

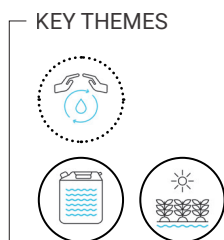


Whose Past? Reflections on the Recuperation of Ancestral Water Structures in Peru

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Efforts to shape more sustainable and just land and water management practices are increasingly turning to the past for inspiration. However, what the past looked like exactly and what can be learned from it and applied to present-day challenges is not straightforward. Peru is one of those places where reviving ancestral land and water management practices and knowledge has become popular. This article starts with a project that aimed to recuperate ancestral water infiltration structures in the Peruvian highlands. Drawing on interviews conducted shortly after the project's implementation, the author analyses how history and "the past" are imagined differently by various actors, according to their current worldviews, interests and values. The author unpacks the consequences of these diverse pasts for present-day relations and project implementation, calling attention to the importance of making explicit the "politics of the past," including how the past is portrayed and by whom, and which past is to be recuperated or revalorized.



< Fig. 1 The intake structure of the Pacchipucro *mamanteo* of Huamantanga (Source: Lena Hommes, 2014).

The Recuperation of Historic Water Infiltration Structures in Peru

Efforts to shape more sustainable and just land and water management practices are increasingly turning to the past for inspiration. The underlying assumption is that the past in general and ancient practices in particular can provide solutions for currently pressing challenges related to climate change, environmental deterioration and socio-environmental injustices. However, what the past looked like exactly and what can be learned from it that can be applied to meeting present-day challenges is not straightforward and can be contested and political.

Peru is one of those places where reviving ancestral land and water management practices and knowledge has become popular. In the region of the capital city of Lima, one of the pioneering projects was implemented in the rural community of Huamantanga, situated at 3400 meters above sea level in the Chillón watershed. In the upper parts of the community's territory, one can find numerous *mamanteos*: canals of various lengths (from a few hundred meters up to 1.5 km) that date back to the pre-Incan era and that divert surface runoff from highland areas during the wet season to improve infiltration on mountain slopes. If maintained well, the *mamanteos* can regulate water flows: water is captured during intensive rainfall events and it infiltrates the soil and resurges after a certain subsurface residence time in downhill springs (Alternativa 2012). Some of the infiltrated water resurfaces within Huamantanga's territory. The rest of the water resurfaces further downstream, which can benefit aquifer recharge and make more water available during the dry season in the coastal area of Lima (Ochoa-Tocachi et al. 2019).

Some of the *mamanteos* in Huamantanga con-

tinue to function as described above, but below their capacity because they are partially clogged or damaged; others have been completely abandoned. Because of the potential hydrological benefits for rural and urban water users, in 2012 a Lima-based NGO proposed a pilot project to recover and reconstruct one of those canals – the Pacchipucro *mamanteo* – and investigate its hydrological functioning and effectiveness. The project was implemented and led by Aquafondo, which at the time intended to become the water fund for the city of Lima and planned to carry out a variety of projects in Lima's watersheds (similar to payment-for-ecosystem-services schemes; Grainger et al. 2019 and Hommes 2015). When this project started, it was hoped that it would demonstrate the hydrological benefits for both rural communities and downstream cities of ancestral water infrastructures and management practices, thereby inspiring their large-scale rehabilitation.

Although the project managed to recuperate the Pacchipucro *mamanteo* and generate crucial knowledge about its precise hydrological functioning, it also caused friction among community members and involved NGOs. Various dynamics contributed to this, including a mismatch between the expectations about the benefits from the project (probably partially reinforced by national and international media attention to the project) and the perceived benefits. There were also concerns about the involvement of Lima's water utility, SEDAPAL, as potential future financier and the implications this might have for communal water rights. Further detail is beyond the scope of this article. Nevertheless, what is important is that from the very beginning, the organizations and community members involved had different ideas and expectations concerning the project. Also, people had different understandings of the past and of the historic and future role of the *mamanteo*.



^ Fig. 2 The Pacchipunro *mamanteo* of Huamantanga visible on the right slope (Source: Lena Hommes, 2014).

os. In analyzing these diverging ideas about the past and about the rehabilitation of historic water management practices, it becomes evident that the past must be understood as political: not neutral, obvious or singular, but diverse and contested.

The reflections presented in this article are not only relevant for the project in question, but are equally relevant to other water management discussions and efforts that aim to restore past practices and environments, including nature and/or river restoration and dam removal projects (Arbelaez-Trujillo and Forigua-Sandoval 2023; Hommes 2022b). Such efforts have tended to focus primarily on the ecological and material dimensions involved, with limited at-

tention to social and political complexities. Underlying assumptions about the past (and the resulting implications for project implementation), have so far been little explored. The aim of this article is to address this gap.

Whose Past? Diverging Ideas about the Past and the Role of the *Mamanteos*

For the original initiators of the project, the recuperation of the Pacchipunro *mamanteo* was not only about its hydrological aspects but also related to the historic-cultural significance attributed to this structure and the associated communal maintenance activities. *Mamanteos* were, in fact, framed as part of the cultural his-



^ Fig. 3 Farmers during a day of communal maintenance of irrigation canals in Huamantanga (Source: Lena Hommes, 2014).



tory of the region and something that deserves admiration, attention and care. There was an underlying appreciation for Incan and pre-Incan societies and their hydrological knowledge and techniques. Such valuation of the past goes along with framing the arrival of the Spanish conquistadores as an important point of rupture that destroyed local culture. As the initiator of the Pacchipucro project explained in an interview in 2014: “The biggest change occurred in the colonial time, it was an aggressive change. Many of the festivals which are celebrated today are actually from colonial times. . . . When the church came, they destroyed and burned everything, very powerfully. And now people deny their past.” The strong identification with Catholicism that predominates in Huamantanga today is portrayed as a negation of the past.

However, what should or should not be considered Huamantanga’s “real” history and roots remains contentious: during interviews in 2014 with village residents, a distinct interpretation of local history became apparent. A teacher from the local school, for example, explained that “The Incas were savages, they ate roots but the Spanish . . . ate fruits from trees. They are also the ones who brought cows to this area.” In a similar manner, a farmer mentioned that “[Pre-Incan and Incan civilizations] believed in the sun and the moon, they didn’t have a God. The sun and the moon were their gods. But we have a God, we don’t believe in the sun and the moon.” Such identification with the colonial era is important, as it shapes the way community members relate to the *mamanteos*. While everybody knows the system and farmers organize yearly maintenance of the canals, the *mamanteos* are also regarded at a distance – as remnants of pre-Colombian civilizations with which the community does not deeply identify. One can observe a much stronger identification and connection with works that were built by the

community in more recent years, such as the parish hall or the village road. Furthermore, the majority of farmers interviewed also did not see the *mamanteos* as a crucial part in solving the problem of water shortages in the dry season. Instead, the construction of reservoirs for water storage and the installation of drip irrigation was often mentioned as preferred solutions. “Modern knowledge,” equated with the engineering of dams and drip irrigation systems, was portrayed as better. As one village authority explained, “The ancestors had their ideas But today science is more advanced, more technologized; there can be a mechanized change.”

Importantly, local farmers did not regard the project as “recuperation” or “rehabilitation,” but as something new. They made a clear distinction between the Pacchipucro *mamanteo* and other *mamanteos* in the community’s territory, mainly because of the use of cement but also because of the involvement of outside organizations in the project. And indeed, when looking at the design features of the Pacchipucro *mamanteo*, it becomes apparent that it is hybrid, because it includes cement and an underflow gate as intake structure – features that were not based on historic, archaeological facts but influenced by today’s ideas about hydraulic engineering and particular project objectives. Nonetheless, reports about the project (e.g., by national and international media outlets) sometimes omitted these facts and drew a glossy picture of revalorizing a specific Indigenous past.

The danger of such essentialization or romanticization of the *mamanteos*, and historic or Indigenous water structures and knowledges more generally, was also pointed out in 2014 by one of the hydrologists involved in the Pacchipucro project: “Of course there are also the romanticizers: the ecological romanticizers, and the cultural, archaeological romanticizers. One has

to be careful not to drift into the ‘everything used to be better in the past’ narrative. Because conditions have changed, the conditions today are not the same as 300 years ago.”

Reflections: Politicizing the Past

The case of Huamantanga raises calls for caution when considering using historic water systems and practices to construct a sustainable future. The case shows how interpretations of the past may reflect diverging present-day worldviews, interests and positions. As Perreault (2018, 230) puts it: “As a representation of the past, memory is always also a representation of the present, and a reflection of contemporary realities, which in turn informs political demands.” This is to say that the present influences ideas about the past. And, vice versa, how the past is imagined shapes present and future decisions – for example, about what place to give historic water structures or management practices (Hommes 2022b; cf. Shah 2012). Precisely because of this entanglement of past, present and future, when striving for a revival of historic structures and past practices it is crucial to critically reflect on questions such as these: Who is defining which past, and with what consequences in the present day and in the future? How do different ideas of the past and the connected future clash?

Such discussions and critical questions are not only relevant to projects such as the one in Huamantanga, but also come back in other water management discussions like those related to river restoration and dam removal – currently hot topics in the realm of river management (Arbelaez-Trujillo and Forigua-Sandoval 2023). Dam removal promoters tend to imagine the past as characterized by pristine nature with limited harmful human interventions (Hommes

2022a). It is a past to which, in the future, humanity should at least partially return. However, this view of the past is often contested by members of the local population, who argue that hydraulic infrastructures have become embedded in the local culture, social relations and environment, and therefore cannot and should not be removed. Thus, the past is not a concluded, fixed time span but a contested temporality with different interpretations.

Another important lesson from the presented case is that it is crucial to stay aware of the potential for romanticizing, essentializing or patronizing of “traditional” culture and heritage, and local people and practices. Who gets to define what “traditional” should mean (e.g., pre- or post-Colombian practices and ideas), and what place tradition should have in the present and future, are contested, political questions. This is not to say that we should not look to the past for inspiration. Indeed, there are many lessons to be learned from historic practices and structures that can help to create a more sustainable and just future. However, it is essential to make politics and contestations of the past explicit and part of the debate.

Acknowledgment

This contribution was peer-reviewed. It was edited by members of the editorial team of the UNESCO Chair Water, Ports and Historic Cities: Carola Hein and Matteo D’Agostino.

This article was written as part of the project “Riverhood: Living Rivers and New Water Justice Movements” at Wageningen University & Research, the Netherlands. Riverhood has received ERC funding under the EU’s Horizon 2020 program (grant no. 101002921).

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Lena Hommes is a lecturer and researcher interested in water governance, political ecology, environmental justice and the politics of hydraulic infrastructure in Europe and Latin America. After finishing her master's degree in international land and water management, she worked for several years in the drinking water and sanitation sector in Peru. In 2019 she returned to Wageningen University, where she is currently a lecturer in the Water Resources Management Group, and a postdoc researcher with the multi-disciplinary research projects Riverhood and River Commons. In 2022 she received the distinction cum laude for her PhD thesis, "Infrastructure Lives: Water, Territories and Transformations in Turkey, Peru and Spain," in which she analyzes how modern hydraulic infrastructures such as dams, hydropower plants and water transfers transform territories in diverse and unforeseen ways. Lena continues to study these issues, but also focuses on understanding upcoming alternative trends in water governance (such as dam removal and the rights of nature) and the discussions, conflicts and outcomes they trigger.

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