

IRENE KOPELMAN

River Sil, Lines and Geometries

From April 23 to July 30, 2023

In her project *River Sil, Lines and Geometries*, the artist Irene Kopelman's approach to the landscape of the banks of the Sil repeats a model of observation that critically engages the relationship between art and the natural sciences. Through this process, she develops her characteristic geomorphological description of the territory through the observation of a series of geological, lithological and anthropic factors that impinge on some aspects of the river's ecosystem.

Throughout the Contemporary Age, art and science have been set apart and situated as two distinct and opposing forms of knowledge, despite the fact that all through history the visual documentation of nature has been crucial in scientific analysis and in its visual tradition. Indeed, in addition to mere representation, art and science offer many more analogies, correlations and coexistences in their respective modes of observation and analysis. Investigation, both in science and in art, is a means of thinking, of questioning and searching out new certainties, thus helping to define different aspects of reality: In the sciences, from more factual standpoints and, in art, from more sensory and symbolic perspectives.

The relationship between science and Kopelman's artistic work has to do with process, with the methodology, and with the formal parallelism of the results, in which the two disciplines come closer. In this way, her practice brings to light the contributions made to human knowledge by art, contrasting the universality of scientific discourse with the interpretative reconstruction of the landscape from post-modern postulates by means of analysis of the fragmentation and heterogeneity of contemporary art actions and the idea of landscape as a political construct.

Her process-centred methodology facilitates other ways of being in relation with the natural environment, which stimulate an analogical thinking in search of the similarities in differences and the differences in similarities, and in so doing raise ecological-environmental questions. Added to this commitment is a complex framework of interactions that begins with an opening up to the natural environment, in the first instance, drawn by an impulse that directs her attention to a particular landscape and gives rise to the idea. Kopelman then defines the research methodology with a view to multidisciplinary collaboration, intense field work and the accrual of details such as the collection of natural

elements, the taking of measurements, the registering of colour scales, the making of drawings or photographs and the subsequent indexing of the assembled information and its decoding in terms of her characteristic poetic-visual discourse.

Kopelman brings to the aesthetic experience a perceptive and contemplative dimension that is part of the cognitive process and at the same time completes her methodology. The first of these dimensions emerges from a consciousness of the body and reveals reality through the senses; the second arises from a state of wonderment, and as such yields a transformed understanding: it is not a pragmatic gaze but a solitary experience of openness, a state of attention that sees beyond and approaches what is not available to being perceived by the eye or taken in at a glance. Both values, supposedly remote from science, are nonetheless intrinsic to the process of comprehending what is there around us and are therefore introduced within the framework of the new logics of the construction and decoding of scientific knowledge, which is developed in an environment made up of a blend of different kinds of expertise and approach.

River Sil, Lines and Geometries took shape over the two-year period between 2021 and 2023, and was structured in three phases of research and fieldwork at the invitation of the Fundación María José Jove. It was monitored by the geologist Víctor Barrientos, a professor in the Terrain Engineering department of the Higher Technical School of Civil Engineering at the University of A Coruña, who provided support and guidance for the geological location and in the direction of the seminar 'The River Sil: 234 kilometres, 70 million years and an ideal profile'. This symposium, held in Villablino in association with the Fundación Cerezales Antonino y Cinia, brought together a panel of experts to discuss the historical and geological context, and reviewed a range of other economic and social implications related to processes of environmental impact in the planning of the river's flow.

In terms of its geography, the River Sil runs through the autonomous communities of Castile and León, and Galicia. In terms of its geology, its source at Peña Ortiz in the syncline of La Cueta dates from the Paleozoic Era (300 million years ago) and its mouth, at Os Peares in Ourense, is from the Silurian period (420 million years ago). As for the river itself, at 70 million years old it is one of the oldest in the Iberian Peninsula, and is significantly different from most of the others in having what is known as an equilibrium profile, corresponding to a mathematical model that describes the balance between erosion and sedimentation, such that the flow does not produce either erosion or silt deposits.

With the painterly series *Schist Wall* (2022), Kopelman contextualised the geological timescale of the project by interpreting little fragments on a talus wall in O Cabo do Mundo, in the province of Lugo. This talus, three metres high by twenty metres long, leaves exposed to view a vertical face studded with metamorphic rocks, mainly schist and paragneiss, and what makes it so remarkable is the opportunity to contemplate the different phases of deformation stress experienced by the rocks in the conditions of pressure and temperature produced during the Hercynian orogeny, resulting from the movement of tectonic plates over the Earth's mantle, which situate us in a timescale of over 300 million years.

In the process of understanding the landscape, Kopelman situated herself in several different physical spaces that would enable her to elaborate a composition of the place with which to identify the specific sites and undertake the formal analysis, the search for the framings and the selection of points of view. In this instance, the location of the wall was guided by the geologist Víctor Barrientos. Kopelman then needed some time to engage with it, allowing her to choose the method with which to decipher and build up – from the image – its temporal and formal complexity. To this end she made several visits to the wall, where she decided on the location of the surfaces and their scale. The fact is that although the artist chooses to experiment with direct representation in the actual landscape, she is not interested in an exact reproduction of the referent so much as in the recording and unequivocal identification of its shapes and colours. In this particular case she chose the daub or mark as the syntactic element and tempera as the material, which was applied directly to the surface by way of rapid, dynamic strokes, in an exercise of synthetic schematisation. In this way, the fifteen paintings, with their 25 × 25 cm format, record the determining geological characteristics for the artist and are displayed in the gallery in the same relative positions as their original place on the wall, at a scale of 1:3.

Kopelman analyses the visual properties of form and colour that she apprehends in the landscape and captures by means of a range of compositional strategies in which these two elements habitually interact on the pictorial plane or in the installation space. The use of geometry and line, and the study of colour through a repeated development of tonal modulations, scales and values, are deployed as the guiding elements of the composition. However, the interpretation of the nature of the River Sil not only operates in the dialectic of the visual but also generates an interdependence between the images and other kinds of question deriving from the physical and socioeconomic

transformations that have taken place around processes of intervention in the territory and its sustainability. In this context, the control of the water flow of the River Sil by altering its natural rate of flow compromises the whole hydrological ecosystem in relation to the following uses: the supply of water to the population through the construction of dams, weirs and reservoirs; the generation of energy by hydroelectric and thermal power plants that cause the flow of the river to be diverted and the temperature to rise as a result of these facilities' cooling systems; physical-chemical changes and the biological alteration of living species; and agricultural operations, in which the intensive use of fertilisers and pesticides on farms causes extensive contamination of the surface waters.

In the *River Lines* series of drawings and paintings (2022–2023), Kopelman has made a vertical record of the orography, registering the changes in the water level in the San Esteban reservoir in the Sil canyon, a gorge of tectonic origin and a river terrace morphology made up of vertical walls up to 500 metres high along a 35-kilometre stretch running between the fractures in the hard granite blocks and the erosion produced by the water. These changes in level alter the degrees of erosion and leave a stratigraphic trace on the walls that shows the changes in depth and makes it possible to see the raw minerals left bare of vegetation. This phenomenon is due to fluctuations in the flow of one of the rivers with the highest density of infrastructure, regulated by twenty of these man-made elements along its course, with oscillation cycles that condition its ecological balance and the survival of wild vegetation in a place classified as a European Commission site of community importance (SCI) by virtue of its potential to contribute to the restoration of the natural habitat.

The drawings were made on the river, from the boat in which for four consecutive days Kopelman was able to position herself between the two banks and select and set down frontal views of the vertical morphology of the valley. The artist reproduced with her lines the geometry of the plane perpendicular to the water, studying the fragmented form of the referent and introducing into the paintings the colours of granites, granodiorites, schists and orthogneisses of the variety known as Ollo de sape, minerals that she collected in situ. To represent these she used a composition of negative space and geometries drawn in white on a black background, before applying the contrasting colour in planes of ochres, browns and greys.

At the same time, Kopelman has materialised the horizontal register of the orography in her drawings and in a ceramic installation, *River Geometries* (2022–2023). In the graphic series

she represents the sections intersecting the surface plane of the water contained within the geological formations. The perimeter lines and the planes defined by them combine to record the geographical features, their ins and outs, ups and downs, to describe the continuity of the river valley and its areas in relation to these fluctuations. These forms emerge from the artist's choices in framing the composition from the viewing platforms of the canyon, which condition the perspective and proffer plunging panoramic views of the geometries. In the ceramic pieces, Kopelman analyses these forms through three-dimensional blocks that represent a section of the volume of water. In a formal allusion to the block-diagrams, a relationship is generated with the modes of representation adopted by the geographer William Morris Davis in the late nineteenth and early twentieth century, which he used to represent geomorphological sections in three dimensions.

In the realm of colour, for the enamelling of the ceramic Kopelman made use of a correlation with the Forel-Ule scale, a scientific system of graduated measurement for classifying the colour of water, first devised towards the end of the nineteenth century by the Swiss limnologist François-Alphonse Forel and expanded a few years later by the German Wilhelm Ule. The system determines the colour of a sample by comparing it to the gradation in tone of a column of water in a vial resting on a white base. What is known as the Secchi depth is the point on the scale from transparency to opacity at which the white base is no longer visible.

The last element in the project is a series of drawings, *Clouds* (2022), in which Kopelman represents the mists that form in the river valley and are contained by the orography. The process contemplates the unpredictable nature of the formations, that extend waiting times and play down the importance of the framing, due to the continually mutating, fluid nature of their forms. These formations are for the most part conditioned by the levels of evapotranspiration from the dams and reservoirs, along with the changes in the overlying humidity produced by the masses of water in relation to thermal inversion, atmospheric stability and high temperatures. Kopelman here uses the fluid line as the best means of capturing their morphology, bringing into play the dynamic condition of the landscape, the cyclical time of nature and the perceptual link between space and time to capture the ephemeral in the brevity of the spatial forms that she represents.

Kopelman shifts the position of the appraisal from the analytical and empirical to the interpretive disciplines, in a decoding that holds up for us the geological space as a fragmented continuum

of lines, shapes, colours, and states liquid, solid or gaseous. The present show approaches her practice through other projects, chosen for their thematic correlation (water-geology), such as *Here and Elsewhere* (2022), *Puntos cardinales* [Cardinal Points] (2018), *On Yellows* (2021-2022) and *Indexing Water* (2017). These works evidence the decisive role played by a dynamic natural element such as water in the modelling of the landscape and its colour, its capacity for change and its reconfiguring quality in relation to mechanical, physical, chemical or biological reactions on rocks.

The project makes use of a series of scales as parameters of observation. On the one hand, magnitude: Kopelman works with spatial dimensions that range from the macro to the micro, something that allows her to establish formal relationships between the parts, in a play of analogies and differences, as well as incorporating other narrative considerations. At the same time she bears witness in her art to the temporal dimension associated with the modification of different landscape variables. This awareness of temporality is reflected in the project in relation to three timescales. The first is geological time,

which determines changes with units of measurement greater than 1000 years. In this case, the landscapes under consideration are associated with morphologies whose intervals are close to a hundred million years, a far greater parameter than the magnitude we usually deal with, and one that encompasses the development and transformation of the materials in the planet's evolution. Then there is historical time, which has to do with events shaped by human agency and affecting nature, such as the management and pollution of water or the construction of infrastructures. Finally, we have a cyclical time relative to the dynamic processes associated with natural flows: the cycles of natural water, of air, and so on. In this way Kopelman interrelates spatiotemporal coordinates, generating a network of analysis that affords us a greater measure of understanding of the landscape, of the influence and the overlapping of its complexities. The artist uses a discursive and formal framework that confronts the viewer with multiple fragmentary images that prompt a displacement in the form of relation, ranging from object/landscape to subject/landscape, and presenting it as a hybrid composition between the physical medium (nature) and the political object (territory).

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From April 23 to July 30, 2023

Opening

Sunday, April 23, 12 noon

Gallery hours

From 12 to 14 and from 16 to 19

From 12 to 14 and from 17 to 20

(from June 17)

Open Tuesday to Sunday. Closed Mondays.

Curated by

Susana González

Organizer

Fundación María Jose Jove / MUV

Fundación Cerezales Antonino y Cinia

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