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Painting with natural pigments on drowning land: the necessity of beauty in a new economy

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ABSTRACT

This article draws on insights of young people learning to make natural pigments and traditional paintings in acute climate vulnerable areas. Why do they *paint* during ongoing crises and how do they voice their future concerns? Critical realism is applied as a meta-theory in this field-based study in a slum area in Kolkata and the Sundarbans mangrove forest. Methods comprise focus groups, semi-structured interviews, and participant observation. Analysis was done in an abductive process, applying Roy Bhaskar's model of 'four-planar social being'. The analysis demonstrates how painting with natural pigments leads the young ones towards: (a) discovering beauty in nature (b) transcendence of borders (c) transformation and responsible action (d) discovering one's own dignity. Findings are discussed considering the key concepts *co-presence* and *crisis system*. I reflect upon how this local effort can inspire a new economy, with the signposts: *becoming co-present with the natural world and the necessity of beauty*.



KEYWORDS

Crisis system; co-presence; natural pigments; Economy of Francesco; ecological literacy; rethinking economics

Introduction

'The role of art is to put a thorn in the heart, which moves us to contemplation, and contemplation puts us on a path.' These were the words of Pope Francis during a summit promoting the idea that art can inspire a cultural transformation: moving from consumption to a creative praxis for the common good (Vatican News 2022). Such a transformation is urgently needed in the contemporary world where the Intergovernmental Panel on Climate Change (2022) has published their sixth assessment report describing in a very concrete manner how climate breakdown is escalating; our whole planet is at stake (Harvey 2022).

The term 'crisis system', created by the philosopher of science Roy Bhaskar (2016), seems more relevant than ever. Bhaskar addresses the idea that we are faced with multiple, urgent, and intertwined crises. The poly-crises must therefore be understood in relation to one another, in an interdisciplinary and even transdisciplinary approach, if

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we are to find adequate intellectual tools as well as practical responses to the climate crisis (Bhaskar et al. 2010; Rotondi et al. 2022). The scale of the crises calls into question not only what we view as *development*, as has previously been emphasized within the Capabilities approach (Nussbaum 2011; Sen 1999), but our whole approach to *knowledge production* (Bhaskar et al. 2010).

The recent initiative among some scientists and economists, to 'listen to plants for a new economic paradigm' (Rotondi et al. 2022), expresses such a radical new approach to knowledge production. With the concept of 'Vegetable Economics', the authors argue that it is high time to move away from humans' predatory approach towards natural resources, and rather learn from plants with whom we share the condition of having no planet B (Rotondi et al. 2022). This is not an attempt to reduce human capacities, but rather an acknowledgment that there is much to learn from how plants, forced to remain rooted as they are, have developed deep mutualism and cooperation in their immediate surroundings in a manner which often safeguards the common good (Rotondi et al. 2022).

As a meta-theory, it can be argued that critical realism provides necessary intellectual tools to understand and respond to the current 'crisis system', with its deep ontology and theorization on generative mechanisms, social structures, causal powers and dialectic and transformative change (Bhaskar 2016; Jakobsen 2021; Næss and Price 2016). The degrowth perspective in economics can, for example, be fruitfully linked with and enriched by the philosophy of critical realism (Buch-Hansen and Nesterova 2021). In his moral critique on the current capitalistic system, Andrew Sayer (2015) draws on critical realism as well as neo-Aristotelianism, addressing that the underlying structures and mechanisms of capitalism are producing both extreme inequalities and climate change. He describes this as the 'diabolical double crisis' (Sayer and Morgan 2022).

It is with critical realism as a meta-theory that I present an empirical study on the Indian subcontinent. The participants own little or nothing and create art in a very direct relationship with plants. I have studied small 'cells of community' among young people living in a slum area in Kolkata, villages in Nadia and in the Sundarbans. All participants are involved in a grassroots effort that works to strengthen the deep bond between children and nature by planting trees, making natural pigments and making beauty by painting. I seek to learn from the insights and concerns of those who are not only facing the most severe consequences of the climate crisis *now*, but who have also developed a very concrete and creative way of living with nature daily. Some of these young ones come from indigenous families.

It is a paradox that indigenous and tribal communities are among those that have done the least to cause the climate crisis, while at the same time being hit first and hardest by its consequences (Vetlesen and Henriksen 2022). Their increased vulnerability has to do with their geographic location as well as their spiritual, historical and cultural connection to the land and nature (Normann 2022). Therefore, it is vital to involve as protagonists those who are often left behind or excluded from policy-making processes (Alkire 2021).

The deep injustice as well as the interconnectedness of today's crises are core topics in the encyclical letter *Laudato Si'*, published before the UN climate summit in 2015. Pope Francis (2015) calls to mind that solutions must go beyond technical ones, advocating an ecological approach that integrates questions of social justice. In 2019, he made a special invitation for young economists and entrepreneurs to re-animate the economy:

transforming it into one ‘that brings life not death’, one that is deeply attentive to the perspectives of the poor, caring for nature and respecting its boundaries (Francis 2019).¹ The invitation from Pope Francis clearly resonates with a goal of the philosophy of critical realism: emancipation towards *eudaimonistic* society, where the flourishing of each is connected to the flourishing of all (Bhaskar 2016; Lawson 2015).²

In 2021, the Economy of Francesco (EoF) Academy was established, with young researchers developing projects with the overall goal of transforming the economy. This article presents one of the research projects in the EoF Academy. I argue that some of the tools we need to solve the current crisis system can emerge from listening to and learning from people and places who are often left behind.

While the idea to listen to people on the margins of society is not new,³ it is easily overlooked in praxis. *Indigenous people*, stewards of around 80 per cent of the earth’s biodiversity, are almost completely excluded from policy-making processes, as if their local knowledge is not of value (Vetlesen and Henriksen 2022). The perspectives of *children* are also often absent in the public debate (Alderson 2013, 2016).

This study, therefore, has two entry and focal points: Firstly, it is part of an inter- and transdisciplinary attempt among researchers in the EoF to create a new economic system based on solidarity with *all* beings and nature. Secondly, I draw on the local knowledge of people in West Bengal, and particularly the young ones, who are working to care for nature and make natural pigments with which they paint. I seek to learn about their understanding of rapidly changing surroundings and the importance of artworks in the midst of this reality.

An overarching aim of this study is to contribute an experience-based knowledge to the process of transforming dysfunctional economic structures, learning from people who have historically been silenced.⁴

Cultural context: painting with nature – in the Bay of Bengal

Bengal with rivers and lowlands is a biodiverse region and acutely vulnerable to global heating and rising oceans. It is here, in a slum area in Kolkata and in weavers’ villages in Nadia, that the grassroots organization in this study operates. The coordinators aim to empower children and young ones by teaching them to appreciate, preserve and create beauty in nature – mainly through learning traditional painting with natural pigments. More than 450 children and young ones attend these activities regularly. The effort has turned into a vibrant community of dedicated youths and teachers, and it is growing.

Recently, a new painting class was initiated on an island in the mangrove forest of the Sundarbans in the Bay of Bengal. Already, more than 70 children regularly attend the new class. The mangrove forest is of crucial ecological importance. Inspired by the aforementioned vision of ‘listening to plants for a new economic paradigm’ (Rotondi et al. 2022), I will focus particularly on this place and its new painting class.

The mangrove trees have been referred to as ‘the guardian angel of Kolkata’ due to the ability of the trees’ intricate root system to contain water, acting as a protective shield for the millions of people living in Kolkata (Sæther 2017). The Sundarbans give shelter not only to the people living in the forest but stabilize the whole Bengal area.

The sixth IPCC report (2022) specifically mentions the Sundarbans in relation to a cyclone (named ‘Amphan’) that hit India in 2020. While Amphan was one of the

fiercest cyclones in the last 100 years, its intensity was buffered by the mangroves in the Sundarbans, located on the coastline of India and Bangladesh, and protected millions of lives in Dhaka (Mahmud 2020). Hence, mangroves are an example, not only of plants' resilience towards climate change (Rotondi et al. 2022), but also of their deep importance for human lives. However, the mangroves are much more than a protective shield for humans, and, as Biswas (2021) points out, must be remembered not only when natural disasters hit. It is a reservoir of natural beauty and resources, giving shelter to endangered species (such as the Royal Bengal Tiger and Irawadi dolphins).⁵

Although the mangroves protect land, biodiversity and people, parts of the forest are left devastated after cyclones (such as Amphan in 2020). There is a limit to how much rising sea water and change of rainfalls the mangroves can handle (Chatting et al. 2022). Scientists warn that most of the mangroves are in danger of being inundated by mid-century (Biswas 2021). This will cause huge humanitarian challenges for Kolkata and the millions of fishermen and peasants living there.⁶ Already people are migrating away from the Sundarbans due to environmental stresses (Biswas 2021). The voices of the people living there have been ignored for centuries. In this study, I attempt to provide a platform for this place with some of its voices.

Critical realism and the model of 'four planar social being'

Critical realism presupposes an ontology that is differentiated and open (Parr 2015). The world is understood as stratified, complex and dynamic (Jakobsen 2021).⁷

Several economists, among them Tony Lawson and Nuno Martins, have argued that this stratified ontology is of great importance for the field of economy (Pratten 2015). Critical realism has also been directly linked to the Capability approach (Bhaskar 2016; Jordet, Gullestad, and Haavind 2023; Martins 2006, 2015). Critical realism acknowledges that a key task of social sciences is to reveal and critique oppressive social structures and work on transforming them, as well as developing concrete utopias (Buch-Hansen and Nesterova 2021). Lawson (2015) connects emancipation and flourishing to the fulfilment of needs, such as realizing one's capabilities. Since humans are inextricably linked with non-human nature, we are also dependent on the flourishing of nature (Jakobsen 2019; Lawson 2015; Nussbaum 2011).

Thus, the critical realist vision to create a society for emancipation and flourishing is a radical solidary one (Bhaskar 2016), as mentioned in the introduction. Lawson (2015) critiques mainstream economics for having relied too much on theories such as rational choice, which assumes that humans make decisions in a vacuum. It is a false premise to assume that individual interests can be separated from collective ones, Lawson argues: 'We are all part of the same valued human project of going forward' (2015, 362). A crucial question then, is: what does it mean to go forward today? It cannot be by aspiring to endless economic growth, causing the aforementioned 'double diabolical crisis' (Sayer and Morgan 2022) and a society characterized by *acceleration* (Rosa 2021). How do we find a way forward before 'the window to secure a livable future' has closed (Harvey 2022)?

Since we humans have created the current 'crisis system', we can and should find our way out of it. As explained in the Transformative Model of Social Activity (TMSA) – as well as in the Morphogenetic approach – structures in our societies preexist us, we are born into them; but with our agency we can respond to and transform structures (Archer

2018; Bhaskar 2016). TMSA has been further developed into the model of *four-planar social being*, illuminating the fact that each social event is simultaneously taking place on four different levels: our material interaction with nature, our social interaction with each other, our interaction with structures/society and our stratified and embodied personality (Bhaskar 2016, 53). We are *alienated* in each of these levels, according to Bhaskar (2016).⁸ It is based on this model he describes the ‘crisis system’ with the crises of the four e’s, corresponding to each of the levels in the model (2016, 204):

Ecological (plane of material transactions with nature),
 Ethical (plane of social interactions),
 Economic (plane of social structure) and
 Existential (plane of stratified personality).

These levels have proven to be ontologically robust (Al-Amoudi 2022). I will apply them for analytic reflection with the empirical material from West Bengal, before discussing their inventive praxis and some key insights which may even illuminate a way forward when rethinking economics. The main research questions guiding this study are:

- 1) Why do some young people on the margins of society (in South Asia) paint during ongoing crises and how do they voice their future concerns?
- 2) How can their transition from buying colours to making plant pigments inspire a new economy based on solidarity with the natural world?

Methodology

Background for the fieldwork

The author (hereafter ‘I’) had visited the current grassroots organization several times and knew well the local coordinators in Kolkata before the current fieldwork. I had met the children and young ones and been fascinated by their concentrated painting and incredible fantasy expressed in their paintings. I had also witnessed their transition from painting with *purchased* colours to the making of *natural* pigments. Knowing that they had decided to stick consistently to the method of natural pigments, I was curious to learn about why. What inspired them to choose this more work-and-time-demanding approach? What difference did plant pigments make to them? Due to COVID-19 pandemic travel restrictions, the fieldwork was postponed twice before it was finally made possible. During this period of waiting, the new painting class in the Sundarbans had been initiated. Thus, an opportunity arose from the crisis: to learn about the lowest part of the Indian subcontinent. Why did the coordinators initiate a class *there*? Not only did this entail travelling several hours by road and boat from Kolkata each week, but as an island in the Sundarbans it is highly likely to be among the first lowland areas to drown. Still, they invested time and effort in building a community among the children there. Were they not scared for the anticipated future scenarios? What were their concerns and understandings regarding climate change?

The scientific nature of the study

From a critical realist standpoint, the researcher is encouraged to move from an exploratory to an explanatory focus in research (Fryer 2022). However, for under-explored phenomena, it is important to first explore (Bhaskar 2016). In view of this, I started with an exploratory approach. Another critical realist principle is to let the nature of the phenomena guide the choice of method (Bhaskar 2016; Danermark, Ekström, and Karlsson 2019). An ethnographically inspired, field-based study made it possible to observe the process from extracting the colours – the harvest of leaves, berries, fruits and flowers, through the process of making and mixing different colours and then many hours of concentrated painting – to the finished painting. I also considered it vital to speak directly with participants in qualitative interviews. I chose an in-depth focus with the most experienced participants, as well as coordinators, instead of having as many participants as possible. I worked closely with an interpreter, Wera Sæther, who has co-founded this effort together with locals, with whom I have cooperated on previous fieldworks in the neighbouring country of Bangladesh (Jordet 2022; Jordet and Gullestad 2020; Jordet, Gullestad, and Haavind 2023).

Carrying out the fieldwork

The current fieldwork took place during the *monsoon*, involving sudden and heavy rain-falls and thunder. I stayed with locals in a house that is also the point of gathering for the children in the slum area who come regularly for painting classes. Most interviews were carried out in this place, both the focus groups and individual interviews. I was present as a participant observer at the first meeting with children in a new class, after some hours driving north-east of Kolkata. This is a village area where most families are indigenous ('adivasi'). The third place I visited was the Sundarbans mangrove forest, in the Bay of Bengal. It was a long journey ending in a boat trip among the mangroves and the many islands in the Sundarbans. I attended the recently started painting class with the 70 children there, visited and talked to locals.

Participants

Thirteen young girls who have been devoted participants in painting classes for several years, from both Kolkata and weavers' villages, were interviewed. They are also assisting in organizing classes and teaching the younger ones how to make natural colours and paint. Based on the experience from previous fieldworks (in Bangladesh), I considered a focus group to be the most efficient method to speak with the young ones who had not been interviewed before. This way created an environment where they could inspire each other to speak freely. With three adult coordinators I carried out in-depth interviews. From a critical realist point of view, such interviews have a particular potential to give in-depth knowledge and access into complex phenomena (Brönnimann 2021).

Interview procedure

The two main topics in the focus groups as well as the in-depth interviews were about the making of and painting with natural colours and their concerns regarding a rapidly changing

climate. In the first focus group all thirteen girls were present, and they were invited to speak freely about their experiences with making natural pigments, specifically focusing on the transition from using purchased colours. The second focus group was with eight of these girls who are also assisting in the new painting class in the Sundarbans. I explored with them their experience of coming to the mangrove forest and what they had learned so far. With the (adult) coordinators I invited them to speak about the grassroots effort overall, their local and changing surroundings as well as future concerns. All interviews were done with the interpreter Wera Sæther, who knows the local culture and the participants well.

Ethics

The participants have given their informed consent to participate. From the beginning, they expressed joy in taking part and seemed eager to share their experiences. Coming as a researcher from another culture always presents a challenge. As a guest, I have endeavoured to act in a respectful and attentive manner, aware that there is much I do not know. I was genuinely interested in learning from the participants. Even though I had met the girls before, this was the first time for them to be interviewed. I abstained from audio-recording to avoid their becoming too self-aware, and to create as natural an atmosphere as possible. I did, however, make detailed notes all along. If I missed a sentence, I asked for it to be repeated. Due to the delay during the time of interpretation, there was usually enough time to write in-between. The coordinators in the Sundarbans made explicit a feeling of relief after having spoken about their future concerns. Since I did not collect any personal data, the study was exempt from assessment by the Norwegian Centre for Research Data. All names are anonymized.

Analysis

As mentioned, critical realism encourages analysis to move from the level of the empirical to the underlying reality, searching for generative mechanisms and structures (Fryer 2022). I attempted to follow this movement, beginning exploratorily, gradually seeking a deeper understanding of the material. This process was also guided by the research questions. I wrote down reflections and associations during and after the fieldwork and read and re-read the interview transcripts after returning home. I searched for important themes in the interviews. The empirical material was first analysed in a bottom up-oriented approach (Hill 2012). What did they spontaneously emphasize and what was *absent* in their accounts? Four main themes appeared to cover the core content in the participants' accounts. Then the material was analysed in a more abstract and theoretical second phase (Hastings 2021). Through this abductive process (Fletcher 2017), I discovered how the empirical themes resonated with the levels in the model of 'four planar social being' (Alderson 2016; Bhaskar 2016). I therefore deepened the analysis through a dialectical process between the empirical themes and the levels in the model, as illustrated in Table 1 in the Results.

Results

Results are presented in two main parts, responding to the two research questions (on page 5).

In the first part, the girls' accounts are presented through the overarching themes:

- (a) Discovering beauty in nature (b) Transcending borders (c) Transformation and responsible action, and (d) Discovering one's own dignity. These themes are then illuminated through the four levels in 'four planar social being'.

In the second part, the coordinators' accounts of the new class in the Sundarbans are presented. Their perspectives will be discussed as an empirical example of 'co-presence'.

The necessity of beauty – perspectives from young people

Discovering beauty in nature

The young participants all talk about having discovered nature in *new ways* through the making of natural pigments. Leaves and plants they previously could trample on are now something they cherish. Nima describes how seeing a beautiful red colour from a green leaf became a transforming experience for her.

All those leaves, something we throw away, that is trash – what shall we use it for? That was how I was thinking (before). Now, when I see someone destroying a leaf or a flower, I become angry: I could have made a colour from that plant!

The process of creating natural colours has opened their eyes to natural processes, such as the vital role sunlight plays for colours to be made.

In the beginning I did not know that sunlight was needed in order for a colour to become a real or full colour.

This, in turn, has made them reflect upon the deep relationship between humans and plants. The participants convey an attitude of gratitude towards nature. Tana says:

Now that I have been working with plant colours for a while, I understand what the connection is between humans and plants. What we receive from nature ... Now I know what nature gives!

In the beginning, they learned to paint using purchased colours. It has taken time to understand and learn the process of making natural pigments. But when they did, this opened up a new joy: a joy that cannot be bought for money.

The joy we gain with plant colours we could never get with purchased colours! What people can buy for a lot of money, the joy they receive from that, is much less than the joy we receive from what cannot be bought for money!

As children in poor families, they are used to witnessing the gap between people from higher classes and themselves, continuously being reminded from what they are excluded.

Thus, finding this unique source of joy, equally available to them as to anyone else, is of vital importance. They can create something beautiful, even if they do not own anything. They aspire to continue searching, with the words of Saira:

Now we are researching all the time: from which leaf comes which colour and which colours can be mixed and become new colours ... We are learning about deep respect for what nature gives.

Some of the young girls, are assisting with the new painting class in the Sundarbans. Coming from a slum area, they were struck by the absence of noise and how the forest spoke to them. The silence made it possible to hear natural sounds.

There was such a great peace compared to the noise in Kolkata, that I felt it as if nature itself was speaking!

Another girl, Ria, says:

What struck me in the Sundarbans was the sound from the trees and in the water. It was as if they spoke to themselves. The beauty was of a different kind than what we get in Kolkata.

In addition to their becoming aware of all the natural sounds arising from the silence, the experience of *fresh air* was completely new, having lived all their lives in a highly air-polluted city:

When we went to visit the new painting class, then I felt a completely new form of air, I have never sensed such fresh air before!

Fellowship: transcending borders through painting

The community, extending between different places (i.e. villages and slum areas) and ages, is another main topic in the girls' accounts: the painting and colours are making them transcend prejudices. After having learned from painting teachers for a while, they are involved in assisting newcomers. The youngest girl in the focus group, Sofi, says:

In the beginning I did not understand anything, what is a colour and what is a painting, can I learn this? How shall I learn it? And then I learned it from my elder sisters here.

Tana, from the city, talks about strong connections emerging from being part of the same effort, although living far from each other:

Before, we did not know that someone painted with natural pigments outside of Kolkata. But then we visited the weaver's villages and understood that they painted there. Then we began speaking together and now we have sisters everywhere!

Some of the girls touch upon a deeper feeling of unity emerging from having a shared direction and goal:

Here we are, and we are friends. Some are older sisters and others are younger sisters, some are brothers, but we do not think about that. We are one and I hope we will continue.

Painting has helped them transcend borders. Some of the girls share how they at first felt like enemies to those coming from different villages. But gradually, as they realized they were all painting, they felt connected.

In the beginning we were enemies. They came from that village, and we came from this village. The paintings were our currency, what we exchanged. By the border stood those that said they paint, and we paint. Now that border is gone!

Shila emphasizes that painting is a way to speak to the enemies, going beyond words:

We paint. What we cannot say with words we show through our paintings. The paintings have no limit. The paintings can speak across borders and even speak to our enemies!

One of the girls, Nima, suddenly asks, followed by silence in the room:

How can I teach a smaller child to paint from the depth within?

Transformation and responsible action

The participants' 'journey' can also be described as a dialectical process – in the movement from not being aware of nature and being careless, to *becoming* aware of gifts flowing freely from nature, leading them into a state of wonder and gratitude. They express a desire to move other people as well towards awareness, and to avoid further nature loss.

In our paintings there is a deep message: look, this exists, do not destroy it. Or: look, this existed, this was.

Hence, to paint nature is also an act of remembrance: warning about what is about to become lost and practicing a form of archiving:

Our painting is like a memory One day, maybe soon, there may be no living river or no living tree if people do not wake up quickly. Our paintings will remain. We can show them to people and say: this existed! Then people will shiver!

They spontaneously speak about the loss of nature, without being asked to do so, sharing how the activity of making natural pigments makes them aware of being co-present with the natural world.

We are made from soil and will return to becoming new soil. So will our paintings. They are made with natural pigments and will not damage anything whilst chemicals damage the soil!

Learning to see and appreciate nature has also made them aware of all the destruction going on, such as cutting of trees and pollution which they see around them.

We know people are cutting down trees, and what we can do by painting is to show: this is nature, so beautiful, do not damage it!

They work to protect trees in their surroundings and to raise awareness in concrete ways:

There was someone in our village who cut down a tree. I ran there and collected all the leaves. He asked me: what are you doing with that? I shall make colours! I did, and I painted. Then I showed him the painting and he was amazed.

They express a deep concern for the loss of biodiversity taking place around them. Amidst this destruction, the participants experience a deep meaning in what they are doing, which is also a form of medicine, something which gives them comfort:

Gradually nature is completely destroyed by humans! Then we have at least shown it existed once Our paintings constitute a kind of medicine.

Discovering one's own dignity

The girls have been surprised to discover their own capacity to create:

One day I held my painting in my hand and I thought, did I make this? Who was I before and who have I become!?

Hence, there seems to be a double discovery inherent in painting with natural pigments: discovering the beauty in nature and in themselves. Seeing the painting they have created themselves fills them with wonder:

I will never be able to express how it feels to have created the colour and painted the picture, having the feeling inside and the colour in my hand. Have I really made this? I was amazed by this: have I really made this?

Several girls point out the importance it has that they do this themselves, experiencing a form of empowerment:

We have made it ourselves! We can also create something!

Nima says:

One beautiful day, I held my own painting in my hand, I watched it, and I thought: Is it really I that have made this? Does this come from me?

This joyful discovery strengthens a sense of dignity: that is, learning to know oneself as someone who can create beauty. The participants are used to working at home and obeying others, but the experience of painting represents something radically different:

It is a great matter that what we do here no one tells us to do – it comes completely from us! I want to learn more! I want to paint even better!

The discovery of their own dignity is intimately interwoven with the discovery of nature's dignity. They experience pride in doing something which is of value to the society:

I think that we serve our country by painting.

But it is also, on a personal level, a channel for them to express feelings and experiences for which they have no words.

Painting is an expression transcending words, making it possible to express what words cannot.

They all express, in different words, a wish to learn more of the way of living with nature, like Nima:

As soon as I can, I take a paper, make colours and sit down. My prayer is that we will live in a way where nature can flow so that we can continue receiving from it. I want more people to learn this so I spread it as good as I can.

Applying the levels in 'four-planar social being'

The above-mentioned themes can be re-described through the four levels in Bhaskar's (2016) model, as summarized in the table below: the discovery of beauty in nature and awareness of the deep bond between humans and plants (material transactions with nature); the fellowship emerging from a shared work, transcending borders and exchanging knowledge with each other (social interactions); concerns about the exploitation of nature and attempting to move people to action through paintings (social structures) and finally, the discovery of one's own dignity and own capabilities in creating something beautiful (inner flourishing).

As already mentioned, the global crisis system can be understood in terms of humans being alienated at each of these levels (Bhaskar 2016). This analysis shows that the

simple, yet time- and attention-demanding activity of extracting colours from plants, flowers and fruits, before creating their own pictures with the colours and in a community, can restore a connection at each of these four levels. Hence, the local effort, working with scarce financial resources, is inventing new pedagogical practices, and discovering possibilities in the midst of major constraints. This requires a willingness to slow down the pace and get immersed in these expressive activities. Before discussing this further, I will present some extracts from accounts of the *coordinators*, with the Sundarbans as a lighthouse.

Table 1. Summary of main themes and the ‘four planar social being’.

Empirical theme	Corresponding level in Bhaskar’s model ^a
Discovering beauty in nature	Material transactions with nature (ecological)
Fellowship: transcending borders	Social interactions (ethical)
Awakening people to action and transformation through artworks	Social structures (economical)
Discovering one’s own dignity: growing resources to move forward	Inner being: alienation/flourishing (existential)

^aAlderson (2013, 2016) has demonstrated the practical relevance of this model in her childhood studies and has inspired this analysis.

Becoming co-present with the natural world – perspectives from coordinators

Waking people from sleep

One of the coordinators from Kolkata initiated the establishment of a painting class in the Sundarbans. When asked about the mangroves and his concerns for the future, he spontaneously begin speaking about death:

If I shall speak about that I will begin to cry. It is like watching death while awake. I have spoken to people on the most exposed islands, they know they are in danger there, but they do not wish to leave their home place.

He continues telling me about the children’s paintings and the important role their art can play in creating societal change. While he no longer believes that protesting or providing information will make people wake up, he has faith in the children’s artwork: the paintings can do what information cannot, that is, inspire a sense of wonder:

Our planet is in danger. The way I see it, it is not about making people conscious. It is not about protesting. People do not wake up that way! But our children can paint in a way that moves some bodies to wake up from sleep. Perhaps some are drawn towards the colours. Some may begin to ask. My concern is to make people ask questions.

Hence, inspiring people towards curiosity is his primary concern now. This, he suggests, may be an entry point into learning to know nature in its own premises. His work for children’s painting is, in other words, also a work for nature.

Nowadays, people speak about green solutions, but people do not think about what nature really is. What we do is to create some spaces where childrens’ expressions can come to people, so that questions wake up in them. ‘Can that colour be made from nature?’ If such questions arise, then I can believe we have done something!

Expressing co-presence: ‘If the mangroves die, we cannot live’

When the two coordinators living in the Sundarbans are invited to speak about their home place, they start talking about colonial history, how the British rulers moved

people to the islands in the Sundarbans to cut down trees and create villages. The colonial praxis of treating land as something to be owned and sold, rather than as mother earth, is at the heart of history in the Sundarbans.⁹

In terms of describing their everyday lives, the coordinators focus on the warm temperature, rising sea-level and the intensified cyclones which have changed drastically in the last 5–7 years. Spontaneously they turn to how these changes affect the mangroves, as the roots are not able to find a foothold in the earth it is difficult for them to grow. Big waves tear down the small trees with them, and many big trees have been cut down.

When asked how it is to witness this loss of the mangroves, one of them replies straightforwardly, that without the mangroves humans cannot live:

If the mangroves die, we cannot live. That is why we are scared. It is as if we humans are killing ourselves. The fewer mangroves the fewer humans. When a mangrove dies it causes us pain, it is like having a hand or a leg chopped off.

This deep awareness of being connected with the mangroves is strongly present in the account. It can be seen as exemplifying the concept of ‘co-presence’, which I will elaborate on below. The coordinator also shares that most people in the Sundarbans are scared nowadays. The extreme weather is a continuous reminder of the uncertainty in their existence. When I respond to this by asking if he wishes to leave the island, he answers without hesitation: *No, it is here. I remain here. But*, he adds, with a sorrowful voice: *The big trees are not here any longer.*

Discussion

Moving from consumption to a creative praxis for the common good

Traditional wisdom of indigenous people is easily getting lost in a consumerist society. Transmitting methods for extracting colours and painting require time and attention. It is neither productive nor useful from a utilitarian perspective. However, through its *attentiveness* towards nature, traditional art, and children’s joy, I will argue that this local and creative effort is performing resistance towards the ‘throw-away-society’ (Alford 2019).

I, the researcher from a society in northern Europe, wondered what made some, mostly disadvantaged children and young people in a South Asian country, paint, mainly with natural pigments, and hold on to this way of expressing emotions and knowledge. While key findings in the participants’ verbal accounts have been presented above, this study also contains observations I can only imply and not do fully justice to within the format of an article. I am referring to the sight of the mangroves and their distinctive, almost majestic roots, at low tide – completely covered in water at high tide – roots protecting so many lives simply by existing. I am also referring to the sight of dead mangroves lying on the mud, the silent expression of the coordinator who had previously spoken about the loss of a mangrove as losing his own hand. Then, as a strong contrast to dead mangroves: the contagious joy among children running into the bushes in search of flowers and leaves – and the incredible fantasy, concentration and level of details in their paintings.

With these three images as a backdrop – the majestic roots, the dead mangroves and the children’s contagious joy – I will centre the discussion around the two overarching themes under which the results have been presented: *the necessity of beauty* and *becoming co-present with the natural world*. Seeking for a deeper understanding of the findings, I

apply the concept 'co-presence' which can be defined as 'the capacity to be one with the other' (Bhaskar 2016, 163). As this study clearly shows, the concept of co-presence has relevance beyond human relationships.

It can be claimed that the grassroots pedagogy at work here is one of *emancipation*. The children and young ones, on the margins of society, are involved in *doing, discovering and creating*, with the support of some adult coordinators and painting teachers. The approach shares common features not only with 'the pedagogy of the oppressed', as developed by Paulo Freire (2017), but also with the theory of learning which Bhaskar suggested. He described learning as the process of 'unfolding the enfolded' (Bhaskar 2002, 2016). In this case, the young ones are witnessing, and are part of a *double unfolding*: that of nature itself and of themselves in relation to it.

The more experienced students share their experience-based knowledge with the younger ones. The children, then, become protagonists of their own empowerment while creating art collectively with nature. In learning to attend to natural processes, the participants also become aware of nature's fragility and the damage caused by humans, and thus gradually acquire *ecological literacy* (Miranda, Jófili, and Carneiro-Leão 2017). Instead of being handed a manual, they learn through searching in nature together, developing practical knowledge on how to be in and with nature (resembling the Aristotelian *phronesis*). They embody an attitude of joy and gratitude which cannot be bought for money.

Coming from a slum area in Kolkata, the young ones were struck by *absence* of noise as they entered the landscape among the mangroves. Suddenly they could hear how nature 'spoke'. In fact, '*sound-pollution*' was a word referred to several times during interviews when speaking about how, we, humans disturb nature, and, in turn, our own access to nature. Surrounded by noise day and night as is often the reality in Kolkata – as well as in many other big cities – the possibility of hearing trees and water 'speak' remains blocked. The sounds of nature are conveyed in a silent manner, require attentiveness to be heard. Such attentiveness can easily be lost in the societal acceleration today (Rosa 2021). The discovery of natural sounds and silence had a direct *effect* on the young ones: the natural sounds resonated *within* them and made them aware of being co-present with the natural world.

Co-presence is about a deep resonance with the 'being' qualities in the other (Bhaskar 2016; Jakobsen 2019). This is perhaps most clearly illustrated in the accounts of the coordinators in the Sundarbans, as they explicitly spoke about the mangroves as part of themselves: human activity that kills the mangroves was referred to as a suicidal act. What they also implicitly touched upon, then, was a key argument made by Bhaskar, namely that awareness of the deep interconnectedness also contains a strong argument for non-violence (Bhaskar 2016): We cannot hurt another being without also hurting ourselves. The coordinators knew well what is too easily forgotten: namely that the air being breathed, and the food being eaten in Kolkata (and other cities), come from the Sundarbans (and nature).

Awareness of co-presence, 'the most radical or deepest mode of identification', is explained by Bhaskar as one of the tools to create a society characterized by eudaimonia (2016, 163). This study illuminates how co-presence, seeing the other as part of oneself is not necessarily limited to being among humans. We not only share this planet with the plants but are dependent on them. Hence, the natural world and all beings can be included in a relational awareness (Jakobsen 2019; Jordet 2022): at a fundamental level of existence everything can be said to be interconnected (Bhaskar 2016; Francis 2015).

It has previously been emphasized how important direct and personal contact with nature is for developing a praxis of care and protection towards nature (Vetlesen and Henriksen 2022). A relevant mechanism to be aware of, at play with rapid climate change, is the ‘shifting baseline syndrome’, namely the tendency for each generation to adapt to the *current* state as normal – and become blind to alarming changes, such as the absence of snow during winter in certain places or of species going extinct (Vetlesen and Henriksen 2022).

Some young participants also spoke about their own carelessness towards nature, such as seeing leaves as useless. Now they run to protect trees from being cut down, raising awareness in their local community about the colours they contain. The participants have become aware of the interconnectedness in nature, natural processes such as the sun’s effect on colours. Hence, they demonstrate how entering into a resonant relationship with nature is a very *concrete* process, with one’s hands and senses and nearby surroundings – a praxis towards becoming co-present with it.

In the philosophy of metaReality, Bhaskar (2002, 2016) claims that there is a deeper unity on a ground state level of existence, which is already there to discover. Accordingly, as mentioned in the introduction, one of the challenges in reaching a society characterized by eudaimonia is to identify and remove the more superficial obstacles for this (Jakobsen 2021; Lawson 2015). While alienation has been argued to be a key cause and consequence of the current crisis system (Bhaskar 2016; Rosa 2021), the findings in this study point towards the possibility of transformation on all four levels of existence. This small grassroots effort can thus act as a *sign* of what can be made possible in terms of carving a new way forward, moving away from ‘an economy that kills’ (Francis 2019). It has to do with *attentiveness* towards natural surroundings and what Schumacher (2011) wrote in his classic study of economics, namely that ‘*Small is Beautiful*’.

The fact that learning to know plants has a deep educative effect supports a key point from the economists Rotondi et al. (2022): the importance of listening to plants for a new economic paradigm. What this study adds to the perspective of listening to plants is the role *art* can play. In the words of the main coordinator: ‘*Our children can paint in a way that moves some adult bodies in a way where they wake up from their sleep*’. Painting with nature – in nature – can inspire a deep sense of wonder, potentially not only transforming the minds of those directly involved, but also of those who see and experience the artistic expressions: ‘*Look, this exists, do not destroy it. Or: look, this existed, this was.*’

Concluding remarks and future implications

The contagious joy and attentive praxis among the children and young ones in the making of natural colours and painting could be seen as a celebration of nature’s beauty and fragility. This stands in contrast to a Western discourse on nature as a *problem* that must be solved.

What is it with natural colours that is so existentially different from purchased colours? As I can identify, key elements are: The young ones make the colours themselves. This connects them to the surrounding nature and with their own inside, growing resources to move forward. The colour is different each time: nature is experienced as alive. This inspires the young ones to search for new colours. The work is both personal and collective. Unfolding one’s own expressions while experiencing dependency and co-presence is liberating.

Furthermore, the participants are empowered in their capacity as agents to cause effect on others and the society through their art (Archer 2007; Bhaskar 2016). Of course, it goes beyond the design of this study to measure the wider, societal consequences of what they do. This needs to be followed up with an extended research design. Another question to consider for a future study is *how to transform, translate and transmit this locally and traditionally anchored knowledge to new places?*

The study shows that making art in and with nature can play an important role in (re-) vitalizing a deep bond between humans and the natural world. A key claim made by Bhaskar (2016) is thereby confirmed, namely that experiencing *co-presence* has a very practical dimension: the commitment to the flourishing of all beings. This resides with an essential idea in the encyclical letter *Laudato Si'*: how we treat trees and rivers is related to how we treat the elderly and vice versa (Francis 2015). I will conclude with two signposts for a new economic paradigm, unfolded in the paintings by the young ones in this study: *becoming co-present with the natural world* and *the necessity of beauty* – a beauty, which is already there, even if hidden, and the beauty which is yet to be made.

Notes

1. This has turned into a global movement, with concrete projects on all continents, such as in the agriculture sector (the Farm of Francesco) and book publications such as an *Economy of Francesco Glossary* (Rozzoni and Limata 2022) and *Rethinking Economics Starting from the Commons* (Rotondi and Santori 2023). See also: <https://francescoeconomy.org>.
2. Towards the end of his life, Bhaskar pointed out that what mattered regarding the 'success' of his philosophy was whether his philosophical ideas were *acted* upon (Wilson 2015).
3. The philosopher Walter Benjamin (1892–1940), for example, underlined that *the sick* has a special knowledge of the state of society (Kirkengen and Næss 2021, 15).
4. *The subaltern*, one could also say, with Gayatri Spivak (1988). For more on the history of people in the Sundarbans, see below and also Biswas (2021).
5. According to UNESCO (n.d.), it is the world's largest contiguous mangrove forest, and it has been inscribed on the World Heritage List since 1987 (Sundarbans National Park in India) and 1997 (The Sundarbans in Bangladesh). One of the mangroves' abilities is to make use of both salt and fresh water, making them resistant towards rising sea water. The mangroves' roots system also has a cleansing effect, filtering the water and preventing contamination. And while all trees store carbon, it has been claimed that the mangroves have a special high capacity; two to five times more than for instance tropical forests, such as the Amazon (Chatting et al. 2022).
6. Only on the Indian side of the Sundarbans, there are 104 islands, on which there are people on 54 of them (around 4.5 million); most are peasants and fishermen.
7. Three ontological levels are distinguished in this ontology: the empirical (with events that we can directly observe), the actual (with events and possibilities that are not necessarily observed or experienced by us), and the level of the real (where deeper mechanisms and structures that are causing the events originates) (Bhaskar 2016; Bhaskar et al. 2010; Price 2016).
8. Alienation is also what Hartmut Rosa (2021) argues is a crucial consequence of societal acceleration and the continuous experience of not being able to keep up with the tempo.
9. Biswas (2021) describes this part of the history more in detail.

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