

Imperial Roman elements in the architecture of the city in *Saltair na Rann*

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Saltair na Rann, or 'psalter of the verses', is considered one of the most important religious poems of early Ireland.¹ There is only one early copy of the poem, held at Oxford Bodleian Library (MS Rawlinson B502: *The Book of Glendalough*) in a manuscript which was written c1130. The poem has been stylistically dated to the tenth century, the author is anonymous and it appears that the poem was not known outside of Ireland.

The description of the cosmos in Canto I parallels that of Genesis 1, but also contains a collection of Irish and classical cosmological lore. The emphasis is on the measurements of this cosmos. The distances between the seven heavens are multiples of 126 miles, a distance that comes directly from Pliny's *Natural History*.² Although the geometry of this universe appears to be an attempt at creating a perfect mathematical model of the universe in concentric spheres, the measurements do not comply to a spherical cosmos.³ The geometry is muddled, and it can only work in a two-dimensional plane. The *Ríched*, or abode of the noble king, described in Canto II appears, at first, to be equally confused in its design elements.

The description of the celestial city of the seventh heaven is detailed, and the structure of the city is unique. The celestial city

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1 E Hull, 'The Saltair Na Rann, or Psalter of the Verses', 1-50 in E Hull (ed), *The Poem-Book of the Gael* (London, 1913), at p 3.

2 Pliny, *Natural History*, trans D E Eichholz (London, 1962), at 2.19.

3 The distance of the earth's surface to the depths of hell is 3024 miles, the same as from the earth to the *Ríched* or the abode of God.

is ten times the size of the earth.⁴ It is perfectly symmetrical, with four chief doorways, each a mile wide⁵ and connected by a long path.⁶ Each one of the chief doorways has a lawn; each lawn is the size of the earth and is enclosed by a wall of silver.⁷ There are eight porches set side by side around the stronghold.⁸ The porches and the walls of each of the lawns have three doorways; these doorways with the addition of the four chief doorways make 40 doorways in the abode of the *Ríched*.⁹ Furthermore, there are 12 walls of the porches and the lawns.¹⁰ The entire city is encircled by three walls: the outer wall is of green glass, the middle wall is of purple glass and the inner wall that surrounds the stronghold is made of gold.¹¹ The width of the ramparts is the distance of the earth to the moon, 126 miles, and the height of the walls of the lawns is the distance from the earth to the sun, 378 miles. The height of the inner wall is the distance from the earth to the firmament, 1512 miles, and each of the walls surpasses the next by a third, the middle wall being 3024 miles in height and the outer wall 4536 miles in height.¹² Although these measurements may be an attempt to show the grandeur of the celestial city, they are disproportionate to the scale of the rest of the cosmos that was described in Canto I. In fact, the city of the seventh heaven is larger than the entire seventh heaven itself — this perhaps indicating a lack of either understanding of or regard for geometry by the author of the poem.

The geometry of the city is far more complex than the plan

4 'Saltair Na Rann, Cantos I–III', 75–124 in J Carey (ed), *King of Mysteries: Early Irish Religious Writing* (Dublin, 1998), at line 344.

5 *Ibid*, lines 357–360.

6 *Ibid*, line 356.

7 *Ibid*, lines 373–384.

8 *Ibid*, line 389.

9 *Ibid*, line 401.

10 *Ibid*, line 405.

11 *Ibid*, lines 345–352.

12 *Ibid*, lines 427–428.

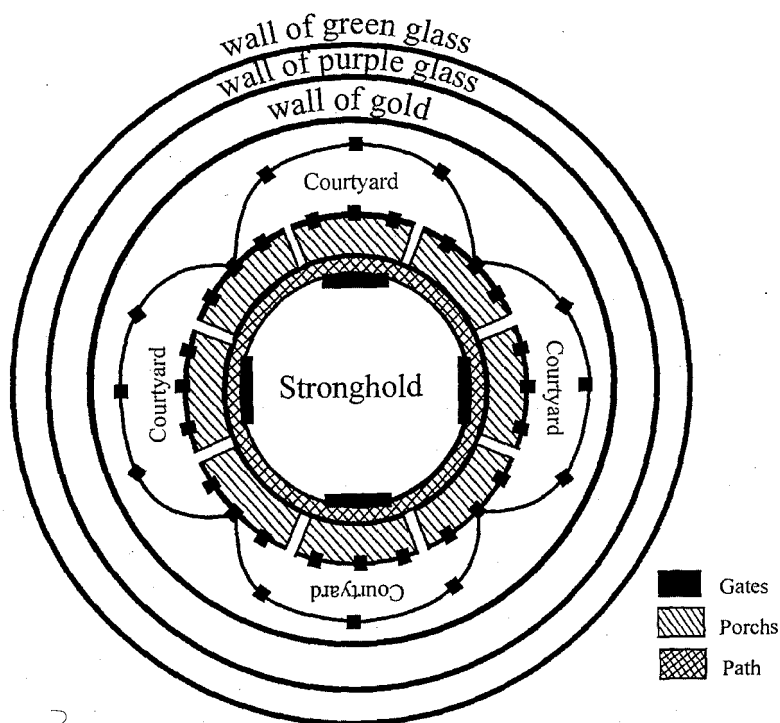


Figure 1: *The plan of the city of the Ríched in Saltair na Rann, drawn and interpreted by the author from the description in Saltair na Rann Canto II.*

of the cosmos. In the plan of this city, the number of walls and doorways is clearly specified. However, the four chief doorways are described as being 'side by side'¹³ and each lawn as being the size of the Earth.¹⁴ Since the entire city is ten times the size of the Earth, this makes the total area of the lawns 40 per cent of the area of the city. The only possible placement of the chief doorways side by side is around the stronghold like the eight porches, which are described as having been 'set side by side, until they meet going around the stronghold'. With this interpretation, the city's plan falls into place

13 *Ibid*, line 359.

14 *Ibid*, lines 374–376.

(Figure 1), with the one curiosity that the three outer walls have no entrances. Although the main gates to the city might have been assumed, the author failed to mention any.

This plan of the city bears no resemblance to the new Jerusalem in *Revelation*. Although there are clear references to *Revelation* at the end of the Canto, including to the Tree of Life,¹⁵ the author has ignored the description of the city in *Revelation* and planned a unique celestial city. Not only was this celestial city unlike the city of *Revelation*, with which the author was familiar, it was also unlike any tenth-century Irish ecclesiastical architecture.

There is very little existing evidence of early Irish Christian architecture. Circular banks of earth are often the only surviving feature of early Irish Christian monasteries, which has led to the assumption that early churches were made of wood.¹⁶ A law text refers to 'dimensions of and payment for church building'¹⁷ and in a commentary on the old Irish Brehon laws, dated to c1000, it is suggested that the normal wooden church's ground plan was 4.6 x 3 metres, or 10 x 15 feet.¹⁸ There is one early account of a church on a much grander scale: Cogitosus, a seventh-century biographer of Saint Brigid, described the saint's monastery in Kildare. The church covered a large area, had many windows, was decorated with frescoes and was of 'a dizzy height'. However, it was probably made of wood, despite the 'dizzy height'.¹⁹ Monastic communities

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- 15 Lines 518–620 parallel *Revelation*: the 24 white saints are taken from *Revelation* 4:4, the Lamb with his flock upon the mountain from *Revelation* 14:1–2 and the Tree of Life from *Revelation* 22:2.
- 16 C B McClendon, *The Origins of Medieval Architecture* (New Haven and London, 2005) 69; M Hare and A Hamlin, 'The study of early church Architecture in Ireland: an Anglo-Saxon viewpoint', 131–145 in L Butler and R K Morris (eds), *The Anglo Saxon Church* (London: 1986), at p 131.
- 17 L Breatnach, *A Companion to the Corpus Iuris Hibernici* (Dublin, 2005) 84.
- 18 P Harbison, H Potterton and J Sheehy, *Irish Art and Architecture* (London, 1978).
- 19 Cogitosus, 'Vita Sanctae Brigidae virginis', in T Messingham (trans), *Florilegium Insulae sanctorum* (1624) unpaginated.

were sometimes built on prehistoric ring-forts, which consisted of dry stone masonry or earthen ramparts. They sometimes featured circular beehive huts such as those found on Skellig Michael, a form of building with ancient precedents. Skellig Michael was known to have been inhabited in 823 and the beehive huts that survive are thought to date to the twelfth century. However, their form is unlikely to have changed since the island was originally settled.²⁰ Folio 202v of the Book of Kells, from the eighth or early ninth century, shows Christ on the pinnacle of the temple being tempted by the devil; the rectangular building has a single story with a steep shingled roof. Although the exterior of the building is ornately decorated and has dragon-head finials, the structure of the building is very minimal and is in a style that was repeated in later simple stone churches dotted around the Irish countryside. From the evidence of early Irish ecclesiastical architecture, it would appear that the author of *Saltair na Rann* was influenced by an exterior source in the architecture for the abode of the noble king.

Although there are individual elements in *Saltair na Rann* that have some similarity to the *Apocalypse of Paul*, Adomnán's *De locis Sanctis*, Bede's *Historia ecclesiastica* and *Fis Adamnán*,²¹ it is questionable that these are the direct sources of the city plan of the *Ríched*: the similarities in the mentioned texts are in only some individual elements, which are not measured and lack design details. The city appears to have no literary precedent.²² With the exception of the few references to *Revelation* near the end of the canto, the second canto stands out from the others in the poem

20 W Horn, J W Marshall and G D Rourke, *The forgotten heritage of Skellig Michael* (Berkeley, 1990).

21 J N Bremmer and I Czachesz (eds), *The Visio Pauli and the Gnostic Apocalypse of Paul* (Leuven, 2007); Bede, *The Ecclesiastical History of the English People*, J McClure and R Collins (ed) (Oxford, 1999); Anonymous, 'Fis Adamnán' 28–36 in C S Boswell, *An Irish precursor of Dante; a study on the Vision of heaven and hell, ascribed to the eighth-century Irish saint, Adamnán, with translation of the Irish text by C S Boswell* (New York, 1972 [1908]).

22 T Morrison, 'Celestial Differences and Similarities' (forthcoming).

because of its lack of biblical references. That the plan was not the author's invention is suggested by the city walls having no gates — a strange oversight to omit a major design element from such a highly detailed plan. The city is a complex product of sophisticated geometry, while the plan of the cosmos has disproportionate ratios. Furthermore, the scale of the celestial city is disproportionate to that of the cosmos, and this suggests that the designs of the city and the cosmos were designed by two different geometric 'hands'.

Without any surviving architectural precedent in Ireland for the celestial city, or any clear influence in the literature that would have been available in the tenth century in Ireland,²³ it must be presumed that the designer of the celestial city of *Saltair na Rann* was influenced by the architecture of the continent, perhaps directly whilst on pilgrimage, or indirectly from descriptions by other pilgrims. The floor plan in *Figure 1* was developed from the description in Canto II. However, the overall plan could be round, square, octagonal or a mixture of round, square and octagonal. The canto only states that it is perfectly symmetrical.²⁴ *Figure 1* has been drawn as circular because it is the simplest and the most perfectly symmetrical form from which to consider the overall plan.

The geometry of the celestial city in *Saltair na Rann* fits together through the numbers of the elements. The four walls of the lawn and the eight porches that surround the central stronghold create the 12 divisions of porch and lawns; there are also three surrounding walls and a total of 40 doorways. These are all numbers that have significance in pagan and early Christian numerology.²⁵ The number symbolism is representative of the early medieval period, where the 12 apostles bring the four gospels of the trinity to the four ends of the earth.²⁶ The number 40 was an important number

23 J Carey, 'Cosmology in *Saltair na Rann*', *Celtica* 17 (1985) 33–52, at p 36.

24 Carey, 'Saltair Na Rann Cantos I-III', 354.

25 R A Peck, 'Number as Cosmic Language', 15–64 in D L Jeffrey (ed), *By Things Seen: Reference and Recognition in Medieval Thought* (Ottawa, 1979).

26 V F Hopper, *Medieval Number Symbolism* (New York, 1969).

in Babylonian astronomy, which gained significance in the late Roman era through the astronomy of Ptolemy.²⁷ In the Ptolemaic system, the seven heavenly bodies required 39 epicycles to move through the sky. The addition of the outermost cycle of the fixed stars made this system an even 40 epicycles.²⁸ Ptolemy's universe system gained favour with astronomers, and it shaped the vision of the universe from the time that it was written in Alexandria in c130 CE up to the early seventeenth century.²⁹

In early Christian architecture and art, eight was a highly significant number.³⁰ From the early fourth century, an octagonal structure was built and attached to the east side of the Christian basilica.³¹ Eusebius praised a church called the Golden Octagon at Antioch, which had commenced construction in 327 under Constantine.³² There were many examples of these octagonal structures from this period in Milan, Rome, Antioch and Bethlehem, with the most extraordinary surviving examples being in Ravenna.³³ These examples were primarily used as baptisteries. On the continent, the hand signal of the Christian blessing was the gesture for eight: it was also an ancient numerical gesture and was used extensively in medieval computus.³⁴ Eight was the number

27 A Baker, *Scientific Method in Ptolemy's 'Harmonics'* (Cambridge, 2000).

28 A Koestler, *The Sleepwalkers* (London, 1959) 66–68.

29 A Nicolson, *Power and Glory: Jacobean England and the Making of the King James Bible* (London, 2003) 164.

30 T Morrison, 'The art of early medieval number symbolism', *Journal of the Australian Early Medieval Association* 2 (2006) 174–178.

31 R Krautheimer, *Early Christian and Byzantine Architecture* (Middlesex, 1986) 60.

32 Eusebius, 'The Life of the Blessed Emperor Constantine,' 481–560 in P Schaff (ed), *Nicene and the Post-Nicene Fathers* (Grand Rapids, 1979), at III.L.

33 Examples are The Church of the Nativity, Bethlehem; San Lorenzo, Milan; the octagonal baptisteries and San Vitale, Ravenna. See Morrison, 'The Art of Early Medieval Number Symbolism', 169–181.

34 T Morrison, 'An Examination of the Blessing Hand in Insular Art', 288–300 in R Moss (ed), *Making and Meaning in Insular Art* (Dublin, 2007)

that was closely associated with baptism and the resurrection.³⁵ Both the octagonal baptistery and the blessing hand, as the gesture eight, were used extensively in art and architecture of the early medieval period on the continent.³⁶ Nevertheless, there is no existing evidence that either was used in insular architecture and art until the ninth century.³⁷ The central feature of the celestial city is the eight porches³⁸ surrounding the central stronghold, which would suggest that this central feature might be octagonal in shape. This further strengthens the argument that the design came from the continent.

There are four chief doorways to the central stronghold, which is surrounded by the eight porches. In front of each of these doorways is a lawn. The size of the lawns is described as being the size of the earth,³⁹ and they are of the same area and symmetrical, following the overall plan of the city. Cruciform churches had become popular in northern Italy and the alpine region in the fifth century.⁴⁰ Nevertheless, these would not be consistent with the symmetrical city, particularly since the lawns are of equal size. The Baldacchino form was the governing principle of sixth-century Christian architecture and was a prevalent style for many centuries after. The building of this style had harmonic variations on the theme of the domed image of heaven, and the ancient canopied symbol of the divine was set around a central space with radial symmetry or within a non-congruent peripheral rectangle.⁴¹ The central space with radial symmetry is similar to the symmetry of the floor plan of

at pp 294–295.

35 Morrison, 'The Art of Early Medieval Number Symbolism', 174.

36 Morrison, 'Blessing Hand in Insular Art'.

37 *Ibid.*, 299–300.

38 Carey, 'Saltair Na Rann, Cantos I–III', 389.

39 *Ibid.*, 376.

40 McClendon, *The Origins of Medieval Architecture*, 13.

41 W MacDonald, *Early Christian and Byzantine Architecture* (London, 1962) 33.

the celestial city of *Saltair na Rann*. An extant example of this style is the Mausoleum of Galla Placidia, Ravenna, dated to the mid-fifth century, where each of the radials is of equal size.⁴² The fifth-century Saint Stefano Rotondo in Rome was originally a central core with four wings on cross axes, surrounded by a circular wall. Wilfrid of Hexham visited Rome in 655 and it is possible that Saint Stefano Rotondo influenced St Mary's church that he later built at Hexham. Although St Mary's was not as complex as Saint Stefano Rotondo, it was a combination of a rotunda and cross plan.⁴³

Early Christian architecture had an entirely different meaning and purpose from the Greco-Roman architecture from which it had evolved. However, the structural solutions and elements of classical architecture remained and evolved in early Christian architecture. Two primary architectural influences on early baptisteries were the imperial Roman bath building and the Imperial mausoleum.⁴⁴ Early Christian fonts were large, often four or five metres across. A surviving example from the mid-fifth century can be found in the Neonian baptistery, Ravenna.⁴⁵ The central pattern of baptisteries from the fourth century onward is the same as the design for the imperial Roman bath building.⁴⁶ Examples of these are Badenweiler and Stabian Baths at Pompei and the Thermae of Caracalla in Rome. Prior to the sanctioning of Christianity as the official religion of the state, baptisteries were square or rectangular. The tomb of Augustus consisted of a central rotunda with a second rotunda. The tomb of Hadrian had a second, square rotunda surrounding the first. These massive buildings⁴⁷ dominated their surroundings and were a

42 *Ibid*, plate 34.

43 McClendon, *The Origins of Medieval Architecture*, 71.

44 R Krautheimer, 'Introduction to an Iconography of Medieval Architecture', *Journal of the Warburg and Courtauld Institutes* 5 (1942) 20–33.

45 Salbaroli-Ravenna, *Ravenna: City of Art* (Ravenna, 2003) 104–110.

46 *Ibid*, 21.

47 For reproductions of these buildings see C Tagell, *Imperial Space* (London, 1998) 14 and 15.

monument to the emperor and to imperial power. On the Palatine in Rome, there are the remains of the temple of Domus Augustana: the central rotunda was an octagon and at the eight sides are radials which alternate between square and semi-circular.

The Golden Octagon in Antioch adjoined the imperial palace, and it is thought that the Golden Octagon functioned as an imperial throne room and royal chapel under the emperor Constantine. Constantine moved the capital to Byzantium, renaming it Constantinople, in 326 AD. Of the many churches built by Constantine in Constantinople little evidence remains; however, Eusebius has left a description of the first Hagia Sophia, Church of Holy Wisdom. The church was a Greek cross shape. At the crossing was a conical roof and below this was the sarcophagus of Constantine surrounded by piers inscribed in honour of the twelve apostles. This mausoleum for Constantine was also dedicated to the apostles, and in the enclosure masses were read daily. The mausoleum was covered with so much gold that Eusebius claimed that it 'dazzled all eyes that beheld it and reverberated the rays of the sun'.⁴⁸ In the architecture of Constantine, the martyrion, round and octagonal, became the centre of the structure of the basilica.⁴⁹

The imperial mausoleum and octagonal church became intertwined. The concept of divine kingship is visualised by the mosaics of the octagonal church of San Vitale, Ravenna. Two famous mosaics of Theodora and Justinian, and attendants, face each other on the apse walls. Theodora and Justinian, heavily jewelled and dressed in the royal purple, solemnly offer their Eucharistic gifts. The emphasis of the mosaics is on the connection between the heavenly and the imperial powers through the act of the Eucharist.⁵⁰

The round or octagonal structure with four radials is the floor plan of the celestial city of *Saltair na Rann*. In the centre of the

48 Eusebius, 'The Life of the Blessed Emperor Constantine', 481–560 in P Schaff (ed), *Nicene and the Post-Nicene Fathers* (Grand Rapids, 1979) at IV and LVIII.

49 Krautheimer, *Early Christian and Byzantine Architecture*, 70.

50 R Milburn, *Early Christian Art and Architecture*, (Aldershot, 1988) 181.

stronghold is the 'King royally noble in his royal abode',⁵¹ his throne made of red gold and surrounded by innumerable radiant angels.⁵² The concept of imperial power and grandeur radiates from the centre of the celestial city. The numerology and the overall plan of the city mimic the floor plans of the imperial bath buildings, mausoleums and baptisteries in the Baldacchino form.

There were many examples of this style of building that would have been accessible to a pilgrim to the Holy Land, Rome, Constantinople or Ravenna. To travel from the circular beehive huts and small wooden churches of Ireland to the massive baptisteries and basilicas of the Holy Land, Rome, Ravenna and Constantinople, that were richly decorated and strongly linked to the imperial court, must have struck awe into any pilgrim. Arculf, a bishop of Gaul, had travelled to Jerusalem, Damascus, Constantinople and Alexandria in the late seventh century, and on his return he was shipwrecked at Iona. Here he met Adomnán, abbot of Iona, who listened to stories of his travels and committed to writing everything Arculf had seen in the Holy Land in his *De Locis Sanctis*.⁵³ Arculf described and sketched the floor plan of the buildings of the Holy Land into a wax tablet.⁵⁴ Unfortunately the recorded descriptions of the building are a bare outline, and, although a few elements are similar to those of the celestial city of *Saltair na Rann*, it is clearly not its architectural source because although there are a few minor similarities, the overall plan is significantly different.

As noted previously, the design of the city and the cosmos indicate that they were designed by two different geometric 'hands'. John Carey has examined the sources of the cosmology of *Saltair na Rann* and claims that they include a large range of material that would have been available to a tenth-century Irish author.⁵⁵ Yet

51 Carey, 'Saltair Na Rann, Cantos I-III', 568.

52 *Ibid*, 533.

53 Bede, *Ecclesiastical History*, 263.

54 Adamnán, *De Locis Sanctus*, Denis Meehan (ed) (Dublin, 1958) 2.10-15.

55 Carey, 'Cosmology in Saltair na Rann', 33-52, at p 50. Carey notes the primary source to be Pliny's *Historia naturalis*, Herodotus' *Historia*,

the celestial city's architectural detail appears to have no literary precedent; nor does it have any similarity to the architecture of tenth-century Ireland. The floor plan does strongly resemble, however, the floor plans of contemporaneous Christian architecture from the continent. This would indicate that the original plan came from a pilgrim, either directly or indirectly through a sketch into a wax tablet to be relayed by somebody else, like the one that Arculf sketched for Adomnán. That the description of the city is from a personal experience is strongly indicated by the lack of biblical references in Canto II. This also makes Canto II stand out from the other 161 cantos of the poem.

Nevertheless, I argue that the plan of the city as related in *Saltair na Rann* did not originate with the author. This is suggested by the city walls having no gates, which is a very strange oversight, and not one that would have been made by the original author of this complex plan. I argue that the plan in *Saltair na Rann* was copied from another source, possibly from a pilgrim's description or a sketched plan. *Saltair na Rann* is the most detailed plan of the celestial city in early Christianity, which makes it extremely significant; yet its source was not the Bible or the philosophies or theologies of the time, but the magnificent and earthly architecture of imperial Rome.

Macrobius' *Somniva Scipionis*, pseudo-Isidore's *De Ordine Creaturarum* and Isidore of Seville's *Etymologiarum*.