

FLORAL MOTIFS IN PAINTING PERCEIVED THROUGH CULTURAL TOURISTS

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Abstract

The primary aim of this research was to assess the interest in floral motifs in painting by tourists visiting selected museums in Poland, particularly in the city of Cracow. The research was carried out through a diagnostic survey method using a survey questionnaire consisting of seven questions plus some personal data. The research was done on a representative group of Polish and foreign tourists in July and August 2023. 117 people were surveyed, including 101 Polish tourists and 16 foreign visitors. The results obtained enabled a comparison of answers given by respondents of different gender, nationality, age and educational level. The analysis of the results obtained allowed the conclusion to be drawn that botanical motifs are an important element perceived by tourists visiting painting galleries, not only in the places where the survey was conducted, but they are also important for cultural tourists visiting many art museums around the world.

Keywords: Cultural tourism; Painting; Floral motifs; Tourism attractions

Introduction

A number of elements contribute to the tourist appeal of paintings that are works of art. Depending on the particular subject area, viewers pay attention to a painting's message, its artistry or its extra elements that make up the overall concept of a painting. Visitors to museums that display paintings are not always prepared for the reception of a particular work of art. Sometimes their knowledge is only superficial and they are often surprised by the paintings they are looking at. The floral components are not always in the foreground, sometimes marked by colors or only filling the space of the artwork.

The aim of the research undertaken was to demonstrate the interest in botanical elements placed by painters in their works of art with a variety of themes. Not only did the research refer to specific paintings placed in a particular museum, but also generally to the experiences and observations of tourists during previous visits to museums. However, the questionnaires focused on the significance of plant motifs. The subject matter of paintings varies enormously, depending on the art style, the historical period and several other factors. However, it is evident that botanical motifs appear relatively frequently regardless of the subject matter. It should be emphasized that, to date, there has been no study in the world's scientific literature that analyzes, describes and explains the significance of floral elements in paintings for visitors to art museums. Therefore, it must be pointed out that the research undertaken is pioneering and original due to its topic. Plant elements are not always particularly evident in paintings;

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sometimes they are few in number, but they are always spotted and appreciated among the many other decorative elements in a painting.

Background and specific objectives of the research

So far, there have been no studies available on how floral motifs in paintings are analyzed in the perception of cultural tourists. It is important to ask explicitly how flora, in its various forms depicted in paintings, influences the overall perception of a painting. The research carried out was intended to answer, inter alia, this question.

Many famous paintings are augmented by plants; however, they also have the names of plant or flower species in their titles. One of the most eminent artists, Leonardo da Vinci, painted many works entitled "Madonna with ...". One of these is *the Madonna and Child with Flowers* exhibited in the St. Petersburg Hermitage or *the Virgin with Flower* exhibited in the Alte Pinakothek in Munich. The plant world—trees, flowers, grasses and leaves—appeared frequently in Leonardo's paintings and drawings. Remarkably, he always depicted them with the poetic emotion and precise accuracy of a botanist. The lily held by the Archangel Gabriel in the painting "*The Annunciation*," located in the Louvre in Paris, contained symbolic content. This was also the case in other paintings by other masters. However, Leonardo made the flower into something else, namely a living flower, studied down to the smallest detail. It is rendered so faithfully in the painting that the viewer can even seem to smell it. The same is true about the drawing of flowering herbs as a preparatory sketch for the work "*The Virgin of the Rocks*." Leonardo da Vinci grew up in a natural environment, in the countryside. Even at a noticeably young age, he developed a sense of observation and a special interest in the plant world. In his writings he recalled, "*Nature holds the ultimate authority...*". Artistic work was a means of learning the truth. This was especially the case in past centuries, when knowledge was transmitted by means of, among other things, painting [1]. The disparate subject matter of paintings can also speak to the audience through plants. An example is "*The Harvesters*," a painting by Pieter Bruegel exhibited at the Metropolitan Museum of Art in New York. The painting shows the toil of harvesters and women tying sheaves. One of the harvesters resting in the painting is sleeping in the shade of a tree. The tree is an important element in the whole composition, as it provides a counterbalance to the cornfields stretching across much of the landscape. The plants are there depicted with extraordinary painterly subtlety [2]. In many paintings, as was the case with Leonardo da Vinci, the name of the plant is included in the title of the painting. An example of this is Botticelli, whose magnificent work is titled "*The Madonna of the Rose Garden*." In another painting by Sandro Botticelli, "*The Virgin and Child with an Angel*" from the Isabella Stewart Gardner Museum in Boston, the symbols of the Eucharist, namely the fruit of the vine and the ears of grain, are seen. Botticelli appears to be one of the most celebrated flower painters in all of Italian art. Some 40 species are identified in his painting "*Primavera*" (Spring). A magnificent allegory of the rebirth of nature can be seen in Botticelli's painting "*Spring*" from the Uffizi Gallery in Florence. Although few flowers can be seen very clearly there, through the allegorical figures, the rebirth of Flora rising from the barren earth after winter speaks. The flowers are a discreet but extremely important addition in the grove dotted with them [3]. Some of them appeared for the first time in the history of painting, so they also have a cognitive value. The painter of the flower bouquets was Jan Bruegel, Peter's son and his paintings are extremely rich in detail. His greatest inspiration was life; he composed his bouquets with a great sense of richness of form and mastery. One can see from his paintings the artist's extraordinary botanical sensitivity [4]. Similar works depicting flowers were created by artists of the Impressionist era. One need only point to Monet with his work "*Spring Flowers*," Renoir's "*Potted Flowers*" and "*Bouquet of Chrysanthemums*," as well as Bazille's "*Flower Pots*" and Boudin's painting "*Bouquet of Mallows*." Monet wrote to Bazille, '... may you paint flowers, it is an excellent thing to paint' [5]. Works with flowers

were created out of admiration for the beauty of nature. The Impressionists believed that they were the perfect thing to paint.

Similarly, Polish painters, including Leon Wyczółkowski, who remained in the trend of realistic painting, were enchanted by nature. He would remain under the spell of blooming trees and flowers as well as landscapes full of plants. Flowers painted outdoors and in vases play an important role in Wyczółkowski's works. He painted a variety of species, from field ninnies and marsh marigolds to peonies and roses. All this in the real world moved viewers with a unique naturalistic delight. Julian Fałat painted plant elements with exceptional reverence, especially landscapes, river floodplains and forests. He disliked city life, preferring to remain in direct contact with nature [6]. Among his outstanding works are *"Forest"* (1888) and *"Grassland of Cracow"* (1899). Julian Fałat wrote in his Memoirs, *'...I had set my sights on this spot where a wonderful Silesian cottage stood. It attracted me by its unusual appearance and the colorfulness of the peasant flowers surrounding it, such as mallows, foxgloves and poppies'* [7]. These flowers were his painting inspiration. Landscapes with vegetation typical of fields and the Polish countryside played a major role in Józef Chelmoński's paintings. Although it was often the backdrop for other events, it delights with its unceasingly rich vegetation [8]. Flowers, however, are a common theme in many works. They do not supplement but are the main idea of the painting. Among the authors who created this type of floral painting composition are Maurice Alfred Decamps, Roland Oudot, Oscar Schlemmer, Bertha Wegan, Alfred Sisley, Jan Van Huysum, Gasparo Lopez, Jean Baptiste Monnoyer, Juan de Arellano, Daniel Seghers and many others [9]. The above outline of only selected paintings shows how diverse the subject matter can be and how much botanical elements can influence the overall perception of a work of art.

As shown above, plant motifs have inspired many artists. However, the perception of plant motifs by visitors seems to be an interesting issue. So far, research has been conducted into visitors' perception of botanical motifs in the interior design of churches [10]. In view of the still insufficient state of knowledge, the present research was undertaken, the specific objectives of which were focused on answering the following questions: (i) which painting themes are of most interest to museum visitors? (ii) do plant motifs in paintings attract the attention of tourists? (iii) which life forms and organs of plants and which species attract the tourists' attention? (iv) do plant motifs increase the perceived attractiveness of the overall painting composition?

Materials and methods

The research was conducted by a diagnostic survey method using a survey questionnaire developed for this purpose. It consists of seven questions and some personal data (Appendix 1). The research was done on a representative group of Polish and foreign tourists in July and August 2023. 117 people were surveyed, including 101 Polish tourists and 16 foreign visitors. The sampling frame was representative of tourists arriving in Cracow during the summer, holiday and holiday periods. Foreign tourists represented different continents. Polish tourists represented the majority of the sixteen Polish regions.

A basic condition for a sample to be representative is that it comes from the population being researched [11]. The selection of the sample was random. This is because all people who were tourists from Cracow and abroad and who visited the National Museum in Cracow—Józef Mehoffer House—were surveyed. The research took place in the foyer of the museum. Visitors answered questions after leaving the exhibition halls. In addition, tourists were randomly surveyed at the Museum of the History of Katowice and the National Museum in Warsaw. The sample size was adequate to ensure the statistical significance of the research results. The second research method used was the analysis of source materials on cultural tourism and botanical elements in painting. Due to the novelty and originality of the research, there was a

lack of comparative material in both Polish and foreign scientific literature. In addition, a visual method of expert assessment of the value of paintings in dozens of museums in Poland and around the world, including all continents except Antarctica, was used. The authors of the publication did all the research themselves. Prior to the primary research, observations of the phenomenon in Poland and around the world were carried out for many years. The statistical significance of differences in the percentage distribution of answers to individual questions given by respondents representing different gender, age, nationality and educational level was analyzed using the χ^2 test [12]. Open-ended questions were analyzed in relation to the number of responses, while closed questions were analyzed in relation to the number of respondents.

Results

Demographic structure

The majority of participants in the survey were of Polish nationality, mainly women. Persons under 29 years of age predominated. In addition, the age group of 45-59 years was represented in large numbers. Among the respondents, people with higher education predominated (Table 1).

Table 1. Respondent demographic structure

		Responses	Percentage
Nationality	Foreigners	16	13.7
	Polish	101	86.3
Gender	Women	94	80.3
	Men	23	19.7
Age	<29	37	31.9
	30-44	16	13.8
	45-59	35	30.2
	>60	28	24.1
Education	Elementary	6	5.3
	Vocational	0	0
	Secondary	23	20.4
	Higher	84	74.3

Analysis of responses and research results

The preferred painting themes of the respondents revolve around landscapes, people (portraits) and plants. This is particularly interesting in the context of the subject matter addressed. All other themes of paintings and the elements in them were mentioned much less frequently (Table 2). Most respondents pay attention to the content of the paintings, slightly less to the details and the intensity of the light.

Color and composition are mentioned as further elements that draw the viewers' attention. In view of the above, it can be confirmed that the main message is what arouses the viewer's interest. It is expressed in the theme of the painting (Table 3). At the same time, it should be emphasized that floral motifs draw the attention of the majority of respondents.

Not more than about 10% of the respondents stated that they found it difficult to comment on the meaning of the botanical elements in the paintings (Table 4). Considering the plant organs, it was noted that the attention of visitors is drawn to flowers, while leaves and fruits are attractive to a lesser extent. It is also worth pointing out that leaves are much more likely to attract visitors' attention than the fruits displayed in the paintings (Table 5). In terms of life forms, trees are of greatest interest, followed by herbaceous plants and shrubs. Among the life forms, trees are the most eye-catching element in the paintings. This is often due to their majesty or the background they provide, often appearing in vast landscapes or as the main subject of works (Table 6).

Table 2. Breakdown of responses to the open-ended question What painting subjects suit you best?

	Responses	Percentage
Architecture	1	0.7
People	48	32.4
Landscape	62	41.9
Plants	11	7.4
Still life	4	2.7
Mythology	1	0.7
Battle pieces	1	0.7
Historic scenes	2	1.4
Seascapes	1	0.7
Gloomy scenes	1	0.7
Religious scenes	1	0.7
Genre paintings	6	4.1
Urbanism	5	3.4
Vanitas	1	0.7
Countryside	1	0.7
Animals	2	1.4

Table 3. Breakdown of responses to the open-ended question When examining paintings, what elements do you pay particular attention to?

	Responses	Percentage
Artism	1	0.7
Colour	12	8.4
Entirety	2	1.4
Details	20	14.0
Expression	1	0.7
Texture	5	3.5
Depth	1	0.7
Composition	11	7.7
Context	1	0.7
Shape	3	2.1
Precision	1	0.7
Realism/reality	5	3.5
Brush movement	1	0.7
Symbolism	1	0.7
Symmetry	1	0.7
Light/chiaroscuro	19	13.3
Technique	7	4.9
Background	5	3.5
Content	41	28.7
Layout	1	0.7
Clarity	4	2.8

Table 4. Breakdown of responses to the closed question Do the plant motifs draw your attention in the paintings you view?

	Respondents	Percentage
No	1	0.9
Yes	104	89.7
Hard to say	11	9.5

Table 5. Breakdown of responses to the closed question Which plant organs most draw your attention in the paintings?

	Respondents	Percentage
Flowers	45	39.8
Leaves	11	9.7
Fruit	3	2.7
Flowers and leaves	30	26.5
Flowers and fruit	16	14.2
Fruit and leaves	1	0.9
Flowers, fruit and leaves	7	6.2

Table 6. Breakdown of responses to the closed question
Which plant life forms most draw your attention in the paintings?

	Respondents	Percentage
Trees	34	31.8
Shrubs	8	7.5
Herbaceous plants	30	28.0
Shrubs and herbaceous plants	1	0.9
Trees and shrubs	8	7.5
Trees and herbaceous plants	14	13.1
Trees, shrubs and herbaceous plants	12	11.2

Respondents indicate that enriching the paintings with botanical motifs adds to their natural character, warms their mood and adds variety to them. Undeniably, botanical elements reflect an approach to nature. Animated nature is most often associated with something warm and mood-enhancing (Table 7). Among the most attractive species presented in the paintings, respondents include herbaceous plants found in various habitats and cultivated in gardens as ornamental species. In addition, they mention cultivated shrubs with significant ornamental value, as well as field species, including poppies, clovers and cornflowers (Table 8). The vast majority of respondents believe that plant elements in art enhance the attractiveness of the works (Table 9).

Table 7. Breakdown of responses to the open-ended question
What do you think the enrichment of paintings with plant elements brings about?

	Responses	Percentage
Coloring	9	7.4
Safety	1	0.8
Chaos and disorder	2	1.6
Curiosity and mystery	9	7.4
Warm mood	14	11.5
Softness and subtlety	2	1.6
Harmony	2	1.6
Narrative	1	0.8
Dreams	1	0.8
Natural effect	19	15.6
Revival and dynamism	12	9.8
Adds fineness	12	9.8
Indulgence	5	4.1
Realism	5	4.1
Symbolism	4	3.3
Hard to say	1	0.8
Soothing and relaxation	6	4.9
Complementation and diversity	16	13.1
Scent sensation	1	0.8

Table 8. Breakdown of responses to the open-ended question
Which plants (species) in the paintings do you think are the most appealing?

	Responses	Percentage
Coniferous trees (e.g., pine)	2	1.6
Deciduous trees (e.g., maple, beech, oak, lime, cherry, willow)	12	9.3
Extraneous tree species (e.g., palm trees)	1	0.8
Creepers (e.g., vines, ivy)	7	5.4
Shrubs (e.g., lilac, magnolia, rose)	27	20.9
Herbaceous species grown as useful plants (e.g., sunflowers, tulips, gladioli, nasturtiums, hydrangeas, irises, mallows, lilies, dahlias, peonies, gypsophila, calla, orchids, lily of the valley and grasses and among them crops)	53	41.1
Herbaceous, aquatic species (e.g., water lilies)	2	1.6
Herbaceous, woodland species (e.g., strawberry)	2	1.6
Herbaceous field species (e.g., poppies, cornflowers, clovers, camomile)	17	13.2
All	7	5.4

Table 9. Breakdown of responses to the closed question

In your opinion, do plant elements in art enhance the appeal?

	Respondents	Percentage
No	1	0.9
Yes	106	91.4
Hard to say	9	7.8

Comparison of responses to closed questions across respondent groups

A comparison of the responses from different groups of respondents showed that plant motifs attract the attention of women to a greater extent than men (Table 10) and of those declaring secondary or higher education than primary education (Table 11). At the same time, there were no significant differences in the answers given by Poles and foreigners (Table 12), as well as by people of different ages (Table 13).

Table 10. Percentage of responses to closed questions among women and men.

		Women	Men	Test χ^2
Do the plant motifs draw your attention in the paintings? (3)	Yes	92.5	78.3	12.7 ** Df=2
	No	1.1	0.0	
	Hard to say	6.5	21.7	
Which plant organs most draw your attention in the paintings? (4)	Flowers	45.2	15.0	26.7 *** Df=6
	Leaves	7.5	20.0	
	Fruit	1.1	10.0	
	Flowers and leaves	26.9	25.0	
	Flowers and fruit	11.8	25.0	
	Fruit and leaves	1.1	0.0	
	Flowers, fruit and leaves	6.5	5.0	
Which plant life forms most draw your attention in the paintings? (4)	Trees	31.4	33.3	4.4 ns Df=6
	Shrubs	8.1	4.8	
	Herbaceous plants	30.2	19.0	
	Shrubs and herbaceous plants	1.2	0.0	
	Trees and shrubs	7.0	9.5	
	Trees and herbaceous plants	11.6	19.0	
	Trees, shrubs and herbaceous plants	10.5	14.3	
In your opinion, do plant elements in art enhance the appeal? (7)	Yes	91.4	91.3	0.01 ns Df=2
	No	1.1	0	
	Hard to say	7.5	8.7	

* $P \leq 0.05$, ** $P < 0.01$, *** $P < 0.001$

Table 11. Percentage of responses to closed questions among people with different educational backgrounds

		Elementary	Secondary	Higher	Test χ^2
Do the plant motifs draw your attention in the paintings? (3)	Yes	83.3	91.3	89.2	11.6* Df=4
	No	0.0	4.3	0.0	
	Hard to say	16.7	4.3	10.8	
Which plant organs most draw your attention in the paintings? (4)	Flowers	16.7	39.1	42.0	90.3 *** Df=12
	Leaves	16.7	4.3	8.6	
	Fruit	0.0	0.0	3.7	
	Flowers and leaves	0.0	26.1	29.6	
	Flowers and fruit	50.0	17.4	11.1	
	Fruit and leaves	0.0	4.3	0.0	
	Flowers, fruit and leaves	16.7	8.7	4.9	
Which plant life forms most draw your attention in the paintings? (4)	Trees	13.3	30.0	33.3	136.2 *** Df=12
	Shrubs	13.3	15.0	3.8	
	Herbaceous plants	6.7	15.0	32.1	
	Shrubs and herbaceous plants	6.7	5.0	0.0	
	Trees and shrubs	53.3	10.0	5.1	
	Trees and herbaceous plants	6.7	0.0	16.7	
	Trees, shrubs and herbaceous plants	0.0	25.0	9.0	
In your opinion, do plant elements in art enhance the appeal? (7)	Yes	83.3	87.0	92.8	9.3 ns Df=4
	No	0.0	4.3	0.0	
	Hard to say	16.7	8.7	7.2	

* $P \leq 0.05$, ** $P < 0.01$, *** $P < 0.001$

Table 12. Percentage of responses to closed questions among Poles and foreigners

		Polish	Foreigners	Test χ^2
Do the plant motifs draw your attention in the paintings? (3)	Yes	90.5	81.8	3.1^{ns} Df=2
	No	1.0	0.0	
	Hard to say	8.6	18.2	
Which plant organs most draw your attention in the paintings? (4)	Flowers	38.2	54.5	29.7*** Df=6
	Leaves	10.8	0.0	
	Fruit	2.0	9.1	
	Flowers and leaves	28.4	9.1	
	Flowers and fruit	12.7	27.3	
	Fruit and leaves	1.0	0.0	
	Flowers, fruit and leaves	6.9	0.0	
Which plant life forms most draw your attention in the paintings? (4)	Trees	30.7	50.0	65.7*** Df=6
	Shrubs	5.9	33.3	
	Herbaceous plants	29.7	0.0	
	Shrubs and herbaceous plants	1.0	0.0	
	Trees and shrubs	7.9	0.0	
	Trees and herbaceous plants	12.9	16.7	
	Trees, shrubs and herbaceous plants	11.9	0.0	
In your opinion, do plant elements in art enhance the appeal? (7)	Yes	91.4	90.9	0.01^{ns} Df=6
	No	1.0	0.0	
	Hard to say	7.6	9.1	

* P \leq 0.05, ** P $<$ 0.01, *** P $<$ 0.001**Table 13.** Percentage of responses to closed questions among people of different ages

		<29	30-44	45-60	>60	Test χ^2
Do the plant motifs draw your attention in the paintings? (3)	Yes	86.5	87.5	91.2	92.9	4.8^{ns} Df=6
	No	2.7	0.0	0.0	0.0	
	Hard to say	10.8	12.5	8.8	7.1	
Which plant organs most draw your attention in the paintings? (4)	Flowers	27.0	40.0	54.5	37.0	50.1*** Df=18
	Leaves	16.2	6.7	3.0	11.1	
	Fruit	2.7	0.0	6.1	0.0	
	Flowers and leaves	24.3	40.0	21.2	29.6	
	Flowers and fruit	21.6	13.3	9.1	11.1	
	Fruit and leaves	2.7	0.0	0.0	0.0	
	Flowers, fruit and leaves	5.4	0.0	6.1	11.1	
Which plant life forms most draw your attention in the paintings? (4)	Trees	44.1	46.2	20.6	24.0	65.8*** Df=18
	Shrubs	11.8	0.0	5.9	8.0	
	Herbaceous plants	11.8	38.5	35.3	36.0	
	Shrubs and herbaceous plants	2.9	0.0	0.0	0.0	
	Trees and shrubs	5.9	7.7	2.9	12.0	
	Trees and herbaceous plants	11.8	7.7	20.6	8.0	
	Trees, shrubs and herbaceous plants	11.8	0.0	14.7	12.0	
In your opinion, do plant elements in art enhance the appeal? (7)	Yes	83.8	87.5	97.1	96.3	14.1^{ns} Df=6
	No	2.7	0.0	0.0	0.0	
	Hard to say	13.5	12.5	2.9	3.7	

* P \leq 0.05, ** P $<$ 0.01, *** P $<$ 0.001

The research showed that women's attention is particularly drawn to flowers, while men's attention is equally drawn to flowers and leaves or flowers and fruit (Table 10). The attention of visitors of Polish nationality is focused on flowers or flowers and leaves at the same time, while the majority of foreigners focus only on flowers (Table 11). It was observed that interest in flowers increases with the educational level of respondents. Furthermore, respondents with a secondary or higher education often focus their attention on flowers and leaves (Table 12). Moreover, flowers attract the attention of mature people, while the field of interest of the youngest visitors includes both flowers and leaves or flowers and fruit (Table 13). Considering the life forms of plants, it was shown that the attention of women and men is drawn to trees (Table 10). The Poles focus their attention on trees and herbaceous plants, while

foreigners focus on trees and shrubs (Table 11). Visitors declaring primary education pay attention to trees and shrubs, respondents with secondary education focus on trees, while those with higher education focus on trees or herbaceous plants (Table 12). Trees attract the attention of the youngest respondents, trees or herbaceous plants of those aged 30-45, while herbaceous plants interest visitors in older age groups (Table 13). Irrespective of gender (Table 10), nationality (Table 11), education (Table 12) and age (Table 13), respondents felt that plant elements in art enhance the attraction.

Discussion

The demographic structure of the respondents to the presented survey reflects the structure of museum visitors in Poland. They are people with higher education, mostly women. The small number of respondents over 60 may be due to a number of factors mentioned by [13].

Most respondents focus on the content of the images, slightly less on details and light intensity. Color and composition are mentioned as further elements that draw the viewers' attention. In view of the above, it can be confirmed that the main message is what arouses the viewer's interest. The results obtained relate to the research of [14, 15], who noted that museum visitors are interested in the labels of individual works and that interpretations of art are deepened and differentiated by additional information.

The preferred painting subject matter of respondents centers around landscapes. Coming from a long tradition, landscape painting [16] documents the view of nature at a given moment and, like topographic maps, can be used to assess and interpret changes in land use [17-20]. In addition, many respondents declare an interest in paintings depicting human figures. At the same time, the research conducted showed that numerous respondents prefer paintings depicting plants. Similar to tourists visiting churches [10], tourists visiting museums also notice plant motifs depicted in paintings. At the same time, research has shown that plant motifs attract the attention of women to a greater extent than men and of those declaring a secondary or higher education than primary education. Respondents indicate that enriching the paintings with plant motifs adds to their natural character, warms their mood and adds variety to them.

In terms of life forms, images of trees are of greatest interest, followed by herbaceous plants and shrubs. The trees depicted in the images attract the attention of people with different levels of education and young and middle-aged respondents, while respondents in older age groups focus their attention on herbaceous plants. A similar phenomenon was also observed in the group of cultural tourists visiting churches [10].

Of the plant organs, women's attention is particularly drawn to flowers, while men's attention is equally drawn to flowers and leaves as well as flowers and fruit. Women's interest in flowers is not surprising given the fact that in surveys on flower forms and colors attracting people's attention [21] and the assessment of the aesthetic value of flowers [22], the proportion of men was low. The research conducted showed that, as in the case of nature tourists [23], flowers are the focus of attention of both Poles and foreigners and the interest in them increases with the educational level of the respondents. Also, visitors to churches focus their attention on flowers depicted in paintings, wall paintings and sculptures [10].

Research has shown that the attention of the majority of respondents visiting museums is focused on herbaceous plants found in nature in a variety of habitats and cultivated by humans as utilitarian species. This phenomenon corresponds with the fact of frequent depiction in

European art of the likenesses of useful plants both in panel painting [24-30] as well as in wall painting [31], among which the predominant types mentioned in the survey conducted are iris, carnation, lily, lily of the valley, sunflower and crops. Furthermore, *C.P. Fărcaș et al.* [32] emphasizes the symbolic importance of the decorative, useful plants depicted in the paintings, such as gladiolus, dahlia, lily of the valley, orchids and food species such as wheat. Significant symbolic value [32] characterizes shrubs such as rose, lilac and magnolia, which also attract the attention of many respondents. Next, the attention of respondents focuses on field species that are a "typical component" of the traditional rural landscape. Many of them have found a place in the visual arts of many regions, such as poppies and cornflowers, thanks to their long presence in cultivation [33, 34]. The symbolic importance of field weeds such as field poppy, cornflower and field holly in the art of Central European countries has been repeatedly highlighted [35]. Many respondents admitted that their attention in the paintings is drawn to the deciduous trees. This fact should not come as a surprise, especially with regard to taxa such as oaks, lindens, willows, pines and spruces, which have often been depicted in paintings over the centuries [36]. At the same time, it is worth adding that paintings depicting individual trees and entire forests often have deep symbolic, religious and historical significance [37].

Regardless of gender, nationality, education and age, the respondents considered that floral elements in art increase attractiveness. These results correspond with research on the perception of floral motifs among church visitors, who found that floral elements increase the cultural attractiveness of the church and emphasize the role of the sacred [10].

Conclusions

Respondents tend to draw their attention most to the content of paintings, while detail and light intensity, as well as color and composition, are mentioned as further elements that attract viewers.

The preferred themes of the paintings of respondents revolve around landscapes and images of people and plants, which attract the attention of women more than men and those declaring a secondary or higher education than primary education. According to the respondents, the enrichment of the paintings with plant motifs adds a natural character to the paintings, warms up their mood and adds variety to them.

Respondents are most interested in images of trees, followed by herbaceous plants and shrubs. The trees depicted in the images attract the attention of people with different levels of education and young and middle-aged people, while respondents in older age groups focus on herbaceous plants. Of the plant organs, women's attention is particularly drawn to flowers, while men's attention is equally drawn to flowers and leaves as well as flowers and fruit.

The research carried out showed that the attention of the majority of museum visitors is focused on herbaceous plants found in nature in various habitats and cultivated by humans as useful species (ornamental and food). Furthermore, irrespective of gender, nationality, education and age, respondents considered that plant elements in art enhance the attractiveness of the works. To sum up, it can be concluded that botanical motifs are important for cultural tourists visiting various art museums around the world.

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Appendix I

Floral motifs in painting as perceived through cultural tourism

Survey questionnaire

- 1. What painting subjects suit you best?**
.....
- 2. When examining paintings, what elements do you pay particular attention to?**
.....
- 3. Do the plant motifs draw your attention in the paintings?**
A. Yes
B. No
C. Hard to say
- 4. Which plant motifs (life forms and organs) most attract your attention in the paintings?
(more than one answer can be selected)**
Organs: A. flowers B. fruit C. leaves
Life forms: D. trees E. shrubs F. herbaceous plants
- 5. What do you think the enrichment of paintings with plant elements brings about?**
.....
.....
- 6. Which plants (species) in the paintings do you think are the most appealing?**
.....
- 7. In your opinion, do plant elements in art enhance the appeal?**
A. Yes
B. No
C. Hard to say

Personal data

Nationality.....
Province
Gender W M
Age (<29; 30-44; 45-59; >60) Underline as appropriate!
Education (primary/vocational/secondary/higher) to be underlined!