

Chroma Calls: attunement to place through colour intra-action in sculpture

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The paper discusses the public sculptural installation *Chroma Calls* presented along the Forth and Clyde Canal in Scotland, to consider how contemporary art practice can help initiate and develop attunement to a place by introducing colour through sculpture. It proposes the idea of 'intra-action of colour', drawing on the concepts of Josef Albers' *interaction* and Karen Barad's *intra-action*, to approach colour in more entangled and embodied terms and to bring forth invisible natural processes: from the presence of specific colours in a place, to the different ways of sensing colour, and associated ethical considerations. The author develops the concept of 'accromatising', derived from 'acclimatising', the process of becoming more accustomed or adjusted to new conditions or circumstances. 'Accromatising' describes the process of gradual attunement towards a place through colour. Ultimately, the paper suggests that colour can be used as an entryway into a more entangled and responsible sharing of places with humans and nonhumans, with art practice offering a platform for merging a range of disciplines to develop awareness of our environment, with its myriad other participants.

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Introduction

This paper considers how contemporary art practice can help initiate and expand attunement to a place by introducing colour through sculpture. It is discussed through the public sculptural installation *Chroma Calls*, presented along Forth and Clyde Canal in Scotland, which was conceived and led by the author. It was commissioned by the Falkirk Community Trust and Scottish Canals and presented to the public in summer and autumn 2021.

Chroma Calls is an installation of twenty abstract sculptures extending along a four-mile (6.5km) stretch of the Forth and Clyde Canal, which crosses central Scotland. Suspended from various species of tree on both sides of the canal, each sculpture is composed of multicoloured minimal abstract shapes designed to mirror the colour palette of one of the bird species which nests on or visits the canal area on their migratory journey, such as the swallow, tufted duck, kingfisher, and mute swan.

The *Chroma Calls* sculptures drew attention to the colours and colour combinations which, although present within this landscape, might remain unnoticed, due to the fleeting presence of the birds and the limitations of human perception. The sculptures also revealed certain colours that might not be easy to spot, like the kingfisher's exuberant coat of bright oranges, greens and blues. Furthermore, the sculptures drew attention to some colours of the familiar species that might be hidden or not easily discerned, as in the case with some water birds – the ash-black colour of mute swan's feet, the delicate blue beak of a tufted duck, or the red of the coot's eye.



Figure 1: Yulia Kovanova, in collaboration with Lars Koens, 2021. Chroma Calls sculptures based on the colours of herring gull. Birch and bamboo, 800 × 400 × 30mm.

Relational nature of colour

Colour plays a key role in the aesthetic experience of visual perception and is a way of reading an environment and orienting within it. It is also a means of communication between different species, and between human and non-human worlds. In the natural world, colour has evolved as an essential structure to support life processes:

“In nature, colour is a result of evolution: as a result, all the colours of flora and fauna are exactly as needed and appropriate for the conservation of life forms. Brightly coloured habitats such as coral reefs or fields of flowers are also part of complex communication systems, as are birds, insects and other polychromatic life forms” [1].

Thus, colour, and its distribution within natural environments developed over millennia, can be seen as a signifier of these environments' livelihoods. Over recent decades – a fractional moment in evolutionary terms – this natural balance of colours has undergone a dramatic shift, with the introduction of human built structures, ranging from vast expanses of grey concrete to cleverly designed buildings imagined in tandem with the environment and its chromatic composition. Canals present an interesting confluence of the natural and human introduced colour, and a curious space for investigation of a chromatically shared place by human and nonhuman, with colour acting as a mode of relationality.

Contemporary art practice, with its toolkit of possibilities and colour playing an intrinsic role, offers alternative ways of perceiving and understanding environments. The *Chroma Calls* sculptural installation discussed within this paper, presents an opportunity to enter this wider human and non-human dialogue. By attuning to colour in the natural world and imagining it as a way of communication across multiple species, we may open ourselves up to a beautiful cacophony of chromatic languages constantly unfolding. Paying attention to colour and colour changes within our landscapes opens into an entangled world. It traces a path to noticing, reconnecting, and responding.

Colour considerations

Colour was central to the conception of the *Chroma Calls* sculptures. I worked with the canal ecologist to help me decide on the selection of bird species, aiming for a diverse range in bird genera and coloration. The colours for each sculpture were selected through direct observation of the bird species on the canal, and through a range of printed and digital sources where direct access to a species was not possible. The decision on placement of each sculpture, besides physical access practicalities, was based on colour contrast with individual features of the trees, like the colour of bark and foliage, positioning of tree branches, density and shape of leaves.

Some of the minimal multicoloured sculptures were easily observable within the canal environment, allowing people to immediately link the place with the sculptures' colour combinations. Other sculptures were less immediately noticeable, due to their position on the opposite side of the canal from the towpath or amongst denser tree leaves, thus requiring viewers to be more observant. For those who caught sight of them, the sculptures acted as a simile for bird species, and provided a source of pleasure in discovery and encounter. For people undertaking the entire four-mile walk along the stretch of the canal, the sculptures presented an invitation to become more observant – having noticed a few at the start, one might be more inclined to look out for more and so engage more deeply with the place.

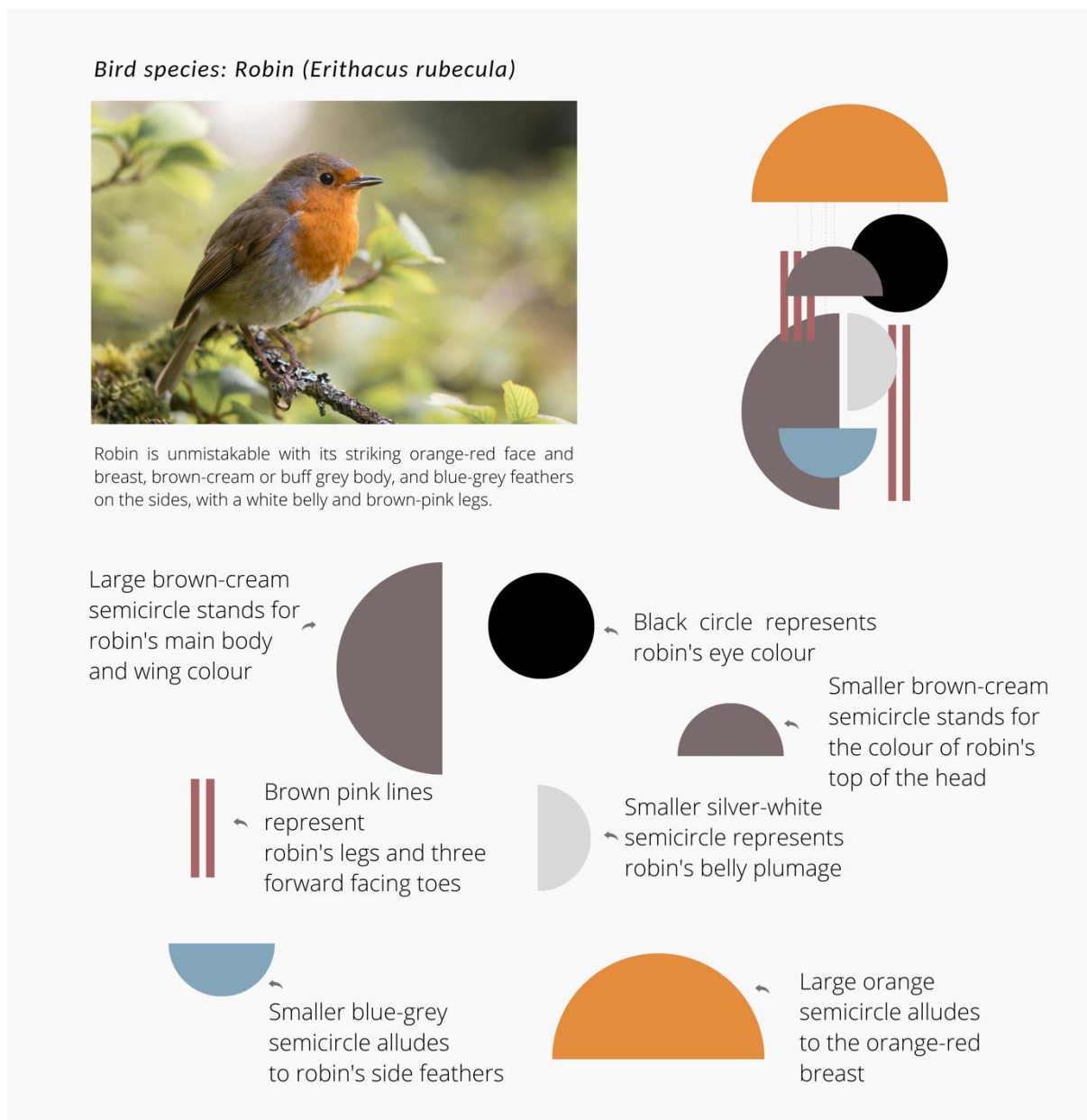


Figure 2: Yulia Kovanova, 2021. Chroma Calls sculpture diagram. Photograph by Ian Redding.

The colour-scape of the place within which the sculptures were emplaced, comprised a combination of generally chromatically 'available' colours within the human temporality of perception; from the manmade structures of locks and bridges, to the changing colour of the sky, foliage and flowering plants, to the less apparent colours of the bird species. The experience of the sculptures' colours was thus always contingent on many variables, including individual colour perception of the visitors. By focusing on the less obvious (to the human eye) colours of the birds, the sculptures helped embed those colours more prominently into the place. The exaggerated scale of the sculptures added further emphasis to those colours and colour combinations. It was my hope that the extended presence of these colour combinations in the environment would 'train' the spectator's eye to look for that colour combination in the environment even when the sculptures had gone. This would be especially likely for people using the towpath as a frequent commute.

The sculptures had the capacity to encourage people to look for colours, become more observant, and link the colour combinations to specific chromatic presences of the birds within the environment.

Where the population of certain species may increase or, more commonly, decrease, that colour acts as a reminder of their current or past presence in the particular place.



Figure 3: Yulia Kovanova, 2021. *Chroma Calls sculpture studies*. Image by Falkirk Community Trust.

Intra-action of colour

During the process of research and development of *Chroma Calls*, I started to tune into the chromatic nature of the place, with its myriad human and nonhuman participants, the sculptures emerging as new inhabitants. The intense entanglement of everything within the place became more apparent and this started a thought process about the behaviour of colour, encompassing all chromatic elements within that place, along with associated consequences and ethical considerations.

Colour behaviour was a key focus for artist and educator Josef Albers in his publication *Interaction of Color* [2]. Through a series of practical exercises, Albers encouraged experimentation through direct observation, to develop one's perceptual acuity of how colour behaviour changes depending on form, placement, and quality of light, among other variables. Albers argued that colour is in constant flux, perceived not as it physically is but instead only in relative terms, going so far as to say that 'colour is the most relative medium in art' [2] For Albers, colour was interactive both in the sense that it cannot be understood outside of its spectrum of mutuality, nor outside of the interaction between the

environment, the observer and the colour observed. *Interaction of Color* was not prescriptive or conclusive, but an invitation into the beguiling world of colour, an open-ended journey, and an ongoing enquiry. To this end, and in the spirit of Josef Albers, I would like to consider another way of approaching colour – through colour *intra-action*.



Figure 4: Yulia Kovanova, in collaboration with Lars Koens, 2021. Chroma Calls sculptures based on the colours of chaffinch. Birch and bamboo, 800 × 400 × 30mm.

Where *inter-* means ‘between’ or ‘among’, *intra-* means ‘within’. The term ‘interaction’ presumes the existence of independent elements, or agencies, and, in our case, individual colours, which pre-exist their interactions. Albers’ interaction of colour focused specifically on experimental teaching and studying of colour. I would like to extend this pursuit into a broader approach towards ontology of colour. I develop an argument for intra-action of colour through the agential realist framework proposed by theoretical physicist and feminist theorist Karen Barad. Agential realism sees the universe made up of phenomena – ‘the ontological inseparability of intra-acting agencies’ [3], – where agency is a dynamic relationship, rather than an attribute. Barad defines ‘intra-action’ as the ‘mutual constitution of entangled agencies’ [3] and this concept sits at the centre of Barad’s agential realist theoretical framework that challenges individualist approaches to metaphysics. Colour can be seen as phenomena, emerging through a dynamic relationship of light, surface, the observer’s visual perception, and many other factors. Colour, like other phenomena in Barad’s reconceptualisation of metaphysics, can also be considered not individual but formed through the intra-action of various other agencies or phenomena in its dynamic web of relationships; it is a re-articulation of the world, and an ongoing process.

Colour is intrinsic to light. A surface emits a certain wavelength – perceived as a specific colour – and all other wavelengths are absorbed into and become part of that surface. Thus, all colours take part in

the phenomena, dynamically entangled with all the elements required for the colour to be perceived. Colour perception is contingent on light conditions, along with sensory and cognitive interpretations. Hence, experiencing colour is always to experience it in a deeply entangled way, always in intra-action. In Barad's view '[t]o be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence. Existence is not an individual affair. Individuals do not pre-exist their interactions; rather, individuals emerge through and as part of their entangled intra-relating' [3]. Barad stresses that agencies do not exist individually, but always relationally. A singular colour does not exist or become experienced in isolation, but rather emerges through a multi-layered relationship of intra-action.

Intra-action of colour, then, is a dynamic process of colour emerging, through an entanglement of ontologically inseparable agencies. These agencies constitute necessary elements for chromatic participation in the world, running through human and nonhuman, time and space, material and discursive. From sources of light, the evolutionary development of distinct colour perception, objects that absorb and reflect light differently, and how different languages shape the conceptualisation - and therefore perception - of colour, is how colour emerges. Intra-action of colour acknowledges the fact that colours do not exist in isolation and do not preexist their relationships, but rather emerge through dynamic intra-relations. Each *Chroma Calls* sculpture is a new entangled reconfiguration of the world. Colour acts as a crucial point of each entanglement. Thus, the colour of the sculptures was generated through a series of more-than-human entangled practices including but not limited to: art history, art practice and artistic imagination, avian evolution of the multiple bird species, scientific and technological advances necessary for the production of associated materials, ecologically aware practices, colour theories, colour perception, evolution of tree species, and canal building practices.

At a simple level, the sculptures might be considered as imperfect representations of the colours of the birds. They are more than this, however. Their presence in the natural environment becomes the lens and locus of different ways of experiencing colour in intra-action in that particular environment. The sculptures reveal the differences, and these differences are crucial. Birds' colouration is infinitely complex, developed over 150 million years of evolution, long before the first human came to be, a mere two million years ago. What might seem at first as highly imperfect iterations of the colours of the birds is in fact a demonstration of the differences that come in at every level of the creation of the sculptures, thus revealing all the agencies that took part in their becoming. As the artist, I saw and defined the specific combinations of colours for *Chroma Calls* differently to how other human participants see them, as well as how bird species would see them. Additionally, each individual of a bird species will have variation in their coloration, which appears differently in different light conditions and different environments. Furthermore, the production of the specific paint, and the choices of colours selected also played their part in the creation of the sculptures. Through the prominent insertion of colour through sculpture within the environment, the place is revealed to an observer more fully as the myriad of colours and the multiplicity of forms of life that comprise it.

Accromatising to place through sculpture

I propose the concept of 'accromatising' as a practice of entering into a deeply entangled way of being and sharing places with human and nonhuman others. Derived from 'acclimatising', meaning the process of becoming more accustomed or adjusted to new conditions or circumstances, 'accromatising' is defined by developing gradual attunement towards a place through colour. It is a practice whereby

we learn to look deeply into our surroundings, developing a different way of responding to, and being responsible for those surroundings, via colour.



Figure 5: Yulia Kovanova, in collaboration with Lars Koens, 2021. *Chroma Calls* sculptures based on the colours of wood pigeon. Birch and bamboo, 800 × 400 × 30mm.

Similar to acclimatising, the process of accromatising points to gradually coming into, or rediscovering the state of being in tune with the environment. Although rather than the conditions themselves being new, what is new is the way we regard our engagement with colour in the surrounding environment, or rather our intrinsic constitutive part of it, together with many others. The more time I spent on the canal, immersed in research, the more I became attuned to the colours of the place. At some point during the installation, I became guided by the canal birds, whose presence inspired the possible locations for the sculptures.

The exuberance of birds' colours, pulsating in a lively dance within the colours of the trees, flowers, each other, and everything else in the environment, including humans, is the radiance of life revealing itself through colour. When one is captured by the brilliance of living colours intra-acting, along with the delight of the experience of colour, inherent knowledge is made explicit, taking one in a chromatic embrace of deeply entangled relationships. Simply taking notice of colours, in passing, is not sufficient; it is the active and ongoing training of our chromatic 'muscle' – accromatisation – that is necessary in order to arrive at the experience of colour in its intra-action and respond: responsively, ethically, and justly.

Art practice presents an abundant toolkit of possibilities for entering such entangled, and therefore responsive and responsible, ways of being in the world. In *Chroma Calls*, I use colour in sculpture as a practice and experience of tuning into the natural environment, through the process of accromatisation.

The focus on colour is not arbitrary: the very nature of colour enfolds relationality, making it, as Albers argued, art's most relative medium. My desire to create sculpture is a desire to entangle, with sculpture becoming a meeting point at which human and nonhuman come together in a new configuration. This is a process of attuning and inviting others to attune alongside us.

Ethical colour

A question of ethics runs through both Barad's and Albers' approaches: ethics is an integral part of being in the world for Barad and, for Albers, aesthetics was ethics. Art practice to me is ethical in the sense that it acts as a proactive practice of growing responsibility for this ethical way of being. By responding to and through colour, I immerse myself into the deeply entangled nature of the world. I have termed my process of deep immersion through colour 'achromatisation.'

Colour in itself, then, can be conceived as ethical. By attending to colour within our environment, acknowledging the differences in how it might appear to different participants in all possible conditions and configurations, we become responsible. Colour points to and acknowledges the differences that matter.

Barad promotes an 'ongoing practice of being open and alive to each meeting, each intra-action, so we might use our ability to respond, as our responsibility, to help awaken, to breathe life into ever new possibilities for living justly. The world and its possibilities for becoming are remade in each meeting' [3]. We carry responsibility for sharing places chromatically: every blink of an eye, every turn of our head, offers a new chromatic configuration of the world in its becoming, and is a re-configuring of what matters, and the response and responsibility that comes with it. For Albers too, colour is ethical: 'I've handled colour as a man should behave. You may conclude that I consider ethics and aesthetics as one' [4]. Colour calls for response, it entices, lures and cajoles; rather than looking at it superficially, it is important to see into colour, all that is absorbed and reflected, diffracted and refracted, and begin to develop an ongoing practice of tuning into the full spectrum of its dynamic entangled intra-actions.

Developing this chromatic 'muscle', paying attention, and acting upon those calls responsibly, can lead to a more ethical human existence in a more-than-human world.

Conclusions

Art practice presents a toolkit of possibilities for developing a practice of tuning in, or accromatising, as well as inviting others – human and nonhuman – to tune into the experience. Approaching colour as intra-action, then, presents a more engaged, entangled, and inclusive way of being in the world and thinking about colour. Colour opens up a powerful entryway into this different way of being and sensing. It is capable of what Barad calls 'cutting things together and apart' [3]; of coming together, yet at the same time noticing the differences, and acting upon them responsibly.

Colour is not a by-product or add-on to life, but an essential part of it, woven tightly and inextricably into its very fabric. It is not incidental, but a crucial materialisation of millions of years of entangled evolutionary processes. The very presence of colour and its deeply relational nature calls for response and responsibility.

The artwork *Chroma Calls* shows colour can be used as an entryway into a more entangled and responsible way of sharing places with humans and nonhumans, with art practice offering a platform

for merging a range of disciplines to develop awareness of the environment we are part of, with its myriad intra-acting agencies.

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