


# An alternative interpretation of the ‘city plan’ hieroglyph

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## Introduction

The hieroglyph  numbered O49 according to Gardiner's list (hereinafter ‘O49’) shows a circle with a cross with wide bars inscribed in it. In monumental hieroglyphs with preserved paint, the circle and the cross are often blue or green. Shades of yellow and red may also occur. The triangular spaces can be darker or lighter than the cross and often have an interior drawing (Fig. 1).<sup>1</sup>

There is broad consensus that O49 represents the scheme of a village or city with a surrounding wall and a central street intersection. The usual designation of the hieroglyph is therefore ‘village with cross-roads’ or ‘city plan’.<sup>2</sup> This is consistent with the fact that the Egyptian scribes used O49 as an ideogram for the word ‘city’ (njwt).<sup>3</sup> But there were other suggestions: Budge (1920) explained the hieroglyph as a fortress,<sup>4</sup> Van Lepp (1997) as water canals that divide the farmland,<sup>5</sup> and Redford (1997) as a ‘cluster of round-topped or conical huts’<sup>6</sup>. More recently, Taterka (2017) concluded from color similarities with the hieroglyph X8 (pointed pastry) that O49 has ‘some connection with bread or, more generally, with food production and nourishment’.<sup>7</sup>

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<sup>1</sup> David Nunn (online), The Polychrome Hieroglyph Research Project, <https://www.phrp.be/ListOccurrences.php?SignKey=474&Gard=O49> (July 18, 2024).

<sup>2</sup> For instance: Sir Alan Gardiner (1957), *Egyptian Grammar: Being an introduction to the study of hieroglyphs*, Third Edition, Griffith Institute, Oxford (unchanged reprint 1999), p. 498; Maria Carmela Betrò (1995), *Hieroglyphics: The Writings of Ancient Egypt*, Abbeville Press Publishers, New York, London, Paris, p. 190; Filip Taterka (2017), Chapter Two: The meaning of the njwt-hieroglyph: towards a definition of a city in ancient Egypt, in: Ł. Misk & M. Waławik (eds.), *The Land of Fertility II: The Southeast Mediterranean from the Bronze Age to the Muslim Conquest*, Cambridge Scholars Publishing, pp. 17-18, 20.

<sup>3</sup> Gardiner (1957), op. cit., p. 34; Wb II, 210.6–7.

<sup>4</sup> Ernest A. Wallis Budge (1920), *An Egyptian Hieroglyphic Dictionary*, Dover Publications (reprint 1978), pp. cxxvii-cxxx.

<sup>5</sup> Jonathan Van Lepp (1997), Is the Hieroglyphic Sign njwt a Village with Cross-Roads? in: GM 158, pp. 93-100.

<sup>6</sup> Donald B. Redford (1997), The Ancient Egyptian ‘City’: Figment or Reality? in: W. E. Aufrecht et al. (eds.), *Aspects of Urbanism in Antiquity: From Mesopotamia to Crete*, Sheffield Academic Press, Sheffield, pp. 210-220 (quote on p. 211).

<sup>7</sup> Taterka (2017), op. cit., pp. 19-20 (quote on p. 20).



Fig. 1: Example from Karnak temple, room XII (18th dynasty, reign of Hatshepsut, approx. 1473–1458 BC). © David Nunn, ref. 1.

## Novel thoughts on O49

Hypothesis: O49 does not symbolize a city plan. Instead, the four triangles are the important parts of the representation. The hieroglyph symbolizes a bordered circular area with markings of the four cardinal directions: north, east, south and west.

### Supporting arguments:

- O49 appeared as early as during the first dynasty.<sup>8</sup> There were no streets in Egypt at this time. The main transport routes in ancient Egypt were the Nile, its tributaries and artificial canals, and a network of overland tracks. On land, pack and draft animals, sledges and simple two-wheeled carts (only from the New Kingdom onwards) were used. The majority of larger vehicles with wheels were used in military and religious contexts.<sup>9</sup> Only larger towns and cult areas had streets in the narrow sense. However, there were usually no intersections of equally-sized street segments.<sup>10</sup> Also, the urban streets were not intended for daily freight transport, but for burials, cult ceremonies, festivals or for the king's pompous outings, for example the pyramid causeways, the processional roads in Thebes, or the main street along the palace of Tell el-Amarna. Apart from the elite buildings, human dwellings in cities and villages were densely packed, and there were only narrow paths between them.<sup>11</sup> Against this background, it seems

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<sup>8</sup> Jochem Kahl (1994), *Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie*, GOF IV/29, Harrassowitz Verlag, Wiesbaden, pp. 648-649.

<sup>9</sup> Heidi Koepp-Junk (2016), *Wagons and carts and their significance in ancient Egypt*, in: JAEI 9, pp. 15-34.

<sup>10</sup> Taterka (2017), *op. cit.*, pp. 17-18.

<sup>11</sup> Mark Lehner & Ana Tavares (2010), *Walls, ways and stratigraphy: Signs of social control in an urban footprint at Giza*, in: M. Bietak, E. Czerny, I. Forstner-Müller (eds.), *Cities and urbanism in ancient Egypt*, Austrian Academy of Science, Vienna, 171-216; Adam Terry Ashcroft (online), <https://www.theancientegyptians.com/towns.htm> (July 18, 2024).

unlikely that the cross of O49, which is inscribed so broadly and dominantly in the circle, represents a street intersection.

- The triangles are visually emphasized by the interior lines and seem therefore more important than the cross.
- Since prehistoric times, the four cardinal directions have been defined by the position of the sun at morning, noon and evening, and in the northern hemisphere also by the Pole Star in the north. In practically all cultures the cardinal directions are graphically represented as up, down, left and right. The cross in O49 is always placed diagonally, so that the four triangles can be found in the cardinal directions.<sup>12</sup>
- The four cardinal directions as aid to orientation are an essential geographical aspect. It is thus reasonable that O49 was used as a classifier for localities.<sup>13</sup>

The reason why the focus in interpreting O49 has so far been on the cross is probably psychological. When there are dark and light fields in an area, the light ones are predominantly perceived as the background. This is a consequence of visual habits (dark objects against a light wall or sky, black writing on white sheets).<sup>14</sup> So, if in O49 the cross is darker than the triangles, the triangles are perceived as the background. But even if the triangles are darker than the cross (Fig. 1), people who are used to the Latin alphabet tend to perceive the cross as the main information, since it is associated with the letter 'x'.

Abbreviations: BC: before Christian era; eds.: editors; Fig.: figure; JAEI: Journal of Ancient Egyptian Interconnections; ref.: reference; GM: Gottinger Miszellen; GOF: Gottinger Orientforschungen; Wb II: Egyptian dictionary by Erman & Grapow, part II (Berlin, 1971).

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<sup>12</sup> Unlike modern maps, in ancient Egypt the view was directed towards the south. The source of the Nile was therefore 'in the lead' (*ḥntj*), the Eastern Desert 'on the left' (*jḳbtj*) and the Western Desert 'on the right' (*jmntj*).

<sup>13</sup> Only localities belonging to Egypt, as outlined by Taterka (2017), op. cit., pp. 20-23. In contrast, localities in the foreign lands were classified with N25 (ibid., p. 23-29).

<sup>14</sup> Daniel L. Schacter, Daniel T. Gilbert, and Daniel M. Wegner (2011) Chapter 4: Sensation and Perception, Vision II: Recognizing What We Perceive, in: Psychology, Second Edition, Worth Publishers, 149-150.