

WORK IN PROGRESS

“But Here Comes the Water...” —Dam-Induced Displacement and Resettlement in the Technological and Hydroelectric Landscapes of Portugal’s New State (1933–1974)

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Abstract: This ongoing research considers the submersion of villages by dams during the construction of the Portuguese electrical grid as phenomenon that stemmed from (and sheds light on) the construction of the technological landscapes of the Estado Novo (New State) regime (1933-74). Among the many cases of submerged villages recorded in this period, only two have been the subject of research so far: Vilarinho da Furna and Luz, submerged in 1972 and 2002, respectively. However, dam-induced displacement spanned most of the twentieth century, peaking in the 1950s after the state began to actively participate in the construction of the national electric grid, through Law n.º 2002 (1944). Borrowing from Cernea’s “Impoverishment Risks and Reconstruction” model to analyse archival sources and read them along and against the grain, I focus on Portuguese episodes of “Dam-Induced Displacement and Resettlement” to spotlight both how “those who were in the way of progress” acted upon the prospect of displacement and how they were acknowledged—by the companies, by the State—in the shaping of the Portuguese hydroelectric landscapes—through the articulation of programs for internal colonization, the renewal of rural housing or the revision of policies regarding expropriation.

Keywords: dams; large-technical systems; displacement; electrification; Estado Novo (New State) regime

Object of Inquiry and Archives

In 2002, the floodgates of Alqueva’s double curvature arch dam, in Alentejo’s municipality of Portel (in the district of Évora), were finally closed, thus creating “[Western] Europe’s largest artificial lake.”¹ This event concluded a long development and construction process spanning several decades: one which *de facto* began to materialise in 1993 but whose lineage can be traced back to the 1950s, when the Estado Novo (New State) regime (1933-74) began discussing the possibility of exploiting the Guadiana river for agricultural irrigation.² The construction of the multi-purpose project of the Alqueva was widely covered in the news in the years prior to 2002. One aspect that particularly captured the attention of the media was the displacement of the population of the old village of Luz (light) and their resettlement in a new village, a replica of the old one, built from scratch specifically to house them.

This was not a new phenomenon. In 1972, the village of Vilarinho da Furna, located in the northern part of Portugal (in the Terras do Bouro municipality, district of Braga), was submerged by the construction of an arch dam for producing electric power, which borrowed the name of the village. Unlike Luz, the population of Vilarinho was not resettled into a new village; instead, dwellers were paid compensation for the submerged property and then moved by their own means, scattering throughout the surrounding region.

Vilarinho da Furna and Luz became emblematic cases of Portuguese submerged villages; they are the country’s two foremost examples of “development-induced displacement and resettlement” (DIDR) due to the building of dams.³ They are not, however, isolated cases. The scholarship focusing on Vilarinho da Furna and/or Luz mentions many other examples,⁴ usually in vague terms and often without naming them. These lesser-known cases have not

¹ “Portugal Opens Europe’s Largest Dam,” BBC News, 8 February, 2002, <http://news.bbc.co.uk/2/hi/europe/1808734.stm>.

² An attempt in the late 1970s proved unsuccessful and the dam’s construction was interrupted until 1993.

³ Michael M. Cernea, “Disaster-Related Refugee Flows and Development-Caused Population Displacement,” in *Anthropological Approaches to Resettlement: Policy, Practice and Theory*, ed. Michael M. Cernea and Scott E. Guggenheim, 375-401 (New York: Routledge, 2019).

⁴ The geographer Orlando Ribeiro mentions “other villages” when contextualizing the case of Vilarinho da Furna. Orlando Ribeiro, “Nota preliminar,” in *Vilarinho da Furna: Uma Aldeia Comunitária*, 7–11 (Lisboa: Imprensa Nacional-Casa da Moeda, 1981). Reino et al. refer “many examples [of submerged villages] that could be mentioned [beyond Vilarinho and Luz].” João Pedro Reino, Lucinda Coutinho Duarte, and Manuel de Azevedo Antunes, “Mitos e Realidades: De Vilarinho Da Furna à Aldeia Da Luz,” *VI Congresso Português de Sociologia*, Universidade Nova de Lisboa-Faculdade de Ciências e Sociais e Humanas, 2008, <http://associacaoportuguesasociologia.pt/vicongresso/pdfs/319.pdf>. The geographer Ana Oliveira briefly mentions the displacement of Foz do Dão. Ana M.C.V.S. Oliveira, “Processos de Desterritorialização e Filiação Ao Lugar: O Caso Da Aldeia Da Luz” (master’s thesis, Faculdade de Letras da Universidade de Coimbra, 2011).

yet been the subject of scholarly attention.⁵ Identifying and researching these cases helps to question the notion of Vilarinho da Furna and Luz as isolated episodes. Weaving these case studies together reveals a bigger picture: nationally, it connects a series of independent episodes of village submersions into a larger phenomenon, unveiling a hidden facet of both dam-building in Portugal during the New State and of the shaping of technological landscapes (particularly those of hydroelectricity) that emerged from—and were designed during—the dictatorship years. Fleshing out the Portuguese case, in turn, allows for its inscription in a global phenomenon, contributing to the international scholarship on DIDR.⁶ “Designed” is key here: while my research focuses on the years between 1933 and 1974, it includes dam projects that were developed in the 1950s but finished building only after 1974, with the democratic regime already in place. In these instances, displacement loomed over the to-be-displaced populations many years before the toppling of the New State regime in 1974, with some communities organizing and addressing their concerns to the companies and the government before the Carnation Revolution. I argue that these episodes are therefore an integral part of the larger picture of the transformations to the landscape brought forth by the New State.

A preliminary phase of my research was spent identifying and confirming the many lesser-known case studies of Portuguese submerged villages.⁷ The main sources used were newspaper articles and blog entries written by people who went through displacement processes or by their descendants, who made efforts to preserve the memory of their now submerged villages and dam-displaced communities online; these posts pointed me to a few egodocuments as well.⁸ Together, these sources helped build a database of known dams and submerged villages,

⁵ Notably, no Portuguese case studies are listed in the reference bibliography regarding DIDR compiled by Scott Guggenheim for internal use at the World Bank. Scott E. Guggenheim, *Involuntary Resettlement: An Annotated Reference Bibliography for Development Research* (Washington D.C.: World Bank Group, 28 February 1994). <http://documents.worldbank.org/curated/en/666501493256284156/Involuntary-resettlement-an-annotated-reference-bibliography-for-development-research>.

⁶ Research focusing on resettlement in DIDR episodes due to the construction of dams abound. See, for instance, Ed Atkins, “Building a Dam, Constructing a Nation: The “Drowning” of Capel Celyn,” *Journal of Historical Sociology* 31, no. 4 (2018), 455–68. Robert Chambers, ed. *The Volta Resettlement Experience* (New York: Praeger Publishers, 1970). Stephan F. Miescher, “Building the City of the Future: Visions and Experiences of Modernity in Ghana’s Akosombo Township,” *The Journal of African History* 53, no. 3 (2012): 367–90. Allen F. Isaacman and Barbara Isaacman, *Dams, Displacement, and the Delusion of Development: Cahora Bassa and its Legacies in Mozambique, 1965-2007* (Athens: Ohio University Press, 2013). Michael J. McDonald and John Muldowny, *TVA and the Dispossessed: The Resettlement of Population in the Norris Dam Area* (Knoxville : University of Tennessee Press, 1982). Mikiyasu Nakayama, “Innovative Resettlement Schemes Planned for the Numata Dam Project,” *Hydrological Processes* 17, no. 14 (2003), 2727–36.

⁷ I began gathering these in the years following my work on Aldeia da Luz. André Pereira, “Aldeia Da Luz: O Passado e o Presente” (master’s thesis, FA-Universidade Técnica de Lisboa, 2010).

⁸ Including, but not limited to, the following: José M. Dionísio, *Aldeia Nova de Ourique — Sua História, Sua Gente* (Castro Verde: Narrativa, 2020); Carlos da Luz and Afonso Cautela, *Requiem pela Aldeia da Luz: Subsídios Para a Denúncia de um Etnocídio Planeado* (Aljezur: Suledita, 2000).

establishing dates and locations for both. Based on that data, I looked at various local newspapers in order to collect news articles pertaining to those identified instances of displacement and confirm as many case studies of submerged villages as I could. This pre-Ph.D. research phase provided a preliminary figure of 26 villages, submerged by the building of a total of 11 dams, the majority of which were of the arch dam type. The overwhelming majority of these arch dams were built between 1941 and 1972 for the production of electric power, as part of the efforts put forth by the New State to kickstart and diversify national industries.

Some apparent exceptions to this rule must be considered: of the total of 11 dams identified, two were built with irrigation as their main purpose—the Monte da Rocha dam, in 1972, and the Alqueva dam, in 2002 (although due to delays that kept pushing its construction further into the 1990s, the Alqueva dam’s final design ended up including an hydroelectric power plant as well). Importantly, though most large dams built during the New State were made with the production of electric power in mind, they were multi-purpose projects by design, and were necessarily coordinated (and cross-powered) with other technological endeavours of the regime, bringing forth a moment of “intense environmental change” in the Portuguese landscape.⁹ Historian Tiago Saraiva’s work is worth mentioning in this regard, as it expertly illustrates how the “large-scale modernist experiment” of the New State was achieved through the articulation of several independent technological endeavours (namely irrigation, electrification and afforestation) into a bigger, widespread technological program.¹⁰ Electrification and irrigation projects were frequently thought in tandem; hence, the seemingly outsider case studies of submerged villages by dams built for the purpose of agricultural irrigation also bear consideration in the context of this research.

Of the total of 11 dams identified, two were built after the New State was toppled by the Carnation Revolution of 1974: the Alqueva and Aguieira dams, the latter completed in 1981. Both projects began development in the 1950s and immediately cast a shadow over the populations living in the soon-to-be flooded areas: sources show that these populations were aware of the dam projects from an early point in their development and tried to prevent their community’s displacement by negotiating the location and/or execution of the dams with the companies and local powers during the years of the New State regime.¹¹ These case studies should, therefore, be included in the scope of this research.

⁹ Tiago Saraiva, “Fascist Modernist Landscapes: Wheat, Dams, Forests, and the Making of the Portuguese New State,” *Environmental History* 21, no. 1 (2016), 16.

¹⁰ Saraiva, “Fascist Modernist Landscapes.”

¹¹ Anthropologist Thayer Scudder has focused extensively on the different categories of “project-affected people” in DIDR and how they are affected by dam projects (built and yet-unbuilt). Thayer Scudder, *The Future of Large Dams: Dealing with Social, Environmental, Institutional and Political Costs* (London: Earthscan, 2006).

After assessing the available sources, I selected a group of seven villages, which provide the case studies this research focused on. Vidual de Baixo (†1941), Venda Nova (†1952), Vilar da Veiga (†1954), Faia (†1965), Vilarinho da Furna (†1972), Foz do Dão (†1981) and Luz (†2002). This list does not include all the villages submerged by dams designed during the New State; rather, it includes only the episodes for which I was able to retrieve enough sources to reconstruct how their displacements were managed. I delved into the protocols that were put into motion in each of these case studies through archival work, in order to analyse how companies, local authorities and the populations interacted with one another to manage their respective displacement and resettlement processes and how they might have connected to other similar episodes. The main source for this research was the Documentation Centre of Energies of Portugal (*Energias de Portugal—EDP*): a wide range of documents regarding the companies responsible for the construction of the Portuguese electrical grid is archived there, gathering documentation from several individual companies which, through a series of mergers, would eventually fuse into what became EDP. These include correspondence regarding the negotiations for the compensation of landowners in a myriad of displacement cases, minutes of the meetings of several companies’ boards, newspaper clippings, field reports discussing the social impacts of the dams, among other source types. The library of the National Laboratory for Civil Engineering (*Laboratório Nacional de Engenharia Civil—LNEC*) also proved useful as a source for technical and field reports, as well as to reconstruct gaps resulting from incomplete or damaged documents found in the EDP archive. The Portuguese National Archives (*Torre do Tombo*) hold a number of sources documenting the first-hand experiences of actors involved in the negotiations with several displaced landowners, as well as letters of protest from local populations. Visits to several municipal archives proved crucial to retrieve sources conveying the perspective of local authorities, as well as letters from concerned inhabitants and landowners of submerged villages. Some technical blueprints were provided by the Documentation Centre of Urbanism and Architecture (Centro de Documentação de Urbanismo e Arquitectura) at Porto’s faculty of architecture.

Theoretical Framework

This research focuses on episodes of development-induced displacement and resettlement (DIDR) during the construction of the Portuguese electrical grid in the twentieth century. It frames them as both a phenomenon stemming from the building of dams and as a lens through which to look at the construction of Large-Technical Systems (LTS).¹² By looking

¹² The concept of LTS refers both to (1) large-scale infrastructural production systems and to (2) a conceptual lens with which to analyse sociotechnical developments of said infrastructural systems. This approach is built upon the foundational work of historian Thomas P. Hughes on the development of electrical grids in western societies. Thomas Peter Hughes, *Networks of Power: Electrification in Western*

more closely at resettlement in episodes of DIDR, this research aims to make evident how the people referred to by Marshall Berman as “those who were in the way” of development were key not only to the material shaping of the Portuguese technological landscapes of hydroelectricity, but also to the acknowledgement of the deep ecological penetration of large dams in national territory.¹³

In its final report, the World Commission on Dams (WCD)¹⁴ estimates that, up until 2000, “40-80 million people were physically displaced by dams worldwide,”¹⁵ observing that “the numbers of . . . affected people have frequently been under-estimated.”¹⁶ The WCD defines “displacement” as “both ‘physical displacement’ and ‘livelihood’ displacement (or deprivation);” resettlement, on the other hand, has “predominantly focused on the process of physical relocation rather than the economic and social development of the displaced and other negatively affected people.”¹⁷

Work produced on the topic of DIDR is vast, but sociologist and anthropologist Michael Cernea’s extensive contributions are worth singling out. His “Impoverishment Risks and Reconstruction” (IRR) model provides a framework to “explain, diagnose, predict and plan” resettlement strategies caused by development-induced displacement.¹⁸ It accomplishes this by identifying a set of predictable and interconnected risks (economic, social and cultural) that impact displaced communities; it then establishes strategies to mitigate, counter-act and reconstruct the outcomes of said risks in resettlement processes. IRR explicitly considers displaced people as stakeholders in development projects and expands risk assessment beyond “cost-benefit” analyses, which tend to neglect the outcome for affected communities in their

Society, 1880-1930 (Baltimore: The Johns Hopkins University Press, 1983). A succinct description of technological systems was also later provided by Hughes. Thomas P. Hughes, “The Evolution of Large Technological Systems,” in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, ed. Wiebe E. Bijker, Thomas P. Hughes, and Trevor J. Pinch, 51–82 (Cambridge, Massachusetts; London, England: MIT Press, 1989).

¹³ Philosopher Marshall Berman defines those “who are in the way”—“of history, of progress, of development”—as a category of people that, in the context of the development of a technological program, are “classified, and disposed of, as obsolete,” often through displacement. Marshall Berman, *All That Is Solid Melts into Air: The Experience of Modernity* (London: Verso, 2010), 67.

¹⁴ The WCD was established by the World Bank and the International Union for Conservation of Nature (IUCN) in 1998. It was created “to conduct a rigorous, independent review of the development effectiveness of large dams, to assess alternatives and to propose practical guidelines for future decision-making” regarding large dams. The WCD final report is the materialisation of that effort. World Commission on Dams, *Dams and Development: A New Framework for Decision-Making—The Report of the World Commission on Dams* (London: Earthscan, 2000), viii.

¹⁵ World Commission on Dams, “Dams and Development,” 129.

¹⁶ *Ibid.*, 104.

¹⁷ *Ibid.*, 102-3.

¹⁸ Michael M. Cernea, “Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement,” *Economic and Political Weekly* 35, no. 41 (2000), 3659–78.

models.¹⁹ In the context of this research, IRR is used (alongside the conclusions of the WCD) in its “diagnostic” and “research” functions, as a reference framework to guide the analysis of archival work and to learn “where to look” at sources regarding the many components that represent risks in resettlement processes, namely “landlessness, joblessness, loss of access to common property resources and community disarticulation.”²⁰

In *The Future of Large Dams*, anthropologist Thayer Scudder praises and adheres to the methodology proposed by Cernea, underlining that “a focus on resettlement . . . provides an important mechanism for assessing when dams are an acceptable water resource and energy development option and when they are not.”²¹ According to Scudder, “resettlement becomes an optic for examining the entire large-dam-building process.”²² A focus on resettlement, as suggested by Scudder, also highlights how displaced populations reacted to (or were taken into account) in dam-building processes, and how they were negotiated (or dealt) with by the system-builders across the development and construction of said processes. Through this optic, I would argue, one is made to consider the displacement of those “who were in the way” of development not merely as “an acceptable cost” assessed by system-builders, but also as agents and stakeholders (as proposed by Cernea) that contribute to the material shaping of technological landscapes produced by dams, by influencing the management of resettlement processes, through acts of resistance and negotiation.²³

Through this understanding, protocols established to manage dam-induced displacements become valuable sources to analyse the relations between different system-builders, local inhabitants and the landscape. Architecture is key to these relations: resettlement necessarily calls for new housing (and oftentimes communal facilities) whose construction shape the way people inhabit the territory, affecting models of property ownership, work and social dynamics. Architectural design and urban planning however are not only tools used to shape those relations: they are also important lenses through which to look at how cultural and everyday practices of the displaced communities were integrated in resettlement, and how local economic, social and cultural dynamics were preserved and/or negotiated. In this research, I specifically delve into how prospects for housing the Portuguese dam-displaced populations, as well as the building of other dam-associated facilities, was taken into account (or not) by both

¹⁹ “The methodological bias is obvious: While risks to project investors, and to the invested capital, are analyzed and weighed carefully, the risks posed by the project itself to some of the project population, such as the displaced groups, are not subjected to similar rigorous, explicit, and systematic analysis. The risks resulting from displacement are only indirectly risks to investments and they remain out of the “classic” type of investment-risk analysis.” Cernea, “Risks, Safeguards and Reconstruction,” 3671.

²⁰ Cernea, “Risks, Safeguards and Reconstruction,” 3662.

²¹ Thayer Scudder, *The Future of Large Dams*, 3.

²² *Ibid.*, 3.

²³ Cernea, “Risks, Safeguards and Reconstruction,” 3671.

the companies and the state: how it was prioritised (or not) comparing to other non-technical facilities of dams and how those decisions informed the thinking process behind the managing of dam-induced displacements.

The term “Large-Technical Systems” refers both to grand-scale infrastructures—“spatially extended and functionally integrated socio-technical networks such as electrical power, railroad, and telephone systems”²⁴—and to a conceptual framework for the analysis of said infrastructures.²⁵ The original LTS framework was conceptualized by Thomas P. Hughes in his 1983 book *Networks of Power: Electrification in Western Society 1880–1930*,²⁶ contributing to the creation of a new field of research which has since developed and expanded on his original model.²⁷

Focusing on non-technical phenomena stemming from the construction of large-scale infrastructures is not a novelty in studies of LTS, as they often “spotlight non-technical constructions of system builders which . . . constitute important societal events in their own right.”²⁸ I argue that displacement and resettlement constitutes such an event. As mentioned earlier, in most cases the submersion of Portuguese villages was the result of the construction of the national electrical grid. These submersions stand at a nodal point in the entanglement with other technological endeavours and networks, such as the internal colonisation of the territory through irrigation and afforestation policies. In order to frame that entanglement of large-technical systems, sociologist and LTS theorist Bernward Joerges’ concept of “Large-Technical Program” (LTP) is particularly important to this research: LTPs are, according to Joerges’ definition, “pre-infrastructure systems oriented towards some quasi-experimental set of technical, economic or political goals.”²⁹ This concept sheds light on the interactions of the

²⁴ Thomas P. Hughes and Renate Mayntz, *The Development of Large Technical Systems* (Frankfurt am Main: Campus-Verl., 1988), 5.

²⁵ Writing the definition for the Blackwell Companion to the Philosophy of Technology, historian Erik Van der Vleuten describes LTS as both “an *approach* to understanding and analyzing sociotechnical change, and . . . a *class of phenomena*—large infrastructural and production systems—which are particularly suited for analysis by an LTS approach.” Erik Van der Vleuten, “Large Technical Systems,” in *Blackwell Companion to the Philosophy of Technology*, ed. Jan Kyrre Berg Olsen et al. (Malden, MA: Wiley-Blackwell, 2009), 218–23.

²⁶ Thomas P. Hughes, *Networks of Power: Electrification in Western Society, 1880–1930* (Baltimore: The Johns Hopkins University Press, 1993).

²⁷ See, for instance: Benjamin K. Sovacool, Katherine Lovell, and Marie Blanche Ting, “Reconfiguration, Contestation, and Decline: Conceptualizing Mature Large Technical Systems,” *Science, Technology, & Human Values* 43, no. 6 (2018), 1066–97.

²⁸ Erik Van der Vleuten, “Infrastructures and Societal Change. A View from the Large Technical Systems Field,” *Technology Analysis & Strategic Management* 16, no. 3 (2004), 400.

²⁹ Bernward Joerges, “Large Technical Systems: Concepts and Issues,” in *The Development of Large Technical Systems*, ed. Renate Mayntz and Thomas P. Hughes, 9–36 (Frankfurt am Main: Campus-Verl., 1988), 28.

many technological endeavours of the New State for the shaping of the nation's territory and the achievement of its complete exploitation, as illustrated by Tiago Saraiva.³⁰

The notion of “deep ecological penetration,” which Joerges explicitly introduces to LTS studies, is also relevant. Deep-ecological penetration pertains to the way LTS “radically affect the metabolisms of large-scale ecosystems,” with “powerful ramifications . . . for the economic and political systems hosting LTS.”³¹ Joerges proposes the concept to thwart what he detects as a tendency of historical narratives of LTS to focus more on the “natural inputs” that contribute to the building of technical infrastructures (e.g. the role of topography, as well as other geographical and/or spatial factors, in the choosing of the location and type of dams built), often glossing over “natural outputs” produced by the presence of said infrastructures, which profoundly alter the environment they settle on.³² Focusing on deep ecological penetration through the lens of resettlement allows for the analysis of how local and/or displaced inhabitants perceived the changes brought forth by the dams to their environment. It also unveils how those perceptions helped displaced communities negotiate (or resist) the conditions for their resettlement proposed either by companies, local authorities and/or the state.

Submerged Villages: Dams and Displacement in the Shaping of the New State's Hydroelectric and Technological Landscapes

On December 1944, the law for the electrification of the country (*electrificação do país*), commonly known as Law n° 2002, was published by the Ministry of Public Works and Communications (Ministério das Obras Públicas e Comunicações).³³ It explicitly stated that, from that point onward, electricity was to be produced mostly through hydro-powered sources, pivoting from the thermo-powered systems of production, that were, after that, to be used only as a backup. The law encompassed several aspects of river basin management: it aimed to “regulate the water flows,” allowing for navigation and complete exploitation of Portuguese rivers; this included irrigation but mostly meant the production of electric power. From then on, the state was to “promote and help” the construction of several power-plants for the production of electricity, as necessity dictated. These intentions were not new; the creation of the National Electrical Grid (“Rêde Eléctrica Nacional”) had been established by the 1926 decree n° 12.559 (“Lei dos Aproveitamentos Hidráulicos”), which had created previous regulations for river basin exploitation and the production of electrical energy, serving as the basis for the writing of

³⁰ Saraiva, “Fascist Modernist Landscapes.”

³¹ Joerges, “Large Technical Systems: Concepts and Issues,” 30.

³² Ibid.

³³ “Lei n.o 2002,” Diário do Governo n.o 285/1944, Série I (26 Dec 1944), 1311-4.

Law nº 2002.³⁴ However, Law nº 2002 marked the moment in which the New State began to effectively and directly intervene in the construction of the Portuguese electrical grid. Up until this point, the government’s role had been limited to the creation of guidelines that made sure that the many private distribution systems, scattered throughout the territory, would be able to connect at particular nodal points and provide energy for the whole territory.³⁵

The main goal of electrification established by Law nº 2002 was, first and foremost, to invigorate and reorganise the nation’s industrial development. This intention was further realised one year later through Law nº 2005 (1945), which established the means of state intervention to support industrial development and creation.³⁶ It ensured the contribution of the state in supporting industrial endeavours by conducting the necessary surveys for their kickstart. Hence, power production was to be planned in tandem with the implementation of these industries, assuring dynamic and mutual growth; at the same time, it aimed to shift the provenance of electricity to national sources (mostly water-powered but still leaning on coal-powered for backup) and ensure energetic sovereignty.³⁷

Also in 1945, the state’s direct involvement in the construction of the electrical grid materialised in the foundation of two companies: Hidroeléctrica do Zêzere (HEZ) and Hidroeléctrica do Cávado (HICA). These were the first hydroelectric companies funded with mixed-capital, with an assortment of both private and public shareholders, a strategy that would be replicated again, in 1953, with the creation of Hidroeléctrica do Douro (HED), also a mixed-capital venture.³⁸ HEZ and HICA immediately began building the necessary infrastructure to exploit their respective river basins, the Zêzere and Cávado rivers.³⁹ Starting with the endeavours of these two companies, dam-building in Portugal not only accelerated throughout the 1950s, it shifted towards the construction of larger dams of the arch-type, which allowed for bigger reservoirs.

This boom in dam building also brought forth an increasing number of population displacements: most of the Portuguese submerged villages were flooded in the 1950s by dams built by HEZ, HICA and HED to produce electric power; villages continued to be flooded, albeit less frequently, throughout the 1960s and early 1970s, before the 1974

³⁴ Maria Fernanda Rollo and José Maria Brandão de Brito, “Ferreira Dias e a Constituição da Companhia Nacional de Electricidade,” *Análise Social* 31, no. 136/137 (1996), 344.

³⁵ Nuno Luís Madureira, ed., *A História da Energia: Portugal, 1890-1980* (Lisboa: Livros Horizonte, 2005), 55–56.

³⁶ For instance, by hiring international experts, and providing credit or tax exemptions to private or corporate entities. “Lei n.º 2002,” *Diário do Governo* n.º 285/1944, Série I (26 Dec 1944), 1311–4.

³⁷ Madureira, *A História da Energia: Portugal, 1890-1980*, 98.

³⁸ João José Monteiro Figueira, “O Estado na Electrificação Portuguesa: Da Lei de Electrificação no País à EDP” (PhD diss., Faculdade de Economia da Universidade de Coimbra, 2012).

³⁹ Rollo and de Brito, “Ferreira Dias e a Constituição Da Companhia Nacional de Electricidade,” 350.

revolution. Hence, the submersion of villages constitutes an event brought forth by the “large-scale modernist experiment” of the New State and provides one of the many faces of that experiment.⁴⁰ It also contributed to the shaping of the Portuguese technological landscapes: the spectre of displacement created opportunities for companies and the state to negotiate with local authorities and peoples, and the resettlement processes proposed new ways of inhabiting the technological landscape through new housing projects. Analysing the protocols which managed these displacements sheds light on how system-builders interacted with those who were “in the way of progress.”⁴¹ These processes of DIDR also shed light on the entanglement of technological endeavours put in place by the New State in a myriad of processes—e.g. the sometimes attempted channelling of dam-displaced people into networks of workers created by the Board for Internal Colonisation (Junta de Colonização Interna) to supply its agricultural colonies.

Building these large-scale infrastructures demanded not only the expertise of engineers, but also of architects: after decades of timid experiments with new building materials and techniques that had come to define modern architecture in Europe and the United States, Portuguese architects took the opportunity presented by the surge of large infrastructural projects in the beginning of the 1950s to fully embrace international trends and openly explore the expressive possibilities of materials such as reinforced-concrete. Thus, technical infrastructures, namely dams and hydroelectric power-plants, became the face of a full-fledged expression of modern architecture in Portugal: the beginning of the 1950s marked a milestone for what historian of architecture Ana Tostões called the 2nd Cycle of Concrete (“2º Ciclo do Betão”) in Portuguese architecture.⁴²

In the same vein, in the 1950s the government also launched the Survey of Portuguese Popular Architecture (Inquérito à Arquitectura Popular em Portugal), which according to Tostões was “the most important collective task” on the subject of Portuguese architectural thought and practice, effectively pointing it towards modern conceptions of the discipline.⁴³ Published in 1961, the Survey represents not only a moment of formal reappraisal of the different regional traits of Portuguese vernacular housing, but also signals a rebuttal of the traditionalist vocabulary through which the construction of an ideal “Portuguese House” was to be achieved.⁴⁴ In dismissing this supposedly “Portuguese way of building” (which envisioned a

⁴⁰ Saraiva, “Fascist Modernist Landscapes,” 16.

⁴¹ Berman, *All That Is Solid*.

⁴² Ana Tostões, *A Idade Maior: Cultura e Tecnologia na Arquitectura Moderna Portuguesa* (Porto: FAUP publicações, 2015), 287.

⁴³ *Ibid.*, 287.

⁴⁴ Maria Helena Maia and Alexandra Cardoso, “O Inquérito à Arquitectura Regional: Contributo para Uma Historiografia Crítica do Movimento Moderno Em Portugal,” in *IV Congresso De História Da Arte Portuguesa—Homenagem a José-Augusto França*, 535–52 (Lisboa: Fundação Calouste Gulbenkian,

romanticised version of rural life, promoted by the regime’s propaganda), the Survey effectively contributed towards a careful application of modern and vernacular architectural vocabularies, materials and ways of building, which manifested particularly in housing projects such as those of resettlement plans.

Hence, the buildings comprising the 2nd Cycle of Concrete are not limited to those of the infrastructure projects themselves, but also encompass constructions built in association with them. In the case of dams, these associated buildings usually took the form of shelter for workers and housing for experts, as well as for tourists. Stemming from (and relating to) the larger infrastructural projects of dam construction, these buildings shed light on the visions for the landscape of the companies involved in the construction, both through their existence (which implies they were considered necessary) and their design (which establishes the intentions with which to materialise those necessities); they are an integral part of the technological-landscapes shaped by the policies of the New State.⁴⁵ These housing and hostel projects, both ephemeral and perennial, have been the focus of much scholarly interest and research, particularly in the field of history of architecture.⁴⁶ Despite stemming from the same infrastructural endeavours (and, in a couple of instances, designed by the same architects), houses built with the purpose of resettling displaced populations are often ignored as part of the architectural heritage of hydroelectric power plants and of historical narratives on the system-building of the electrical grid; more often than not, they do not merit the same attention by this historiography.

The submersion of villages is not only a wide-ranging phenomenon that mostly stems from the construction of the Portuguese electrical grid but also a nodal point in its entanglement with other technological endeavours of the New State. Its inclusion in the historical narratives of Portuguese dam-building is valuable to understand how system-builders negotiated with local populations. Furthermore, these villages are at the intersection of the actions of both engineers

2013).

⁴⁵ A couple of examples in which architecture played a significant role in the in the shaping of technological-landscapes in the context of dam-induced resettlement are the Tennessee Valley Authority (United States) and the Volta River Project (Ghana). Regarding the first, see Michael J. McDonald and John Muldowny, *TVA and the Dispossessed: The Resettlement of Population in the Norris Dam Area* (Knoxville: University of Tennessee Press, 1982); Sarah Bonnemaïson and Christine Macy, “Putting Nature to Work With the Tennessee Valley Authority, 1933,” in *Architecture and Nature: Creating the American Landscape*, Sarah Bonnemaïson and Christine Macy, 137-222 (London: Routledge, 2003). On the second example, see Robert Chambers, ed., *The Volta Resettlement Experience* (New York: Praeger Publishers, 1970); Dzodzi Tsikata, *Living in the Shadow of the Large Dams: Long Term Responses of Downstream and Lakeside Communities of Ghana’s Volta River Project* (Leiden: Brill, 2006); Stephan F. Miescher, “Building the City of the Future: Visions and Experiences of Modernity in Ghana’s Akosombo Township,” *The Journal of African History* 53, no. 3 (2012), 367–90.

⁴⁶ Maria L.F.L. Pequito, “Hidroeletricidade e Identidade Social: A Técnica Como Memória Barragista (Picote, Trás-os-Montes)” (PhD diss., ISCTE-Instituto Universitário de Lisboa, 2015).

and architects working in the shaping of the technological and hydroelectric landscapes of the New State.

Portuguese Hydroelectric Landscapes: Beyond Luz and Vilarinho da Furna

Events such as the disassembling and reconstruction of the old chapel of Luz or the exhuming of the village's dead galvanised audiences in the years before the inauguration of the Alqueva dam. Their news coverage contributed to raise awareness of the soon to be displaced population of Luz and increased the volume of tourists visiting the old village before it was demolished and flooded by the Alqueva reservoir.⁴⁷ This helped ingrain Luz in the collective memory of the country, noticeable by the several articles focusing on the state of the new village that have been written every ten years since the dam's inauguration.⁴⁸ A concerted effort was made to preserve the memory of the old community since the beginning of Alqueva's construction in the 1990s, which helped to crystallize the memory of Luz in a vast array of research, conducted mostly by ethnographers and anthropologists, who produced (and continue to produce) a number of monographs depicting the habits of the displaced population; the Museum of Luz, which stands at the end of the new village, is a testament to that effort.

Like Luz, Vilarinho da Furna also became ingrained in the Portuguese collective memory, mostly through depictions in literature and film since the 1970s, both in documentary and fiction form.⁴⁹ The work conducted by ethnologist Jorge Dias in the 1940s was crucial to the existence of those outputs:⁵⁰ before there were any plans to build a dam, Dias was attracted to Vilarinho da Furna by the autonomous way of community-governing that the village's inhabitants still conducted, which was at the time considered to be almost extinct. Once construction started

⁴⁷ Carla B. Ribeiro, “Romarias à Aldeia da Luz Obrigam a Reforço da GNR,” *Público*, 25 March, 2002, <https://www.publico.pt/2002/03/25/sociedade/noticia/romarias-a-aldeia-da-luz-obrigam-a-reforco-da-gnr-91103>.

⁴⁸ For instance on (but not limited to) the newspaper *Público*: Carlos Dias, “Dez anos Depois, a Aldeia da Luz ‘parece uma terra-fantasma,’” *Público*, 18 November 2012, <https://www.publico.pt/2012/11/18/local/noticia/dez-anos-depois-a-aldeia-da-luz-parece-uma-terrafantasma-1572961>; Carlos Dias Santos Nuno Ferreira, “Aldeia da Luz: ‘As pessoas até parece que têm medo de assomar à porta, não se vê vivalma,’” *Público*, 8 February, 2022, <https://www.publico.pt/2022/02/08/sociedade/reportagem/aldeia-luz-pessoas-ate-parece-medo-assomar-porta-nao-ve-vivalma-1994599>.

⁴⁹ Miguel Torga, “A Barragem,” in *Pedras Lavradas: Contos*, 2a ed. rev (Coimbra: Coimbra Editora, 1958); Miguel Torga and Vasco Rosa, *Diário*, 5a ed. (Alfragide: D. Quixote, 2010); António Campos, *Vilarinho das Furnas* (Portuga, 1971), 16 mm, 77 min; André Gago, *Rio Homem*, 1a ed. (Alfragide: Asa, 2010).

⁵⁰ Jorge Dias et al., *Vilarinho da Furna: Uma Aldeia Comunitária* (Porto: Inst. para a Alta Cultura. Centro de Estudos de Etnologia Peninsular, 1948).

in the early 1960s, writers and filmmakers began visiting Vilarinho to provide coverage to the plights of its soon-to-be displaced people.

Widely documented, the submerged villages of Vilarinho and Luz have a solid presence across research spanning several disciplines: the two cases are often compared, mostly focusing on the differences between the displacement and resettlement strategies employed in each case. However, other Portuguese instances of dam-induced displacement remain obfuscated by these two episodes, albeit being mentioned often in research pertaining to both: in the preface for the 1980s edition of Dias’ ethnographic study of Vilarinho da Furna, the geographer Orlando Ribeiro writes that “other villages” in Portugal have suffered the same fate as Vilarinho and fallen victim to the same “crime.”⁵¹ This nebulous un-named constellation of “other cases” is also mentioned in the works of sociologists Antunes and Reino et al. focusing on and comparing Vilarinho da Furna and Luz.⁵² Occasionally, one of the lesser-known submerged villages is mentioned explicitly, albeit mostly *en passant*, when discussing other subject matters, such as when researching the *oeuvre* of a particular architect or when considering similar examples, usually Vilarinho or Luz.⁵³ More recently, in 2022, while this research was already under way, a drought affecting the whole country lowered the water level of several reservoirs, revealing a number of submerged villages that are mostly unknown for those living outside their region. For a short period of time, these villages garnered media attention, causing *impromptu* touristic pilgrimages to locations.⁵⁴

Preliminary Results

But here comes the water . . . and from one day to the next everything will be underwater: the chapel, the little church with the residence that has just been built, the two schools, where two hundred escudos were just recently spent in repairs.

Here comes the water . . .

⁵¹ Ribeiro, “Nota Preliminar,” 11.

⁵² Manuel de Azevedo Antunes, Lucinda Coutinho Duarte, and João Pedro Reino, “Barragens de Portugal: De Vilarinho Da Furna à Aldeia Da Luz, Com Passagem Pelo Douro Internacional,” *Revista Lusófona de Humanidades e Tecnologias*, no. 10 (2006): 13–21; João Pedro Reino, Lucinda Coutinho Duarte, and Manuel de Azevedo Antunes, “Mitos e Realidades: De Vilarinho Da Furna à Aldeia Da Luz,” *VI Congresso Português de Sociologia*, Universidade Nova de Lisboa-Faculdade de Ciências e Sociais e Humanas, 2008), <http://associacaoportuguesasociologia.pt/vicongresso/pdfs/319.pdf>.

⁵³ Oliveira, “Processos de Desterritorialização,” César A.G.M. Moreira, “Hidroelétrica Do Cávado (1944-1966): A Construção Da Paisagem Hidroelétrica Do Cávado e as Obras de Januário Godinho” (PhD diss., Faculdade de Arquitectura da Universidade do Porto, 2020).

⁵⁴ For instance: “As Aldeias Submersas Que a Seca Fez Emergir e Os Turistas Que Elas Atraem,” *Observador*, accessed 14 February 2024, <https://observador.pt/especiais/as-aldeias-submersas-que-a-seca-fez-emergir-e-os-turistas-que-elas-atraem/>.

In the seclusion of our homes we mourn the pain of losing everything, even the cemetery, where our dead were [buried].⁵⁵

Analysing submerged villages not as isolated episodes but as phenomena—without disregarding the specificities of each case—shows a progression in how displacement and resettlement of Portuguese populations was tackled by companies, local authorities and national, state powers throughout the decades.

Dam-induced displacement is first perceived as an exceptional event: while few claimed these events were unable to be managed through the standard procedures for expropriating land and paying compensation in place at the time, dam-induced displacement did not merit dedicated legal framing at first. As submersions became more frequent, claims for a more adequate approach to similar cases began to emerge. Specifically, claims for the creation of a dedicated legislative framework to account for compensations due to property being expropriated in the context of dam-building. For instance, the method employed to expropriate landowners in Vidual de Baixo (submerged in 1941 and the first documented case of dam-induced displacement in Portugal), would later be recalled upon as a possible blueprint for similar cases: it was explicitly mentioned in 1954, at the National Assembly, during one of several discussions regarding the displacement of Vilar da Veiga.

Hence, with the rise of displacement events, older instances of DIDR became more frequently mentioned during the managing of newer episodes of displacement. These prior cases oftentimes influence the discussion regarding newer instances of dam-displacement and progressively crystallise into methods to manage these events. Furthermore, a few actors transition from one event to the next (e.g. agrarian engineer António Vasconcellos e Lencastre, who conducted at least two expropriation and compensation processes: first in Vilar da Veiga, in 1954, and then in Faia, in 1965).

Negotiations between companies and populations were usually limited to the payment of compensations, by the former to the latter, for land and houses lost to the reservoirs. Consequently, the voices found in sources related to the displaced people are often exclusively those of property owners. They do not necessarily represent the whole of their respective populations, although they often raise awareness to the plight of the soon-to-be-displaced tenants and contract workers, as well as the elderly and the disabled.

Two main anxieties of the displaced populations are present in sources across all case studies: housing and work. Housing was broadly considered a necessity across all case studies but that

⁵⁵ From a letter written on behalf of the population of Vilar da Veiga, read on the National Assembly. “Diário Das Sessões No33,” in *Diário Das Sessões*, VI Legislatura, n. o 33 (República Portuguesa—Secretaria da Assembleia Nacional, 1954), 493–505.

did not necessarily imply the involvement of either companies or local government authorities in the design and building of new villages, neighbourhoods or houses for the displaced people. Rather, housing needs were frequently solved through the payment, by the company, of additional compensation to the house-owners in order to help them build new homes wherever they could settle. When plots of land were acquired for the building of new houses, they served the purpose of lodging those who did not own property in the submerged village (and therefore could not receive monetary compensation for their loss). Thus, new housing projects were often a means to compensate those who had no property in the submerged villages. Under these circumstances, these houses were often built without a cohesive urban plan and without regard for the social cohesion of the displaced communities as a whole. There are exceptions: HICA built a new village to resettle the people of Venda Nova, which was designed by architect Januário Godinho; HED supervised the partial construction of Faia, whose plan was designed by architect Rogério Ramos; in Luz, an international architectural competition was organised to design a new village for the displaced. Assessing the architectural endeavours that took place during each displacement event thus provides a valuable lens to analyse how companies engaged not only with the displaced, but with the construction of means to inhabit the new technological landscape.

The second anxiety manifested by all displaced populations is work, or the lack thereof. In their original village, most of the soon-to-be displaced populations dedicated to small-scale, subsistence agricultural practices, which the dams threatened to disrupt. This anxiety is expressed in many sources across all cases, mostly in the form of remarks from the displaced landowners: the replacement of submerged patches of land with new ones of equivalent size is often discussed, with the displaced questioning the feasibility of such an endeavour and the productivity of the new land plots (the submerged agricultural lots are often claimed as the most fertile in their respective regions, due to their proximity to the rivers). The demand for payment concerning work that was to be produced in those to-be-submerged lots and would no longer be exploited is also a common claim from the displaced landowners. More seldomly, the perception that a complete change in economic activities had to take place, with the prospect of the displaced shifting to industrial work, either related to the dam or made possible by its existence, is also discussed.

The transfer of religious buildings from their original locations to newer, higher-ground ones, is also frequent across all case studies. These events played a significant role in some of the resettlement processes: the transfer of chapels was brandished as a means to appease tensions of to-be-displaced populations, in an effort to mitigate or prevent local protests. Hydroelectric companies usually gave the Church special treatment in negotiation processes and had direct channels of communication with Christian authorities, which merit special mention in the documents pertaining to company meetings.

Despite differences between the researched case studies, a few common trends emerge: drawing on the categories created by Cernea’s IRR model, the risk of landlessness (and, to a lesser degree, homelessness)⁵⁶ permeates all episodes of DIDR in Portugal, with displaced inhabitants showing concern over the loss of agricultural land and, therefore, the ability to generate sustenance. However, despite Portuguese hydroelectric companies conducting surveys in the to-be-submerged villages to calculate the exact number of displaced people—as well as sketching their economic profile—, no surveys were found on the effects of the displacement in populations after their (not always certain) resettlement. This lack of statistics reflects Scudder’s “disquieting” observation that “the extent to which people involuntarily displaced by dams have been ignored by project authorities and their governments” is shown by there being “no accurate figures . . . of the numbers involved” in these events.⁵⁷

While policy regarding land expropriation due to public utility existed, it didn’t consider resettlement strategies for displaced people beyond the payment of compensation; resettlement programs were therefore mostly conducted according to the whims of hydroelectric companies.⁵⁸ These companies took different approaches to resettlement, with the majority building houses exclusively for “the poor” and those who did not own land in the submerged villages. Such houses were sometimes mentioned in the companies’ promotional materials, which advertised them as solutions to non-technical problems stemming from the building of dams. Companies claimed to solve these problems by acknowledging (but often downplaying the scale of) displacement events and taking them as opportunities to claim participation in improving the living conditions of the displaced.⁵⁹ Occasionally, these claims also served as state-propaganda: DIDR episodes were sometimes recognized as opportunities for renewing housing conditions in rural territories, with some New State’s political actors incorporating these claims in their

⁵⁶ While no sources mention the creation of “emergency housing centres” or “temporary relocation” facilities in the Portuguese cases studied—like, as Cernea notes, happened in India—, reports show that a few displaced people were living precariously in makeshift refuges located on neighbouring villages, after the displacement took place. Michael M. Cernea, “Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement,” *Economic and Political Weekly* 35, no. 41 (2000), 3664.

⁵⁷ Thayer Scudder, *The Future of Large Dams*, 21.

⁵⁸ Unlike, for instance, the cases of the Akosombo Dam, in Ghana, or the Kotmale Hydro Power Project, in Sri Lanka, where the resettlement of the displaced fell upon the government’s responsibility, with companies focusing solely with power production: Dzodzi Tsikata, *Living in the Shadow*, 137. Lars T. Søltestad, “Anthropology, Development, and Human Rights: The Case of Involuntary Resettlement,” in *Ethnologie Im Widerstreit. Kontroversen Über Macht, Geschäft, Geschlecht in Fremden Kulturen, Festschrift Für Lorenz G. Löffler*, ed. Eberhard Berg, Jutta Lauth and Andreas Wimmer, 365-87 (Munich: Trickster, 1991).

⁵⁹ Unlike what happened, for instance, with the displacement of the Indigenous Sámi people in northern Europe, whose presence is invisible in the promotional materials and narratives produced by the state-owned energy companies responsible for the exploitation of those territories. Åsa Össbo, “Hydropower Histories and Narrative Injustice: State-Owned Energy Companies’ Narratives of Hydropower Expansion in Sápmi,” *Water History* 15 (26 May 2023), 1–19.

proselytising about the benefits of exploiting national resources for energy production. This happened mostly in (but was not exclusive to) the National Assembly (Assembleia Nacional): members of parliament framed resettlement in the context of a bigger nationalist argument in favour of electrification, instrumentalizing house building for dam-displaced populations as part of a modernization process by means of energy production. In this context, resettlement projects helped to depict an idealized modern nation, putting forth an image of new, clean rural houses, a by-product of hydroelectric projects that played a small but not irrelevant part in the building of a Portuguese “hydraulic geography.”⁶⁰

However, populations did not take to their displacement quietly: as anxieties regarding the risk of landlessness and homelessness were expressed by displaced populations and in a rising number of cases during the New State regime, policymakers took notice. In the late 1950s, after a string of DIDR episodes (Vidual de Baixo, Venda Nova and Vilar da Veiga), the Corporative Chamber (Câmara Corporativa) of the New State government discussed the possibility of creating new policies to regulate expropriation in events of dam-induced displacement and, specifically, to consider land expropriation for public benefit.⁶¹ Episodes of displacement and expropriation were therefore acknowledged by policymakers and system builders not as isolated events, but as a category of effects caused by the building of dams—a trend that stemmed from the construction of the Portuguese electrical grid. With this acknowledgement, they anticipated the continued occurrence of new episodes of displacement in the future.

Preliminary Conclusions

The present paper discussed secondary sources regarding the history of energy production and dam-building in Portugal in order to provide a framework of analysis for the case studies of DIDR, which have been identified and corroborated by several sources. The Centro de Documentação da EDP, the main archive containing relevant primary sources for this research,

⁶⁰ While the Portuguese New State’s project for modernization through hydraulic technologies shares similarities with the Spanish “regenerationist hydraulic utopia” of dictator Francisco Franco, displacement and resettlement are scarcely mentioned in the socio-technical construction of both countries electric systems. While I hope to shed light on the Portuguese case studies with my work in progress, a compared analysis between both countries’ policies regarding DIDR can prove useful, as they share not only similarities in the approach taken by their authoritarian regimes to the building of their respective hydraulic-technological landscapes, but they geographically share river basins, which affected the choice of which rivers to exploit. On dam-displacement in Franco’s regime, see Ana Fernández-Cebrián, “Roots Under the Water: Dams, Displacement, and Memory in Franco’s Spain (1950–1967)” in *A Companion to Spanish Environmental Cultural Studies*, ed. Luis I. Prádanos, 55–60 (Suffolk: Boydell & Brewer, 2023). For a wider look at Spanish hydraulic policies across the twentieth century, see Erik Swyngedouw, “‘Not a Drop of Water...’: State, Modernity and the Production of Nature in Spain, 1898–2010,” *Environment and History* 20, no. 1 (2014), 67–92.

⁶¹ “Parecer n.º 26/VII—Projecto de Decreto n.º 502—Expropriações Por Utilidade Pública,” *Actas Da Câmara Corporativa*, VII Legislatura, n.º 81 (16 January 1960), 855–67.

has been thoroughly examined, as have LNEC’s Library and the Torre do Tombo National Archives. Only a few municipal archives related to particular case studies remain to be visited, pending on their response to my requests. The three museums and interpretative centres dedicated to preserving the memory of submerged villages (Faia, Vilarinho da Furna and Luz) have also been visited. Though few primary sources were found in these museums, the data I was able to collect provided valuable information on where to find them.

With this research, I hope to bring attention to submerged villages in Portugal beyond its two most well-known cases, Vilarinho da Furna and Luz, weaving these two famous case studies into a larger tapestry of analogous events that have, so far, been overlooked in the historiography. In doing so, I hope to unveil what is still a mostly invisible phenomenon in historical narratives regarding the building of the Portuguese electrical grid, and how DIDR provided an opportunity for the articulation of several of the New State’s technological endeavours for the exploitation of the nation’s territory. By tackling these instances of submerged villages as a whole, I also hope to analyse the role of architecture in the transformation of the territory and how it contributed (or not) to shape and populate the new technological landscapes that resulted from this process.

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