

PLANT COMPONENTS AND AUTHENTICITY OF LANDSCAPE ARCHITECTURE MONUMENTS

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Abstract

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Plants specifications emphasize the fundamental meaning of the “fourth space dimension” – time by their usage: (a) the space cannot be composed as a static image; (b) some used plants are not the planned part of the target state; (c) delayed onset of full functionality; (d) substantial importance of care for achieving and maintaining of the full functionality; (e) cultivation measures must be implemented in a certain time period, i.e. the “time window”; (f) replacement of already obsolete generation of full-grown and long-aged trees with a new generation is often carried out in the amended site conditions and different social situation. Historical authenticity of the plant components has the following specifics: (a) its basic assumption may not be the original specimens of plants, it is the preservation of the principle contained in this original substance; (b) the period during which the plant is able to represent the principle of the original substance is often shorter than the length of its existence; (c) gradual recovery of surviving individuals is often difficult to impossible in plants groups and stands; (d) it is often impossible to meet the recommendations of Venice Charter to not to apply the hypothesis and differentiation of added parts from the original ones. There was not paid enough attention to following aspects of the authenticity of plant components: (a) the importance of particular developmental stages of the element; (b) the role of age structure (the same age – different age) for different types of elements; (c) the effect of different length of the existence of space-formative elements (different periods of their recovery) to the overall composition effect; (d) role of historical technologies.

monuments, landscape architecture, plants, authenticity

1 INTRODUCTION

The task of monument preservation is – in general terms – to keep valuable works created by our ancestors in the most authentic form for future generations. This formulation is certainly generally acceptable because of its generality. The consensus quickly disappears once you start thinking about the content of the terms of **monument** and **authenticity**. Since the establishment of modern monument preservation in practice in the late 18th century, very different concepts interfere in practice and theoretical considerations (Kroupa, 2004, p. 431). This continual debate acquired a new, possible to say global, dimension in the late 1980s when it was joined by the conservationists of ethnic groups and cultures different from Europe

in their development and traditions – from Asia, Sub-Saharan Africa and Oceania (Štulc, 2001, p. 246). The discussion is not closed and (which is no surprise) the practical application of theoretical considerations and general proclamation is lengthy and has many pitfalls. This fully applies to the management of garden art monuments, which traditionally has a delay compared to other specializations of monument preservation. One reason for this, though not the sole one, are **specifics of plant components**. At the head of the new currents of thought in the monument preservation there usually are scholars of fine arts who (for obvious reasons) do not pay enough attention to plant components if they take them into account at all. The indicated delay is different in various countries. While, for example in Germany

and other German-speaking countries, specialists in garden art monuments discuss the new initiatives (sometimes violently) (e.g., Hajós, 2006, 2007; Jong *et al.*, 2006; Schmidt, 2008), in the Czech Republic the real discussion still has not begun. But even there, where the discussions on the garden art monuments are currently under way, the problems of the plant components are mentioned only in general terms. A rare exception is for example Panning (2006).

The aim of this paper is to briefly summarize current views and approaches to monument preservation and to indicate the possibilities and limitations which exist for their application in plant components.

2 MATERIALS AND METHODS

In the first step, there were analyzed: (a) terms such as monument and authenticity, (b) current views and approaches in monument preservation, (c) specifics of plant components in landscape architecture objects.

In the second step, there was a confrontation of the results of the first step sub-points analysis carried out: (a) between each other, (b) with the theoretical and practical knowledge gained in designing the recovery of plant elements in monuments of garden art (Krejčířik *et al.*, 2006; Pejchal, 2002a; Pejchal and Kučková, 2003; Pejchal and Šimek, 1996; Pejchal *et al.*, 2007; Šimek *et al.*, 2003).

Synthesis was the part of the third step.

Mentioned methodology was based on the knowledge that plant components can not be pulled out of context of the whole object and then from the broader context in which they occur.

3 RESULTS AND DISCUSSION

3.1 Authenticity of monuments

As early as a quarter of the millennium ago, German historian J. M. Chladenius has defined a **monument** (in the context of European thought), as “any work (thing) that is able to educate people about the past” (Kroupa, 2001, p. 301). What should be the content of this lesson is already the subject of dispute since the establishment of monument preservation (see above) and in this context it is possible to define two basic attitudes (Kroupa, 2004, p. 434):

- (a) **Monument should refer primarily to the period of its creation**, i.e. to restrict or exclude degenerating or offending tracks and additions from its present appearance and to direct the current restoration primarily to the time of monument's creation;
- (b) **Monument should manifest the traces of lived time** and the present time should be added to its historical existence, i.e. to keep the traces of time and to tend the recent restoration primarily to present.

The first attitude, reflected in the purist approaches to monument preservation in the 19th century, was best represented by the great French architect and architectural historian Eugène Emmanuel Viollet-le-Duc (1814–1879), who summarized his views on the monuments restoration as follows: *To restore* (author's note: In today's terminology “to reconstruct”) *the building does not mean to maintain, to repair or redo it. It means to restore it to a coherent state, which perhaps never existed in a given time* (Štulc, 2005, p. 6, 2007, p. 37). The representative of the second approach has been in the early days influential British aesthete and art critic John Ruskin (1819–1900). Again we quote: *It is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture... More has been gleaned out of desolated Nineveh than ever will be out of re-built Milan* (Štulc, *ibid.*). We can say that the first mentioned (reconstruction) approach of the purist architects in the 2nd half of 19th century in the monument preservation clearly won. Moments of the domination of art historians, so the second (preservative) trend came at the turn of the 19th and 20th century. Doctrinaire approach to conservation methods in the practice began in the form of material and shape analysis (**analytical method**), which the treated building changed in swatches of used material and the experienced past, disturbing the overall functioning of the artwork. In response to this, the **synthetic method** was designed in the 30s of the 20th century in our country. Its highest principle was the principle of wholeness with its manifestations of order, harmony and rhythm. The possibility of reconstruction of historical forms of monuments was rehabilitated which was seen as the most natural means of preserving the integrity of the monument as a work of art. In this context it should be noted that – in comparison with the above-mentioned purist reconstructions – the original substance and the development of the building was far more respected. Analytical and synthetic method are present in our architectonical practice until now; detailed information on the outlined approaches in the monument preservation in the historical development, see e.g. Kroupa (2001, 2004) and Štulc (2001, 2005, 2007). The hardest and most responsible task considered by Štulc (2001, p. 245) is: *finding the optimal routes between, on the one hand, the level of analytical presentation of the historical development of sites, including the distinctiveness of original from its additions, and on the other hand, the effort to gain artistic and architectural synthesis – that kind of resurrection of works not only in its material, but also artistic originality.*

An important factor for the choice of procedures is also the type of a monument. The reconstruction principle is used mainly for architectural monuments (as compared with the relics of Fine Arts). Justification is a different function of architecture and the resulting different requirements on care for this kind of monuments (Kroupa, 2004, p. 440). Horyna (2007, p. 7) adds the distinct nature of creation and authorship of

architecture compared to the fine arts: *Painting and sculpture is in entirely the master work ... Architecture is completed by author in the project, thus by the formulation of ideas which will be realized by construction works...*

Kroupa (2004, p. 433) indicates that the **authenticity of monuments**, a key word for the monuments preservation, has undergone a long evolution with changes in scope and it lacks clarity today. He also points out that in Czech language the precise meaning of the international word is not codified. He recommends to narrow down in our professional monument preservation vocabulary the notion authenticity, authentic to the equivalents as reliable, trustworthy, credible, true and original to expressions, the right to retain only the equivalent – original. He gives reasons for the fact that especially in the case of architecture, it is clear that authentic content or authentic material may not always be original, authentic.

The development of the substantive content of the concept from closer to a far broader, more universal and comprehensive approach is also dealt by Štulc (2001, p. 246–247, 2007, p. 39); in addition to the authenticity of the preserved material substance, authenticity of art forms and in addition to the generally accepted authenticity of places and environments, the criterion of authenticity of traditional art or production process has been recognized worldwide as well. This shift is reflected in the final document of the General Assembly of ICOMOS in Sofia in 1996, by the name of the section: **Authenticity – from product to process** (Cantacuzino, 1997, p. 19–20). Detailed structured interpretation of authenticity provides Kroupa (2004, p. 432). He mentions 14 sub categories, grouped into three basic areas: **authenticity of creation** (category which relates to the creation of art), **authenticity of works life** (category related to the elapsed time since the creation of art) and the **preservation of authenticity** (category linked to the new involvement in the updating of the work). He considers the definition of sub-categories of authenticity as challenging from the following reasons: it allows to understand the issue, it is pointing out various points of view and especially the fact that by the new intervention to work we will evaluate some categories of the authenticity as mutually exclusive (in terms of conservation).

More comprehensive understanding of the content of authenticity is coupled with the extension of the concept of cultural heritage on technical monuments, contemporary arts, photography, field of ethnography, etc. (Kroupa, 2004, s. 431–432), as well as with the globalization of the cultural heritage questions (Kroupa, *ibid.*; Štulc, 2001, p. 246–247). For ethnicity and cultures not stemming from a European tradition, the relationship of the authenticity of a monument to its preserved material substance (in Europe usually durable materials) is incomprehensible,

unacceptable and in fact discriminatory. It does not take into account the creations characteristic for these cultures: always created with new material, but with an ancient, often just a sanctified technology by the sacred tradition to the highest perfection of its workmanship construction of cunning “ephemeral” building or perishable products, and therefore not the long-term preservation of unintended materials (Štulc, 2001, p. 246). In this context, Tomaszewski (2004) noted that the emphasis on the substance is a uniquely European phenomenon and it comes directly from the medieval cult of relics of saints. It points out that especially the Conference on Authenticity in relation to the World Heritage Convention, held in Nara, Japan in 1994 in collaboration with UNESCO, ICCROM and ICOMOS, brought to the attention the Far Eastern concept based solely on the form, functions and traditions of authenticity, which are based in faith in reincarnation. Nara document on authenticity (Poláková, 2007), drafted by conference participants states in article 13: *Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.* This paper suffers from some vague, resigns the establishment of particular criteria (due to the diversity of cultures) and, in the end, it calls for the elaboration of specific criteria for the different cultural areas (Kroupa, 2004, p. 432; Štulc, 2007, p. 39). It is assumed that in our cultural environment the importance of original substance will play an important role in the future. Some exception is the plant components, which, so far – according to the need for cyclical recovery (see below) – have a specific position. One can only hope that their specificity – reminiscent, to some extent, the above-mentioned aspects of the cultures with non-European roots – will get even greater support also from the strict advocates of the original substance meaning.

At the beginning of this paper, it was suggested that the care of garden art monuments usually applies the ideas and approaches of the conservationists from other specializations. Most often it is inspired – whether consciously or unconsciously – by the practice applied at (individual) landmarks. Care of urban complexes may be regarded as at least the same important source of guidance by larger gardens and parks. **Urban authenticity** is not the same as the authenticity of particular monuments, of which the historic city center consists. First of all, the overall appearance of the particular set is crucial, not the building material and various architectural elements (Líbal, 1996, p. 5; Solař, 2007, p. 5).

3.2 Monument value of the landscape architecture objects

The **crucial importance of the original substance** for historical value is resulting from the **Venice Charter**, focused on the construction landmarks and from a continuing **Florence Charter**, dealing with historical gardens (Poláková, 2007; Pacáková-Hošťálková *et al.*, 1999). As there are no general formulations of these two mentioned documents adopted by preservationists and mostly are not interpreted quite consistently, most of them derive – at least in countries whose culture has European roots – the following **basic approaches to the garden art monuments**:

(a) **The condition for designation the object as a historic monument is preservation of at least some historical substance to the present.** Article 17 of Florence Charter describes it as following (Poláková, 2007): *Where a garden has completely disappeared or there exists no more than conjectural evidence of its successive stages a reconstruction could not be considered a historic garden.* The work, which would in this case be inspired by traditional forms and was built on the site of the former garden or in places where previously were no garden there, has a character of evocation and new creation; but it is not a historic garden by no means. It is necessary to remind, as it will be specified in detail later on, that the original plants often cannot be the historic substance at plant elements.

(b) **Respect to multi-layer character of monuments.** In Article 11 of Venice Charter (focused on the building monuments) it says (IInd, 1964): *The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration.* Article 16 of Florence Charter (Poláková, 2007) then likewise says: *In principle, no one period should be given precedence over any other, except in exceptional cases where the degree of damage or destruction affecting certain parts of a garden may be such that it is decided to reconstruct it on the basis of the traces that survive or of unimpeachable documentary evidence.* It refuses, therefore, the desire for stylistic purity and unity, requiring the disruption or destruction of substances preserved. Schmidt (2008) cites in this connection: *Understanding the artistic monument as a historical monument has led to the fact that originality is no longer a synonym for the initial state, but also includes the subsequent changes and ... (we keep) not only the original ideas and just design of the monument but we respect its entire way of life as a material witness of its and our history.*

(c) **The longest possible conservation (preservation) of preserved substance.** Specifics of plant components, especially composite ones (groups and stands of woody plants, details in Pejchal and Šimek, 1997) that complicate the compliance with this principle are mentioned in the following chapter.

(d) **Minimization and slowdown of changes** to the historic gardens are subject from a number of reasons, particularly biological and social (e.g. Panning, 2006; Schmidt, 2008). In this context, Schmidt says: *Even the conservation intended to maintain the substance, changes it at least minimally.*

(e) **Measures which go beyond the framework of preservation must not falsify the object as a document of art and history.** Venice Charter (IInd, 1964) speaks in this context in Article 9, 12 and 13 about the restoration and modern additions. Florence Charter then in Article 15 to 17 about the restoration and restitution, while in English and German versions (Poláková, 2007; Charta, 1981) there is used instead of the concept of restitution term reconstruction (respectively Rekonstruktion). General consensus exists – apart from the inevitable differences in interpretation – that the action must be based: ... *on respect for original material and authentic documents.* (Venice Charter, Article 9).

In relation to the **restoration** – which takes place mainly in the gardens within preserved compositional elements and it exceptionally consists of filling the missing less important elements, rather of decorative character – you can find additional indication of this approach only in the Venice Charter, which says: *It must stop at the point where conjecture begins, ...* (Article 9) and *Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence.* (Article 12). These recommendations, which are intended for buildings, are in many cases difficult to apply rigorously in plant components, as it will be justified later. The principle of differentiation of supplements is sometimes questioned even at buildings. Štulc (2001, p. 243) discussed it in relation to the application of the postulate of the leader of so-called Vienna School of Alois Riegl (1858–1905): *... that all modifications, additions or completions – if they are necessary – are to or even have to reflect the spirit or the artistic volition of the period in which they are implemented.* It is highlighting that if it is impossible to avoid physical degradation of the material substance of the monuments for good and if we want to intentionally use only our stylish contemporary expression, techniques and materials (regardless of whether they are compatible with a traditional piece of architecture by their nature), then the monument will as a rule cease to exist as a work of historic architecture in this process.

There are currently divergent views on the **restitution** of garden art monuments – of within there are also amends of important missing elements and their sets of architectural (not only decorative) function. One side emphasizes the crucial role of the original substance so that its representatives often seek to maximal

conservation at the price of gradual replacement of the surviving individuals in such plant components such as shaped walls and they have very cautious and averse relationship to the restitution (reconstruction). See, for example the numerous contributors to the publication of "Der Garten – ein Ort des Wandels" (Jong, 2006). This relationship is not concerned only with the total reconstructions – to which also their ideological opponents have a very distant relationship after not very convincing examples from the late 20th century with – but also component parts of the gardens. They prefer new creations on the grounds that restitution is "new" and a contemporary artistic interpretation of garden is "new" as well, hereat truer (Jong, 2006). The other side of the opinion field (e.g., Rüsche, 2003; Hajós, 2004, 2006, 2007) criticizes them and the Venice Charter that they limit the monument preservation purely on material substance. They represent the opinion – in line with the broader concept of authenticity mentioned in the previous chapter – that in addition to the substance, there are important aspects of the monument like the form, symbolic value, traditional features, craft and cultivation techniques. They point out that the garden monument cannot be available only for scientific research, but should be preserved and restored in a sufficiently clear and visual form to be understandable and acceptable to the general public so that it becomes a place for celebration of cultural eras of mankind. To implement a consistent analytical method or insist strictly on the existence of very old plants until their more or less natural demise is with plant components, particularly the complex ones, often highly problematic (see below).

- (f) **Modern complements**, in accordance with Article 13 of Venice Charter, consider the two above-mentioned opinion groups as legitimate and in general they share the idea that they should obey, as formulated by Hajós (2006), to *historical dominance of the whole object*, a consensus on specific cases, however, looks considerably more difficult. Danger of these considerations for maintaining the integrity of a monument as a work of art was mentioned in the previous chapter and complications of their implementation at the plant components will be discussed later.

3.3 Specific features of plant components

Plants are the diagnostic feature of garden art monuments that is different from monuments of other sectors, also arranging and depicting space (Pejchal, 2005, 2008). In this context, they are considered as an **element of the dual nature** (Grose-Bächle, 2003). This means the natural and socio-cultural aspect. To fully exploit the potential of plants, these two directions must be linked together

and – in comparison with non-living components – therefore their biological nature must be taken into account. From that comes up that (Pejchal, 2008):

- (a) **plants potential – given by the genetic information – can be fully used only in certain habitat conditions**, and their unsuitability for certain taxa can usually be eliminated only partially and only at a significant cost increase; diseases and pests should be considered as an important component of habitat. Habitat change resulting both from the existence of plants themselves (affecting the microclimate and soil), and the facts of the green independent from building (air pollution, lowering of groundwater, climate change, the additional presence of calamity disease or pests, ...) can complicate and impede the application of indigenous plants taxa.
- (b) **Plants are variable in space**, which means vital habitat for all of their properties. There is a close link with the previous point, a complication may also occur in the use of analogies in inadequately documented elements (Wimmer, 2007).
- (c) **Habitat is to some extent influenced and altered by plants**, especially the properties of soil and microclimate, but also other plants in the area. See also the above-mentioned change in habitat resulting from the presence of plants themselves and their consequences.
- (d) **Plants are variable in time**, i.e. during the day, year and lifetime, and the discussed topic has the closest relationship with the last-mentioned time horizon, which among other things put emphasize on the role of "force majeure" in long-lived tree species, imposes specific requirements on the space composition and complicates the understanding of their authenticity (see below).
- (e) **Plants, especially trees, are (often) fully operational until some time after a successful growth and development**, conditional – in addition to proper design and establishment – by its proper cultivation. The result, inter alia, is the relativization of the importance of composition's author and his baseline for the consideration of authenticity and historical value.
- (f) **Nature of plant components is determined by the method of cultivation** (in addition to their spatial, taxonomic, and possibly age structures). E.g. replacement of the ball-shaped plants for the compact variety of the same shape, not requiring regular molding cut will fundamentally change the identity of such an element.
- (g) **In all plant components, one generation of organisms must be replaced by the other one**, which often entails deterioration or even disruption of their functionality. To a certain extent, the significance of the original substance in these elements is relativized, which affects other aspects of the care of historic monuments to be mentioned later. This specific feature of plants sometimes make it possible to resolve the issue of

problematic time layers in the object by leaving their plants to finish their life “expectancy” and not to regenerate them any more longer.

(h) **Plants have – under certain conditions – the ability to regenerate and reproduce.** According to the specific situation, the property can be positive or negative. Regeneration is desirable as the damaged plants, it can be used to restore the original size and shape of arboriculturally neglected or overgrown molded plants, through auto reproduction a new generation of good usable plants can be created, genetically and “ideologically” close to the original plants (Panning, 2006), but spontaneous dissemination of plants are also often undesirable.

(i) **Taxa (cultivars) grown in cultures without active care (vegetative propagation and maintenance plant breeding) permanently cease** and thus cannot be used even when they are in the plant element clearly documented.

The specificity of the plants as a compositional element emphasizes the crucial importance of “the fourth dimension of space” – time, and makes so – along with other specifics of living organisms – (relative) autonomy of the profession. As a result, there are **specific procedures for “controlling” the four-dimensional space, which require** – among others – **the long-term approach in thinking and strategy in the care and rehabilitation** (Pejchal, 2005):

(a) **It is not possible to compose space as a static image,** but rather to shape it as a series of the changing images. The “choreography” of plant (in relation to them eventually other) components is necessary to fully exploit their potential. Therefore a “choreographer” working with plants must know them much deeper than the artists working with inanimate material. This is particularly the significant variability through the ages and life expectancy of individual taxa, especially trees, which means that in the continuous presence of object all (above mentioned) images and their sequence can never exactly repeat. And sometimes not even in the case of a total one-time repair (see below).

(b) **The possibility or the necessity to use certain plants so that they are not part of the planned target state.** Planting of a greater number of specimen of the so-called target functional categories, which is reduced according to their growth is quite common – such as basic, additional and undergrowth species (Machovec *et al.*, 2000). Planting of temporary functional categories is not that common – i.e. filling, preparing and serving tree species (Ruyten, 1997, 2006; FLL, 1999; Pejchal, 2000; Machovec *et al.*, 2000).

This fact suggests that **in terms of authenticity of plant components in addition to “result”, the “way” to achieve them is very important.**

(c) **Delayed onset of full functionality and a crucial impact of care on “target” status of plant components give some room to adapt to changing user’s needs,** without requiring their reconstruction (Brands and Loeff, 2002; Pejchal, 2002b). This concerns especially tree elements, in which there were planted more specimen, or which were established on a larger area than it is assumed in their “target” state.

(d) **Care is essential to achieve and maintain full functionality of landscape architecture works, whereas its demands on expertise are comparable with the design of these works.** It results primarily from a combination of the following factors: (1) a long period between planting and full functionality of plant components; (2) the length of their existence is often beyond the human life; (3) large variability of plants through their life; (4) acts of force majeure; (5) change of the requirements and possibilities of the society in relation to green spaces; (6) design deficiencies. The latter reason can be easily misused for arbitrary and unethical conduct in relation to monument. It should therefore be used very carefully, with exceptions only for biological and technological aspects of the issue.

(e) **Cultivation measures need to be implemented in a certain period of time,** Panning (2006) calls them a “time window”, otherwise it will adversely affect plants and from them created elements. Under certain assumptions, by some arboriculturally deprived plant components, it is possible to achieve some improvement by the use of their regenerative abilities. For details, see e.g. Pejchal (1995a).

(f) **Replacement of old generation of vigorous and long-aged trees by new generation is always done in conditions which are more or less different from the conditions at the beginning of its existence.** This results primarily from a combination of the following circumstances: (1) metamorphosis of plants during their life, especially often substantial increase in size; (2) gradual living-out often single-planted plants; (3) habitat change resulting from the existence of plants themselves, as well as from the facts independent on green spaces (see above); (4) link between plants and the habitat does not allow – as with built or manufactured monuments – to disarticulate the object relatively easy in its components and then assemble it again, with the possible replacement of elements that are no longer in acceptable condition; this applies especially for bulky and long-lived tree species in the stands, where the failures of individual specimens can not be immediately replaced with new ones because they are not able to compete with neighboring adults (see details Pejchal, 2007); (5) change of the social situation and the

consequent demands and opportunities in relation to green spaces.

Compared with elements of inanimate materials, all the outlined specifics of plant components reduce the importance of the original substance and the initial “image” for their authenticity and of the contrary, they emphasize the importance of the process of their creation.

3.4 Monumental value of plant components

Monumental nature of plant components is indirectly referred only in the Article 11 of Florence Charter, stating: *Since the principal material is vegetal, the preservation of the garden in an unchanged condition requires both prompt replacements when required and a long-term programme of periodic renewal (clear felling and replanting with mature specimens).*

Jordan (1985) and Jordan and Meyer (1991) elaborates the question in detail. Trees and other plants distinguish by their limited lifespan the monuments of garden art from other historical buildings. For the monuments built or manufactured the original substance (material) is usually an essential prerequisite for its monumental nature. When the castle is extinguished, it could of course be re-built with absolute fidelity of the original, however, would not remain a monument. It could become in the future as a testimony of historical replicas, made in some time. The original substance (plants from the period of establishment) cannot be an essential prerequisite for nature conservation at monuments of garden art and especially their plant components because of above mentioned reason. This is the observance of the principle contained in the original substance. That principle can be constantly replenished by new generations of plants. Extreme example is annual-flower plantings. These plants represent the principle only during the short period of a season. Then they work no longer and must be replaced next year by another, without losing the historical value of the bed (the object) was dissolved. We can speak about the principle as the bearer of the dominant cultural and historic value of a monument: *For example there were some Calvary ... bleached with lime every spring, than the fact of annual bleaching has bigger value than a specific preserved historical layer of lime* (Solař, 2004).

Even long-lived tree species will cease to perform the monumental function and must be replaced for a successor capable of representing the above-mentioned principle. The time when the specimen fulfills its monumental function, i.e. is capable of representing the principle, can end much earlier than its viability. From the perspective of monument preservation it is necessary to replace such an individual. This often leads to conflict with nature preservation, which also can have a legitimate interest to preserve the specimen. The bottom line is that the primary goal of care for garden art monuments is not to preserve specific vegetation elements (solitaires, groups or stands), but the

principle included in them, constantly presented with new generations of plants.

The above mentioned view, that the period for which the tree is able to represent the principle of the original substance is often shorter than the length of its existence, is not only contrary to the interests of nature preservation but also in conflict with the “hard-core fans” of historical substance. Rather it is closer to those conservationists who emphasize the “visual value” of trees, so their ability to provide author's desired image (Bratner, 2002). The concept of the original substance is relativized to a certain extent by biological properties of very old plants – tree species. Only a small part of the body hidden in their interior dates usually from the time of planting, it may be absent at the hollow specimen. On the one hand, this fact supports the importance of visual value, on the other it does not deny the importance of original substance, it only hints at the problems of its absolutization.

Despite the above mentioned, there is no doubt that the original plants are little more than the next-generation of plants. They are a “storage medium” with the documentary importance, while also a material and symbolical linking of the present with the past. Some of their values get lost entirely with their demise, or largely, others – the grandeur, dignity, majesty, patina ... – for a long time (Pejchal, 2005, 2007). In connection with the indicated, Panning (2006) states the following levels of genetic and ideological links to the previous, or original plant: (1) genetically identical (vegetative propagated); (2) generative offspring; (3) in place of the original plants spontaneously germinated generative offspring; (4) seedlings from other areas of the object.

Due to its focus and method of creation, the above mentioned “charters” and “documents” are related primarily to the garden as a whole, they are inadequate guidance for work with plants. The problem is the lack of the sophisticated theory of plant elements nature and principles of its application in practice, as well as the fact that some of the above mentioned principles applied to all objects and elements of inanimate materials can be used for plant components only with difficulties.

To define the monumental nature of plant components is very difficult, especially for their specifics. **This raises many questions** which are practically not discussed, for example:

- (a) **How important are the various developmental stages of an element?** Is the “target” state, initial state or the whole course of component's development important?
- (b) **What is the role of age structure of different types of elements** (same age versus different age of the forming specimen) **and the closely related spatial structure?** Many compound elements (groups, vegetations) as well as in irregular compositions were established by single application. How important is such conditional same agedness for their character, or “ideotype”?

(c) **How important is the existence of different length and thus different recovery times of space creating elements on the authenticity of composition of the object or part of its composition?** Despite often the same “starting line” at its inception, resulting from the differences in their longevity they may pass “the baton” to next generation in a different time. As a result may be the fact that the elements in the original project designed as smaller can for some time exceed those that were intended as bigger. It is one of the frequent cases where there is a conflict between the value of the original substance and visual value (see above).

(d) **How to deal the situations when the value of original substance and visual value may interfere?** There might be a paradoxical case that the restoration (reconstruction) means the destruction of the original substance from epoch to be restored. The reason could be the trees that are no longer able to represent the original principle because of their biological weakness, or they ceased to represent it because of the neglected maintenance (especially trees, that ceased to be shaped). In the second case, both legitimate goals can be combined, if the regenerative pruning can be applied.

(e) **How big is the importance of the advantages of continuous renewal of the element in comparison with its possible shortcomings?** The negative can be a long-term to permanent loss of desirable same-agedness of specimen, in some cases even their reduced vitality due to suppression by older plants, often it is also the increased cost of maintenance.

(f) **What is the role of historical technologies?** That is especially maturity of seedlings, plant spacing, or the intentional use of temporary functional categories of plant species such as the so-called filling trees. Furthermore, the way of implementation of maintenance measures, which have more or less pronounced effect on the appearance of the element, such as mowing the lawn and shaping cut (tools, machinery, frequency of operations) or a deliberate reduction in the number of individuals (thinning). The answer should be sought also to a question what is the importance of the use of auxiliary materials either temporarily (e.g. in tree anchorage) or more or less permanently (e.g., traditional mechanical partitioning of lawns from beds by means of wooden planks in contrast to iron sheet belts commonly used at the present even in the historic objects).

Complications with the application of certain recommendations of the Venice Charter are produce mainly by:

(a) **The requirement to distinguish supplemented parts from the original ones during restoration measures.** The reasons are a combination of the following facts: (1) smaller general awareness

of the history of garden art; (2) much greater variability of plants during the year and life than that of non-living materials; (3) smaller conciseness, respectively greater uncertainty of the appearance of plants comparing to dead materials; (4) comparing to inanimate materials, a difficult discriminability of both traditional and contemporary plant species, especially trees, and from them created plant components.

(b) **The principle not to apply hypothesis.** The problem is that, as it is noted in Wimmer (2007), that: *Historic garden plans show a group of trees, shrub areas and flower beds as a rule only in outlines, which are meant to be more or less schematic. The specific species composition, number and spacing of plants were determined during establishment, which was not documented.* If analysis of other archival records, surviving vegetation components, or garden archeology does not give sufficient response in these cases, there is the only way of analogous deductions from studies of better documented relevant objects (the best are other works of the same creator), or specialized textbooks and manuals of the time. To some extent, the figures of the time of introduction of foreign plants in our lands and the time of the cultivar creation can help (Pejchal, 1995b). Detailed methodology “Conjectural Replanting” (Laird, 1994) is established and developed on the analogies.

Next complications are a reflection of the fact, that proponents of maximal extending of the lifetime of original substance in one breath speaks of the need for continuous renewal (Panning, 2006), although this is largely an oxymoron because e.g. in groups, stands, walls and avenues of mature trees is on place given up by individuals gradually dying specimens for many reasons it is very difficult to impossible to secure conditions for good growth and development of individuals of the following generation; see details Pejchal (2007). The problem sometimes is already mentioned loss of desirable even-agedness and longevity.

Important role in solving outlined practical problems of monument preservation (properly understood) is played by creativity. This is reflected by finding the optimal path on how to pass entrusted objects to future generations in the most authentic form, despite a number of factors that complicate it (Pejchal, 1995b, see above). Wimmer (2007), expresses himself to the subject as follows: *The frightening specter of an ambitious designer who yearns to conform the landmark to his style should not irritate. Neither ambition, nor the ability to design are in itself danger for the monument. Danger means bad designers, as well as inexperienced historians. A good designed makes sure that the predecessor's good work will not be damaged but he will meet with him with respect, without denying.*

4 CONCLUSION

Finding answers to the mentioned questions is not simple. One reason is that the monument

preservation, as Wimmer (2007) says, has three components: scientific-technical, artistic and ethical. From the principle, it is not possible to reach simple and universal solutions.

SUMMARY

Aim of this paper is to summarize the current views and approaches to monument preservation, and to indicate which possibilities and limitations exist for their application in plant components. With the knowledge of indispensable simplification, it can be stated that since the emergence of monument preservation, there are two basic attitudes to the role of monuments: (a) they should primarily refer to the time of its creation, (b) to manifest the traces of lived time. In the first case, the overall effect of the work is favored compared to the preservation of original substance and the reconstruction is easier. In the second case, the priorities are reversed, and advocates of this direction prefer conservation, they have very reticent to negative relationship to reconstructions, they turn to new creations easier. Both approaches are present in the monument preservation and they are more or less combined. Despite the outlined differences, great importance is generally put on the substance of the original substance for historical value in the countries with the European cultural roots. From the late 80s of the last century, due to the expansion of the concept of cultural heritage and in the context of globalization, a more comprehensive understanding of content authenticity is gradually being supported. Besides the substances, there are important aspects of a monument like form, symbolic value, traditional function, craft and cultivation techniques. This shift in understanding of the authenticity "of the product to the process of" better reflects the specific characteristics of plant components.

Plants specifications emphasize the fundamental meaning of the "fourth space dimension" – time by their usage: (a) the space cannot be composed as a static image, (b) some used plants are not the planned part of the target state, (c) delayed onset of full functionality, (d) substantial importance of care for achieving and maintaining of the full functionality, (e) cultivation measures must be implemented in a certain time period, i.e. the "time window", (f) replacement of already obsolete generation of full-grown and long-aged trees with a new generation is often carried out in the amended site conditions and different social situation.

Historical authenticity of the plant components has the following specifics: (a) its basic assumption may not be the original specimens of plants, it is the preservation of the principle contained in this original substance, (b) the period during which the plant is able to represent the principle of the original substance is often shorter than the length of its existence, (c) gradual recovery of surviving individuals is often difficult or even impossible in plants groups and stands, (d) it is often impossible to meet the recommendations of Venice Charter not to apply the hypothesis and differentiation of added parts from the original ones. There was not paid enough attention to following aspects of the authenticity of plant components: (a) the importance of particular developmental stages of the element, (b) the role of age structure (the same age – different age) for different types of elements, (c) the effect of different length of the existence of space-formative elements (different periods of their recovery) to the overall composition effect, (d) role of historical technologies.

Finding answers to the mentioned questions are not simple. One reason is that conservation has three aspects: scientific-technical, artistic and ethical.

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