



Cardinal Points

MALBA (Buenos Aires, Argentina)
March – July 2018

Cardinal Points originated in January 2016, following a conversation with Agustin Perez Rubio, the director of MALBA in Buenos Aires, who invited me to develop an exhibition for 2018. Working towards a solo exhibition in a large-scale museum provided an opportunity for me to take time and focus on a more substantial amount of research and work than is usually possible.

Agustin gave me the option of inviting an external curator to work with me and so I asked Carina Cagnolo. Carina was vital in helping me to define my practice, as both my former professor and thesis advisor during my studies at the National University of Cordoba, Argentina. We have remained in touch over the years and thought this project would be a fruitful journey to take together.

Agustin's proposal was to start a project from scratch, using the methodologies I have been developing over many years of field work and applying those to potential subjects in Argentina—the country of my birth and where I took my first steps as an artist. The idea was to focus on Argentinean ecosystems, which have a particular combination of ecological and social realities that make the country's natural environments very different to the ecosystems in the Northern Hemisphere and, in some respects, other parts of the Southern Hemisphere. Most of what is known about the functioning of ecosystems comes from temperate systems (like forests and grasslands in Europe and North America), or from the Mediterranean basin. Argentina, however, has a mostly subtropical ecosystem, and is therefore particularly fascinating to study from a biogeographical point of view.

From a socio-ecological perspective, the country is experiencing a process of deforestation and an advancement of the agricultural frontier over a relatively untouched natural system. This development is the opposite of what is happening in Europe, where attempts to regain natural ecosystems are being made. Moreover, European forests and grasslands, similarly to the Mediterranean basin, have thousands of years of history in agriculture and livestock, while in many parts of South America, this has only existed for the past five hundred years and never at the same scale as in Europe. Furthermore, South America, unlike Africa, lost its great herbivores about 10,000 years ago, which means a different kind of ecosystem where any human impact on the landscape is more visible and marked.

With all the conceptual reasons to work with these ecosystems, along with plenty of curiosity and desire, I began the logistics of finding collaborators, locations and scheduling the many different excursions. Throughout the period of work I joined campaigns with several groups of scientists. For the first time in my career I decided I would display in the exhibition the drawings and notes that I made during the expeditions, and so I made my notes on drawing paper rather than in notebooks as I normally do. This instigated a different *modus operandi* for the entirety of the project.

I accompanied various teams carrying out research in the area of Pampa de Achala, Cordoba, working with invasive terrestrial species and studies of litter¹. I joined a team of ecologists² in a campaign to an area called 'El

Litoral' and the provinces of Entre Rios and Corrientes, studying floral ecology. I spent an extensive period in a lab³ in Puerto Madryn, in the Patagonian region with a team that works with invasions of marine organisms. Finally, with a team of geologists and paleontologists⁴, I went to the Ischigualasto Provincial Park and Jachal in the province of San Juan; in the first location I found the 'red landscape' that I later revisited to collect material that was used for the development of a series of paintings; in Jachal, I came across a geological formation that was then (in a later expedition with the same team) molded for casting into a ceramic sculptural piece.

The project also included the creation of a site-specific piece in an internal garden of MALBA, usually covered by a wall which we decided to open up for the exhibition. The experimental piece titled 'Mesocosmos'⁵ was a collaboration with a team of scientists⁵ and recreated the four ecosystems in which I had worked for the project, using a variety of plant species and soils.

After two years of work, many field trips, many experiences, a number of collaborations and dialogues and a great deal of studio and workshop time, the exhibition came into existence.

1
IMBIV (Instituto Multidisciplinario de Biología Vegetal, in English: 'Multidisciplinary Institute of Vegetable Biology')

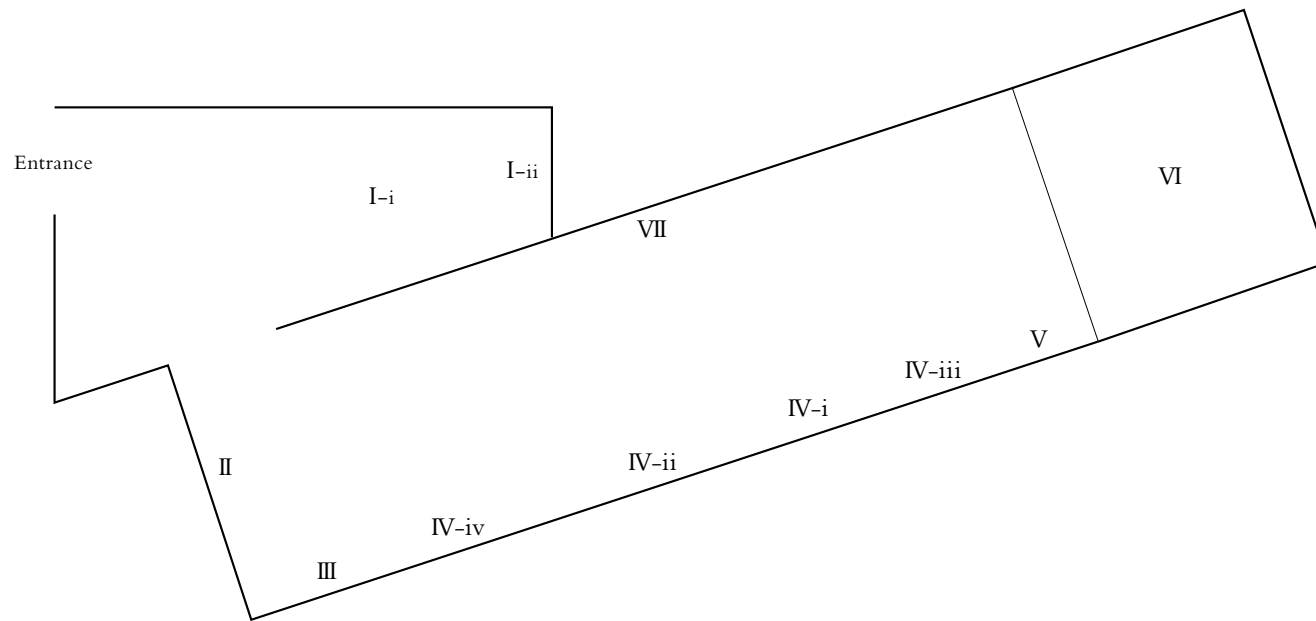
2
IMBIV (Instituto Multidisciplinario de Biología Vegetal, in English: 'Multidisciplinary Institute of Vegetable Biology')

3
IBIOMAR (Instituto de Biología de Organismos Marino, in English: the 'Institute of Biology of Marine Organisms')

4
CICTERRA (Centro de Investigaciones en Ciencias de la Tierra, in English: Research Center on Earth Sciences)

5
IMBIV (Instituto Multidisciplinario de Biología Vegetal, in English: 'Multidisciplinary Institute of Vegetable Biology')

Cardinal Points
at MALBA



- I *Slump*
- I-i ceramic
- I-ii documentary video

- II *Cuadrata* [Quadrat]
7 drawings

- III *Invasive Species Madryn*
3 drawings

- IV-i *Ischigualasto*
2 paintings
- IV-ii *Index*
oil on canvas
- IV-iii *Papeles Index* [Index Papers]
oil on scraps of paper
- IV-iv *Drawings Ischigualasto*
2 drawings

- V *Perfiles raíces* [Root Outlines]
3 drawings

- VI *Mesocosmos* [Mesocosms]
vegetation species and soil

- VII Field work
- VII-i *Nierembergia* trip
- VII-ii *1st trip Precordillera* [Andean foothills] (*Jáchal e Ischigualasto*)
- VII-iii *Madryn* trip
- VII-iv *2nd trip Ischigualasto*
- VII-v *2nd Field trip Precordillera* [Andean foothills] (*Jáchal*)
- VII-vi *Pampa de Achala* trips

I



In regions near the town of Jáchal, San Juan province the team observed a slump—the folding of a layer of material due to deformation—of some three hundred and twenty million years old. The expeditions to the Jáchal region were undertaken with geologist Emilio Vaccari and Miguel Ezpeleta, paleontologist Juan José Rustán, and Santiago Druetta and Ivana Tapia, members of the support staff for the research project (CICTERRA, CONICET – UNC). They made molds of the slump which were used to produce a ceramic sculptural work. The material for the documentary video was recorded during this trip.



I-i
Slump, 2018
ceramic
approx. 60 × 350 × 55 cm

Molds
silicon and plaster



details



process



I-ii
Slump, 2018
Documentary video
13'24"





IV

III

II

VII

II

Cuadrata [Quadrat], 2018

pencil on paper

7 drawings, 40 × 40 cm each

In Pampa de Achala, Córdoba province, the focus was upon the identity of species, their abundance, and their relationship with the ecosystem and its processes. A series of drawings were produced, using a quadrat—a scientific instrument to delimit an area of exploration. This work was based on research done by biologists Natalia Pérez Harguindeguy, Paula Tecco, and Paula Marcora from the Instituto Multidisciplinario de Biología Vegetal (IMBIV, CONICET – UNC).









III

Invasive Species Madryn, 2017

pencil on paper

3 drawings, 30×30 cm each

The work was developed with the support and guidance of the research team (Grupo de Ecología en Ambientes Costeros (GEAC), based in Puerto Madryn, Chubut province (directed by Alejandro Bortolus and Evangelina Schwindt), where invasive marine species that arrive on the Argentine coast are studied.





In Ischigualasto, San Juan province, geological formations of some two hundred and ten million years old were studied in order to produce a series of paintings and drawings. The color proofs and the chromatic scheme are both based on stones extracted from the location. The collaboration took place with researchers Emilio Vaccari, Miguel Ezpeleta, and Juan José Rustán from the Centro de Investigaciones en Ciencias de la Tierra (CICTERRA, CONICET – UNC).



IV-i
Ischigualasto, 2018
oil on canvas
2 paintings
200 × 200 cm each

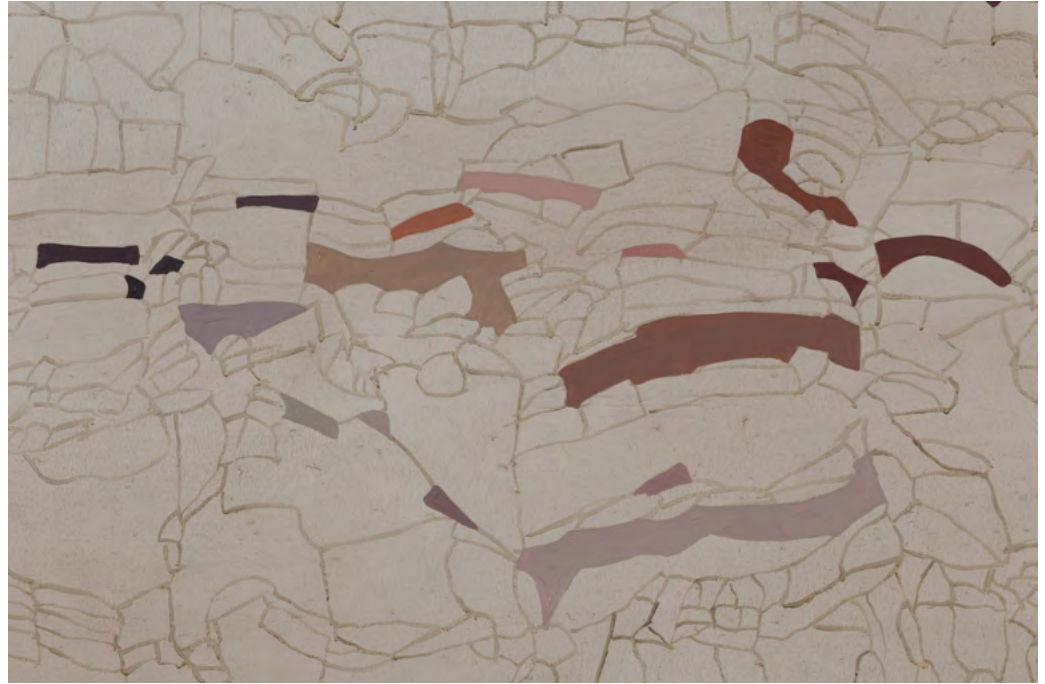
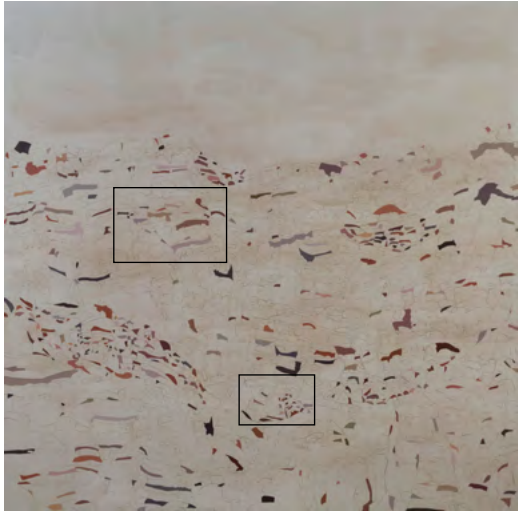


details





details



IV-ii
Index, 2018
oil on canvas
30 × 360 cm



IV-iii

Papeles Index [Index Papers], 2018

oil on scraps of paper

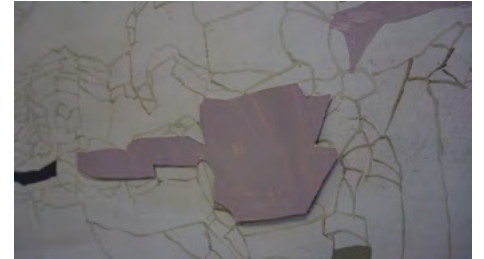
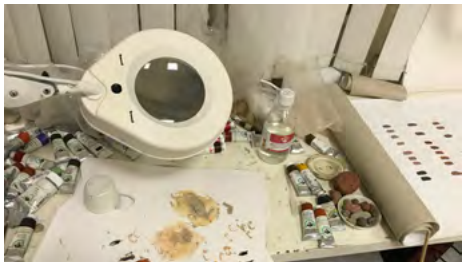
number of pieces and dimensions variable



details



IV-i-iii
process



IV-iv
Drawings Ischigualasto, 2017
pencil on paper
2 drawings, 25 × 25 cm each







V

Perfiles raíces [Root Outlines], 2018

pencil on paper

3 drawings, 25 × 25 cm each

In Sierras Chicas, Córdoba province the studies were focused on invasive vegetation. In this case the work took place in collaboration with the biologists Natalia Pérez Harguindeguy and Lucas Enrico, researchers at the Instituto Multidisciplinario de Biología Vegetal (IMBIV, CONICET – UNC).





VI

Mesocosmos [Mesocosms], 2018
site-specific installation
vegetation species and soil from
four different ecosystems





Mesocosmos [Mesocosm] is a representation of some of the ecosystems where the field work was done. The four environments represented are the woods in the sierras of the Sierras Chicas region of Córdoba; the high grasslands produced by fire and cattle in the elevated area of Pampa de Achala in the Sierras Grandes of Córdoba; the dry shrubland seen by running waters near Jáchal, San Juan; and the arid desert of the mount near Parque Ischigualasto, San Juan. Each one of these mesocosms evidences the diversity of species in the form of small individual samples and secondary forests. They attest not only to the change in the number of plants (species and biomass) but also to the size of the plants and their morphological characteristics (shape, height, leaf size). Over the course of the exhibition, as autumn sets in, these mesocosms will proceed towards the senescence (death) of some of their components (species or parts of them, like leaves). This death is a typical part of annual cycles and a fundamental component of the recycling of matter and energy between living organisms, the soil, and the atmosphere.

Project produced in collaboration with Gustavo Bertone, Lucas Enrico, and Natalia Pérez Harguindeguy, a team of biologists at the Instituto Multidisciplinario de Biología Vegetal (IMBIV, CONICET-UNC)

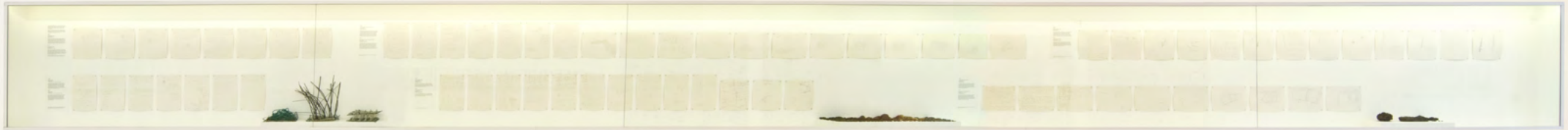
Design and production:
Gustavo Bertone (IMBIV, CONICET-UNC)

Consultants:
Natalia Pérez Harguindeguy and Lucas Enrico (IMBIV, CONICET-UNC)



VII
Field work

This section contains drawings and objects considered part of the field work; notes taken *in situ*, instruments, and collected materials.




VII-i

Nierembergia trip, 2016

pencil on paper

8 drawings, 25x25 cm each


30/Nov. 2016
nierembergia




el día que la Aniceto me va a
observar los polinizadores en una
florita que se llama nierembergia -
que parece sea lo en lugar la
noche y hay unas abejasitas.

que molécula sea sea lo
no sé como serán los otros días pero
hay se trata de hacer ligeros de la
esta la florita y esperar a que
llegue la abeja - quedarse allí por
media hora y observar si esa abeja
le o no y cuantas veces -
también recolectar unas abejas
actividad contemplativa a las hoy,
de pausas de estar de conciliar
en lo muy rico -
el resto es indistinto pacifico

el día que
pero cuando voy, los ojos de la abeja no por la normalidad de
posibilidad de pensar sobre esto de no encontrar unas flores
antes de andar así en estos momentos por la natura sin dar
una lo que busquen de un momento para otro por una referencia
de alguien que una vez usó por la zona. no sea flores
de zonas próximas ni a pe es más cuestión de andar
por caminos de fama local por lugares
que no están cultivados, ni al menos no
por un tiempo se dan una buena cantidad
de horas y personas en un momento la le
ella busquen una muestra. en una de las
paradas locales un el primer día, una flor.
después estos, se van andando por ahí alguna
que otra planta más grande, como yedras,
como si algún árbol se los árboles caídos.
verlos ciertos de modo de darle pausa que
la parte sea buena pero no del todo
ya no para observar polinizadores minutos por
hoy una publicación.
luego ahí mismo he una planta más interesante
parecen unas abejas y en un momento una publicación



hay bonito de ver si alguna florada alguna más habi-
arriba todo un problema de resaca
luego de la cual empieza al momento de los otros
días. tener que recolectar flores - principalmente por un no
he visto tener que realizar también este proceso de
recorrido los polinizadores, cuáles son y a cada cuanto cuentan la
flor sea la florada molécula y los polinizadores y no están
más resaca de estos países de estar de estar por la
maternidad a quien hay a la hora de la... a mi
me fuese un día pa-
se trata de preparar
la recolección.



ya por último que lo mismo se de un día a tener un buen
notas y que no sea poco, así de los de flores en
estas un índice de su existencia, las abejas no son un
de la flor. hay cosas que están en ella, una línea que están si la
una poco que no hacen que una la parte como es

With the support of the Laboratorio de Ecología Evolutiva y Biología Floral, Instituto Multidisciplinario de Biología Vegetal (IMBIV, CONICET - UNC), and together with biologists Alicia Sársic, Constanza Maubecin, and Nicolás Rocamundi, travel was undertaken to the Argentine Litoral to study a genus of plants called Nierembergia (Solanaceae). These plants possess floral oils that provide a reward to a specialized group of pollinators, mainly the bees that collect them.



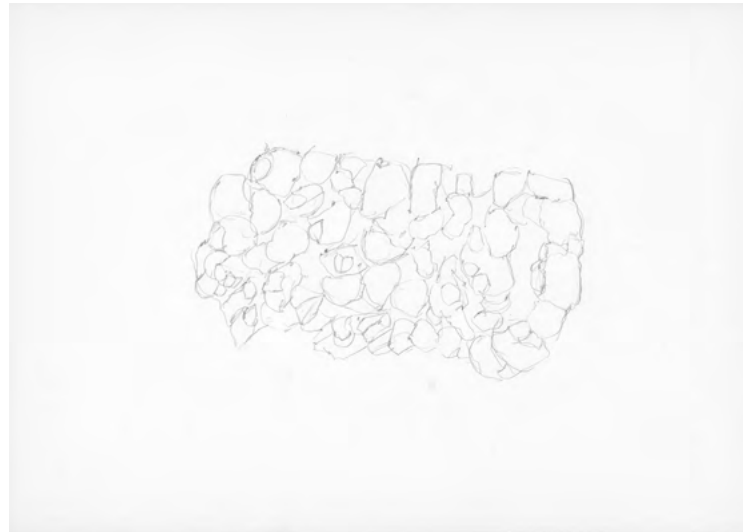
VII-ii

1st trip Precordillera [Andean foothills] (Jáchal and Ischigualasto), 2017

pencil on paper

7 drawings, 29×21 cm each

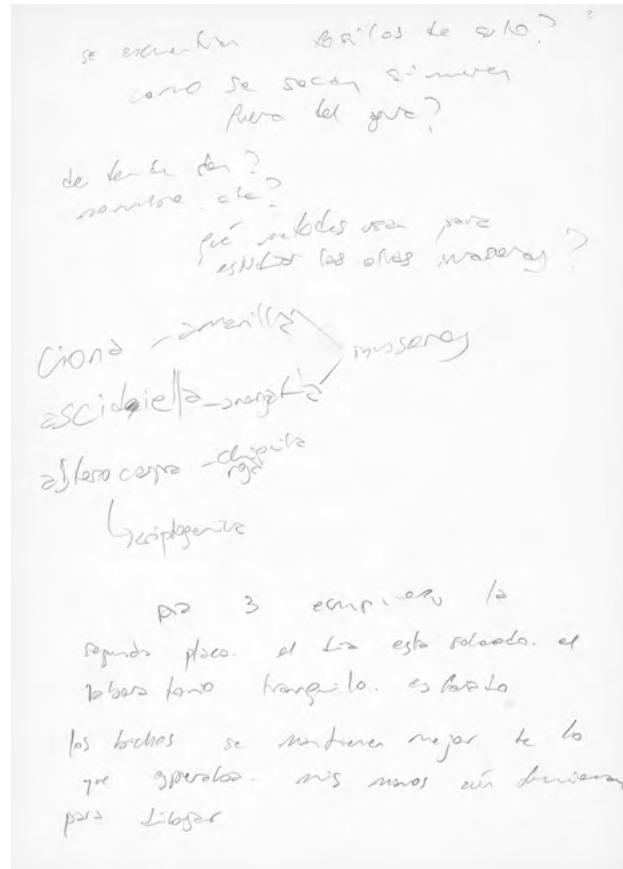
12 drawings, 21×29 cm each



Travel was undertaken to Ischigualasto and to an area near the town of Jáchal, San Juan province together with geologists Emilio Vaccari and Miguel Ezpeleta, paleontologist Juan José Rustán, and Ivana Tapia, member of the support staff for the research project (CICTERRA, Centro de Investigaciones en Ciencias de la Tierra, CONICET – UNC). The team worked on two geological formations in the region: a slump approximately three hundred and twenty million years old, and Ischigualasto approximately two hundred and ten million years old.



VII-iii
 Madryn trip, 2017
 pencil on paper
 7 drawings, 29×21 cm each



Each time a ship arrives from another part of the world, it brings species that have latched onto its hull. At the laboratory of the Grupo de Ecología en Ambientes Costeros (GEAC), in Puerto Madryn, Chubut, work was done in collaboration with scientists Alejandro Bortolus and Evangelina Schwindt to make drawings of those invasive marine species. The notes reflect on the representation of living organisms and a project time frame conditioned by *senescencia* (death).


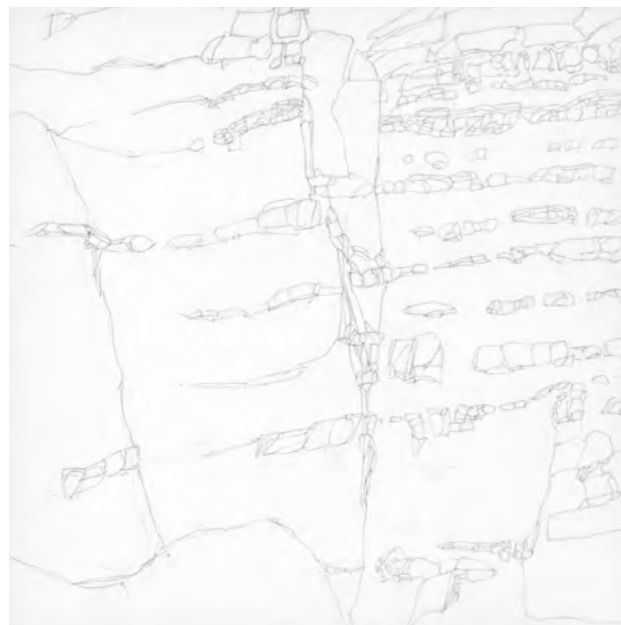


VII-iv
 2nd trip Ischigualasto, 2017
 pencil on paper
 10 drawings, 29 × 21cm each
 3 drawing, 25 × 25 cm each

un detalle en el que solo me puse a
 mirar la canchales que el sol me
 le pareció a saber que el pitalón, creo que
 es una sabana es un poco de tipo
 de la espada y parece más tarde o
 mañana de la mano que la tierra
 al lado se corrió.
 lacción que ya tiene la boca solo lo tipo
 de los de trabajo planura.

trab. 16:20 no algo.
 los tipos sobre distancia
 con no hacer, la ha ya se no es
 el menos no solo
 menos en que bastante a
 que hacer

-cabez le erró a la
 distancia. creo que
 no era close ups
 lo que recuerdo.
 se pueden los líneas de
 esta tempestad
 cruz. tal vez.

This field work trip was conducted in solitude.
 The trip was used to experiment with framing
 distances of zones that would later form the basis
 for the paintings titled *Ischigualasto* (2018). The
 stones serve as color samples for the paintings.



VII-v
 2nd Field trip Precordillera
 [Andean foothills] (Jáchal), 2017
 pencil on paper
 10 drawings, 21 × 29 cm each

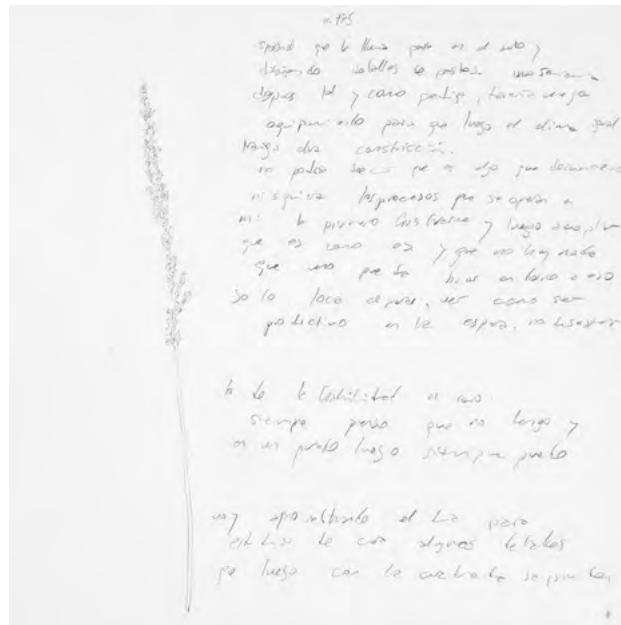
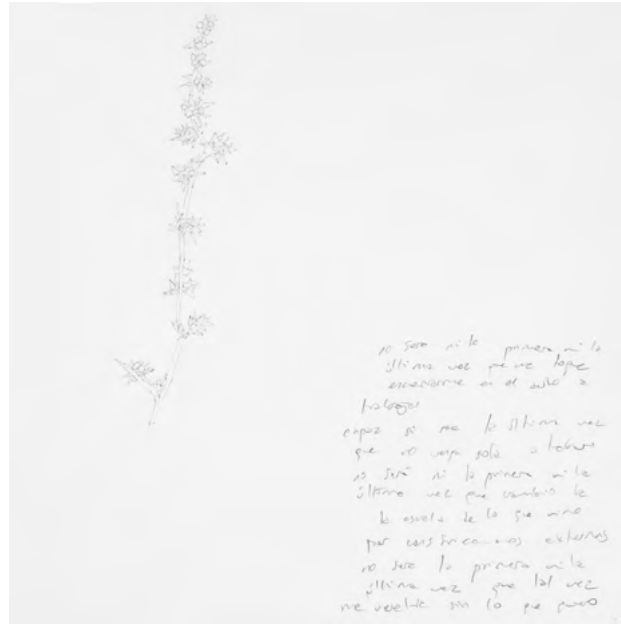
20.9.
 bueno, 2000 metros, está ocurriendo. no sabemos todavía si los
 del lado o no sabemos que si. continuamos en que el diámetro
 geológico se ha convertido en un diámetro estructural - un lenguaje
 estructural la mezcla de un occidente por el mismo tipo y ahora
 arriba. no necesariamente se pasan a los y procesos y
 que estos nos hay con color de desierto, ayer con un clima agradable
 plinosinos pero que nos trae al vertigo de pie al intentar
 no se vea el la anterior se muestra con un cambio nuevo que
 luego mengua. filmamos y documentamos el proceso. ahora también
 con los igual la experiencia es, no se más, intransferible se tres
 Los hemos visto al lugar con base ante lucas y charcos nos prohiben
 nos de la Asociación se han ido documentando por rapar la latex (punto
 latex punto mezclado con solido, latex con gase, más latex, ahora
 latex y el punto
 hay hay merced, está. Los anteriores no había la vegetación es verde,
 el lugar es árido. la formación está en un plano inclinado. lo cual
 el primer grupo nos pareciera geológico y ahora por temas incógnita



The second trip to the Jáchal region was undertaken with geologist Emilio Vaccari, paleontologist Juan José Rustán, and Santiago Druetta and Ivana Tapia, members of the support staff for the research project (CICTERRA, CONICET – UNC). They made molds of a slump some three hundred and twenty million years old later used to produce the sculpture *Slump* (2018). The material for the documentary video was recorded during this trip.



VII-vi
 Pampa de Achala trips, 2018
 pencil on paper
 13 drawings, 25 × 25 cm each

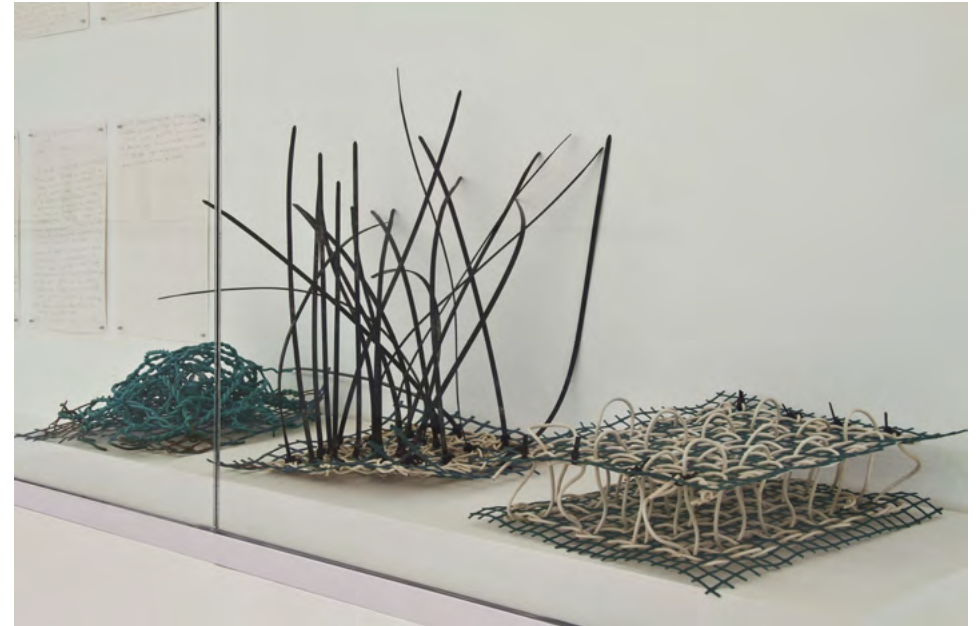


This work was based on research done by biologists
 Natalia Pérez Harguindeguy, Paula Tecco, and
 Paula Marcora from the Instituto Multidisciplinario
 de Biología Vegetal (IMBIV, CONICET – UNC).
 For this work the investigation was based on inter-
 relationships between autochthonous and exotic
 (invasive) vegetable species and their effect on soils,
 as well as field methods to address those issues.



VII-iii
Madryn trip, 2017
experimental designs
created by María Cruz Sueiro

VII-v
2nd Field trip Precordillera
[Andean foothills] (*Jáchal*), 2017
stones collected on site



Related exhibition

Puntos cardinales

Museo Emilio Caraffa (Córdoba, Argentina)

August – September 2018

Poster project, 2018

ColorWave prints on 80g/m² uncoated paper

841 × 1189 mm (A0) each

Edition of 2 + A/P

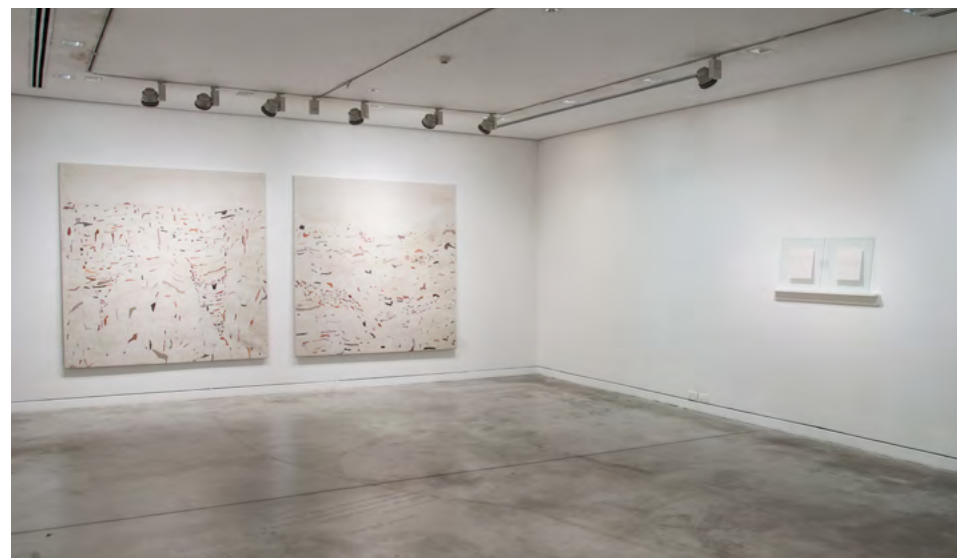


Related exhibition

Puntos cardinales

Museo Emilio Caraffa (Córdoba, Argentina)

August – September 2018



Related exhibition

Puntos cardinales

Museo Emilio Caraffa (Córdoba, Argentina)

August – September 2018



Irene Kopelman
Cardinal Points

Project by:
Irene Kopelman

Courtesy of:
MALBA, Museo de Arte Latinoamericano
de Buenos Aires

Curated by:
Carina Cagnolo

Credit documentation:
Nicolás Beraza (exhibition MALBA)
Ilya Rabinovich (paintings)
Ignacio Lasparra/ Zeeuws Archief, Mark
van der Graaff, Ivo Wennekens (drawings)
Rodrigo Fierro (exhibition Museo Emilio
Caraffa)

Mesocosms
Design and production: Gustavo Bertone
(IMBIV, CONICET – UNC)
Consultants: Natalia Perez Harguindeguy,
Lucas Enrico (IMBIV, CONICET – UNC)

Slump, 2018 (Documentary)
Editor: Ana Endara
Editor of texts: Matias Lapezzata
Camera: Irene Kopelman, Ivana Tapia
Production team: Ivana Tapia, Santiago Druetta
Expedition leaders and consultants: Emilio
Vaccari, Juan Jose Rustan
Consultant: Miguel Ezpeleta (CICTERRA,
CONICET – UNC)

Slump, 2018 (Ceramic)
Ceramics technician: Santiago Lena
Welding technician: Jessica Villafane

Slump (molds), 2018
Technicians: Santiago Druetta, Ivana Tapia

Design PDF:
Ayumi Higuchi

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Latinoamericano de Buenos Aires

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Lucas Enrico, Paula Tecco, Paula Marcora,
Alicia Sersic, Constanza Maubecin, Nicolas
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Blarduni and Laura Vargas, from Vivero de
Planeamiento Fisico (UNC); Gustavo Rey
Cecilia Eynard, from Vivero Fundación
Holcim; and Natalia Caceres, from IRNASUS,
CONICET – UCC; Centro de Investigaciones
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the team of MALBA Museum; Ayumi Higuchi
and Roger Willems from Roma Publications;
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