ABSTRACT
A pilgrimage is a transformational journey; it has a preparatory and an anticipatory phase, an active (liminal or threshold) phase, and a reflective phase afterwards where benefits are understood. Mount Athos, in Northern Greece, has been the centre of Orthodox Christianity, and a destination for pilgrims, for over one thousand years, and in providing maps for this use in the remote monastic enclave, the author hopes to learn

• how to use cartography to add depth and meaning to the pilgrimage experience, and
• to begin to understand the needs of the many different cultures making the journey.

INTRODUCTION
I am a member of The Friends of Mount Athos (FoMA), a society established in the 1990s following a series of letters to the Times newspaper (London, UK). In the '90s a group of academics and others immersed in Byzantine history and Orthodoxy, formed FoMA to provide help to the Holy Community - the monks of Mount Athos - the Holy Mountain.

Since before the year 1000, this fifty kilometre long peninsula has been the centre of Orthodox Christian Monasticism and spirituality. There are twenty large monasteries and many smaller establishments there in a setting of utmost beauty and pristine originality (e.g. monastery shown in Figure 1). It is remote, and difficult of entry which is only allowed by sea. The land border is closed, and pilgrims (only males allowed) have to have a special permit issued by the monks. The mountain itself, Mount Athos, over 2,000 metres high, crowns the southern end of the peninsula.

Currently over 2,500 monks call this their home. It is an extraordinary relic, essentially a self-governing republic within Greece, existing on the basis of edicts and chrysobulls from Byzantine emperors.

At any one time there are probably an equal number of pilgrims visiting. They are all only males - this has been the rule since 1024. The only domestic animals of the female gender permitted are cats. The monks are not misogynists - they just know that the presence of the fair sex would interfere with their programmes of prayer and work.

In 1963 the community held celebrations for the 1,000th anniversary of the first monastery, the Grand Lavra, and some of the invited guests would have found it impossible to make the steep 12 kilometer walk from the port at Dafni to the administrative centre at Karyes.

This necessitated the building of a road, and thus progress arrived! Subsequently, monasteries, with the arrival of new recruits, started on restoration projects, some of them engaged in logging and timber exports, and larger scale farming. All this has meant the proliferation of roads and vehicles.

Pilgrims stopped walking the historic footpaths, and used vehicles instead.

A call from the Holy Community via the Prince of Wales to the Friends of Mount Athos sought help in clearing and re-establishing these paths; and thus a team of twenty volunteers has taken slashers, loppers and saws annually since 2001 for a fortnight of brutal exertion.

While doing this, teams have carried GPS receivers, and the tracks recorded have been used in the compilation of an up-to-date map, particularly to highlight the ancient footpaths (Figure 2).

To help in the compilation of the new map, the existing maps were studied, and I read as much as possible about the notion of pilgrims and pilgrim maps.
Figure 1. Simonopetra Monastery.

Figure 2. Paths maintained by FoMA are in red, above.
I discovered a rich literature, and a need to try and understand motivation, experiences and outcomes, in order to try and use cartography in the best way to inform and enhance the undertaking.

THE IDEA OF PILGRIMAGE
(or transformational travel)

All voluntary travel has (or should have!) a transformational aspect; from the mundane - to purchase lawn fertilizer, to the extraordinary - to climb Mount Everest. The inner person is seeking some form of gratification either during or after the event. The object of pilgrimage is not rest and recreation (we can sit on a cruise liner and do that) or to get away from it all. It is to throw down a challenge to everyday life, to engage in something requiring taking risk and making an effort where some form of transformation is anticipated. The term for this, I gather, is liminal, from the Latin limen or threshold.

This type of travel brings a special kind of wisdom if one is open to it. At home or abroad, things of the world pull us towards them in a way that can overwhelm us if we are not alert.

Travelling in an alert state can help us see this, because the constantly changing outside environment forces us to look inward for security. How does one engage in this sort of journey? We need to believe that there is something waiting for us to discover in each effort.

We are not talking here about the ‘World Traveller’ or the ‘Frequent Flyer’ - these people are well catered for by Lonely Planet and other guide books, brochures and plans. There is even now available a guide showing the best place to kill oneself in the Grand Canyon. This is all quite legitimate, but we are now talking about those who do not seek these kinds of pleasures, but something more.

What I was trying to do in this reading was to grab the essence of pilgrimage, as an activity, to see how cartography could help the pilgrim attain his goal.

One of the most eloquent descriptions (Figure 3 acts as a visual context for this): All .. roads to Rome are legitimate for different travellers, at different stages of life. But what if we are at the crossroads, as the blues singers moan, longing for something else, neither diversion or distraction, escape nor mere entertainment? What if we have finally wearied of the paladins of progress who promise worry-free travel, and long for a form of travel that responds

![Figure 3. Map of 1600, 'the seven pilgrim churches of Rome'.](image-url)
to a genuine cry of the heart, a longing for a taste of mystery, a touch of the sacred? For millenia, this cry in the heart for embarking on a meaningful journey has been answered by pilgrimage, a transformative journey to a sacred centre. It calls for a journey to a holy site associated with gods, saints or heroes, or to a natural setting imbued with spiritual power, or to a revered temple or to seek counsel. To people the world over, pilgrimage is a spiritual exercise, an act of devotion to find a source of healing, or even to perform a penance. Always, it is a journey of risk and renewal. For a journey without challenge has no meaning; one without purpose has no soul (Cousinéau, 1998).

The assumption made by the Holy Community (the administration of Mount Athos) is that all who come are pilgrims. But within this set are subsets - on a continuum, however - from what I would dare to call ‘recreational’ pilgrims to those of more serious mein. (Of course, the classification may change during the undertaking!) In order to attempt to provide cartographic services to the cohort of visitors to the Holy Mountain, it is perhaps worthwhile to look at the motivations and expectations of the visitors.

Sources for these ideas include travel writers:

*Here, in lush valleys, teem bees, figs, and olives. The inmates of the monasteries weave cloth, stitch shoes, and make nets. One turns the spindle of a handloom through the wool; another twists a basket of twigs. From time to time, at stated hours, all essay to praise God. And peace reigns among them, always and forever* (Bondelmonte, 1824).

From Christopher Merrill:

‘Why have you come to Mount Athos?’ was the question repeatedly asked of me. And the answers I gave - spiritual yearning; despair born of my reporting on the war in the Balkans; marital difficulties; the birth of my daughter; interest in Byzantium - took on new meaning in a land untouched by modernity, where my curiosity about monasticism led me to re-examine my own faith as a protestant. Here is an unchanging order against which to measure the ceaseless changes of modernity, a thousand years of continuous religious practice to juxtapose with the ever shifting habits of contemporary belief. The vitality of the spiritual tradition carried on by Athonite monks is everywhere on display: in the mysterious beauty of the liturgy sanctified by fifteen centuries of daily performance; in the rigorous theology informing the monks’ prayers; in the artistic heritage of architecture, iconography, statuary, metalwork, illuminated manuscripts, chanting, vestments and ceremony. Yet even as I walked along the cliffs and paths, marvelling at the strangeness of a place which creates its own time, its own singular history, I carried the burden of my life in the world. My spirits were low, and I was filled with existential dread: ‘Is there any meaning in my life that will not be annihilated by the inevitability of death which awaits me?’ Tolstoy asks a question I could not answer until I travelled to the Holy Mountain (Merrill, 2004).

From Scott Cairns:

*And then I was standing at the edge. It would surprise you how near to home. And the abyss? Every shade of blue, all of them readily confused, and, oddly, none of this as terrifying as I had expected, just endless. What? You find this business easy? When every breath is thick with heady vapour from the edge? You might not be so quick to deny what prefers its more dramatic churning done out of sight. Enough about you. The enormity spun, and I spun too, and reached across what must have been its dome. When I was good and dizzy (since it was so near), I went home* (Cairns, 2007).

The Holy Mountain itself, both as a physical presence, and in the form of the inhabitants, is a significant part of this relationship.

In an extraordinary book Imagining Mount Athos by noted geographer Veronica della Dora, the writer explores the emotional aura around the Holy Mountain, and helps us gain some insight into the effect that it has, and perhaps helps us establish the best form of responding to the needs of pilgrims:

Mount Athos is one of those places of which most people have heard, but that few have visited. For monks and visitors it is a physical place imbued with different meanings and performed through different practices. For most of those aware of its existence, however, it remains a landscape. For some, Mount Athos is a landscape they may have contemplated from the boat; for many, it is a landscape of myth they will never get to see, an evocative landmark in their geographical imagination, but it is also one to which many feel attached.

How has it become such? Why do places like Mount Athos - places that few have actually visited, experienced, touched - become more significant than accessible destinations? Why do these seldom-visited
places persist while others fade into oblivion? In other words, how does a place become a “landscape of myth”? And how does a landscape become a place beyond physical experience? (della Dora, 2012). Here she has put cogently the emotional investment that is part of pilgrimage.

An interesting point is that she is not able, by virtue of her gender, to visit the Holy Mountain, so we must consider her a virtual pilgrim.

One of the early pilgrim maps was the map of Matthew Paris (Figure 4). He died in 1259, was a Benedictine monk in England and prepared a map of Palestine. Most of the information on this map comes from the accounts that were circulating in the mid-13th century, not from travel directly by the cartographer(s). It is felt that this map had been prepared more for the edification of monks that could not make the pilgrimage than for use in the field. We must therefore consider virtual pilgrims in our own efforts.
THE PRESENT
At the 2012 Mountain Cartography Workshop, at Tauwera in New Zealand, held on the slopes of an active volcano, we were given a wonderful talk by Dr Harry Keys, a Department of Conservation analyst, scientist and volcanologist. Harry talked about his relationship with the mountain, and the relationship that the local iwi (tribe) had with the mountain, and what the differences were between the ‘colonial’ view and the Maori view of landmarks and landscape. This fits nicely with one of the tenets of Orthodoxy which is the importance of the natural environment and its place in creation. Nowhere is this more evident than on the Holy Mountain.

When re-examining the idea of the Mountain and the pilgrimage in the light of Harry’s comments, it became evident that the cartographer - pilgrim relationship is potentially one of mutual respect, imbued with all sorts of rights and responsibilities, and the opportunity for the cartographer to add value to the pilgrim’s efforts. Thus it follows, that in our current situation, that we should honour and respect the pilgrim, and should not assume anything; and, given Harry Key’s information, be aware of and celebrate each of the different cultures involved. All we have to do is ask the participants!

PRACTICAL MATTERS
It is probably sufficient in the initial phase for the users to realise that they are important to the process of development of our new map (Figure 5, Figure 6). What does this mean for the mapmaker? We should attempt to understand the relationship here between the provider and the user. The pilgrim needs to trust the mapmaker. The pilgrim, by using the mapmaker’s product, is affirming the mapmaker. The mapmaker may well be the first and most important source of information for the pilgrim. If we assume that the pilgrimage has fulfilled its purpose, then there will be transformation of a sort. This will generally mean, at the very least, that the pilgrim will need to share his experiences in order to either justify the odd state in which he returned; the extraordinary expenses that he incurred, or to persuade his friends to return with him! At the present time, the Holy Mountain hosts some 130,000 pilgrims annually. The normal length of stay is three days although there are also those who stay longer, students, guest workers and others. All accommodation is provided free by the monasteries, so the pilgrims are of diverse backgrounds.

There are Greek, Bulgarian, Serbian, Romanian, Russian, German, English, American, Australian, French and even New Zealand pilgrims, amongst others! This is even more surprising given the persistence required to get the necessary diamonitoron, or permit.

There are certain conditions on the Mountain that make the planning of the journey important:
• The need to reserve places in the monasteries
• The environment - the footpaths can be steep and taxing; the conditions slippery and dangerous
• Monasteries generally close their gates at sunset
• There are no rescue services

Certainly, there are pilgrims who arrive festooned with all the latest GPS and communication systems, but others are un- (or under-) equipped.

Given this, what is the best way the mapmaker can support and inform the pilgrim? There are three stages to the journey - that of preparation, the journey itself, and the reflective period.

Laurene Vaughan says:

In the contemporary world we have many ways to know a place before we depart on a journey. Many of us spend considerable time and funds, buying guidebooks, maps and other place-knowing devices to aide us in knowing the place that we are travelling to. These diverse navigational and mapping devices enable us to create a landscape or vista of the places we are travelling to. The map becomes the ground cover, the guidebook the means for populating it and together they create a picture of place that is yet to be encountered. For some this is true of their encounter with the Camino, they travel laden with maps, GPS units and guidebooks. I met a man who had plotted the whole journey into a GPS device that he wore around his waist, from northern Belgium to Finisterre, every step of his 2000km journey was there for him to follow; and yet he didn’t. Like me (who also carried a guidebook with maps and had a GPS device in my phone) he discarded such navigational devices to focus on finding the way on the road. For the walking of the Camino is a form of navigation (Vaughan, 2011).

This paper by Laurene Vaughan echoes the experience of men on the Holy Mountain - on arrival, the journey becomes ‘the thing’ - there is little time for study, and or reflection.
Foreknowledge is very important, many may not have guidance, and it cannot be gathered during the event, as there is little time, when not walking, for privacy. In order to produce a useful map, it was decided to create as accurate a base map as possible: many sources were canvassed - certainly the current crop of commercial maps, government maps, ten years of GPS tracks, Google Earth and WMS servers. SRTM elevation data were used as the base for the maps. The extant maps differed markedly from each other, particularly in the accuracy or recognition of the footpaths, and Google Earth was extremely inaccurate because of the shape of the terrain. The most useful map for pilgrims has been one prepared by an Austrian pilgrim, Reinhold Zwerger, who made many visits, armed with a compass and an altimeter. His last revision, however, was in 1981, and he is now no longer with us.

The primary purpose of our new map is to give clear directions to pilgrims so that they may not only use the paths safely, but also encourage them to do so (Figure 7).
Other difficulties arose because of the nature of the vehicle tracks, as on the Holy Mountain they tend to be ‘made’ rather than engineered. This gives rise to changing locations, particularly after major weather events.

As at the time of writing, a map of the whole peninsula at a nominal scale of 1:25,000 has been prepared (in 3 sheets), and is currently being reviewed. A version of this has been produced as a 1:50,000 sheet, and an ‘atlas’ - A4 - at 1:35,000, that includes profiles of selected paths, a map of Karyes, the administrative centre, and supporting information.

FoMA currently clears or maintains some fifty footpaths, and a 180 page A5 book with annotated thumbnail maps is being used for checking work. For each path a detailed description is available on the society’s

![Figure 7. Path Description and Route Map.](image)
website (www.athosfriends.org); and Greek translations of these are nearly complete. Translation work on the map will shortly commence.

Some of the monasteries have agreed to have supplies of the descriptions on hand. The monks generally welcome these aids as they do not see themselves as tour guides or mountain rescue personnel. As these maps, GPS tracks, and other aids are introduced to the monasteries and pilgrims, and accessed over the internet, responses will be sought. What will be interesting will be the responses by ‘national interest group’ - i.e., Romanians who primarily visit the Romanian skete, Serbians who visit the Serbian monastery, inter alia. National identity is strong on the Holy Mountain. This should provide some interesting insights, and allow the refinement of our work to make it more useful!

CONCLUSION

The notion of using cartography to inform a transformational journey is not new, but it is evident that the new technologies in the GIS and the GPS fields, although adding to information, do not quite provide the tools and knowledge that suit the particular needs of pilgrims. The history of pilgrim maps is long and rich and the principles embodied in these is often missing in modern ‘machine-made’ productions. Modern technology allows, however, unparalleled accuracy, easy revision, translation and distribution.

The difficult and necessary part of the production, that is harder to identify, formulate and include, is the experiential and spiritual component, this informs the dimension that is the reason for the undertaking, and deeply sought by the pilgrim. This is an area that is likely to be fruitful to explore.

The location of the current work is ideal for the development of a new paradigm for this purpose, and the ability of the organisation to talk to users with common needs but of many cultures should allow the production of an increasingly useful and rich tool.

DISCLAIMER

This is the first effort at map-making by the author. The mistakes, presentation standards, and opinions and other aspects of the effort are solely his responsibility, and must in no way be taken as a reflection of the standards set by the New Zealand Cartographic Society and its other members. He is, however, grateful for the advice and counsel of members, and apologises in advance if they feel annoyed that any help offered appears to have been ignored. The author delights in beautiful maps, and while not in any way trying to pass his humble efforts off as beautiful; recognises that there will always be a place for glorious cartography, and hopes that it will never be submerged in Xenotabytes (1 000 000 000 000 000 000 000 000 bytes) of GIS data. He also hopes that the idea of using cartography to enhance pilgrimage (or ‘transformative travel’) generates interest.

Software used in the preparation of this map included Globalmapper (up to V14.1); Coreldraw (up to X6.3), Technical Pack X6; Natural Scene Designer Pro; and other programmes by J S Bach. *Solvitur ambulando!* (it is solved by walking) – Diogenes.

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