point of biodiversity, the maintenance of larger areas of these communities is appreciated.

The Dauco-Melilotion communities present their rich colour optimum from June to September, i.e. a period of four months. This is much longer than what can be stated for most flowerbeds in traditional parks where the set of species has to be replaced three or four times per vegetation period in order to maintain colour. Dauco-Melilotion communities show no colour only at the beginning of the vegetation period. However, if we accept that there has to be some management, this problem can easily be solved be planting some spring-flowering geophytes. In particular, *Chionodoxa* spp. (blue)., *Eranthis hyemalis* (yellow), *Galanthus nivalis* (white), *Muscari armeniacum* (blue) and *Scilla biflora* (blue) that are frequently cultivated in gardens have already successfully escaped in most settlements [82], but, having no mechanisms for long-distance dispersal, are at present generally restricted to the immediate environs of gardens. Planting them in spontaneous ruderal vegetation would only represent anticipation of their spontaneous spreading.

Fig. 3: Echio-Melilotetum with high proportion of *Oenothera* spp. (Dortmund, area of the former coking plant Hansa; photo: Wittig 7/2001**)**

What is rated as “aesthetic” depends upon user-group differences in terms of background variables such as familiarity and education level [73]. The vegetation of urban green spaces is highly “influenced by the aesthetic and practical needs of the local stakeholders and actors and those having differing interest in different places. Public decision-makers and private individuals belonging to the middle and upper classes have an interest in representative, ornamental and open plantings within the city to demonstrate prosperity, order and security" [62, p. 286].
Therefore, we have to understand that, in spite of some positive examples, where the users have learnt that these areas can meet not only all of the functions expected for the traditional urban green, but even some more that are not allowed in traditional parks, like making a fire, mountain-biking, picking flowers [e.g. 33], in general "the process of changing people's perception on native 'weeds' will take time and a lot of education" [69, p. 306]. Information and education campaigns [e.g. 83], are needed to convince more people of the beauty and importance of spontaneous ruderal vegetation.

As in large parts of Central Europe summers will become drier and hotter and many of the typical ornamental plants, as well as most lawns, already need irrigation under present climate conditions, park planners and managers have to reconsider their concepts with regard to the choice of adapted species. Spontaneous ruderal vegetation is adapted in any case, because its composition is the result of the habitat conditions. Giving more space to this vegetation type would save costs and water and thus represent a substantial step towards a sustainable city.

Fig. 4: Echio-Verbascetum, *Verbascum densiflorum* facies (*Oberhausen*, area of the former: coal mine *Vondern*; photo: Wittig 7/2000**)**

Fig. 5: Resedo-Carduetum nutantis (*Oberhausen*, area of the former: coal mine *Vondern*; photo: Wittig 7/2000**)**

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ESTETICA VEGETAŢIEI SPONTANE URBANO-INDUSTRIALE

(Rezumat)

În oraşele aglomerate nu toate terenurile pot fi reciclate şi utilizate în scop urbano-industrial. Totuşi, datorită problemelor financiare, spaţiile deschise rămase nu pot fi toate transformate în parcuri urbane, deoarece astfel de spaţii verzi necesită multă îngrijire: trebuie să fie proiectate, pregătite (pregătirea solului şi a reliefului), plantate şi îngrijite (irigaţii, cosiri, tăieri, replantări). Din aceste motive, în unele regiuni ale Europei, mai ales în zona Ruhr (Germania), terenurile urbano-industriale, acoperite de vegetaţie spontană au fost declarate oficial spaţii urbane verzi. Deşi argumentele sunt solide, conceptul de vegetaţie spontană ca şi component major al spaţiilor verzi urbane nu este de obicei acceptat în Europa centrală şi cu atât mai puţin înafara ei. Motivul este acela că vegetaţia ruderală este considerată de către majoritatea oamenilor ca un indicator de neglijenţă, abandon şi de aceea este văzută ca inestetică şi murdară.

Luând în cnsiderare toate releveele disponibile, acestă lucrare demonstrează că un grup particular de comunităţi ruderale, asociaţia *Dauco-Melilotion*, este bogat în specii şi conţine multe plante frumoase şi atractive. Florile incolore („gri”) nu reprezintă niciodată mai mult de 30 % din asociaţie, de cele mai multe ori chiar mai puţin

de 25 %. Galbenul este cel mai important, în toate cazurile, cu alb ca a doua opţiune şi roz-violet pe locul al treilea. Albastrul şi galbenul-verzui sunt întotdeauna prezente.

Pe lîngă acestea, toate criteriile menţionate în literatura de specialitate ca fiind importante pentru acceptarea spaţiilor verzi, sunt întrunite de către acest tip de vegetaţie. Bogăţia de culoare optimă este prezentă în perioada iunie-septembrie – o perioadă de patru luni. Această perioadă reprezintă mult mai mult decât se întâmplă în cazul majorităţii rabatelor cu flori din parcurile tradiţionale. De vreme ce în majoritatea zonelor din Europa centrală verile vor deveni tot mai uscate şi calde, iar majoritatea plantelor ornamentale tipice, la fel ca şi majoritatea pajiştilor necesită irigaţii chiar şi în condiţiile climatice actuale, peisagiştii vor trebui să-şi reconsidere conceptele cu privire la alegerea speciilor cu adaptare bună. Vegetaţia ruderală spontană este oricum adaptată, deoarece structura acesteia este rezultatul condiţiilor de mediu. Acordarea unui spaţiu mai mare acestui tip de vegetaţie va permite o experienţă mai naturală pentru orăşeni şi mai multe activităţi de recreere decât verdele tradiţional (deoarece este mai tolerantă la perturbări), va contribui la biodiversitate, va reduce costurile şi consumul de apă şi de aceea reprezintă un pas spre oraşul durabil.

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