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The 'urbanization of water' in La Paz, Bolivia: Historical and conceptual perspectives

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Abstract

This essay analyzes the historical production of water inequities in the city of La Paz, Bolivia. It relies on the concept of 'urbanization of water' to present historical evidence and conceptual reflections about the justifications of actions and naturalization of outcomes regarding water inequities.

The main argument is that the urbanization of water in La Paz is linked to the construction / reification of a particular type of knowledge (urban imaginary) about the modern city. This urban imaginary has been decisive in the creation of a social / spatial hierarchy of the inhabitants of La Paz, justifying actions on the territorial ordering and, therefore, notions of who can enjoy water service. In this sense, social hierarchies are consolidated in space as a means of naturalizing the relationship between different social groups, and justifying investments in the water system in particular areas of the city. In this context, we can read the urbanization of water in La Paz as an organization of actors and knowledge in a process of ordering nature and people.

Keywords

La Paz, Bolivia; urbanization of water; ordering of people and nature; differentiated citizenship

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Résumé

Ce papier de recherche analyse la production historique des inégalités en matière d'eau dans la ville de La Paz, en Bolivie. Il s'appuie sur le concept d'"urbanisation de l'eau" pour présenter des preuves historiques et développer des réflexions conceptuelles sur les justifications des actions et sur la naturalisation des résultats concernant les inégalités en matière d'eau. L'argument principal est que l'urbanisation de l'eau à La Paz est liée à la construction / réification d'un type particulier de connaissances (imaginaire urbain) sur la ville moderne. Cet imaginaire urbain a été décisif dans la création d'une hiérarchie sociale / spatiale des habitants de La Paz, justifiant les actions sur l'ordre territorial et, par conséquent, sur qui est en droit de bénéficier du service de l'eau. En ce sens, les hiérarchies sociales sont consolidées dans l'espace comme un moyen de naturaliser la relation entre les différents groupes sociaux et

de justifier les investissements dans le système d'eau dans des zones particulières de la ville. Dans ce contexte, nous pouvons lire l'urbanisation de l'eau à La Paz comme une organisation des acteurs et des connaissances dans un processus d'ordonnancement de la nature et des personnes.

Mots-clés

La Paz, Bolivie, urbanisation de l'eau, ordonnancement des personnes et de la nature, citoyenneté différenciée

Introduction

Cities in the 'global south' are searching for ways to ensure equitable access to basic services (UN-Habitat, 2016). According to WHO / UNICEF (2017), 7 out of 10 people on the planet have access to safely managed drinking water¹, which means that approximately 800 million people still lack basic drinking water service. Although in global terms, levels of access to water have improved in recent decades, significant inequities still persist (Piper, 2014). Studies on the persistence of water inequities² point to institutional limitations, lack of political will, and exclusionary practices (Graham & Marvin, 2001; Hassam, 2011; Bakker, 2010). However, less attention has been paid to the historical processes that shaped those inequities, and how it has become natural that certain bodies in certain spaces do not have these basic services (Gandy, 2014a; Piper, 2014; von Schnitzler, 2016). It is from these historical residues that we can analyze the construction of "a brutal distinction between 'citizens' who could lay claim to potable water and the 'subjects' who were left to make do as best they could" (Gandy, 2004b: 368). Therefore, to better understand the obstacles cities face in expanding the water supply system, and to getting closer to the ideals of equity, we need to better understand the history of exclusionary practices, and how the 'solutions' from the past to provide water services have created the problems of the present.

A point that will be highlighted in this essay is that the persistence of water inequities cannot be analyzed separately from the urbanization processes that have defined and constituted contemporary cities. The urbanization process is a crucial lens for analyzing the persistence of water inequities. Harvey (1997) presents a general framework to analyze and discuss how cities "are not simply constituted by but also constitutive of [historical] social processes" (Harvey, 1997: 23). His analytical framework aims to illustrate how historical forces at different times have material implications not only in the structure and organization of the city, but also in shaping actors in the city. Simultaneously, the organization of the city in social and material terms- influences the conditions for new historical processes. The actors of the institutional infrastructure respond to urban challenges based on their situated/contextualized knowledge about what the city is for, whom the city is for, and who belongs in the imaginary of a modern city (Haraway, 1988; McFarlane, 2011; Vanhellemont, 2016). For cities in the global South, the dialectical relationship between historical forces and material expressions is reflected in the divided nature of cities and the unequal access to basic services. The spatial manifestations of these inequities establish social differentiation and hierarchies within the urban context in ways that justify and naturalize these inequities

¹ According to the World Health Organization, "One has access to drinking water if its source is less than 1 kilometer away from the place of use and if one can reliably obtain at least 20 liters per day for each member of the family."

² In this essay, we will use the term inequity instead of inequality. While inequalities refer to the unequal distribution of resources or services (income, health care, etc.) for some generic reason, the term inequity calls us to reflect on processes that explain the particular forms of inequality.

(Anand, 2017). From this theoretical perspective, cities of the global south can be understood as the material expression of the ways in which capital, coloniality, and modernity have historically interwoven (Quijano, 2007; Simone & Pieterse, 2017).

In this essay, the term "urbanization of water" will be used in the sense developed by Swyngedouw, who states that "the history of the urbanization of water illustrates the intricate ways in which the image and reality of water access and use is bound up with social transformations and the formation of the modern city" (Swyngedouw, 2004: 30). The key point is that the study of historical production of unequal spaces and differentiated citizenship can provide us with a framework to analyze existing inequities and enhance our understanding of current challenges in the distribution of water in urban contexts. The historical processes reflect how political and economic forces, and the imaginaries of coloniality/modernity have been guiding the constitution of an institutional infrastructure from which key actors have made decisions about the expansion of the water supply system and, therefore, who will have access to water. These processes are crucial in the organization of an urban space that not only reflects the 'natural' conditions of the city (e.g. topographic obstacles), but also the historical formation of social divisions and spatial segregations in cities.

The production of spatial inequities and forms of differentiated citizenship are crucial lenses through which we can better understand the "urbanization of water". That water has to circulate through and/or under the fabric of the city to reach users represents a layer of analysis. Swyngedouw suggests that providing/obtaining access to water is not only a hydrological process, but that the circulation of water is immersed in deeply political processes that underlie the power relations in the production of urban space: "water circulation is part and parcel of the political economy of power that gives structure and coherence to the urban fabric. [...] the circulation of water-as a physical and social process-brings to light wider political economic, social, and ecological processes" (Swyngedouw, 2004: 2). In this context of water circulation and power relations, the use of the concepts of spatial inequities and forms of differentiated citizenship are key elements for reflection on the urbanization of water. Spatial inequities are not simply a way of affirming that there are certain areas of the city that enjoy services and others do not, but rather of asking why and how it is justified and naturalized that certain areas (and certain bodies) can enjoy certain services, and others not. Thus, the concept of 'urbanization of water' begins by identifying these spatial differences, but has the objective of unveiling the forces that explain the reasons for this difference and the process that inspired the organization of nature and people (Davis, 2014). At the same time, the concept of 'differentiated citizenship' points to the mechanisms that, in principle, seek to integrate a population into an urban political community, but end up integrating it unevenly (Holston, 2009; Oxhorn, 2001; Rivera, 1993). Therefore, the ordering of people and nature, and differentiated citizenships are intended to provide insights into the (re) production of inequalities, while also pointing to an analysis of the urbanization of water.

This essay focuses on the historical production of water inequities (ie, the urbanization of water) in the city of La Paz. It is based on archival material research (beginning in 1900, when La Paz became the seat of the executive and legislative branches of

government) to illustrate how social inequalities - expressed through differentiated citizenship and spatial inequities - guided the urbanization of water in La Paz. The main argument is that the urbanization of water in La Paz is linked to the construction/ reification of a particular type of knowledge (urban imaginary) about the modern city. This urban imaginary has been decisive in the creation of a social / spatial hierarchy of the inhabitants of La Paz, justifying actions on the territorial ordering and, therefore, notions of who can enjoy water service. In this sense, social hierarchies are consolidated in space as a means of naturalizing the relationship between different social groups, and justifying investments in the water system in particular areas of city. In this context, we can read the urbanization of water in La Paz as an organization of actors and knowledge in a process of ordering nature and people. In other words, in discussing water inequities we need to ask questions regarding the interactions between different actors (e.g. the Municipal Government and elites), and notions of citizenship in a given period.

The article is divided into three sections that are not necessarily in chronological order. The objective of these sections is to link aspects of the history of the expansion of the water system with the urbanization of La Paz as a way to illustrate the production of inequities. The first section will focus on the construction of elite spaces that helped consolidate unequal spaces that continue to have repercussions to this day. This section will show how the Municipal Government played a fundamental role in shaping elite spaces by concentrating resources for water services in certain areas of the city, to the detriment of the majority of the population. The second section will focus on the ordering of people and nature. These types of orderings respond to urban imaginaries of what a modern city should be and for whom, who belongs and who remains invisible. Finally, a reflection is made on the urbanization of water in La Paz, taking into account the production of unequal spaces and differentiated citizenships in a process of ordering people and nature.

1. Fragmenting the city: Construction of elite spaces and access to water

Since its founding in 1548, the city of La Paz has been a divided, differentiated, and spatially and socially segregated space. Like the great majority of settlements during the 16th century, the urban planning ordinances of 1573 dictated the organization of a Spanish settlement and the type of relationship with the native population (Crouch, Garr, and Mundigo, 1982). During the first decades of the city of La Paz, the Choqueyapu River separated the Spanish population from the indigenous population by (Barragán, 1990; Saignes, 1992). This spatial division not only served as the basis for the production of spatial inequalities, but also for the way in which these inequities reflected different forms of citizenship. After Independence, as the city grew and as the city's elites sought to build a modern city in tune with their understanding of European modernity (civilized population) did not fit this image of a modern city, although their labor was crucial in actually building the city. The result has been a fragmented city in which the majority of the population had poor access to water until relatively recently (Arbona & Kohl, 2004).

After the Federal War of 1899, La Paz became the seat of the executive and legislative branches of the government (Condarco, 1982). The elites of La Paz made their fortune by taking advantage of the growing importance of tin mining and other commercial activities (Barragán, 1990). Furthermore, a couple of decades earlier, the Ley de Ex-vinculación (1874) established the illegality of collective land ownership and opened the door for the expansion of La Paz, establishing the conditions for an urban land market (Arbona, 2011). Liberal ideals of private property and individual freedoms became the narrative that would justify the abrogation of collective indigenous lands, with the expectation that this transformation of the territory would shape the modern nation / city. Thus, the expropriation and eventual (forced) purchase by the elites of collective indigenous lands served to consolidate not only elite enclaves, but also to guide the growth of the city (Laura Barrón, 2003). The result, according to Arze & Barragán (1988), was that approximately 20% of the families in La Paz controlled the total number of houses in the city at the beginning of the 20th century. This situation allowed these elite families to extract a monopoly rent and to shape an inequitable city. Therefore, it is not surprising that the control of the territory (and the Municipal Government) greatly influenced the distribution of water and investment decisions in infrastructure during the first decades of the 20th century.

Access to water in La Paz has been highly unequal in ways that reflect the spatial divisions along ethnic and class lines. At the beginning of the 20th century, La Paz had about 70,000 inhabitants, but the areas that had water and other services were concentrated in a narrow strip that connects the old colonial enclave around Plaza Murillo and the new border of the neighborhoods of Sopocachi and San Jorge (Cuadros Bustos, 2002), where "good quality people" resided (HAMLP, 1915). On the other hand, the indigenous population tended to be concentrated in "suburban" areas surrounding the city that coincided with what was referred to as the 'Indian town' during the colonial period (La Paz Census, 1942). These

indigenous urban areas had poor housing and limited services (Otero in Bedregal Villanueva, 2009). At the beginning of the 20th century, the elites of La Paz had home water service or wells on their lots. In contrast, the majority of the inhabitants of La Paz obtained water for their daily needs directly from the Choqueyapu River, one of the hundreds of small rivers and springs that existed on the slopes of the city, or from one of the few public basins located in squares (Mendizábal de Finot, 1990; Barragán, 2009). This division reflected the differentiated forms of citizenship and the organization of unequal spaces that have been the result of the urbanization of water during this period.

The main source of water for the city came from Lake Milluni located 20 km from and about 1,000 meters above the city. The waters of Milluni arrived to a water tank through open channels. From that water tank, the water was distributed to private houses through pipes. The domestic water service required payment for a connection to the door of the perimeter wall of the property (HAMLP, 1904). This meant that people who had the possibility of living in a particular neighborhood were more likely to have access to water service, which reflected a history of settlements since the colony. Access to drinking water was not only for those who had the financial resources, but also for those who lived in an area near the water tanks. In other words, access to water during this period was the historical result of spatial divisions in which certain social groups had the power and the means to settle in certain areas, and therefore received the privileged support of government institutions to access services. It is in this way that the urbanization of water produced and reflected spatial division of the city.

The privilege that the city's emerging elites had regarding access to water was not simply a historical coincidence. The 1915 Annual Report of the Municipal Government mentioned that the water used for agriculture in the Tembladerani hills, above the Sopocachi neighborhood, would be diverted to Sopocachi, an enclave of the emerging elite. The reason noted was concern that the water from Lake Milluni was contaminated and not as pure as the water from the Tembladerani spring. The argument used to justify this action is that Sopocachi was becoming an important neighborhood "due to the quality of the residents" (HAMLP, 1915). The people who lived in the hills above Sopocachi were mostly indigenous people who had managed to maintain control of part of the agricultural land to produce vegetables that they sold in the city (Barragán, 1990; Klein, 1993). This event illustrates how in this period the residents of Sopocachi were considered citizens of better quality, and with the right to a better quality water supply, than the "subjects" who lived on the slopes above this neighborhood.

As expected, during this period, elites controlled the Municipal Government. In several cases, their political priorities reflected their interest in making a city as they imagined themselves: as legitimate representatives of European legacies of modernity in a country where the majority were people of indigenous descent (Larson, 2004). The problem was that the Municipal Government did not have the financial resources to build the city that they wanted or imagined. Therefore, the Municipal Government had to incur debt without many sources to generate income, to invest in elite enclaves, limiting the collective consumption for the majority of the population. The 1909 Municipal Report mentioned how the city had to obtain loans and issue bonds to pay for works such as repairing bridges, widening avenues,

building gardens and subsidizing events at the Municipal Theater in addition to the maintenance of the canals that brought water from Lake Milluni. In this financial context, in 1910 the Municipal Government commissioned a marble statue from an Italian artist (Magnani), in addition to installing ornaments and building gardens in the main streets that surrounded the elite enclaves. These events show how the Municipal Government faced a double pressure to seek some semblance of legitimacy through the construction of public works that improved the quality of life for all residents, while simultaneously safeguard the hierarchy of the elite enclaves. The elites saw the city as the social extension of the hacienda, a space in which a minority enjoyed the benefits of the city, and the rest – the city's silent builders – were invisible to the municipal institution. In this sense, La Paz was a "collage of fragmented spaces" (Graham & Marvin, 2001: 112), in which the elites tried to maintain colonial privileges and forms of exclusion under the pretext of a differentiated citizenship, and also tried to build legitimate forms of institutionality aimed at establishing a certain urban and social coherence.

For the execution of public works, the debts tended to be with private companies. These companies, in addition to charging for the execution of the project, obtained the concession of the work for several decades with income not only from users, but also from the municipal government that ensured a base income to these companies. A telling example was Bolivian Rubber and General Enterprise Limited (later Bolivian Power), which installed the water mains to a distribution tank. The contract (1908) was for 400,000 Bolivianos that included the transportation of pipes already purchased in Europe by the Municipal Government, but stranded in a Peruvian port since they did not have the resources to pay customs and transport costs (HAMLP, 1915). In the contract, Bolivian Rubber and General Enterprise Limited, in addition to controlling the water distribution system for 25 years, had control over electricity production and would charge the city for public lighting, and would have the rights to the city's tram charging the city per kilometer of railway line in addition to charging the public (HAMLP, 1908). These types of contracts and expenses led the Municipal Government to a deep fiscal deficit. This situation worsened in the late 1920s, as La Paz's population increased by 55% between 1909 and 1929, but the municipal budget increased by only 8% (HAMLP, 1929).

As has been suggested, the construction of an urban institutional infrastructure during the first decades of the 20th century reflected the logic of the colony and the social extension of the hacienda that responded to the interests of the city's elites in an effort of building a modern city. This created an institutional logic that focused public spending on infrastructure that benefited mainly the elites. However, despite the fact that the Municipal Government built public works that, in principle, provided the conditions for the social integration of excluded groups, the elites needed to assert their control over the Municipal Government. In this context, and as the city grew, new ways of seeing the city began to emerge that the ruling elites felt were threatening their previously undisputed position of privilege. Faced with this potentially destabilizing situation, Councilor Eduardo Díez de Medina proposed restricting access to voting to popular sectors: "the day will come, following modern precepts, in which we will be able to limit the vote [...] to owners, to large taxpayers, professionals and, in general, those who have a greater interest in good administration" (HAMLP, 1916). The great irony of these processes is that the elites, driven by the emancipatory ideals of modernity, could only enjoy their status by excluding and exploiting the majority. Differentiated forms of citizenship served as a way of integrating in an exclusive way.

2. Ordering people and nature

The historical arguments for ordering spaces come from the particular forms of knowledge guided by the ideals of progress and modernity (Scott, 1998). These imaginaries were operationalized through narratives, public policies, and planning strategies in order to integrate (unevenly) or eliminate those considered an obstacle to becoming modern (Chatterjee, 2011). Notions of order are crucial in an analysis of the urbanization of water and the historical construction of social / spatial inequities. In addition, exploring the narratives of urban order and the practices of ordering people and nature allows us to understand the dialectical relationship in the production of an urban imaginary. Vanhellemont (2016) argues that these urban imaginaries reflect the underlying power relations about what the city should be and for whom. The historical production of urban imaginaries creates a justification for a particular type of ordering of nature and people. On the one hand, the ordering of nature is reflected in the attempts to control or contain (e.g. floods, fires, landslides, etc.) or extract from (e.g. agricultural production, mining extraction, water) nature. In an urban context, the need to order nature often reflects the need to order the territory in relation to particular uses and users. It is also reflected in the need to organize a water capture, circulation and recycling system (Gandy, 2004). On the other hand, the ordering of people reveals how the historical forces that guided the creation of social hierarchies reflect differentiated ways of being and belonging in an urban context.

This basic ordering of bodies and nature in the new settlement responded to a colonial imaginary (expressed in the legacies of the planning ordinances of 1573) in which the indigenous were considered morally inferior sources of work, and the Spanish had the right to settle in territories with superior qualities (Kingman, 1992). The residues of the colonial imaginary – and its concomitant racialized social hierarchies – remained present when a particular imaginary of modernity began to take hold in La Paz in the mid-19th century. As mentioned above, the Ley de Ex-Vinculación (1874) opened the possibility of a new wave of ordering of nature and people. The modernist imaginary of private property and individual liberties had a profound impact on the ordering of nature and people in La Paz. The use of legal mechanisms for the appropriation of indigenous lands by elites reflects a critical moment in the ordinance as the former collective lands were turned into private lands. This transformation opened the door for (speculative) market forces to begin ordering the territory, thus defining access to resources (Laura Barrón, 2003). This is one of the ways in which water inequities took shape and consolidated territories with superior qualities for elites.

In 1902, the president of the Municipal Council, Sabino Pinilla, declared in his inaugural speech to the residents: "move towards the future: always forward, because the movement coordinated with rights is progress; the stragglers and those who look back will become statues of salt" (HAMLP, 1906). The declaration is a call to embrace the possibilities that a future built on modernist rationality would bring. The underlying point that Pinilla made is that the inevitable movement toward progress (e.g. modernization) would have to be organized by a legal system commensurate with the expectations of building a modern city.

Those who were unable or unwilling to embark on this movement would be left behind. In the context of La Paz, this type of statement responded to a narrative that predicted the disappearance of the indigenous population, the main obstacle to the construction of an imaginary of modernity (Larson, 2007). This type of statement seems to justify the specific type of planning that the city was witnessing during the first decades of the 20th century, in which the elite enclaves enjoyed the possibility of having access to basic services, while the rest of the population lived in precarious conditions (Barragán, 1990). Access to basic services, particularly in elite enclaves, required access to and ordering of nature. This is the reason why the same year that Pinilla made the declaration, the national government legally granted the waters of Lake Milluni to the Municipal Government. The lake was presented as part of the public domain, and "no one expressed opposition to the transaction" (HAMLP, 1909). Access to the institutions – which empowers individuals to order and organize nature – was an important mechanism for the elites to access basic services and, in a way, deny any other way of seeing or living in the city.

In the modernization process, the ordering of nature (e.g. the organization of the territory) would not be possible without the ordering of people. This meant that the social hierarchies that shaped the city tended to be expressed in the territory. While the notions of an inevitable move toward modernity would give rise to a new kind of urban nature, colonial legacies simultaneously continued to guide the ordering of the people. For example, the official and colloquial categories used to establish an imaginary order included "white" (or "white Latin American") at the top of the social order. Then the mestizos and cholos followed as combinations of whites and indigenous people, and at the bottom were the indigenous people. Over time, there were multiple debates about what to do with indigenous people, which included forms of integration efforts to train them as efficient workers (Larson, 2007; Soruco, 2012). This reflected the dilemma of the elites: how to erase (or unequally integrate) the indigenous peoples seen as antithetical to the construction of a modern city / nation? Yet those same elites depended on indigenous labor to build and maintain their status. In their argument in favor of a law that would restrict indigenous clothing in public spaces, Macario Pinilla and Rafael Berthin affirmed that indigenous people in the cities "will always be an obstacle to the greater progress of this commune," since they refuse to assimilate. This "assimilation is something that every well-organized community should aspire to", as seen in European cities (HAMLP, 1909). As it has been suggested, this social hierarchy was expressed in a type of arrangement of bodies in the territory, which in turn informed inequalities in access to water. According to the urban census of 1942, the total population of La Paz was just over 300,000 inhabitants, with about 23% having identified as indigenous, 35% as mestizos³, and the rest considered as white. From a geographical perspective, the white and mestizo population tended to occupy the areas along the main thoroughfare of the city. This area was also the one with the lowest population density and the most extensive water network. Areas where the public taps that the city government built between 1944 and 1956 are located coincide with the areas that had a disproportionate concentration of mestizo and indigenous populations.

³ The category of "*mestizos*" is a rather ambiguous category and debated in La Paz, particularly in the 1940s. For more information on the debate on *mestizaje*, see Ximena Soruco (2012) and Javier Sanjines (2004).

As the size and population of the city grew, pressures to modernize it also grew, along with the need to order people and nature, subsequently requiring narratives that responded to the challenges, obstacles and urban imaginary of the moment. Starting in 1944, there were a number of efforts to channel rivers as they pass through the city. It is not a coincidence that the river channeling campaign coincided with the rise of industrial development initiatives and the scientific (modernist) urban planning narrative (Sandercock, 2003). The channeling of rivers, designed to facilitate the planning and construction of the future city, overcame one of the imminent obstacles in the effort to order the city. This notion of separation of activities, uses and people became part of the urban imaginary reflecting a historical continuity that has guided the attempts of city officials and elites alike to build a modern city.

In an urban context, separation – between territorial uses and bodies – can be a way to invoke a scientific language of purity whereby hygiene and beautification become a means of justifying spatial inequalities and differentiated citizenship. Separation consists of keeping incompatible land uses and social hierarchies separate in their respective places. As mentioned above, since colonial times in La Paz there have been mechanisms to build layers of separation and forms of ordering. At the time of the founding of La Paz, the river served to keep the indigenous people away from the Spanish settlements. Over time, the deployment of other mechanisms and narratives aimed to justify the construction of uneven spaces. Since its foundation, the expansion of La Paz has been based on a model of 'fragmented urbanism' (Graham & Marvin, 2001). Referring to a similar idea, McFarlane notes that "the fragments are also used as political tools" (McFarlane, 2011). Thus, in a process that constantly produces urban fragments (separations, particular forms of unequal order), the need to manufacture a sense of order through planning arises. Whereas separation of bodies in the colonial period responded to the planning ordinance and the logic of keeping the indigenous population out of colonial spaces, separation logic of the mid-20th century reflected the need for industrial efficiency and modernist planning. In both situations, the search for ordering people and nature generated particular types of water inequities.

Conclusions: The urbanization of water

The central argument presented at the beginning of this essay points to the urbanization of water as a lens to analyze the (re)production of historical inequities. As it has been shown in this essay, the production of inequities requires reflection on the historical processes that have (re)produced these inequities. As La Paz urbanized, the legacies of coloniality coupled with the perceived requirements of capital and for building a modern city informed the particular forms of spatial inequalities and differentiated forms of citizenship that became evident in the analysis of the expansion of the water supply system. The (re) production of inequities represents a long history of ways to benefit certain social sectors that, in turn, guide efforts to order people and nature in particular ways. Moreover, the production and valuation of certain types of knowledge – that reflected specific historical periods – articulated the logic of ordering bodies and nature, and guided the particularities of the urbanization of water in La Paz.

The need for order expresses another dimension of the urbanization of water. The ideal of order has been a dominant theme in the La Paz metropolitan region since its founding in 1548. Since it became the seat of government in 1900, specific notions of order and separation have shaped the urban imaginary. This guided the constitution of the neighborhoods that benefited from the water service and those that did not. The difference between these two types of neighborhoods coincided with the concentration of elites or indigenous / mestizo population. The ordering of people also required the ordering of nature, which resulted in multiple efforts to channel and bury the city's rivers.

The production of particular forms of knowledge during the first decades of the 20th century was related to notions of liberal modernity grafted on the sediments of coloniality. Thus, despite the fact that elites advocated a liberal narrative of private property, individual freedoms and a cohesive society as a way to modernize the city / country, the narrative was also naturalized the exclusion of the majority of the indigenous population. A material expression of this tension is reflected in the expansion of the water service, which tended to focus almost exclusively on elite enclaves. An example of how a certain kind of knowledge was translated into action was in 1915 when the city diverted water to serve "good quality people." These actions reflect how the spatial organization of the city intersects with different forms of citizenship, and the notion that only the elites could project and imagine a modern city.

It is important to mention that these processes have not been static, since the city has undergone important political transformations in its history. The 1930s brought with it important political transformations that Rivera (1993) described as a shift from a liberal to a populist horizon. In the populist period, there were both democratic governments and brutal military dictatorships. Regardless of the political perspective and practices of the time, the city was (and continues to be) the space in which the sediments of coloniality combine with the fluidity of modernity and capital, giving shape to the way of understanding the city. However, the main difference between these periods is that instead of blatantly privileging the interests of elites, the language of scientific planning and urbanism became the narrative of knowledge and decision.

Taking into account the first decades of the 20th century, we can see how the metropolitan region of La Paz grew in terms of territory and population, and how the population with access to basic water service increased consistently. However, while access to water improved on one level, it is necessary to take into account the historical sediments that have informed the growth of the city and access to water. The sediments of history do not disappear with time, they continue to shape the imaginary of the city that we want / need; they continue to (re) produce differentiated forms of citizenship justified by particular forms of knowledge; they continue to (re) produce spatial inequities naturalized by strategies to order bodies and nature. It is in this sense, that when thinking about the future of water urbanization, we cannot ignore the sediments of history.

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