

Doctoral thesis summary

Title: Imagined times and arid spaces. Controversies around water in the Catamarca Valley (19th and 20th centuries).

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Problems addressed and aims of the dissertation

The thesis addresses journalistic, administrative and judicial historical documentation to analyze the links between aridity and geographical imaginaries in the province of Catamarca (Argentina), from a historical point of view. The research aims to contribute to the understanding of the "non-hegemonic" versions of Modernity, its territoriality and the productions of geographic imaginaries that they involve. To provide a broad purpose, it raises as an object of study the ways in which "modern" practices, actors, links, discourses and expectations about the territory are mobilized when they are located in a space in "other" water conditions. Those that are intended to "civilize" it.

The **general objective** of the research is to analyze time-space controversies around water in the city and valley of Catamarca towards 19th and 20th centuries. The **specific objectives** derived are **a)** analyzing how various actors are related to water's behavior - in other words, the local water regime - in Catamarca and the meanings built around it. **b)** to analyze the controversies about the place of Catamarca and its water regime in the local and national geographic imaginary. **c)** analyze controversies in which the relationships between actors and materialities involved in modernization projects are put into discussion.

These concerns by the experience of the actors and by the historical-spatial imagination of the territory, combined, led to the construction of an interdisciplinary methodology based on tools from anthropology, sociology, geography and history.

Relevant current research in the scientific field

Historical analyzes have addressed the marginality of the Argentine north-west region to the agro-exportation model, the breakdown of the commercial and productive networks that constituted the Peruvian economic space since the independences and the constitution of a "poor" and "barbarian" North under the influence of the '80s generation, the elite that conformed Argentina Nation, centered in Buenos Aires (Assadourian 1982, Tandeter 2000, Campi 2000). The province of Catamarca in particular was territorially built as a periphery throughout the 19th and 20th centuries, deserving the nickname of "periphery of the periphery" (Valiente 2012). The concept of "mágin" (Das and Poole 2008) allows to explore the way in which "common senses" or "mythologies" about arid zones, as Natenzon (1989) calls them, are historically constructed, situated and transformed.

Large-scale hydraulic companies occupy a particular place in these transformations. Radovich (2011) proposes them as "temples of development" and "fundamental dogmas of our civilization", emphasizing the symbolic and monumental nature of dams and their conflictive nature in Latin American scenarios. In the same sense, for other Argentine provinces the correlation between modernization projects, the "taming" of water and the establishment of spatial hierarchies mediated by the State apparatus has been raised as a relevant axis of analysis

to understand territorial conflicts, both historical and present (Martín, Rojas and Saldi, Álvarez Ávila 2014, Álvarez Ávila and Calderón Archina 2015, Banzato 2015).

Along these lines, authors related to political ecology have provided a large number of keys to think about water conflicts in a way that is simultaneously symbolic and territorial. We have taken up in particular the work of Swyngedow (2007, 2014) since the historical analysis of links between water and territory constitute one of his main concerns. Particularly for the Spanish case, he develops the concept of “hydrosocial dream”, as a category to describe the enormous territorial, economic, symbolic and hydropolitical commitment of the Francoist hydraulic project.

One of the main lines that the thesis explores is the connection between spatial logics and temporal ordering of territories, a link that emerges from the concept of spatial geometries (Massey 1999). Starting from this idea, the work also dialogues with the role that aridity and bonds with water have played in the construction of an imagined past. To this end, archaeological works that critically recover hydraulics (Quesada 2006) are particularly relevant, as well as those that wonder about the coloniality embedded in the ways of exploring the past (Quesada, Gastaldi and Granizo 2012) and the links that may imply with non-human agencies (Mafferra and Marconetto 2018)

Methods used and central concepts

The central concept guiding the research is *geographic imaginaries* (Massey 1999) which allows us to think about the link between organizational schemes of modern linear and evolutionary time and their spatial consequences: the existence of territories considered "past" and others considered "future". In other words, geographic imaginaries allow us to describe spatial relegation operations as ontological operations. At the base of the work methodology is the anthropological premise of attending to the ways in which the actors reconstruct and present their time-space experience in the region.

Based on the foregoing, the research was designed as a *tracking of controversies*. The first of these terms, associated with the microhistorical method (Ginzburg 1995, 2010), defined an approach to documents focused on the selection of argumentative texts and on the search for situations of exception or anomaly; the second, linked to the Actor-Network Theory (Latour 2008), reinforces the selection of sources of an argumentative nature but focuses attention on situations of debate, dispute or putting into play of different versions and visions about the relationships between human and non-human actors. Together, these two tools made it possible to advance in an analysis of disputes related to water throughout the 19th and 20th centuries, building a general panorama of the transformations and continuities in the geographical imaginaries of Catamarca in relation to aridity, regional economic future projects and the national State, among other elements.

Another conceptual tool closely linked to the idea of controversies and also proposed by the ANT is the term *collectives*. A collective is a set of beings and relationships between beings, of ideas and objects, of subjects and identities, which takes a name and is considered as such. It establishes the question for and the dispute over the belonging of different beings to the collective, that is to say, collectives are constantly crossed by controversies and disputes about its own limits. They are a proposal and a project at the same time as a reality. In this work, the

concept was used primarily to address the disputes, imaginaries and materialities linked to the modern Nation-State project and its territorialities.

This central nucleus was articulated with a broader set of authors, particularly anthropologists, concerned with deconstructing decolonial epistemes, who work in the same direction (Escobar 2010, Comaroff and Comaroff 2013).

Main results

The research main result consisted in the identification of three types of controversial situations with defined characteristics, that can be synthesized as follows:

a) Controversies over the relationship between **water and communities.**

They were identified through the reconstruction of a long-term hydrosocial history dating back to the seventeenth century, in which waters are understood first as part of an “enemy” environment. This first relationships are eventually transformed in practices of “coexistence” with the local water regime, seasonal droughts and floods. The relationships with the watercourses were fundamentally mediated for ditches as irrigation water distribution devices, whose design was modified to the installation of a territorially hierarchical space: the city, a legal and material entity with a certain level of interference in the conformation of less autonomous hydrosocial relationships between irrigators. This manifestation of the city as a water agent is accompanied by another set of links that point to the “sacred” or “superior right” character that water covers for “the Towns¹”.

These categories emerge in different moments and contexts, although they are still present today, in new hydrosocial disputes concerning large scale mining. The disputes accompanying the concept’s construction and updating leads to a tension between the right to water for “the peoples” in contrast with water as a vital element for production.

This opposition dialogs as well with the hydric construction of the urban-rural dichotomy, an evolution of a previous one: the desert-city dichotomy. The thesis explores this evolution and the transforming the coordinates of the civilizing imaginary that accompanies it.

b) **Location controversies**

This set of controversies reunites various aspects of the links between the city, the valley and the province of Catamarca and the actors-networks that mobilize (or are mobilized by) a national State project in search of territorial anchors: a Nation project that intends to “install” in a technical sense, networks of materialities that allow it to establish itself territorially as such (railway lines, pipes, canals or schools). And alongside, the technical-political epistemes that accompany them.

These links were explored understanding water controversies as disputes over the limits and conformation of the group / s involved. In other words, disputes over the ways in which city, valley, province and Nation are related can be understood as disputes regarding the limits of

¹ The spanish word, “Pueblos” means simultaneously the physical space of villages, towns or cities and also their inhabitants, which allows to claim a “superior right” that is not clearly anchored to people or to space, but to the combination of both.

this last great actor-network: is it possible for these spaces and actors to be part of the Nation, hydrically speaking? And in that case, under what rules and regimes?

This form of approach allowed two important operations to be carried out: one, to work on scalarity as a category disputed by the analyzed actors; another, to describe the contradictory relationships through which a marginal territory due to its water regime in relation to a "pampean" nation project is both incorporated and excluded from material and symbolic processes associated with Progress.

c) Controversies over the shape of the water networks.

This set recovers the always conflictive character of hydraulic works and its consequences in the hierarchical organization of the territory, the construction or restructuring of spatial inequalities. When speaking of "form" we do so in the most literal sense of the word: this set collects and analyzes the disputes over the way in which water will circulate through canals, ditches, dams and other "Works" through the land, towards where, with what degree of centralization and mediating which actors.

To this first set of results is added a more general analysis that can be summarized as follows:

a) *Aridity* will channel the controversies over the limits and possibilities of Catamarca's integration to the collective or group of actors-network that make up the Nation State. Arid zones are built as sites where the collective itself questions its limits, puts its territorialization tools into play and confronts, locating them, epistemes, practices and space-time categories.

b) In this sense, we have addressed a series of controversies in which the networks of objects linked to the provision and purification of urban water (filters, pipes, artesian wells) become political objects: the pipes become "of the regime" (the current government) and the muddy waters, that is, the failures in the filters, become a metaphor and an excuse to discuss the "purity" of civic life, or in Smith's words (2013), of the social body. Thus, city, waters and political conflicts are intimately intermingled in a context in which works and infrastructures destined to *tame* water and *civilize* the territory are becoming increasingly important.

c) At the regional level, the infrastructures linked to the modern State hydrosocial project of the early twentieth century occupy a paradoxical role in this scenario, perhaps more evident in its mid-century version: being at the same time the enablers of the inclusion and the tools of the exclusion of "arid zones" in an imagined geography that will place them as peripheries. We have highlighted the notion of "margin" as a useful theoretical category that dialogues with this paradox.

d) State water practices make up one of the nuclei that organizes the geographical imaginary of Modernity, from the great stories of the origin of Civilization as taming of water, associated with sedentary lifestyle and the emergence of cities; to the ideas of Progress condensed in the creation of infrastructures that are increasingly transforming the hydric flows of the territory. Narratives focused on water are central to the operation of making a timeline from the practices and ways of inhabiting space. Thus, the set of actors, objects, territorial links and ideas called the "Nation State" thinks and realizes itself as a Hydraulic State, producing through its water practices these exclusive and in one way or another violent "integrations" of the deserts and *unviable* or arid territories.

e) In the case of dams, this paradoxical position also appears associated with the discussion about the relationship between water and the city. When the question for urban territories productivity comes into play, with water already firmly established as a *productive resource*, the territorial coordinates of the city are modified in two ways: on the one hand, because on this occasion the city is not the protagonist of the Progress narrative. The dam has usurped that place. The dam is the main work of a mythology (or “mystic”) that has agricultural production as its center. The city is then displaced from a geographical imaginary that had had it as a protagonist for several hundred years, if we go back to the Spanish colonial enterprise.

f) Cities as spaces of *waste of water* contrast with a way of understanding the urban appropriation of water as a *superior right* of the Towns to its consumption over the producers or irrigators. This reversal is significant because it puts into play the senses of the right to water as a position opposed to its productive use, a controversy that continues to this day.

References²

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