T/S BOOK REVIEW

## The Atomic Archipelago. US Nuclear Submarines and Technopolitics of Risk in Cold War Italy

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As a Sardinian, the issue of the militarization of my island is challenging. The slaughter of Sardinians in World War I, particularly in the ethnically recruited Sassari Brigade, was the origin of Sardinian political consciousness (*sardismo*) and our contemporary political awareness. Nevertheless, it sparked a flood of militaristic rhetoric, which is not unrelated to the establishment on our island of 60% of Italy's military servitudes today (Esu and Maddanu 2022, 195). This is the same rhetoric that has reinforced the stigma of Sardinians as "violent" and "bandits", characterized by the "culture of the knife" and kidnappings. This has been used to justify, even today, both the re-establishment, starting in the 1980s, of an ethnic brigade sent to the front lines in the so-called Italian "peacekeeping missions" worldwide, and the expansion of the island's militarization, described in Davide Orsini's work, through one of its most significant episodes, the American submarine base installed in the La Maddalena Archipelago between 1972 and 2008.

La Maddalena is an archipelago located between Sardinia and Corsica, on the Strait of Bonifacio, that connects the Tyrrhenian Sea and the Sea of Sardinia, i.e., those two stretches of the Western Mediterranean between the two sister islands and Italy on one side, and the Balearic Islands, Provence, and North Africa on the other. A strategic position, among the most advantageous. Formerly populated only by shepherds, the Archipelago was colonized by the King of Sardinia – a Savoy descent, residing in Turin from which he ruled the Duchy of Savoy – in the 18th century for military purposes and has long been home to fleets and military bases. Today, it seeks an uncertain shift towards tourism.

The opening of the US Submarine Base in 1972 completed the militarization of all of Sardinia, which began in 1956. Unlike other military bases linked to the Italian armed forces, La Maddalena was a US base regulated by a classified *Bilateral Infrastructure Agreement* negotiated by the US and Italy between 1949 and 1954 (Saiu 2014).

The militarization of Sardinia grew in parallel with the policies of development. During the 1960s, a *Piano di Rinascita*, envisaged modernizing the entire island through public capital intervention for the development of the chemical industry, not local resources, as requested by the Autonomous Region. It was not the first attempt at top-down modernization. Even during the liberal (1861-1921) and fascist periods (1922-1945), there were modernization

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efforts, including the eradication of malaria managed by the Americans, but they were not extended to every area of Sardinian society. Following the popular uprising of Pratobello in Orgòsolo (1969), which blocked a military settlement, an anti-military bases movement developed. It had had anti-militarist, ecological, and self-determinist connotations (Esu 2023). Therefore, alongside opposition to militarization, opposition to top-down modernization also grew, together with politically, independence movements.

This is the period Orsini deals with in his historiographic and ethnographic investigation. Orsini studies the case of La Maddalena adopting an approach embedded in the work of Gabrielle Hecht (2000). Notably, he leverages Hecht's concepts of *technopolitics* and an interest in studying *nuclearity* as a characteristic that connects a set of entities. As such, this approach differs from other STS analyses of nuclear programs. For instance, Donald Mackenzie (1996) focuses on the importance of their construction and the role of tacit knowledge within them. On the contrary, in Orsini's work, nuclearity does not seem to configure a real infrastructure connected in all its parts by standards but rather describes a convergence of heterogeneous elements, among which the discursive element also emerges, having a technopolitical impact on the receiving context.

In *The Atomic Archipelago*, nuclear technology is not treated as a black box; rather, it is central to an analysis that encompasses the militarization of Sardinia. He extracts this story from the sole domain of political and military history, delving into the sociotechnical aspects not as peripheral but as essential for formulating a comprehensive interpretation. Nuclear technology is not viewed as a secondary effect of political games. Instead, within it – in its material, discursive, and collective features – all mobilized elements are found, including location, policies, effects on health and the environment, relationship with epistemic cultures, narratives, collective mobilizations, as well as the colonial dimension of Sardinia.

The book unfolds in three parts and seven chapters.

In the first part ("A Strategic Naval Outpost: History, Identity, and the Military-Industrial Complex", pp. 33-77), Orsini analyses the role of the La Maddalena Base in the American fleet deployment policy in the Mediterranean, and the particular role of the islands (also addressed in Esu and Maddanu 2022). The nuclear nature of the La Maddalena base introduced a technoscientific element that radically changed the status of the military presence in the Archipelago. In the second part ("Technopolitics of Risk: Bureaucracy, and the Production of Ignorance", pp. 78-143), by analysing political, technoscientific, and hybrid controversies, Orsini conceptualizes the role that secrecy, the active removal of knowledge, and data sequestration have had in conditioning them, up to theorizing how crucial the *production of ignorance* are in practices of dominance, both military and administrative. In the final part ("Risk, Accidents, and Political Mobilization", pp. 144-201), the outcome of this process is connected to the contingencies caused by an unreported nuclear submarine accident and the collapse of the base's legitimacy. In two chapters, the strengthening of a shared interpretation of risk as a field of problematization of the phenomenon by most actors is presented, as well as the growing importance of anti-base movements and their connection with community experts, and the mediatization of the risk itself.

The hybrid process described in this book highlights the technopolitical focus it has assumed, in the connection that has formed between the controversy over the presence of nuclear waste in the environment of La Maddalena, the contestation of the lack of anti-nuclear protection measures, and the political opposition to the presence of the U.S. military in Italy.

In fact, various expert groups have discussed the similarity between nuclear submarines and land-based nuclear facilities, considering their different visibility and mobility, and the possible applicability of onshore safety laws at sea, which are stringent in Italy.

The most important transitional moments of the process analysed are linked to the transformative bond between the movement against the bases in Sardinia and the controversy over the presence of radioactive elements, and in particular the shift from the debate over the presence of radioactive elements to the risk of future nuclear disaster.

Among the actors involved in the process described by Orsini, the role of lay experts is significant. They are contrasted with a set of entitled experts from different background, linked to different epistemic cultures and professional groups, or hinged in different organizations. Initially, the most relevant group of experts consisted of those from Sardinian and Italian academic institutions, particularly Italian radioprotectionists and radioecologists, linked to the State apparatuses. Italian entitled experts, especially those from Sardinian universities, consistently opposed any alarmism (p. 134). They meticulously applied "established practices relying on disciplinary assumptions that excluded, de facto, the contribution of nuclear submarines to the archipelago's radiation levels" (p. 200). The role of monitoring technicians, administrative experts, community or civic experts differed. After the growth of protest movements, local institutions linked to the Province of Sassari and the Autonomous Region of Sardinia (through the newly established National Health System) set up small monitoring and sample analysis structures. These were facilities with minimal equipment but run by operators with precarious institutional status, initially very active in enabling the potential impact of monitoring (p. 130). Following the 1986 Čornobyl' accident, an independent laboratory established in neighbouring France to measure fallout from that incident, detected an unusual concentration of thorium-234 in seaweed at the Corsican borders of La Maddalena archipelago, never investigated on the Sardinian side of the border. Experts from the field of marine geology were added upon the request of the local community, thus introducing a comparative research method which also addressed the presence of plutonium and radioactive caesium.

Differences between epistemic cultures, investigation methods, relevance of different substances, connections with other events, etc., led to a deconstruction of the relationship between politics and expertise. Disagreements among the experts, along with local elites' lack of leadership capacity, particularly in confronting the state, became a problem.

The dominant model practiced in Italy for public understanding of science, based on the deficit model, did not work. Developing a stance became impossible because both scientific and political positions were internally diversified. The attempts of the political class to convene formal conferences dominated by incomprehensible official communications produced a communicative boomerang effect (p. 150). This left the field open for a bold media operation in 1976, linked to three cases of cranioschisis (deformations or absence of cranial bones), connected by the Sardinian press to the presence of the American base (p. 104).

This was the only episode in which the American authorities were concerned about the crisis of consensus around the base's presence, so accommodating was the local ruling class (p. 127). Social anti-base movements, which – as mentioned before – elsewhere in Sardinia began to mark opposition to militarization from 1969, had little traction in La Maddalena. Here, organized parties were either in favour of the base or indifferent to monitoring

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(pp. 133-134), or, else, their mobilization took only in an anti-American stance (Esu 2023). Only the public intervention of the most famous activist magistrate, Judge Gianfranco Amendola, who, as early as 1974, in his work *Basi infette* ("Infected Bases"), denounced the risk of nuclear contamination of the archipelago, broke the traditional silence and disinterest with Sardinian problems in the Italian public debate (p. 146).

Finally, both the political and technical debates found their turning point in the problem of safety and risk linked to the presence of the base. The question of Sardinian political choices was not raised, and technical discussions veered towards a debate on the scant evidence of a radioactive presence and thus its risk. Thinking about risk always involves shifting the discourse towards the future, on potential future consequences, and is a way to distance the discussion from the analysis of the present (p. 160). Risk is a concept on which experts and non-experts, technicians, politicians, and activists can easily converge, through processes that render it objective, eliminating uncertainty and producing consensus (p. 152). Around this interpretive convergence, Orsini observes how expert and non-expert epistemologies are contemporary phenomena that interact entirely and in portions without barriers, circulating among politicians, activists, scientists, technicians, and military personnel, to the point of being used at every level (p. 175).

According to Orsini, the definitive role of risk also rests on the "production of ignorance" and military secrecy practices. This is a combination "involving silence, deception, duplicity, opacity, ambiguity, and the proliferation of bureaucratic apparatuses" (p. 122). In Sardinia, the *production of ignorance* as a policy of the ruling classes is relevant and productive, akin to the invisible aspects of a discursive order, within which certain things are unthinkable, such as Sardinian self-determination, and others are implied, such as their Sardinians' backwardness, up to elements of their racialization.

What brought this debate to an end was the accident of the U.S. submarine Hartford, which occurred off Cagliari in October 2003. News of it came to Sardinia through a local American newspaper leak, published in the town that was home to that class of submarines in the US. No one bothered to communicate it in any form to La Maddalena people, which caused total distrust of the authorities. The distrust also extended to the scientific credibility of the entitled experts (p. 201). In those same years there was still a climate that saw nuclear power as an exceptional and, after Čornobyl', negative technopolitical category.

Despite the fact that the Italian Constitutional Court had blocked an advisory referendum in Sardinia on the presence of American bases by the in 1983, an Italian-wide referendum in 1987 excluded the use of civilian nuclear power. This change has created a contradiction with the presence of the nuclear base in La Maddalena. In addition, starting in the 1980s, many local Sardinian governments began adopting a Sardist political agenda, particularly those led by Mario Melis (1982 and 1984-1989) and Renato Soru (2004-2009), eventually leading, under Soru's presidency, to the closure of the La Maddalena Base (2008).

One of the merits of this book is that it allows us to understand how the discourse of modernization – also used to legitimize militarization – conceals the colonization of Sardinia, particularly by Italy and its allies, through the recruitment of local elites, who present themselves as "modernizers" or, in this case, militarizers. However, this aspect is underexplored and is only part of the author's conclusions (p. 211), as though it were an accessory point. The colonial nature of the in-between could have enriched the approach used throughout the analysis and

not just appeared at the end as an almost exotic curiosity. He seems lost in the political culture of the Island, for instance in the confusion between Sardist autonomism and independence movements, a political culture that arose in parallel with the critique of external modernization, which also includes militarization (p. 140). Sardinian independence movements reconnect with reflections about the South by Sardinian political thinker Antonio Gramsci, who did not see our problems as stemming from backwardness (as in autonomist and "Sardist" thought), but in the power imbalance between territories, made possible only by the alliance of the dominant groups of the North of Italy with the backward strata of the South itself.

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