

MAPPING THE LEIGH FERMORS' JOURNEY THROUGH THE DEEP MANI IN 1951

by Rebecca M. Seifried¹ , Chelsea A.M. Gardner²  and Maria Tatum³

¹University of Massachusetts Amherst

²Acadia University

³Independent scholar

In the summer of 2019, members of the CARTography Project set out to re-create the route that Patrick and Joan Leigh Fermor took during their first visit to the Deep Mani in 1951. The project involved meticulously analysing the couple's notebooks and photographs to glean details about where they had ventured, using least-cost analysis to model their potential routes and ground-truthing the results by walking and boating the routes ourselves. As in much of rural Greece, Mani's topography has changed substantially in the seven decades since the Leigh Fermors' journey, with paved roads having replaced many of the Ottoman-era footpaths that locals once relied on for travel and transportation. While the transformed landscape we encountered prevented a complete re-enactment of the Leigh Fermors' journey, it also offered an opportunity to embody key parts of their travelling experience. The results of our study are twofold: first, a detailed map of the route the Leigh Fermors followed based on our reading of their documentary sources; and second, an assessment of the utility of using least-cost analysis to model the routes of historical travellers.

For both the archaeologist and the native dweller, the landscape tells – or rather *is* – a story. It enfolds the lives and times of predecessors who, over the generations, have moved around in it and played their part in its formation. To perceive the landscape is therefore to carry out an act of remembrance, and remembering is not so much a matter of calling up an internal image, stored in the mind, as of engaging perceptually with an environment that is itself pregnant with the past. (Ingold 1993, 152–3)

INTRODUCTION

In July 1951, Patrick (Paddy) and Joan Leigh Fermor¹ set out from Sparta and headed south to the Mani peninsula. After crossing the Taygetos mountain range – whose spine erupts from the central Peloponnese and travels southward, bisecting the entire peninsula in its wake – Paddy and Joan arrived in the northern limits of Exo (Outer) Mani and made their way south, on foot, from the hilly town of Kombos (Kampos) to coastal Kardamyli. From Kardamyli, they hired a small boat to take them south into the wilds of Mesa (Deep) Mani. The local Spartiates had warned them not to venture to such an untamed place but, motivated by the desire to meet the notoriously fierce inhabitants of this remote region, the Leigh Fermors disembarked at the port of Limeni and journeyed towards the southernmost point of the Greek mainland, largely on foot. Paddy commemorated this journey in his book, *Mani: Travels through the Southern Peloponnese* (Fermor 2004 [1958]), a story that is punctuated by tales of encounters with remarkable locals and Paddy's expositions on traditional Greek life. While the book names a few locations that the

¹ Joan's surname at birth was Eyres Monsell. She adopted the name Rayner upon her marriage to John Rayner in 1939 and continued using this name at least for some time after her marriage to Paddy in 1968. However, she is often referred to in publications as Joan Leigh Fermor (e.g. Collins and Stewart 2018; Fenwick 2017), and her gravestone commemorates her life with this name.

couple visited, it never tells us precisely which route they followed and does not include specific details about their itinerary.

At the time of the Leigh Fermors' visit, the full extent of the modern road system had yet to be built, and so their pedestrian transportation was a choice made for them by a lack of paved roads and a landscape unsuitable for all but the most sure-footed donkey. Just a few short years later, the roads would be paved throughout the peninsula, and the miles of asphalt cutting through Mani would obliterate many of the footpaths and stone roads (*kalderimia*) that the Leigh Fermors had used to explore the region. Thus, their trek represents one of the last documented journeys made through Mani by way of its historical pathways.

It is not uncommon for visitors to Mani to first encounter the region through Paddy's artful yet romanticised retelling of this 1951 journey. In fact, we – as well as many of our archaeological colleagues – had read Paddy's book many times while participating in the Diros Project, an archaeological survey project in the region around Pyrgos Dirou, between 2012 and 2016. Soon after the completion of that work, we launched our own digital humanities initiative, the CARTography Project (Cataloguing Ancient Routes and Travellers in the Mani Peninsula). This initiative built on our combined years of archaeological and historical research experience in the region, with the ultimate goal of mapping the routes that historical travellers had taken over the past several centuries. Our first case study was an application of least-cost analysis (LCA) – a popular GIS-based technique for understanding how people can move across a landscape – to the journey of Colonel William Leake in 1805 (Seifried and Gardner 2019). The study allowed us to test several different approaches to LCA and pick the one best suited to Mani's rugged terrain and extensive pre-modern path network. Yet, the question remained: how would these predictive models pan out if we were to walk them ourselves, today, when the landscape of Mani (and that of much of the world, for that matter) has been so utterly transformed by sweeping shifts in transportation technology?

In June 2019, we set out to re-create the Leigh Fermors' journey through the Deep Mani, which began with their arrival in the port of Limeni, continued south around the tip of the peninsula's Matapan promontory, and then proceeded back up the eastern coast towards their final stop in Kotronas. We had two overarching goals for the fieldwork. The first goal was to use our combined expertise in geospatial and historical analyses – along with our familiarity with the landscape gained through years of fieldwork in the region – to create a detailed map of the Leigh Fermors' journey through the Deep Mani. Creating such a map would require walking, driving and boating the route ourselves, in part to ground-truth the computational models against our real-world experience and the clues captured in Paddy and Joan's records, but also to try to understand how people might have interacted with Mani's rugged landscape prior to the formalisation of the modern road network. At the time, we were aware of the recent efforts within the field of archaeology to embrace walking as a way of engaging with the landscape in a full-bodied, immersive experience (e.g. Given et al. 2019; Hamilakis 2014; Witmore 2020). There is a tendency within many scientific fields for a practitioner to imagine she is objectively removed from the object of study; this is no less true of scholars who visit foreign lands to conduct their research. Yet Given's (2020) solo trek through the Ochil Hills in Scotland offers a clear visual reminder – thanks to a GoPro that captured the entire trip – that 'the archaeologist is inescapably part of the landscape'. Walking through the landscape of Mani grounded us both literally and metaphorically within the physical terrain, the architectural palimpsest of human-built features, and the stories and memories created, shared and stirred up through the centuries. We, too, were participating in the remembrance and formation of the landscape of Mani (Ingold 1993, 152–3), just as the Leigh Fermors had in 1951.

Our second goal was to contribute another case study to the burgeoning field of archaeological GIS-based movement analysis, which includes LCA as well as other approaches.² Typically, movement analysis is used either to predict the locations of ancient routes or travel corridors between known archaeological sites, or to compare algorithmic predictions against the surviving

² For recent overviews, see Herzog 2020; Verhagen, Nuninger and Groenhuijzen 2019.

traces of ancient roads with the aim of understanding the spatial motivation behind their physical locations. Our application of this methodology to Colonel Leake's route was unusual in that we used LCA to predict a likely route that adhered (for the most part) to known roads and pathways (Seifried and Gardner 2019). We were only able to use LCA in this way because we had already mapped the region's pre-modern route network, thereby creating a robust dataset for the region's transportation infrastructure that most archaeologists do not have. Re-creating the Leigh Fermors' route in person would give us even more valuable data – hike durations, distances and visual experiences – that would allow us to assess the models produced by LCA. Would they accurately predict the time needed to complete each part of the Leigh Fermors' journey, as they did for Colonel Leake's? Would the paths the LCA generated be the same ones we would pick when faced with a choice, beleaguered by the hot summer sun and with miles yet to go? What aspects of moving across a landscape could LCA not capture; what does it miss? We tried to answer these questions both qualitatively (through our experience of decision-making and choice) and quantitatively (by comparing our chosen paths with the ones predicted by the LCA algorithm) in the hopes of shedding light on how least-cost models can be used in conjunction with ground-truthing and landscape archaeology in order to retrace historical pathways.

In the sections that follow, we present a detailed synopsis of the Leigh Fermors' journey through the Deep Mani, the notebooks and photographs that captured their experiences during the trek and our best understanding of the landscape at the time of their travels. We discuss the changes that took place in the intervening years between their visit and ours – in particular, the abandonment of many of the region's footpaths and the preservation of a select few as hiking trails – and the methods we employed, including using LCA to generate models of the Leigh Fermors' journey and the steps we followed to capture our own hikes. The results are presented in two sections, one for each of the goals stated above, and are followed by a final discussion section in which we reveal how this study contributes to understanding the material, embodied experience of travelling in modern Greece.

THE LEIGH FERMORS' JOURNEY

The Leigh Fermors spent nine days total in the Mani peninsula, travelling from Limeni in the north-west to Kotronas in the north-east (Fig. 1).³ On the evening of 7 July, after docking at the harbour in Limeni, they walked to Areopoli; from Areopoli they took a short bus ride to Pyrgos, where they remained for two nights (8 and 9 July). When they left Pyrgos on 10 July, they hitched a ride on the back of a watermelon truck until the dirt road ended, at which point they continued on foot to Kechrianika. The following day, 11 July, they walked from Kechrianika to Yerolimenas. On 12 July they embarked upon a *caïque* at Yerolimenas, with the intention of circumnavigating the peninsula and finishing their journey in Gytheio, the northernmost limit of Mani. But their boat broke down, and they were forced to dock instead in the harbour at Porto Kayio and grudgingly make their way on foot uphill to Vathia. They stayed in Vathia for two nights (12 and 13 July), then walked to the coastal town of Ayios Kyprianos on 14 July. After staying overnight there, they successfully sailed up the eastern side of the peninsula, stopping briefly at Kotronas before leaving the Mani on 15 July.

Before this trip, Paddy had already made a career out of walking, so to speak. His adventure on foot from Amsterdam to Istanbul between 1933 and 1935 is perhaps his most famous (Fermor 1977; 1986; 2013), and he was well aware that walking through landscapes, towns and even cities afforded him opportunities to interact with the local populations that were impossible when zipping along roads in a car. However, despite being a famous and impressive wayfarer, Paddy did not embark on this trip to Mani for the sheer pleasure of walking. In fact, much of his narrative laments the

³ All figures are copyright of the authors, unless otherwise noted (see Seifried and Gardner 2021a).

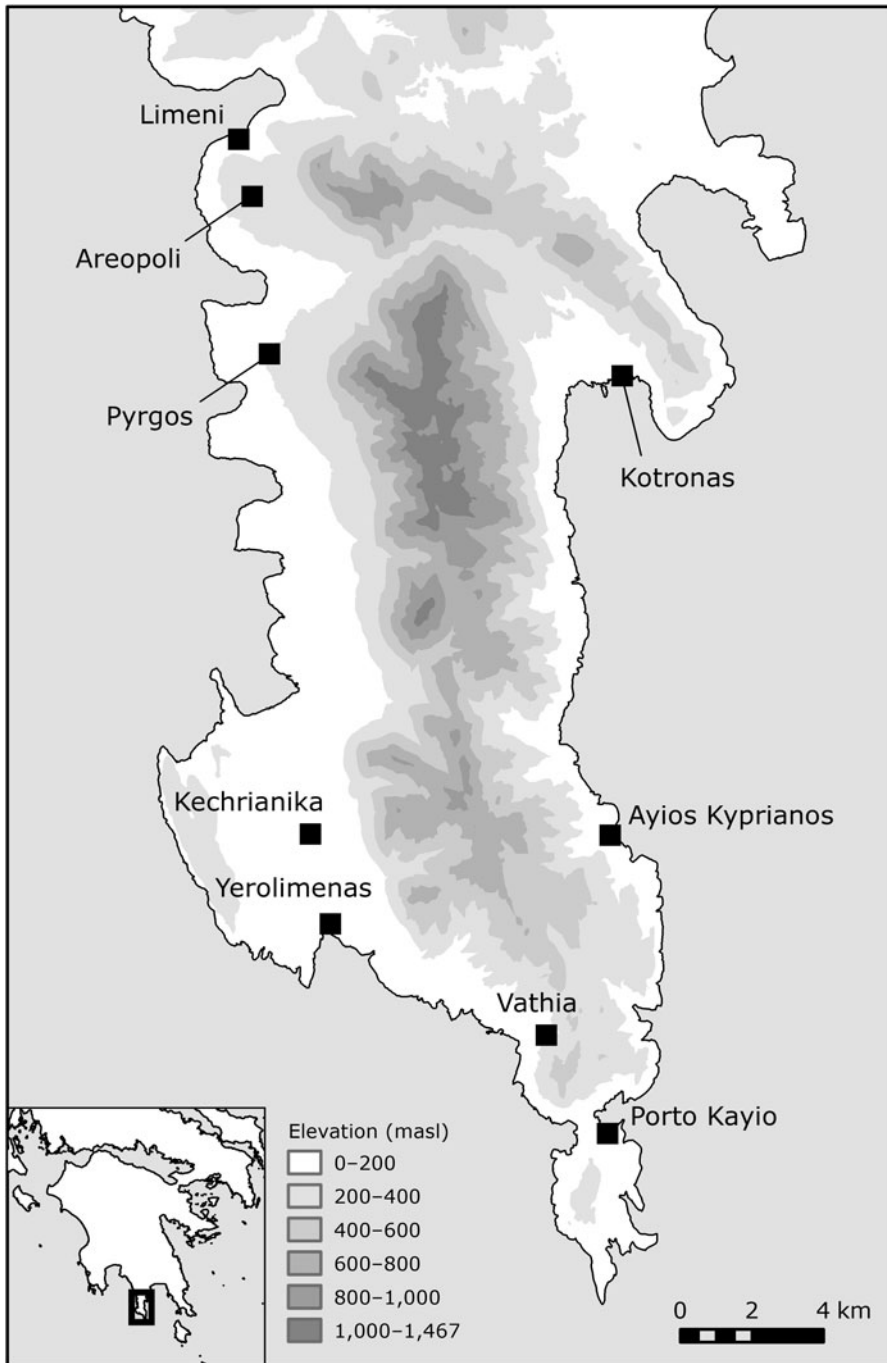


Fig. 1. Major waypoints that the Leigh Fermors visited during their trip through the Deep Mani.

terrain upon which he found himself stumbling and sweating, within never-ending lanes of ‘rolling pebbles and ankle-snapping boulders in the stagnant glare’ (Fermor 2004, 81).

In Paddy’s mind, Mani was originally meant to be ‘a single chapter among many, each of them describing the stages and halts, the encounters, the background and the conclusions of a leisurely journey – a kind of recapitulation of many former journeys – through continental Greece and the islands’ (Fermor 2004, ix). The particular journey to which Paddy refers began in Istanbul and moved west and south in an attempt to bring together a more comprehensive account of the



Fig. 2. Paddy's notebook (left) and Joan's calendar (right) in the National Library of Scotland. Copyright the Estate of Patrick Leigh Fermor and the Estate of Joan Leigh Fermor.

country. Yet, in this southernmost projection of the Greek mainland, Paddy and Joan found something more; Mani soon became their home and the subject of an entire manuscript unto itself. *Mani* was drafted on the island of Hydra, at the home of a long-time friend of the Leigh Fermors, Nikos Hadjikyriakos-Ghika, from 1954 to 1956. The manuscript itself was published in 1958 by John Murray.

Documentation: notebooks and photographs

During their adventure, Paddy kept a journal, while Joan noted their daily location in a pocket calendar and took photos throughout their travels. These documents survive and are currently located in the Patrick Leigh Fermor Archive, housed at the National Library of Scotland in Edinburgh. In June 2019 we received permission from the Estate of Patrick Leigh Fermor and the Estate of Joan Leigh Fermor to study the contents of the archives for the purposes of replicating the Leigh Fermors' journey. This included Paddy's notebook (Fermor 1951) and Joan's daily calendar and photographs (Rayner 1951a; 1951b; Fig. 2).

The consultation of these documents was instrumental in reconstructing their route, since Paddy's notebooks contained important information that was not included in the pages of *Mani*. An illustrative example comes from Paddy and Joan's second day in the Deep Mani. In his book, Paddy describes the circuit walk they took with a policeman (whose name, Kyriakos Glezakos, is only found in his notebook)⁴ from the latter's hometown of Pyrgos to Glezou, Charouda, and back to Pyrgos. Over the course of 10 pages, Paddy mentions several landmarks, including the Sklavounakos tower, a cemetery in Glezou and the church of the Taxiarchis in Charouda. These landmarks are known today and are visually prominent on the landscape, allowing for a rudimentary sketch of the circuit they took. However, upon close inspection of Paddy's notebooks, we discovered additional clues about their route: 'Then down to the ruined town among the olive trees[.] Kouvouklia. Semi-cyclopean stones, wells, huge lintels, are carved

⁴ Fermor 1951, 29. The pages in Paddy's notebook are unnumbered; our numbering system begins with the page titled 'Campos, the Mani, July?' as page 1.



Fig. 3. Our walking companion, Panayiota, standing beside the abandoned house in Kouvouskia visited by the Leigh Fermors. The crosses and flanking animals are visible on the lintel of the main entryway.

with a Byzantine cross, and two flanking non-descript animals. Kyriakos says it was destroyed by corsairs. What date? Enquire.’ (Fermor 1951, 29; emphasis original). This casual notation might seem, at first glance, to be of little importance. However, previous research in the area by the authors allowed for the identification of ‘Kouvouskia’ as one of several abandoned villages in the area that were occupied from the Byzantine era until the sixteenth century (Seifried 2021, 179–83). Paddy’s commentary in his notebook allowed us to incorporate this village as a waypoint in our reconstruction of their route that afternoon. Moreover, the offhand comment about the cross and flanking animals allowed us to locate the exact structure they visited (Figs 3 and 4), as such inscriptions are exceedingly rare in the abandoned houses of Mani, and this particular lintel has been published in architectural studies of the region’s vernacular architecture (Calligas 1974, fig. 9; Seifried 2021, fig. 5). These connections permitted us to know, with full confidence, that we were visiting the very location where the Leigh Fermors had stood 70 years before.

Joan’s photographs were also invaluable in physically situating us within the landscape (Rayner 1951b). She developed and kept a total of 139 photos from the region, which she arranged in a series of notebooks filled with pseudo-contact sheets of thumbnail prints, in sequence. While Joan’s photographic eye was generally interested in human and animal subjects, many of these images also captured buildings that still stand today, allowing us to position ourselves in the very spots where she took the photos and to determine the precise time of day when they visited each location based on shadows falling across the structures. Likewise, her occasional general vistas of the landscape helped us confirm that we were indeed following their route, even when modern roads obscured the original paths or when Paddy was otherwise silent in the pages of his notebooks (Fig. 5).

The Leigh Fermors’ notebooks and photographs and the final manuscript *Mani* provided us with a general outline of their journey and, more importantly, a number of fixed locations where we could situate Paddy and Joan during their travels through Mani; we called these individual spots ‘waypoints’. But the question remained: what was their exact route between each of these waypoints?



Fig. 4. Tracing of the crosses and flanking animals from the lintel in Kouvouskia.



Fig. 5. Photo 1038 from the page titled 'Kittas' (left; photo by Joan Leigh Fermor, June 1951, Joan Leigh Fermor Archive, National Library of Scotland) and our photo of the same view in 2019 (right). The photos capture the towers of Nomia looking north while standing beside a human-built reservoir. This is the only such reservoir in the area, thus confirming that we were on the same path as the Leigh Fermors.

State of the path network in 1951

In 1951 any person travelling south of Areopoli would have used the extensive network of footpaths that criss-crossed the peninsula prior to the formal establishment of a regional paved road system. At this time, paths were the arteries that kept people, animals, goods and ideas moving between the small, remote villages of Mani. Aerial photographs from the 1940s reveal that the main thoroughfares traversing Mani were stone-cobbled avenues, called *kalderimia* (Fig. 6; see Seifried and Gardner 2019, fig. 4). Unfortunately, this well-built road system, which likely dates to the Ottoman period (Seifried 2016, 155–7), provided a sturdy foundation for later road construction, and much of it was buried in the process. In fact, local residents who are old enough to have relied on these footpaths in their youth can easily point out which modern paved roads were once *kalderimia*. Sections of the original stone can sometimes be seen along the edges of paved roads or diverging from them into brush where the road now takes a wider turn (Fig. 6).

Kalderimia were the most formalised paths in Mani but certainly not the only option for pedestrian travel. Branching off these stone-cobbled roads were a myriad of intertwining, narrow footpaths with beds of dirt or gravel that provided access to agricultural fields and grazing areas. Both kinds of paths were frequently lined on either side by low, dry-stone walls, which kept herd and pack animals from damaging crops or straying too far from the path as they moved from one place to another. While a few more substantial dirt roads appeared in the 1950s to provide bus services between some of the largest villages in northern Mani, residents nevertheless still relied on donkeys, horses and mules for everyday transport well



Fig. 6. Section of an abandoned *kalderimi* near Pyrgos (left) and a *kalderimi* near Charouda that has been partially paved over (right).

into the 1970s.⁵ Indeed, Paddy recorded a conversation with a man in Vathia who complained, ‘The government is always promising to build a road here and it never gets done’ (Fermor 2004, 161).

At the time, one of the main vehicular dirt roads meandered south-west from Gytheio, the administrative centre of the region, towards a ravine that crosses the Taygetos mountains. Before entering the ravine, one branch diverted south towards Skoutari, while the main road continued west to the towns of Areopoli and Pyrgos. In fact, Paddy and Joan travelled on this very road for a short part of their journey in the Deep Mani, first taking a bus from Areopoli to Pyrgos, then later hitching a ride on a truck carrying watermelons to the villages in the south. The truck was able to travel only so far before ‘the road petered out into a stony footpath’ about midway down the peninsula (Fermor 2004, 77). From here, mules were used to continue carrying whatever goods the trucks had brought to the end of the road. As late as the 1970s, when Peter Allen carried out ethnographic research in the village of Skoutari, these dirt roads were still relied upon for the daily bus service to Gytheio, which brought news, travellers and merchandise into and out of this remote region. Only a few villagers owned motorcycles, and there were no automobiles in the community (Allen 1976, 170).

OUR JOURNEY

By the time we began working in southern Mani in the early 2010s, the region’s transportation infrastructure had been dramatically transformed to prioritise cars and buses over pedestrians and animals. Many of the original footpaths and *kalderimia* had been levelled and used as the foundations for wider, paved roads, while those that remained intact were used less and less frequently, and some not at all. These changes to the ways people and animals moved were inextricably linked with the decline of pastoralism and subsistence agriculture that occurred across all of the Greek countryside. As people emigrated to larger urban centres or took up other kinds of work, the footpaths began to undergo a process of abandonment.⁶

The increase in tourism that began in Mani in the early 2000s helped to preserve a select few of the historical pathways. A community of English and French emigrants living in the region of

⁵ Allen 1976, 175; for a recent case study from Methana, another region in the Peloponnese, see Clarke 2020.

⁶ By way of example, there was only a single shepherd left in Diros in the 2010s. His portrait can be seen in the book *Φωτογραφικές αφηγήσεις. Μάνη: άνθρωπος και τόπος* (Kazazis 2012, 80).

Stoupa initiated the process of converting these formerly utilitarian pathways into recreational hiking trails. An organisation based there, called Inside the Mani, began publishing a series of walking guides and an annual magazine in 2004. At present, the available guides include *Inside the Mani: A Guide* (Dean 2006, now with a second edition issued in 2015) and *Inside the Mani: On Foot & by Car* (Dean 2013). Efforts to popularise Mani's hiking opportunities also came from Greek travel writers – such as Antonis Kaloyirou (2005), who published a detailed guide and accompanying map for the preserved footpaths in Mani – and tourist agencies – such as 2407m Kardamyli Mountain Activities – which have popped up in the more populated villages in Exo Mani. Travel agencies outside Greece have also capitalised on Paddy's popularity: an agency in London organises a tour called 'Walking in the Footsteps of Patrick Leigh Fermor', which visits all the major Leigh Fermor-related sites of interest in Mani.⁷

By far the most organised effort to promote Mani's walking paths has come from the Athens-based mapping agency, Anavasi. Anavasi publishes road atlases that cover the entirety of Greece, as well as more detailed maps that focus on hiking, climbing and skiing in specific parts of the country. They also have a series of coffee-table books featuring stunning photography captured from remotely piloted aerial vehicles, or drones, called *As the Seagull Flies*. Mani is just one of the many regions that the Anavasi team has mapped and photographed (Matsouka et al. 2014). The programme in Mani was the fruit of a collaboration between cartographers, field researchers, archaeologists who work in the regional ephorate, and local residents. The results of their work include a detailed hiking map that quite literally highlights the most accessible walking paths in the region today (Matsouka 2009), almost all of which correspond to historical walled field paths and *kalderimia* that would have been the only avenues for movement before the main roads were built 70 years ago. In tandem with the mapping programme, a network of trails were signposted across the region corresponding to hikes designated on the Anavasi hiking map; unfortunately, by the 2010s many of these signposts were already showing signs of deterioration, a likely casualty of the economic recession that depleted funds from many cultural heritage programmes throughout Greece (Fig. 7). Despite the degraded state of the trails themselves, the Anavasi hiking maps and books provided information that was crucial to mapping the region's pre-modern route network and settlements in the southern half of the peninsula, such as a path's current condition and whether it was stone-built (i.e. a *kalderimi*) or made of dirt or gravel.

With a detailed map of pre-modern routes and settlements at our disposal, we were well equipped to map the Leigh Fermors' route through Mani. The first step was to record all the waypoints where the Leigh Fermors stopped. We noted every identifiable place name and landmark contained within the pages of *Mani*, Paddy's notebooks and Joan's calendar and photos, and then digitised them in GIS software. We generated least-cost-paths (LCPs) between these waypoints using the method we had established previously (Seifried and Gardner 2019), which uses the Modified Tobler algorithm (Márquez-Pérez, Vallejo-Villalta and Álvarez-Francoso 2017) in combination with Esri's 'Path Distance' toolset to generate time-based LCPs that prioritise following paths and roads. The 'Smooth' tool in ArcGIS was used to simplify the resulting LCPs. Finally, we used the LCPs to guide our decisions about how to travel the routes ourselves, in conjunction with our personal knowledge of the landscape and our documentation of the built features that the Leigh Fermors witnessed along the way.

Because our goals were more methodological than experiential, we did not feel compelled to recreate the Leigh Fermors' route from start to finish, faithfully adhering to their timetable and the order in which they set off on each day's trek. Instead, we divided their journey into daily hikes and further subdivided these hikes into 'legs', where each leg represented a route between two clearly designated waypoints (see Table A1). We were then free to tackle each part of the journey as we were able, depending on access to transportation, time constraints and appointments with local contacts. Most of the legs involved hiking, but we also hired a boat to travel part of the Leigh Fermors' maritime route. The goal of the boat ride was less about

⁷ Ironically, the tour involves very little actual walking; see www.kudutrail.com/tours/greece-walking-tour.



Fig. 7. Anavasi hiking sign in Kato Gardenitsa showing wear and tear from exposure to the elements (left) and a view of the marked hiking trail from Kato Gardenitsa to Mezapos (right).

documenting travel times (since our rigid inflatable boat undoubtedly travelled faster than the caïque they had hired; see Fermor 2004, 114) and more about understanding how the landscape appeared from the water.

For both land- and sea-based routes, data were collected using the tracking feature on a Garmin eTrex 20 GPS device, which recorded point locations along each leg with a typical horizontal accuracy of within 3 m. These points were imported into GIS software, converted to polylines, and simplified using the ‘Smooth’ tool in ArcGIS. We took photos with a digital SLR and videos with a handheld GoPro, using the devices as visual diaries to record interesting views and thoughts that occurred to us along the way. We also used a smartphone with the Theodolite app to capture geotagged photographs that would allow us to revisit the views of the landscapes that we experienced while moving along each leg (Fig. 8).

While walking the Leigh Fermors’ route, we encountered some obstacles that are worth noting. We were cognisant of the time of day at which they set out on each leg, but we chose not to replicate this part of their experience all of the time. For example, we departed earlier in the day for the last leg of the 12 July hike (Leg 24: Porto Kayio to Vathia) because this section of their journey follows now-paved roads that are heavily utilised by cars carrying beach-goers and tourists, and we felt it unsafe to attempt the roads by foot at dusk. Another factor is that we only had access to a single car, which we usually left at the starting point of a hike and then returned to at the end of the day (often by hitchhiking or by flagging down the occasional rogue taxi). Lastly, there were two sections of foot travel that we did not re-create: the first was a short section of their 10 July hike (Legs 12–13: Tigani peninsula, between the salt pans and the fortress) that we opted not to re-create because it was a casual sightseeing trip that would not tell us much about their movement across the landscape; the second was the initial portion of their 14 July hike (Leg 25: Vathia to Layia), which we could not tackle because the hillside stretching up from the valleys around Vathia are so steep – and the paths so long-abandoned – that there was no way to walk that section safely.

The greatest difficulty we faced was that the changes to Mani’s transportation systems impacted our ability to fully replicate the Leigh Fermors’ 1951 movement across the landscape. At times, we

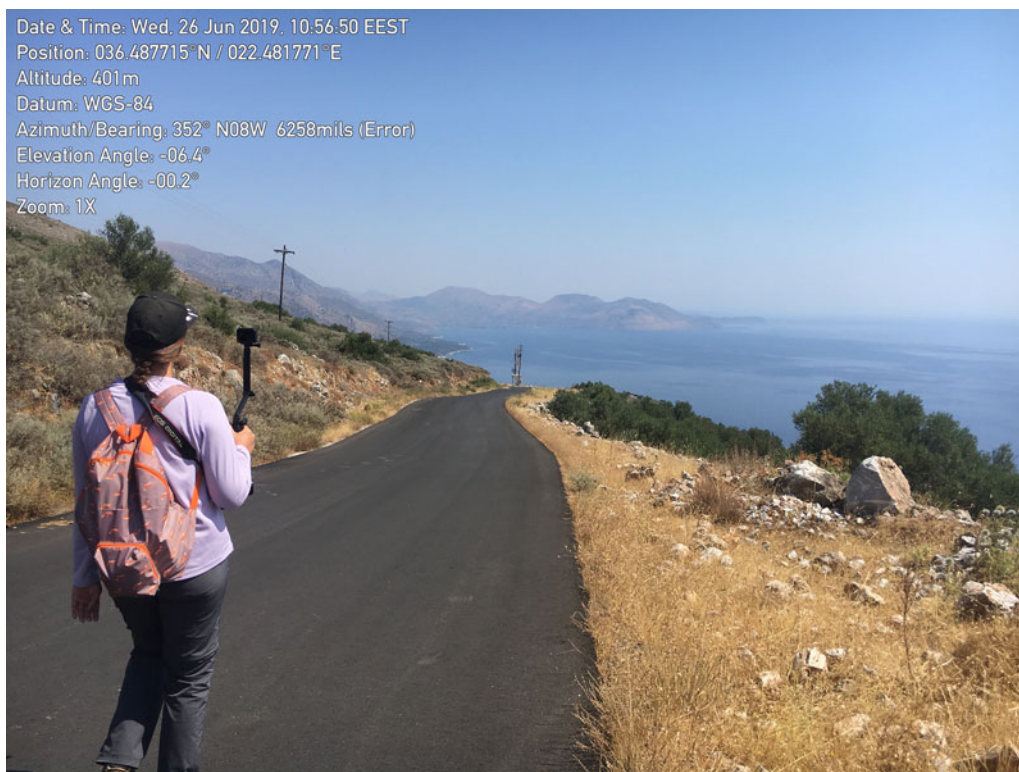


Fig. 8. Geotagged photo from Leg 27 (the Phaneromeni in Layia to Ayios Kyprianos), looking north towards the bay at Kotronas. This stretch of the modern road postdates the Leigh Fermors' journey, but the route they probably followed (slightly downhill from us) is now inaccessible.

found ourselves walking paved roads that unfolded over the footprint of the former paths that they concealed, forcing us to cast our imaginations back to the cobbled roads and walled footpaths they once were. On rare occasions, we breezed along well-marked trails that were clearly historical footpaths, kept relatively clear by local communities or the occasional hiker following one of the Anavasi guides. More often, however, we struggled along paths that were unquestionably dormant. Half a century of unchecked vegetation growth, untrodden surfaces and unrepaired wall collapses can spell disaster for any traveller on foot. Despite our best efforts, we were often physically unable to make forward progress on these paths, such as when they were completely obstructed with thorny trees and snake nests. In these cases we prioritised our safety and opted to jump across collapsing field walls and meander among adjacent groves of olive trees as we kept an eye on the original path from a distance (Fig. 9).

RESULTS PART I: MAPPING THE LEIGH FERMORS' ROUTE

Our first goal was to create a detailed map of the Leigh Fermors' journey. Despite the differences we encountered while attempting to walk in the Leigh Fermors' footsteps, we found that the very act of re-travelling each leg allowed us to compare and adjust our planned route with the clues they had left us and to observe the landscape from a very different perspective than the typical top-down cartographic view. Ultimately, we were successful in re-creating the most probable route of the Leigh Fermors' journey through the Deep Mani (Fig. 10). A detailed, interactive version of the map can be viewed online (<https://rmseifried.github.io/leigh-fermors/>), and the GIS data and web map files are also available for download (Seifried and Gardner 2021b).



Fig. 9. Geotagged photo from Leg 10 (Kouloumi to Mezapos). This section of the walled footpath was impassable due to vegetation growth.

In general, wherever our own hikes follow modern roads or the LCP models diverge into open terrain, our reconstruction of the Leigh Fermors' route favours pre-modern roads and paths. For example, the route for Leg 1 (Limeni to Areopoli) follows the tight zig-zag of a *kalderimi* that is barely accessible today, but whose existence is clearly visible in aerial photos from the 1940s. For Leg 7 (Kouvouklia to Charouda) we opted to chart their path in an arc north and then south again, rejecting the LCP that cuts directly across the terrain for about 800 m. Similar reasoning is behind our choice for Leg 19 (Kechrianika to Yerolimenas): the LCP follows footpaths for most of the distance between these two waypoints, but it proposes a route along a 500 m stretch west of Kato Boularioi where there is no evidence for a historical footpath. In this case, we decided that their path corresponded to the route we took in 2019, which follows a (now wildly overgrown) footpath the entire way. Leg 27 (Layia to Ayios Kyprianos), however, is a good example of the LCP being the most likely candidate for the Leigh Fermors' own journey rather than the path we ourselves took: the historical footpath the LCP follows is totally inaccessible today, so during our re-creation of the route we were forced to walk the modern paved road above it (see Fig. 8).

Clues from the Leigh Fermors' documents often helped clarify which route they followed when there were several potential options available. For example, when writing about their exploration of the Sklavounakos tower compound just south of Pyrgos, Paddy described their return journey (Leg 4) as 'then back, and up' (Fermor 1951, 28). There are two potential paths between the tower and the town of Pyrgos: one that skirts around the village through its satellite fields, and another that dips into the neighbourhood of Fourniates before climbing uphill again. His notation revealed to us that the latter route was the one they took. Another example is Leg 10 (Kouloumi to Mezapos): both the LCP and our hike followed a pre-modern path that

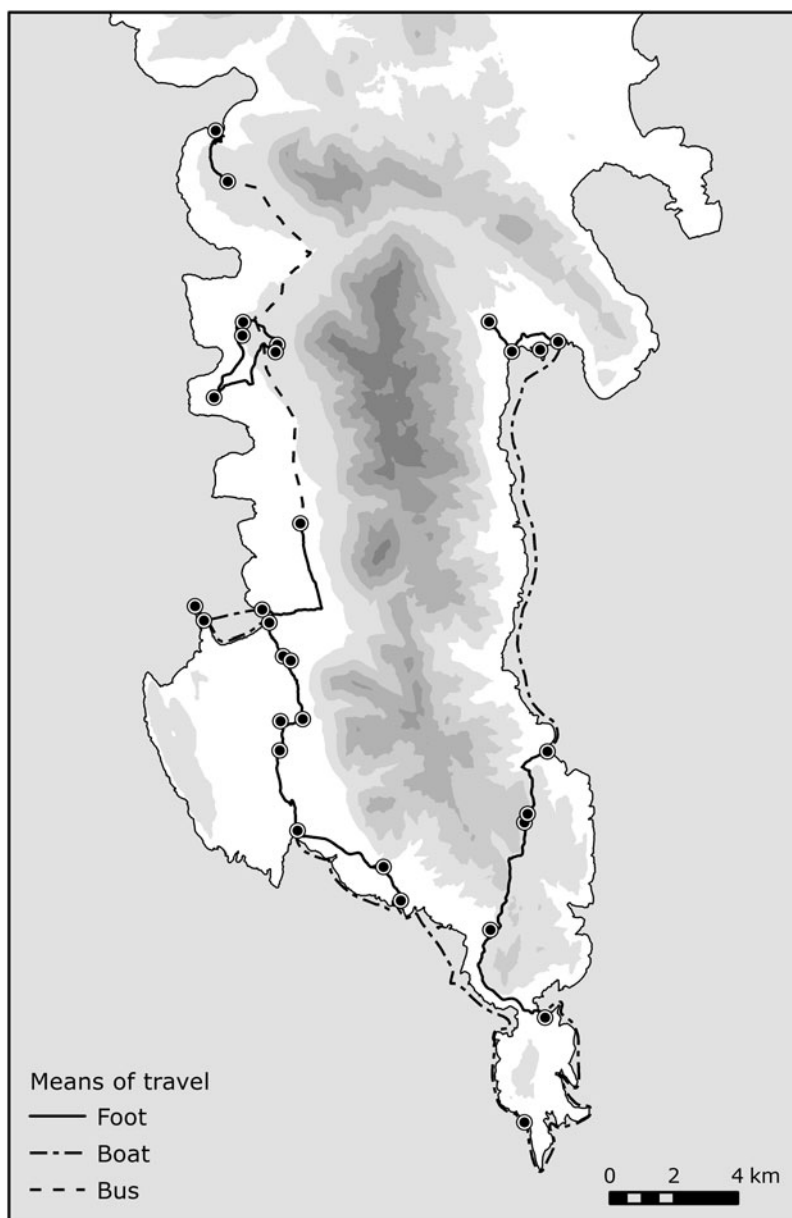


Fig. 10. The route the Leigh Fermors took through the Deep Mani as they journeyed south from Limeni, round the tip of the peninsula, and north to Kotronas. For a detailed, interactive version, see <https://rmseifried.github.io/leigh-fermors/>.

descended slowly south-west to the port. We later discovered (to our chagrin) that one of Joan's photographs reveals they were at a higher elevation; they must have taken the longer path through the village of Erimos before descending due west to Mezapos.

The one portion of the journey that we were unable to model with much certainty was the Leigh Fermors' exploration of Phlomochori, a towered village above Kotronas that they visited on the evening of 15 July after a long day of travel. Neither *Mani* nor any of their archival records indicate the exact route they followed up to the hilltop village or back down to the bay at Chalikia Vata (Legs 30 and 31). The nature of the terrain and the poor quality of the historical aerial photos in this part of Mani made mapping the route network difficult, since the exact location of footpaths before the modern roads were installed is unknown. Our best estimation is

that the couple followed a course directly uphill, while the meandering switchbacks of the modern road are newer constructions that did not exist in 1951.

The parts of the Leigh Fermors' journey that involved boating or busing were easier to reconstruct. The southern boat route from Yerolimenas around the point to Porto Kayio (Legs 22 and 23) and the trip from Mezapos to Tigani and back (Legs 11 and 14) follow paths we tracked with a GPS on the morning of our own boat tour, while the journey up the coast from Ayios Kyprianos to Kotronas (Leg 28) is a rough approximation, as financial constraints prevented us from travelling this section by boat. The two bus routes (Leg 2: Areopoli to Pyrgos and Leg 9: Pyrgos to Kouloumi) follow the course of the dirt road that existed at the time; like the *kalderimia*, the dirt road is clearly visible in historical aerial photos and is followed for the most part by the modern paved road. In all, our reconstruction of the Leigh Fermors' journey through the Deep Mani covers a total of 111 km of travel: 53 km on foot, 45 km by boat and 13 km by bus.

RESULTS PART II: GROUND-TRUTHING THE LCA MODELS

Our second goal was to assess the usefulness of least-cost analysis (LCA) for modelling the routes of historical travellers, particularly in circumstances similar to those of our case study, wherein we had a set of known waypoints and access to an accurate dataset for the transportation infrastructure that existed at the time of their journey. The level of detail in the Leigh Fermors' records provided us a unique opportunity to compare the GIS-generated models against the data we collected while walking the paths ourselves. Altogether, we recorded field data for 20 of the 25 legs they travelled on foot; of those we did not record, two were return legs that we had walked in the outgoing direction (21 and 32), and three were the legs mentioned above that we were unable to re-create for various reasons (12, 13 and 25).

For each leg of the Leigh Fermors' journey, we compared the least-cost paths (LCPs) and the routes we followed during our hikes to two datasets: the pre-modern paths that we had mapped previously and the modern-day road infrastructure (OpenStreetMaps data curated by the American School of Classical Studies at Athens; Herbst 2021). We generated 25 m buffers around the pre-modern paths (PP) and modern roads (MR), then intersected them to determine where modern roads were built on top of pre-existing infrastructure (combined paths; CP). It was then possible to calculate the extent to which each LCP and hike route overlaid each of these path categories (see Table A1 for percentage overlap values). Any routes that deviated from the buffers were considered to be off-path (OP). These values gave us the first set of comparable quantitative data: the degree to which the LCPs and our hikes followed transportation infrastructure that would have been in existence in 1951 versus roads that have been more recently paved.

We found that our hikes were more constrained to the viable routes that existed in 2019, and that we were unable to follow the original path system as often as the LCP models predicted (Fig. 11). As we anticipated, our hikes followed modern roads and combined paths more frequently, while the LCPs were more likely to follow pre-modern paths. We had expected the LCPs to go off-path to a greater degree than they did; this is likely a result of the parameters we set during the least-cost analysis that made off-path travel 1.6 times more costly (Seifried and Gardner 2019, 399).

Comparing distance and time was more straightforward. We used GIS software to calculate the distance of each hike and LCP line segment. Time values for the LCPs were extracted as part of the least-cost-analysis workflow. Any time-based LCA methodology generates an accumulated cost surface whose pixel values represent the total time it should take to walk to that location; thus, we calculated the LCP time estimates by extracting the pixel value at the end of each line. Time values for the hikes were recorded in the field and represent the total time we spent walking each leg, minus any breaks.

In terms of distance, we found that our hikes tended to be longer than the LCP models predicted, with an average difference of 20 per cent (Fig. 12; Table 1). Only two legs had a

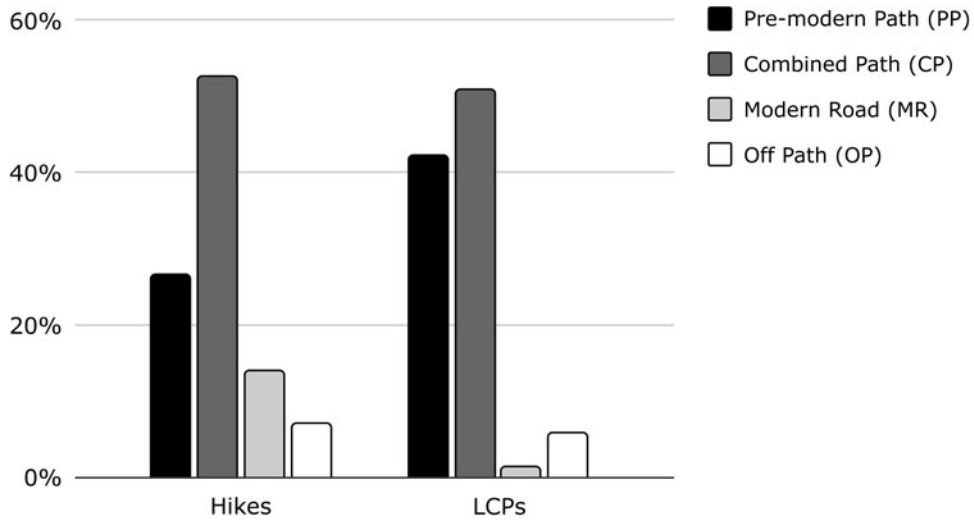


Fig. 11. Percentage of our hikes and the LCPs that were within 25 m of the pre-modern and modern transportation infrastructure.

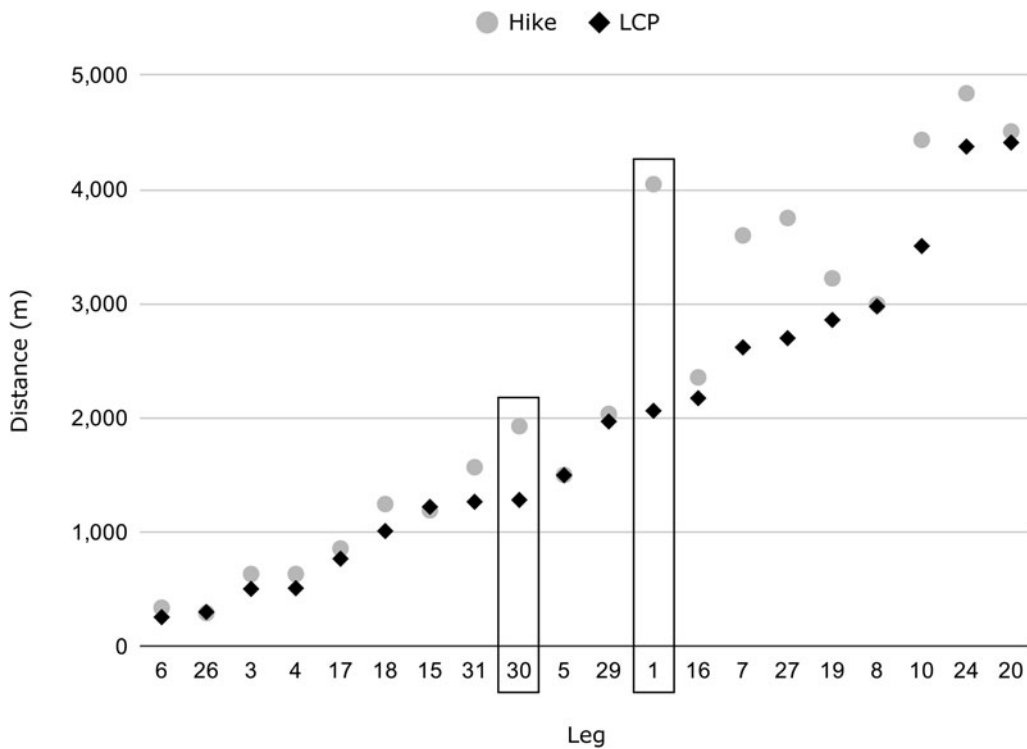


Fig. 12. Distance of each leg, arranged from the shortest to the longest LCP. Boxes outline legs with 50 per cent or greater discrepancy between our distances and the LCP-predicted distances.

greater discrepancy: Leg 30 (Chalikia Vata to Phlomochori) was 50 per cent longer, while Leg 1 (Limeni to Areopolis) was 96 per cent longer. In both cases, we were forced to follow modern roads that had been constructed with long switchbacks to accommodate cars, diverging substantially from the shorter, tighter switchbacks of pre-modern footpaths used by the Leigh Fermors and earlier travellers. This change to the transportation infrastructure was the main

Table 1. Differences in distance between our hikes and the LCPs.

Leg	Hike distance (m)	LCP distance (m)	Difference (%)
6	341	259	31.8
26	295	303	-2.9
3	636	505	25.9
4	636	512	24.3
17	859	770	11.6
18	1,248	1,012	23.3
15	1,194	1,224	-2.5
31	1,571	1,268	23.8
30	1,929	1,284	50.3
5	1,502	1,501	0.1
29	2,038	1,971	3.4
1	4,047	2,064	96.1
16	2,357	2,175	8.4
7	3,599	2,619	37.4
27	3,752	2,700	38.9
19	3,224	2,860	12.7
8	2,996	2,978	0.6
10	4,435	3,506	26.5
24	4,843	4,376	10.7

reason why our hikes tended to cover more ground – modern roads are designed to accommodate large machines moving at high speeds, not to provide the most direct route between two points.

A similar pattern is clear with respect to time: we tended to take more time to complete each leg compared to the walking times predicted by the LCPs (Fig. 13; Table 2). In our earlier study, we found that our LCA methodology (which uses the Modified Tobler algorithm and constrains the LCPs to pre-modern paths) did an excellent job of predicting travel times for a different historical traveller, Colonel Leake, who recorded his travel times with unusual precision (Seifried and Gardner 2019, fig. 12). Thus, the fact that our travel times were on average 30 per cent higher than the predicted times – and that 6 of the 20 legs we walked took more than 50 per cent more time to complete – came as a surprise to us. A number of factors could be at play here: hiking overgrown paths certainly slowed us down on some of these legs (e.g. Leg 10: Kouloumi to Mezapos and Leg 19: Kechrianika to Yerolimenas largely comprised abandoned footpaths), while at other times we may simply have been moving slowly as a result of the heat and accompanying dehydration that is inevitable when hiking the Greek countryside in mid-summer. The leg with the greatest discrepancy (Leg 7: Kouvouklia to Charouda, which we walked in 127 per cent more time than the LCP predicted) was a route that the authors knew well; however, on this particular day, we were joined by the young daughter of a local family whose pace forced us to walk more slowly than if we had been unaccompanied.

We can attribute the discrepancies between our hikes and the LCPs to the utterly transformed nature of Mani's landscape that resulted from establishing the modern road network. Our least-cost methodology was designed to model foot travel in an earlier era, and because it had worked so well for the earlier route of Colonel Leake, we set out to collect the same kind of detailed first-hand information that he had given us in his travelogue (e.g. precise travel times and features he saw along the journey) in order to better apply the method to the Leigh Fermors. However, when we tried to follow the predicted routes in the twenty-first century we were faced with literal (thorny) barriers that diverted us towards longer, paved passages. The challenges we faced in following the LCPs resulted entirely from the fact that the model was designed for a landscape that no longer exists.

Although we were unable to re-create the Leigh Fermors' route wholly in person, we found that LCA predicted realistic routes for nearly all of the legs of their journey, and that only a few required alterations based on information from their notes and photographs. There are two main limitations

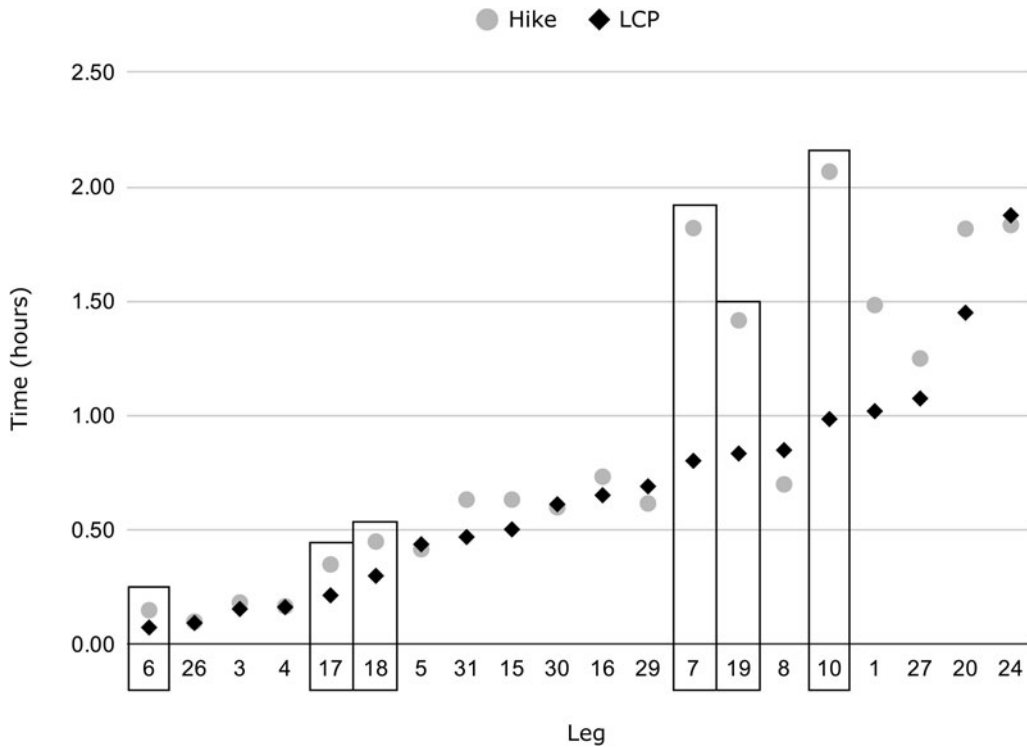


Fig. 13. Time needed to walk each leg, arranged from the shortest to the longest LCP. Boxes outline legs with 50 per cent or greater discrepancy between our times and the LCP-predicted times.

of the LCA method we used. First, its accuracy depends on knowing where the pre-modern paths existed. As our earlier study shows, using a time-based LCA method that does not incorporate paths can still provide a more accurate model than relying on slope alone, but it will not be as helpful for retracing exact historical routes (Seifried and Gardner 2019, 408). The fact that LCA can generate routes that do not correspond to real-world paths was recently demonstrated in a study of Bronze Age roads in Messenia (Brysbart, Vikatou and Stöger 2020, 77–9). Roads and footpaths do not always follow the logic of cost, and in fact may reflect alternative – often social – functions; this is why building them into the analysis can greatly increase the accuracy of LCA models. Second, our method does not account for additional factors that could have influenced a traveller’s decision-making. The Leigh Fermors’ notes and photographs show that they sometimes deviated from the least-costly route. In one case, they chose a *kalderimia* instead of a gravelled path that probably would have been more uncomfortable to walk (Leg 1); in another, they chose to walk along the contour and then descend abruptly to their destination instead of taking a slower descent (Leg 10), a choice we can only speculate about. Anyone using LCA to model historical journeys should consult first-hand documentation to determine if an alternate route would have been more likely, or at the very least be aware that a decision could be swayed by socio-political context, physical ability, or the intangible lure of curiosity.

DISCUSSION

By definition, paths are formed by repeated treading, the continued clearing of vegetation and the maintenance of markers that delineate them – whether these markers are walls, painted indicators, cairns or signposts. Robert Macfarlane (2013, 17) described paths as ‘acts of consensual making . . . because without common care and common practice they disappear’. Christopher Tilley (1994, 30)

Table 2. Differences in time between our hikes and the LCPs.

Leg	Hike time (hr)	LCP time (hr)	Difference (%)
6	0.15	0.07	100.9
26	0.10	0.09	5.9
3	0.18	0.16	17.8
4	0.17	0.16	1.9
17	0.35	0.21	62.8
18	0.45	0.30	49.9
5	0.42	0.44	-4.9
31	0.63	0.47	34.8
15	0.63	0.50	25.9
30	0.60	0.61	-2.1
16	0.73	0.65	12.4
29	0.62	0.69	-10.8
7	1.82	0.80	126.7
19	1.42	0.83	69.7
8	0.70	0.85	-17.6
10	2.07	0.99	109.8
1	1.48	1.02	45.5
27	1.25	1.08	16.2
20	1.82	1.45	25.3

likened the formation of a path through the act of walking to the inscription of a ‘pedestrian speech act’: ‘Both are sedimented traces of activity, and both provide ways to be followed.’ In short, paths are evidence of active and ongoing communication between walkers and the earth.

As paths are travelled less frequently – and eventually not at all – vegetation and animals have an opportunity to reclaim that space. Walls crumble and throw loose stones into the path. Snakes build nests in the debris and exposed crevices. Spiders weave sticky webs across the untrodden space, hoping to catch a passing cicada startled from its perch in a nearby olive tree. These minor encroachments from nature build up quickly when a path is not exposed to regular walking. Before the era of automobiles, path maintenance was an essential part of day-to-day life that ensured the main thoroughfares for social and economic livelihood were kept clear. As pastoralism and subsistence agriculture waned and cars became the preferred method for travel, footpaths either fell into disuse and were reclaimed by nature or they were transformed and buried beneath layers of asphalt. Our attempt to map the journey of the Leigh Fermors through the Deep Mani 70 years ago is testament to the vast, transformative effects that altering the built landscape (in this case, the transportation infrastructure) can have on the way a person experiences the landscape as a whole.

In tracing European attitudes towards walking over the eighteenth to twentieth centuries, Tim Ingold (2004, 321–3) highlighted the differences between walking out of necessity and walking for pleasure, the latter of which is a decidedly modern development that arose among those in an affluent society with ample leisure time on their hands – or, rather, their feet. Up until the 1970s, foot travel was a necessary part of daily life for all villagers in Mani, serving as the primary means of transporting goods throughout the region and accessing fields and grazing lands. The seasonal journey to winter pasture was a dangerous affair, the entire goal of which was to bring the flock safely to its destination (Koster 1976). The tracks and paths formed by local people and their animals represent the repetitive action of back-and-forth movement that was essential for survival. Walking, of course, is still necessary today for those who do not have access to cars or motorbikes, as well as the very few shepherds and cowherds who are still active in the area. Although we did not interview these modern walkers-by-necessity about their habits, our casual observations indicated that – like us during our attempt to re-create the Leigh Fermors’ route – they tend to stay on the paved roads, since so few of the old paths are functional. It is also easier to walk a paved surface than a cobbled, gravelly and meandering field

path, even if the distance on the modern road is longer, the heat more extreme as it reflects from the black asphalt, and animals at greater risk from passing cars. Moreover, foot travellers can abandon their role as a pedestrian and hail a ride from a passing car or truck more easily if they stick to the main roads, as we ourselves did several times during our fieldwork.

Walking for pleasure, on the other hand, has certainly become more popular since tourism in Greece increased in the late twentieth century. Recreational walking in Mani is largely confined to a few specific signposted trails. These trails follow the original paths that villagers used to walk, but now, rather than follow them out of necessity, modern hikers are doing so out of pure enjoyment. Thus, largely as a result of the abandonment of traditional agricultural practices and the paving of roads, walking in Mani has taken on a different meaning. The subset of people carrying out each form of walking has likewise changed. Before the arrival of cars, villagers were the ones who were walking, with the rare exception of a few foreign interlopers like Paddy and Joan. Today, only a handful of villagers can be found walking out of need, and they restrict themselves largely to the roads paved for automotive travel. The majority of wayfarers who venture off these paved roads are tourists from elsewhere in Greece or abroad.

What do these shifts in walking practice mean for the Greek countryside, and especially for the people living in it? If we understand path-walking as a kind of communication between foot and ground, the one literally impressing itself upon the other while simultaneously absorbing information from it, we must accept the increasing silence of this dialogue. There are simply fewer feet walking these pre-modern paths. From a material perspective, this means that paths are less frequently transformed by human and animal feet and more so by other (largely natural) processes. To imagine that erstwhile paths are somehow frozen in time is to ignore that landscapes are constantly changing (Ingold 1993, 164). Active hiking trails, on the other hand, continue to be shaped by the foot-and-ground dialogue, leaving a material signature that is more characteristic of a well-used pre-modern path. In a motorised landscape, hiking trails are perhaps the only remnants of what the path network may once have looked like when walking was a part of daily life for every inhabitant of Mani.

CONCLUSIONS

In our effort to re-create the route that Paddy and Joan Leigh Fermor followed through the Deep Mani in 1951, we were acutely aware that the landscape with which we were communicating was – in ways both small and momentous – ever-changing and forever-transformed. We took care to control certain variables, attending to seasonality and (when possible) time of day, and thinking about how hydration and sleep would affect our physical endurance. Like the Leigh Fermors, we walked, drove and boated through the Deep Mani over the course of several consecutive days in high summer. Unlike them, we carried modern gear and technology, and we walked roads that were built decades after their journey and paths that had become overgrown through disuse. More importantly, we were reminded that there are certain variables we can never fully replicate: a traveller's gender and level of fitness, their age and comfortable walking pace, and the unpredictable peculiarities of their experience that draw attention to certain sights, sounds, vistas, flavours and tactile experiences – in short, their unique, embodied experience.

After consulting the archival notebooks and photographs and the published manuscript that captured the Leigh Fermors' 1951 experiences, we used least-cost analysis (LCA) to generate models of their potential routes and ground-truthed these routes by walking them ourselves in the summer of 2019, nearly 70 years later. Choosing the correct routes was not straightforward; we meticulously scoured their notes for references to specific buildings and scrutinised photographs for viewpoints that might suggest they had followed a different path than the one predicted by LCA. We relied on our own extensive knowledge of the built landscape to modify our choices if an original path was no longer accessible or was unsafe. After comparing our data to the infrastructure that existed both in the past and in the present, we found that LCA generally predicted shorter, more direct routes, which the Leigh Fermors' would have followed

the majority of the time. Our map (see [Fig. 10](#); <https://rmseifried.github.io/leigh-fermors/>) represents the course of their journey.

Walking the deserted paths of Mani gave us a glimpse into the past: as we attempted to resurrect a means of transportation and communication that has long been abandoned, we gleaned insight into the remains of former communities and into a way of life that itself no longer exists. In this way, Mani has transformed significantly since the Leigh Fermors' visit. But at the same time, by walking certain historical paths that have been rebranded as hiking trails, we continue to perpetuate a centuries-old practice of using these very routes; and what is more, we contribute to their upkeep and actively participate in their revitalisation. As in any place where automated transportation has become standard, life in Mani continues to speed up alongside the accelerating pace of travel. Those who continue to walk – whether out of necessity or for pleasure – have access to a slower pace of movement that travellers like Paddy and Joan Leigh Fermor enjoyed; these wayfarers can afford themselves the time to observe the slowly changing landscape and to imagine how it might be transformed over the next 70 years when future travellers, in turn, walk in these historic footsteps.

ACKNOWLEDGEMENTS

Author roles: Rebecca Seifried and Chelsea Gardner co-direct the CARTography Project, completed the fieldwork portion of this project, and contributed equally to the present work. Seifried was responsible for the LCA analysis and route mapping, while Gardner coordinated the archival research and local networking. Maria Tatum carried out comparative GIS analyses on the collected data. Support: this research was made possible through the Anna C. and Oliver C. Colburn Fellowship, awarded by the American School of Classical Studies at Athens and the Archaeological Institute of America. Additional funding and support were provided by the Social Sciences and Humanities Research Council of Canada, the Killam Foundation, the Society for Women Geographers, the Crake Foundation, the Diros Project, the University of British Columbia, Mount Allison University, the University of Hawai'i, Acadia University and the University of Massachusetts Amherst. A special thank you to Kirsty McHugh at the National Library of Scotland, to the Estate of Patrick Leigh Fermor and the Estate of Joan Leigh Fermor for their permission to study and publish these records, and to Christine Johnston for connecting the project directors with Tatum. Finally, we extend our sincerest gratitude to all of the people of Mani, past and present, who made this work possible. We would like to acknowledge the following people in particular: the Koilakos family (Antonis, Kyriakos, Matoula, Maria, Panagiota and Giorgos), Stavros Androutsakos, Eleni Kouvari, Giorgos Georgariou, Ilias Diakoumakos, Rhett Riley and all the kind drivers who never failed to pick up two sweaty hitchhikers.

rseifried@umass.edu

APPENDIX

Table A1. Data for each leg of the Leigh Fermors' journey in the Deep Mani. Hike data were not collected for rows in grey.

Date (1951)	Leg	Start location	End location	Means of travel	Re-created in 2019	Hikes						LCPs						
						Distance (m)	Time (hours)	PP (%)	CP (%)	MR (%)	OP (%)	Distance (m)	Time (hours)	PP (%)	CP (%)	MR (%)	OP (%)	
July 7	1	Limeni	Areopoli	Foot	Yes	4,047	1.48	45.5	21.9	7.7	24.9	2,064	1.02	39.1	54.8	--	6.2	
July 8	2	Areopoli	Pyrgos	Bus	Yes, no data collected													
July 9	3	Pyrgos	Sklavounakos compound	Foot	Yes	636	0.18	--	100.0	--	--	506	0.16	38.8	46.1	1.0	14.1	
	4	Sklavounakos compound	Pyrgos	Foot	Yes	636	0.17	--	100.0	--	--	512	0.16	40.9	45.5	1.0	12.7	
	5	Pyrgos	Church (Glezou)	Foot	Yes	1,502	0.42	--	100.0	--	--	1,501	0.44	--	100.0	--	--	
	6	Church (Glezou)	Inscription (Kouvouklia)	Foot	Yes	341	0.15	--	76.8	0.5	22.7	259	0.07	--	80.5	1.3	18.3	
	7	Inscription (Kouvouklia)	Taxicharchis (Charouda)	Foot	Yes	3,599	1.82	35.4	52.9	7.1	4.6	2,619	0.80	13.2	49.7	10.1	27.0	
	8	Taxicharchis (Charouda)	Pyrgos	Foot	Yes	2,996	0.70	10.1	89.9	--	--	2,978	0.85	9.6	90.4	--	--	
	9	Pyrgos	K? (Kouloumi)	Bus	Yes, no data collected													
	10	K? (Kouloumi)	Swimming area (Mezapos)	Foot	Yes	4,435	2.07	62.6	2.0	--	35.4	3,506	0.99	90.1	7.1	0.6	2.3	
11	Swimming area (Mezapos)	Tigani salt pans	Boat	Yes, no data collected														
12	Tigani salt pans	Fortress	Foot	No														
13	Fortress	Tigani salt pans	Foot	No														
14	Tigani salt pans	Swimming area (Mezapos)	Boat	No														
15	Swimming area (Mezapos)	Tower (Kato Gardenitsa)	Foot	Yes	1,194	0.63	97.0	0.6	--	2.5	1,224	0.50	95.4	0.2	--	4.4		
16	Tower (Kato Gardenitsa)	Kita	Foot	Yes	2,357	0.73	2.3	95.6	2.1	--	2,175	0.65	33.3	65.8	--	0.9		

Continued

Table A1. Continued

Date (1951)	Leg	Start location	End location	Means of travel	Re-created in 2019	Hikes						LCPs					
						Distance (m)	Time (hours)	PP (%)	CP (%)	MR (%)	OP (%)	Distance (m)	Time (hours)	PP (%)	CP (%)	MR (%)	OP (%)
July 11	17	Kita	Nomia	Foot	Yes	859	0.35	35.9	64.2	--	--	770	0.21	46.4	53.6	--	--
	18	Nomia	Kechrianika	Foot	Yes	1,248	0.45	70.0	--	--	30.0	1,012	0.30	92.0	--	--	8.0
	19	Kechrianika	Yerolimenas	Foot	Yes	3,224	1.42	46.6	51.3	2.1	--	2,860	0.83	58.9	27.4	3.5	10.2
	20	Yerolimenas	Temple (Kyparissos)	Foot	Yes	4,509	1.82	29.6	69.5	1.0	--	4,412	1.45	46.2	53.8	--	--
July 12	21	Temple (Kyparissos)	Yerolimenas	Foot	Yes, no data collected												
	22	Yerolimenas	Cave of Hades	Boat	Yes, no data collected												
	23	Cave of Hades	Porto Kayio	Boat	Yes, no data collected												
July 14	24	Porto Kayio	Vathia	Foot	Yes	4,843	1.83	--	70.2	29.8	--	4,376	1.88	9.6	75.9	3.4	11.1
	25	Vathia	Layia	Foot	Partial												
	26	Layia	Phaneromeni (Layia)	Foot	Yes	295	0.10	--	100.0	--	--	303	0.09	--	100.0	--	--
	27	Phaneromeni (Layia)	Ayios Kyprianos	Foot	Yes	3,752	1.25	1.8	19.4	78.8	--	2,700	1.08	76.4	20.6	--	3.0
July 15	28	Ayios Kyprianos	Kotronas	Boat	No												
	29	Kotronas	Argonautish Bay (Chalikia Vata)	Foot	Yes	2,038	0.62	21.2	74.6	4.0	0.1	1,971	0.69	23.0	76.7	0.3	0.1
	30	Argonautish Bay (Chalikia Vata)	Phlomochori	Foot	Yes	1,929	0.60	3.2	47.1	49.7	0.1	1,284	0.61	48.8	47.4	--	3.9
	31	Phlomochori	Argonautish Bay (Chalikia Vata)	Foot	Yes	1,571	0.63	15.2	65.7	18.9	0.1	1,268	0.47	49.4	46.2	--	4.4
	32	Argonautish Bay (Chalikia Vata)	Kotronas	Foot	Yes, no data collected												
Totals						46,009	17.42					38,299	13.25				

REFERENCES

Unpublished sources

Fermor, P.L. 1951. Black notebook titled '4. Crete Mani. May. 1951', Acc. 13338/485, Patrick Leigh Fermor Archive, National Library of Scotland (Edinburgh).

Rayner, J. 1951a. Black pocket diary (Frank Smythson's 'Wafer' Registered Diary) dated 1951, Acc. 13338/554, Joan Leigh Fermor Archive, National Library of Scotland (Edinburgh).

Rayner, J. 1951b. Collection of numbered black-and-white photographs pasted onto individual pages, Acc. 13179/6, Joan Leigh Fermor Archive, National Library of Scotland (Edinburgh).

Published sources

Allen, P.S. 1976. 'Aspida: a depopulated Maniat community', *Annals of the New York Academy of Sciences* 268.1, 168–98.

Brysaert, A., Vikatou, I. and Stöger, H. 2020. 'Highways and byways in Mycenaean Greece: human-environment interactions in dialogue', *Arctos: Acta Philologica Fennica* 54, 33–94.

Calligas, H.A. 1974. 'The evolution of settlements in Mani', in O.B. Doumanis and P. Oliver (eds), *Shelter in Greece* (Athens), 115–37.

Clarke, M.H. 2020. 'Transportation and change through an anthropological lens', *Journal of Business Anthropology* 9.2, 192–224.

Collins, I. and Stewart, O. 2018. *The Photographs of Joan Leigh Fermor: Artist and Lover* (London).

Dean, M. 2006. *Inside the Mani: A Guide* (Athens).

Dean, M. 2013. *Inside the Mani: On Foot & by Car* (available online <www.insidemani.gr/inside-the-mani-digital-editions/> accessed December 2021).

Fenwick, S. 2017. *Joan: The Remarkable Life of Joan Leigh Fermor* (London).

Fermor, P.L. 1977. *A Time of Gifts. On Foot to Constantinople: From the Hook of Holland to the Middle Danube* (London).

Fermor, P.L. 1986. *Between the Woods and the Water. On Foot to Constantinople: From the Middle Danube to the Iron Gates* (London).

Fermor, P.L. 2004 [1958]. *Mani: Travels in the Southern Peloponnese*, reprint (London).

Fermor, P.L. 2013. *The Broken Road. From the Iron Gates to Mount Athos*, ed. C. Thubron and A. Cooper (London).

Given, M. 2020. 'Walking from Dunning to the common of Dunning', *Epoiesen* (available online <<https://epoiesen.carleton.ca/2020/06/18/walking-from-dunning/>> accessed December 2020).

Given, M., Aldred, O., Grant, K., McNiven, P. and Poller, T. 2019. 'Interdisciplinary approaches to a connected landscape', *Proceedings of the Society of Antiquaries of Scotland* 148, 83–111.

Hamilakis, Y. 2014. *Archaeology & the Senses: Human Experience, Memory, and Affect* (Cambridge).

Herbst, J. 2021. 'ModernRoads_OSM.zip', *Corinth Archaeological Data and Basemaps* (data set, available online <www.ascsa.edu.gr/excavations/ancient-corinth/digital-corinth/maps-gis-data-and-archaeological-data-for-corinth-and-greece> accessed September 2021).

Herzog, I. 2020. 'Spatial analysis based on cost functions', in M. Gillings, P. Hacigüzeller and G. Lock (eds), *Archaeological Spatial Analysis: A Methodological Guide* (London), 333–58.

Ingold, T. 1993. 'The temporality of the landscape', *WorldArch* 25.2, 152–74.

Ingold, T. 2004. 'Culture on the ground: the world perceived through the feet', *Journal of Material Culture* 9.3, 315–40.

Kaloyirou, A. 2005. *Περπατώντας στην Ελλάδα. Τα Μονοπάτια της Μέσα Μάνης* (Areopoli).

Kazazis, Ph. 2012. *Φωτογραφικές αφηγήσεις. Μάνη: άνθρωπος και τόπος* (Athens).

Koster, H. 1976. 'The thousand year road', *Expedition* 19.1, 19–28.

Macfarlane, R. 2013. *The Old Ways: A Journey on Foot* (London).

Márquez-Pérez, J., Vallejo-Villalta, I. and Álvarez-Francoso, J.I. 2017. 'Estimated travel time for walking trails in natural areas', *Geografisk Tidsskrift – Danish Journal of Geography* 117.1, 53–62.

Matsouka, P. (ed.) 2009. *Peloponnese Touring and Hiking Maps: Mani, 1:50,000* (Digital Atlases of Greece; Athens).

Matsouka, P., Viryiotis, N., Saitas, Y., Goudis, Ch., Dimakogiannis, G.P. and Alexandrou, G. 2014. *Μάνη. Όπως Πετάνει ο Γλάρος*, 2nd edn (Athens).

Seifried, R.M. 2016. 'Community organization and imperial expansion in a rural landscape: the Mani peninsula (AD 1000–1821)' (unpublished PhD thesis, University of Illinois at Chicago) (available online <<https://hdl.handle.net/10027/21274>> accessed December 2020).

Seifried, R.M. 2021. 'The stone-built *palaio-maniatika* of the Mani peninsula, Greece', in R.M. Seifried and D.E.B. Stewart (eds), *Deserted Villages: Perspectives from the Eastern Mediterranean* (Grand Forks, ND), 153–205.

Seifried, R.M. and Gardner, C.A.M. 2019. 'Reconstructing historical journeys with least-cost analysis: Colonel William Leake in the Mani peninsula, Greece', *JAS: Reports* 24, 391–411.

Seifried, R.M. and Gardner, C.A.M. 2021a. 'Figures accompanying the manuscript "Mapping the Leigh Fermors' journey through the Deep Mani in 1951"' (data set) (available online <<https://scholarworks.umass.edu/data/143/>> accessed March 2023).

Seifried, R.M. and Gardner, C.A.M. 2021b. 'GIS data for mapping the Leigh Fermors' journey through the southern Mani peninsula, Greece, in 1951' (data set) (available online <<https://scholarworks.umass.edu/data/142/>> accessed March 2023).

Tilley, C. 1994. *A Phenomenology of Landscape: Places, Paths, and Monuments* (Oxford).

Verhagen, P., Nuninger, L. and Groenhuijzen, M.R. 2019. 'Modelling of pathways and movement networks in archaeology: an overview of current approaches', in P. Verhagen, J. Joyce and M.R. Groenhuijzen (eds), *Finding the Limits of the Limes: Modelling Demography, Economy and Transport on the Edge of the Roman Empire* (Cham), 217–49.

Witmore, C. 2020. *Old Lands: A Chorography of the Eastern Peloponnese* (New York).

Χαρτογραφώντας το ταξίδι του ζεύγους Λη Φέρμορ στη Μέσα Μάνη το 1951

Το καλοκαίρι του 2019 τα μέλη του ερευνητικού προγράμματος “CARTography” επιχειρήσαμε να αναδημιουργήσουμε τη διαδρομή που ακολούθησαν το ζεύγος Πάτρικ και Τζόαν Λη Φέρμορ κατά τη διάρκεια της πρώτης τους επίσκεψης στη Μέσα Μάνη το 1951. Το πρόγραμμα συμπεριέλαβε μία διεξοδική ανάλυση και μελέτη των ημερολογίων του ζευγαριού και των φωτογραφιών τους, με σκοπό να εντοπίσουμε λεπτομέρειες σχετικά με τις εξορμήσεις στην περιοχή, χρησιμοποιώντας χαμηλού κόστους ανάλυση για τη δημιουργία ενός μοντέλου των πιθανών διαδρομών τους και την επαλήθευση αυτού διασχίζοντας τις διαδρομές αυτές, είτε με τα πόδια είτε με καράβι. Όπως παρατηρείται στο μεγαλύτερο μέρος της ηπειρωτικής Ελλάδας, η τοπογραφία της Μάνης έχει αλλάξει σημαντικά τις τελευταίες επτά δεκαετίες που μεσολαβούν από το ταξίδι των Λη Φέρμορ μέχρι σήμερα, καθώς σύγχρονοι ασφαλοστρωμένοι δρόμοι έχουν αντικαταστήσει τα παλιά μονοπάτια της Οθωμανικής περιόδου, στα οποία στηρίζονταν οι ντόπιοι για ταξίδια και μεταφορές. Αν και το μεταμορφωμένο τοπίο που συναντήσαμε εμποδίζει μία ακριβή και πλήρη αναπαράσταση του ταξιδιού των Λη Φέρμορ, μας προσέφερε την ευκαιρία να ενσωματώσουμε σημεία-κλειδιά της ταξιδιωτικής τους εμπειρίας. Τα αποτελέσματα της μελέτης μας είναι διπλά: πρώτον, η δημιουργία ενός λεπτομερούς χάρτη της διαδρομής που ακολούθησαν οι Λη Φέρμορ, με βάση τη μελέτη του αρχείου τους, και δεύτερον, μία εκτίμηση της χρησιμότητας του να εφαρμόζεται χαμηλού κόστους ανάλυση στην αναπαράσταση των διαδρομών που ακολούθησαν διάφοροι ιστορικοί ταξιδιώτες.