

¡QUE VIVAN LAS ACEQUIAS! - DEFINITIONS AND A META-ANALYSIS

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Anoche cuando dormía
soñé ¡bendita ilusión!,
que una fonana fluía
dentro de mi corazón.
Di, ¿por qué acequia escondida,
Aguaaa, vienes hasta mi,
Maanantial de nuestra vida
De donde nunca bebí?

~ Antonio Machado (translation by Willis Barnstone)

Last night while I was sleeping
I dreamed—blessed illusion!—
a fountain flowed
inside my heart.
Water, tell me by what hidden
channel you came to me
with a spring of new life
I never drank?

PROBLEM STATEMENT

- Acequias create a sense of place and are vital features for many communities in the U.S. Southwest, including New Mexico (Fig. 1).
- However, they are under threat due to growing urban water needs, climate change, and other human and environmental dynamics.
- Addressing the challenges faced by acequia communities requires a more comprehensive understanding of these socio-ecological complexities than currently exists.



Fig. 1: Location of nearly 900 acequias in New Mexico, given 2019 data from the New Mexico Office of the State Engineer.

WHAT IS AN ACEQUIA?

- In simplest terms, an acequia is a gravity-fed irrigation system sometimes referred to colloquially (and endearingly) as a “ditch.” However, it is much more than that. Rodríguez (2006; p 29) notes how the term refers “to both a canal structure and a social institution whereby river water is diverted and distributed via gravity flow among a community of irrigators or water right user-owners called parciantes” (Fig. 2-5)
- Accordingly, acequias are often thought of in the context of acequia culture or as a commons (Rivera 1998), as an example of direct democracy or mutualism (Turner et al 2016), and as intertwined with *querencia*—love of place (Arellano, 2014).
- Additionally, we propose that it might be useful to consider and understand acequias as boundary objects (Star and Greisemier 1989), as they are negotiated by multiple stakeholders at multiple scales of water governance (Perramond 2012).
- Acequias and acequia culture often represent different things to different stakeholders and in turn are of great interest to interdisciplinary researchers interested in complex socio-ecological dynamics.



Fig. 2: The Acequia Madre Del Pueblo Flume on Taos Pueblo lands, NM.



Fig. 3: Large acequia ditch in the city of Taos, NM.

RESULTS, DISCUSSION, AND CONCLUSIONS

- We located 2,195 unique journal articles, books, and book chapters with the terms “acequia” or “acequias” in the PRIMO database in March 2020.
- Research on acequias has become increasingly interdisciplinary over time, affirming the complex nature of acequia systems.
- Titles of acequia publications hint at the complexity of acequia systems, with terms such as systems, environmental, and social occurring repeatedly (Fig. 6).
- Acequia research locations reflect the historical traditions of acequias in Spain and their introduction to the Americas (Fig. 6).
- The number of acequia publications has increased over time, suggesting that they are of great relevance to the socio-ecological challenges of the 21st century (Fig. 7).
- More interdisciplinary research and efforts aimed at improving the mapping of acequias may help develop a more comprehensive understanding of the complex socio-ecological dynamics surrounding acequias in the future.



Fig. 4: Headgate of the Llano ditch, NM, a smaller acequia.



Fig. 5: Upper reach of the Llano ditch, with the village of Questa, NM in the background.

OBJECTIVES

- Determine how acequias are defined and understood, how scholarly interest in acequias has changed over time, where this interest is concentrated, in which contexts acequias are studied, and who is driving acequia research.

METHODS

- Created Endnote library of all peer-reviewed journal articles, books, and book chapters that appeared when searching “acequia” and “acequias” in the PRIMO database in March 2020.
- Recorded, for each of these publications, the title, publication year, study location, keywords, journal name, and primary author’s information.
- Analyzed the publications using spreadsheets, wordclouds, and content analyses.



Fig. 6: Word cloud based on the titles of 2,195 acequia references.

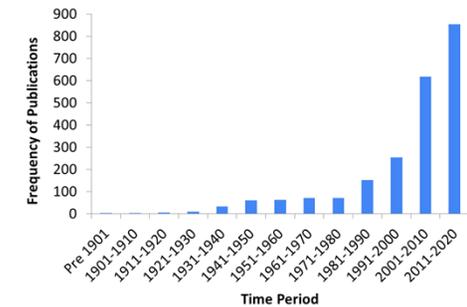


Fig. 7: Number of acequia publications over time.

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