

CAERDROIA

THE JOURNAL OF MAZES & LABYRINTHS



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CAERDROIA 55

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The Journal of Mazes & Labyrinths

55th Edition



The newly discovered and excavated stone labyrinth near Khadki in Maharashtra, India – see page 56

Photo: courtesy of Sachin Bhagwan Patil, December 2025

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Photo: Jeff Saward, 2016

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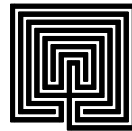
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Caerdroia 55 was produced during May and June 2026 by Jeff and Kimberly Saward at Labyrinthos HQ. Opinions stated by contributors are not always those of the editors, but Caerdroia welcomes open discussion to provide a forum for all who are lured by the labyrinth to explore its various pathways.

Editor & Publisher: Jeff Saward – Associate Editor: Kimberly Lowelle Saward, Ph.D.
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Editorial – Caerdroia 55



Jeff Saward, Thundersley, June 2026

Welcome to the 55th edition of Caerdroia, as always, an edition with a wide range of articles covering labyrinths and mazes from around the world, past and present. 2026 marks 50 years since I first set out on the path to search for clues to the story of the labyrinth, and four years later I started a little newsletter to keep the folk I had met along the way in touch with each other. Another few editions and Caerdroia will also be celebrating 50 years of production, a period when much has been discovered to add to the knowledge of how labyrinths and mazes in their many different forms originated, developed and spread around the world. Little did I know 50 years ago how the interest this field would blossom in the years ahead – the revival of mazes as an attraction at leisure locations and the rapid spread of labyrinths as a spiritual practice around the world. And surely there is more to come....

The Labyrinthos and Caerdroia website – www.labyrinthos.net – contains a wealth of material, including downloadable digital PDF files of Caerdroia 33 through 54, and selected articles from earlier editions, along with some of the many photos and graphics from our extensive photo library and archive. This edition of Caerdroia is also available on the website for subscribers at: www.labyrinthos.net/c55pdf29062026.html

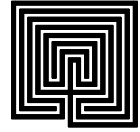
As explained previously, while I will still be printing a few copies of Caerdroia, primarily for library distribution and legal deposit, the digital version of the journal will continue to be issued on an annual basis, much as before, and distributed via the Labyrinthos website – www.labyrinthos.net/caerdroia.html

With the switch to digital delivery, we have reduced our digital subscription to £6 per edition to cover the cost of producing the journal in digital form and the maintenance of the website for its delivery and promotion. I trust you will consider the modest cost of our annual publication still worthy of your support going forward.

Our next edition, Caerdroia 56, is scheduled for publication in the summer of 2027. As always, if you have a paper or shorter article you wish to submit for inclusion in the next edition, send it to me as soon as possible, along with the usual labyrinthine snippets and curios that help fill the pages.

Jeff Saward – Email: jeffsaward@gmail.com – Website: www.labyrinthos.net





Ettore Selli

Abstract

The labyrinth tradition in China does not take the form of an ancient architectural continuity, but rather of a complex and stratified phenomenon that emerged through ritual practices, military strategies, and symbolic reinterpretations. This article examines three fundamental phases in the manifestation of labyrinthine forms in China: (1) the proto-labyrinthine phase connected to the art of incense, (2) the formalization of the labyrinth as a military structure in the Taoist Baguazhen, in comparative dialogue with the Indian Chakravayuha, and (3) the contemporary reinterpretations of the twenty-first century, in which the Bagua model is transformed into a playful and ornamental spatial element.

1. The Proto-Labyrinth: The Art of Incense as a Measure of Time

The earliest manifestation of the labyrinthine element in China is connected to a fundamental ritual practice of Chinese culture: the burning of incense. In this context, the labyrinth is not conceived as a traversable space, but rather as a tortuous graphic pattern, created by continuously winding a line upon itself. It lacks a strict geometric scheme yet is deeply linked to the concept of measurement.

Each strand of incense was associated with a specific design that determined its length and, consequently, the duration of its combustion. These complex patterns functioned as temporal indicators, allowing the passage of time to be visualized through the slow progression of fire along a sinuous and predetermined path. The earliest known examples date back to the 6th century CE and initially took the form of noble seals. Particularly renowned are the seals of family heads during the Tang (618–907 CE), Song (960–1279 CE), and Yuan (1279–1368 CE) dynasties, which appear frequently in Chinese figurative art. Over time, these patterns became increasingly refined, evolving into ideograms and even full poetic texts.

Figure 1: A late 19th century Hsiang-lu incense seal. Labyrinthos Collection

Powdered incense is poured through the grid to produce a labyrinthine pattern before it is lit



According to tradition, the burning of incense had the power to evoke the meaning of the word or text inscribed within it, making incense proto-labyrinths a form of symbolic mediation between time, language, and sacredness. In the late 17th century, during the Qing dynasty, labyrinthine incense seals were burned nightly in the Forbidden City in Beijing to mark the changing of the guards and during spiritual rituals.

Incense culture was introduced to China through Buddhist practices established from the 5th century CE onward and was adopted by the Chinese nobility during ceremonial rites. Over time, the use of incense developed into an art form, particularly during the Song dynasty, with the production of porcelain objects and supports for burning. Later, the Ming dynasty introduced copper censers, and the Qing dynasty employed incense in the ritual ceremonies of the imperial court. The peak of incense use in China was reached during the Song dynasty, when its widespread popular diffusion led to its value equalling that of gold.

2. The Taoist Military Labyrinth: The *Baguazhen*

The first concretization of the labyrinthine element – understood not as a figurative or architectural structure, but as a conceptual and non-spatial device – is linked to the trigrams, a philosophical concept of Taoism embedded in Chinese culture and present in Feng Shui, traditional medicine, and the divinatory art of the *I Ching*. The earliest form of labyrinth in this context is connected to the military sphere and is known as the *Baguazhen* (八卦陣), literally “Formation of the Eight Trigrams.”

The eight trigrams – graphic symbols composed of solid and broken lines – are represented in the octagonal form of the *Bagua* (“eight numbers”). In this arrangement, the individual trigrams are organized radially around a centre and interact through the opposition of yin and yang, symbolizing the flows of energy that act upon the world and human life. The *Baguazhen* is a military formation based on the principles of the Taoist *Bagua*; the suffix *-zhen* (陣) designates a strategic formation capable of activating suddenly like an invisible trap.

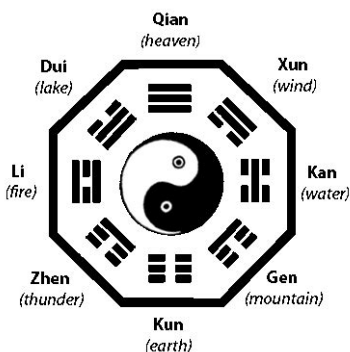


Figure 2: *Bagua* “eight trigrams”

In the *Baguazhen*, the army was divided into eight units arranged according to the cardinal and intercardinal directions around a central command unit. Tradition holds that this octagonal formation was first deployed with forces organized on eight sides, each composed of multiple rows of soldiers protecting a central core where the general stood, responsible for coordinating the simultaneous movements of the units in order to defend the vulnerabilities of each of the eight fronts.

The exact composition and names of the regiments within the *Baguazhen* vary according to sources. The formation featured eight “gates,” capable of closing rapidly and encircling the enemy from multiple sides. Its particular effectiveness derived from its extreme mobility and the continuous transformation of openings and closures, which made the army’s arrangement appear as a constantly evolving radial labyrinth.

The earliest mention of the *Baguazhen* appears in *The Art of War* by Sun Bin (d. 316 BCE), and its systematic use is attested during the Han dynasty (206 BCE–220 CE), when the general Dou Xian (d. 92 CE) employed it against the Xiongnu nomads in present-day Mongolia.

The formation, however, is indissolubly linked to the figure of Zhuge Liang (181–234 CE), the military strategist of the Three Kingdoms period. Zhuge Liang served as prime minister of the Kingdom of Shu and is remembered as the greatest strategist of his time, thanks to innovations and insights that became integral to Chinese military art. He refined its use as a defensive tactic against the cavalry of the kingdom of Cao Wei, introducing a centralized command structure, extensive use of crossbows, and a coordinated combination of infantry, spearmen, and war chariots, which made the *Baguazhen* highly flexible and adaptable to different terrains.

The legendary fame of the *Baguazhen* was consolidated in the 14th century novel *Romance of the Three Kingdoms* by Luo Guanzhong, which recounts that Zhuge Liang created the so-called “Stone Sentinel Maze,” a rock formation analogous to the *Baguazhen* located along the Yangtze River, capable of trapping or protecting those who entered it by revealing itself suddenly. According to the narrative, the general Lu Xun (183–245), after defeating Liu Bei (161–223) at the Battle of Xiaoting (221–222 CE), became trapped while pursuing the enemy among the labyrinthine rocks of the “Stone Sentinel,” which emerged suddenly from the mist. Forced to halt his advance, he is said to have admitted that he had fallen victim to Zhuge Liang’s ingenuity, acknowledging his opponent’s intelligence. Tradition also holds that a similar event occurred in the 17th century, when the rebel Zhang Xianzhong (1606–1647), fleeing the Ming imperial army at Chengdu, entered the same stone labyrinth and managed to save his forces while leaving his enemies trapped within it. In *Questions and Replies between Emperor Taizong of Tang and Li Weigong* (10th century CE), one of the Seven Military Classics of China, the *Baguazhen* was discussed in great detail.

In the military sphere, the labyrinth takes the form of an invisible trap capable of revealing itself unexpectedly, proving fatal or salvific for those within it. A significant example comes from ancient Chinese culture, with which important affinities exist. These military formations were considered of great strategic value, as the labyrinth functioned as a device of transformation: the rapid movement of military units across the battlefield ensured high defensive and offensive effectiveness, allowing forces to confront numerically superior armies.

The key feature of the formation lay in its defensive capacity and adaptability, achieved through rapid mobilization and continuous repositioning of ranks on the field, compensating for the weaknesses of each unit. In this sense, the labyrinth is not so much a fixed space as a dynamic mechanism of encirclement, comparable to the *Chakravyuha* of Indian tradition, described in the epic poem the *Mahabharata*, attributed to the legendary sage Vyāsa and composed between the 4th century BCE and the 4th century CE.

A symbol of enormous significance in Indian culture – both as a protective amulet for women during childbirth and as a military stratagem – the *Chakravyuha* finds its most famous representation in the great Battle of Kurukshetra, in which Abhimanyu, son of the hero Arjuna and his wife Subhadrā (the younger sister of the god Krishna), becomes

involved. Defined as the “wheel formation,” it represents the most formidable of military schemes, considered virtually invincible. The poem recounts that on the thirteenth day of battle, the general Dronacharya ordered the deployment of infantry, cavalry, and elephants arranged in swirling concentric movements, executed by rows of soldiers forming a seven-coiled labyrinth with a spiral at its centre. Once fully deployed, escape from this formation was nearly impossible, as enemies found themselves suddenly surrounded on all sides.

This extreme mobility around a central core finds parallels, in a defensive military context, with the encampments of the Ovambo people, who inhabit the lands between present-day Namibia and Angola. Their settlements are still characterized by a similar structure, with movable shrub walls that constantly alter the path leading to the chief’s dwelling. A related practice appears in Zulu culture in southern Africa, where it was common to create labyrinth-like figures as part of a game: two participants would compete by drawing a complex pattern on the ground and solving its path, with the chief’s hut represented at the centre.

3. The Labyrinth in China in the Twenty-First Century

In the twenty-first century, the *Baguazhen* model has enjoyed renewed popularity, detached from its original military context and reinterpreted as a playful and landscape-based spatial form. Although in Chinese culture the comprehensive concept of labyrinth (encompassing both *maze* and *labyrinth*) is expressed by the term *migong* (迷宫) – an architectural structure within which one may lose one’s sense of orientation – today the designation *Baguazhen* (Bagua Maze) is often used to refer to contemporary *migong*. This is because the most recurrent landscape configuration is precisely the octagonal formation, which pays homage to Chinese history through the military ingenuity of Zhuge Liang.

Historically, the first architectural realization of a labyrinth in China is located in the Summer Palace, northwest of Beijing, which served as the emperor’s summer residence. At the request of the Qianlong Emperor, who reigned from 1735 to 1796 as the fourth emperor of the Manchu Qing dynasty, a grand park was conceived within the Gardens of Perfect Brightness (Yuanming Yuan), intended to encapsulate the essence of all the gardens of the world and including an imposing stone maze. The emperor entrusted the project to the advisor Giuseppe Castiglione (1688–1766), a Jesuit active at court under the name Lang Shining, ordering him to design the gardens according to the Western European style. Castiglione, together with the missionary Michel Benoist (1715–1774), incorporated into the project a large stone maze, demonstrating how this element was considered an integral part of eighteenth-century European stylistic canon.

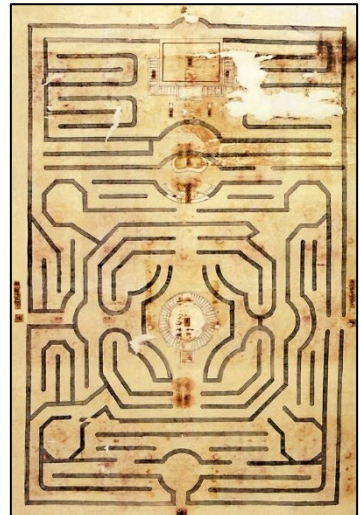


Figure 3: Wanhuazhen in the Beijing emperor’s Summer Palace. Photo: Yuanmingyuan.eu

The labyrinth was built between 1756 and 1759; it measured approximately 89 x 59 metres, with walls 1.2 metres high and a total pathway length of about 1.6 kilometres. It was destroyed in 1860 during the Second Opium War by British and French troops. Tradition holds that during the annual Mid-Autumn Festival, in the Gardens of Perfect Brightness within the Great Summer Palace of Beijing, the Qianlong Emperor would have court ladies compete inside the walled maze, selecting as concubines those who first succeeded in solving its complex layout. The competition took place by lantern light, and the labyrinth became known as *Wanhua Zhen* (Labyrinth of Ten Thousand Flowers) or *Huanghua Zhen* (Labyrinth of Yellow Flowers).



Figure 4: *Wanhua Zhen in the Beijing emperor's Summer Palace. Image: Wikipedia*

The military vocation of the labyrinth in Chinese culture is further confirmed by the presence of a stone architectural structure dating back to the Qing period (1644–1912), built near Mount Lianhua in Guangzhou as a military training ground.



Figure 5:
*Mount Lianhua
in Guangzhou.
Photo: Baidu*

However, it is only in the twenty-first century that a renewed interest in and enhancement of labyrinth symbol in China has emerged, thanks to the fusion of the historical-cultural element of the *Baguazhen* with new forms of the leisure economy, such as gardens and theme parks.



Characterized by an octagonal layout, the *Baguazhen* (Bagua Maze) represents the most identitarian *Migong* form in contemporary China, also due to the renewed celebration of historical figures such as Zhuge Liang. At the Wolong Gang Temple in Nanyang, Henan Province – built near the general’s birthplace – an octagonal hedge maze has been created in accordance with the arrangement of the eight trigrams.

Figure 6: Wolong Gang Temple, Nanyang, Henan Province. Photo: Nanduxin.com

The Bagua Maze may be constructed in hedges or masonry, either as an ornamental installation or as a fully developed park. Of the approximately seventy mazes (*migong*) currently documented with certainty in the People’s Republic of China, nearly all have been built since the early 2000s. This fact explains the trend toward maze construction as a widespread phenomenon, comparable to a “gold rush”: an element that has become central within leisure offerings and is characterized by a marked pursuit of architectural solutions aimed at ranking among the largest or most remarkable worldwide – reflecting the strength of one of the world’s most powerful economies.

The following installations share the octagonal scheme of the Bagua Maze:

- White Dragon Maze, Xingyi, Guizhou Province – hedge maze, 2,700 sq. m.
25°00'36.6"N, 104°55'10.5"E
- Gezao Sacred Mountain, Nanchang, Jiangxi Province – hedge maze, 3,550 sq. m.
27°53'43.8"N, 115°35'06.4"E
- Wolong Gang Temple, Nanyang, Henan Province – hedge maze, 1,800 sq. m.
32°58'56.6"N, 112°30'08.5"E
- Chongtai Farmstead, Shengfangzhen, Hebei Province – hedge maze, 5,500 sq. m.
38°58'57.2"N, 116°51'01.9"E
- Shanhaiguan Scenic Area, Lunan, Hebei Province – walled maze, 2,700 sq. m.
39°58'01.9"N, 119°47'35.7"E
- Zhuge Liang Park, Linyi, Yinan County – walled maze, 3,200 sq. m.
35°32'55.2"N, 118°26'16.0"E
- Tieren Park, Honggang District, Heilongjiang Province – walled maze, 1,600 sq. m.
46°27'10.0"N, 124°49'29.4"E

*Figure 7: Stone Sentinel maze in Zhunge Liang Park,
Linyi, Yinan County.
Photo: Visit Anyang*



Significant examples of the Bagua Maze are now found in botanical gardens and urban spaces, where the original defensive function has been replaced by an aesthetic and symbolic experience. In these configurations, the labyrinth assumes the role of a place of contemplation, play, and rediscovery of Taoist cosmic order, demonstrating the resilience and adaptability of an archetype that connects ancient Chinese culture to contemporary social expression.

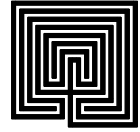
This represents a process of historical reconciliation that integrates national tradition with present-day forms of social expression, making the maze a meaningful symbol of contemporary China. Today, the *Baguazhen* stands as an emblem of national identity and a distinctive element of China's millennia-old cultural heritage.

Ettore Selli, Bologna, Italy; March 2026
Email: ettoreselli@gmail.com

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The Stone Labyrinths of Northern Norway



Anastasia Gorter

On the Day of the Transfiguration of the Lord, the 6th of August 1980, I was introduced to the stone labyrinths in the School Bay at the Solovki Archipelago in the White Sea, Arctic Russia, by my father, Anatoly Kuratov. These were the very labyrinths that he, a lecturer in archaeology and the chief archaeologist in the Province of Archangel, had reconstructed in 1978 together with his students for the Solovki State Museum.



Figure 1: Anatoly Kuratov's students at the reconstructed labyrinth, the so-called Big Babylon, in the School Bay on the island of Bolshoi Solovki.

Photo: Anatoly Kuratov, in Anastasia Gorter's private archive

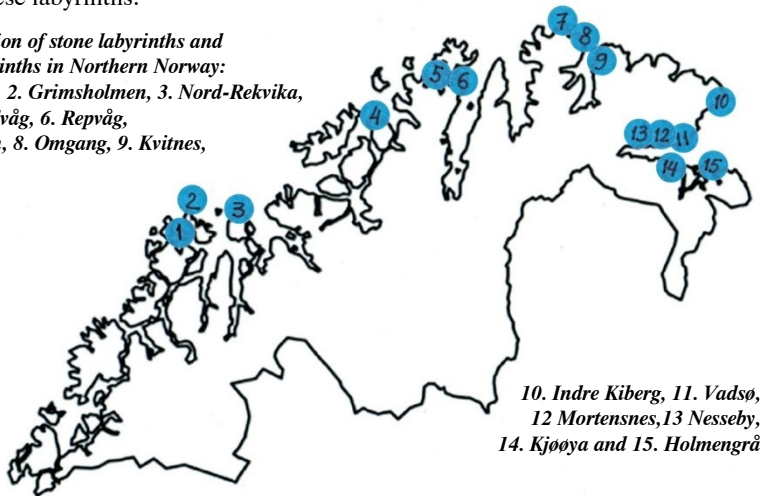
Looking back to that day, I understand that my encounter with these labyrinths in the Solovki Archipelago “transfigured” me and influenced the choices I later made at the crossroads of my life. The comparison of Solovki with a labyrinth of Transfiguration was made in a recent book which seeks to perceive and understand the mainlines of Russian history as reflected in the history of the Solovki Archipelago [Brodsky 2017].

Much has changed since that day in 1980. I moved from the Soviet Union to Finnmark in Arctic Norway in 1990 and I still live there. For ten years I lived at Svalbard, and I work now in Norway, both as a Norwegian state licensed interpreter and civil servant. But all my life I have been fascinated by labyrinths.

It was exciting for me to find out that stone labyrinths of the same type as those at the Solovki Archipelago also existed in Northern Norway. In this article I present these labyrinths and summarize existing interpretations. However, my presentation should by no means be regarded as a complete one. Further research will no doubt reveal new aspects connected to these labyrinths!

Figure 2: Distribution of stone labyrinths and possible stone labyrinths in Northern Norway:

1. Indre Kvalsneset, 2. Grimsholmen, 3. Nord-Rekvik, 4. Forsøl, 5. Stikkelvåg, 6. Repvåg, 7. Mikkjelbergodden, 8. Omgang, 9. Kvitnes,



The topic of stone labyrinths in Northern Europe has been examined by contemporary Russian scholars (Martynov, Mizin, Shakhnovich, Kosmenko, etc.) and Norwegian researchers such as Bjørnar Olsen and Einar Niemi. The Norwegian scholar Åse Sørgård defended a candidate thesis devoted to the analysis of stone labyrinths in both Northern Norway, the Kola Peninsula, and the White Sea region [Sørgård 2007].

The majority of the Norwegian labyrinths are situated in Northern Norway, from Tromsø in the west to Finnmark in the east. Below follows a brief description of the labyrinths in this area, based on the records of the Norwegian National Cultural Heritage, the *Askeladden* (www.kulturminnesok.no), and on a selection of written source materials. The labyrinths are presented from west to east along the Arctic coastline.

Site No.1: Indre Kvalsneset

This labyrinth is situated in Indre Kvalsneset on Helgøya, in Karlsøy Municipality, Troms. It is situated close to a field with old dwelling foundations and pits. According to the cultural heritage register this labyrinth is of rather modern construction (Askeladden ID 169796).

Site No.2: Grimsholmen

The labyrinth at Grimsholmen in Karlsøy Municipality, Troms, is mentioned in a written source from 1835 [Sørgård 2007:42], but sadly this labyrinth no longer exists.

Site No.3: Nord-Rekvik

A possible stone labyrinth is located at Årvik on Arnøya, in Skjervøy Municipality, Troms, together with a number of other stone constructions, pits, graves, and dwelling foundations dating from the Middle Ages and later (Askeladden ID 17459).

Site No.4: Forsøl

This labyrinth is located alongside two dwelling foundations in Forsøl/Fállágohppi on Kvaløya, in Hammerfest Municipality, Finnmark. No description is given in the register (Askeladden ID 215902). Unfortunately, I have not been able to find additional information about this labyrinth.

Site No.5: Stikkelvåg

Two partly disturbed labyrinths are located at Stikkelvåg in Måsøy Municipality, Finnmark. They were classified as ritual cult sites dating back to the Iron Age. Labyrinth 1 consists of flat slate slabs arranged in an asymmetrical pattern. It seems that some of these slabs were placed on top of the original labyrinth at some later date. A heap of stones is situated close to this structure. Some of these stones are covered with moss. Most easily recognizable is a rectangular formation with small concentric stone arrangement beside it. Labyrinth 2 is partially destroyed. Some of the slate slabs of this labyrinth are arranged in square patterns which don't seem original. Numerous slabs lie overturned in the surrounding area (Askeladden ID 67708). These labyrinths are mentioned in written sources back to 1683 [Sørgård 2007:43].

Site No.6: Repvåg

A “possible stone labyrinth” exists in close connection with a grave field at Repvågstranda in Nordkapp Municipality, Finnmark (Askeladden ID 67903). Three labyrinths were recorded by archaeologists there during fieldwork in 1974 and several Pomor graves exist close to them. Oral tradition connected with this site collected in 1975 stated that Russian sailors from Pomor trading vessels played and danced in these labyrinths during their stay in the area [Sørgård 2007:45].

Site No.7: Mikkjelbergodden

The labyrinth at Mikkjelberget in Gamvik Municipality, Finnmark, is situated close to graves of Saami, Russian, and Norwegian origin. This structure is well preserved. It consists of no less than eleven rows of closely spaced stones, several places arranged in two layers, 18 metres in diameter. This labyrinth is regarded as the world's northernmost example of this type. The national register of cultural heritage refers to Herman Kern and informs that, according to local oral tradition, this labyrinth relates to “Russian dance” (Askeladden ID 37490). According to the same oral tradition, this labyrinth was constructed by Pomors in connection with Russian dancing parties. Elderly informants also described other uses, saying that this labyrinth was used as a form of punishment too: A convicted person was blindfolded and led into the labyrinth, and then ordered to find his way out. A guard ensured that he followed the corridors of the labyrinth without stopping; when he fell down, he was beaten and after that forced to continue walking in the labyrinth [Sørgård 2007:47].

Site No.8: Omgang

The labyrinth of Omgang in Gamvik Municipality, Finnmark. This labyrinth is mentioned in connection with information given by an elderly woman there. She explained that labyrinths were often used during important social events, such as weddings, and possibly also in connection with funerals. They, too, were used to mislead and protect against evil spirits [Sørgård 2007:54]. This labyrinth is not registered in the Askeladden.

Site No.9: Kvitnes

The labyrinth at Kvinessletta is situated in the neighbourhood of several old graves. It is partly grown over and was damaged somewhat. The structure measures approximately 20 metres in diameter [Sørgård 2007:47–48]. This labyrinth is not registered in Askeladden.

Site No.10: Indre Kiberg

The labyrinth at Indre Kiberg in Vardø Municipality, Finnmark, was well known in the 19th century. According to historical records, it belonged to the same type as the labyrinths at Kjøøya and Holmengrå. This structure is not registered in the Askeladden and little remains of it.

Figure 3: Presumed location of the labyrinth at Indre Kiberg. Photo: Steinar Borch Jensen, 2007



Site No.11: Vadsø

The Ivar Stone in Vadsø was first mentioned in the 1690s as *Russesteinen* (the Russian Stone). It was described as “standing within some form of stone arrangement.” A source from the 1760s also notes that “several small stones stood around” the Russian Stone. These formulations suggest stone circles around it, possibly a labyrinth. Today, this Ivar Stone only partly survives. Its top was hewn of by a Finnish immigrant and used as doorstep. A legend associated with the Ivar Stone recounts how a Saami hero called Ivar at this place challenged a Chud leader, fought with him and defeated him. To commemorate his victory, Ivar put this stone in the ground at the site of the battle [Niemi 2009:4-5]. It is a typical *Stallo* story. *Stallo* was a mythical Saami strongman, defending Saami against foreign intruders (called *Chuds*, the word is related to a Russian word *chuzhoj* which means ‘foreign’). Novgorodian tax collectors (mostly ethnic Karelians) were called Chuds by the Saami.

*Figure 4:
The Ivar Stone in Vadsø
Photo: Anastasia Gorter,
2021*



Site No.12: Mortensnes

The so-called ‘Fish Oil Stone’ is in Mortensnes in Nesseby municipality, Finnmark. It is surrounded by 12 (some sources say 14) concentric stone circles approximately 60 cm apart. It is believed to have been a Saami offering place. A source from 1690 describes this stone construction as a “*trøi-burg*” with an upright stone in the centre. Probably this whole structure was originally a labyrinth, but due to the ‘restoration work’ of amateur archaeologist and merchant A.G. Norvi in the late 19th century, it was reconfigured as concentric circles. Local inhabitants report that fish oil (meaning both seal and whale oil) was smeared on this stone. A Saami legend tells that the hero Pæivi Vuolab defeated six Russians at this place and he then lifted a large stone into the air and put it into the ground as a monument of Saami victory over the marauding Russians [Vorren 1993:102, 107]. In Russian sources there exists a different version of this story. In the 16th century it was written down by Russian envoys. They reported that a Karelian named Valit defeated his enemies at a summer settlement called Varenga. On the site of the fight a memorial stone was erected, surrounded by twelve “walls called *Babylon*” [Kuratov 2008:12-13]. The figure of Valit (also known as Vallit) is a prominent character in northern folklore, often identified as a legendary Karelian chieftain or a high-ranking official who collected taxes for the Republic of Novgorod during the late 14th and 15th centuries. Tax collectors of that era were perceived by the Saami population as little more than marauders.



Figure 5: The Fish Oil Stone in Mortensnes with concentric rings, possibly a labyrinth.

Photo: Anastasia Gorter, 2022

Site No.13: Nesseby

The white *Aillis giergie* (Milk Stone) in Nesseby, Finnmark, is no longer intact. It was blown up by a merchant in the late 19th century, because it obstructed the view from his establishment. According to tradition, the stone was used as an offering place, and it is said that things went very badly for this merchant afterwards. The amateur archaeologist A.G. Norvi believed there might earlier have been concentric circles around this ‘Milk Stone’ as well but added that the number of circles were unknown [Vorren 1993:97-98]. These concentric circles mentioned by Norvi may also have constituted a labyrinth.

Site No.14: Kjøøya

There is a labyrinth on the island of Kjøøya in Sør-Varanger Municipality, Finnmark. Kjøøya is situated opposite the former Russian fishing station of Shapkino. *Shapka* means 'hat' in Russian. The harbour behind this small island was called like that because this island looked like a hat when seen from the sea. This harbour was later called Brashamn after the Danish-Norwegian merchant Bras of Vadsø. The Skolt Saami used the area and the island of Kjøøya before. Old fishhooks and lance tips of bone about 2000 years old were found by professor Bjørnar Olsen of University of Tromsø.

The labyrinth at Kjøøya measures 8x9.5 metres and is dated to the Middle Ages (Askeladden ID 67575). It is situated near the remnants of huts of a much later date. An old photograph of 1908 documents this labyrinth, but during our latest inspection of the site in 2018, we observed that this labyrinth now is completely overgrown with vegetation, rendering the labyrinth invisible during summertime. This is due to climate change and also because sheep no longer graze the island.

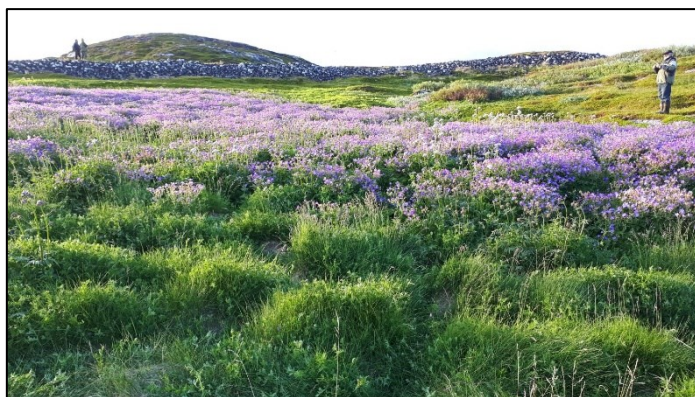


Figure 6: The labyrinth at Kjøøya photographed by Gustaf Hallström in 1908 [Sørgård 2007:48]

The labyrinth is still there and undamaged, but now difficult to see in summer

Figure 7: The labyrinth at Kjøøya is now completely overgrown by vegetation due to climate change, but also due to a lack of sheep, formerly taken to this island from Bugøynes to graze

Photo: Anastasia Gorter, 2018



On the other side of the island there is a rock cliff with a number of engraved figures. One of these figures is a labyrinth. It is now overgrown with crowberry plants. The little labyrinth motif on this rock is accompanied by other symbols and names, both Russian and Finnish inscriptions. When I visited this location in 1991, this labyrinth motif was still clearly visible.

Figure 8: The rock cliff labyrinth at Kjøøya.
Photo: Anastasia Gorter, 1991

There exists a Coastal Saami legend about Skolt Saami people who were pursued by the Chuds and sought refuge at Kjøøya. An old Skolt Saami woman went down to the seashore there, pulled down her trousers, showed her behind to the Chuds, and started to sing a Skolt Saami *ljudd* ('folklore song'). She summoned a terrible storm with her *ljudd*; the storm came and all the Chuds drowned. The following summer, a man



'skilled in the knowledge of the stars' came to them and carved an inscription into the rock at Kjøøya. He told them that the Skolt Saami there will remain unharmed so long as this inscription was readable (Sveen 2003:157). The story doesn't tell which inscription he made in the rock cliff. Was it a labyrinth or another symbol? In any case the inscriptions which now are hardly visible may stay well protected under new vegetation growth there. There also exist several symbols with 'labyrinth lines' at Kjøøya. Descendants of Finnish immigrants in Bugøyenes told W.T. Gorter in 1972 that such symbols representing a 'W' with 'labyrinth lines' were made by Finnish immigrants to secure fishing luck.

Figure 9: A rock carving with 'labyrinth lines' at Kjøøya.
Descendants of Finnish immigrants in Bugøyenes told W.T. Gorter in 1972 that such symbols representing a "W" with 'labyrinth lines' were made by Finnish immigrants to secure fishing luck and that this tradition arrived with Finnish immigrants who came to Norway from the Bothnian Gulf. Reproduced from Arvid Sveen [Sveen 2003: 157]

For example, Agnar Laurila in Bugøyenes recalled in 1972 that his grandfather knew this 'fish luck magic' symbol. To prove that he drew the same symbol without any photo support within five minutes on a piece of paper. "Yes, they thought that this worked," he added. There was a lot of free time when the weather was bad, time for some magic! Agnar Laurila added to W.T. Gorter that this 'fish luck magic' tradition arrived with Finnish immigrants who came to Norway from the Bothnian Gulf. As there are both Russian names and different sailing boats engraved at the same rock it seems clear that Skolt Saami, Finnish immigrants, and Russian Pomors all made inscriptions there, and surely some Norwegian fishermen too! It is highly probable that the rock engraving of a labyrinth was made by the same persons who made those magic fishing signs. However, the big stone labyrinth in another small bay further out is most likely older. Seen this way, Bothnian Gulf traditions 'met' from two sides at the island of Kjøøya.



Site No.15: Holmengrå

Northern Norway's most famous stone labyrinth is located on the Holmengrå peninsula in Sør-Varanger Municipality, Finnmark. This labyrinth is very well preserved. It is part of a larger settlement complex that includes pits (possibly graves), two dwelling sites, a stone circle, several stone heaps, and other potential cultural remains. According to the records in the register, this site is dated to the period before the Reformation (Askeladden ID 28204) and served as a summer fishing site for the Pasvik Saami from time immemorial and is nowadays in use for salmon fishing by fishermen of Finnish descent from Bugøynes, a village in Sør-Varanger Municipality.



Figure 10: Northern Norway's best-preserved labyrinth at Holmengrå. Photo: Anastasia Gorter, 1991

Conclusions

When comparing these stone labyrinths in the region as a whole – from Tromsø and Finnmark to the Kola Peninsula and western shores of the White Sea area, including the Solovki Archipelago – one finds that they are, in fact, quite similar.

These labyrinths until now have attracted a lot of scholarly attention. Despite this, three fundamental questions remain unanswered: who built them, when were they constructed, and for what purpose.

What have Russian and Norwegian scholars made of these labyrinths in their respective territories? In this section, I will not repeat earlier interpretations by different well-known scholars. Instead, I focus on more recent interpretations which are a result of contemporary research.

Different dating methods have been used to estimate the age of labyrinths, including relative sea-level dating (which gives a maximum age), contextual dating, lichenometry, the Schmidt Hammer test, radiocarbon-14 (^{14}C) dating, written sources (which may indicate their minimum age), and oral tradition. None of these methods yield exact dates. Relative sea-level data suggests that many labyrinths were most likely not constructed before the Middle Ages. However, this does not exclude the possibility that labyrinths which are situated on higher terrain may date from the Iron Age, and some labyrinths were clearly built much more recently, and not in the Iron Age or during the Middle Ages.

Until recently some Soviet archaeologists, including my father, dated most stone labyrinths to the Neolithic period. This chronology has now been totally revised. Some researchers still argue that the earliest labyrinths were constructed during the Iron Age [Martynov 2017], while others defend a medieval origin [Mizin 2014; Shakhnovich 2007], or even a considerably later date, ranging from the 15th to the 18th centuries [Kosmenko 2013].

Norwegian archaeologists and historians also have different opinions about the age of stone labyrinths. Norwegian archaeologist Knut Odner dated most stone labyrinths of Northern Norway to the Iron Age, but most contemporary researchers date them to medieval times or even later.

Numerous hypotheses have been put forward about the cultural affiliations of the labyrinth builders, as well as the function of the labyrinths. Oral traditions indicate different purposes. Scholars have lots of theories about the purpose of the labyrinths: astronomical observatories, magical practices, aids for securing fishing luck, rites of transition from one physical state to another (such as puberty or death), sacrificial sites, gambling arenas, punitive spaces, or forms of entertainment. Labyrinths may also have been reused and reinterpreted over time, after earlier use was abandoned and forgotten. In the middle of the 20th century Russian local historian Ksenia Gemp of Archangel saw a Russian fisherman on the Tersky Coast of the White Sea who constructed a labyrinth at the same location as an earlier labyrinth there [Kuratov 2008:14].

Present day Norwegian archaeologist Bjørnar Olsen argues that labyrinths in Northern Norway were originally built by Saami between the 13th and 18th centuries. This period was marked by increasing pressure from the Christian Norwegian and Russian states, both seeking to incorporate the Saami into their respective political and economic systems. According to Olsen, this development strengthened Saami identity, and indigenous belief and counter-symbols were invented. Such labyrinths were material metaphors for transitional indigenous rituals associated with burial practices [Olsen 1991:56].

Norwegian historian Einar Niemi also commented the existence of labyrinths and raised monoliths in Varanger. He proposes to consider them as remains of 'Chudian' (i.e. Russians and Karelians) activity in the region during the Middle Ages. He also mentions that Russian fishermen were known to have built labyrinths in Northern Norway, even in recent times. He mentions that the Saami also used such structures in a sacred context [Niemi 2009:12–13]. Indeed, according to local oral tradition in Northern Norway Russian Pomors – fishermen and seafarers from the White Sea region – built such labyrinths during their summer stays on the Northern Norwegian coast. These Pomors were busy with fishing and trade in Eastern Finnmark as early as the time of Willem Barents at the end of the

16th century. Pomor activity in Northern Norway peaked after the Pomor trade was legalized in 1789. The presence of stone labyrinths at Novaya Zemlya – where Pomors had been involved with walrus hunting and fur trapping since times from before Willem Barents – supports the theory that quite a few labyrinths must have been built by the Pomors.

This does not explain the construction of labyrinths that predate this Pomor period. That is if, indeed, some labyrinths date from before the 16th century. The term ‘Russian’ in Northern Norwegian oral tradition does not necessarily refer to ethnic Russian Pomors. Between the 13th and 15th centuries Russians from the principality of Novgorod also collected taxes in present-day Finnmark and Northern Tromsø. Orthodox Karelians were also used as tax collectors. A number of place name doublets in Norwegian and Saami from this period indicate that Norwegians used the ethnonym ‘Russian’ while the Saami used ‘Karelian’ [Hansen & Olsen 2004:161]. In Saami oral tradition, these Karelian tax collectors from Novgorod were often referred to as ‘Chuds’ and described as raiders, not tax collectors.

Russian scholars have many different theories about the origin and function of labyrinths too. Russian ideas that the labyrinths served as solar or stellar observatories have not disappeared either, and this interpretation was recently presented again by A. Grigoryev and G. Paranina. They argue that the northern labyrinths were constructed as gnomons – ancient astronomical instruments functioning as solar compasses, clocks, and calendars, used for orientation in space and time [Grigoryev & Paranina 2012:56].

Alexander Martynov believes that the oldest labyrinths (which he dates back to the Iron Age) may have to do with symbolic burials of drowned tribesmen on islands in the sea. They could have served as a ritual pathway to the underworld. Such labyrinths are found together with other stone constructions such as heaps of stones. Single labyrinths at fishing sites could have been magical instruments to secure a good catch. Medieval labyrinths could relate to Saami beliefs [Martynov 2017:19].

Vyacheslav Mizin is of the opinion that stone labyrinths in the Russian North most likely are connected with Novgorodians and Pomors. He dates them between the 14th to 18th centuries. Mizin suggests that this tradition may have reached the Russian North from the Baltic region by the Gulf of Bothnia, along river routes between the Baltic and the White Sea – the so-called Bothnian route. According to Mizin, this transfer could have taken place at the earliest during the Novgorodian period, when the region was already Christianised. In other words, not later than from the end of the 14th century. Mizin finds additional support for his theory in folkloristic descriptions of labyrinths as constructions made by ‘our people,’ and not by ‘foreigners’ (*nemtsy*). He calls this remarkable, as many other stone monuments are called ‘foreign.’ Several legends illustrate this, for example, the Karelian tax collector Valit is said to have built one or even two labyrinths in Varanger; rebels associated with Pugachov’s uprising were believed to have constructed the existing labyrinth at Kandalaksha and Tsar Peter the Great himself built a labyrinth on the Big Zayatsky Island at Solovki. Mizin refers to records of Novgorodian ‘labyrinthine’ customs known as *The Road of Calvary* in Novgorod. He links the origins of labyrinth tradition to superstition – particularly connected with the sea and with fishing – among Russian fishermen, merchants, and seafarers [Mizin 2014:28–31].

Swedish researcher John Kraft considers that most of the stone labyrinths in Northern Europe are medieval-to-modern constructions. He has shown how coastal medieval stone labyrinths in Northern Europe spread from southern Scandinavia to the Baltic and the White Sea regions, and further into Northern Norway [Kraft 2022: 161]. He believes, though, that labyrinths preserve ancient pagan ritual ideas and function as magical, protective, or fertility related structures used by coastal and rural communities with roots dating back to mythic and ritual traditions across the Mediterranean of the Bronze Age and later.



Figure 11: Distribution and possible spread routes of coastal stone labyrinths in Northern Europe, according to John Kraft [Kraft 2022:161]

Mark Shakhnovich argues that the labyrinths of the Russian North were constructed during in the 16th to 19th century as part of Christian tradition. Labyrinths in medieval churches – such as the well-known labyrinth in Chartres – served as symbolic tools for penance, prayer, or as a ‘spiritual path.’ In the northern regions, such traditions were adapted to local conditions, with labyrinths built outdoors of locally available stone materials [Shakhnovich 2007]. In this context, it is worth mentioning the remarkable floor labyrinth in the Byzantine Basilica of San Vitale in Ravenna, dating to the 16th century. When I visited the basilica in 2025, I was told that the purpose of this labyrinth was to serve as an equivalent to a pilgrimage. Christians who, for various reasons, could not undertake a journey to the Holy Land could symbolically perform this pilgrimage by walking the labyrinth on the floor.

M.G. Kosmenko argues that stone labyrinths together with other stone constructions were built in the 16th to 18th centuries by Pomors from the Pomor Coast and the Karelian Coast of the White Sea, along with many other stone settings on the Karelian and Pomor coasts of the White Sea and on the islands, including the Solovki archipelago. According to this interpretation, labyrinths and other stone constructions were related to Pomor fishing and hunting activities of marine mammals which were carried out on behalf of the Solovki Monastery which owned these coastal territories until the secularization of monastic landholdings in 1764 by Tsarina Catherine II. This monastery organized and equipped fishing and hunting expeditions, and sold its products both locally and abroad. Stone constructions, labyrinths included, appear precisely in the areas where the Pomors conducted these activities for the monastery. Kosmenko suggests that the labyrinth tradition and shape was borrowed from Fennoscandia and in the Pomor region used for practical

purposes including net fishing. Once these practices went out of use, the original function of these labyrinths was quickly forgotten. In his view, labyrinths were originally models of fish traps and had no magic meaning. Ideas about ritual or sacred functions emerged only later, after their practical purpose had been forgotten [Kosmenko 2013:140, 148-149].

Lydia Dmitrievskaya supports the Pomor theory too, but in a different way from Kosmenko. She bases her theory on the work of Sergej Durylin, who studied labyrinths during the 1910s. Durylin believed that labyrinths were used during purification ceremonies and in connection with prayers for wind. They functioned as a kind of ‘wind trap.’ Over time, the role of labyrinths as a place for purification and wind-prayers – whether during storms or periods of calm weather, both unfavourable for sailing – was gradually replaced by the practice of erecting wooden votive crosses. According to Dmitrievskaya it is no coincidence that the largest concentration of labyrinths is found on Big Zayatsky Island in Solovki, the same island with numerous wooden votive crosses. Big Zayatsky Island was situated on the traditional sailing route of Pomors from the White Sea coasts to the Murman Coast and to Northern Norway. This island had a safe harbour, built in the 16th century, an ideal place to wait out storms or hope for favourable winds. Under such conditions sailors had ample time to pray for good wind and try to cleanse themselves of sins, either by walking stone labyrinths or by raising wooden votive crosses [Dmitrievskaya 2023:14-15].

The final word has certainly not yet been said about dating, cultural affiliation, or the function of labyrinths. And new labyrinths are still being discovered. Mikhail Oresheta was informed by reindeer herders about a stone labyrinth at Zubovka on the Rybachy or Fisherman’s Peninsula, to the NW of Murmansk. We tried to locate it during our 1995 expedition, but time was short and we did not succeed, however, we could admire labyrinth-like rock paintings dating back to ancient times at Zubovka. These also depicted a herd of wild reindeer and were connected with shamanism and Skolt Saami reindeer hunting from time immemorial, and probably well into the 19th century.



Figure 12: A labyrinth-like rock painting at Zubovka, the Fisherman’s Peninsula. Photo: Waling T. Gorter, 1995

In 2013, Mark Shakhnovich discovered a previously unknown labyrinth at Kandalaksha Bay in the White Sea [Dmitrievskaya 2023:9]. In 2015, I found a spiral-formed labyrinth at the western coast of the Solovki Islands. I have not seen this labyrinth mentioned anywhere in the literature. This structure lies almost at the tip of a tiny peninsula that extends westward, just south of Kislaya Bay, on a terrace several metres above sea level. This is the same peninsula with the Solovky memorial stone with the inscription “1923-1939” made in connection with a documentary film “Vlast Solovetskaya” in 1988. The labyrinth is partly

overgrown with bushes, and this made it difficult to photograph properly. The stones it is made of are quite big. Modern tourists often arrange stones along the shoreline in various patterns, but this structure is of an entirely different character and was not constructed by modern tourists. Possibly this labyrinth is one of those mentioned by Ksenia Gemp in her diaries [Kuratov 2008:13].



Figure 13: A newly discovered labyrinth at the west coast of Big Solovki Island.

Photo: Anastasia Gorter, 2015

Last, but not least, similar names somehow connect these labyrinths in Europe like a golden thread. In Northern Europe, as a rule, they were not called labyrinths, but *Troya*, *Domus Dedali*, *Trojeborg*, *Jerusalem*, *Babylon*, *Jericho*, *Lissabon*, *Constantinople*, *den Julianske borg* etc. [Kraft 2022:150]. Such names suggest that labyrinths tell a story about our common Greco-Roman cultural heritage, later connected with and continued as part of our Christian cultural tradition.



Anastasia Gorter, Vestre Jakobselv,
Norway; March 2026
Email: arkpomor@online.no

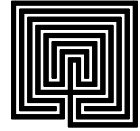
The author, and in the background a labyrinth at Svalbard (Spitsbergen). This labyrinth is situated in Hiorthamn, outside Longyearbyen. It was built quite recently by a local

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Johann Peschel's Mazes

Rolf Johansson



Garden labyrinths first appeared in late medieval gardens and became a popular feature in formal gardens of the renaissance and baroque periods. Initially they were generally unicursal but soon became multicursal mazes. In formal gardens they developed from embroidery parterres with low plants in labyrinthine patterns, to mazes with high hedges or trellises with greenery, which delimit the aisles, and finally to bosques with passages through blocks of high and dense vegetation. With the breakthrough of the picturesque landscape garden ideal, mazes almost disappeared as a feature in new gardens. Few early garden mazes have survived, so to get an idea of how they were shaped and why, we need to consult the rich literature on garden design from the heyday of garden mazes.

I will draw attention to one of these books: Johann Peschel's *Garten Ordnung* from 1597, being the first book in German on gardening and garden design. Surprisingly, it isn't mentioned in important works on the general history of labyrinths and mazes, such as by W.H. Matthews and Hermann Kern, so I invite the reader on a journey of thought through Johann Peschel's mazes.

Garten Ordnung

Only ten copies of the book are known to still exist. One of them, the one I have read, is in the Bayerische Staatsbibliothek in München. The book is printed in German fracture and has three chapters. The second chapter contains 50 pages on mazes. I translate the German *Labyrint* and *Irrgarten* as “maze” when written with reference to multicursal designs.¹ Peschel declares the aim of the chapter is “to give a proper and true description of how ... one should create a useful and ornamental garden ... and in particular various ornamental and amusing mazes, large and small, according to the conditions of each place and location.” There are more than 30 plans of garden mazes in his book, all of them multicursal and some of them are very complex.

*The frontispiece of Peschel's Garten Ordnung.
Images courtesy of Bayerische Staatsbibliothek*



Peschel begins by describing how to design a maze and emphasizes that it is important to draw first and build later, which is characteristic of labyrinths and mazes in the scholarly tradition,² and then he moves on to showing designs for mazes.

Peschel's Mazes

As a practitioner Peschel designed and planted gardens and mazes. Five mazes depicted in the book were both designed and actually constructed by Peschel.

The maze in figure 1 was “erected to the Honorable and Highly Learned Mr. Lasparo Ratzenberger, Doctor of Medicine in Naumburg, my friendly and dear friend.” The dots in the figure are trees with trellises, probably with greenery, between them and in the middle of the maze a solitary tree, a common feature to visualize the goal.

It is a multicursal maze without dead ends, but with many forking paths. Dead ends should be avoided, Peschel argues:

“... you must ensure that you arrange the layout of the maze in such a way that the walker can proceed in all directions and does not have to turn back, for that would be a dead end in the maze. For the walker must be able to proceed everywhere and yet still be able to wander. No path should be blocked for him.”

Peschel's mazes have a network pattern of paths, providing alternative ways to reach the goal. Most of them have one goal but some of them with several additional secondary goals (such as in figure 6).

Figure 1: A maze designed by Peschel for Mr. Lasparo Ratzenberger



A piece of advice Peschel shares with anyone building a maze is that: “One might also keep a locked door in a passage, through which one can quickly reach the middle. This serves the purpose that if one has a summer house in the middle for pleasure and enjoyment and wishes to hold a meal or drinking party there, the servants could quickly enter with food and drink, since otherwise one might well become hungry and thirsty before finding the correct entrance in the labyrinth. This should also not require much effort from the master himself.”

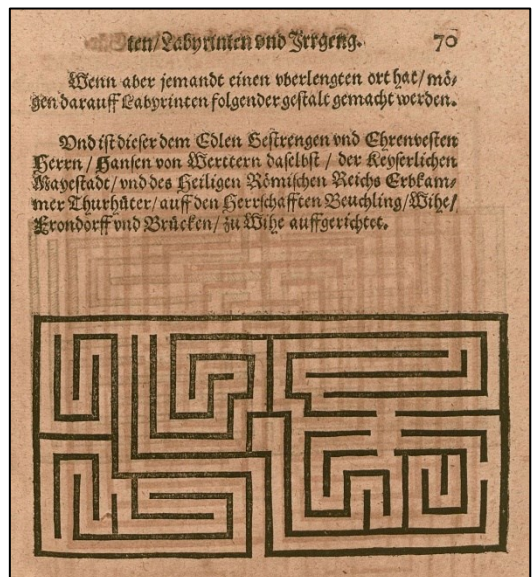
Another maze by Peschel (figure 2) “was erected in Grüningen [Switzerland], for the noble, austere, and honourable Caspar von Kugleben of Grüningen.” As usual in his mazes there are several alternative paths leading to the maze’s goal.

Figure 2: Peschel’s maze designed for the honourable Caspar von Kugleben



The maze in figure 3 “was erected in Wihe for the noble, honourable, and esteemed Lord Hans von Werthern, of the Imperial Mayestadt and Hereditary Chamber Keeper of the Holy Roman Empire, on the estates of Beichling, Wiehe, Krondorff, and Brücken.” A strangeness with this maze design is the lower left corner, which is isolated and cannot be reached. It is probably due to a mistake when the drawing was transferred to a woodcut. Peschel’s intention was most probably to have an opening into the lower left corner of the maze in the second turn from the entrance.

Figure 3: Peschel’s maze design for Lord Hans von Werthern



Concerning the maze in figure 4, Peschel writes:

“I erected [it] for ... Nickel von Ebeleben ... of Balgenstedt, who was at that time Electoral Saxon Captain in Sangerhausen, a particular lover of gardening, in Balstadt on the Unstrot. Now, however, it, along with the Balgenstedt estate, has been taken over by the noble, ... and honourable Wolff von Creutz, etc.”

Figure 4: In this design for Nickel von Ebeleben, Peschel added bastions, probably with influence from the church labyrinths



The last of his erected designs is in figure 5. Peschel writes: “I have erected the following mazes³ for the noble and honourable Wolff Ditterichen von Witzleben on the Wendelstein.”

Figure 5: In this maze, the explorer will on several occasions be faced with the challenge to choose one of five alternative paths, or six if turning back is considered an option. Peschel often had these multiple-choice locations in his designs, such as in figure 3, 4 and 6



Apparently, some of Peschel's more complicated mazes were really built according to his own biographical notes. His most complicated design (figure 6) was most certainly never built, and it seems almost impossible to wander through from entrance to goal and back to exit. Presuming the goal is in the centre, the maze has eight "false" goals to add to confusion. It is obvious that Peschel sees the maze's primary purpose as putting whoever ventures into it into a prolonged walk, with serious problems getting out. The pleasure cannot be for the one who explores the maze, but with the one who observes. He writes:

"For getting out is just as difficult as going in. Therefore, you will be careful to make both the entrance and the exit difficult enough so that they cannot easily find them and will need to make many detours and additions."

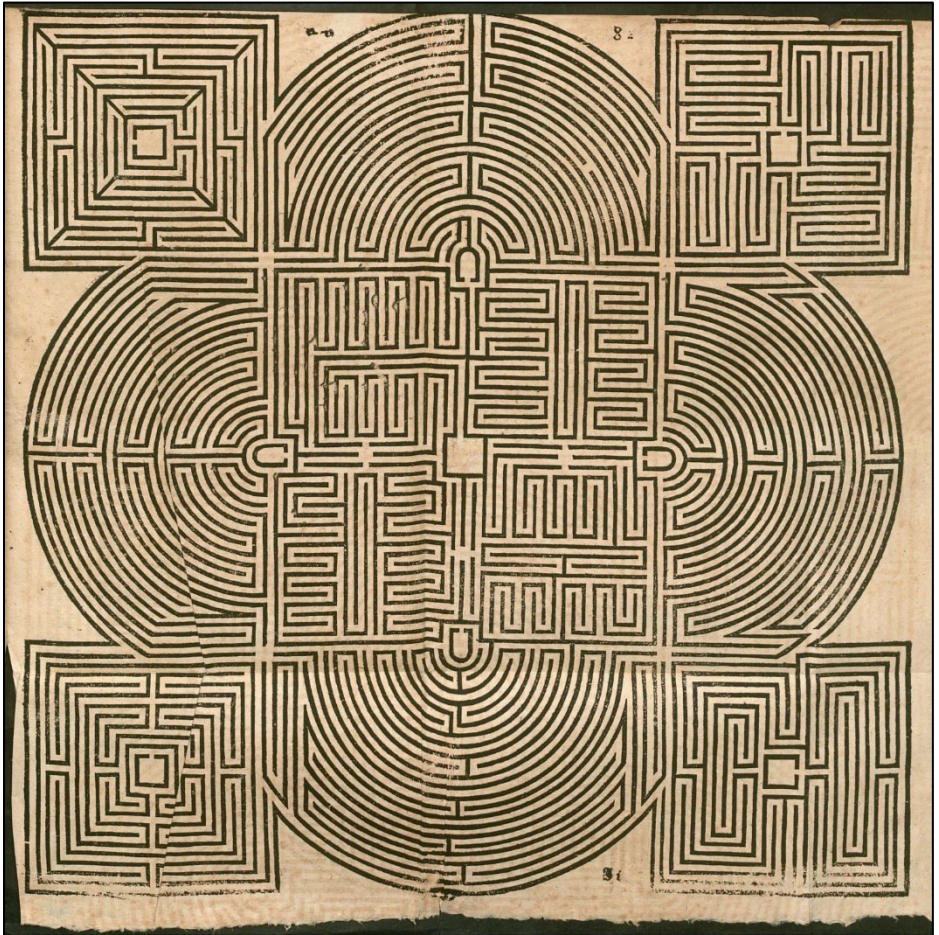


Figure 6: Peschel's most advanced design for a maze

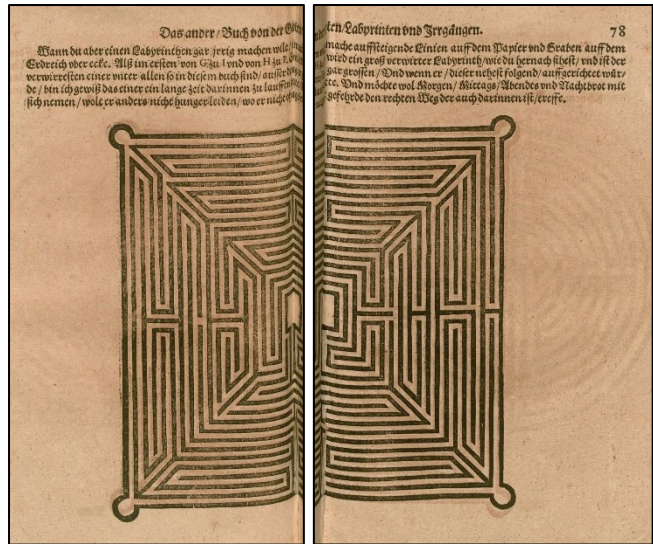


Figure 7: This may be the original design of the hedge maze in Altjeßnitz

Peschel's book also contains (figure 7) what may be the original design of the hedge maze planted in Altjeßnitz, Germany.⁴ An older maze was redesigned with some changes in 1735 and still exists with a layout much like Peschel's.

After illustrating 30 mazes within gardens, Peschel's last figure is quite original and shows gardens within a maze (figure 8). "If someone wants to keep a garden safe, there is no better enclosure or enclosure around it than a maze. Through it, no one will easily get into the garden. And even if someone did get in, they would be just as anxious coming out again, as the following form or figure shows."

Among the garden books from the 16th and 17th centuries that I have come across, Peschel's is by far the most comprehensive in terms of how garden mazes should be designed. The book gives me reason to conclude that many of his advanced scholarly maze designs not only exist on paper, but were also actually built.

Rolf Johansson, Swedish University of Agricultural Sciences,
Uppsala, Sweden; March 2026
Email: Rolf.Johansson@slu.se

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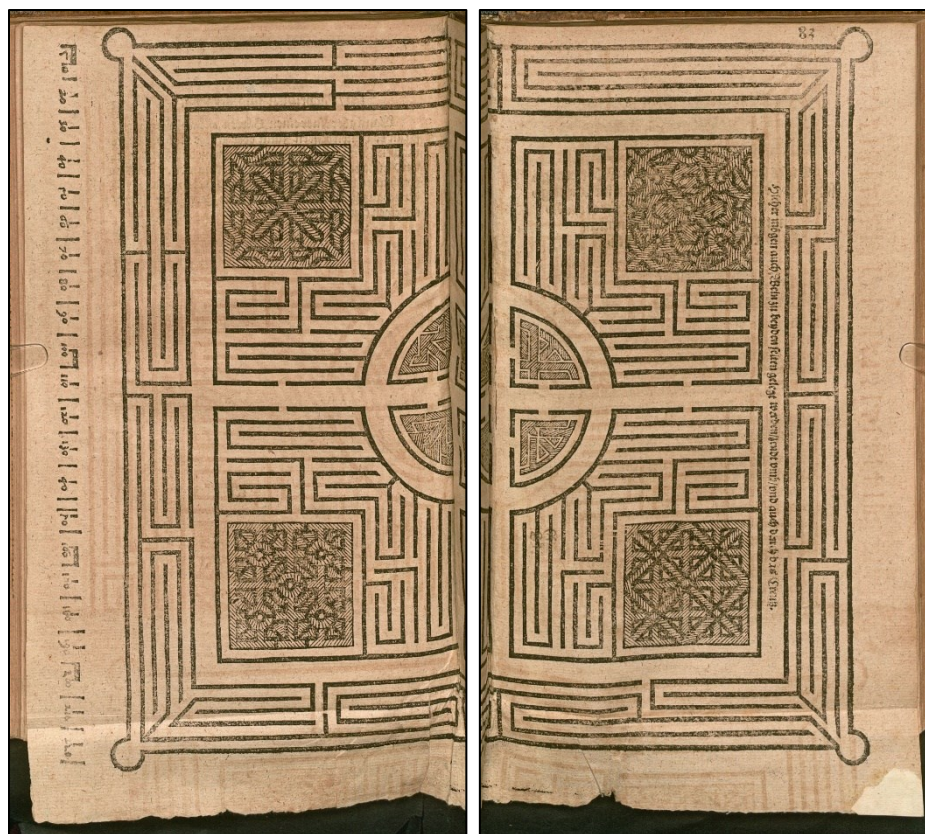
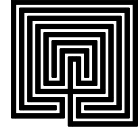


Figure 8: A garden guarded by a maze and with eight embroidery parterres as goals

Notes

1. I apologize for any linguistic errors that may have occurred in the interpretation of German fractur style and the translation into English. Translations of the original 16th century German has been adapted to modern English for ease of reading
2. John Kraft (2024:35) distinguishes between popular and scholarly traditions in the design of labyrinths and mazes.
3. Peschel writes “Labyrinthen” in plural here, which indicates that maybe also the following plans of mazes depicted in his book were erected for noble Wolff Ditterichen von Witzleben, but since as many as seven designs follows without further comments, this is unlikely the case.
4. District of Anhalt-Bitterfeld, Saxony-Anhalt, Germany.

The Labyrinth of Chartres: Echoes of Pilgrimage Through Time



Jill Kimberly Hartwell Geoffrion & Alain Pierre Louët

Pilgrimage, the act of leaving home to travel toward a destination where the sacred may be encountered in ways that transform the self, is practiced across major and minor religious traditions alike. Such journeys commonly include a return and, with it, an ethical obligation: the pilgrim brings back what has been received for the strengthening of the community. Although sites and tradition-specific aims vary widely, pilgrimage often begins from a shared human intuition: an awareness of insufficiency, a desire for divine assistance, and a willingness to be transformed.

The thirteenth century builders of Chartres Cathedral, like those who had erected earlier churches on the same site, worked within a long-established culture of pilgrimage that they inherited, expressed, and intensified. Medieval Latin Christianity was deeply shaped by Hebrew and Christian scriptural visions of sacred journeying, in which movement through space was inseparable from moral, interior, existential, and communal transformation. This article explores how the labyrinth inlaid in the cathedral's floor may have functioned simultaneously as a design element, a performative space, and a spatial theology of pilgrimage.

Biblical Roots: From Wandering to Arrival

In the Hebrew Scriptures, pilgrimage emerges before it becomes geographically fixed. The people of God first appear as wanderers, leaving a land of bondage: Exodus recounts a prolonged, divinely guided journey through the wilderness toward the promised land. Only later does pilgrimage become spatially concentrated around a particular locus of divine presence – Jerusalem and the Temple.

Early references to pilgrimage festivals appear in Exodus 34:22–23, where ritual “appearings” before God are commanded without yet naming a specific place. Deuteronomy 16:1–17 articulates these practices more explicitly and connects them to an eventual sacred centre: “Three times a year all your males shall appear before the LORD your God at the place that he will choose: at the festival of unleavened bread, at the festival of weeks, and at the festival of booths.” With the construction of the Temple, pilgrimage becomes a matter of coordinated movement toward Jerusalem – communal, calendrical, and embodied.

Psalms 120–134, the Songs of Ascents, describe the emotional and communal experience of going up to Jerusalem, including anticipation, fatigue, joy, solidarity, and worship. Although Jerusalem stands at the centre of the scriptural tradition of pilgrimage, the biblical witness also expands pilgrimage beyond geography. Texts such as Psalm 84:5–7 (“Happy are those whose hearts are set on pilgrimage”), Psalm 23 (a life journey rendered as a pastoral poem), Psalm 139:7–10, 23–24 (the wanderer searched and guided by God), Proverbs 4:10–19 (two divergent “paths”), and Job 23 (the search for a hidden God) all treat the “way” as both an inner and ethical trajectory as well as a route across the land.

Christian Reframing: Life as Pilgrimage, Christ as Companion

Christian Scripture extends these themes by portraying Jesus as itinerant, first fleeing to Egypt for safety (Matt. 2:13-23), later moving with his disciples through villages and cities, across social and religious boundaries, and into places marked by conflict, exclusion, and need, while also presenting Christian existence as a form of sojourning. The post-resurrection account of the travellers on the road to Emmaus (Luke 24:13-35) is paradigmatic: two travellers discover that Christ accompanies them amid ordinary movement, and that recognition becomes transformative. “Were not our hearts burning within us while he was talking to us on the road, while he was opening the scriptures to us?” (Luke 24:32). The passage imagines pilgrimage not merely as travel to a holy site, but as an ongoing possibility of encounter that reshapes perception, interpretation, and desire.

New Testament writers likewise describe Christians as resident aliens, “strangers and pilgrims” in the world (1 Peter 2:11; *paroikous kai parepidēmous*). Hebrews 11, moreover, presents figures from the Hebrew Scriptures, Abel, Enoch, Noah, Abraham, Isaac, Jacob, Joseph, and Moses, among others, as confessing themselves to be “strangers and foreigners on the earth” and as seeking a truer homeland (Heb. 11:13-16, 39). In this sense, pilgrimage becomes not simply an occasional practice, but an overarching orientation: movement toward God marked by faith, longing, suffering, and obedience.

From Orientation to Institution: Early Christian Holy Land Pilgrimage

By the late first or early second century, the *Letter to Diognetus* (5.1-5) articulates Christian identity in strikingly pilgrim terms: Christians “dwell in their own countries, but as foreigners.... Every foreign land is to them a homeland, and every homeland a foreign land.” Here pilgrimage is less an itinerary than a spiritual anthropology: the pilgrim is one whose deepest belonging lies elsewhere and who therefore moves through the world differently.

The early church wove together these scriptural currents, Israel’s sacred journeying, Jesus’s itinerancy, and the Christian life as sojourning, and gave them concrete expression in travel to places associated with Christ’s life, death, and resurrection. The fourth century provides some of the earliest clearly documented evidence of Christian pilgrimage to the Holy Land. Empress Helena travelled to Palestine and Jerusalem around 326-328, helping to catalyse imperial attention to holy places. Shortly thereafter, an anonymous traveller from Bordeaux produced the earliest surviving Christian pilgrimage itinerary to the Holy Land (333-334). A half century later, Egeria (ca. 382-384) composed a remarkably detailed account of liturgy and sacred sites in and around Jerusalem, demonstrating how place, prayer, and ecclesial ritual had become braided together in the pilgrim experience.

Pilgrimage naturally included devotional travel from one’s home to a sacred site and back. In Jerusalem, a related practice of local, topographical devotion emerged by about 330-335, as pilgrims began to walk routes associated with Christ’s Passion. Over time, this practice coalesced around what became known as the *Via Dolorosa*, the “Way of Sorrows.” Pilgrims traced what was understood to be Christ’s path to the Crucifixion, enacting a walking devotion grounded in sacred geography.

Medieval Expansion: Relics, Intercession, Penance

Over subsequent centuries, pilgrimage expanded and diversified beyond journeys to and within the Holy Land. Devotion to the relics and tombs of saints, believed to mediate healing and intercession, drew pilgrims to Rome (St. Peter), Santiago de Compostela (St. James), Jerusalem (where Christ had lived, died, and risen), and a wide constellation of regional shrines. Alongside intercessory pilgrimage, penitential pilgrimage also developed as a discipline of conversion and reconciliation, undertaken to seek forgiveness, fulfil vows, or perform acts of reparative devotion. By the high Middle Ages, pilgrimage served a wide range of purposes, including healing, thanksgiving, penance, devotion, vow fulfilment, and, at times, curiosity.

Toward Chartres: A Multifaceted Pilgrimage Landscape

It is within this complex Christian inheritance that Chartres must be situated. Medieval pilgrimage at Chartres was not a single, uniform practice, but an ecosystem of related practices: pilgrimage to Chartres Cathedral, pilgrimage from Chartres Cathedral, and forms of pilgrimage enacted within the cathedral itself through procession, prayer, ritual movement, and sustained attention to images. What follows examines these dimensions and considers what the cathedral's pilgrimage imagery suggests about how sacred journeying was imagined, represented, and performed at Chartres. Against this background, we will consider how the labyrinth, introduced into the cathedral around 1220, may have been shaped by Chartres's pilgrimage culture and may, in turn, have helped shape it, across liturgical, cultic, and popular forms as these changed and developed over the centuries.

Pilgrimage to Chartres

Pilgrimage to Notre-Dame de Chartres was already significant by the eleventh century and the institutional and architectural "scaffolding" that sustained it is clearest in the rebuilding program launched after a catastrophic fire of 1020. In response, Bishop Fulbert and his successors created an immense U-shaped crypt (1020–1024), more than 220 meters/722 feet long. This lower-level environment, capable of receiving large numbers of pilgrims, was created for circulation, staged devotion, and liturgical use. It directed pilgrims in a symbolic movement from darkness (north) to light (south), followed by an ascent to the luminous upper church.

Many pilgrims were reportedly drawn to Chartres by the cathedral's principal Marian relic, conventionally identified as the *Sancta Camisia*, or the tunic of the Virgin Mary. The reliquary that housed it was kept in the upper cathedral. Pilgrims from the region were also drawn by devotion and desired assistance from local saints such as Saint Cloud (boils, abscesses and other skin problems) and St. Roch (plague and pestilence).

The crypt below the sanctuary functioned as more than a structural foundation; it also served as an important devotional and logistical space for pilgrims. Focal points of pilgrimage devotion included the revered statue of *Notre-Dame-sous-Terre* and the Gallo-Roman Well of the Strong Saints (*Puits des saints forts*), believed to possess miraculous properties because of the legendary martyrs said to have been drowned there. There was even a hospital in the northern gallery where sick pilgrims could recover near the healing waters of the well, to which they were moved during the day.

Pilgrim crowds at Chartres were reportedly thickest on the four principal Marian feasts: the Purification of the Virgin, the Annunciation, the Assumption, and the Nativity of Mary when the city's fairs also drew merchants and travellers. These feast-day convergences braided together liturgy in the crypt and upper Romanesque cathedral, the devotional aims of pilgrimage, and the economic rhythms of a major regional gathering.

Marian devotion remained Chartres's principal pilgrimage magnet after the fire of 1194 and during the rapid rebuilding campaign that produced the Gothic cathedral in the early thirteenth century. Many pilgrims arrived with urgent, embodied petitions addressed to the Virgin Mary, a devotional impulse reflected in the cathedral's stained glass. Several windows depict figures kneeling before images of the Virgin and Child, such as pilgrims praying to the Virgin (9/38) and the donor Marguerite from nearby Lèves kneeling before a statue of Mary and Jesus (26/16).¹

Another example (illustrated right) is found in the north rose high above the nave, a man and a woman kneel before a statue of the Virgin and her son (157/129c); they are often interpreted as pilgrims, perhaps travellers from Tours.²



Royal visitors sometimes framed their pilgrimages in explicitly dynastic terms. Louis VIII, for example, came to Chartres to seek the Virgin's aid for the continuation of the Capetian succession (Bugslag, 160). Pilgrims seeking protection for dangerous travel, including those preparing for military campaigns, practiced forms of contact devotion by touching cloth (and, in some accounts, replica garments) to the reliquary of the *Sancta Camisia*, thereby creating portable blessings that could later be worn for protection.

The compilation commonly known as the *Miracles de Notre-Dame de Chartres*, associated with Jean le Marchant and produced at the request of Bishop Matthieu des Champs (episcopacy 1247–1259), provides accounts of Marian interventions linked to Chartres. Such miracle literature actively shaped pilgrimage practice by describing what pilgrims might hope for and by specifying the Virgin's efficacy at Chartres, thereby intensifying the desire to visit the cathedral in person.

Pilgrimage from Chartres

Modern scholars emphasize the growing importance of local pilgrimage, particularly in the later Middle Ages. Chartres, however, was never simply a regional shrine. It also functioned as a nodal stop on longer pilgrimage itineraries, attracting, and at times redirecting, travellers moving west along the *Via Turonensis* on their way to the relics of St. Martin at Tours (approximately 140 km/87 miles away) or, much farther on, to the shrine of St. James at Santiago de Compostela (roughly 1,400 km/870 miles away). Compelling visual evidence for this pattern will be discussed below.

Other pilgrims headed east from Chartres.³ In the eleventh and twelfth centuries, journeys to Jerusalem, including armed *peregrination*, sometimes began at Chartres or passed through it. In 1215 the Fourth Lateran Council called for a new crusade to recover the Holy Land (Canon 71, *Ad liberandam*), confirming plenary indulgences – the remission of the entire temporal punishment due for sins already absolved – for those who personally took the cross. The aristocratic networks surrounding Chartres remained active participants in thirteenth-century crusading ventures, and the city participated in broader northern French recruitment patterns for these penitential pilgrimages to Jerusalem.⁴

For medieval Christians, Jerusalem was widely regarded as the centre of the world, a conviction given visual form in *mappae mundi* from the 8th through the 14th centuries,⁵ where the city often appears at the symbolic centre of the map. It was understood as the place where God's saving work transformed human history through the death and resurrection of Jesus Christ. Jerusalem therefore commanded the medieval imagination, both for those able to journey there and for those who could contemplate it only from afar. This centrality also found expression in ecclesiastical architecture and theological reflection, where the historical city was inseparably linked to the Heavenly Jerusalem of Revelation 21:1–22:5, the radiant city of God to be revealed at the end of time, so that earthly Jerusalem functioned both as a sacred site of salvation history and as a sign of God's ultimate redemptive fulfilment.

Pilgrimage at Chartres

In *Chartres Cathedral: Image of the Heavenly Jerusalem* (1993), Anne Prache argues that Chartres Cathedral was conceived as a theological and visual representation of the Heavenly Jerusalem. Rather than treating the building merely as an architectural monument, she interprets it as a symbolic and liturgical microcosm of divine order. In her reading, the cathedral's architecture, sculpture, stained glass, and spatial organization together articulate a coherent eschatological vision, an earthly anticipation of the celestial city described in the Book of Revelation.

From this perspective, worshippers and pilgrims who came to Chartres did more than visit a Marian shrine; they entered a space intentionally structured to evoke the glory of the New Jerusalem. The cathedral thus offered a foretaste of the heavenly city, allowing the faithful to encounter – in architectural, visual, and liturgical form – the promise of the world to come. In this way, the spiritual significance traditionally associated with Jerusalem became accessible beyond the geographical limits of the historical city.

Between the devastating fire of 1194 and the effective completion of the Gothic rebuilding around 1220, Chartres Cathedral was not merely a construction site but also remained an active pilgrimage destination. Pilgrimage practices during this period centred on Marian devotion, the veneration of relics, participation in liturgy and processions, and acts of penance.⁶ Pilgrims came seeking healing, protection, forgiveness, and divine favour.

As pilgrims in biblical times journeyed to Jerusalem to draw near to God in the Temple, those arriving at Chartres moved through the cathedral from the western portals across the nave toward the choir and high altar. This progression through sacred space could itself be experienced as a symbolic movement toward divine presence, echoing the spiritual logic of pilgrimage.

A central focus of devotion at Chartres was the *Sancta Camisia*, believed in the Middle Ages to be the tunic worn by the Virgin Mary at the Nativity. Chartres, described as “Mary’s Home” or “Mary’s Chamber” (Jean Le Marchant, *Miracles de Notre-Dame de Chartres*), was therefore regarded as a place where her intercession was particularly powerful. On major Marian feast days, pilgrims joined processions in which the relic was displayed within the cathedral and sometimes carried through the town. Throughout the year, visitors made votive offerings in gratitude for answered prayers or protection, donated funds supporting the construction and maintenance of the cathedral and participated in liturgies celebrated in Mary’s honour. Pilgrims thus encountered a richly layered devotional environment in which relics, liturgy, sculpture, and stained-glass narratives shaped expectation and invited prayer. At the same time, Chartres’s urban setting provided lodging, food, trade goods, and devotional objects for travellers. Pilgrimage therefore unfolded within an integrated social and economic landscape that combined theology, ritual, architecture, civic life, and eschatological hope.

The cathedral’s visual program further reinforced the experience of pilgrimage. Sculptures and stained glass populated the building with what Hebrews calls the “cloud of witnesses” (Hebrews 12:1), surrounding visitors with figures whose lives exemplified perseverance in faith. In this way, pilgrims entering the cathedral encountered a visual community of biblical and saintly travellers whose stories echoed their own spiritual journey.

Among these figures were biblical patriarchs associated with sacred journeying, including Moses (East Choir Window 119/102), Abraham (North Porch sculpture and North Clerestory windows 158/131a and 159/131b), Joseph (Narrative Window, North Nave 61/41), and David (Tree of Jesse window, West 1/49; East Choir window 103/122a; and North Rose Lancet C 145/121). Through such images the cathedral visually linked the experience of medieval pilgrims to the scriptural history of God’s people.

Scenes from the life of Jesus at Chartres likewise emphasized pilgrimage to Jerusalem. These include the Presentation at the Temple (Luke 2:22–40) and the Passover pilgrimage made by the Holy Family during Jesus’s youth (Luke 2:41–52). Two extended twelfth-century image cycles, the sculptural capital frieze of the western portal (c. 1145–1155) and the south window on the west wall (c. 1145; 3/51) depict events surrounding Jesus’s final pilgrimage and entry into Jerusalem for Passover.

Christ appears prominently throughout the cathedral’s imagery as the enthroned Lord who completed the journey from heaven to earth and back again through resurrection and ascension. Jesus also appears explicitly as a pilgrim, carrying a pilgrim’s staff in both the western frieze sculpture and the top-left scene of the south lancet window on the west wall (3/51, illustrated right).



Mary, the patron saint of Notre-Dame de Chartres, was likewise portrayed as a traveller whose journeys resonated with those who came to her shrine. Medieval preaching, liturgy, and art often presented Mary's life as exemplary for the Christian understanding of *peregrinatio* – life as a guided journey toward God. At Chartres, pilgrims could see scenes depicting Mary's journeys: the Visitation to Elizabeth (Luke 1:39–56), her travel to Bethlehem for the birth of Christ (Luke 2:1–20), and the Flight into and return from Egypt with Joseph and the infant Jesus.⁷

Pilgrims would easily have recognized St. James the Greater, whose shrine at Santiago de Compostela may have been their own destination. At Chartres he appears as a pilgrim to his own shrine, identifiable by the cockle shells on his clothing, in the twelfth-century fresco in the crypt, in the south nave clerestory windows (68/140b and 74/136b, illustrated opposite top), and in the south porch jamb sculpture, where shells hang from the strap of his pilgrim's pouch.

Images of contemporary pilgrims to Compostela were also present. In addition to images of pilgrims above the labyrinth that will be introduced later, a northern choir clerestory window visible to the laity from the south transept depicts male and female figures adorned with pilgrim shells (illustrated opposite below), possibly representing travellers journeying to Santiago and returning from it (133/113a).

The invocation of saints through their relics formed another essential dimension of medieval pilgrimage. Pilgrims often sought the intercession of saints whose relics were preserved in particular places. Local visitors in Chartres would have been especially attentive to saints associated with the region, including St. Savinian (43/17),⁸ St. Laumer (South Porch sculpture; 66/142a), St. Lubin (63/45), St. Solenne (138c/73), St. Piat (14th century chapel), and Thomas Becket (25/18), who had spent years in exile in Chartres between 1164 and 1170. As Claudine Lautier has shown (*Les Vitraux de la Cathédrale de Chartres. Reliques et Images*), the visual narratives of these saints throughout the cathedral enabled pilgrims to encounter their stories and contemplate their intercession. One striking example is the twelfth century fresco in the crypt which depicted six saints associated with pilgrimage destinations: St. Clement (Rome), St. Peter (Rome), St. James (Compostela), St. Martin (Tours), St. Nicolas (Bari) and St. Gilles (Saint-Gilles-du-Gard).



Pilgrimage at Chartres likely carried different meanings for different groups. For the cathedral clergy, whose responsibilities included safeguarding relics and maintaining liturgical order, the management of pilgrimage was often a matter of regulation rather than promotion. As James Bugslag observes, the cathedral chapter appears “not so much to encourage pilgrimage as to control it,” and there is limited evidence that the clergy actively promoted pilgrimage after the emergence of the thirteenth-century miracle collections, the earliest of which likely served fundraising needs for construction (*Pilgrimage to Chartres: The Visual Evidence*, 181). This distinction helps clarify differences between clerical and lay perspectives on sacred movement, as well as between elite and popular forms of devotion.

Both pilgrimage and procession assume that sacred encounter occurs through movement rather than stillness, yet they differ in structure and meaning. Pilgrimage involves sustained displacement across space and status, while procession represents regulated ritual movement governed by liturgical hierarchy and prescribed routes. At Chartres the clergy frequently incorporated the energies of pilgrimage into liturgical choreography, leading processions through the cathedral – and sometimes through the town – during major feasts and rites.

In medieval ceremonial practice, as is still true, the ideal Mass itself had a stational character, structured by processional movement between significant places within the church: doorways, choir, altar, and shrine. Such movement rendered the Church’s order visible and embodied.⁹

Chartres’s liturgical topography sharpened this logic. During Holy Week, the cathedral and surrounding town symbolically represented Jerusalem and its sacred landscape. Processions therefore did more than move through local space; they re-presented salvation history through the cathedral and the urban landscape alike. The cathedral’s eastward orientation further reinforced this symbolism: movement toward the altar aligned the worshipping body with the rising light of Christ and with the eschatological promise of the Heavenly Jerusalem.

The same symbolic logic appears in the thirteenth-century *Ordinaire Chartrain*, which required processions to move in a consistent solar direction, with the sun. Accordingly, the processional route in the crypt began in the north and concluded in the south.¹⁰ Through such practices the clergy did not simply host pilgrims but directed and structured their movement, channelling devotional energies into disciplined liturgical pathways.

Taken together, the evidence suggests that pilgrimage at Chartres cannot be reduced to a single practice or constituency. It was simultaneously a Marian cult centre organized around a powerful relic, an urban economy of hospitality and exchange, and – following Prache’s interpretation – an architectural and ritual environment offering worshippers and pilgrims an encounter with Jerusalem’s meaning beyond Jerusalem itself. Salvation history and eschatological hope were rendered visible in stone, glass, and movement. Surrounded by biblical travellers, saintly intercessors, and identifiable pilgrims, visitors encountered a visual theology of *peregrinatio*, while the clergy’s liturgical discipline simultaneously welcomed, structured, and at times constrained the devotional energies that drew crowds to Notre-Dame de Chartres. The next section turns from these broader structures to a more focused visual field: the cluster of pilgrim imagery near the labyrinth in the nave.

The Labyrinth in Context: Pilgrimage, Movement, and Interpretation

No surviving early thirteenth-century documentation explains the purposes, theology, or practices that informed the decision to inlay a labyrinth of approximately 42 feet (12.9 meters) in diameter across the nave pavement of Chartres Cathedral (see Jeff Saward, *The Chartres Cathedral Labyrinth: Frequently Asked Questions*). In the absence of such evidence, modern interpretations must proceed with methodological restraint. Nevertheless, many twenty-first-century writers have asserted, and then repeated as if it were established fact, that the Chartres labyrinth functioned as a “substitute pilgrimage” for those unable to travel to Jerusalem. Although rhetorically appealing, this claim rests on no identifiable documentation,¹¹ either contemporary with the labyrinth’s installation in the thirteenth century or securely grounded in later medieval testimony. Based on the historical material reviewed by scholars, the available evidence in no ways supports the idea of Jerusalem substitution as an interpretive key.

The centre of inquiry should shift from speculative origin stories to careful analysis of the labyrinth in situ. If connection of the labyrinth with pilgrimage practice can be responsibly proposed, it is most likely to emerge from the convergence of material context, iconographic proximity, and liturgical habit, from what the labyrinth did within the building and from what the cathedral’s broader devotional system made plausible. The sheer scale of the pavement design, the most visually dominant decorative element in the Gothic nave, suggests that it may have intersected in some way with patterns of devotional movement undertaken by clergy and laity alike, including those visiting as pilgrims.

The labyrinth’s relation to procession, prayer, penitential movement, and the experience of pilgrims at Chartres remains an open question. In the absence of direct written testimony, the most promising lines of inquiry lie in the cathedral’s spatial organization, liturgical choreography, and surrounding visual program.

Clerical Interests and the Shaping of Sacred Space at Thirteenth Century Chartres

Any interpretation of the labyrinth must begin with the question of agency: who possessed the authority to introduce such a large-scale new element into the cathedral’s nave? At Chartres, as at other cathedrals, the bishop, Renaud de Mousson (1182–1217), authorized, promoted, and legitimated the rebuilding project in its broadest sense. The shaping of interior space also depended on the cathedral clergy, above all through the chapter’s corporate leadership and resources. Their central role is legible in the building itself, since the thirteenth-century plan accommodated an immense choir in which the seventy-two canons gathered for the Divine Office, a reminder that the cathedral functioned above all as the chapter’s liturgical instrument.

Although the twelfth-century School of Chartres was no longer at its height during the principal Gothic rebuilding campaign after 1194, elements of its intellectual legacy likely remained active within the clerical culture that shaped the cathedral’s articulation of space, image, and devotion. Its broadly Neoplatonic orientation, especially its emphasis on creation as ordered and intelligible, on *ratio* and proportion as reflections of cosmic truth, and on layered interpretation, literal, moral, allegorical, and anagogical, would have provided an interpretive framework for understanding symbolic form within the cathedral. By the thirteenth century, this legacy would also have encountered increasingly Aristotelian modes of thought, producing a more complex intellectual environment in which geometry,

matter, image, and sacred meaning could be understood as mutually informing rather than merely decorative. In that light, the monumental walkable labyrinth inlaid in the nave pavement may be read, cautiously, as participating in a clerical pedagogy of ordered movement and meaning within a space governed by episcopal authority and capitular liturgy. As Guillaume Durand would later associate the church floor with the foundational plane of Christian faith (*Rationale divinorum officiorum* 1.1.28, 1285-1291), so too the pavement could bear theological significance as well as practical use.

Pilgrims and Ritual Movement at Chartres

Although no documentation survives explaining the original purpose of the labyrinth at Chartres, its placement, scale, and physical form strongly suggest that it was intended to be experienced by those who entered the cathedral, pilgrims among them. Set just inside the western entrances, it would have been immediately visible to anyone passing through the three west portals, all of which open directly toward the nave where it lies. Positioned between the threshold of entry and the choir where the clergy prayed the Divine Office and celebrated Mass – and symbolically between the darkness of the west and the light of the east – the labyrinth occupied a transitional zone within the church, a location well suited to movement, reflection, and spiritual reorientation.

The labyrinth's scale likewise suggests intentional use rather than mere display. As Jeff Saward observes [Saward, 2003, 96], the Chartres labyrinth was executed at a size that positively invites walking: spanning nearly the full width of the nave, it is difficult to imagine that so monumental a pavement design was intended only to be viewed rather than also traversed. John James states the point even more emphatically, describing it as “the greatest single decorative element in the entire cathedral, larger than any rose window or sculptural ensemble and deliberately set deep within the paving so that people’s feet would pass across it.” [*Walking on the Past*, 5]. In his view, “there is nothing fortuitous in Chartres,” where every element participates in a meaningful whole. Taken together, such observations make it difficult to regard the labyrinth as mere ornament. It does not seem unreasonable to understand it as a feature designed for bodily engagement and integrated into the devotional and ceremonial life of the nave.

The thirteenth-century labyrinth should therefore be considered within the cathedral's broader culture of regulated ritual movement, including processions, directional norms, and the spatial dramaturgy of liturgical practice. Pilgrims and other lay visitors moving through the nave did so within a space also structured by public and seasonal liturgies, many of which unfolded on or near the pavement area occupied by the labyrinth in the third and fourth bays. Although direct documentary corroboration has not yet been identified, further study of ordinaries, customary statutes, processions, and musical sources may still illuminate how movement through this part of the nave was choreographed.

No known medieval source describes a specific liturgy attached to the labyrinth at Chartres.¹² Its orientation and circulation, however, are consistent with the liturgical habits and processional norms that governed movement within the cathedral. Both entry into the labyrinth and the final approach to its centre occur from the west, so that the walker's two decisive moments – crossing the threshold and reaching the centre – are marked by eastward movement. This directional logic accords with the cathedral's broader architectural orientation toward the east and toward light, a direction commonly associated with resurrection theology and with medieval pilgrimage to the Holy Land.

The pattern of the labyrinth's turns is also suggestive. The path begins with a turn toward the north and concludes with a final turn from the south before entry into the centre. This sequence is compatible with the thirteenth-century *Ordinaire Chartrain*, which required cathedral processions to move in a solar direction. As noted earlier, the same directional principle governed pilgrim circulation in the lower church. Even in the absence of explicit evidence for a labyrinth rite, the labyrinth's placement and directional logic can therefore be understood within the cathedral's wider culture of ritualized movement.

Pilgrimage Themes in the Glazing Near the Labyrinth

In the thirteenth-century cathedral at Chartres, as in other churches of the Latin West, the nave functioned primarily as the laity's space. It served as the cathedral's public hall: the place where lay worshippers attended Mass, heard preaching, and occasionally gathered for civic or ecclesiastical assemblies. At Chartres in particular, the nave also received and regulated the crowds of pilgrims drawn by Marian devotion, relic veneration, and major feast days. During such occasions the nave became not only a site of liturgical participation but also a zone of circulation, gathering, waiting, prayer, and resting as pilgrims and other worshippers moved through the cathedral according to both devotional impulse and ceremonial order. From this space, lay participants engaged the liturgy through sight, sound, gesture, and movement.

The absence of explicit medieval texts linking the Chartres labyrinth to pilgrimage practice does not demonstrate that no such relationship existed. It may instead reflect both the limits of the surviving record and the selectivity of what the clergy chose to preserve. Cathedral archives and liturgical books typically document what was formally regulated or administratively managed – statutes, ordinaries, processions, and similar sources. By contrast, many forms of lay devotion, especially those expressed through bodily movement or visual engagement, rarely entered the written archive.

Nor should the imagery surrounding the labyrinth be reduced to a single meaning. As in medieval visual and textual culture more broadly, the windows around the labyrinth likely operated simultaneously on several levels – literal, allegorical, moral, and devotional. The pilgrimage associations considered here therefore represent only one interpretive strand within a more complex symbolic field. Even so, closer examination of the stained glass surrounding the labyrinth strengthens the possibility that pilgrimage themes formed part of the visual environment experienced in the area of the nave that included the labyrinth.

One particularly significant example is the Good Samaritan window in the south aisle, visible from the threshold of the labyrinth in the third bay of the nave (6/44). In the lower half of the window, the parable of the Good Samaritan (Luke 10:25–37) receives a strikingly distinctive treatment. At Chartres, the traveller leaving Jerusalem is explicitly identified in Latin as a pilgrim (*peregrinus* or *peregrinusa*) in scenes 5 (illustrated right) and 7, even though the biblical text itself describes the figure only generically as ἄνθρωπος (*anthrōpos*), “a person” or “human being.”¹³ The window thus reframes the scriptural narrative in language directly resonant with pilgrimage.



Forms associated with the labyrinth may also find visual echoes within this same window. Two examples are suggestive. In the lower right register, the shoemakers' guild presents its donor panel adorned with stylized six-petaled flowers (scene 3, illustrated below), a motif uncommon in other thirteenth-century windows at Chartres. The shape recalls the six-petaled form marking the labyrinth's centre (inset opposite).¹⁴ Likewise, the battlements of the city from which the pilgrim departs visually resemble what French scholars describe as the labyrinth's *dents*, the tooth-like projections that frame its outer edge. These correspondences cannot prove intentional design relationships, but they do suggest that nearby glass could visually reinforce patterns and motifs activated by the labyrinth itself.



Taken together, the imagery and themes of the surrounding windows indicate that the area around the labyrinth was saturated with associations related to pilgrimage and travel. As noted earlier, imagery linked to Jerusalem and Santiago de Compostela appears near the labyrinth not only in the stained glass of the west wall but also in the lower aisles and clerestory windows of the third and fourth bays of the nave.¹⁵

A related line of inquiry concerns the possibility that theological ideas closely associated with pilgrimage experience were embedded within the symbolic field surrounding the labyrinth itself, including near the threshold stone marking both its entrance and exit. In the second bay of the nave, on both the north and south sides, images of Christ with the Alpha and Omega – the first and last letters of the Greek alphabet – are prominently visible (on the sides of Christ's head: 70/140c and in the book held by Christ: 63/45; cf. Rev. 1:8, 21:6, 22:13, illustrated below). Positioned in the bay adjacent to the labyrinth's threshold, where linear movement gives way to circular pattern, these images may have framed the space with a meditation on beginning and end, departure and return.



In this context the Alpha and Omega imagery may have done more than identify Christ doctrinally. It could also have shaped the pilgrim's experience of the labyrinth by recalling the larger temporal and spiritual arc within which medieval pilgrimage unfolded: departure from home, the journey toward a sacred destination, and the eventual return. The threshold stone thus introduces the structure of pilgrimage itself. Entering the labyrinth, the walker sets out along a path whose centre – marked by a flower-like form – evokes a sacred goal. Leaving it, the same threshold becomes the final point of return. Read in this way, the

labyrinth could figure the Christian life as a journey from origin to fulfilment, from earthly passage toward divine encounter, and from the uncertainties of travel toward ultimate arrival.

The analysis that follows focuses on two motifs particularly visible in the imagery surrounding the labyrinth: reversal and feet. These themes represent only two among several interpretive strands that may have shaped medieval viewers' experience of this space. The methodological aim is not to explain the archival silence surrounding the labyrinth by projecting later pilgrimage legends backward onto it. Rather, the task is to test whether historically plausible connections emerge from the labyrinth's geometry, scale, placement, and organization of movement together with its spatial, visual, and devotional context. The argument advanced here is therefore probabilistic rather than demonstrative. Its goal is not certainty but a historically grounded account of what a pilgrim might reasonably have been invited to see, do, and understand within the labyrinth zone.

One such theme is reversal. The labyrinth's path is structured by thirty-two turns, including twenty-eight full reversals of direction. This motif finds parallels in nearby windows. North of the labyrinth, in the aisle of the third bay, the St. Eustace window (62/43) recounts the life of a saint renowned for fidelity amid severe trials. The narrative unfolds through repeated reversals of fortune – gain, loss, restoration, and renewed loss. Such patterns would likely have resonated in a culture of pilgrimage, where travel exposed pilgrims to danger, deprivation, and uncertainty while also opening the possibility of unexpected aid and grace. The window's donors, furriers and drapers, further anchor this narrative in the material realities of travel, since pilgrims depended on durable, warm clothing and on repair or replacement as distance, weather, and wear took their toll.

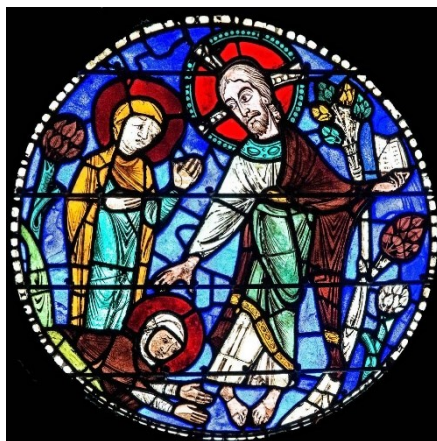
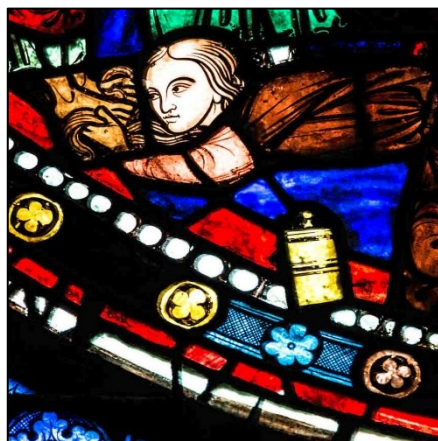
A similar narrative logic appears in the Joseph window (61/41) in the fourth bay of the north aisle. The window traces Joseph's dramatic reversals – a cycling from favour to betrayal and suffering, and finally to reconciliation and restoration. Joseph's declaration, "Even though you intended to do harm to me, God intended it for good" (Gen. 50:20, NRSV), expresses a theological claim that could sustain pilgrims amid the vulnerability and unpredictability of the road. The window's donors, moneychangers, would also have mattered directly to travellers, since Chartres received visitors moving through a world of multiple regional currencies, making exchange services practically important in and around the cathedral precinct.

The Death and Assumption of the Virgin window (7/42), also beside the labyrinth, intensifies this pattern of reversal while emphasizing Marian intercession. In the Assumption scene (20), Mary passes from death into heavenly life. This threshold crossing echoes the labyrinth's own location within the nave, situated between the symbolic realms of earth and heaven. For pilgrims seeking the Virgin's aid, this convergence of Marian imagery and narrative reversal would have deepened the devotional resonance of the labyrinth zone.¹⁶

Craig Wright has identified reversal as a central symbolic theme in the Chartres labyrinth itself, expressed both in its winding course and in analogies with retrograde structures in medieval music. He argues that labyrinths of the Chartres and Reims–Sens type signify "the process of a miraculous reversal," echoing the descent and ascent (*descensus* and *ascensus*)

of Christ (67-69 and 106-107). This interpretation is particularly suggestive when considered alongside pilgrimage. For medieval travellers, the road rarely followed a straight line; it involved detours, setbacks, and returns as well as arrival. The labyrinth gave that experience visible and bodily form, transforming reversal itself into part of the meaning of sacred progress.

A second motif visible in the glazing near the labyrinth is the striking emphasis on feet and shoes. Because pilgrimage is fundamentally a practice of walking, this prominence may be more than incidental. Several Magdalene scenes visible from the labyrinth emphasize bodily orientation toward Christ's feet.¹⁷ In one scene above the labyrinth in the south clerestory of the third bay, Mary Magdalene appears barefoot – a detail associated with penitence and humility in medieval visual culture but also suggestive of pilgrimage's embodied discipline. In another scene she reaches toward Christ's bare feet (below left), even though the Gospel text (John 20:16–17) does not mention them explicitly. A related scene at the base of the Magdalene window (5/46, below right) depicts Mary anointing Jesus' feet.



In the Middle Ages, travel, especially penitential or devotional travel, made the condition of the feet both a practical concern and a powerful symbol. The two south nave windows adjoining the labyrinth sharpen this emphasis. Their lowest registers depict members of the shoemakers' guild (illustrated below), framing the labyrinth zone with imagery of the craft most directly responsible for protecting the traveller's feet.



Additional imagery reinforces these associations. Above the labyrinth, a clerestory lancet of St. James the Greater, patron saint of pilgrims, is paired with donor imagery from the Gaufridus family (74/136b, illustrated below). The family members appear as pilgrims marked by the cockle shell, symbol of pilgrimage to Santiago de Compostela. One figure bears a banner displaying a sock or boot-shaped emblem possibly associated with the shoemakers' guild. Read in that light, the youngest son's downward gesture becomes especially suggestive, directing attention perhaps toward his boot or stockings, or the labyrinth, or both. Such imagery would have resonated strongly with medieval travellers whose journeys depended on durable footwear and on the practical economies supporting long-distance travel.



Another scene deepens these associations. In the twelfth-century west window (2/50, scene 4, illustrated right), the Washing of Peter's Feet presents Christ performing an act of humility and care in explicitly bodily terms. Although this scene predates the labyrinth's installation by many decades, its proximity could have taken on new resonance once the walkable pavement design was added nearby. In a culture where pilgrims would endure fatigue, hardship, and the vulnerability of travel, the washing of feet linked the physical realities of the road with a theological ethic of service and hospitality.



Finally, another image – visible when standing at the labyrinth’s threshold and looking east – introduces yet another layer of meaning. In the Moses and Isaiah window above the high altar (119/102, illustrated right), Moses removes his sandals before the burning bush in obedience to God’s command: “Remove the sandals from your feet, for the place on which you are standing is holy ground” (Exod. 3:5). Read alongside the cluster of foot-focused imagery near the labyrinth, this scene provides a powerful interpretive key. Feet and shoes become a visual language for marking the moment when ordinary ground can become sacred space.

Taken together, these visual cues do not demonstrate that the labyrinth functioned as a formal pilgrimage station. They do, however, make it difficult to regard the surrounding imagery as neutral. For medieval visitors arriving as travellers – pilgrims among them – the clustering of saints, donors, narratives, and symbolic motifs could have encouraged an embodied reading of the labyrinth zone as a place where the hardships and meanings of the road were interpreted through the body’s most vulnerable point of contact with the earth: the feet.



More broadly, imagery at Chartres participated in an intricate dialogue among liturgy, theology, and embodied devotional practice. Meaning did not reside in any single image but emerged through the interaction of visual form, ritual action, scriptural reference, movement through the cathedral, and personal acts of devotion. Future study of the labyrinth should therefore attend closely to the visual environment surrounding it and to the ways that imagery may have addressed pilgrims while also serving other devotional and theological functions within the cathedral.

The Chartres Labyrinth and Pilgrimage Through the Centuries

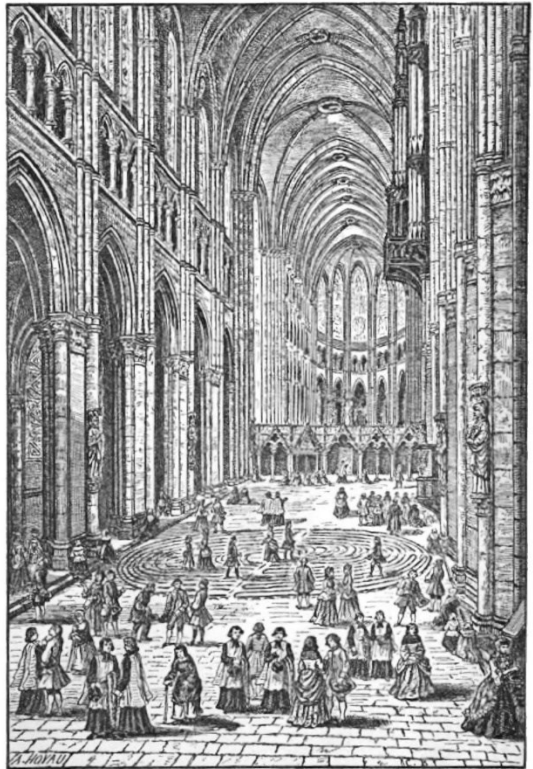
Pilgrimage practice evolved substantially across the centuries, and it is reasonable to assume that the meanings attributed to the Chartres labyrinth – and the ways it was used – changed as well. Whatever the labyrinth may have signified in the early thirteenth century, its interpretation did not remain fixed. Later evidence suggests a succession of devotional, ceremonial, antiquarian, and modern spiritual readings.

Around the year 1300, altars were installed against the nave piers of Chartres Cathedral. As a result, Mass was celebrated in close proximity to the labyrinth on a regular – most likely daily – basis until 1601.¹⁸ From the later Middle Ages onward, the labyrinth therefore remained embedded within the liturgical life of the nave, even if direct evidence for its original purpose or popular use remains elusive.

Comparable pavement labyrinths at Auxerre and Sens cathedrals appear in fourteenth- and fifteenth-century records associated with Easter dances performed by clergy. On this basis, some scholars have proposed that Chartres may once have known similar practices, although no surviving documentation confirms such ceremonies there (Jeff Saward, *The Chartres Cathedral Labyrinth*, FAQs, 5–6). What can be said with confidence is that the Chartres labyrinth continued to occupy an actively used liturgical space, since the nave remained the setting for major celebrations and large pilgrim gatherings throughout the later Middle Ages.

By the mid-seventeenth century, however, the labyrinth's original significance was no longer evident to at least some members of the cathedral clergy. In 1654 the priest Souchet described the labyrinth as an *amuse-fol*, a pointless diversion lacking any recognized Christian function (*Histoire du diocèse et de la ville de Chartres*). Contemporary laypeople may have held different views. A drawing made by Charles Challine in 1640 overlays the labyrinth's path with Psalm 51, suggesting a possible penitential or meditative reading, although a precise devotional practice cannot be documented or reconstructed with certainty (Saward, *Chartres Cathedral Labyrinth*, FAQs; see also Louet and Geoffrion, "Revisiting the Chartres Labyrinth: A Journey Through Time").

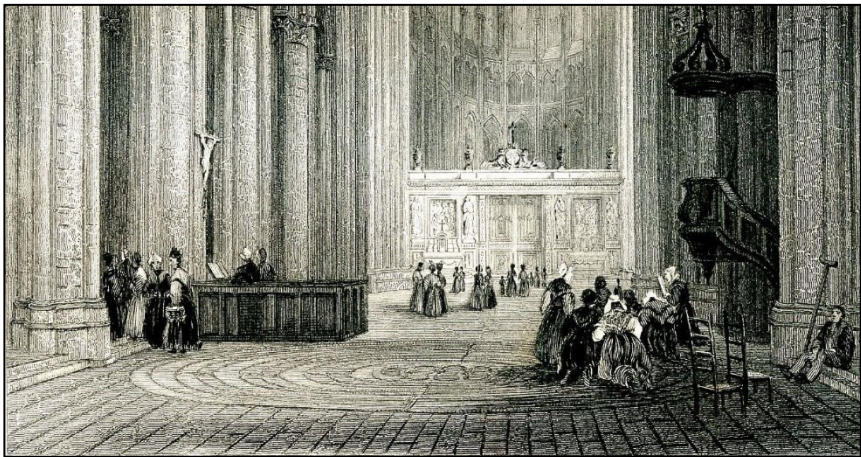
Another glimpse of early modern engagement appears in a 1696 engraving of the cathedral nave, where elegantly dressed lay men and women move across and along different portions of the labyrinth's path while clerics in liturgical dress stand elsewhere in the nave. The image presents the labyrinth not as an isolated or purely symbolic design, but as a visible feature of the cathedral's inhabited interior, one encountered amid the overlapping activities of clergy, visitors, and worshippers. It suggests that by this period the labyrinth could support several modes of engagement, liturgical, social, devotional, and curious, without any single interpretation necessarily governing its use or reception.



The nave of Chartres Cathedral as depicted on the frontispiece of Bulteau's Monographie de la cathédrale de Chartres (vol. 3, published 1892/1901), based on an earlier depiction from 1696

In the late seventeenth and early eighteenth centuries, devotional uses of labyrinths at other French cathedrals are better documented than at Chartres. Saward, citing Wright, notes that at Reims, Arras, and Sens some worshippers reportedly traversed labyrinths on their knees while reciting prayers. He also cautions, however, that evidence for the exact form and antiquity of these practices is “surprisingly scant,” amounting to “little more than the imaginative speculation of nineteenth-century antiquarians” (Saward, *FAQs*, 6).

Evidence from the nineteenth century confirms that the Chartres labyrinth remained visible and accessible, though it does not demonstrate that its medieval meanings were still understood. Bulteau’s *Manuel du pèlerin à Notre-Dame de Chartres* (1855), an important witness to modern pilgrimage at the cathedral, makes no reference to the labyrinth. A contemporary visual source likewise suggests a different kind of engagement. In an image drawn by architect W.G. Colman, and engraved by Benjamin Winkles for *French Cathedrals* (London: Charles Tilt, 1837), a group of women appear kneeling and standing on the labyrinth. Their devotion seems stationary, however, and perhaps unrelated to the labyrinth’s path, which is inaccurately rendered and does not span the full width of the nave.



Detail from the plate in Winkles' French Cathedrals, published 1837

More broadly, nineteenth-century writers helped popularize the designation *Chemin de Jérusalem* (“Road to Jerusalem”) for the Chartres labyrinth, a label that reflects modern devotional imagination rather than earlier historical documentation. As Penelope Reed Doob has shown, the association between labyrinths and symbolic pilgrimage to Jerusalem is largely a post-Renaissance interpretive development, rather than a demonstrably medieval tradition.¹⁹

At the level of the cathedral itself, pilgrimage to Chartres revived strongly in the modern period. Cathedral publications report that more than 80,000 individual pilgrims arrive each year to entrust intentions to the Virgin Mary, while organized pilgrimage groups regularly celebrate liturgies in the nave. Within this contemporary setting the labyrinth has acquired a new official interpretation. The cathedral now presents it as a “path of life” that “invites you to take a ‘pilgrimage.’” Chairs are removed and the labyrinth is opened for walking on

Fridays from Lent until approximately All Saints' Day. The official explanation frames the walk as a meditative journey toward Christ and toward the altar ("*The Labyrinth*," *Cathédrale Notre-Dame de Chartres*; "Labyrinth: reopening March 7, 2025").

Visitors from many countries and religious backgrounds now participate in this practice. In 2025 approximately 12,000 people walked the labyrinth during these Friday openings. In the twenty-first century, the Chartres labyrinth therefore functions simultaneously as a heritage object, a devotional path, and a destination for visitors drawn by historical curiosity, spiritual reflection, or personal pilgrimage.

Conclusion: The Labyrinth Within Chartres's Pilgrimage Ecology

Seen across the centuries, the Chartres labyrinth has not possessed a single stable meaning. Its history is instead one of adaptation and reinterpretation. Yet this historical mutability does not weaken the case for a medieval resonance with pilgrimage practice. Although no surviving medieval text explicitly identifies the labyrinth as a device for pilgrims, it was installed within a cathedral whose nave functioned as a major space of lay devotion, liturgical movement, and pilgrim circulation.

Its placement between the western portals and the altar, its monumental yet walkable form, and the surrounding concentration of imagery associated with travel, reversal, feet, sacred destinations, and return all support the view that the labyrinth participated in the cathedral's wider culture of pilgrimage. This does not imply that the labyrinth had a single fixed function, nor does it support the uncritical repetition of later claims about Jerusalem substitution. It does suggest, however, that the labyrinth should be understood not as incidental ornament but as an activated feature of the nave, one whose significance emerged through movement and through the dense symbolic environment in which it was embedded.

Jill Kimberly Hartwell Geoffrion, Wayzata, MN, USA, Email: jill.geoffrion@gmail.com

Alain Pierre Louët, Chartres, France; May 2026. Email: alainpierre.louet@gmail.com

Notes

Photos of stained glass in Chartres Cathedral illustrating this article are all © JKH Geoffrion

1. Records show that a statue of Mary and the Christ child made of vermeil, or gilded silver, was placed at the altar from 1220. See: Houvet, *Monograph of the Cathedral of Chartres*, June 1984, pp. 16–20 which also includes a description of Marian statuary throughout the centuries.
2. Jane Welch Williams argues that the kneeling figures in Chartres's trade windows need not be read primarily as donors; they may instead represent pilgrims who pause in reverence before the holy figure shown above. (*Bread, Wine & Money: The Windows of the Trades at Chartres Cathedral*, 82.) Interpreting the pair as pilgrims strengthens the claim that the glazing program sought to present the Virgin's cult at Chartres as efficacious for those who came to pray, while also inviting viewers to participate in the same devotional posture and practice.
3. The most important evidence comes from Fulcher of Chartres (1059-1157), a cleric who participated in the First Crusade and later served in the Kingdom of Jerusalem. See: J. Doherty, *Fulcher of Chartres and Armed Pilgrims, 1104–27* (2022) https://app.scholarai.io/paper?paper_id=DOI:10.1484/M.OUTREMER

4. E. J. Mylod, *Latin Christian Pilgrimage in the Holy Land, 1187–1291* (2013) https://etheses.whiterose.ac.uk/id/eprint/5880/1/elizabeth_mylod_thesis_september_2013_institute_for_medieval_studies.pdf
J. Bird, *Preaching and Crusading Memory* (2016) <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315543253-11/preaching-crusading-memory-jessalynn-bird>
5. Beatus mappa mundi (8th-century Ms. is not extant, but the Jerusalem-centred design is preserved across later copies.); New York, Morgan Library & Museum MS M.644 (10th century); Girona, Cathedral/Museu de la Catedral, MS 7 (c. 975); Paris, BNF MS lat. 8878 (11th century), etc.
6. See “Les pèlerinages expiatoires et judiciaires au Moyen Âge” in *La faute, la répression et le pardon*, Éd. du CTHS, Paris, 1984, pp. 418–420). Chartres was not a major penitentiary pilgrimage site but because the Gothic rebuilding coincided with the decades following the Fourth Lateran Council (1215), when indulgence practices and penitential structures were more clearly regulated, pilgrimage to Chartres still carried recognized spiritual benefits.
7. For more information and photographic close-ups of many Marian images see Jill Kimberly Hartwell Geoffrion. 2017. *Visions of Mary: art, devotion, and beauty at Chartres Cathedral*. Brewster, Massachusetts: Paraclete Press.
8. There are often multiple images of each saint. See Pittsburgh site for further information.
9. While contemporary Christian practice often involves sitting, throughout most of Christian history worshippers stood and liturgy incorporated movement as a fundamental element.
10. “...on constate que le parcours se faisait, suivant l’usage encore en vigueur, dans la sens de la marche du soleil ou des aiguilles d’une montre.” *Ordinaire Chartrain du XIII^e siècle* (publié d’après le manuscrit original par le chanoine Yves Delaporte). Chartres: Société Archéologique d’Eure-et-Loir, 1953, 39.
11. This was noted first by Penelope Reed Doob. “In the absence of the tiniest shred of evidence” (1990, p.121) Doob called the theory intarsia labyrinths being used for substitute pilgrimages as a “tenacious fantasy [with] meagre roots in reality” (119).
12. The oldest example of a labyrinth linked with Christian medieval liturgy is a decorative illustration placed in the first letter O of a reading for the Holy Saturday of Pentecost in the Gelasian Sacramentary, a book of Christian liturgy related to the sacraments: Paris, BNF Lat. 12048, fol. 80, ca.780-800.
13. The only other medieval depiction of the traveller as an identified pilgrim is found at Sens Cathedral.
14. The six petaled flower shape is also mirrored on the other side of the labyrinth in the north clerestory window of bay 4 where Mary holds the gifts of the Spirit emanating from Christ (166/135c: Isaiah 11:1-3).
15. The twelfth century lancets in the west are the only windows that would have existed before the labyrinth was conceived. In the central and south lancets placed around 1145, themes of Jesus’s pilgrimages to Jerusalem appear several times as already discussed.
16. The clerestory image above the labyrinth (Bay 3 on the south side (71/138b) of Mary breastfeeding the Christ Child may also have reinforced confidence in the Virgin’s protective and intercessory aid. At Chartres an eleventh century miracle in which Mary healed Bishop Fulbert from St. Anthony Fire with her milk was reported to have left drops of milk which Fulbert collected. Later, they were reported to have been transferred to a crystal vial that was labelled “Milk of the Blessed Mary” (*De lacte beatae Mariae*). It was placed at the foot

of a statue called Notre-Dame La Blanche, which rested against a pillar on the north side of the rood screen outside the choir. This “milk of Mary” was held in great esteem at Chartres and thought to have had healing powers. The relic was still well known in the later Middle Ages and would have been visible to pilgrims. (It was still listed in the 1682 inventory, though it has since disappeared.)

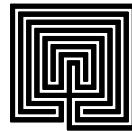
17. West Lancet; Bay 3 clerestory above the labyrinth (72/38b lower register), and in the Magdalene Window (5/46; scene 12).
18. Altars next to the labyrinth were dedicated Mary Magdalene, St. Catherine; Fiacre and St. Amateur; and Thibaut. For more information see Lautier, *Les Vitraux de la Cathédrale de Chartres. Reliques et Images*.
19. See Natasha Brandstatter. 2008. “Dancing Through Time: The Evolution of the Labyrinth into a Symbol for Pilgrimage.” *Caerdroia* 37: 18–30.

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Sampler Labyrinths: an update



Jeff Saward

The occurrence of labyrinth motifs on stitchwork samplers created by girls during the 18th and 19th centuries has been discussed in previous editions of *Caerdroia* – see C’43, p.4-6; C’50, p.72 & C’51, p.58) – and since the last mention of them in *Caerdroia* 53 (see Notes & Queries, p.56) two further examples have been brought to my attention, bringing the total to seven now recorded. Both add valuable additional information to the efforts to understand the possible meaning of these labyrinths as a symbol amongst the many other motifs employed in these stitching patterns over a period of more than one hundred years.

The sampler created by Hannah Bedford, aged 17, in 1819 featured in *Caerdroia* 53 has the letters TW stitched beneath the rectangular labyrinth, NA beneath a depiction of Noah’s Ark, A & E alongside Adam and Eve and S & T either side of a building that represents Solomon’s Temple. The question of what TW signifies for the labyrinth is neatly explained by another much less complex sampler, currently in the collection of Erna Hiscock of Hiscock and Shepherd Antiques in England, stitched by Alice Pick in 1803 (but once again, without any location given) that features another labyrinth of very similar design, but accompanied by the words The Walls of Troy. TW on Hannah Bedford’s sampler clearly meant Troy’s Walls, as similar variations of Troy names are commonly associated with the turf labyrinths formerly widespread in England and Scotland when these samplers were made, indeed the City of Troy labyrinth at Dalby in North Yorkshire survives to this day.

And another sampler, recently acquired by Linda Hadden of the Sampler Guild – to whom my thanks go for her continued assistance in tracking down these labyrinth decorated samplers – also features the labyrinth. Created by Mary Robinson and dated October 14, 1849, but again with no whereabouts recorded, it has a very similar design to the others. The labyrinth at the foot of the sampler is flanked by three simple plants on either side, with the usual alphabet, numbers and moral text above, including the interesting lines:

the water are wasted that was / so good and know corn grows ware troy stood

This is clearly a corrupted version of two lines from the popular English ballad *The Wandering Prince of Troy*, first documented in 1630, but dating back to at least the mid-1500s) that contains the lines “ Waste lie those walls that are so good, And corn now grows where Troy-Town stood.”¹ This plausible link between the labyrinth symbol on the samplers, the ballad and the popular tradition of creating turf-cut labyrinths in England during the from the 16th century onwards is perhaps unsurprising, although the question of why all seven of the labyrinths so far documented have such similar designs and exactly where they all were made (three of the four earliest examples are from Dewsbury in Yorkshire) still remains to be resolved.

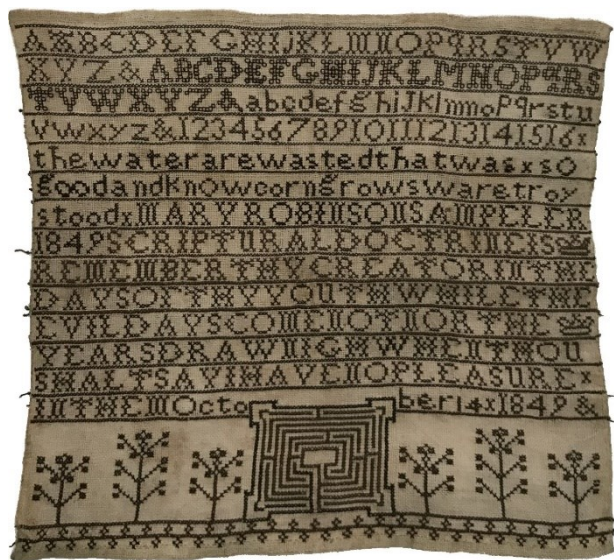
Jeff Saward, Thundersley, England; April 2026
Email: jeffsaward@gmail.com

Note

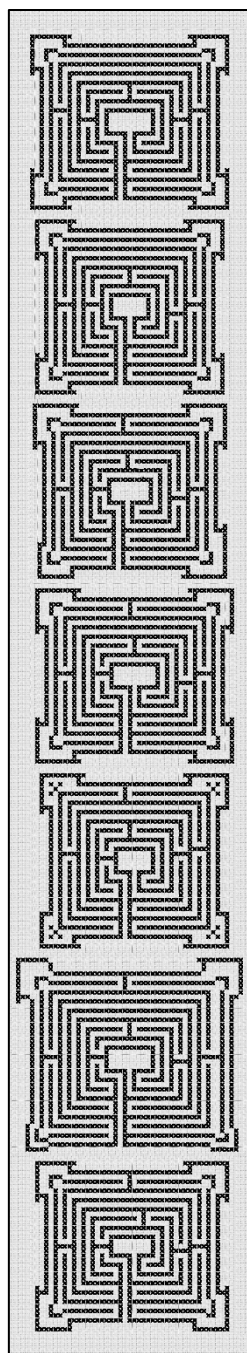
1. See, for instance, the 1775 edition published in Tewkesbury, England, by S. Harward. https://archive.org/details/bim_eighteenth-century_the-wandering-prince-of_1775



*Left: Alice Pick's 1805
The Walls of Troy sampler.
Photo: Erna Hiscock*



*Below: Mary Robinson's 1849
sampler with corrupted text from
The Wandering Prince of Troy.
Photo: Linda Hadden*

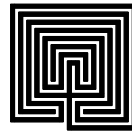


*Right: the seven stitched labyrinths, all rendered to scale, recorded on
English samplers from the 18th and 19th centuries*

*Note the similarities, minor differences and occasional errors,
especially those of Mary Parsons and Hannah Bedford*

*Top to bottom: Martha Sharp 1741, Mary Parsons 1780,
Mary Blackburn 1785, Ann Lewis 1798, Alice Pick 1807,
Hannah Bedford 1819 and Mary Robinson 1849*

The Discovery of a 15 Circuit Labyrinth at Khadki, Maharashtra, India



Sachin Bhagwan Patil & P.D. Sabale

Introduction

A newly discovered stone labyrinth, consisting of a system of intricate passageways, is the largest labyrinth of this type so far reported on the trade routes connecting the ports on the western coastline of India via Kolhapur to Ter during the Satavahana dynasty. It is situated amidst the vast semi-arid grasslands of Boramani, adjacent to the Great Indian Bustard Sanctuary near Solapur in Maharashtra, Western India, and was first noticed by members of the Nature Conservation Circle working at the sanctuary in late 2025. Originally concealed beneath a grassy cover, it has now been excavated to reveal its full size and unusual design (see the photographs below).

Study Area and Location

The labyrinth is found in the vicinity of the forest land of Boramani and Khadki on a deeply weathered basaltic land surface, in an area covered with rocky scrub agriculture land, and surrounded by reserved forest. It is situated on the farm of Mr. Chavan, survey no.110 in the Khadki-Sambhajinagar landholding, precisely on the border between the Osmanabad (*Dharashiv*) and Solapur districts, in Maharashtra, India. The site is situated 3.9 kilometres southeast of the village of Khadki (Sambhajinagar) at latitude 17.765862° N, longitude 76.045571° E. At present, the surrounding land to the southwest is reserved for the Solapur International Cargo Airport, on the Mumbai-Hyderabad National Highway.



*The Khadki labyrinth before and after excavation.
Photos in this article kindly provided by Sachin Bhagwan Patil*

Characteristic Features

This labyrinth has some features differing from similar structures found in this region. It is the largest and most intricate so far reported, measuring 50 feet (15.25 metres) in diameter, has a 15-circuit classical design with a tightly coiled spiral centre, and a perfectly circular layout that is rare in India. It was created using carefully arranged locally available rubble and cobbles, averaging 5 to 6 inches in diameter, laid directly on the ground and firmly embedded in a 2-to-3-inch layer of soil. There is no doubt that this site has endured for maybe two millennia without sustaining damage. It represents a unique convergence of an archaeological relic and a protected grassland sanctuary, where environmental conservation has made it possible to preserve this national heritage treasure.



Plan views of the labyrinth as currently preserved and with the missing circuits reconstructed

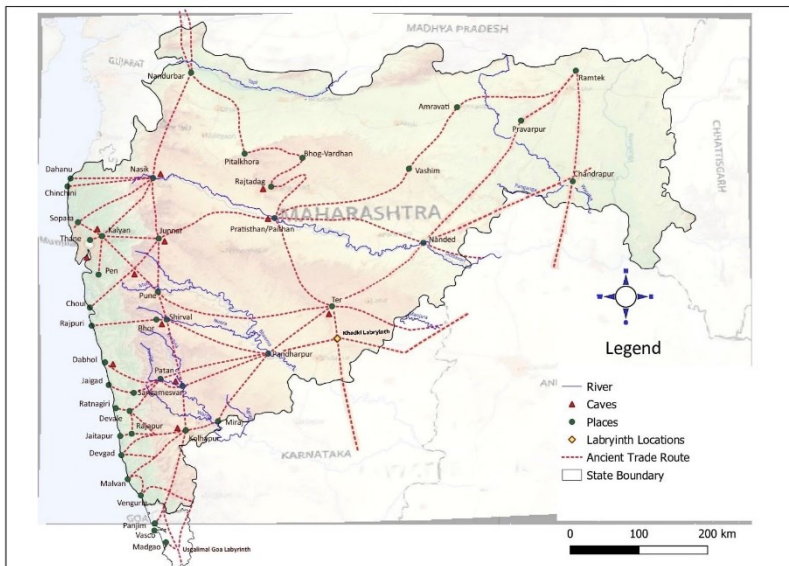
Importance

The discovery of such a structure on the Boramani grasslands, crisscrossed by a network of ancient, well-trodden tracks and footpaths, stands as a testament to the region's historical significance as a major trade hub between Kolhapur and Ter (*Tagar*). Ports on the western coast of India acted as the gateway for goods moving between the Roman Mediterranean and the Deccan interior (i.e. Ter and Paithan). Western merchants used the monsoon winds to cross the Arabian Sea directly to these bustling emporiums, and the mix of (Mediterranean) classical labyrinth designs and local *chakravyuha* traditions in the region suggest they likely served multiple cultural and traditional uses, including religious rituals, and demonstrate potential connections to these ancient trade networks [Layard 1937]. The trade hypothesis is strongly supported by earlier excavations in nearby Brahmapuri, which uncovered high-value Roman luxury items, including a bronze mirror and a statue of a Greco-Roman sea god [Khandalavala 2005]. A coin issued during the reign of the Satavahana king Vashishthiputra Pulumavi (130-150 CE) depicts a ship as a symbol of the prosperity in maritime trade. This antiquity indicates that ancient maritime trade was active between the Mediterranean region and in major trade centres of India during the early historic period.

*Coin of Satavahana King Vashishthiputra Pulumavi (130-150 CE)
British Museum, London, UK*



Ancient traders would have long known the basic topology of the landscape through which the trade routes passed, and tracks were aligned in such a way that there would be minimal changes of elevation for the traders. In short, such trade routes are aligned, where possible, through the plains areas to bypass elevated landscapes and avoid steep slopes. Such trade routes often pass very close to the forest lands. Therefore, such reserve land is very well protected, due to the favourable landscape and availability of different natural resources in these areas. Permanent and temporary settlements were often established in the vicinity of these forest areas, and these settlements could provide various important work related to aiding the traders. These would include the provision of drinking water in this rocky, draught-prone region, which having less precipitation avoided the intense rainfall that could block routes with sediment and floods. Therefore, these routes were always established taking account of knowledge of the above conditions.



Ancient trade routes of Maharashtra and the location of the Khadki labyrinth

The present trade route begins on the west coast and travels towards Ter (*Tagar*) via Solapur in the vicinity of the Boramani grassland forest. This route passes through the eroded gullies of a deeply weathered volcanic basaltic terrain where the peripheral parts of the original lava flows are disintegrated and deeply weathered. This creates areas with shallow depression now filled with washout soil and bodies of water. This old geological phenomena of land transformation have allowed the trade routes of more recent times to be aligned in such a way that the routes are following ridgelines through the monotonous plains areas and are connected with water bodies on either side. The routes are deeply influenced by nomadic pastoralist movement, and act as crucial, dynamic trade routes connecting grassland forest valleys and mountains, sometimes passing through the transitional zone between open grassland and thick forest, which were often utilized for both agriculture and herding in the grassland areas.

Landform Characteristics

The landform of the area is mainly due to the denudation of the underlying igneous rocks. In places depressions are filled with sediments formed by the combined effect of weathering, erosion and transportation. This extensive deeply weathered, highly dissected, basaltic terrain forms undulating grassland plains with thin covers of sediments. Due to gulley erosion, the region possesses a gentle rolling topography, in which the shallow depressions are filled with water and act as an open system lake. This monotonous, semi-arid scrubland is prone to severe drought and is covered with grassland. Therefore, it is part of the forest land reserved for wild animals in this area. In some places, boulders and rubble are spread on the surface, especially along the stream channels, and such locally available material was used for the construction of the labyrinth structure [Sabale 2006].

Geology of the Area

The study area is a part of the Solapur and Dharashiv districts of Maharashtra, and is primarily covered by basaltic lava flows from the upper Cretaceous to lower Eocene period, forming what is known as the Deccan Trap. This trap of hard rocky terrain consists of multiple lava flows formed of non-vesicular (massive) basalt, vesicular (zeolitic) basalt and volcanic breccia of accreted unaltered lava matrix and tuffaceous lava matrix. It dominantly comprises compact, amygdaloidal and vesicular basalt. These basaltic flows are subject to differential weathering, and the deeply weathered basalt is finally converted into an end product known as black cotton soil. In the Deccan Trap, the non-vesicular massive basaltic flows are more predominant than the vesicular flows [Gupte 2005]. In the present case, the rubble, cobbles, and boulders formed by spheroidal weathering remain in situ in the loose cotton soil and were used as the building stone for the construction of the labyrinth.

Investigating the geological flow characteristics in the study area



On the basis of surface morphology, these stones were not at all modified or dressed, but are of natural shape and size. With a natural level surface of a suitable area, the builders used the stone to shape the labyrinth, and its considerable dimensions might be due to the large-scale availability of stone to form its rows. The field observation at the site reveals that each line is made up of compact basalt stones, and while the vesicular basalt stones are present in small proportions, they were also used in the construction. No digging was required for their foundation, and the stones were simply part-buried and held in place in the weathered soil. Similarly, a small proportion of additional soil washed in from slightly higher ground has subsequently been deposited on the labyrinth stones, and the structure has remained intact and in good condition up to present day.



The Khadki labyrinth and deposited soil layers

Discussion and Conclusion

As stated above, the Khadki labyrinth was created using local rubble and cobbles available on the adjacent ground surface. The black cotton soil, a product of the weathering of the underlying basaltic rock was hence also available and used as a binding material for its construction, laid on the deeply weathered undulating surface. This perfectly circular labyrinth layout is rare in India, and the discovery of such a structure on these grasslands which are crisscrossed by a network of ancient, well-trodden footpaths stands as a testament to the region's historic significance as a major trade hub between Kolhapur and Ter (*Tagar*). Ports on the western coast of India acted as the gateway for goods moving between the Deccan interior (e.g. Ter and Paithan) and the Roman Mediterranean, with Western merchants using the monsoon winds to cross the Arabian Sea directly to these bustling emporiums. The discovery of this stone labyrinth at Khadki is not merely a geographical and archaeological find; it also sheds light on the flourishing trade that characterized the Satavahana era, between the late 2nd century BCE to the early 3rd century CE.

Gaining control over the mountain passes and plateaus of the Sahyadri range served as the primary source of revenue for the Satavahana kings. In exchange for providing security to merchant caravans, the kings levied a 'service fee,' and this period witnessed a significant surge in both inland and overseas trade across the Deccan Plateau. Greco-Roman geographers and mariners alike described this region as a dynamic and bustling landscape. On the Deccan Plateau, a terrain rich in rugged mountains and wildlife, structures such as this stone labyrinth were erected at key locations, including merchant halts, mountain passes, and strategic defensive points. These structures were regarded as symbols of safety for travellers and of sovereignty. The labyrinth is a powerful, ancient symbol long used for protection by coastal communities and mariners who utilized the winding path as a mystical tool to trap malevolent spirits, to ward off threats from pirates, and ensure safe voyages. So naturally, the labyrinth symbol has emerged as an important link in the rich symbolism of international migration through ancient maritime trade, from one continent to another, around the world.

Sachin Bhagwan Patil & P.D. Sabale,

Department of A.I.H.C. and Archaeology, Deccan College Postgraduate and Research,
Institute & Deemed University, Pune-411 006, Maharashtra, India.

Email: sachinpatil1010@gmail.com

Previous work

The authors first explored some newly discovered labyrinth structures in the Sangli, Kolhapur and Satara districts of Maharashtra. The localities of labyrinths are Aitawade Budruk 1, Aitawade Budruk 2, Vashi, Malangaon [Patil & Sabale 2021], and Shivpuri, Majale, Kumbhoj, Kalambi 1, Kalambi 2, Kalambi 3, Kalambi 4 [Patil & Sabale 2023]. In parallel with the major centres where Buddhist monasteries or monks could point the way, these previous works confirmed the existence of ancient travel and trade routes in remote inland areas. The characteristic stone labyrinths served as highly visible landmarks, ensuring that inland traders were on the right trade route.

Acknowledgements

The authors are thankful to Prof. Dr. Vasant S. Shinde, Former Director General, Maritime Heritage Complex Gujarat, Former Vice Chancellor of Deccan College Deemed University, Pune, for his guidance and encouragement during progress of the work. The authors would like to express our deepest gratitude to Jeff and Kimberly Saward of Labyrinthos (UK) and also thank the owner of land survey no 110 of Khadki Village, Mr. Vinod Gopal Chavan and his family members and co-owners, Mr. Nitin Anvekar history researcher of Solapur, Mr. Bharat Cheda, Mr. Shakir Jamadar, Mr. Dhananjay Kakade, Mr. Aditya Zingade, Mr. Sachin Sawant, Mr. Tarun Joshi, Mr. Aditya Ghadage and Nature Conservation Circle, Solapur, Mr. Aditya Shinde and Mr. Rahul Patil of Maharashtra Forest Department, Mr. Prasad Bolde and Mrs. Pooja Bolde of Wildlife Institute of India, Dehradun, Mr. Rahul Gaykwad of Kolhapur, Mr. Prajwal and Neelaj Sachin Patil from Kurlap, Sangli, for helping during the area exploration and also kind gratitude to giving his time.

Similarly, the authors are thankful to Dr. Shivaji Khirsagar, of Deccan Collage Pune, for meaningful comments and we offer thanks Mr. Mohit Powar, artist and calligrapher of Pune for digital sketches of the labyrinth. Finally, Thanks go to Mr. Ashutosh Patil of Aurangabad for providing the digital map.

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The Salem Labyrinth: Creating a 3D Model from Drone Footage

Libish Murugesan

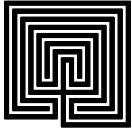


Figure 1: The Ezhu Suthu Kottai stone labyrinths at Vembadithalam, Salem, Tamil Nadu, India

During fieldwork documenting the two stone labyrinths of Salem, Tamil Nadu, India, described in *Caerdroia* 54 (p.44-45), we developed an open-source workflow to convert drone video into accurate 3D models suitable for both digital archiving and physical reproduction. The slightly smaller labyrinth on the southeast side of the site (to the right in the photograph above), was used for this purpose.

The Process

The reconstruction pipeline consists of four main stages:

1. Video to Images

A full-arc drone video (circling the labyrinth site) was converted into individual frames, approximately 2 frames per second-yielding several hundred high-resolution photographs from different angles.



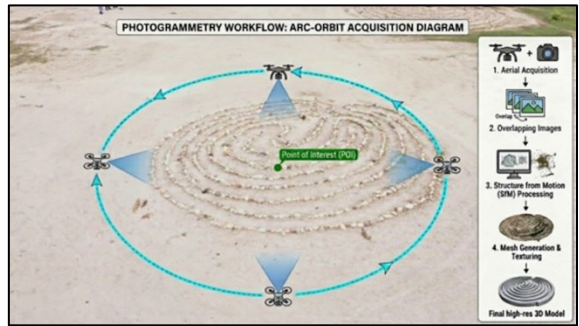
Figure 2: Five extracted sample images across the entire video reel

2. Photogrammetry Reconstruction

Using COLMAP (an open-source Structure-from-Motion tool), the software analysed the frame sequence to:

- Identify matching features across photographs
- Calculate camera positions for each frame
- Generate a sparse 3D point cloud of the site
- Compute a dense point cloud containing millions of coloured points

Figure 3: Drone path planning and the Photogrammetry workflow



3. Mesh Generation

The dense point cloud was converted into a continuous 3D surface using Poisson Surface Reconstruction. This produces a “watertight” mesh – a solid digital object rather than scattered points.

4. Colour Transfer

Texture information (colour data) from the original photographs was transferred onto the mesh surface, creating a photorealistic digital model that preserves the appearance of the weathered stone.

Figure 4: The generated mesh after colour transfer from the software pipeline



Output & Applications

The final output is a textured 3D mesh file (.ply format) that can be:

- Viewed and measured in 3D software (Rhino, Blender, MeshLab)
- Archived as digital heritage documentation
- Exported to STL format for 3D printing
- Shared online via platforms like Sketchfab

Link - <https://sketchfab.com/3d-models/labyrinth-model-for-3dprinting-3298401c8cc6465da40a7c1e2170e6f6>

Physical Reproduction

The digital model was cleaned, simplified, and prepared for fabrication in Rhino 8, then 3D-printed in black PLA filament. The printed model (shown below) accurately reproduces the labyrinth's concentric path structure and can be further enhanced through hand-painting to match the original stone coloration.



Figure 5: 3D-printed model of the Salem labyrinth in black PLA filament

Why This Matters

This workflow is entirely based on free, open-source tools (COLMAP, Open3D, FFmpeg) and can run on cloud platforms like Google Colab - requiring no specialized software licenses or high-end workstations. The methodology is applicable to any outdoor heritage structure accessible by drone, providing an accessible approach to documentation that complements traditional archaeological methods.

Full technical documentation and code:

github.com/libishm1/Colmap_Photogrammetry_Drone_video

Libish Murugesan, Erode, Tamil Nadu, India; August 2025

Email: libish.1234@gmail.com

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Illustrations and photographs are preferred in .jpg or .tif format at 300 dpi resolution please, but please keep illustrations separate from text, and send as separate files, with position in text clearly marked. A preferred style guide for authors is available on the Caerdroia Submissions page on our website: www.labyrinthos.net/submissions.html

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*Established 1980
Published annually*

*Produced by & ©
Labyrinthos 2026*