Organic paint(ing)s: from representation to collaboration

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Due to the multifaceted nature of colour phenomena, it is important to specify that the artistic practice described in this paper focuses on the materiality of colour, or the notion of colour-materials, i.e., material substances capable of creating chromatic effects. This artistic project aims to present colour-material as an autonomous and self-sufficient subject of artworks. For the purpose of demonstrating this, the organic pigment anthocyanin is chosen. Anthocyanins are organic pigments that are found in the leaves, petals, and fruits of a variety of plants. Together with carotenoids and flavonoids, the anthocyanins constitute the 'palette' of flora, and their function is to attract pollinators, protect the plants from ultraviolet light and repel predators. Previously, anthocyanins were used as paint; they have been mentioned in numerous historic colour recipes as a source of purple dyes or inks. However, this fragile, organic colourant could not withstand the rivalry of the constantly evolving and improving dyes and pigments. Anthocyanins were ousted from the domain of arts and textile dyeing because they could not provide sufficient colour stability, which is one of the most sought-after qualities in colours. On the contrary, nowadays, due to the growing concerns about the environmental threats from the extensive use of synthetic dyes, many are looking for alternative organic and environmentally friendly colours, even if they are impermanent. This project revisits the use of anthocyanin as an artistic paint. It draws its inspiration from the historic uses of this organic pigment in Europe and the pagan tradition of pysanka, the coloured Easter eggs in Ukraine, for which numerous organic paints were also extensively employed. The mutability and instability of anthocyanin allows us to rethink the use of colour in painting and shift attention away from its long-established representational function.

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Introduction

This project spring from an enquiry into the tradition of *pysanka*[1], the pagan custom that is part of apotropaic magic i.e., decorative items intended for the protection of the house and people from evil forces.

[1]*Pysanka* (*писанка*) refers to a coloured chicken eggshell, preliminarily emptied of both the egg yolk and egg white. They are traditionally prepared for Easter in Ukraine in a practice dating back to pre-Christian times, where it was an element of the pagan rites of the spring season.

To perform this protective function the eggs were covered with ornament and decorated with stylised images of pagan animals, plants, stars, goddesses, objects of daily life as well as imaginary and fantastic creatures. Apart from apotropaic sign language of pysanka, there was also colour language of the Easter eggs. The specific type of Easter eggs that only used a single colour, a sort of monochrome Easter egg, were called *krashanka*. Thus, each apotropaic sign could obtain an interpretation not only according to its form but also according to its colour, and each colour could carry its own unique meaning in *krashankas* as in *pysankas*. A series of silkscreens by Andy Warhol entitled *Eggs* (1982) is one of the rare examples of representations of *krashankas* in contemporary Western art. Warhol, who was by origin a Ruthenian (also called Rusyns or Rusniaks), known for his attachment to the religion and traditions of his people, certainly knew the tradition of coloured Easter eggs. According to Bob Colacello, the editor of Warhol's *Interview* magazine, Rusyns were "obsessed" with eggs, to which they attributed almost magical properties. They had a tradition of organising complex rituals of egg offerings for every occasion, whether related to births, baptisms, marriages, important dates, or simply visiting neighbors. Colacello claims that Warhol's primary technique of silkscreen was directly inspired by the techniques of colouring *pysankas*. The paintings on the eggs were traditionally created using heated wax with a special pointed nib. The eggs were then soaked in a solution of organic paint, which covered all areas of the eggshell except those covered with the wax. When the wax was removed, the images appeared, surrounded by coloured contours, exactly like in Andy's silkscreens [1 pp53-54].

Today the still existing tradition of coloured Easter eggs, makes use of aniline-based artificial colours [2 p34]. In the past however, dyes used to create pysankas were all of natural origin and, in most cases, came from plants. The Easter eggs were fragile "artworks" that were not meant to survive centuries. According to tradition, when the thin, decorated eggshells were broken, they were supposed to be hidden under the threshold of the house to continue to exert their protective powers over the household. The colours of *pysanka* were even more fragile, all being made of decoctions of plants, berries, or tree bark.

This approach to colour seems to be in opposition to the one existing in Western art, where the most searched for quality of colour is its stability and colour fastness. While this approach places the focus on the quality of the material, the pagan *pysanka* tradition focuses on the artistic gesture, the performance of the ritual, and the act of creation. The industrialisation has considerably secured the desired colour durability by making an enormous quantity of synthetic paints well saturated and long-lasting. However, while on the one hand the production of synthetic pigments on an industrial scale had finally satisfied the needs for "ideal colours", on the other hand it had also created various problems in terms of safety of this kind of pigments and/or dyes for health and the environment. This especially concerns the textile industry which makes extensive use of artificial dyes in considerable quantities. Ecological issues arising from the usage of artificial dyes are becoming of increasing concern. This motivates many individuals and some companies to search for alternative, eco-friendly colour-materials often by revisiting the long-established traditions of the past.

Colour materiality

Historically, pigmentary colour was classed in categories of substances intended for fields other than paint. Pigments and dyes often have chemical characteristics that allow their uses, for example, in medicine. The Platonic definition of painting – *pharmakon* – associates painting through the etymology of this Greek word not only with colours, but also with cure and poison at the same time. In the past the making of images and colour was often seen as a kind of sorcery, which, like manipulations linked to magic, operates by seduction, deceiving the eye and the soul of the beholder. There are many examples of works that use the "magic" of the chemical interactions of colouring substances that were produced

on purpose. Many colour-yielding substances can be edible and even quite delicious, like the one which was used in the artworks presented further in this paper. In the past, colour-material was often the sole basis used for the definition of a colour. Classical and medieval authors based their discourse about the colours used by artists on the material substances, i.e., pigments. This is quite logic as artists never use simply “blue,” but rather indigo blue, cobalt blue, ultramarine blue, Prussian blue, or other colours [3 p339].

This approach to colour changed over time and with scientific discoveries concerning colour. Conceptualisation of colour words began in the Middle Ages. As Michel Pastoureau explains at the start of the medieval period, colour words only existed in the form of adjectives. Thus, people communicated their colour preferences through descriptions of specified colours by providing examples of objects or material substances of the given colour e.g., red like blood, white like milk etc. Another important shift in the perception of colour comes with the industrialisation and accessibility of synthetic colours. The abundance of colour-material freed most people from the need of thinking about the colour’s material basis, its origin, let alone to be concerned about its stability. Today we rarely think of colour as a material or in association with a specific material, we rarely question the material nature of the colours around us. Even painters who often use the materiality of colour oftentimes have a very superficial knowledge of their pigments. It would therefore be of interest to focus on the material aspects of colour and to investigate the limits and the potential of pigmentary colour in contemporary art, to shift the function of pigmentary colours from pure representation to being interpreted as a subject of the painting, and to accept the inherent physical characteristics of the colour and to valorise them in terms of aesthetic value.

The term organic paint(ing), which will be used in this paper, is coined in order to mix the two notions of paint, i.e., the material colour used by the artist, and the painting as an object of art. The project presented in this paper mixes these two notions since the organic pigment used to create the artworks constitutes both paint and painting. The border between the two is blurred because the paint (pigment) is not used to represent anything; rather, it is applied to become the painting itself.

Discussion

Anthocyanin paint(ing)s

The blue colour, which is one of the most difficult to obtain in *pysankas*, and also one of the rarest in the chromatic language of the coloured Easter eggs, was mainly obtained from elderberry (*Sambucus nigra*). The dark blue berries of this plant owe their colour to the organic pigment known as anthocyanin. Anthocyanins [also anthocyanocides or anthocyanins] (Greek anthos "flower" and kuanos "dark blue") are organic plant pigments that are found in leaves, petals and fruits and are produced by the biosynthesis of flavonoids. Together with carotenoids and other flavonoids, anthocyanins are the main dyes on the 'palette' of plants.

One of the functions of colours, and therefore anthocyanins, in flowers and fruits is to attract pollinators, but they also play an important role in protecting plants. Apart from attracting pollinators with their colour, plant dyes also protect plants from ultraviolet rays and repel predators through their bitter taste or their toxicity [4 p69]. There is a hypothesis that organic pigments like anthocyanins initially evolved in plants as protection against ultraviolet light from the sun. Once the animals appeared, the colour of the plants became a way of attracting pollinators. The brilliant colours of the autumn leaves are also explained by the presence of organic pigments in the leaves of plants: in autumn when the natural light and the temperatures diminish, the activity of plants slows down, photosynthesis stops and the chlorophyll degrades, the anthocyanins and other organic pigments present in leaves, but

previously invisible due to the chromatic prevalence of chlorophyll finally come to the fore and colour the leaves into shades of orange, yellow and red [4 p83].

Anthocyanins are water soluble, non-toxic pigments with antioxidant characteristics. But most importantly for this project – anthocyanins can produce chromatic shades ranging from red/pink to purple/blue/green in the visible spectrum. This ability for chromatic metamorphosis is related to the fact that anthocyanins are indicators – substances sensitive to changes of pH (hydrogen potential).

All pigments used in painting can be roughly divided into two groups: organic and non-organic. Organic pigments, called lacquers, are able to give fairly saturated shades of colours, although they often lack stability. However, they were often used together with non-organic, usually mineral-based colours. As Ball explains, "absorption of light by organic pigments is not fundamentally different from that by non-organic minerals: it causes a rearrangement of electrons" [3 p342]. Anthocyanins therefore have the same 'behavior' as mineral-based ones, but like all organic colours they are less stable and degrade faster. This was the reason why artists often gave preference to non-organic colour-material. Nevertheless, anthocyanins have a rather long and ancient history of use in the art.

François Perego's *Dictionary of the Painter's Materials* provides account of the uses of anthocyanins in artistic practices which date back to periods preceding antiquity [5 p136]. Historically, it was observed that juices of certain fruits had strong colouring. It is more likely that initially the juices of blueberry (*Vaccinium myrtillus*) and elderberry (*Sambucus nigra*) were used as tinctures:

> "The Hebrews, Phoenicians and Gauls use anthocyanins for dyeing. Vitruvius says that a "distinguished" purple color can be obtained from a decoction of blackberries (*Vaccinium*) and adding milk to it. Pliny quotes a purple made from blackberries produced in Gaul (PlinHN 16; 77). A recipe for dyeing Papyrus Holmiensis (c. 3rd century AD) recommends the use of blackberry juice to brighten a purple dye. " [5 p137]

The use of anthocyanins continued into the medieval period. Medieval sources such as *Mappae Clavicula* and the *Lucca Manuscript* speak of decoctions of the flowers fixed on gypsum. Théophile speaks of elderberry juice (*succus sambuci*), and from the 15th century in Renaissance Italy we can find the use of dyes based on blackberries and blueberries (*pezzette pavonazzo*). In the same period the organic anthocyanin dye with the addition of alum was also used for the manufacture of purple and blue inks for manuscripts. François Perego quotes recipes by T. de Mayerne from the 17th century which use anthocyanins:

> « Très beau bleu pour enlumineurs. Prenés de la fleur de pensées seulement ce qui est d'un veloux pourpré, coupant avec des ciseaulx tout le jaune, exprimés le jus, et iceluy espaississés, le guardant dans une vessie comme on faict le verd [de vessie]. C'est une couleur très orientale, excellente sur papier. Voyez s'il n'y fault point adjouster un peu d'Alun. » (MayerPS fol. 22) (…) « Les Bluets, qui se trouvent dans les blés, font une très belle couleur bleue, si sans addition quelconque on en exprime le suc, lequel en y meslant de l'Alun ne change point de couleur, autrement, sans addition est très beau quand on l'applique, mais estant sec devient blaffard. Si vous y adjoustés une goutte d'huile de tartre [carbonate de potassium], il se faict un très beau verd de mer, fort oriental à l'instant, mais qui peu après se flestrid, et devient d'un jaune sale, comme d'une ocre sale. (fol. 23) » (As quoted in Perego [5 p127].)

Anthocyanin is found in a large number of plants. Some plants, such as iris flowers (*Iris germanica*) were used to prepare purple lacquers even at the beginning of the 19th century. The red cabbage (*Brassica oleracea*) is one of the richest sources of anthocyanin. Red cabbage is a widely accessible vegetable, and it is easy to obtain considerable quantities of the concentrated extract of this organic dye in domestic conditions. Therefore, red cabbage is the source of the anthocyanin for this project.

Colour 'cooking' and painting process

There are several ways to obtain organic anthocyanin dye from red cabbage. Since the vegetable contains anthocyanins in large quantities and since it is a water-soluble dye, it is sufficient to cut its leaves into fine pieces and cover them with water in a bowl – this will release the anthocyanins. But the water coloured by red cabbage in this way cannot be used for painting, since the colouring capacity of such solution is too low. It is therefore necessary to obtain a more concentrated solution. For this I chose the method that I call "colour cooking," which consists of boiling the cut red cabbage leaves. Through boiling the same cabbage several times one can obtain an anthocyanin concentrate with increased colouring capacity which can be subsequently mixed with various binders.

After finding a way of getting the suitable anthocyanin extract for organic paintings, I proceeded to experimenting with binders. Despite all its fragility, the versatility of anthocyanin is quite impressive, for example it is possible to use this organic pigment in the technique of egg tempera. The egg yolk does not seem to cause any considerable chromatic changes in the anthocyanins, which are natural indicators as mentioned above and vary in colour with the changes of pH. Thus, while using egg tempera technique it is still possible to continue the experiments with the addition of acids or alkalis to the anthocyanins. Interestingly, honey is another binder totally compatible with anthocyanins. However, anthocyanin purple mixed with honey as binder gradually evolves into bluish shades of purple which can suggest that the pH of honey is slightly alkaline.

Apart from the binder it is also the surface to which anthocyanin paint is applied that can play its role. For example, when applied to the eggshell surface (Figure 1), as it would have been used in the *pysanka* tradition, anthocyanins produce the shade of blue. As the Periodic Table of the Elements shows Calcium is an alkali metal of the earth. This explains why applying anthocyanin to the shell of eggs which contain calcium results in shades of blue. Interestingly Pliny spoke of the decoction of violets fixed on chalk (PlinHN 35; 57) (Quoted in Perego [5 p138]).

Figure 1: Blue Egg, installation (2019) variable dimensions.

Through using anthocyanins as artistic medium this project aims at not only accepting the unstable nature of the organic pigment but also at valorising it. This involves the acceptance of 'chance,' 'hazard' or 'randomness' into the pictorial results. Chance, as a notion, entered the field of the arts at the beginning of the 19th century, and is quite relevant to the artistic practice presented by this project. In the realisation of artworks using anthocyanin, the element of chance is inescapable and occurs naturally due to the unpredictable behaviour of the organic pigment. One of the inspirations for this project comes from the long existing desire and need to control, or at least to predict the metamorphosis of pigmentary colours. The introduction of chance into the artistic creation, as Denys Riout explains, is opposed to the idea of the perfect mastery of the technique, even more so, to the idea of the absolute control of the artwork by the artist [6 p301]. Chance introduces the notion of play and luck into the painting. Each time the result obtained by soaking the paper or cotton fabric with the anthocyanin solution was hit and miss – it depended on a great number of factors, including the acidity of the pictorial surface itself. Instead of controlling or trying to predict the chromatic metamorphosis of colour-material, it is accepted as it is and emphasised. The random combination of objects, qualities, and material elements, as the main characteristic of chance, in organic painting translates into the hazardous chemical interactions between components of the painting. Hazardous changes occur not only during the realisation of the work but also during its drying. The following illustration (Figure 2) shows the "before" and "after" of one of the organic paintings made with anthocyanin on the cotton fabric. We can observe not only the chromatic changes but also the changes of the forms of acidic and alkaline patches. The image shows the same organic painting: on the left of the image, we see the painting that is still wet and, on the right, when it has already dried. The drying time took approximately 3 hours and the painting dried in the same horizontal position which was used to make the painting.

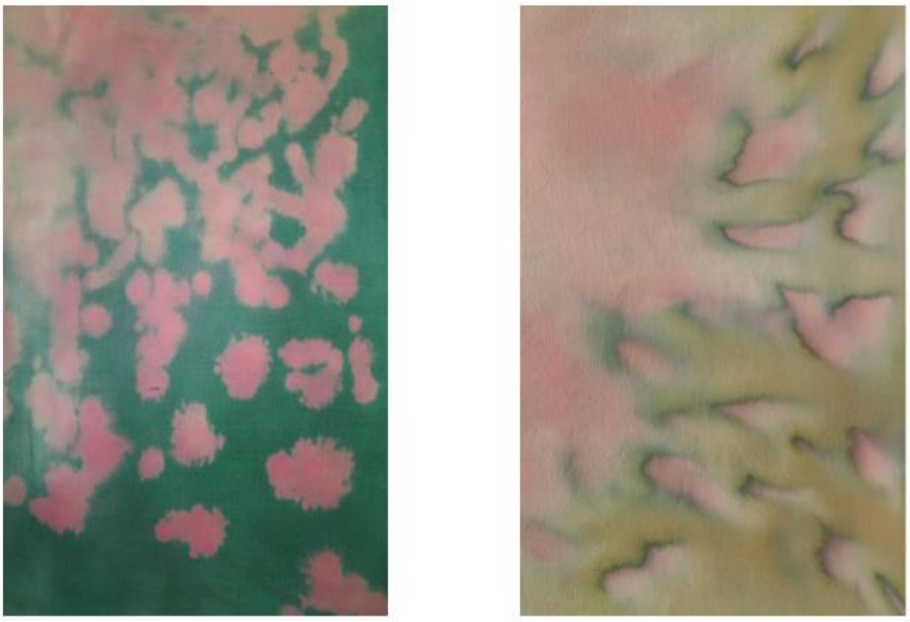

Figure 2: Organic painting (detail), 2020, anthocyans on cotton fabric, before (left) and after (right) drying.

Another example of the haphazard effect in organic painting is the so-called "blue border" or "blue frontier" (Figure 3) - a fine line of blue colour that forms at the borders between the patches of opposing pH i.e., acid and alkali. Normally between the reddish (strong acidity) and greenish (strong alkalinity) spots a greyish or purplish line can form. Sometimes, however, on this boundary between acid-induced and alkaline-induced colours an intense light blue line becomes visible after drying. Blue colour is part of the anthocyanin "palette", but it is the most elusive of all. In theory we can get the light blue colour

by adding a very weak alkaline solution to the anthocyanin or by adding a well-heated solution of baking soda. But in practice, the blue obtained in this way only stays visible for a few minutes and changes to green during drying. Blue is also visible if we simply put pieces of red cabbage under the stream of tap water. But since we can observe the bluish colour only in the very weak solution of anthocyanin, we cannot paint with this small concentration of the dye even on the very absorbent surfaces. The blue of the "blue frontier" gradually forms over a period of a few days in most cases when anthocyanins are applied to cotton cloth.

Figure 3: Organic painting (detail), anthocyans on cotton fabric, the so-called 'blue frontier' can be observed on the edges between the acidity induced patches and those induced by alkaline.

Understanding one's colour and accepting its inherent features

Finlay provides a representative example of how the importance of the profound understanding of one's artistic material was addressed by the 19th century artist in England:

> In April 1880, the Pre-Raphaelite William Holman Hunt stood before the audience at the Royal Society of Arts in London and gave a speech that summed up his despair about artists' loss of technical knowledge over the previous century or more. The problem, he told his audience, was that artists had never learned the tricks their medieval predecessors had known from their first days as apprentices. What was the good of painting a masterpiece if its constituent elements would spend the next few years fighting chemically on the canvas, and ultimately turn black? The 17th century painter Anthony Van Dyck knew how to employ varnish so that colors that would otherwise react with each other would be safe from ruin. Victorian artists, however, did not, and this was, Holman Hunt predicted, to be their downfall [7 p15].

Here, the problem outlined by the Pre-Raphaelite artist consists in losing touch with the techniques of the past. And it was indeed an important issue for the artists of that time who were seeking to create "lasting" artworks. In contrast, it seems that contemporary artists are rethinking and returning to the deeper understanding of their artistic material:

> One cannot make the good work of artist if one does not consider the material. The understanding of one's artistic material leads to its sacralization in a way, so one avoids wasting it. This approach evokes a certain concept, the one which is rooted in the animistic mode of thinking, the pre-Christian one. Even though this concept is historically very distant from us, it lingers in our spirit and is quite natural to us today [8 p143].

Pigmentary colour carries an additional dimension before even becoming an artist's material: it also transmits the senses linked to its original source, its functions in nature or generally in the environment where it is born, grows, develops, changes, etc. In the process of the creation of organic paint(ing)s, the physical contact precedes the conceptual phase and often dominates and dictates it. The creative process starts with so-called "colour cooking," when the red cabbage is literally cooked for the purpose of anthocyanin extraction. We cannot ignore the material, its inherent features, and its origin.

In medieval art, there existed a kind of hierarchy of pigmentary colours, with the origin of each pigment playing a decisive role in the way in which that pigment was employed. In this hierarchy, pigments of "noble" origin were used in the most respected artistic forms or to depict high-ranking characters. One well-known example, presented by Michel Pastoureau in his book about the history of blue [9], is the renowned *Annunciation* (ca. 1435) by Fra Angelico[2]. In the *Annunciation*, the blue of the Virgin's mantle is painted in ultramarine, which was the most highly valued blue pigment at that time. For the architectural elements, the artist used less expensive azurite blue, while the sky and other blue-coloured parts of the painting are depicted in organic blue, most likely indigo or woad (or a mixture of both). In medieval art, artistic materials possessed a value of their own and did not disappear in the process of the imitation of other things. Their physical presence was viewed as bringing multiple supplementary sensory elements to the artwork [10 p15]. Chromatic materials, especially pigmentary colours, carried meaning related to their origins, adding this meaning to the artworks in which they were employed. Hence, there was a distrust of materials of "ignoble" origin.

In ancient civilisations, there existed a belief that the evoking of certain phenomena occurred through acts of speaking or writing. It was believed that pronouncing the word that signified a certain thing was sufficient for that thing to materialise and manifest itself in reality. Visual representations were viewed to have the same power of attracting the phenomena they depicted into the real world. On a deeper level, the materials used in the depiction were able to evoke realities connected to their origins. In *pysanka*, which was of both great artistic and great ceremonial value, the goal was to evoke the magical powers of nature, of protection, healing, nourishing, etc. Each organic pigment used in colouring *pysanka* carried these concepts, inseparable from the characteristics and functions of the plants which were the source of each colour. Moreover, even the locations where the plants for *pysanka* colours were gathered had to be areas with positive energy. The usage of organic pigments was a way of bringing to life the qualities associated with them; for example, the oak tree (*Quercus*), the bark of which was boiled to produce black colour, was associated with the strength, eternity, and connections between generations, which became the meaning of the black colour in *pysanka*.

Each material that becomes a part of an artwork evokes the entire universe of the characteristics of the source of that material. Each element of the artwork has its story, and the overall meaning of the art object is the sum total of the stories of materials used to create it. The use of anthocyanin as an artistic medium thus also brings the materials' inherent features into the organic paint(ing) in which it is used.

[2]In his book Pastoureau refers to the *Annunciation* currently located in Museo del Prado in Madrid.

The aim of the artist is to be conscious of the tendencies and dispositions of their chromatic artistic materials, to either follow or oppose them, and to control them.

From representation to collaboration

For a very long time, the use of colour in painting was limited to imitation of nature; the artist's task was to copy the visual appearance of the colour of a given object and to achieve a chromatic resemblance. This goal of imitating nature always posed problems for artists. Artistic materials are largely limited compared to those of nature. This especially concerns the range of colours and ways in which colours can be reproduces. Before the invention of synthetic paints, nature was also the only source of artistic colour-materials. The process of moving away from the pure imitation of nature was a gradual one, passing through the shift from representational realism to abstraction. According to Georges Roque, abstract art arose due to the regular occurrences of artists abandoning the imitation of nature or the model, or of being faithful to reality. In this process between the two main constituent elements of painting—the drawing and the colour—always being in tension, the focus shifted to colour. It was no longer the "color of imitation" but "color as such" [11 p75]. This process has continued with the passing of time.

Many contemporary artists, alongside moving away from representational mode in art, are also demonstrating a higher level of conscientiousness regarding their artistic materials, including their "colours." Giuseppe Penone in his artworks *Verde del bosco* which he creates since 1983 suggests a simple manner of "extracting" the colour (chlorophyll) from nature. Rubbing and crushing of green leaves onto the fabric placed against the wood leaves traces of chlorophyll and the texture of tree trunks on the "canvas". This technique, according to Penone, allows to create images with colour without them being pure representations. The focus is shifted from representation to the visual and pictorial characteristics of the colour-material itself. *Verde del bosco* according to Giuseppe Penone 'is like making an image of the sea, by using sea water' (As quoted in Amblard [12 p7]). Nature, previously the subject of representation, is suddenly promoted to the role of collaborator [6 p340]. Moreover, the long searched-for colour permanence is no longer relevant in this kind of artistic creations, on the contrary the organic colour used by the artist integrates the artwork in the nature's cycles – chlorophyll's gradual discoloration and fading, the natural process which occurs to the green pigment in leaves. Just as Penone's *Verde del bosco* the art works entitled *En flor* (2000) by José Maria Sicilia seem to be a similar attempt to literally "extract the nature's color", collaborate with nature by accepting and valorising the inherent characteristics of pigments. *En flor* consists in printing the flowers onto Japanese paper in a way similar to the printing which results in delicate traces of organic pigments squeezed from the petals and leaves. Gradually the traces of fresh organic pigments from flowers will oxidise and fade, the temporality of the artwork will be visualised and highlighted: "the colors like flowers fade away" [12 p9].

The artworks *Hydrangea imitatio* (Figures 4 and 5) present a similar mimesis of the nature's gesture. It is a collage of rice paper sheets, previously soaked in the anthocyanin solution with varying acidity/alkalinity to obtain variations of colours. The sheets of paper are cut and layered to mimic sepals of hydrangea (*Hydrangea macrophylla*). Hydrangea is one of the many plants coloured by anthocyanin. Chromatic mutability in hydrangeas occurs within the plants themselves and depends on the acidity/alkalinity of the soil in which they grow. The chromatic variations sometimes manifest themselves within the same inflorescence where some flowers are coloured in bluish shades and the others in purple or shades of pink. The artwork imitates the nature's gesture that takes place inside the plant: manual manipulations of the acidity/alkalinity create the chromatic changes in the components of the *Hydrangea imitatio* by analogy to the biological processes that occur in the hydrangea plant in relation to the acidity of the soil. The word *imitatio* in the title emphasises the artificial and artistic

aspect of the artwork, while the word *Hydrangea* alludes to the actual plant. Organic pigment like anthocyanin will not secure the colourfastness of the artwork. As in the aforementioned works by Giuseppe Penone and José Maria Sicilia, the artistic materials are not used to represent; rather, they are themselves the subject of "representation." They inscribe the artwork within the cycles of nature as the "sepals" of the artwork will fade at a similar pace to those of the hydrangea plant

Figure 4 (left): Hydrangea imitatio, 2020, anthocyans, acid and alkali on cut up rice paper glued on paper, 30 × 37 cm.
Figure 5 (right): Hydrangea imitatio, 2020, anthocyans, acid and alkali on cut up paper glued on tracing transparent paper, 60 × 80 cm.

In the past, the artist's relationship with pigmentary colour was one of controlling and taming it, or at least of predicting its behavior. Most natural pigments are indeed difficult to handle. Contemporary artists show more willingness to change their relationship with the artistic medium, including their colours. As part of this change, it is necessary to accept the inherent characteristics of the chromatic materials and to organising the artwork in a way that will highlight them, bring them to the fore, and promote their value. This presupposes a shift from the mode of "production" into one of "collaboration," and some artists even use this latter word to describe their artistic methods. For example, the artistic method of Michel Blazy is described as "collaboration" of the artist with his materials, to which the artist allows autonomy and the artworks created in this way are described as "choreographed" rather than "produced" [13].

Making artworks from anthocyanin, which is a pH indicator, involves both voluntary and involuntary chromatic metamorphosis. The constituent elements of the organic paint(ing) coexist in such a way that excludes a hierarchy wherein one dominates the other; rather, they form a network where the impact of each element on the final pictorial result is of equal importance. They thus exist in the mode of collaboration. Colour changes induced by various manipulations (e.g., addition of acids/alkali) can be controllable and predictable, the involuntary and unpredicted chromatic mutations (like the above-mentioned formation of the 'blue frontier') are valorised. Manipulations that resulted in both voluntary and involuntary colour changes induced to the artwork or some of its components are abundant in the artworld. The famous example of lithol red used by Mark Rothko for his Seagram (1950s) and Harvard (1960s) murals is the example of the unintentional colour change which the artist did not predict. On the other hand, there are numerous cases of desired mutations deliberately induced by artists. One such reference is a series called *Piss paintings* or *Oxidation Paintings* (1977-78) by Andy Warhol created through the oxidation of copper-based paint by uric acids. The artist paid a lot of attention to the artistic materials he used to make Piss paintings, on the other hand he had given the material "permission" to take its own path, follow the laws of nature, and paint in the place of the artist, by accepting the

hazardous results that followed. The chemical reaction of oxidation was Andy's way of "painting without painting" [14 p129]. Warhol had retained his decisive position of the artist, as a "director" who chooses the "actors" but gives them the freedom to "perform" according to their own abilities. Thus, the painting is transformed into a place of unfolding action, where the artist still has a certain amount of control, but also accepts the "freedom" of the materials.

Conclusions

Colour is one of the primary characteristics of painting. It is materialised in it by pigment. Prior to the invention of synthetic paints most of them were of natural origin, linked to the mineral, organic, animal, or vegetal world. In this sense colour is an extraction from nature. Once extracted, colour is transferred towards its destination which used to be the representation. However, apart from representational function each colouring material can carry additional meanings linked to its origin and can bring those to the artwork in which it is employed.

The project described in this paper attempted to create artworks in "collaboration" with nature rather than merely trying to represent it. The organic pigment anthocyanin used in the artworks is a fragile unstable colour and is changeable due to the fact that it is a pH indicator. The intention was not to control or "tame" this inherent feature, which is what is usually done to chromatic materials, but rather to accept and valorise it.

Inspiration from the tradition of pysanka is not limited to the pagan uses of organic colours. The most impressive element in this pagan tradition is the desire to create complex art objects with the knowledge that they will not last for a long time. It seems like this idea is at the core of all artistic creation: the acceptance of the perishable nature of artworks with the consciousness of the eternal nature of artistic experience—the very act of art. Indeed, what is required is not durable material, but the maintenance of the continuity of artistic gestures and the repetition of artistic processes.

References

1. Colacello B (2017), *Holy Terror. Andy Warhol Close Up, An Insider's Portrait*, Translated by Laureen Parslow. Paris: Séguier.
2. Manko V (2001), *Ukrainska Narodna Pysanka*. Lviv: Svichado.
3. Ball P (2001), *Bright Earth: Art and the Invention of Colour*, Chicago: The University of Chicago Press.
4. Vadon C (2010), Le rôle des Couleurs dans la Nature, in *Lumière sur la Couleur*, Mollard-Desfour A (ed.), 67-86. Paris: Editions de Monza.
5. Perego F (2005), *Dictionnaire des Matériaux du Peintre*, Paris: Editions Belin.
6. Riout D (2000), *Qu'est-ce que l'Art Moderne?*, Paris: Editions Gallimard.
7. Finlay V (2004), *Colour. A Natural History of the Palette*, New York: Random House Paperback Edition.
8. Penone G (2012), *Le Regard Tactile*: *Entretien avec Françoise Jaunin*, Lausanne: La Bibliothèque des Arts.
9. Pastoureau M (2000), *Bleu. Histoire d'une Couleur*, Paris: Edition du Seuil.
10. Kessler H (2015), *L'œil médiéval. Que signifie voir l'art du Moyen Age*, Translated by Alexandre Hasnaoui, Paris: Klincksieck.
11. Roque G (2003), *Qu'est-ce que l'Art Abstrait*?, Paris: Editions Gallimard.
12. Amblard E (2016), Pollen et Chlorophylle: Picturalités Végétales, *Pratiques Picturales*, 1, [http://pratiques-picturales.net/article18.html - last accessed 16 May 2020]
13. Blazy M (2015), *Catalogue d'Exposition*, Paris: Manuella Editions.
14. Kethner J (2014), *Andy Warhol*, New York: Phaidon.