CONSTRUCTING THE MODERN FOREST IN GREECE: DIMITRIS PIKIONIS AND THE PERTOULI EXPERIMENT ON THE MOUNTAIN RANGE OF PINDOS

EMILIA ATHANASSIOU

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INUIIMA: THE DISCOVERY OF THE LANDSCAPE

This chapter attempts a critical re-reading of the Greek architect Dimitris Pikionis' (1887-1968) project for the model forest settlement at Pertouli, situated in the heart of the mountain range of Pindos, at an altitude of 1,150 m. This settlement, designed between 1953 and 1956 and realized gradually until 1964, was built with a view to house the administrative, teaching and research staff, students of the Faculty of Forestry of the Aristotle University of Thessaloniki, as well as the forest workers, their families and various support personnel, all entrusted with the sustainable management of the local fir forest reserve, covering an area of 3,296.59 hectares. The Pertouli project marks the first attempt to establish in Greece a fully developed, scientifically organised and controlled forest management plan in a previously inaccessible forest, initially envisioned in the 1920s by forestry professor Anastasios Economopoulos (1893-1971), a key figure in raising an awareness on modern forestry and sustainable forest management in Greece. His vision was conceived both as a scientific and a social experiment in collective living in the remote mountainous wilderness of Pindos. Pikionis' design for the forest settlement was an early paradigm of post-war vernacular modernism and up to this day remains a telling example of a creative synthesis between the architectural tradition of mountainous central Greece and the modern functionalist idiom. The Pertouli project is discussed here in the context of the emergence of the sylvan ideal in Greece in the late 19th century, its idealisation in the interwar period and its visionary reformulation in the first post-war years. Pikionis' architecture and Economopoulos' forestry are explored as compatible trajectories of thought, characteristic of interwar idealism, projected into the post-war discourse of social and economic reconstruction as a model of development for both the forest and the forest-dependent local community. The two university teachers believed in the educational role of nature in maintaining society's robustness and upholding its moral and ethical strength in the challenging backdrop of the modern condition. Nature was a concept that defined interwar thinking, by permeating all cognitive levels of self-definition; scientific, aesthetic, mystical, philosophical and social.

In legal terms, the forest cannot be defined by any laws of nature, nor is it a readily perceivable physical entity, rather, it constitutes a mental construct, a landscape that is shaped in the mind of the legislator according to the dominant perceptions of each $\operatorname{era}\widehat{\lambda}$. Beyond this, the forest, in particular the thick, evergreen forest of the high mountains, is a retreat for the senses, an

View of the village of Pertouli from the Southwest.

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271 CONSTRUCTING THE MODERN FOREST IN GREECE imaginary realm that functions as a strong conceptual counterpoint to the concept of culture. Allegories of the forest originating in the mythological past rendered evergreen trees, such as oaks, sacred; cutting them down was forbidden, as they were associated with Dryads, nymphs of forests and meadows, and Alseids, nymphs of glens and groves. In modern times, the high forest of evergreen fir trees was identified with the German cultural landscape as a real and conceptual territory that Tacitus, the Roman historian of the 1st century, had described in his Germania, as covered by horrid forests J. However, over the centuries, the high forests of Germany were threatened with extinction many times over, more recently towards the end of the 18th century, when intensive exploitation led to an almost complete deforestation of the land. In response to this, as Radkau writes, "in the early 19th century, Germany became the pioneer in reafforestation policy" A and the sylvan ideal became the basic ingredient of the then re-configured Germanic romantic nationalism.

In this context, Caspar David Friedrich's (1774-1840) painting Chasseur in the Forest [Der Chasseur im Walde] (ca. 1812-1814) renders the forest "a manifestation of the awful and sacred power of the fatherland" l, the representation of Germanentum par excellence, the visual equivalent of Richard Wagner's (1813-1883) musical works, where the forest symbolizes the spiritual cradle of the German race. The painting exudes a powerful, declarative visual energy, where Germany is represented as the menacing forest that defeats its enemies. Friedrich's work can be seen as extolling the unconquerableness of the mountains and the forests, while exposing the vanity of Prussian power, which shall never tame the highlands of the country. Furthermore, Friedrich's landscapes bring on the melancholy of the human condition, against the magnificence and eternity of nature. In the same vein, Friedrich Nietzsche (1844-1900) has also been identified with the metaphor of the elusive high mountains of the Black Forest range, whose footpaths he often walked \(\frac{1}{2} \). At the core of the Nietzschean argument is the belief that escaping the urban chaos, enjoying the view of high mountains, striding across the dark forests and climbing the untamed peaks makes the search for philosophical truth possible. Mountains symbolize the "will to power" [Wille zur Macht]. There, Nietzsche's "eternal recurrence" [Ewige Wiederkunft] and "becoming" [Werden] inform Martin Heidegger's (1889-1976) "being", moulded by following the Holzwege, the network of paths that run through the forest, a metaphor for the labyrinthic twists and turns of scientific and philosophical inquiry that eventually would lead to the "clearings of truth" [Lichtung] *.

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GREEK INTERWAR AGRARIAN REFORM

In modern Greece, the organized management of the natural environment and the systematic study and protection of the forests were advocated by Princess Sophia of Prussia (1870-1932), who upon her arrival to Greece in 1889 as royal bride , considered it her duty to instil her love for the forest in the Greek people. In 1899, with her patronage and the contribution of a few other enthusiasts , the Athens Friends of the Forest Association [AFFA] was founded with the aim of reforesting bare land and raising a forest-friendly public consciousness. In 1916, Sophia, by then Queen consort of the Hellenes and head of the AFFA, commissioned poet Pavlos Nirvanas (1866-1937) to author a propaganda essay entitled "The Forest" T. This essay, printed at the Government Printing Office, was distributed free of charge in order to further cultivate the love for the forest.

The Pertouli experiment was incubated in the fertile climate of interwar Greece's agrarian reform, permeated by socialist ideas ¥ ¥. The 3rd grade elementary school textbook *The High* Mountains (1918) by Zacharias Papantoniou (1877-1940) served as the flagship of PM Eleftherios Venizelos' (1864-1936) educational reform (1917-1920). It was the first textbook written in Demotic Greek (the language of the people) and set the foundations for a thorough pedagogical reformation of the Greek educational system. Papantoniou introduced his young readers to modern life and thinking, i.e., reasoning, free spirit, scientific inquiry and experimentation, responsibility, cooperation and solidarity, by means of a literary return to nature, to the agrarian life of the mountainous village communities in the forest \(\times \). In 1917, Venizelos established an independent Ministry of Agriculture and Public Lands, with Andreas Michalakopoulos (1875-1938) as its first minister and with a wide-range of responsibilities that included agricultural education and research. In the same year, the Athens Faculty of Forestry was founded ¥ ↓, followed, three years later, by the Athens Faculty of Agriculture. Alexandros Papanastasiou (1876-1936) ▮ Å, another influential figure of the times and minister of Agriculture (1926-1928), was a sociologist who believed in transplanting suitable functional relations of production from abroad into the backward economy of Greece, which were expected to promote modernization without social inequalities. He also championed for a responsible state, capable of responding to the needs of its citizens and restoring social harmony ¥ L. The 1917-1923 agrarian reform set the basis for the economic and social rejuvenation of the Greek periphery, which also affected forest communities in the Greek mainland.

A comparable impulse can be detected in the work of social-

273 CONSTRUCTING THE MODERN FOREST IN GREECE ist sociologist Platon Dracoulis (1858-1942), who explored, in his utopian Rural Alliance (1927), rural poverty and the prospect of transforming the countryside into a network of clusters of spiritual, physical and moral development. He championed the foundation of an agrarian culture as an antidote to the urban lure that drove farmers away from their land. Dracoulis evangelized an agrarian revolution in which a new rural civilization would emerge through the construction of new agrarian towns. These utopian settlements would constitute the Rural Alliance, based on cooperativism, where agriculture and industry would coex-However, in the 1920s, Greece, a largely non-industrialised and non-urbanised country, was lacking the motivation that had fuelled the Anglo-Saxon back-to-nature movement. In the end, the long-awaited agrarian reform was expedited by the influx of refugees caused by the Asia Minor Catastrophe of 1922, which put over a third of the population at risk of unemployment and starvation. In the light of this, the return-to-land movement was expected to function as a viable alternative to the suffering population and, eventually, protect the countryside from abandonment.

THE SCIENTIST AND THE FOREST

At the heart of the Pertouli experiment was forestry professor Anastasios Economopoulos; graduate of the Faculty of Natural Sciences of the University of Athens, with postgraduate studies in forestry in Vienna, on a state scholarship. In 1917, he was appointed professor at the newly-founded Faculty of Forestry in Athens, which inaugurated forestry as an academic subject in Greece. The school operated until 1928, when it became affiliated to the newly-formed University of Thessaloniki (UT), in Northern Greece, with the aim of training scientists in the fields of research, development, exploitation and protection of the Greek forests and woodlands ¥ *. According to Economopoulos, Pertouli was first discovered in the summer of 1923, on an educational field-trip with his students, and, as he writes, "since then, it has been the setting from where visions of forestry have sprang, a place of scientific experimentation, study, reflection, living experience and research, in line with the forestry of advanced European countries" I. Two years later, in 1925, he embarked on a systematic study of forests $\mathbb{Y} \perp$ motivated by The theory of forest types $\mathbb{X} \parallel$ by Aimo Kaarlo Cajander (1879-1943), Finnish botanist, professor of forestry and Finland's prime minister, which Economopoulos aspired to introduce in Greece. With this aim, he travelled to

Finland in the summer of 1928 on a self-funded, month-long research expedition. From 1929 onwards, as professor of Forest Protection and Forest Management in Thessaloniki, he would work on his lifelong project, the Pertouli forest.

Ownership of the Pertouli forest was transferred to the modern Greek state via the Convention of Constantinople (24) May 1883). In 1930, following the mediation of famous mathematician Constantin Carathéodory (1873-1950) and the tireless efforts of the Faculty of Forestry, a petition was presented to the Greek government to place the forest under the purview of the UT for educational purposes. Part of the local population - approximately twenty families - opposed this prospect, claiming the usufruct of the forest and initiating a legal claim for the formal ownership of the land \hat{x} \mathbb{\psi}. Eventually, on 31 January 1935, Panagis Tsaldaris' administration (1933-1935) granted the exclusive ownership and use of the forest to the UT $\hat{x}\hat{x}$. Following this, the UT Forest Service established its presence in Pertouli in October 1935 and, one year later, initiated the construction of the sawmill, the planning and laying of forest roads and the demarcation of the forest, completed in 1937. Stone markers engraved with the initials UF (University Forest) were placed throughout the area, recalling Heidegger's Wegmarken (pathmarks) that remind wayfarers and ramblers to stay on the path $\mathbb{A} \mathbb{L}$.

At the same time, the UT approached the Architectural Department of the Technical Service of the Ministry of Education to design a dormitory for the students of forestry who receive their practical training in Pertouli during the summer. The foundation stone laying ceremony of the building, designed by modernist architect Nikolaos Mitsakis (1889-1941), was held on 15 August 1940 % %. Economopoulos' speech, then rector of the UT, echoed Thoreau, Nietzsche and Heidegger, as he argued that the precondition for a complete personality is the communication between psyche and nature:

We, human beings, are an organic part of the landscape, which, in turn, is an organic part of nature, to which [...] we all belong. [...] In the course of your interaction with nature and the theory of the forms of the landscape, you are given the opportunity to always ascribe these forms with something of the experience of your psyche that sprang when you first laid eyes on them [...]. [D]uring your stay here, you will take joy in physically connecting to the landscape, which also has its individuality [...]. [T]he effect of nature on your soul [...] will enrich your mental and spiritual world; this is expected to be of paramount importance for [...] your future life. $\hat{\lambda}$ During the first two decades, Economopoulos camped for

The bust of Forestry Professor Anastasios Economopoulos by the sculptress Aliki Hatzi (1923-1997). The wooden porch of the Forestry Service Station can be seen in the background. © Archimedes Athanassiou, 1976.



months-long periods in the forest, in a makeshift wooden hut, in order to conduct his research and monitor the construction of the sawmill factory, which, prior to WWII, operated on a 24-hour basis, in three shifts, employing more than 300 workers £. The scientist's hut, an unassuming construction dating from the late 1930s, survived the war, outlived its occupant and stood across the village in a ruinous state until the 1970s, as a monument to Economopoulos' transcendental experience, similarly to other historical examples mentioned below.

Henry David Thoreau (1817-1862), the foremost representative of American transcendentalism (1820-1830) - a romantic movement influenced by German Idealism - lived for two years, two months and two days, between 1845 and 1847, in a makeshift wooden cabin on the wooded shores of Walden Pond in Concord, Massachusetts \hat{x} *. As a social reformer, he advocated for civil disobedience, demanding better governance and social welfare. As a philosopher, he sought the meaning of human existence in dwelling in nature. Seemingly similar, though actually in a different vein, Norwegian Nobelist Knut Hamsun's (1859-1952) symbolic novel *Pan* of 1894 – where Lieutenant Thomas Glahn, a hunter and ex-soldier, lives with his dog Aesop in a cabin in the mountains – argues that happiness is attainable without an abundance of material goods; Thomas meets Edvarda, a girl from a nearby town, they fall in love, but their respective worlds collide, thus rendering their failing relationship an allegory of the conflict between nature and civilization. The novel was translated into Greek by Nirvanas, the symbolist poet who was also the first to publish a study about Nietzsche's philosophy in Greece. In Hamsun's novel, the purifying forest reconnects to its Germanic origin, where truth emerges from the dark depths onto the bright paths; notions that will reverberate in the Nazi rhetoric and its terrifying claim of racial purity. In 1922, Heidegger also acquired a small wooden house, die Hütte (approximately 6x7 meters) in the Black Forest [Schwarzwald] at Todtnauberg in southwestern Germany; an archetypal gesture that underpins the return to nature on the one hand and to pre-industrial social structures on the other. Both Economopoulos and Pikionis understood occasional isolation as a constituent element of the creative process; a return to a deeper identity or to the memory of a past self. Pikionis is known to have developed a preference for ascetic life, where recalling one's memory is a process of self-reflection that echoes the meditation of monks, who struggle to free themselves from the mundane reality of everyday life and live in spirituality. As Zissis Kotionis points out, the metaphor of the monk/painter or the monk/architect, one might add the monk/scientist, was deep-

277 CONSTRUCTING THE MODERN FOREST IN GREECE ly embedded to the founding myth of Greece's cultural genera-

ly embedded to the founding myth of Greece's cultural generation of the 1930s, as exemplified in Kazantzakis' *Ascesis*, written in 1922-1923, during the author's stay in Vienna land. According to Kazantzakis "a stone is saved if we lift it from the mire and build it into a house, or if we chisel the spirit upon it" land. Thus architecture is vested with historical conscience, where the memory of the past salvages the irreplaceable values of tradition, with, as T. S. Eliot wrote, "a perception, not only of the pastness of the past, but of its presence" land. A freudian invocation of the memory of nature's, forest's and architecture's previous past would successfully transcend and manage this past through modernization, thus human agency would eventually lead to its rescue from obscurity and destruction.

THE ARCHITECT AND THE FOREST

In 1951, the University Forests Administration and Management of administering and managing the university's forests, the practical training of its students and the research conducted at the various model forestry estates. In 1953, the Forests Fund commissioned Pikionis to plan and construct a new settlement in Pertouli, which would include five different types of housing and administrative and community buildings, designed between 1953 and 1956. According to Alexandros N. Papageorgiou, Pikionis' collaborator, the Pertouli project had an experimental character from its very inception, which aimed at rendering resilient, maintaining, renewing and developing the forests of Pindos, while improving the living conditions of the people who worked in the forest and their families $\mathbb{I} \mathbb{Q}$. He argues that the cultural landscape of Pertouli, as an integral part of a wider natural context and its ethos and as shaped by the local, time-honoured traditions of habitation, would have never allowed "a removal from the sense of permanence that the local vernacular inspires, thus rendering illusional all modern additions and the alleged cultural progress". He also claims that any attempt towards a modern interpretation of traditional dwelling ceases to make sense the moment someone arrives in Pertouli and encounters the majestic mass of Koziakas and the surrounding nature, where every substantive element of local tradition lies in place, unchanged by time:

For the modern individual who visits this region of Greece, the presence of nature and all the elements of human dwelling that serve as signifiers of local culture offer a categorical and inviolable frame of reference. Nature here is a symbol

View of the village of Pertouli from the Forestry Service Station.

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279 CONSTRUCTING THE MODERN FOREST IN GREECE of stability in a time of transition. ↓ ↓

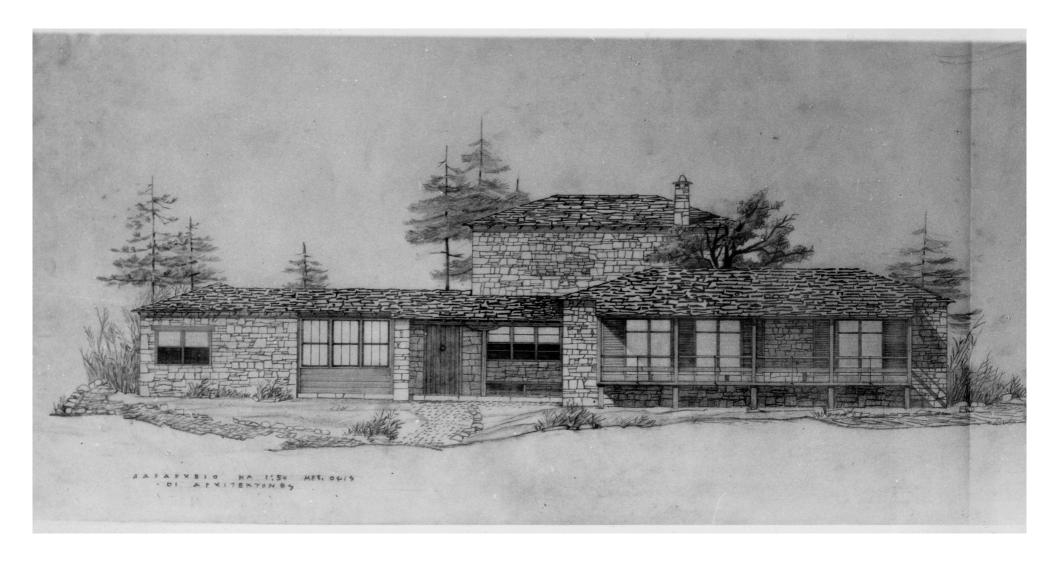
However, a retrospective formal analysis of Pikionis' architecture brings on morphological and functional traits that can be attributed to the modern vocabulary, while subtle references to the architecture of 17th century Japan also appear in his work. \(\) \(\), as in the timber-framed covered porch of the building of the Forestry Service Station, which echoes the pre-modern porches of villa Rinshunkaku (1649) or villa Gekkaden (1603), preserved in the Sankeien Gardens in Yokohama 1. Before Pertouli, Pikionis had designed two unrealised projects for cooperative settlements L. Around 1934, Greek poet Angelos Sikelianos (1884-1951) asked Pikionis to design the Delphic Centre, his vision for an inclusive cultural community at Delphi↓*. After WWII, Pikionis was commissioned to design a cooperative housing settlement at Aixoni (1951-1955), Attica, for an heterogeneous stitute organic compositions that comprise low-rise, free-standing structures with pitched roofs, rendered in natural, local materials, whose common denominator is an emphasis on the processional ascent of the uphill terrain and the choreographed succession of staged vistas that pace the experience of traversing the settlement. As Kostas Tsiambaos points out, Pikionis' plans for the Delphic Centre invoke the image of a traditional mountain village, where walking up the main, winding road feels like ascending to a crowning quasi-acropolis. In Pertouli, Pikionis renders his own version of promenade architecturale; an archetypal ascent that links antiquity with the vernacular, whose actual and symbolic crown at the top of the hill was the building of the Forestry Service Station.

Like Nietzsche and John Ruskin before him, Pikionis was also a keen walker and rambler. He used to take long walks in the company of Nirvanas' poetry, among other works, that helped him reconnect with the surrounding nature. As he recalls:

While still in high school, I often made frequent long walks, exploring the landscape of Attica. [...] But who can deservedly recount how these landscapes registered in the eyes of a young man on whom the magic veil of poetry was still cast. What did these solitary journeys mean to him. [...] Oh, what joy brings the unexpected sight of an unknown cliff, a cluster of olive trees. M

Pikionis' reference to Goethe's 'magic veil of poetry' [der magische Schleier der Poesie] hints at an axiomatic relation between *truth* and *nature*. In Goethe's allegorical poem *The Secrets* [Die Geheimnisse], a young man wandering through a foggy landscape encounters a female figure, the personification of

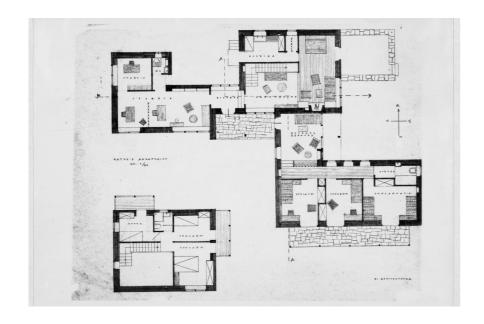
South elevation of the Forestry Service Station in Pertouli, designed by Dimitris Pikionis.
© Modern Greek Architecture Archives, Benaki Museum, Athens.



Plan of the ground floor (administration, guest house, and head forest manager's residence living room) and the first floor (head forest manager's residence sleeping quarters) of the Forestry Service Station in Pertouli, designed by Dimitris Pikionis.

© Modern Greek Architecture Archives, Benaki Museum.

View of the entrance to the Forestry Service Station, designed by Dimitris Pikionis. © Archimedes Athanassiou, 1970.





Truth, who, by lifting the enveloping veil of fog, reveals the surrounding landscape as a gift to the youth, with the promise that the person who receives the gift of nature will always be happy and self-sufficient. Hence, an interesting parallel may be drawn between Goethe's inquiries and Heidegger's notions of the *forest* [Wald] and the *clearing* [Lichtung].

Evidently, Pikionis will keep returning to these philosophical pathways and clearings of his youth until the end of his life. In 1966, two years before his death, while preparing his inaugural speech at the Academy of Athens, entitled *The Study*, he gleaned various contemplative fragments of texts, the *Holzwege* of his thoughts, in an attempt to redefine his own *spiritual clearings* M*. One such fragment comments on the way Leonardo da Vinci draws the high mountains in *The Virgin of the Rocks* [La Vergine delle Rocce I & II] (1483-1486):

My soul revered their forms, and revered the high mountains in the background. Already readied for this reverence of the mountains by [studying] Ruskin [...] I recall his words from his *Gates of the Hills*. $\mathbb{A} \widehat{\Sigma}$

Pikionis refers to John Ruskin's (1819-1900) Modern *Painters* $\mathbb{A} \mathbb{J}$, which deals with the description, representation and glorification of the beauty of the mountains. As Michalis Parousis comments, Pikionis identifies himself with Ruskin, whom he considers his mentor, and aspires to return to the Black Forest and to the views of the high mountains, in the same way that Ruskin kept returning there, as narrated in his unfinished autobiography *Praeterita* M. Pikionis has been described as a Victorian, who represents the embodiment of the Ruskian ideal in interwar Greece, on the basis of, among other things, their shared love for the German mountains and their common search for truth in nature ↑ L. However, according to Dimitris Philippides, he cannot be interpreted exclusively as a continuation of 19th century European tendencies, as the Greek architect drew from many sources of inspiration, such as Neoplatonic philosophers, Asian culture, Orthodoxy, and the nascent modernism in art and architecture of his time \(\mathbb{L} \). Hence, the contradictions in his work, which are representative of the ambiguity of the 1930s.

As Zissis Kotionis points out, there is an inverted reality in the architect's thinking. When in Germany, he reads Aeschylus and is nostalgic for Greece, or rather the construct of Greece as imagined by the Germans through fragments of ancient literary discourse. Once back in Greece, Pikionis becomes the kind of thinker who draws his metaphysical connection to his land from the German idealist discourse, thus reconstituting a non-Greek helleno-centrism * For Kotionis, it is clear that the distinction

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between *european hellenism* and *greek hellenism* is a conscious contradiction in Pikionis' work that held true till the very end of his life. Again, Kotionis points out that in Pikionis' drawings:

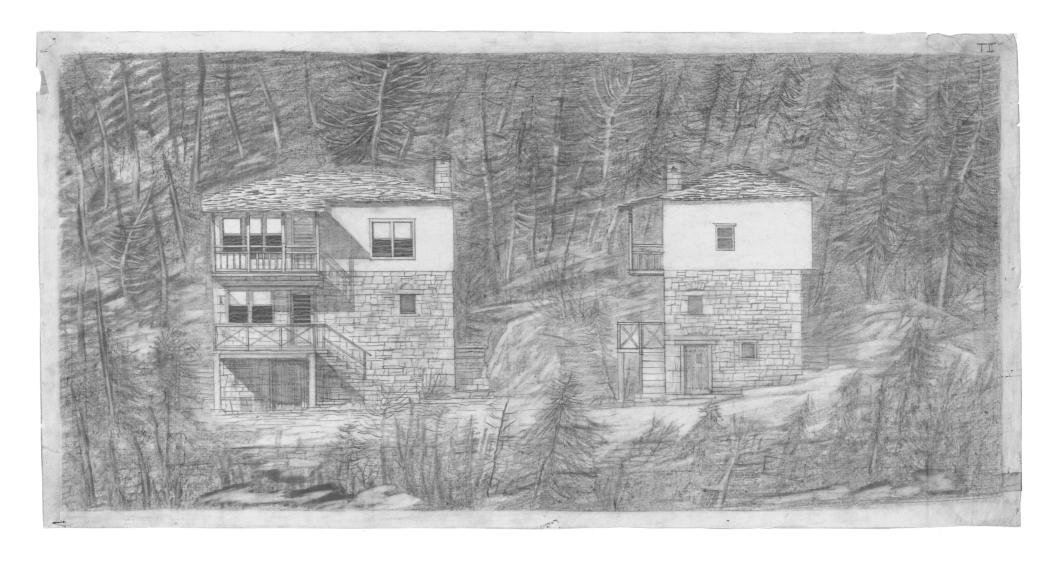
the 'memory of the earth', solid and holistic, could not be subordinated to the demands of an analytic approach, which waives the solidity of appearance and resorts to the individual drawing – a fragmented architectural representation – of the object through elevations, plans, sections. Λ

In his designs for Pertouli, the buildings seem to be the pretext that allows Pikionis to sketch the dense forest with its tall fir trees in all their glory.

EPILOGUE

Pertouli was a pioneering experiment that, in its full development, lasted from 1935 to 1964. Today its forest is still under a special status of protection and sustainable management, i.e., in a way and at a rate that maintains its regeneration. This analysis both touches upon the political and economic history of the country during the interwar period and tackles issues of national identity, a topical concept at the time. This interpretation is largely anthropocentric, in the sense that all discussions about nature and the environment are inescapably anthropocentric; the history of the forest is inextricably intertwined with human history. The Pertouli project, an ambitious developmental and educational experiment, marks an attempt to reconcile the modern with the pre-modern world for the benefit not only of the locals or the scientific community, but also for the wellbeing of the forest, i.e., its growth, conservation and sustainable management, which requires the human presence and toil to ensure its rebirth and as a safeguard against human-driven destruction. Therefore, this chapter argues that forest habitation is not necessarily a case of forest/nature exploitation by humans. It also highlights the deepening contradictions of the perception of nature, and specifically the forest, in the Interbellum, as well as the diverse origins of the return-to-nature movement, as an ideological counterweight to the onrushing modernism of the time and its sweeping ideal of progress. For Economopoulos and Pikionis, professors of forestry and architecture respectively, connecting with mother nature was signposted by German idealism, whose philosophical core, alongside facets of interwar modernism, can be detected in the Pertouli project. The Pertouli forest of tall and proud fir trees triggered the development of a rare example – for Greek standards – of scientific, environmental, social and architectural harmonious cohabitation, where a freudian invocation of the deeper memory

Elevation of the foresters' residences, sketched by Dimitris Pikionis. © Modern Greek Architecture Archives, Benaki Museum, Athens.



View of the Koziakas mountain. © Archimedes Athanassiou, 1973.

of nature, the forest, architecture and their assimilation by the modern condition and interplay with human presence will lead to their salvage. For Economopoulos and Pikionis, Pertouli was a path back to the clearings of truth, a return to the spiritual homeland of the high mountains and the proud forests of their youth.



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- Then professor at the School of Architecture, National Technical University of Athens.
- N.D. Hasanagas, Landscape Sociology [Κοινωνιολογία του τοπίου] (In Greek), Papasotiriou, Athens 2010, p. 103.
- Tacitus, Germania [De Origine et situ Germanorum]. In the 5th chapter Tacitus comments: "Terra esti aliquanto specie differt, in universum tamen aut silvis horrida aut paludibus foeda, umidior qua Gallias."
- J. Radkau, "Wood and Forestry in German History: In Quest of an Environmental Approach," *Environment and History*, vol. 2, 1, February 1996, special issue: Lammi Symposium, pp. 63-76, doi:10.3197/096734096779522482.
- L V.H. Miesel, "Philipp Otto Runge, Caspar David Friedrich and Romantic Nationalism," *Yale University Art Gallery Bulletin*, vol. 33, 3, October 1972, special issue Correlations between German and Non-German Art in the Nineteenth Century, pp. 37-51.
- M.E. Bolland, *Nietzsche and mountains*, Durham Doctoral Thesis, Durham University, 1996, http://etheses.dur.ac.uk/1579, accessed 14 October 2022.
- M. Heidegger, Off the Beaten Track [Holzwege], trans. J. Young and K. Haynes, Cambridge University Press, Cambridge 2002.
- Sophia of Prussia, born in Potsdam, was the daughter of Emperor Frederick III and granddaughter of Queen Victoria of Great Britain. She married her third cousin Constantine in 1889, future King of Greece from 1913-1917 and 1920-1922.
- Forest scientists Petros Kontos (1874-1941) and Konstantinos Samios, the minister of Finance Fokion Negris (1846-1928), and the Smyrna engineer-metallurgist Andreas Kordellas (1836-1909), http://www.philodassiki.org/, accessed 13 January 2023.
- P. Nirvanas, *The Forest* [Το Δάσος] (In Greek), Government Publishing Office, Athens 1916.
- Interwar Greece's agrarian reform, i.e., the compulsory expropriation of large land holdings from the Greek State and their redistribution to landless farmers provisioned in the Constitution of 1911 was instituted in 1917 by Andreas Michalakopoulos, minister of Agriculture in Eleftherios Venizelos' administration (1917-1920) and was finally implemented by his successor, minister Georgios Kafantaris (1873-1946) with Law 2052/1919.
- ∦ ♀ In 1921, with the electoral defeat of Venizelos, a committee of university professors suggested that textbooks in the demotic vernacular language should "be burned as works of falsehood and evil intent and to prosecute those responsible" as these textbooks were considered

harmful for the language, the homeland, religion and family values.

- Law 893, Government Gazette A(202), 18 September 1917.
- In 1926, as Minister of Agriculture in the Alexandros Zaimis (1855-1936) administration, he strengthened the agricultural sector by establishing autonomous organisations for the collection and management of products, while in 1929 he founded the Agricultural Bank.
- A-A. Kyrtsis, "A. Papanastasiou and early 20th century theories of social reform" [O A. Παπαναστασίου και οι Θεωρίες Κοινωνικής Μεταρρύθμισης των αρχών του 20ού αιώνα] (In Greek), Historika, 9, 1988, p. 63-77.
- ↑ In 1924, Drakoulis founded the Hellenic Society of Rural Cities in order to promote his ideas.
- ** Law 3577, Government Gazette A(112), 30 June 1928: "On the ratification and amendment of the Law of 6 October 1927," "On the annexation of the Faculties of Forestry and Agriculture to the University of Thessaloniki."
- * A. Economopoulos, "Letter to the members of the Directing Board of the University Forests Fund," in *Basic Forestry Issues in Pertouli* [Βασικά Θέματα της Δασοπονίας Περτουλίου] (In Greek), M. Triantafyllou &Sons, Thessaloniki 1964, p. 3.
- * A. Economopoulos, Report on the scientific research carried out from 1929 to 1931 [Εκθεσις περί των από του έτους 1929-1931 εκτελεσθέντων επιστημονικών ερευνών] (In Greek), University of Thessaloniki, Thessaloniki 1931.
- A.K. Cajander, *The theory of forest types*, The Printing Office of Society for the Finnish Literary, Helsinki 1926, https://www.silvafennica. fi/article/7193, accessed 13 January 2023.
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