Urban greenery between exoticism and artificiality: A study on indoor cultivation and artificial vegetation in Modern Germany

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1. Introduction

Throughout the 19th century, it became widely popular to locate greenery in indoor space, both in private and public rooms. In former times, special indoor spaces for plants, like hothouses, and some vegetal decoration in private rooms existed, but it was only in the 19th century that the number of plants in indoor space, closely related to urban daily life, increased substantially. What was the reason for this trend? Can this be considered in the same context as the development of public green space, which aimed to improve the living conditions of city dwellers through the increase of greenery at this time?

Not a few studies deal with the cultural and social history of indoor space for plants such as conservatories and winter gardens. But they neither pay much attention to plants inside glasshouses, nor do they remark the relations between plants and urban life in indoor space. Other studies, referring to the meaning of plants in indoor space in Europe in the 19th century, cover only limited aspects of indoor plants related to political and art historical issues such as the relations to imperialistic ideas and the yearning for exotic orient. The work of Christel Köhle-Hezinger is one of the few exceptions.
No doubt, the ecological function of indoor plants bears no comparison with other urban vegetation such as public green space and forests. But the social and cultural relevance of plants in indoor space must not be overlooked in the history of urban greenery in cities because indoor space was closely related to daily life of city residents. Based on this assumption, I will explore the development of the culture of indoor plants in both public and private indoor space and clarify why plants began to be distributed in indoor space, what kind of plants and arrangements were popular, and which different roles they played in cities in the course of time.

2. Indoor space as space for vegetal cultivation

Attitudes towards gardening changed in the early 19\textsuperscript{th} century. Gardening was appreciated as means to refresh oneself and to contribute to mental and physical health\textsuperscript{5}. As a result gardening was regarded as cultural recreation for the educated. A horticultural book of 1839 stated that almost every educated person had his own garden, his flowerbed or at least his flowerpot\textsuperscript{6}. Hence, the popularity of gardening grew in the first half of the 19\textsuperscript{th} century. The increasing interest in rare and foreign plants accelerated the gardening boom among the middle class. The number of plants in collections of rich bourgeoisie often surpassed that of public botanical gardens\textsuperscript{7}.

The interest in gardening was not limited to gardens but led to the cultivation of plants and flowers in and around houses, too. In former times, indoor plants were overwhelmingly appreciated as decorations for embellishment of rooms and representative means to show off the richness and prestige of their owners\textsuperscript{8}. But it became an important factor for the middle class to actually enjoy growing plants\textsuperscript{9}. The value of indoor plants obviously became more than just a decoration or a
representative means. The number of cut flower decorations decreased in indoor space while pot plants increased from the end of the 18th century\(^{10}\). Living indoor plants had become indispensable in bourgeoisie houses by the middle of the 19th century\(^{11}\).

Moreover, plants at home were appreciated for hygienic reasons: they were supposed to clean the air in rooms and keep adequate humidity\(^{12}\). The technological and scientific progress during the 19th century also substantially contributed to the dissemination of indoor plants: Horticulture made great progress and glasshouses were considerably improved. Furthermore, the growing railway network made it possible to transport plants rapidly from town to town. On this account the cultivation of a larger variety of plants became much easier at home. After all, indoor space had become acknowledged as space for vegetal

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*Fig.1: a room of the middle class in Vienna 1844 (Thornton, Peter Authentic Decor. The domestic interior 1620-1920, London 1993, p.294.)*
cultivation throughout the 19\textsuperscript{th} century.

3. Plants in indoor space

<Exotic plants>

Plants in rooms were mainly not useful plants but ornamental plants, which were arranged for the purpose of amusing people. The popular ornamental plants were overwhelmingly foreign plants\textsuperscript{13}. Already in the first half of the 19\textsuperscript{th} century almost all gardener’s collections in Germany consisted of various foreign plants\textsuperscript{14}. In contrast to former times, it is characteristic for the 19\textsuperscript{th} century that foliage plants with unique forms of leaves and evergreen beauty fascinated a lot of people\textsuperscript{15}. In 1878, a gardener, wrote admiring the love of foliage plants, ‘Horticulturists in former times would have never understood that quite a lot of people are interested in plants like foliage plants which have no beautiful flowers or no flowers at all\textsuperscript{16}.’ Foliage plants were appreciated not only as ornamental plants in gardens. They were very well suited for the contemporary embellishment of rooms and flower tables\textsuperscript{17}. The popularity of foliage plants as well as flowers from China and Japan increased especially from the middle of the 19\textsuperscript{th} century\textsuperscript{18}.

The palm tree was called ‘King of foliage plants’\textsuperscript{19} and had become the most popular plant in rooms particularly since the latter half of the 19\textsuperscript{th} century. The existence of palm trees had already been well known, especially as the ‘tree of life’ in paradise, even before real ones were physically grown in Germany around the 18\textsuperscript{th} century. A compound leaf of a cycad symbolised peace in Christian churches. Several painters like Albrecht Dürer (1471-1528) painted palm trees\textsuperscript{20}. In the Modern Age, palm trees also attracted people due to their botanical unique form and their various economic uses in tropical regions. According to a horticultural book about foliage plants in 1899, about 150 kinds of palms, which
could be cultivated in rooms without glass covers\textsuperscript{21}, were known. The cultivation of palms must have become popular in a full cross-section of society by the turn of the century. In fact, small palms cost only little more than fuchsia and geranium\textsuperscript{22} and the illustrated magazine for the working classes “Die Neue Welt” also dealt with palm cultivation\textsuperscript{23}.

\textit{< Artificial vegetation>}

Furthermore, a new type of plants appeared in indoor space in the latter half of the 19\textsuperscript{th} century. From the middle of the century, the taste for plants seemed to have changed compared to the beginning of the century: While the affection

\begin{figure}[h]
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\includegraphics[width=0.8\textwidth]{fig2.jpg}
\caption{Fig.2: a lady’s room in Leipzig 1879-1880 (Thornton, Peter Authentic Decor. The domestic interior 1620-1920, London 1993, p.339.)}
\end{figure}
to simple forms of nature had declined, plants and flowers comprising massive and decorative forms and colours became popular in rooms. This tendency had become especially strong since the 1870s after the Franco-German War\textsuperscript{24}. At the same time a new room decoration style, the so called ‘German Renaissance Style’\textsuperscript{,} became rapidly widespread in houses of the middle class. In this style stately decoration was preferred. Consequently, massive furniture and ornaments such as pictures, mirrors and clocks occupied private rooms. Sofas, armchairs and tables were covered with drapery. Rugs with oriental motifs lay on the floor. Finally, windows were covered with grave and thick curtains. As a result, sunlight could hardly penetrate into the rooms. Under these conditions, foliage plants, mainly originating in tropical and subtropical regions, could hardly survive inside houses. Replacing real fresh plants, a new type of plants increased in rooms rapidly. These were not living plants but artificial plants in impregnated and artificial forms\textsuperscript{25}.

The spread of this new type of indoor plants owed a lot to the famous painter Hans Makart (1840-1884), who lived in Vienna between 1869 and 1884. Soon after he had moved to Vienna, his atelier, that was open regularly to the public, became the centre of the social life in Vienna\textsuperscript{26}. The interior decoration of his atelier was also highly appreciated as a ‘good-tasted’ and ‘artistic’\textsuperscript{27} example for room decoration in private houses. The essential ornamental elements in his atelier comprised a unique vegetal decoration. He, too, loved the popular palm trees but instead of only placing them into his atelier he developed a special arrangements of palms. Makart painted old soft gold colours on dried and impregnated palm leaves and combined them with dry grasses and other fancy and exotic elements, such as feathers of peacocks and ostriches or butterflies\textsuperscript{28}. These arrangements were called ‘Makart’s Bouquets’\textsuperscript{29} and became immediately popular as artistic ornaments in houses of the upper middle classes not only in Vienna but also in German cities in the 1870s and 1880s. Those who could not afford to buy the
Fig.3 : Hans Makaet’s atelier 1885 (Thornton, Peter Authentic Decor. The domestic interior 1620-1920, London 1993, p.334.)

Fig.4 : Makaet’s Bouquet (Pirchan, Emil, Hans Makart : Leben, Werk und Zeit, Wien 1942, p.41.)
expensive Makart Bouquets made similar bouquets for themselves using cheap material and by repainting withered palm leaves.\textsuperscript{29}

Furthermore, the number of imitations that looked exactly like real palms also increased in indoor space. For example, dried and impregnated palms rapidly spread as major features in rooms, owing to the rapid development of so called ‘Palmenfabrikationen’, the dry plants and moos industry.\textsuperscript{30} To supplement the shortage of real palm leaves, artificial palms made from paper and cottons were also invented.\textsuperscript{31} The production of artificial leaves became even one of the most successful fields in German artificial flowers’ and plants’ industry.\textsuperscript{32} Especially in rooms of the middle and lower class impregnated palms or palms made out of paper were very popular as substitutes for real plants.\textsuperscript{33} Since plants were produced as imitations of real plants it is hard to realize in historical documents, illustrations as well as photographs, to what extent dry and artificial plants substituted real palm trees. Nevertheless the increased number of palm trees placed in quite small vases and located in the middle and the corner of dark rooms in the latter half of the 19th century support the assumption that this new type of artificial plants was widespread. - It is rather unlikely that real palms could grow in such small vases and in such a miserable indoor environment.\textsuperscript{34}

<Local plants>

Around the turn of the century, the trend of room decorations and plants had begun to change again. Excessive room decorations, like elaborated ornaments, heavy drapery and Makart’s Bouquets, gradually lost their popularity from the turn of the century.\textsuperscript{35} At the same time, ‘indigenous’ wild flowers such as cowslips, snowdrops, marguerites and other herbal and non-herbal plants in fields were rediscovered and highly admired due to their simple taste.\textsuperscript{36} It was regarded even as kitsch to put artificial plants in high-ranking salons at the beginning of the
20th century. Although this new taste for plants had not been widely accepted in Germany by the turn of the century yet, it found more and more acceptance in the following decades.

Nevertheless not all foreign plants as well as artificial plants disappeared from rooms. According to a survey at the end of the 19th century at a local school, Bürgerschule in Dresden, the total of indoor ornamental plants owned by families of 112 pupils amounted to 1417. These indoor plants came from all over the world, from America, Caucasus, Himalayas, China, Mexico and other tropical regions. This also shows that room gardening maintained its popularity. Actually, indoor gardening was still believed to relax oneself and plants in rooms, ‘a small peace of nature’, were considered indispensable for the comfort of homes.

Furthermore, although dry and artificial plants had not been fashionable anymore since the turn of the 19th century, they remained popular because they were indispensable among the poor and in locations that were not suited for real plants. For example, at the beginning of the 20th century a cheap decoration with palm leaves and wired red rose hips was popular. In short, at the turn of the century the arrangements of indoor plants were less stylised than in the 1870s and 1880s and plants of various kinds as well as forms were accepted in indoor space depending on locations and other conditions.

4. Indoor space for plants

In the 19th century, special indoor spaces were considerably developed to cultivate plants. Originally special indoor space for the cultivation of plants had been constructed for economic use of tropical plants, such as hothouses and conservatories. Gradually however, in the 19th century, they had been transformed into spacious winter gardens made of glass and iron. Winter gardens can be
understood as the first and main form of indoor space for plants, which the broad populace had visited for recreation in the 19th century.

At the beginning of the 19th century, a privately owned winter garden in Leipzig was one of the first to be open to the public. It was open to the public during the winter season, from October until April. Twice a week concerts were held in the winter garden in which about 25,000 pot plants were exhibited. The estimated number of visitors in this winter garden in the winter of 1809 was nearly 600. In general, the number of public winter gardens had increased in German cities especially since the middle of the 19th century. Whereas botanical gardens and local horticultural associations took the initiative to construct winter gardens, commercially operated winter gardens followed suit. In contrary to the public outdoor urban space in the same period, the commercially operated winter gardens did not emphasize as much on the educational function. Winter gardens were much more aimed at inviting people to a dreamlike atmosphere of tropical landscapes. At the same time, their recreational function - similar to public green space - might have contributed to the détente of social tensions.

In the latter half of the 19th century, a new kind of building was constructed which combined winter gardens with other facilities such as club rooms, dance halls, theatres, cafés, galleries, concert halls and restaurants. The first example was “Flora”, opened 1864 in Cologne. The “Palmengarten”, opened 1869 in Frankfurt on Main, was taken as a model for other cities. “Crystall Palast” in Leipzig, built in 1882, comprised even a circus, a diorama, and a hotel. These facilities were one of the central recreational facilities for city residents in the 19th century. By the end of the 19th century other commercial facilities such as hotels, spas, and casinos also began to establish winter gardens. These winter gardens were even used for recreational functions such as restaurants, exhibitions, concerts, and meeting places. Here too, palm trees and tropical vegetations played a crucial role.
to create pictorial and exotic scenes\textsuperscript{51}.

Horticultural exhibitions also contributed quite a lot to the introduction of tropical vegetation and winter gardens to the broad populace, for horticultural exhibitions had been very popular until the beginning of the World War I\textsuperscript{52}. At horticultural exhibitions the role of indoor plants are not less important than that of outside plants. For example, more than half of all exhibited plants (244 of 475) at the horticultural exhibition held in Leipzig in 1893 were displayed in glasshouses\textsuperscript{53}. As for the structure of winter gardens, the facilities of horticultural exhibitions had a lot in common with standing public facilities like “Flora”: winter gardens with tropical vegetation were an indispensable attraction and various recreational facilities such as concert houses and cafés were attached to them.

In the latter half of the 19\textsuperscript{th} century, it also became popular to attach small winter gardens to villas of the upper middle class. Private winter gardens were usually connected to salon rooms. Especially in the last quarter of the century, the social life in private space did not remain in a main salon room but was active in a number of rooms, such as a salon for women, dining-room, dancing-room, room for men, and picture-gallery\textsuperscript{54}. Similar to these rooms winter gardens were also used as an extended part of the salon. At the same time, winter gardens had a special function as a retreat and secret place for intimate contacts\textsuperscript{55}. Like in public winter gardens, palms and tropical vegetation were at the center of private winter gardens\textsuperscript{56}.

5. Conclusion

In parallel with the increasing popularity of indoor plants, their popular forms kept changing in Germany throughout the 19\textsuperscript{th} century: After foreign plants, especially palm trees and other tropical vegetation, became popular, artificial
forms of plants, appropriated for indoor space such as impregnated and artificial plants, were invented. But later at the turn of the century, a new trend against excessive and artificial vegetal decorations made of foreign plants developed. Consequently, local wild flowers such as cowslips and herbal and non-herbal plants were revaluated as room decorations. The scale and types of indoor space in which plants were allocated also became diverse from huge glass houses and exhibition space to intimate private rooms.

The culture of urban indoor greenery in Modern Germany can be characterized with the following features:

- Superiority of foreign species

Indoor landscapes were mainly populated with tropical vegetation in the 19th century. This reflected, on the one hand, the strong relations between modern urban greenery and far away tropical regions. And on the other hand, tropical indoor green space in cities did not just imitate tropical landscapes but provided new functions suited for European urban life: Plants were originally distributed at home in search for a healthy and respectable life. But, public winter gardens began to provide new recreational activities as well as meeting places for a variety of people. Tropical plants were so often used in recreational and social space such as hotels and spas that they seemed to have become a new label of recreation and sociability. Vegetal decorations and winter gardens in private rooms were also new amusements for salon visitors. Such social functions of tropical plants were originated not in tropical regions but in European cities.

- Substitution of real plants

Indoor plants were easily replaced with artificial forms of plants. Artificial
vegetations can be differentiated into two groups: The first pattern was elaborate imitations to replace real plants. Soon after some real plants became popular, artificial copies were produced and diffused in indoor space. This led to the following paradox: The more the value of nature was appreciated, the more substitutes for real plants were instantly developed. The second pattern was not pure imitations but artificially rearranged plants. The desire to show plants in a more artistic and sensational way led to the spread of these plants. The Makart’s Bouquets were popular not because they were exact imitations of real plants, but because they were regarded to be superior to real plants, with their elegant gloss and durability58 they were the typical examples of this pattern. Although not all nature was replaceable by substitutes, the system of substitution can be regarded as a significant attitude towards nature in modern urban societies.

The development of artificial plants obviously indicates that a part of indoor
plants was allocated not to enjoy nature but just to raise the aesthetic and exotic atmosphere. Many city residents made little difference between real and artificial plants in indoor space. For them it was not important whether palm trees were real or not, it was important whether there were palms or not. I.e. their only purpose was to satisfy visual demands among people, like exhibits in an exhibition room. But this phenomenon is not due to the nature of indoor vegetations for itself but rather due to the general tendency to prioritize visual functions.

No doubt, indoor plants and greenery outside reflected the common contemporary cognition about ‘nature’ and ‘greenery’ and they were expected to provide - to some extent - the same functions in cities such as means for mental education, health, recreation and embellishment of environments. But, indoor plants and their space turned out to be not just the compensation for urban outdoor greenery and green space. Rather, the culture of indoor plants can be understood as a new perspective of urban greenery, that shows ambivalent characters of being a natural product as well as being a cultural product arranged for urban indoor life style.

(Endnotes)
1 This article is based on a paper presented at the Second International Round-Table on Environmental History of the 19th and 20th Century held at the University of Leicester, UK, June 27-30, 2002.


6 Bosse, Karl, Johann, Albert Ritter’s allgemeines deutsches Gartenbuch, 4. Auflage, Quedlinburg und Leipzig 1839, p. III.


13 From the 15th century various plants were imported to Europe from other

14 Bosse, Julius Friedrich Wilhelm, Vollständiges Handbuch der Blumen-gärtnerei, Hannover 1840, S. III.


19 “Blattpflanzen”, in Die Neue Welt, 1907, p.29.


25 Lichtwark, Alfred, Makartbouquet und Blumenstrauß, 2. Aufl., Berlin 1905,


28 Lichtwark, Alfred, op.cit., p.16.

29 Meyer, Sibylle, op.cit., pp.41-42.


31 Lichtwark, Alfred, op.cit., pp.16-17.


34 Thornton, Peter, op.cit., p.359.


36 ‘Indigenous’ plants in Germany had begun to be compiled since the late 16th century in parallel with the influx of foreign plants into Europe. Cooper, Mary Alexandra, Inventing the indigenous: local knowledge and natural history in the early modern German territories, thesis Harvard University, 1998.


38 Dürfeldt, Wilhelm, op.cit., p.120.


40 Kronberger-Frentzen, Hanna, op.cit., p.31.
42 “Verschiedenes über Zimmerpflanzen”, in Freund der Schrebervereine, 1907, Feb., pp.48-49.
44 Lux, Joseph Aug., op.cit., p.110.
47 About the formation of tropical images in Europe see Arnold, David, The problem of nature: environment, culture and European expansion, Oxford 1996, chapter 8.
52 Allinger, Gustav, op.cit., pp.54-66.
53 Stadtarchiv Leipzig, Cap.75, A. No.30, Bl.17.
55 Siebel, Ernst, ibid., pp.88, 96.
56 Ledien, F., Das Gewächshaus des Privatmannes, Berlin 1900.
59 Meyer, Sibylle, op.cit., p. 27.
60 Cf. Siebel, Ernst, op.cit., p. 225.
61 It is characteristic for this period that appearance was emphasized. Becher, Ursula A., op.cit. pp. 136-137.

異国趣味と人工性のはざまで　-近代ドイツにおける室内植物愛好の変遷- 梗概
19世紀から20世紀初頭にかけて、ドイツにおいては室内植物栽培が一般家庭で愛好されるようになり、広く定着していった。
本論ではこの過程を、植物栽培についての見方の変化や、当時の社会状況・生活様式の変化との関連から考察し、同時期にみられる公共緑地の設置など、都市全体を対象にした緑化の動向との関係性について探っていった。
また、人気植物の傾向や、紙や絹などからつくられた植物および乾燥・着色などの人為的に加工された植物が、本物の植物に代わって、人気を博して普及するという同時並行的な現象から、近代における植物愛好の意味と特徴を読み取ろうと試みた。