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"At the mercy of a miserable ditch named the Kifisos": The Changing Perceptions of the Natural Environment and the Contest with Nature through the History of Athens' Main River

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# "AT THE MERCY OF A MISERABLE DITCH NAMED THE KIFISOS": THE CHANGING PERCEPTIONS OF THE NATURAL ENVIRONMENT AND THE CONTEST WITH NATURE THROUGH THE HISTORY OF ATHENS' MAIN RIVER

### Dimitris Glistras

ABSTRACT: The course of the Kifisos over the past two centuries seems like it has been on the ultimate path to disaster. Its natural riverbed, the bioclimate and the flora along its banks have ceased to exist, at least in the form that they were some decades after the Greek War of Independence. However, the history of the Kifisos is interesting not just because it is a space which enables us to observe the environmental damage done by man, but also because a great part of the Greek capital's own history is written in its riverbed. Through the history of the Kifisos and the varying perceptions of the river over time, the article describes the progression from a natural environment to an urban reality.

Since Greece declared its independence two centuries ago, Athens has transformed itself from a town of 32,000 inhabitants, an estimation from 1848,<sup>1</sup> into a modern, European capital city. However, this achievement dramatically transformed the natural environment of the area, with the natural geomorphology of Athens being artificially altered extensively for the first time. The Kifisos, being the largest river of Athens and also the main drainage system of the region, provides a valuable field to observe and study these changes.

As cities emerged, a double transformation of the natural environment became evident worldwide. On the one hand, residents of these cities began to view the natural environment as something antagonistic while, on the other, a "new natural environment" was being developed using many urban characteristics. How can the history of the Kifisos assist us in better understanding the progression from a natural environment to an urban reality?

Bibliographical or other references to the Kifisos are only sporadic. Practically all existing references relate to the engineering interventions along its riverbed. Such evidence merely recites the story of how the physical status of the river ended and how it was replaced to satisfy the needs of a growing city. However, looking beyond the large-scale variations of the river, as well as the role played by the state

 $<sup>^1</sup>$  Vyron Kotzamanis, "Αθήνα 1848–1995: Δημογραφική ανάλυση μιας μητρόπολης," Επιθεώρηση Κοινωνικών Μελετών 92–93 (1997): 3–30.

to promote change, a series of other alterations can be observed. These alterations concern the daily practices of those inhabiting the area surrounding the Kifisos, their way of life and their ever-changing perception of the river over time.

This article will attempt to trace the changes in the riverbed and the river banks while drawing parallels to the shifts recorded in the relationship of the inhabitants of Athens with the Kifisos. To do so, it will draw on the cultural and socio-environmental information revealed throughout the history of the city and its people. It will also attempt to identify the ever-changing perceptions of the river as a natural element of the city. Within a 200-year span, the Kifisos evolved from being considered not only a valuable resource but also an essential part of the natural landscape into a ruthless enemy of urban modernisation and a source of disease, a sewer with "pipelines of dirty waters". Upon examination of these varying perceptions of the Kifisos, the article intends to highlight the cultural and social aspect of the environmental consciousness predating its ecological connection and any corresponding initiatives from activists.

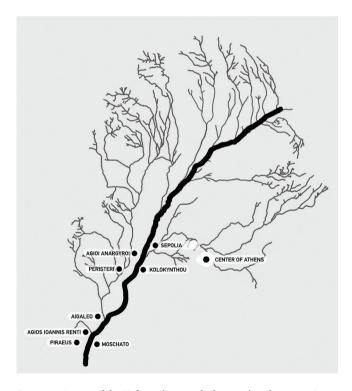


Figure 1. A map of the Kifisos along with the river's tributaries. Some of the riparian areas mentioned in the present article are also named.

Following the Ottoman period, in the mid-nineteenth century agricultural activity along the banks of the Kifisos gradually intensified. Within this same period, small settlements and cottages could be found sporadically throughout the areas near the river. The 1875 maps of the German Johann August Kaupert show scattered agricultural fields to the west of the Kifisos, in the approximate area of present-day Aigaleo, and beyond. Also, Kaupert's maps show settlements near the aforementioned crops, probably existing there before the onset of the Greek War of Independence (fig. 2). In a report from the Interior Ministry submitted to King Othon's administration, the settlement of Levi is briefly described as being next to the Kifisos, in approximately the present-day area of Treis Gefyres.<sup>2</sup> Watermills and the abundance of flowing water were also mentioned at this particular settlement, a factor that probably helped to create gardens and fields of flowers in the decades that followed. Furthermore, 63 inhabitants and 14 families were reported to be living in the settlement of Moulino (Myloi), which is estimated to have been somewhere by the river, between the two areas that are known today as Acharnai and Sepolia.<sup>3</sup>



Figure 2. Detail from a map by J.A. Kaupert entitled "Übersichtskarte von Attika", in *Karten von Attika* (1895). The added blue line marks the course of the Kifisos (or "Kephisos", as written in red letters on the original map).

<sup>&</sup>lt;sup>2</sup> The document is dated 2 October 1834 and belongs to the General State Archives (GAK) collection. General Archives, Interior Ministry, env. no. 40, as cited in Andreas Milionis, *Η* πόλη των αγίων: Οδοιπορικό στο χώρο και στο χρόνο (Agioi Anargyroi: Municipality of Agioi Anargyroi, 2009), 51.

 $<sup>^3</sup>$  Zoi Ropaitou-Tsapareli, Ο Ελαιώνας της Αθήνας: Ο χώρος και οι άνθρωποι στο πέρασμα του χρόνου (Athens: Filipotis, 2006), 115.

At the end of the nineteenth century, the media coverage of two floods indicated the existence of additional residential areas near the Kifisos. In 1896, "crops" were reported to have suffered "severe damage" in the area between the Kolokynthou area and Pireos Street, while "all the small houses in the area were carried away by the water". In Kolokynthou, twelve houses were reported to have collapsed. Following the flooding of the Kifisos in 1899, press reports referred to the destruction of gardens in Kolokynthou, damage to holiday cottages in Kato Patisia and the destruction of oil mills in scattered areas. Such reports provide us with the understanding that the landscape was one of low population density inhabited by land workers or residents of the centre of Athens who would vacation in these secondary cottages. <sup>5</sup>

Additional information concerning the Kifisos of the early nineteenth century, as well as its tributaries and streams, is derived from foreign travellers of the time. These travellers were motivated to visit the newly established Greek state following its declaration of independence. The German traveller Zachariae von Lingenthal, in his memories of a trip from Athens to Piraeus in the 1830s, described the Kifisos as a "swampy pit". Some years later, in 1848, another traveller, the Austrian Joseph Russegger, referred to the "dryness of the Kifisos".

There have been many changes in the Kifisos' morphology during the past two centuries. The specific form of the Kifisos estuary, which was visible throughout most of the twentieth century, was a result of human interference. Initially, following the establishment of the Greek state, the actual physical confines of the Kifisos riverbed were somewhat vague, especially along the last part of the river, before draining into the sea. According to reports from circa 1830, the perimeter of Piraeus' port was less than 1,500 meters from the "ancient swamp". Meanwhile the so-called "lake", or rather marsh, in which the water of the Kifisos and, the second biggest river of Athens, the Ilisos, drained into, was situated north of Piraeus' peninsulas. Furthermore, according to reports dated from the end of the nineteenth century, the Kifisos almost entirely lacked a riverbed upon its confluence with the Ilisos up and until it drained into the sea, due to its "irregularity". Reading between the lines of these reports, a critical tone can be

<sup>&</sup>lt;sup>4</sup> Πρωϊα, 16 November 1896.

<sup>&</sup>lt;sup>5</sup> Πρωϊα, 7 November 1899.

<sup>&</sup>lt;sup>6</sup> Ropaitou-Tsapareli, Ο Ελαιώνας της Αθήνας, 52.

 $<sup>^7</sup>$  Andreas Kordelas, Αι Αθήναι εξεταζόμεναι υπό υδραυλικήν έποψιν (Athens: Typ. Filokalias, 1879), 101.

<sup>8</sup> Nikos Belavilas, Η ιστορία της πόλης του Πειραιά (Athens: Alexandria, 2021), 27.

<sup>&</sup>lt;sup>9</sup> Ilias Angelopoulos, "Διάλεξη" [on floods in the Athens basin, held on 9 December], Αρχιμήδης 3 (1899).

easily traced, coming from both engineers and the press. The unsettled riverbed of the Kifisos was beginning to be seen as a danger, in addition to being perceived as hindering the highly expected and proper functioning of the city.

Throughout the history of the river, the indistinct riverbed was not always a result of diminished flow or the hydrographical and geographical characteristics of the Athens basin. Gardeners with riverside gardens ( $\pi\epsilon\rho\beta$ o $\lambda$ άρη $\delta\epsilon\varsigma$ ) had also been gradually levelling the mounds of the riverbanks in order to expand their properties. In a lecture given to the Attica Polytechnic Association in 1899, engineer A. Matsas referred to the "greediness of the rivers' landowners". A press report approximately 40 years later offers some proof that the problem was not transitory, but a common practice of exploiting the river:

Adjacent to Iera Odos we lose the river Kifisos. What happened to its riverbed? Because it was open and low along that area, gardeners occupied it, attaching it to their land and cultivating it. Along other sections of the banks, brickyards were set up. Therefore, with no restrictions, the water would cause floods.<sup>10</sup>

From the 1830s to the mid-twentieth century, the layout of the riverbed and the river banks was greatly influenced by flood protection works. Mark Cioc states that the actual floodplain of rivers, perceived as "normal" flow, is sometimes indicative of the anthropocentric way man sees rivers. This is precisely how the Kifisos was perceived throughout the initial decades following Greek independence. According to Cioc, the term *flood* originates from the principle of each river having a fixed length, but no prescribed breadth. As a result, the term is often used to point out the effects of the overflow of water on farms and settlements, as if these were not part of the riverine system. "Actually, the water just follows the path of least resistance from elevated areas to sea level, using as much of the landscape necessary at any given time." When humans are present to witness these high-water flows, especially when their lives and properties are affected, a *flood* is recorded. 12

# Human Intervention: Old and New Uses of the River

Technical works have made the Kifisos what it is today, even if, for the most part, is a strictly structured pipeline, or rather a drainage machine, and not a natural river. The mechanisation of the Kifisos is unquestionably a very significant part of the river's history while simultaneously it leads to questions as to what kind

<sup>&</sup>lt;sup>10</sup> Η Καθημερινή, 21 November 1937.

<sup>&</sup>lt;sup>11</sup> Mark Cioc, *The Rhine: An Eco-biography, 1815–2000* (Washington: University of Washington Press, 2002), 23.

<sup>12</sup> Ibid.

of history it entails (political, technical or social). Since the eighteenth century, notions about still water being dangerous for a city's population were quite widespread throughout Europe. Moreover, engineers seemed to believe that the probability of a river overflowing decreased when the river was deep and wide instead of shallow and narrow or part of a network of streams. The practice of interfering with the riverscape seems to have also influenced some important Greek engineers towards the end of the nineteenth century, many of whom had studied in European polytechnic schools or had some kind of professional relationship with relevant European companies. 14

In a lecture given in 1898, the soon-to-be president of the Technical Chamber of Greece Ilias Angelopoulos argued that "the Kifisos riverbed has many and sharp curves" while its width presented "great heterogeneity". Angelopoulos suggested broadening and straightening most of the river's curves, as well as "normalising" the riverbed for 9,400 meters, from the bridge in the Menidi area to the river's estuaries in Ilisos. <sup>15</sup> The publicising of the concept of a morphological "imperfect" river fuelled public dissatisfaction with the river, giving rise to the growing belief that it had a detrimental effect on the expansion of the city.

While on this theoretical ground, a legendary flood event occurred. On 14 November 1896, the Saint Philip's Day flood paved the way for the regulation project, which was to commence with the dawn of the twentieth century. Angelos Ginis, a professor at the Greek Polytechnic School (EMP), carried out the plans for the regulation of the Kifisos riverbed, which was to become boxed in for about 1,000 meters, in its southern part, downstream from Pireos Street. The regulated section thus began at a point where all the big streams had already joined the Kifisos and, hence, the total volume of water was greater. Although the works were limited to the lowlands of the streams, they were reported to be the first hydronomic works in Greece. <sup>16</sup>

<sup>&</sup>lt;sup>13</sup> In 1719, in his study Opera omnia [Opera omnia mathematica, hydraulica, medica, et physica, vols. 1 and 2 (Geneva: Cramer, Perachon, 1719], the Italian multi-scientist Dominici Gulielmini delivered the first practical guide to tame and control a river to the next generations. His ideas spread throughout Switzerland, Holland, the German states and, most of all, France and especially its French military schools [Cioc, *The Rhine*, 26]. Cioc argues that the important element the French added to the Italian tradition was the notion that river engineering was central to in the state-building process.

<sup>&</sup>lt;sup>14</sup> Ilias Angelopoulos, an engineer and senior public servant, was a commercial agent of the French concrete company Hennebique. He studied bridge building at the École nationale des ponts et chaussées. Angelos Ginis studied at the Polytechnic Institute in Dresden.

<sup>15</sup> Angelopoulos, "Διάλεξη."

<sup>&</sup>lt;sup>16</sup> Machi Karali, "Πρόλογος," in Παρεμβάσεις στα ρέματα: Εναλλακτικές προτάσεις σχεδιασμού, ed. Machi Karali (Athens: National Technical University of Athens, 2000), 22.

Even though such interventions were still unknown in Greece, other European countries had long before implemented the ideas of hydroengineering in their national river systems. They intended to use the river to satisfy economic needs (transport) or to resolve problems occurring from water flow (floods). It seemed reasonable to redevelop rivers to achieve canalised water flow, to foresee their behaviour and to also avoid the accumulation of stagnant water. The accumulation of plants and smaller industries in the areas near the Kifisos in the last quarter of the nineteenth century led to another perception; one non-exclusive to farming or agriculture activity.

During the second half of the nineteenth century, the unsanitary condition of Kifisos was considered one of its main characteristics. The area today known as Monastiraki and to the west towards Iera Odos was reportedly worst hit during the epidemic of cholera or swamp fever that struck the Greek capital in 1835. Different sources correlate the high morbidity in the area with close proximity to the stagnant waters of the Kifisos.<sup>17</sup> Furthermore, following the declaration of Greek independence, officials began to seek the best location to build a palace for the young King Othon. The suggestion of a site in Thissio by the German architect Leo von Klenze was rejected as it was found unsanitary, due to its proximity to "the Kifisos swamps" as well as other streams of western Athens.<sup>18</sup> For the same reasons, an earlier suggestion to locate the palace near Omonia Square was also rejected.

A few years later, another public health issue emerged that was directly associated with the exploitation of the Kifisos. In 1851, Piraeus municipal council discussed the filling in of big holes that pottery cottage industries in the riverine area of Moschato had created to extract raw material. The deep trenches gathered stagnant water, which was seen as negatively affecting the health of the local people. Towards the end of the nineteenth century, malaria was considered one of the major risks for the entire Greek population. Furthermore, in 1914, the professor and secretary of the Association for the Containment of Malaria Diseases, Ioannis Kardamatis, along with a health inspector  $(\alpha\sigma\tau(\alpha\tau\rho\sigma\varsigma))$ , Dimitios Psaltis, wrote to the Interior Ministry indicating the Kifisos as one of Athens' main sources of malaria contamination.

 $<sup>^{17}</sup>$  Kostas Biris,  $A\iota$  Αθήναι: Aπό του 19ου έως τον 20ο αιώνα (Athens: Melissa, 2005), 65, and Dimitris Gerontas, I στορία του Δήμου Αθηναίων (1835–1971) (Athens: Municipality of Athens, 1972), 211.

<sup>&</sup>lt;sup>18</sup> Biris, *Αι Αθήναι*, 65.

<sup>&</sup>lt;sup>19</sup> Adamantia Marselou, "Οι ασθένειες της ελονοσίας και της φυματίωσης στον ελλαδικό χώρο κατά τα τέλη του 19ου και τα μέσα του 20ου αιώνα" (PhD diss., Ionian University, 2013), 51. Marselou cites a lecture given in 1887 by pharmacology the professor Theodoros Afentoulis.
<sup>20</sup> Ibid., 184.

Although there is little official documentation attributing the poor sanitary conditions in areas near the Kifisos, in the public mind the river was very much to blame. In 1953, a civil engineer, P. Stoupathis, published an article in Tεχνικά Xρονικά arguing that since the 1930s the creeks of the Kifisos and Ilisos and their tributary streams were sources of "every kind of contamination". According to Stoupathis, "the health of the general population was in great danger due to the pollution of subterranean water and the saturation of the ground with pathogens". A decade later, similar reports could be found in the press, while throughout the 1970s press articles were still condemning the river for the unsanitary conditions along it, mainly in the Moschato area.

Around the turn of the twentieth century, the perception of the Kifisos and its usages had changed, mainly from the economic perspective. For most of the nineteenth century, the river was chiefly identified for its role in the production process. Hence, although the Kifisos was initially seen as a supplier of life-preserving water for crops, it was gradually becoming a resource for manufacturing activity to prosper, providing a useful pipeline for any industrial waste. However, press reports or testimonies from the period do not capture this change in perception. While there exists considerable information on the use of the Kifisos in irrigation from local officials, farmers and land workers, references to its industrial use are non-existent. Is this lack of reference to the river's industrial role somehow indicative of a collective guilt? The limited quantity of waste at this time, as well as the importance attributed to industrial development, may offer an innocuous explanation for this silence. Whatever reports appeared in the press about the river reflected the writers' expectations of a future in which the development of the city would no longer face problems caused by the Kifisos.

The riverbed of the rivers should remain open and broad ditches for watering the gardens and the vineyards should also remain open. Furthermore, to avoid confusion, some domestic landowners should be asked to indicate the best routes for prospective water ditches. In the Kaminia area or perhaps a little more upstream, exactly where the drain ditches meet the river, the riverbed of the Kifisos should be widened, to avoid any flooding in the Faliro or Kaminia areas, and

<sup>&</sup>lt;sup>21</sup> Panagiotis Stoupathis, "Το δίκτυον αποχετεύσεων του συγκροτήματος των πόλεων Αθηνών, Πειραιώς, και των πέριξ δήμων και κοινοτήτων," Τεχνικά Χρονικά 30 (1953): 19–28.

<sup>&</sup>lt;sup>22</sup> "The still and rotten waters of the river emitted an unhealthy and bad smell and it didn't take it long for it to turn Athens' temperate and healthy climate into a sick one." H  $K\alpha\theta\eta\mu\epsilon\rho\nu\dot{\eta}$ , 29 November 1964.

<sup>&</sup>lt;sup>23</sup> Lefteris Papadopoulos, "Η πόλη μας δεν είναι επαρχία," Τα Νέα, 2 February 1986.

to additionally protect the Elaionas area. The olive trees of Elaionas each year produce oil and olives worth hundreds of thousands of drachmas.<sup>24</sup>

At the beginning of the twentieth century, the increase of Athens' population<sup>25</sup> resulted in an increase in the capital's demand for fresh vegetables and, hence, an increase in the cultivation of land along the Kifisos.<sup>26</sup> At that time, vegetable gardens and plant nurseries occupied most of the fertile riverside, displacing arboriculture, such as olive trees. The use of the riverside entered a phase of "urbanisation", in the sense that it was closely associated to the city that was growing next to it.

In the following decades, there was an increase in manufacturing activity by large industrial plants and smaller manufacturers along the riverside. Elaionas is a prime example. The area enjoyed the advantage of being close to the port of Piraeus as well as the commercial centre of Athens. Due to plentiful subterranean water and the appropriate ground for clay quarrying, which was now greatly in demand for basic industrial activities like brickyards, much of the new capital's manufacturing activity had accumulated in the area.<sup>27</sup>

# An Offender to be Tamed

While the river underwent various uses due to the rapid urban growth in the early part of the twentieth century, neither the intensification of older riparian uses

 $<sup>^{24}</sup>$  *H Εστία*, 11 November 1900. See also  $E\mu\pi\rho\delta\varsigma$ , 17 November 1896, and  $\Pi\alpha\lambda\iota\gamma\gamma\epsilon\nu\epsilon\sigma\iota\alpha$ , 20 November 1896.

 $<sup>^{25}</sup>$  In 1896 Athens' population was 180,000 people, while in 1907 it was 250,000 and in 1920 453,000. The numbers indicate an average annual growth rate of 4.6 percent between 1896 and 1907 and an increase of 7.3 percent from 1907 to 1920. Data until 1991 show a percentage change below 3.5 percent. Kotzamanis, "Αθήνα 1848–1995."

<sup>&</sup>lt;sup>26</sup> Such as the area between Agias Annis Street and the Kifisos, some parts of Elaionas, the area west of the river in Neo Aigaleo, which was known as Perivolia. Konstantinos Dalkos, ed., *Αιγάλεω* (σελίδες τοπικής πατριδογνωσίας) (Aigaleo: Politistikos Syllogos Aigaleo, 2017) 210.

<sup>&</sup>lt;sup>27</sup> Eugenia Bournova,  $A\pi \dot{o}$  τις  $N\dot{\epsilon}\epsilon \zeta$   $Kv\delta\omega \dot{\epsilon}\epsilon \zeta$   $\sigma$  το  $\Delta \dot{\eta}\mu$ ο  $Ai\dot{\gamma}\dot{\alpha}\lambda\epsilon\omega$ : H συγκρότηση  $\mu$ ιας  $\pi \dot{\delta}\lambda \eta \varsigma$  στον 20 $\dot{\alpha}$  αιώνα (Athens: Plethron, 2002) 165. According to Belavilas, in the broader area from the Kifisos to Piraeus operated plants like the Neo Faliro power plant. Besides, some tanning units were still operating in Rentis. Their premises had to be close to the Kifisos to discharge their waste. Belavilas, H ιστορία της πόλης του Πειραιά, 221 and 289. Further upstream, reportedly in the area of Perissos, the following industrial units used to operate: Nikolaos Kirkinis' textile factory, the Atlas building materials firm in the area now called Thymarakia, Vretos Bros pipe manufacturers, and the Painesis Mills. Both of the last two were located in Treis Gefyres. Milionis, H πόλη των αγίων, 108.

nor the appearance of new ones affected the perception of the riverside as a place where one could simply enjoy nature, as a reference in an Eleftheroudakis tourist guide from 1906 shows. It recommended travelling to Elefsina "through the marvellous Elaionas of the Kifisos valley" as "a nice excursion". <sup>28</sup> Furthermore, older Elaionas residents recall it as an "idyllic site", where people used to erect tents and spend a few days there, especially around the summer festival to mark the feast day of Saint Paraskevi. "People went there on an excursion and many of them would stay there for vacation as it was countryside." <sup>29</sup> The Kolokynthou area, where people came because of "the rich flora and the marvellous fruit trees that no longer exist", was regarded as "remote Athens countryside" in an nostalgic article from 1931. <sup>30</sup>

In many Athens daily press reports, people were usually presented as powerless before the rage of the Kifisos. This weakness was attributed either to the indolence of the public services or the properties of nature itself, which could not be tamed. The press did not always stress the oversights of the Greek state as the cause of destruction; it often described flood damage through the eyes of everyday citizens, who were totally helpless and unprepared in the face of such an event. Many reports of flooding contained information on those stricken, including their social class, their poor financial situation and their generally low standard of living. The confrontation of these simple people with the river's strength was perceived as a vivid parable of David versus Goliath, as one report conveyed in a melodramatic way.

Yesterday we witnessed an antihistorical [sic] tragedy, that struck both the capital and Piraeus. Innocent and unsuspecting people, family men, working daughters, poor people struggling to make a living, upon returning to their homes to rest from a hard day's work, found tragic death due to the fury of a ditch. It is shameful, for this country, as well as the state that wishes to be viewed as civilised, that such an event can invade a paved avenue causing murder and drowning, the uprooting of trees and the flooding of houses. All this due to the fury of a silly river that has for many years been flowing unrestrained, enabling murderous caprices with no consideration by the state to widen its destructive riverbed or take measures to contain the evil, which is not only great and tragic, but also apparent.<sup>31</sup>

<sup>&</sup>lt;sup>28</sup> Ropaitou, Ο Ελαιώνας της Αθήνας, 129.

<sup>29</sup> Ibid.

<sup>&</sup>lt;sup>30</sup> Ελεύθερο Βήμα, 30 December 1931.

<sup>&</sup>lt;sup>31</sup> Ακρόπολις, 24 November 1934.



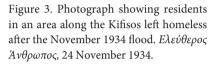




Figure 4. Photograph of the aftermath of the November 1934 flood. The caption reads: "Another picture of the phenomenal flood ... A whole square, where children played, was transformed into a lake."  $A\kappa\rho\delta\pio\lambda\iota\varsigma$ , 23 November 1934.

Often the Kifisos was accused of being the actual offender. Following a flood on 22 November 1934 (figs. 3 and 4), in which seven people lost their lives, some reports attempted to direct the people's anger and despair at the river.

A miserable ditch, the ... for years untamed Kifisos, carried away with its momentum, along with the belongings of tens of thousands of our fellow citizens and ... dead bodies. In this Greek capital, we now mourn the fate of nine people that suffered the worst death, while commuting from their work to their homes.<sup>32</sup>

In the mid-1930s a series of important technical works was approved and began to materialise. This particular activity, during the interwar period, was part of a series of civil projects implemented in many parts of the country, aiming to modernise and raise the overall standard of living. Many of these projects were focused on, but not limited to, the capital. These included the installation of electricity, which was completed in 1929, the construction of the Athens water supply system, including the gravity dam at Marathonas, which was also completed in 1929, and a broad road construction project throughout the country.<sup>33</sup> A 1937 press report praised the work completed on the Kifisos,

<sup>32</sup> Ibid.

 $<sup>^{33}</sup>$  Finally, approximately 2,000 km of paved national and provincial road were delivered from the mid-1930s onwards. As part of the same set of projects, we could also mention the

which was expected to definitively regulate the river. Such references indicated that public opinion in Athens was positive towards eliminating any obstacles that the natural environment supposedly placed on the city's progress towards modernisation. This report stressed that "in two more years [the Kifisos] will only be a bad memory of the people from that time, and a perfect technical achievement for generations to come".

In such cases, the projection of a negative image of the Kifisos seems to have served as leverage to accelerate the progress of technical works, which would conquer the river in the name of urban life.

That rainfall can take the scope of a natural disaster on an almost national scale denotes the level of our civilisation. We tolerate this never-ending situation with purely eastern fatalism like it was some kind of tornado or some other terrifying natural phenomenon, the consequences of which cannot be foreseen or dealt with effectively.<sup>34</sup>

The reference to the "east" is pivotal in the criticism of the state's ineffectiveness. In the collective conscience, there was no chance of the "east" fighting nature and winning. Instead, an eastern state's only choice was to withstand nature's fury. The report highlights the widespread determination of the Greek state to disassociate itself from the "underdeveloped" label. At the same time, an eastern inference contrasts with the preferable "western" mentality towards nature, which mainly implies control and economic exploitation. Eastern states or the states with "an eastern mentality" are not supposed to have the means or the will to protect their citizens from what seems to be the natural forces fighting civilisation.

The narrative of what would have been the final regulation of the Kifisos in the 1930s was also linked to the glory of the pro-fascist 4 August dictatorship, which ruled from 1936 until the outbreak of World War II. The following press extract describes the planned works, in which a large-scale road project would offer the chance to glorify the regime.

The Kifisos has not silted up. On the contrary, it has deepened in several sections ... [as] its riverbed is small, which enables floods. Thus, the Kifisos will become ten meters deeper and much wider. On each side of the river, there will be an inclined wall, meanwhile from Treis Gefyres to Neo Faliro a marvellous dual carriageway will be built along its riverbed. Each side of the aforementioned avenue will be six

construction of the telephone network, the contract for which was signed in 1930. Christina Agriantoni and Georgia Panselina, "Η ελληνική οικονομία, διεθνής κρίση και εθνικός προστατευτισμός," in *Ιστορία του Νέου Ελληνισμού*, ed. Vasilis Panagiotopoulos (Athens: Ellinika Grammata, 2003), 7:121–34.

 $<sup>^{34}</sup>$   $'E\theta vo\varsigma$ , 23 November 1934.

meters wide, with a fourfold line of poplars. This will be named the "Fourth of August Avenue" of Athens.<sup>35</sup>

These river works were not completed until the 1950s due to World War II and the Greek Civil War. However, as it will be shown, they attracted criticism from famous engineers who were concerned with the effectiveness of the flood protection measures. In one of these critiques, both of the two main factors that resulted in the permanent alteration of the Kifisos' natural environment become evident: it was the state that regulated the river and private initiative that encroached on its riverbed.

Despite the fact that the plans for the Kifisos riverbed included many straight parts and open curves, the Public Works Service, to prevent the uneven expropriation of riverside properties belonging mainly to wealthy Athenian families, cancelled the proposed study and remodelling, thus resulting in both the uneven and insufficient construction of the dual project. As a consequence, neither the dual carriageway nor the drainage system worked properly, as proven during the flood in November 1961.<sup>36</sup>

Urban development of Greece throughout the twentieth century was marked by the inefficiency of the state's role and the greediness of private individuals. Both these factors are evident in many natural landscapes, the Kifisos riverbed among them. Studying how and why the river has changed, as well as the obstacles that these changes faced, allows us to observe the conscious role of human intervention in the transformation of the Athens landscape.

Apart from being an area of both modernisation and exploitation of nature, the Kifisos directly influenced the mentality and the cultural identity of its neighbouring residents. Matthew Gandy has suggested that nature "has a social and cultural history that has enriched countless dimensions of the urban experience".<sup>37</sup> Regardless of the way in which the natural history of the Kifisos has changed, history offers multiple representations that remain closely linked to the individual perceptions one may have had on the Kifisos. The survival of the natural environment surrounding the banks of the Kifisos until the mid-twentieth century, in addition to the symbiotic relationship developed between the river and those residing along it, forged a

<sup>&</sup>lt;sup>35</sup> Η Καθημερινή, 18 July 1937.

 $<sup>^{36}</sup>$  Biris,  $A\iota$   $A\theta \dot{\eta} \nu \alpha \iota$ , 327. Stoupathis was also critical and his main points can be found on p. 34 of the present article.

<sup>&</sup>lt;sup>37</sup> Quoted in Nik Heynen, Maria Kaika and Erik Swyngedouw, "Urban Political Ecology: Politicizing the Production of Urban Natures," in *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, *ed.* Nik Heynen, Maria Kaika, and Erik Swyngedouw (London: Routledge, 2006), 5.

different perception, one that basically originated from the daily practices and habits of the riverside inhabitants. As an old resident of Moschato recalled:

When I was little, I used to make my own perfume. My grandmother had told me to use verbena, marjoram and spearmint that we found in the surrounding gardens. We would lay them in the sun for their aromas to come out and then we used the mixture to wash our hair.<sup>38</sup>

Other memories relate the Kifisos and the nearby landscape with children's play and early sensory experiences. Giorgos Zambetas, a famous Greek musician and composer, recalled being interested in nature as a child. At that time, he did not see the waters of the Kifisos as being a source of possible infection but a hospitable habitat for species, in which frogs and birds used to make an enchanting soundscape:

And then there was [the area of] Votanikos as well. Still water accumulated there, and there were many, many frogs. And there were some poplars, some huge poplars. Within Votanikos was the Forestry School. The Agricultural University stands there now. So, in the gardens, besides the frogs, nightingales gathered as well. At dawn, when the sky was painted in a blue-orange light, I used to go to Votanikos – it was not far – I would sit down, and listen to the concerts of the frogs and the nightingales. I used to lose my mind there. Anyone who heard this concert in spring or autumn was thrilled. I would sit in the thick vegetation and hear all these quack-quacks, peep-peeps, tweet-tweets plus the nightingales. It was mind-blowing! I would sit there for hours. Each spring and each autumn this was the big concert with millions of voices from birds. Birds coming and birds going.<sup>39</sup>

## The City that Carried Away a River

Although crops could still be found along the banks of the Kifisos until the 1950s and 1960s, the years between the two world wars was a milestone for the symbiotic relationship between farming activity and industrial use near the riverside. Eventually, farming and gardening gave way to factories and to the selling of plots of land for building purposes. in the 1920s approximately 1.2

<sup>&</sup>lt;sup>38</sup> Stelios Dantis, *Ιστορικά του Μοσχάτου* (Moschato: Historical Archive and Municipality of Moschato, 2004), 3:36. The story was narrated by Litsa Papadaki in an interview along with Evangelia Kosioni with Stelios Dantis.

 $<sup>^{39}</sup>$  Ioanna Kleiasiou, Γιώργος Ζαμπέτας, Βίος και πολιτεία: Και η βρόχα έπιπτε στρέιτ θρου (Athens: Defi, 1997), 62, 64–65.

million refugees<sup>40</sup> arrived in Greece from Asia Minor, many of whom would finally settle in Athens, especially in areas near the Kifisos. Several areas, like Nea Philadelpheia and Aigaleo, were formed at this time with populations consisting mainly of refugees. Other areas, like Agioi Anargyroi and Peristeri, changed forever following this large-scale relocation of people.<sup>41</sup> In the 1920s and 1930s, new industrial units sprung up in areas near the Kifisos. Examples include the ETMA silk plant in Kolokynthou, the Ariston clothing plant and Viamyl in Rentis and the Lanaras' family business in Peristeri.<sup>42</sup>

As previously stated, the aforementioned transformation was nevertheless delayed because of the events in the 1940s. During the German occupation of Athens, the crops and mainly the gardens near the Kifisos saved many people from starvation. Farming production from the fertile riverside provided Athens' impoverished population with a large quantity of vegetables. People came to the gardens near the Kifisos seeking collard or other vegetables that the Wehrmacht found unpalatable for its soldiers' meals. According to some testimonies, daily visits to the garden proprietors were routine during the occupation:

[My father] used to work in the gardens owned by Manolis Bellos, which lay between the big bridge and the little bridge of Taxiarches. He used to water the gardens and plant collards and beets. During the hunger years, relatives used to come from Kokkinia and we would give them greens ... People came from all over Athens begging for a few collards. "Give me some greens to feed the children and I'll give you olive oil," they used to say.<sup>43</sup>

In the postwar period, a new wave of settlers established themselves along the banks of the Kifisos, mainly to the west of the river. This time the colonists were not from abroad, as was the case in the 1920s. The first phase of this second wave consisted primarily of left-wing supporters who were defeated in the civil war. They had left their villages seeking the anonymity of the capital.<sup>44</sup> Also, in

<sup>&</sup>lt;sup>40</sup> Elsa Kontogiorgi, "Η αποκατάσταση," in *Ιστορία του Νέου Ελληνισμού*, ed. Vasilis Panagiotopoulos (Athens: Ellinika Grammata, 2003), 7:101–20.

<sup>&</sup>lt;sup>41</sup> It is indicative that, during the 1929 census, Aigaleo had a population of 147 inhabitants while this number, according to the 1934 census, had risen to 3,500 inhabitants in some of the Aigaleo's settlements alone. Dalkos, Aiyάλεω, 112.

<sup>&</sup>lt;sup>42</sup> The industrial development near the Kifisos was part of the broader development that the Greek industrial sector experienced in the 1920s. It is significant that within one decade 34,000 small and large new industries had started operating.

<sup>&</sup>lt;sup>43</sup> Dantis, Ιστορικά του Μοσχάτου, 38.

<sup>&</sup>lt;sup>44</sup> The following testimony of Giorgos Christofilopoulos, a Peristeri inhabitant, is significant: "My father was a member of the Greek leftwing partisan army ELAS. Where should

the 1950s and the 1960s, a great number of migrants from the Greek provinces moved to the larger cities for economic or broader social reasons, in what could be described as Greece's belated urbanisation. This significant movement of the population can be attributed, among others, to the decline of agricultural activity in the Greek countryside and to the many employment opportunities offered in the cities.

Due to these circumstances, in the 1950s there was a dramatic increase in the number of people interested in residing along the Kifisos. Between 1951 and 1961, the population of Agios Ioannis Rentis doubled. Meanwhile migration and the progression from agricultural to industrial activity prompted the formulation of a new urban environment in the surrounding area. Similar growth was evident in Aigaleo between 1950 and 196046 as well as in Agioi Anargyroi.

Subsequent to this internal movement, the dwellings built on these new settlements were often constructed illegally. The plots of land upon which these poorly improvised and unapproved buildings were built had resulted from encroachment on public or communal fields, mainly through the parcelling and selling of existing gardens. The increase in demand for these parcels is explained by the comparably lower prices they fetched than those in areas closer to the centre of Athens<sup>48</sup> as well as the fact that the purchasing of land and a house in an urban area was considered a financial investment.<sup>49</sup> For a migrant hoping to purchase land, these cheaper parcels located beyond the urban planning range seemed an appropriate choice.<sup>50</sup> Hence, the arrival of a new population and

we stand in [our village] Kopanaki? We couldn't stay anywhere in the whole of Messinia. And then there was the upward movement of inhabitants of the Peloponnese and the downward movement of inhabitants of Central Greece, who then came here. The new city [Peristeri] was built by these hunted populations." Personal interview, 6 June 2019.

<sup>&</sup>lt;sup>45</sup> Katerina Kaliampakou, "Άγιος Ιωάννης Ρέντης 1950–1960," in Νίκαια, Άγιος Ιωάννης Ρέντη: Οδοιπορικό στη μνήμη, ed. Dimitris Loukas and Kyriaki Papadimitropoulou (Athens: Municipality of Nikaia–Agios Ioannis Rentis 2019), 124–37.

<sup>&</sup>lt;sup>46</sup> The number of the inhabitants in Aigaleo was 29,404 in the 1950 census and 57,840 in the 1961 census. Bournova,  $A\pi \dot{o}$  τις Νέες Κυδωνίες στο Δήμο Αιγάλεω, 44.

<sup>&</sup>lt;sup>47</sup> According to data from the National Statistics Service, the sharpest increase in the population of Agioi Anargyroi was recorded in the 1950s (118 percent). Milionis stresses that every year 1,000 people were added to the existing population, and hence their number climbed from 8,400 in 1951 to 18,400 in 1961.  $H \pi \delta \lambda \eta \tau \omega v \alpha \gamma i \omega v$ , 199.

<sup>&</sup>lt;sup>48</sup> Bournova, Από τις Νέες Κυδωνίες στο Δήμο Αιγάλεω, 45–46.

<sup>&</sup>lt;sup>49</sup> Dimitra Lampropoulou, Οικοδόμοι: Οι άνθρωποι που έχτισαν την Αθήνα, 1950–1967 (Athens: Vivliorama, 2009), 88.

Maria Mavridou, "Η συγκυριακή ανάπτυξη ενός περιφερειακού συνοικισμού: Ν. Λιόσια" (PhD diss., National Technical University of Athens, 1987), 88.

the spatial expansion of the Greek capital led to new usage being made of the riverside.

Small "colonies" consisting of migrants who had relocated for political or economic reasons sprung up along the west bank of the Kifisos. These people brought with them their native, social networks. These mid-century newcomers to the Athens periphery established a different perception of the capital's natural environment. As their urbanite identity had only recently become part of their collective conscience, the rural houses and sites in the western part of the city appeared familiar to them.<sup>51</sup> Despite the poor living conditions, these populations established a space that offered them security and relieved them of the loss of their previous way of living. It also allowed them to develop their true identity in contrast to the identity enforced on them by life in the big city.<sup>52</sup>

In the following testimony, a relocated person visits the area of Agioi Anargyroi in the early 1960s and considers buying a piece of land to build a house of his own:

There was the smell of manure and sheep in the air. There were three or four sheds, dry stone walls, drainage ditches, a garden, vineyards and crops. Only a few pieces of land were fenced. The whole settlement was five or six small rooms with outhouse toilets, outdoor sinks, wood stoves with firewood piled in front of them, water tanks, washtubs, fruit trees, domestic animals and poultry. No electricity, no water supply; only tank trucks that transported water. The streets had no clear borders, while their surface was eroded by rills ... Something was pulling me to this place and only later did I understand that the landscape recalled images of my village. It was something I had missed and I found again there, in Agia Paraskevi and Agioi Anargiroi, only seven kilometres away [from the centre of Athens]. 53

Ever since the 1960s, the fate of the Kifisos was primarily determined by the traffic needs of the capital and only secondarily by flood prevention planning or anything else. While some have argued that some sites of the capital's landscape remained rural throughout the 1960s, an increase in the use and the number of vehicles had resulted in a series of roadworks. Among them, in 1965, the construction of a national highway along the Kifisos began. As part of the construction, the river was fully covered in the Agioi Anargyroi area, while a

<sup>&</sup>lt;sup>51</sup> Vika Gizeli, Κοινωνικός μετασχηματισμός και προέλευση της κοινωνικής κατοικίας στην Ελλάδα (1920–1930) (Athens: Epikairotita, 1984), 115.

<sup>52</sup> Ibid

<sup>&</sup>lt;sup>53</sup> Milionis, *Η πόλη των αγίων*, 211. Anonymous testimony.

new regulation of its riverbed took place in Kokkinos Mylos.<sup>54</sup> One of the last large-scale flood prevention works affecting the Kifisos riverbed, as well as many of the streams flowing into it, took place between 1955 and 1965. Roadworks continued to change the city and its biggest river. The idea for the full conversion of the Kifisos into a highway seems to have been seriously contemplated for the first time during the 1970s. The project began in the 1980s and continued into the 1990s; however it was not completed until the early 2000s, ahead of the 2004 Athens Olympics.

Until the 1970s, there was little consideration for the environmental dimension of the Kifisos or any sign of environmental awareness in Greece in general. The following reference by the famous Greek architect Dimitris Pikionis is rare evidence of the early existence of such ideas: "What did you do to the Kifisos and the Ilisos, my holy waters? You put sewers in them, you threw the water from your plants in them ... You have nothing left but the lowest form of a relationship with nature: its exploitation."

After the 1970s, public references to the Kifisos not only included the environmental dimension, but defined how the development at this point was pivotal in the public debate regarding the river's future. Was the emergence of environmental awareness enough to prevent the river's transformation into what Cioc called a "water machine"? Fo Probably not, but in the minds of people, the Kifisos had been added to the list of victims of urban development. In addition, it also generated a vocal minority that was worried not only about the future of the river, but also the future of a city unable to live in harmony with its pre-existing landscape.

As argued above, the Kifisos' relationship with organised human activity dates back to antiquity and the use of its waters for irrigation purposes. Its recognition as a natural asset goes back to its importance for the ancient cultivation of fruit trees. The nineteenth century saw the expansion of industry, which used the riverbed as a wastewater pipeline. At approximately the same time, a series of great technical projects to canalise and eliminate the natural riverbed took place in the southernmost part of the river, near its estuaries. Since then, especially in the 1930s, 1960s and 1970s and finally the decade before

<sup>&</sup>lt;sup>54</sup> Sokratis Dallas, "Οριστική μελέτη έργων αναδιευθέτησης του Κηφισού," technical report, Dallas private archive.

<sup>&</sup>lt;sup>55</sup> Dimitris Pikionis, "Γαίας ατίμωσις" (1954), in *Κείμενα* (Athens: MIET, 1985), 131–32, cited in Panos Dragonas, "Κηφισός: Το απωθημένο ποτάμι," https://www.greekarchitects. gr/gr/republic-space/%CE%BA%CE%B7%CF%86%CE%B9%CF%83%CF%8C%CF%82-id2784.

<sup>&</sup>lt;sup>56</sup> Cioc, The Rhine, 72.

the Olympic Games of 2004, other technical projects completely changed the river's nature and canalised the greatest part of its riverbed. The city sought to ensure that the Kifisos would not stand stagnant or overflow, thus challenging its artificial boundaries.

As pointed out earlier, along with the Kifisos' canalisation, multiple transformations of the riverine areas also occurred. They were related to the exploitation of the semi-urban and peri-urban spaces near the river and their integration into the urban reality. Hence, in addition to the factories that started operating along the Kifisos around the turn of the twentieth century, the intensification of vegetable cultivation sought to cover the increased need for garden products due to the expansion of the city along the river's east bank. After World War II, as Athens underwent new population growth, the riverine areas were useful as free space; low-cost land, where the lowest classes could build dwelling houses and start new lives. During the second half of the twentieth century, the development of residential areas next to the Kifisos continued, along with the operation of factories, which essentially functioned without any environmental guidelines or restrictions. The transformation of the Kifisos into one of Athens' main highways at the beginning of the twenty-first century seemed to have completed a cycle of vigorous human interventions on the river.

Furthermore, looking from a different standpoint, the various fluctuations in public sentiment toward the Kifisos delineate the multiple stages which eventually led to the emergence of an environmental consciousness in the Greek capital. The passage from a harmonic symbiosis between the people and the Kifisos, lasting from antiquity until the first post-revolutionary decades, to the treatment of the river as an opponent of social progress and urban development, has been important to the cultural identity of Athenians. The flooding and any health concerns regarding the Kifisos generated the demand for state interference. The initial aim was to control a form of nature that dared to ignore the course of progress. The analogy of the Kifisos as an "antagonist" appears to be related to the development of the city. How could the city cope with the reality of an untamed river? The positioning of manufacturing activity along the riverbanks, as well as the gradual increase in industrial activity, generated an image of the river as a space of secondary importance, bound only to serve the needs of the developing urban lifestyle and economy, primarily at the river's expense. Moreover, its use as a place for the displaced to settle and a place of labour for the lower classes denoted the degradation of the areas near the river. Less seminal but more vocal was the realisation of the need to protect what was left of the existing landscape of the whole river system. But that was something that would not happen until the final decades of the twentieth century, almost simultaneously with the corresponding realisation in Western countries, and only after the increase in living standards and post-dictatorship civil liberties was secured.

The course of the Kifisos, especially over the past two centuries, seems like it has been on the ultimate path to disaster. Its natural riverbed, bioclimate and flora along its banks ceased to exist, at least in the form that they were for some decades after the Greek War of Independence. However, returning to the question stated in the introduction, the history of the Kifisos is interesting not just because it is an area which allows one to observe of the environmental damage done by man, but also because in its riverbed a great part of the Greek capital's own history is written. As argued, the story of how the river was used remains a great field to study the contemporary social history of Greece, as the varying perception of the river over time was directly related to social changes and the formation of the new cultural identities of the urban dwellers.

Each time the Kifisos was mentioned in the public sphere, whether or not these references were hostile or acrimonious, they became part of a process which familiarised the public with the role of the river in the urban environment of the city. Press reports and articles greatly influenced the way that the Kifisos was perceived over different periods, stimulating the consciousness of the river's presence and, at the same time, the consciousness of a "new nature". These attributed characteristics of the river, regardless of their accuracy, preserved the perception of the river as an inextricable physical component, and kept it part of a city that has been busy concreting over its natural environment.

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