

Above and Beyond Voynich Canopies: Tents as a Recurring Motif in Beinecke MS 408.

Koen Gheuens and Cary Rapaport

Abstract

This paper aims to improve our understanding of a recurring motif in the Voynich Manuscript: canopies. We will select two groups of canopy-like structures from different sections of the manuscript, which have significant overlap between their features. We will analyze these examples in comparison to medieval imagery of tent canopies, demonstrating that 15th century tent construction, decoration, and potentially symbolism, likely inspired elements of Voynich structures and diagrams. Understanding this connection to medieval visual and material culture will grant a deeper understanding of the thoughts behind this enigmatic imagery, and further anchor the Voynich within its historical context.

Keywords

Voynich Manuscript, medieval iconography, tents, canopies, Wenceslas Bible

1. Introduction

Beinecke MS 408, better known as the Voynich manuscript (VM) is traditionally divided into various sections, based on the perceived subject of their illustrations [1]. While each part has its own character, recurring visual motifs also connect them. This paper is devoted to one such connecting motif: canopies. We use *canopy* in the broad sense of “a suspended covering”. The VM makes extensive use of canopy-like structures in various sections; this observation led us to more deeply investigate this visual motif.



Figure 1: Examples of canopy-like structures from f76v (A) and from the bottom-right and middle of the Rosettes foldout (B, C). Canopies seem to be a more extensive visual theme than those we will have space to discuss in this paper.

We selected two groups of examples with shared features that connect several sections of the manuscript. Our analysis will identify a specific combination of features that may be understood together as a reference to medieval parasol-roofed tents. We will not argue that these canopy-like structures are all the same, or that they necessarily depict *literal* tents. Rather, we aim to demonstrate that the VM references structural and decorative elements of medieval tent canopies, combining them

in different ways to suit a variety of contexts. We will also consider how this combination of features may have been meaningful to a medieval audience.

2. Two groups of canopy-like structures with shared features

The first group appears in what is traditionally called the “balneological” or “biological” section (quire 13, or Q13 in short). The top row of **figure 2** shows selected examples from three folios: f75r (**2A**), f79v (**2B**), and f78r (**2C**). **2A** and **2B** are among the most recognizable as canopy-like structures in the manuscript, since they are suspended directly above the heads of female figures (traditionally called “nymphs”) and are drawn from a side perspective implying a three-dimensional round shape. Although the structure in **2C** is tilted to the side, it shares a similar composition: straight lines radiating from a central point topped by a finial. The wedge-shaped spaces between radiating lines can be uniformly colored, or alternately striped. **2C** is bordered with semi-circular scallops and includes a large cluster of scallops directly beneath the top structure. **2A** and **2B** are each bordered by a single undulating line, underneath which is a band of small, vertical parallel lines and additional layers of scallops.

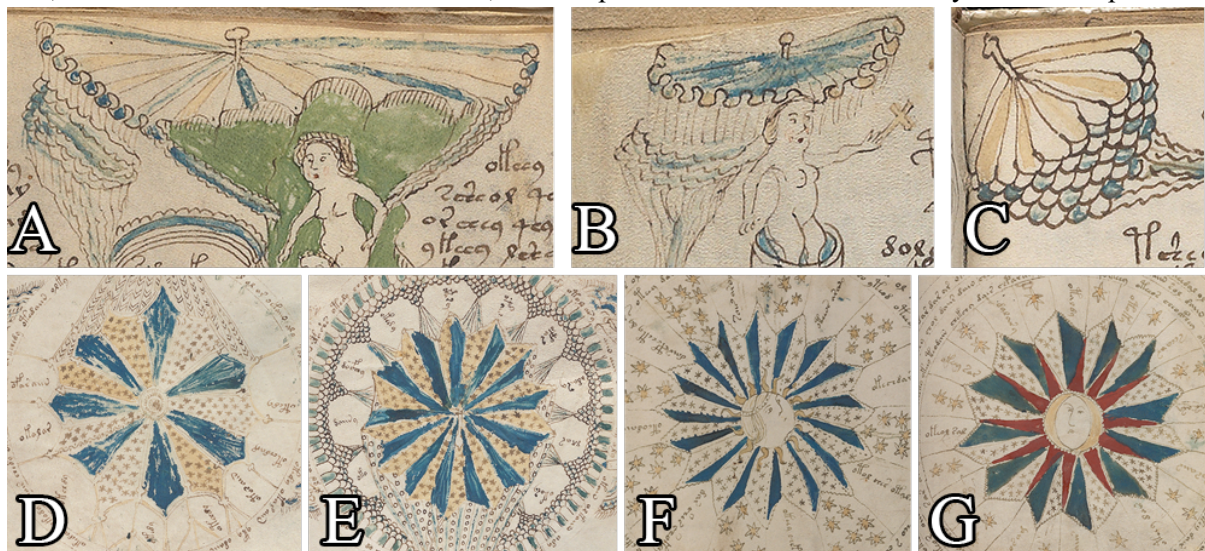


Figure 2: Selected canopy-like structures in the VM. **Top:** Examples in Q13, drawn from a side view; **Bottom:** Examples in Rosettes foldout (**D, E**) and cosmological/astronomical diagrams (**F, G**).

The second group (**fig. 2, bottom row**) contains two roundels from the Rosettes foldout (**2D, E**) and the central elements of two diagrams on folios 68v1 (**2F**) and 67r1 (**2G**), which belong to the sections traditionally called “cosmological” and “astronomical”. We selected them based on a number of remarkable shared features: a similar jagged circumference, asterisks covering half of their surface, and wedge-shaped sections in alternating colors. In all four examples, the main “canopy” is surrounded by an outer ring, to which it connects by lines that alternate with text. Three examples (**2E, F, G**) have fine details of ruffled edges.

These four examples also have a number of unique features. The lines that connect to the edge of **2D** are doubled, with wider intervals that have been likened to knots [2][3] where some split into three. In **2F** and **2G**, the canopy-like structures form the center of what may be a larger cosmological diagram: they each contain a celestial body at their core, and are filled with asterisks within alternating sections, and larger stars beyond the edges. Since the “canopies” contain these celestial bodies and many asterisks, it is unlikely that they represent single celestial bodies *themselves*. Therefore, these elements in the diagram likely require a different explanation.

While the shape of these examples is different from those in Q13, we will argue that they share a similar source of inspiration and potentially depict similar kinds of three-dimensional structures from a different spatial perspective. All four examples share some features with those in Q13, perhaps most notably the lines that radiate from a central element, and alternately colored sections.

The structures in our selection can be thought of as being on a scale between architectural and diagrammatical, between literal and abstract. In Q13, they exist in the same space as human figures and have unmistakable architectural elements like finials, yet the context remains ambiguous. In the Rosettes foldout, the overall composition is more schematic, but architectural indications remain, like the finial at the center of **2E**. The two cosmological diagrams employ the same types of shapes as the Rosettes, but celestial bodies with faces now occupy the central spot. This combination of differences and similarities leads us to the first main thesis of this paper: while canopy-like structures are clearly tailored to their specific section’s needs, they may share a similar source of inspiration. To better understand this inspiration, we will turn to the world of medieval parasol-roofed tents.

3. Voynich canopy-like structures and the components of medieval tents

The subject of tents crops up from time to time in discussions about VM imagery. Ellie Velinska made some early observations: in [2], she argues that the whole Rosettes foldout (including the square structure shown in **fig. 2B**) may represent “a circle of tents” seen from above. [3] revisits this idea: “string and knots structures” in at least two rosettes are likened to “the way the tension ropes on the medieval tents were drawn”. Additionally, it is clear from a number of forum discussions that ideas of tents, canopies, ropes and knots have long been present among Voynich researchers [4], but this has not yet been the subject of a dedicated study. Our aim is to consolidate and build upon these types of observations.

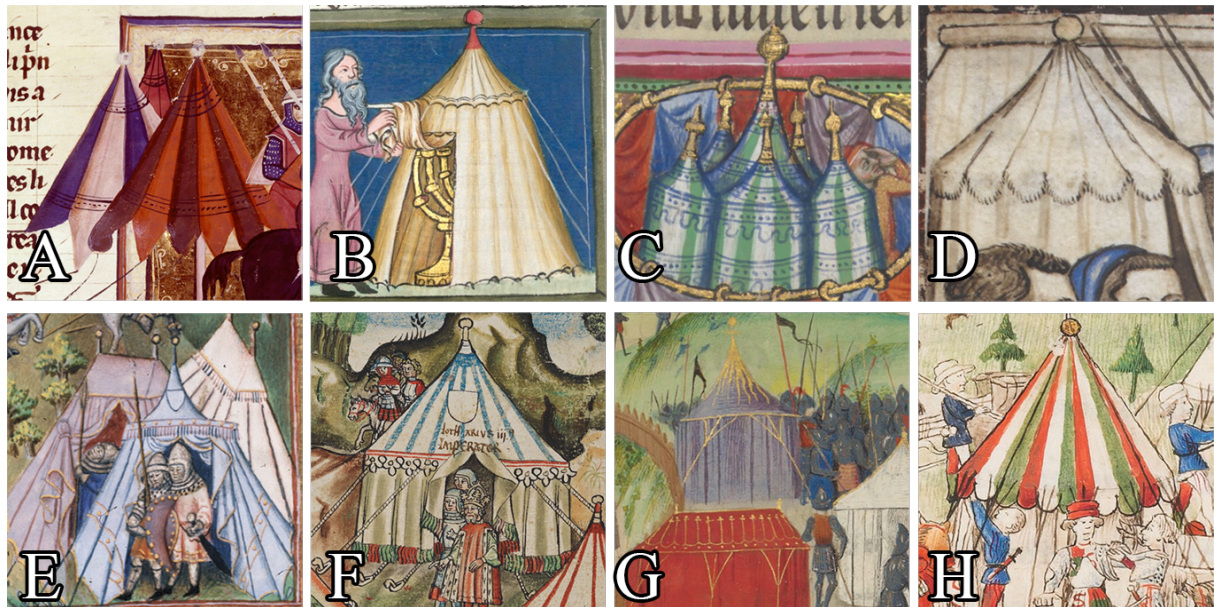


Figure 3: (A)[5] Italy, 1290-1310; (B)[6] Germany, c. 1370; (C)[7] Prague, 1390; (D)[8] Italy, c. 1400; (E)[9] France, 1400-25; (F)[10] Germany, c. 1435; (G)[11] France, 1454; (H)[12] Germany, 1450-1500.

Not much has been written specifically about the structural characteristics of medieval tents, though the subject is treated briefly in [13] and [14]. However, manuscript illuminations provide the most detailed evidence for what tents looked like in the Middle Ages. Comparing a variety of manuscripts reveals that most tents in the 15th century were built along the same principles. First, a roof was placed upon a vertical pole (**3H**), or more poles in the case of elongated designs. This roof was then stabilized

on all sides by guy-ropes, which in turn attached to the ground with pegs (3F). Cloth walls hung from the roof like curtains, and the junction between walls and roof was often covered by an ornamental band. The roof's peak was often topped by a finial, the “cap and ball” type (3B, C, E, F, G) being common in European tents [14].

Some artists realistically depicted the multitude of guy-ropes that were required to keep tents upright; some only included them in a few strategic locations, and some omitted them entirely to leave room for important scenes. Sometimes, simple ropes connect directly to the canopy's edge (3A, B, F). In other cases, the ropes split at the end that attaches to the canopy, in order to distribute the tension on the fabric of the roof. This splitting or “crow-footing” is a characteristic feature of European tents. A rope may split into two, three or more strands (3G, H).

Medieval tents are essentially fabric structures that are held under tension by ropes. The word *tent* reached us through Medieval Latin *tenta*, literally “something stretched out” [15]. When ropes pull on the cloth, this may affect the shape of the walls, where their edges fasten to the ground. The roof may also stretch, depending on where the guy-ropes are attached. Areas of high and low tension may create a wave pattern over the entire canvas, as in 3B and 3E. Such depictions emphasize what sets medieval tent canopies apart from structures made of stone or wood: their soft and pliable material.

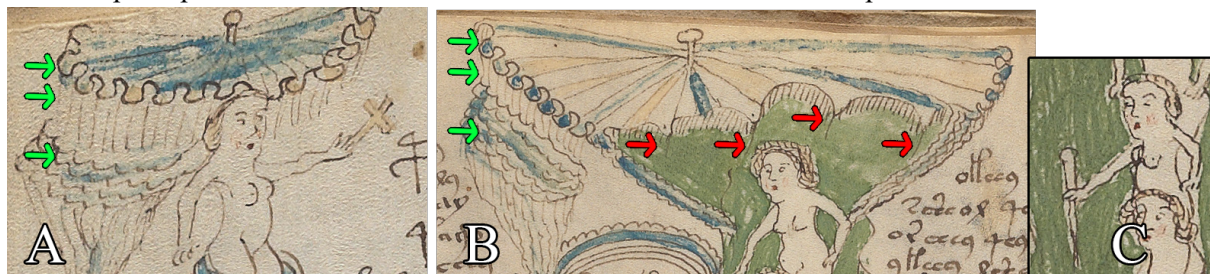


Figure 4: Similar canopies from f79v (A) and f75r (B). (C) is a figure from lower on f75r.

There are indications that the VM artist may have had a textile material in mind for the canopy-like structures we selected. We will first examine one canopy from Q13 (fig. 4B). Of particular interest is the middle of the structure (indicated with red arrows). The wavy, undulating pattern that borders the edge on either side is interrupted by a series of relatively wild and irregular waves. At several intervals, points in these waves connect to longer lines that trail down into the green-colored area below. As shown in 3B, when fabric is pulled under tension by guy-ropes, this creates stretched points where each rope connects to the edge. However, if the ropes are not pulled taut, the canopy edges would buckle and warp irregularly. In 4B, the longer lines may represent loose guy-ropes; they connect to points where ropes would often stretch the fabric of medieval tents, and the irregularities in between these points may imply loose fabric that is not under tension. Intriguingly, a bit further below this canopy on f75r, a figure holds something resembling a peg (4C). While different meanings have been suggested for this object, we are not aware of other interpretations that consider its proximity to these elements resembling a loose fabric canopy. Furthermore, the similar composition of 4A and 4B, indicated by the green arrows, raises the question of whether these may be similar fabric structures in different states of tension.

The concept of ropes pulling on fabric may also shed light on the four selected examples from the Rosettes foldout and cosmological/astronomical diagrams. Straight lines connect to each point, giving these structures an almost star-like shape, much like we see with the edges of tent fabric that is stretched under tension (3E). Alternatively, it is possible that a tent's roof could already be shaped in such a way, as shown in 3A. Although these examples are shown from a side view, their shape would look similarly star-like if viewed from directly above or below. The bottom rosette may indicate a depiction of guy-ropes in more detail; some of the lines that connect to its edges split into three, a typical feature of crow-footed guy-ropes (5A).

Another detail in the bottom rosette may relate to fabric tension: a wavy line with a pattern of alternating dots that stretches down the length of one wedge-shaped section (indicated with a green arrow in **fig. 5A**). While this pattern exists in other manuscripts as a decorative element, and even appears as a recurring motif that embellishes many tent canopy sections in [16], we do not know its function in the VM. It is unusual in the sense that it appears in one spot only, *between* two colored panels. The other alternating colored sections in this rosette are separated by straight double lines. Since medieval tents usually open in one spot, the positioning of this motif has led to the speculation that it may represent some kind of closing mechanism [3].

A further detail in three of these structures suggests a textile material: they are bordered by delicately ruffled edges (**5B**). This kind of edge pattern is found in 15th century depictions of rich clothing, indicating a lace trimming or decorative slashing (dagging) of the fabric's edges. To find an example, we must not look far: both the “Virgo” and female “Gemini” figures from the VM Zodiac section wear blue dresses with dagged sleeves (**5B, bottom right**). We see similar decorative trim on a tent in (**3D**).



Figure 5: Details from selected VM structures.

The fabric of medieval tents is also frequently embellished with bands of fringe or tassels, typically depicted as small parallel lines beneath the decorative band that separates roof and walls (**3E**). Historical records [17] show that such embellishments were integral parts of tent-making. As indicated in **fig. 3**, the two structures on f75r and f79v include many small parallel lines directly underneath the roof—the typical location of fringe on medieval tents.

The ornamental band where wall cloths and tent roof meet was “sometimes finished with semi-circular scallops”, especially in the 15th century [14]. Numerous examples can be found in manuscript illuminations (**3D, H**). Several Q13 canopies have such scallops at their edge.

Now that we have identified several indications that the VM’s canopy-like structures are made of fabric, we will revisit two more of their shared characteristics: a round shape, and the presence of finials. Even though medieval tents can be elongated, the typical parasol-roofed style has a round shape, and tents were generally thought of as round. For example, in medieval French sources, some of the terms used for tents include “round houses” and “round canvas houses” [18]. As previously mentioned, all canopy-like structures in **fig. 2** share a similar radial arrangement (assuming that those from Q13 depict a side-view of a rounded three-dimensional structure). Medieval parasol-roofed tents are commonly ornamented by a finial with its style consisting of a shaft topped by a sphere (**3B, C, E, F, G**). The VM’s canopy-like structures feature finials of the same style.

Many of these features we have mentioned are not exclusive to tents. For example, shaft-and-sphere finials are frequently found on other kinds of buildings. Similarly, other types of architecture are typically round, such as towers and church domes. Other architectural elements, such as rose windows, can have a round shape with spokes radiating from the center, and outside of architecture, such compositions are not uncommon in various medieval diagrams and charts. However, we must consider

what these features may mean **in combination with the aforementioned indicators of textile and tensile elements**. On their own, any one of the features we have mentioned could be associated with other structures, or with purely decorative motifs, but together, they make up a visual vocabulary that is specific to the components of medieval tent canopies.

4. Voynich canopy-like structures and medieval tent decoration

In combination with the structural and textile properties already addressed, 15th century tents were often elaborately decorated. While their designs vary widely, we can identify some common threads. The VM canopy-like structures incorporate a number of elements that correspond to common decorative styles of medieval European tents. Stripes or wedge-shaped panels of alternating colors often decorate tents, a trend that has “traversed the centuries” [19]. The VM uses alternating colors in all but one of the examples we discussed.

Four selected VM canopy-like structures are embellished with asterisk-style stars (**fig. 2, bottom row**). The custom of heavenly symbols on canopies goes far back into antiquity [20], but we typically see such stars in medieval architecture on ceilings of churches like the Scrovegni chapel in Padua and the Sainte Chapelle in Paris. This is a clear expression of the conception of the sacred space as an image of the cosmos and its ceiling as the heavens [21]. However, the VM’s top rosette has stars on the same surface that carries the finial (**5C, bottom right**), making it unlikely that this depicts an interior view of a ceiling. Medieval tents could also be decorated with stars, and in this context their location was more flexible; manuscript illuminations sometimes show stars on the interior of the canopy [22], but they could be applied to the outside as well. For example, in 1350, a tent made for Edward III was “powdered outside with stars and inside with crowns” [23].

Another celestial decoration on tents is rays that surround the finial, as in **3G**. This feature gained popularity in the later 15th century, appearing frequently in manuscript art and other depictions; for example, a c.1455-65 tapestry features a tent with “a spherical finial from which rays descend along the sides of the point supporting it” [24]. However, examples from the early 15th century exist as well [25]. The VM’s astronomical/cosmological diagrams with canopy-like features and rayed celestial bodies at their center would thus coincide with the emergence of this decorative trend. The association of celestial motifs—particularly the sun—with tent canopies, would also have had symbolic significance to the average medieval viewer immersed in Christian culture. Psalm 19 refers to a tent pitched in the heavens for the sun—a metaphor that would have been readily recognized throughout the Middle Ages and was even illustrated literally in a late 15th century mnemonic bible [26].

Lastly, we investigated the motif of wavy, undulating lines on the structures in **4A** and **4B**. This motif is used in medieval art as an indicator of clouds, and “further represented the visionary boundary between heaven and earth”, particularly prior to the late 15th century [27]. It is uncommon on illuminations of tents, but a most remarkable exception—and one that merits further research—is the Wenceslas Bible (WB, [7]). Nineteen folios depicting scenes of the Old Testament contain tents decorated with the same style of undulating lines that border the selected Q13 canopies. Interestingly, they occur in combination with many other structural and decorative elements previously discussed: guy-ropes, finials, a round shape, alternating colored panels, bands of scallops and short parallel lines, and even asterisk-style stars and patterns of rays. Furthermore, the WB and VM uniquely share a layering of specific patterns within the same canopy structures. It is notable that the WB predates the VM, and was created in Prague, where the VM first appears in historical records several centuries later. And although the WB is otherwise far removed from the VM stylistically, it is intriguing that their shared motifs are specifically expressed on canopies.

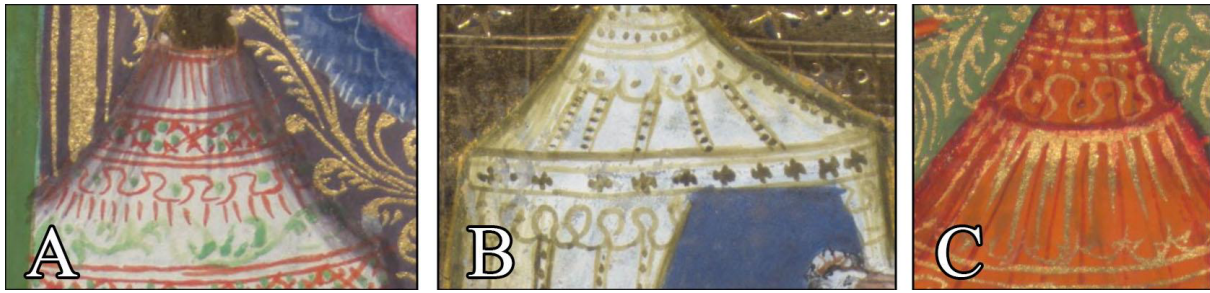


Figure 6: Three fragments of tents from the Wenceslas Bible: f219 (A), f240 (B) and f277 (C). The inventory of decorative patterns for tents is very similar to what we see in the VM: wavy, undulating lines, parallel lines and rays, asterisks (B), (dotted) bands of scallops.

5. Possible implications

The primary goal of the present paper was to familiarize the reader with medieval tents in order to provide the necessary background to recognize potential references to typical tent features in the VM. However, the possible implications of these connections must also be addressed. If elements of VM canopies are inspired by 15th century tent construction and decoration, might there be meaningful reasons for this recurring theme? We believe that they may be connected by a sustained visual **metaphor that likens the sky to a tent**. If this is the case, it would provide some insight into the mindset and cultural influences of the VM artist. This remains speculative and requires more analysis than is possible to fully explore within the scope of this paper; therefore, the following is a selection of preliminary thoughts and potential avenues for further research.

There is a long history of canopies and ceilings associated with symbols of the sky, but there are specific reasons why the medieval audience may have associated *tent* canopies with the sky: the Bible itself provides this metaphor. The heavens are a tent for the sun (Psalm 19) and God, sitting above the earth, stretches out the heavens “like a tent to live in” (Isaiah 40:22). Such metaphors evoke a horizontal, stretched-out expanse, seen by God from above, and by humanity from below. We propose that this is one reason why the structures we selected from the VM exist entirely above figure’s heads (there is no single Q13 page where a figure is drawn higher than a canopy) and why the artist presumably pushed their skills to produce rare top-down or bottom-up views of canopies in the Rosettes and astronomical diagrams.

A top-down viewpoint is relatively rare in medieval illuminations; even many architectural elements in maps are often drawn from a side view. However, the most common examples are found in depictions of sacred architecture: Hildegard of Bingen “is able to observe the city of God from a bird's-eye view, a perspective employed in the illuminations of the *Scivias* and the [*Liber Divinorum Operum*]” [28]. In fact, this perspective is repeatedly employed in depictions of New Jerusalem, in many Apocalypse cycles such as those from the Beatus tradition. The common theme here is a unification of the earthly and the heavenly, and a visionary viewpoint that imagines a heavenly perspective. While these depictions of New Jerusalem do not include tent canopies, we still believe they are relevant given their unique perspective combined with these themes. The only example we are aware of depicting an overhead view of *tents* is a Byzantine military treatise depicting tent camp formations [29], but this is primarily a map without any architectural details.

The concept of the sky as a tent is significant in the context of sacred space. [13] leaves no doubt about tensile symbolism in medieval masonry: “symbolically, the medieval cathedral is a stone tent.” And [30] likens the fluted and ribbed domes of the Chora monastery to luxurious tent canopies as seen from directly below, an evocation of the Tabernacle or the incarnation of the Logos as a heavenly textile veil. In fact, some of the best visual parallels for the bottom rosette are found in ceilings of medieval

buildings, like the apse of the Sainte-Chapelle (7A) or the vault of the Chapel of Saint Blaise in the cathedral of Toledo (7C). The latter was finished in the last decade of the 14th century and inspired by Italian examples [31]. These ceilings are blue, peppered with stars and similarly shaped to the bottom rosette. Note the circular boss in the middle.

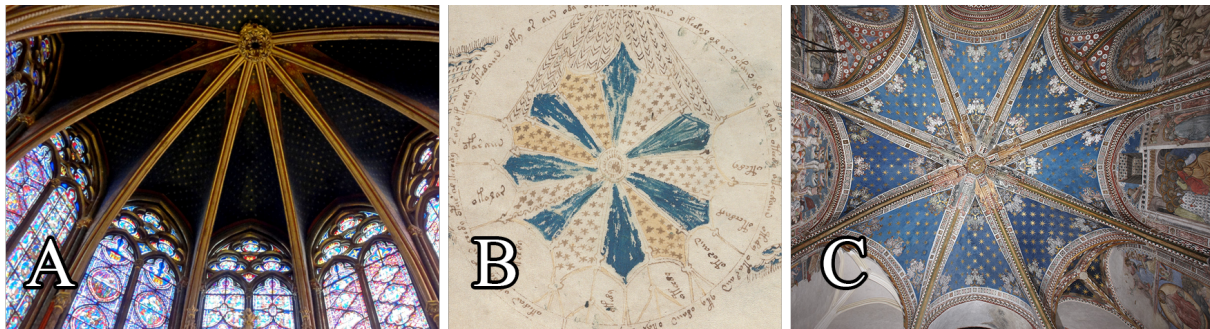


Figure 7: Sainte-Chapelle (A); VM bottom rosette (B); Saint Blaise Chapel, Toledo (C).

Yet, despite the close resemblance between the bottom rosette and stone church ceilings, parts of this specific rosette have been most strongly linked to tents before: the wavy “closing mechanism”, and the crow-footed guy-ropes (5A). What could explain this confusion? It may seem contradictory that we spend the majority of this paper comparing VM Rosettes to tents, and then turn to ceilings at the end. But we believe a key insight into the VM canopies resides here, where architecture meets heavenly symbolism: that the VM canopies, tent symbolism and cathedral domes are all united by the (originally biblical) metaphor of a textile sky, a vast tent spread by God.

The sky envisioned as a tent canopy would represent a material boundary between heaven and earth, a concept associated with the wavy edge motif in VM canopies 4A and 4B. Also, scriptural references to clouds covering the tent of meeting (Exodus 40:34) provide a further link. Likewise, the short, parallel lines underneath this cloud motif have been associated with rain [32] in addition to resembling textile fringe.

In summary, our analysis led us to hypothesize that VM’s canopy-like structures are inspired by tensile architecture. We focused on a select group of examples connecting three different sections, and these have a particular combination of features that, together, point to medieval parasol-roofed tents as an inspiration. Secondly, we argued that a symbolic aspect is crucial to understanding what these elements in Voynich images may have meant to a medieval audience. Specifically, we believe that these images incorporate the visual metaphor of the sky as a tent. There are still many aspects left unexplored, such as how the other types of VM canopies that we were not able to discuss may fit into a larger scheme. Additionally, further research into the specific worldview underlying these images should provide us with a greater insight into the cultural background of the VM’s makers.

6. References

- [1] R. Zandbergen, Analysis of the illustrations, 2018. URL: <http://www.voynich.nu/illustr.html>
- [2] E. Velinska, The Voynich Manuscript: Under the Big Tent, 2012. URL: <https://web.archive.org/web/20121024182022/http://ellievelinska.blogspot.com/>
- [3] E. Velinska, The Voynich Manuscript: the Medieval Tents, 2013. URL: https://web.archive.org/web/20150607065426/http://ellievelinska.blogspot.com/2013_03_01_archive.html
- [4] Voynich.ninja. URL: <https://www.voynich.ninja/thread-2962-post-31807.html>, <https://www.voynich.ninja/thread-3490.html>
- [5] G. de Tyr, La Conquete de la terre d'outre mer, BnF, Français 2631, f427.

- [6] R. von Ems, *Weltchronik in Versen*, Bayerische Staatsbibliothek, BSB Cgm 5, f93r.
- [7] *Biblia germanica regis Wenceslai V. Bohemiae iussu scripta*, ÖNB Cod. 2759, f172. URL: https://digital.onb.ac.at/RepViewer/viewer.faces?doc=DTL_8977428
- [8] *Paduan Bible Picture Book*, British Library, Add MS 15277, f62v.
- [9] *Les Faits des Romains*, British Library Royal 20 C I, f65v.
- [10] *Ordnung des Hofgerichts zu Rottweil*, Württembergische Landesbibliothek, HB VI 110.
- [11] J. Mansel, *La fleur des histoires*, BnF, Bibliothèque de l'Arsenal. Ms-5087 réserve, f156v.
- [12] B. da Parma, *Hesperis*, BnF, Bibliothèque de l'Arsenal. Ms-630 réserve, f45v.
- [13] P. Drew, *New Tent Architecture*, Thames & Hudson, New York, 2008.
- [14] P. Drew, *Tensile Architecture*, Westview Press, Boulder, CO, 1979.
- [15] Online Etymology Dictionary, 2022. URL: <https://www.etymonline.com/word/tent>
- [16] *Picture Bible*, Pierpont Morgan Library, MS M.638, URL: <http://ica.themorgan.org/manuscript/page/83/158530>
- [17] D. Simpkin, *Keeping up appearances: the English royal court on military campaigns to Scotland, 1296-1336*, in: K. Buchanan, L. Dean (Eds.), *Medieval and early modern representations of authority in Scotland and the British Isles*, Routledge, London, 2016, pp. 19–34.
- [18] F. Lachaud, *Les tentes et l'activité militaire: Les guerres d'Édouard Ier Plantagenet (1272–1307)*, *Mélanges de l'École française de Rome – Moyen Âge* 111 (1999) 443–461.
- [19] M. Pastoreau, *The Devil's Cloth: A History of Stripes and Striped Fabric*, Columbia University Press, New York, 2001.
- [20] K. Lehmann, *The Dome of Heaven*, *The Art Bulletin* 27.1 (1945) 1–27. doi:10.2307/3046977.
- [21] J. Magness, *Heaven on Earth: Helios and the Zodiac Cycle in Ancient Palestinian Synagogues*, *Dumbarton Oaks Papers* 59 (2005) 1–52. doi:10.2307/4128749.
- [22] *Le Livre des hystoires du Mirouer du monde*, BnF, Département des Manuscrits, Français 328. URL: <https://gallica.bnf.fr/ark:/12148/btv1b52000962r/f79>
- [23] J. Steane, *The Archaeology of the Medieval English Monarchy*, Routledge, London, 1998.
- [24] A. S. Cavallo, *Medieval Tapestries in the Metropolitan Museum of Art*, Metropolitan Museum of Art, New York, N.Y., 1993
- [25] G. Moab, *L'Ystoire Lancelot du Lac*, BnF, Français 119, f346r.
- [26] L. F. Davis, *Manuscript Road Trip: The Biggest Little State in the Union*, 2015. URL: <https://manuscriptroadtrip.wordpress.com/2015/02/03/manuscript-road-trip-the-biggest-little-state-in-the-union/>
- [27] J. Hamburger, *New Fragments of an Alsatian Copy of Jordan of Quedlinburg's Sixty-Five Articles on the Passion*, *Harvard Library Bulletin* 21 (2010) 95–123.
- [28] D. L. Stoudt, *The Afterlife in the Visionary Experiences of the Female Mystics*, in: R. Pollard (Ed.), *Imagining the Medieval Afterlife*, Cambridge University Press, Cambridge, 2020, pp. 264–285. doi:10.1017/9781316823255.
- [29] G. T. Dennis, *Three Byzantine Military Treatises*, Dumbarton Oaks Research Library and Collection, Washington, DC, 1985.
- [30] M. Evangelatou, *Textile Mediation in Late Byzantine Visual Culture: Unveiling Layers of Meaning through the Fabrics of the Chora Monastery*, in G. Bühl and E. Dospel Williams (Eds.), *Catalogue of the Textiles in the Dumbarton Oaks Byzantine Collection*, Washington, DC, 2019. URL: <https://www.doaks.org/resources/textiles/essays/evangelatou>
- [31] *Catedral Primada Toledo, Chapel of Saint Blaise*. URL: <https://www.catedralprimada.es/en/info/capillas/capilla-de-san-blas/>
- [32] *Voynich.ninja*. URL: <https://www.voynich.ninja/thread-1117-post-23437.html#pid23437>