DERIVA.MX

DERIVA.MX is a transmedia project that uses film and an array of digital tools in order to propose a new approach to understanding violence in Mexico. Taking on subjects such as national identity, power relations, work culture, and traditions, we seek to broaden the concept of violence by focusing on its structural nature.

Film | Santiago Mohar Volkow
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Montage | Analía Goethals
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Mexico City, 2017
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DERIVA.MX is composed of an interdisciplinary group of young mexican filmmakers and interaction designers. We believe violence is a complex phenomenon that acts at many different levels, involving a sum of economic, political, social and cultural factors. To generate a constructive analysis, it's important to understand its multifaceted nature. Therefore, we propose an interdisciplinary approach toward examining the definition and impact of structural violence in Mexico. We don't believe there's a single answer, but rather that there are a variety of ways to understand it.

STRUCTURAL VIOLENCE

Structural (Galtung) or systemic (Žižek) violence refers to the invisible structures that enable inequality, injustice, suffering and inhumane living conditions. These forms of oppression reveal themselves through exclusion, racism, abuse, alienation and socio-economic policies implemented by broken or corrupt institutions that extract value from society. **DERIVA.MX** seeks to document and envidentiate these elusive manifestations of violence in order to provoque new ideas on the phenomenon and get us to reflect on the role each one of us plays in manteining its damaging structures. Adopting the technique of the dérive (Guy Debord), we are interested in going through a structured space outside the traditional confinements posed by schemes of consumer culture and entertainment. We are using this approach to render visible the mechanisms of the spectacle that have rendered the representation of violence something ordinary.

FILM AND MONTAGE

Cinema is a poetic and didactic language. Violence, like other forms of social distress, is at once a collective issue and a personal one. To do an integral study of violence it's necessary to address this duality. Cinema is not just storytelling, It is an art form that feeds from apparent reality. Through montage, it can help reveal hidden truths.

DERIVA.MX is ultimatley a tool for cinematic montage. We want to create a method that will allow endless angles from which to view our subject through the radical juxtaposition of images. To enhance new and original associations we intend to have a diverse approach in the aesthetics chosen to portray violence. Through the mixture of documentary and fiction and varying the styles within these categories, we can achieve the kaleidoscopic outlook we are seeking. This form is analog to the structural complexities of violence.

COMPUTATION AND INTERACTION

In order to approach violence in new ways, a subjective computational approach is necessary. The use of different data analysis tools serves to reveal the complex relations involved in structural violence.This analysis will enable an algorithmic approach to cinematic montage that helps constructs coherent sequences based on the subjective classification in relation to the audience's participation. We believe this exercise could embrace emergent database narratives on cinema (Manovich), exploring the subject of violence through associations of themes and subjects that may be unknown to ourselves and the audience.

"[subjective computation] concentrates (primarily through interactive and generative multimedia) on creating narrative and poetic mental imagery to express artistic and critical statements about the world. It describes building blocks of meaning such as concepts, the structures of events, the ways that people and things exhibit agency in the real and story worlds, and the limited ways by which computation can access, formalize, and manipulate these meaningful building blocks"

(Fox Harrell, Phantasmal Media 2013).

DATABASE AND ALGORITHM

The core technologies of the project are the database and the algorithm. We are traversing mexican national territory, filming video capsules that make-up an archive of different cinematic genres: documentary, fiction and interviews. In addition, we are also collecting objects, images, sounds, and music. With this multimedia archive we seek to document Mexico's diverse realities. This material is then classified in a database by its relevant metadata (time and place), its formal characteristics (framing, light, movement, color, etc.) and by a set of subjective tags that describe both the contents of the image (objects, people, places) and the underlying themes associated with the media. (governance, security, gender equality, work, politics, etc.)

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CLASSIFICATION AND TAGS

underlying	observable
tradition	*youth, crowd, weapons*
war	
colonialism	*flag, national symbol, president*
invasion	
foreigners	*indigenous*
representation	
National History	*public road*
National Identity	

Video: documentary **Subject:** man
Camera movement: still **Setting:** exterior, daylight
Geometry: Vertical **Environment:** urban
Sound: ambient + action **Rythm:** fast

DERIVA.MX's multimedia archive is primarily composed of original videos arranged into three main categories:

Capsules are one to seven minutes long videos that explore a main subject. They are self-contained and human-edited. (A day of work at the garbage dump, an elementary school civic ceremony, the manufacture of an official Mexican flag, etc.) In a literary, written grammar analogy, capsules would be well structured paragraphs that convey simple but fully structured ideas.

Bases are one to four minutes, one shot videos of interviews, statements, songs, land-scapes, and other audio-oriented or contemplative videos that can easily be overlaid with other new media objects to amplify, contrast, evolve or modify the original message. Following the written-grammar analogy, bases are simple phrases that can be modified by adjectives and adverbs.

Satellites are five to sixty seconds one-shot videos of people, places, actions or situations that serve as the most basic narrative module. Satellites would be the words, adjectives and adverbs that build paragraphs (capsules) and modify phrases (bases).

Photographs, mainly of objects collected on our journeys, maps and text will play a supporting role in expanding film language to broaden the construction of meaning through the interaction of different media.

GRAPH: VIDEOS AND TAGS

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This database can be adapted to different platforms. Each medium presents its own unique native characteristics that enable a diversity of approaches to explore the archive, but also the mediums themselves.

Algorithms, as a general technology used in the project, are understood as both the interfaces we design to enable the interaction between the audience and our database, and the rules by which this interaction results in the construction of meaning through generative montage, narrative modules and interactive non-linear storytelling.

INTERACTION

The project approaches each one of its three main mediums in distinct ways, nevertheless, they all share the same interaction principle: Creating situations where the audience is presented with a choice to be made, and where their decision determines not only the outcome of the narrative but also provides insight into their political relations with society in terms of violence. **DERIVA.MX**'s interactions are not always meant to please the user, we seek to confront the idea that technology is best when it perpetuates our biases, enclosing us in a bubble of compatible ideas. Ultimately, we're building technology where meaningful interactions help us to empower reflection, to embrace diversity and to question our most fundamental ideas of what it means to act and to live in a violent

How am I a subject of violence?

How am I imposing violence on others?

The ultimate questions we want the audience to ask themselves once the concept of structural violence is understood are:

THREE PRIMARY MEDIUMS

Participatory cinema | A traditional projection of a unique film generated for each exhibition according to its time, place and the audience's interest expressed through a previous interaction with a web questionnaire.

Web - Interactive narrative | An intimate journey through a database narrative that alternate between meaningful interactions with media objects and short video capsules that relate to one's choices along the way.

Physical Spaces | An experience for museums and galleries using objects as physical interfaces for the multimedia database.

The first medium we're working on, film being the core language of the project, is cinema. The participatory cinema experience can take place in any traditional projection space and it's composed by four moments:

1 | An open web questionnaire.

2 | The data analysis of the answers that determine the themes and subjects of the movie.

3 | The algorithmic montage of this material in the form of a unique film.

4 | The projection of the film intended for (but not limited to) the audience that participated.

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visit: deriva.mx/cine

For an up to date demo of the participatory interface.
(in spanish)

visit: deriva.mx

For the *work-in-progress* micro-site with interactive multimedia experiments.
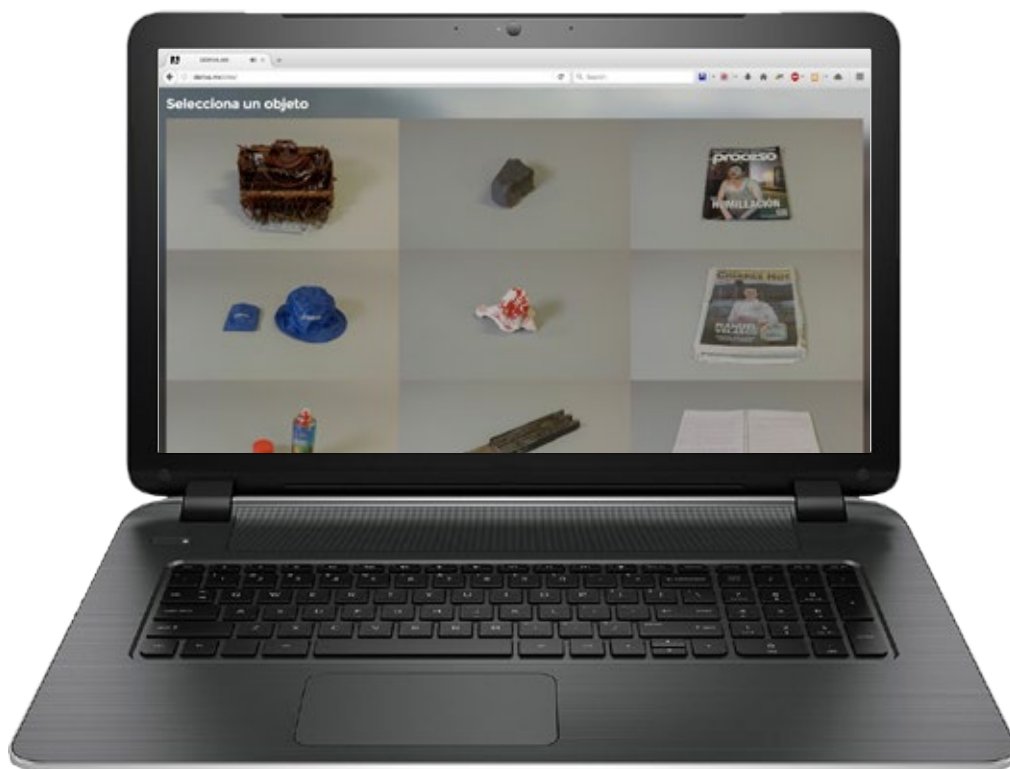
watch: vimeo.com/ 185031585

For an example of a unique film generated after the participation of 43 young Mexican artists.

Password: *derivamx*

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A UNIQUE FILM

This movies are the result of the interaction between our own subjective vision embedded in the material's selection, picture framing, classification and tagging and the audience's interests, passions, fears and unknowns expressed in the questionnaire. These two data structures interact through a selection algorithm that populates a modular semi-predefined structure. Our intention is to generate full-featured 70 minute films with story-arcs that evolve throughout the film, symbols that transform in meaning, and moments of intensity that build-up and release, all while maintaining the themes, subjects and their interactions open to the input of the audience.

When the exhibition is scheduled, a web interface is deployed in our site and an open invitation is made to the general public for them to answer it and attend the projection on a later date. This inquiry confronts each person with our multimedia database through a series of actions and questions that seek to reveal one's relationship to violence.
The main theme, questions, and complexity of this site may vary according to the nature of the future projection. When a limit of participants is reached or a certain time has passed, the questionnaire closes and the answers are analyzed.

Through the interface and algorithms, the audience not only interacts with the database, but indirectly the individuals interact among themselves. How each person relates to a group in terms of their shared interests and their different reactions to the same material reveals positions of common principles,
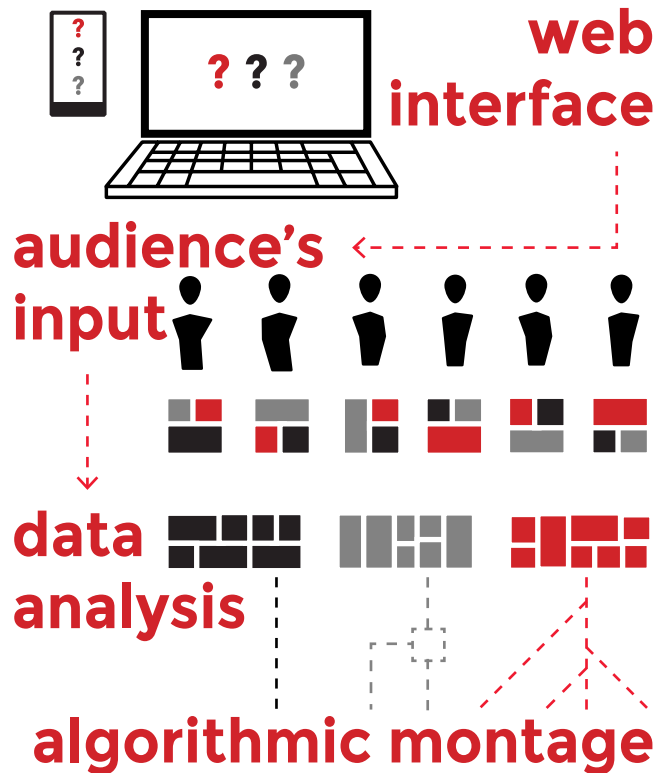
minorities, taboo subjects and opinion diversity that ultimately determine the discourses and narrative tensions in the film. This experience takes advantage of cinema's collective nature to address issues of group relations, democracy, representation, and social conflicts. To accompany the film, a complementary website with additional information and graphics is uploaded to the site where that projections' questionnaire previously was, leaving a trace of past projections and their results.

At **DERIVA.MX** we are convinced computational systems are ethically and morally biased by those who program and implement them. This is a problem when there's the presumption of neutrality, or when this processes remain unknown to the developers and end-users. Our mission is to use computational processes consciously and openly in order to advance our storytelling tools and to improve the reflexive potential of film in interactive environments.

web interface

audience's input

data analysis

algorithmic montage

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ALGORITHMIC MONTAGE

The web interface for this generative short film seeks to reveal one's relationship with violence at 3 levels: **personal**, **community** and **national**. The participants answer some questions utilizing our database's materials and *tags*. Through data analysis we choose the tags that will become the film's themes. We **don't** simply choose the most voted tags and then find the most compatible matching material. We use statistics to reveal subjects that are *ignored*. We implement clustering algorithms to identify groups of users/votes that express as **minorities**. We do specialization to identify extreme **oppositions** in particular topics. The movie discourse is constructed by the relations that emerge in the interaction of multimedia material classified with these tags. We seek to provoke, not to entretien.

b1   c   a1   b2   d   b2   a2   b3   e   f
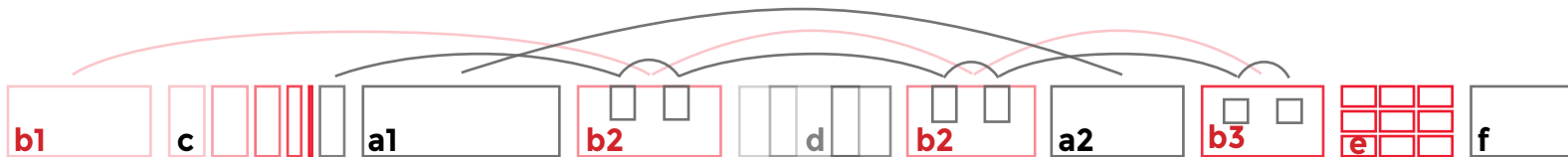
The predefined modular structure seeks to be a rythmic guide of spatial and temporal montage techniques.
a) A documentary capsule tagged with the **national (main) theme** is used in 2 sections to create a main story arc.
b) Interviews from the different **personal themes** repeat throughout the timeline, interacting with the **main theme.**
c) An exponentialy accelerated montage going from the least to the most voted theme; teasing material that was left out.
d) The **community themes** interact through opacity and blending in an experimental intermission at the middle.
e) Through a spatial montage of a 3 x 3 divided screen, **personal themes** can be directly related to the audience.
f) A superposition of the audience's formulated questions to any Mexican and the object of their choosing. This compositions are shown at the end in the hope of activating the cinema as a space for collective reflection and discussion.

b   d   e   f
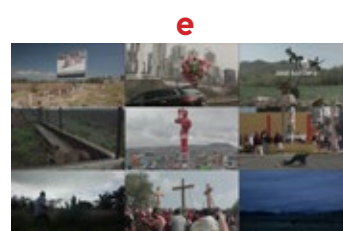
At the moment the participatory cinema is at an intermediate beta stage, with private projections of unique 12-18 minute short-films being made sporadically to test new interfaces, to try new material and to experiment with montage structures.

By october 2017 we intend this to become a full-featured 70 minute self-generated film. Future exploration of the algorithmic montage seeks to explore machine learning, markov chains, bayesian probability and other computational tools that expand our notions of subjective computing, film language and construction of meaning.

The second medium that we're focusing on consists on the creation of a web site that enables an intimate exploration of the new media database in a journey that alters between interactive actions with video segments and other media encounters. This site will evolve in over the next 18 months, starting as an interactive multimedia collage and becoming a full non-linear narrative.

The third medium deploys the database in physical space making use of the material objects collected, movement in space as a narrative decision with multiple projections and physical interfaces for the media objects.

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PARTICIPATION, COPYRIGHT AND AUTHORSHIP

Our commitment to study and understand structural violence must not stop with the subjects of our content, it needs to expand into the realm of communication, design, distribution, copyright and authorship. This is the reason why all of the multimedia material we create for the project will be released under a Creative Commons, Attribution-NonCommercial-ShareAlike 4.0 International licence. We're also favoring the use of open-source software, and whenever possible, all of the scripting and developed software will be hosted at an open repository under a General Public Licence.

The user will be invited to contribute in different ways through the development of the project, and their participation will affect the results differently on each of the three main platforms.

At this point, our archive is primarily monofocal in the sense of including mostly material filmed by us. While we intend to broaden this approach by including other people's material, we also believe that certain uniformity helps to construct distinct and more complex narrative structures with consistent references, characters and situations. We've found that a hybrid approach can be achieved with specific forms of collaboration like workshops, commissioned work and other specific forms of participation. For the web experience, the platform will be more open to include a diversity of sources.

AUDIENCE DEVELOPMENT

We propose a plural and inclusive approach to address the different issues and levels where violence takes place. Following new media practices, our commitment to study and understand this phenomenon is an open process, accessible for people who have experienced structural violence in its various manifestations without any constraint.

Our audience is fundamentally a critical contributor. In keeping with the social commitment of the project, we are looking to be attentive to audience's feedback, as well as embracing copy-left licensing to expand the scope to broader audiences interested in exploring their own environment through new questions and other perspectives. **DERIVA.MX** must be accesible at different levels depending on the audience's interest. Although the project may appeal more directly to a young tech-savvy audience, our objective is to intervene in non-virtual mediums like traditional cinemas and museums to appeal to people not regularly exposed to transmedia projects.

Data analysis and subjective classification as a starting point help us create paradigmatic structures with elements to be combined to create situations where audience involvement is decisive in the articulation of the experience as well as a sign of those thoughts on violence that pervade our society.

DERIVA.MX asks for an active participation by encouraging audiences to make decisions and choosing stances that match personal interests with community concerns in order to transform the way they relate to violence through a conscious exercise which directly affects their own perception.

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We are applying methodologies from software development. For example, by organizing periodic beta projections within focus groups we have assessed the aesthetic experience, narrative effects of the interaction, shared concerns among members of the same community and different responses to the same materials in order to be able to reconsider the stages of audience involvement and iterate on new elements to be added in further tests.

TECHNICAL OVERVIEW

DERIVA.MX's generative logo and visual identity was developed with processing (Java). The database is stored in MySQL, this is queried and parsed using python to import data to Gephi where the clustering and eigenvector centrality algorithms are applied for analysis. Movies are assembled in AfterEffects using Adobe's scripting language extension for JavaScript. **DERIVA.MX**'s video material is recorded at RAW or ApplePro Res quality at FullHD (1920 x 1080) and 96,000Hz 24 bit stereo sound.

Future explorations are aimed at unifying this workflow and exploring open-source alternatives to Adobe's scripting tools. Near future exploration of the algorithmic montage seeks to explore machine learning, markov chains, bayesian probability and other computational technologies that expand our notions of subjective computing, film language and construction of meaning. We intend to use Python as the main scripting language for queries to the database and for data analysis using SciPy, Numpy, Pandas and other libraries. We intend to use Blender as our software integrator to assemble the movies, taking advantage of its video editing capabilities and python scripting.

CURRENT STATUS

The core team at **DERIVA.MX** has been working for **15 months** now, we've visited **11** of the **31 national states** and collected roughly **112+ hours of material** composed of **60+ people interviewed**, more than **80 documentary capsules** and **10 fiction short-films**, along with a collection of **30+ objects**. We believe this should compose around **30%** of the content we wish to have filmed by **October 2017.**

The exhibition and distribution plan is to show the project in screens (public spaces, film festivals, cinemas and museums) and then in the internet (as an interactive web experience).

We have already developed a visualidentity that conveys **DERIVA.MX**'s dynamic nature. The logo is composed of a distinct text and a generative icon; a process that results in maps abstractions.

Participatory cinema is in a private beta projection phase, currently able to generate short-films according to the audience's response to the questionnaire. This process is still not fully automated and it works mostly relying on tag analysis (other classification criteria, visual similarity, or metadata relations are not used at the moment).

The web interactive experience will evolve alongside the cinema experience, but will not take it's final form until participatory cinema is fully explored. It'll start as an interactive multimedia collage with a playful approach to discovering the database and exploring the use of non-video media objects. This is at a design phase at the moment.

FUTURE DEVELOPMENTS

The plan is to finish all of the territory exploration and filming process by October 2017. By then we will have interviewed a wide variety of citizens, politicians, media representatives, no matter their social class or position. We will have rich variations on the material´s tone varying from observational documentary to non-realistic fiction. All of this will then be edited, post-produced and classified in order to be integrated to the **DERIVA.MX** database gradually.

Participatory Cinema's future exploration of the algorithmic montage seeks to explore machine learning, markov chains, bayesian probability and other computational technologies that expand our notions of subjective computing, film language and construction of meaning.
The scripting must achieve an almost fully automation of the process: From web interface to 70min unique film. If the render and transfer to a DCP or Blu Ray are sufficiently fast, computer modules could be installed in film festival's main cinema or receptions. Interactive installations could accompany the film's projection.

The web interactive experience will continue evolving, applying those things learned from the cinema experience. At it's final stage it will be a full-feature interactive documentary. Webcam recording of interviews, and other media sources will be incorporated in this experience.

TIMELINE

November 2016-March 2017
Project proposals to secure financing.

February 2017
Beta projection on #security in Casa del Lago, Mexico City.
Pre-production of the main filming phase.

February 2017
Launch of deriva.mx website with articles + mini documentaries.

January-September 2017
Main filming and territory exploration production.

March-October 2017
Main editing and post-production.

June - December 2017
Classification and database integration process.

October 2017
First public screening of a participation generated feature film.

October 2017 - October 2018
Public screenings of the films in festivals.

January 2018 - October 2018
Development of the Interactive Web experience.

October 2018
Web experience launch.

October 2018 - December 2020
Planned additional support for the website.

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Fund: FONCA - Jóvenes Creadores 2015-2016
for Visual Arts -Multimedia
$102,700.00 MXN (5,500 USD aprox.)

Fund: Fundación Jumex de Arte Contemporáneo
100,000.00 MXN (5,150 USD aprox.)

March 2017 - December 2018
Prices in US Dollars

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interaction design
$ 24,000

programming and database
$ 19,000

web development
$ 22,650

additional web support
$ 6,500

additional graphic design
$ 19,000
interaction and user experience

computers and storage
$ 12,500

physical interfaces
$ 10,500

museography
$ 2,500
computing and installations

communication strategy
$ 21,800

printed material
$ 12,600

paid advertisments
$ 3,500
community managment

research
$ 5,000

production planning
$ 2,500
documentary pre-production

production personel
$ 25,000

equipment rental
$ 10,000

acquisitions
$ 4,500

insurances
$ 3,500

transport, lodging & feeding
$ 20,000
documentary production

post-production personel
$ 15,000

digital intermedia for image
$ 8,000

sound post-production
$ 5,000

deliveries
$ 4,500
documentary post-production

total
$ 257,550 *20% funded*

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BIOS

Santiago Mohar Volkow (Mexico City, 1989) is a film director, screenwriter and producer. His first feature film The Dead (2014) premiered at the Morelia International Film Festival and was later shown in several national and international film festivals such as Mar del Plata and the Riviera Maya Film Festival, where it was awarded Best Picture. He is the writer and co-producer of Los Paisajes (2016), feature film to be released this year at Los Cabos International Film Festival. He received a grant from the JUMEX Foundation, for the the development of the multimedia project DERIVA.MX. He is currently in production of the documentary Sísifos and in pre production of his next fiction film, In the Volcano.

Analía Goethals is a Mexican video and film editor. She studied montage and postproduction in Bande á Part Escuela de cine in Barcelona, Spain. Her work has been shown in various film festivals such as San Sebastián International Film Festival, Sitges Film Festival, FICUNAM and Morelia International Film Festival.
Currently she is editing a found footage short film, a documentary about addictions and interactive documentary about structural violence in Mexico.

Nicolás Gutiérrez Wenhammar (Mexico City, 1991) is a filmmaker. He has directed three short films: *Ciudades* (2013), *María* (2013) and *Woman and Bird* (2015). His first feature is *While a Prision Exists* (2015), which premiered at the Morelia International Film Festival. His works has been selected in festivals such as San Sebastian International Film Festival, FICUNAM, ZINEBI and Sitges. He is part of DERIVA.MX, a multimedia project about structural violence in Mexico. He is currently editing *El Gato*, a documentary feature mostly based on found footage.

Pablo Somonte Ruano (Mexico City 1992) is an interaction designer working in speculative design, creative coding, subjective computing, digital humanities, open-source software, decentralization, autonomy and privacy. With undergraduate studies in Interaction and Digital Media from CENTRO University. Has worked as a graphic designer (Kinoki 2013, Abierto Mexicano de Diseño 2014 and 2015), co-created Google Códec, a kinetic installation for Google's central offices in Mexico, and has shown his work at design & art fairs (Zona Maco 2014, Hacedores MX 2015). He's currently the main designer and developer at DERIVA.MX a transmedia project about structural violence in Mexico.
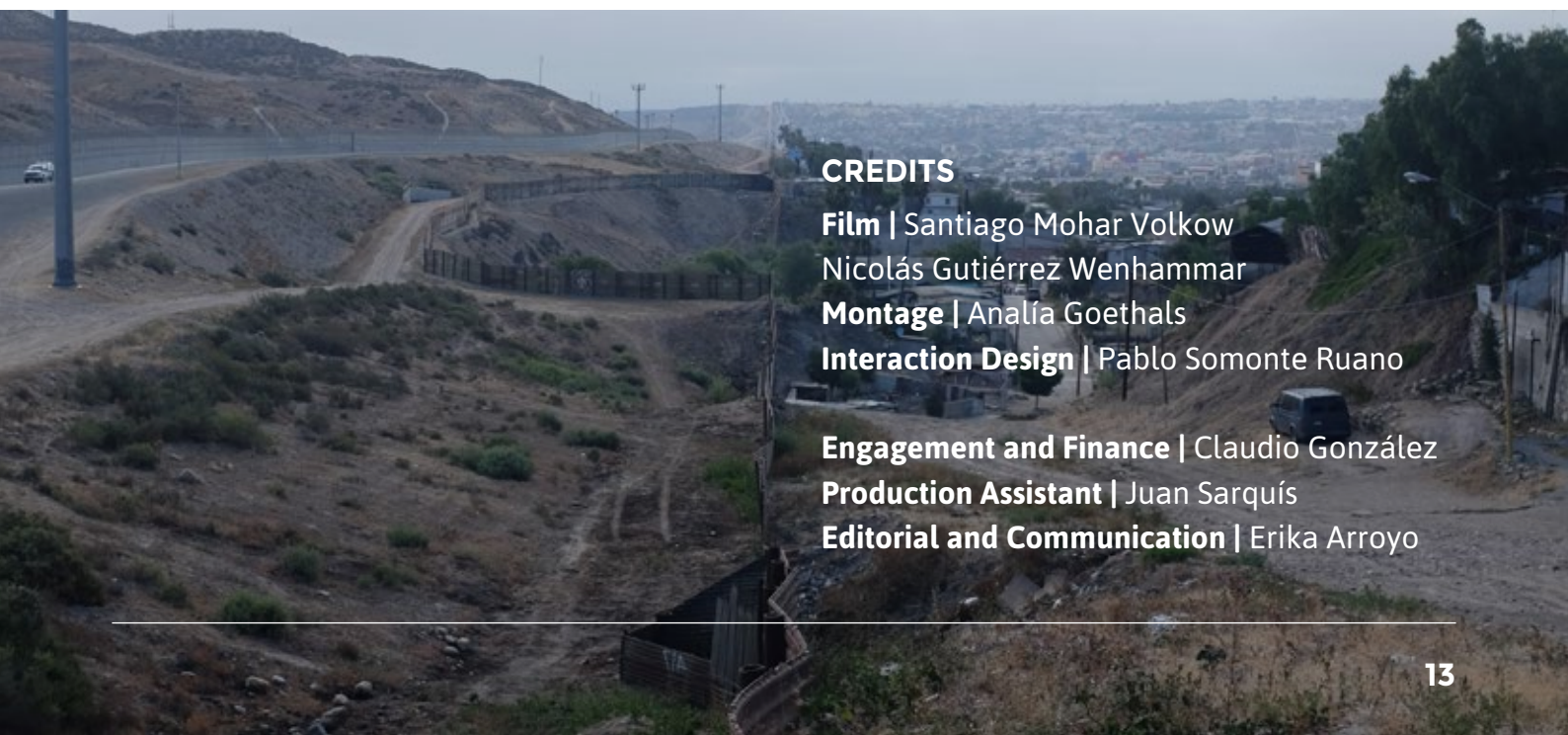
CREDITS

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