

Article

Early Visual Communication: Introducing the 6000-Year-Old *Buon Frescoes* from Teleilat Ghassul, Jordan

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Abstract: The collection of 5th Millennium BCE frescoes from the Chalcolithic (4700–3700 BC) township of Teleilat Ghassul, Jordan, are vital signposts for our understanding of early visual communication systems and the role of art in preliterate societies. The collection of polychrome wall murals includes intricate geometric designs, scenes illustrative of a stratified and complex society, and possibly early examples of landscape vistas. These artworks were produced by specialists using the *buon fresco* technique, and provide a visual archive documenting a fascinating, and largely unknown culture. This paper will consider the place these pictorial artefacts hold in the prehistory of art.

Keywords: art; frescoes; Teleilat Ghassul; Jordan; preliterate art; chalcolithic; Southern Levant; visual communication; iconography; social hierarchy

1. Introduction

The discovery of polychrome wall paintings at the Dead Sea site of Teleilat Ghassul, Jordan (Figure 1), in 1931 stunned the archaeological community (Mallon et al. 1934, p. 129), as large-scale prehistoric polychrome wall art had been unknown up to this point (Cameron 1981, p. 3). Indeed, first reactions to the technical sophistication and iconographic brilliance of the artworks led scholars to assert that the culture to which they belonged, the Ghassulian (named after Teleilat Ghassul, then only recently discovered), could not be prehistoric in date (Lee 1973, pp. 8–10), as their Pontifical Biblical Institute (hereafter PBI) excavators advocated. However, the Ghassulian culture is now known to extend for roughly a thousand years (ca. 4700–3700 BC) across the Fifth Millennium BCE (Bourke et al. 2004), occupying the critical pivotal point between the Neolithic village societies of the Sixth Millennium BCE, and the Early Bronze Age townships of the Fourth and Third Millennia BCE.



Figure 1. Map of Jordan showing Teleilat Ghassul (created by author).

Although painted wall plaster had been detected in earlier excavations (e.g., [Kemp 1989](#), pp. 38, fn. 33), the Ghassulian frescoes excavated in the 1930s illustrated complex geometric, distinctive figurative cultic subjects in brilliant polychrome colour schemes. They should have revolutionized our attitudes to prehistoric art, but strangely have had little impact on art-historical studies, partly due to subsequent Neolithic discoveries at Çatalhöyük in central Turkey ([Mellaart 1967](#); [Hodder 2006](#)), and partly due to the absence of follow-up studies on the artworks themselves in the required detail to reveal their unique characteristics.

In more recent times, detailed analysis on individual paintings ([Drabsch and Bourke 2014](#)), and [Drabsch \(2015\)](#) comprehensive monograph on all major artworks recovered from Ghassul, provided a timely reassessment of their importance, arguing for their compositional positioning between the ‘episodic’ artworks of the preceding Neolithic and the narrative structuring of the subsequent Early Bronze Age ([Drabsch and Bourke 2014](#), p. 1095; [Drabsch 2015](#)). It is this transitional placement between the relatively inchoate artworks of the Neolithic, and the formalized Early Bronze Age art that continues to fascinate, as Ghassulian wall art stands arguably at the transition point between these distinct traditions, encompassing elements of both, while creating some of the most spectacular artworks known to the ancient world.

We shall explore several of the more complete artworks from Ghassul in the sections below, focusing on their technical advances, compositional sophistication and anthropological importance, before assessing the Ghassulian corpus in the context of east Mediterranean pre and proto-historic art history.

2. The Frescoes of Teleilat Ghassul

2.1. *The Notables/Personnages Freize (Middle Chalcolithic ca. 4200 BC) PBI Stratum III*

Father Mallon and his team from the Pontifical Biblical Institute (hereafter PBI), Jerusalem, discovered the first wall painting at Teleilat Ghassul on the 10th of December 1931 ([Mallon et al. 1934](#), p. 129). The painted fragment ran along the base of a wall measuring 4.5 m in length and half a metre in height, forming the lower register of a much larger scene (Figure 2). The fresco was excavated in Building 55 on Tell 3, approximately 2 m below the present surface, under one of the highest points of the tell ([Koeppel et al. 1940](#); [Drabsch 2015](#), p. 74).



Figure 2. The Notables frieze (created by author).

The painted scene depicts two pairs of feet in profile, one pair being elaborately sandaled, both placed on footstools, followed by another four or five pairs of feet that appear to be standing. The seated and standing figures are placed on a distinctive solid yellow ground-line and face a red and yellow star and the lower portion of a small dark-skinned figure, who is positioned above the ground-line. The fragmentary scene is of considerable significance artistically, with the very early appearance of a ground-line, and archaeologically, as it provides evidence of social ranking. While [Elliott \(1977, p. 11\)](#) suggested that the scene possibly depicted worshippers paying homage to a divine couple or a priest and priestess in a cultic ritual, [Stager \(1992, p. 28\)](#) noted, ‘Whether depicting the realm of the gods or human rulers, the hierarchical symbolism of the painting is clear. These discoveries from En Gedi, Nahal Mishmar, and Ghassul provide evidence for a religious elite, or priesthood, active in Chalcolithic society’.

2.2. The Star of Ghassul (Late Chalcolithic ca. 4000–3900 BC) PBI Stratum IVB

On the 17th December 1932, PBI excavations on Tell 3, Level IV, uncovered a spectacular fresco sitting just 20 cm below the modern surface in Building 10 (Square A1: (Koeppel et al. 1940), Endpaper I). The fragmented mural belonged to a wall measuring 8 m × 5.5 m and was surrounded by pottery, flint and bone objects of high quality (Mallon et al. 1934, p. 137). The large decorated chamber belonged to a multi-roomed complex containing seven infant burials and an unusual ceramic fragment with a morphed bird and quadruped design (Koeppel et al. 1940, Plate 13.2), leading the excavators to ponder whether the structure might have been a domestic sanctuary of some kind (Mallon et al. 1934, pp. 135–37).

The centrepiece of the painted composition comprises of an intricately designed eight-rayed star, measuring 1.84 m in diameter (Figure 3). The rays alternate between red and black with uniform colour at the tips and overlaid with white transverse wavy lines towards the hub, giving a pleasing sense of shimmering movement. The compound centre comprises of several zones made up of combined circles, triangles and polygons, forming two more eight-rayed stars. The complex geometric design was strikingly juxtaposed with a variety of figurative and emblematic motifs. Although the left-hand side of the mural was badly damaged, the remaining fragments suggest that there were possibly three figures wearing elaborately decorated robes and masks facing the imposing star. The far figure likely wears a yellow robe with black triangular designs and a mask with curved horns and small ears. The second figure from the left has a long-fingered upraised hand, and wears a red, black and white robe with a black and white striped mask, featuring large staring eyes and a yellow top piece. Standing directly beneath the upraised hand is a smaller masked figure.

More closely connected to the star motif is an animal-like design sitting within the rays of the top left quadrant. Epstein (1985, pp. 54–58) has suggested that the object is reminiscent of a laden goat, which was an important iconographic element in the Ghassulian artistic lexicon. The small caprid-like ears, horns, beard and male genitalia evident on the design certainly render her theory plausible, however the image is heavily stylised and the vessel depicted on the back of the animal shows a crescent moon and fine white linear and dotted designs more reminiscent of astral constellations than Ghassulian ceramic ware. As the people of Teleilat Ghassul had a keen interest in the night sky, as evidenced by the large star, two other star motifs on other frescoes and a likely constellation design in the dark pigmented ‘Geometric’ fresco (Drabsch 2015, p. 155), it is possible that they might have associated important constellations with the shapes of animals and familiar objects, as many other cultures have done over the millennia (Campion 2008).



Figure 3. The Star of Ghassul (created by author).

In the lower left quadrant of the star are two linear designs, one is a diagonal line with triangles attached, reminiscent of a stepped pathway and the partnering design is suggestive of an architectural plan of a structure with two small enclosures, possibly recalling the open air cultic structures of the Chalcolithic period, such as those at Nahal Mishmar and En-Gedi (Bar-Adon 1980, p. 12; Ussishkin 1971, p. 26). Superimposed over the lower right-hand ray of the star is another geometric design evocative of an architectural plan. Bar-Adon (1980, p. 224) and Seaton (2008, p. 117) have plausibly proposed a connection between the intricate design and a Chalcolithic sanctuary complex. The plan seems to have been drawn from a raised perspective, and most likely represents the entrance to a temple complex, shown in red, with flanking poles which lead to a gated courtyard or a temple temenos. The original excavator, Mallon, made it clear in his initial analysis that this superimposition was not accidental and emphasised the fact that both the ray of the star and the architectural feature were painted on the same layer (Mallon et al. 1934, p. 140). This suggests that the ‘temple’ and the star were perceived as intricately linked, perhaps denoting that the temple belonged to the worship of a Chalcolithic deity symbolised by the eight-rayed star.

Finally, in the upper right quadrant there are an assortment of different motifs, such as curved red elements and a multi-pronged device, which Mallon suggested were musical instruments, similar to horns and a lute (Mallon et al. 1934, p. 139). These elements, along with the robed, masked figures and architectural features, are similar to those found in Hennessy’s ‘Processional’ fresco (see Figure 4), and possibly reflect the importance of music in cultic performance, as reinforced by the Early Bronze Age cylinder seal motifs of this region (Paz et al. 2013). It is not unreasonable that both frescoes display similar cultic paraphernalia and recall costumed ceremonies and processions between sacred structures during the Chalcolithic period.



Figure 4. Hennessy’s Processional fresco (created by author).

2.3. Hennessy’s Processional Fresco (Middle Chalcolithic ca. 4200 BC) PBI stratum III—Hennessy’s Phase E

The most complete of the Ghassulian wall paintings was uncovered in an area between Tell 1 and Tell 2 by Basil Hennessy and his team from the University of Sydney, Australia, in 1977.

The large mural, which measured approximately 3 m × 2 m, had fallen face-down from the inner surface of a semi-subterranean room, in a substantial building which possibly had a second story. Interior fittings included plastered benches, plaster-lined storage bins, and plaster-sealed mudbrick and stone worktables. Initial excavation within the building quickly identified an extensive material assemblage in situ on a patchily preserved white plaster floor. This collection included three ceramic cornet cups and ten flint chisels found in a tight group to one side of a centrally placed stone-topped table-like structure. A flintknapping assemblage of more than 130 pieces, two small ceramic vessels, and a quantity of ovicaprine long bones in the process of being modified into tools, were also found in the north-eastern quadrant (Drabsch and Bourke 2014, p. 1083).

Thirty-three plaster-backed pieces of the painted wall were removed from the excavations and transported to the British Institute at Amman for Archaeology and History (BIAAH), where photographs of the individual pieces were taken, and a quick interpretative sketch was produced. Thereafter the fragments were conserved and mounted by a team from The International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). Their report notes that the initial conservation and reassembly was hampered by discrepancies between the numbering system used in the field, the fragmented state of individual pieces, and damage to the edges of many pieces during the initial consolidation process, which made the re-association of individual fragments difficult (Schwartzbaum et al. 1980). The painting was finally installed in the Amman Citadel Museum in 1979 and has recently been relocated to the National Museum in Amman.

Upon close re-examination by Drabsch in 2010 it became evident that many of the conserved pieces were not aligned correctly and that a re-analysis was overdue. Trench notes, original photographs, field plans and conservation reports were all reviewed; confirming that numerous discrepancies in the numbering systems, along with the abraded condition of the major individual pieces, had caused some confusion in the final arrangement. Given the fragility of the conserved mural it was decided that a digital re-assembly, built up from high resolution scans of the original colour slides taken by Hennessy's team in 1977, would provide the most satisfactory results. Once the digital montage was re-assembled, significant differences from both the initial interpretative sketch and the conserved mural displayed in Amman were observed.

Through this digital reconstruction, it became evident that eight partially preserved, robed and naked figures were portrayed, wearing striped masks with dominant eyes and carrying implements or attachments of some kind, walking towards a complex geometric arrangement on the left (Figure 4). This intricate design possibly depicts an architectural complex, viewed obliquely from a raised position. It features a number of individual elements reminiscent of the temenos wall, courtyard, gatehouse, buildings with surrounding platforms and yellow parallel lines, which possibly represent wooden poles at the entrance. All of these elements reflect the Chalcolithic sanctuary complexes found at Teleilat Ghassul and En-Gedi (Mazar 2000, p. 35; Seaton 2008, p. 19).

The order of the processional figures is suggestive of a ranked group consisting of a large leading figure with upraised arm and six-fingered hand, who is directly followed by two distinct groups. The first group consists of an individual carrying a large hooked implement, which was possibly a musical instrument, wearing a tall striped mask, armbands and a black and red robe with elaborate white tassels. Behind this figure are two smaller individuals wearing horned masks, who in contrast to their well-dressed leader, appear to be naked and ungendered. It is possible that they were depicted in this fashion because they were uninitiated children or acolytes associated with ritual activities, deliberately rendered as neither male nor female (Drabsch forthcoming). Yates (1993) has noted that in many societies rites of passage play an important role in marking the progression of children to adulthood. The sequential steps often take the form of initiation ceremonies that help to construct the individual's social position and sexual identity and until the completion of that activities has taken place the children were viewed as neither male nor female (Yates 1993, p. 48). Similarly, gender ambiguity has been linked with adult ritual activities. Both Ochshorn (1996) and Asher-Greve (1997)

have explored this concept concluding that asexuality, sexual ambiguity and gender fluidity were often associated with people participating in ritual actions or performing as musicians.

The second group is made up of another elaborately costumed individual, donning a red robe with white and black trim and an unusual basketlike mask, containing an unusual, possibly metallic, object that was impressed into the plaster surface (Drabsch and Bourke 2014, p. 1092). This figure was leading three naked followers who have wing like attachments. The ornate robes worn by some of the figures and the nudity of the others would suggest a certain hierarchy, including leaders and their followers and it is likely that the scene records an important ritual event.

2.4. The 'Tiger/Landscape' Fresco (Early Chalcolithic ca. 4700 BC) PBI Stratum II

Possibly the oldest fresco from Teleilat Ghassul excavated to date, is the misnamed 'Tiger' mural, belonging to the PBI stratum II, and likely dating to the Early Chalcolithic period (ca. 4700 BC). This tri-colour mural was uncovered just above virgin soil when PBI excavations were renewed under the directorship of Robert North in 1960 in an area of Tell 3 that had produced wall paintings, such as the 'Notables' fresco in higher levels during previous seasons (North 1961, p. 36). The excavators record that the large mural came from an imposing room that was approximately 10 m in length, containing several painted plaster walls and a semi-circular stone structure, which they thought might have been an altar or dais (North 1960, p. 36). North noted that the most discernible decoration was found on the innermost of a succession of ten replasterings. The black, white and red design, which North called the 'Tiger' due to its white stripes, was photographed and painted in situ by the resident artist before removal, at which time they found a small star and striped masks on other surfaces of the plastered wall, making a secondary tableau (North 1961, pp. 33–35). Unfortunately, most of the original fresco was badly damaged while being lifted from the trench and could not be conserved, leaving the photographs and painting produced by the excavation's resident artist, Panayot Hanania, our only and key source of information.

Upon viewing the original photographs and the artist's on-site painting, and analysing North's handwritten notebooks held at the Pontifical Biblical Institute in Jerusalem, it became apparent that the distinctive 'eyes' on the right-hand side of the design most likely belonged to another composition, corresponding instead with the other masks and star that were noted. After the digital removal of the distracting top-layers, the misnamed 'Tiger' fresco featured a completely different scene. The mural now evokes a landscape painting, showing pathways, ravines, cultivated areas, mountain peaks and a rising or setting luminary (Figure 5). The subject of this painting, rather than depicting a leaping tiger, is most likely the distinctive mountain range situated immediately to the east of Teleilat Ghassul.



Figure 5. Revised Tiger/Landscape fresco (created by author).

If one stands on the altar arc of the sanctuary complex at Teleilat Ghassul and faces east, the elongated profile of Mount Nebo and Siyagha, present an outline strikingly similar to the one recorded in the ancient fresco. These neighbouring mountains are rich in Chalcolithic features and may well have been a focus of ritual activities carried out on, or about, the Sanctuary A altar arc as the sun or moon rose over the highlands. Although landscape scenes are rare during this early period, they are not completely unknown, with the fresco from Neolithic Çatalhöyük possibly depicting a volcano erupting over a nearby town being the most famous example (Mellaart 1967, p. 148).

3. Discussion

3.1. Technical Evaluation

The polychrome murals of Ghassul were often repainted up to 20 times on successive layers of lime plaster, making analysis of overall compositions problematic. Despite the difficulties in analysis it is possible to determine that scenes commonly depict geometric, figurative and naturalistic designs, employing a variety of mineral-based colours, including red, black, white and yellow (Hennessy 1969, p. 7). The coloured pigments used and those available but not employed are also of importance. Black, red and white were the most commonly available pigments and the most frequently utilised colours. Yellow pigment, while relatively easy to obtain, was nonetheless sparingly employed, perhaps indicating that the colour held a special significance to the Ghassulian artists.

Scientific analysis undertaken by both the ICCROM (Schwartzbaum et al. 1980, p. 5) and PBI teams (Mallon et al. 1934, p. 143) indicate that the white surface was created out of lime plaster prepared from the local limestone, which was high in minerals such as calcite, aragonite and quartz. Micro analysis for non-dispersive X-ray fluorescence revealed skeletal structures of shells and other marine organisms clearly visible in the intentionally added aragonite. This unburnt crushed limestone was used as a filler in conjunction with the slaked lime to create the plastered layers, as it was in the much later Aegean frescoes, providing longer painting periods suitable for the *buon fresco* method of painting and a stunning white surface (Cameron et al. 1977, p. 167; Jones and Photos-Jones 2005, p. 208). This method of applying pigments to a wet plaster surface is known as *buon fresco* and the final result is usually permanent and long-lasting decoration. The permanence of this method is due to a chemical reaction that takes place upon the drying of the plaster, when a hard crust of calcium carbonate is formed after combination of calcium hydroxide with the atmospheric carbon dioxide, which fixes the pigment into the wall itself (Jones and Photos-Jones 2005, p. 228).

There is sufficient evidence to suggest that different pigments were added in layers, with black being applied before the application of white, as seen in the striped masks, and yellow being added as a final highlight. Sometimes a thin wash of yellow pigment was added directly on top of the red pigment, providing an interesting orange effect. These final layers were most likely mixed with lime milk to aid in their adhesion to the drier surface below.

Further evidence to suggest that these ancient murals were created using the *buon fresco* technique is apparent on close examination of the remaining fragments, where surface manipulation of the fresh plaster is still visible. Fragments from the Star fresco show indications of string-impressed lines on the surface layer, suggesting that the intricate star design was planned and carefully laid out using a taut string to provide the straight lines necessary for the large and complex composition whilst the plaster was still wet. In addition, surface manipulation is also found in North's 'Geometric' fresco in the form of numerous indentations or craters with diameters of 3 cm, impressed into the lime plaster that most likely contained precious objects of some kind (North 1960, p. 389). This technique was also used in Hennessy's Processional fresco where original photographs suggest that a metallic object was impressed into the wet surface. The combination of surface manipulation, the lack of evidence in the chemical analysis of any form of pigment binder and the longevity of these frescoes would imply that they were produced using the technically challenging *buon fresco* technique, making them some of the first true frescoes ever created.

The people who produced these early artworks were undoubtedly skilled artisans, trialing new technologies. The fact that these ancient murals were produced using the *buon fresco* technique is of considerable importance for art-historical studies. For too long the very early frescoes of the ancient Near East have been disregarded by art-historians, because they were unknown or considered not to be ‘true’ frescoes (Hood 1978, p. 48; Brysbaert 2008, p. 148). The numerous examples of wall paintings from the Neolithic, Chalcolithic and Early Bronze Age periods in the extended Fertile Crescent have been largely overlooked in favour of the later Aegean examples. Some scholars have claimed that the fresco technique ‘evolved in Crete (Jones and Photos-Jones 2005, p. 220), and then transferred from ‘west to east’ (Brysbaert 2008, p. 155). The frescoes from Ghassul demonstrate that the *buon fresco* technique of painting did not originate in Crete but was most likely developed in later prehistoric times in the Levant. It may be that this technology was transferred from the east, westwards into Egypt and the Aegean, contrary to Brysbaert’s suggestion.

3.2. Art-Historical Importance

There are two major issues within art historical studies that the Ghassulian frescoes can contribute to, the first concerning compositional style, and second the employment of colour.

Concerning the development of compositional style, recent important work on the inspiration and timing for the development of narrative style in artistic composition grew out of Schmandt-Besserat (2007) study on Mesopotamian seal use. One important conclusion from her work was the apparent relationship between the development of writing, seal use and linear narrative compositions, which she asserted had its origins in the Proto-literature Age of the later Fourth Millennium BCE (pp. 184–89).

However, recent consideration of the mid-Fifth Millennium BCE Ghassulian frescoes suggests an earlier origin for the linear narrative style, with ground lines and narrative direction in several compositions (especially in the Notables and the Procession), in obvious contradiction of Schmandt-Besserat’s scheme (Drabsch and Bourke 2014, p. 1095). This suggests linear narrative style had its origins at least a thousand years earlier than Schmandt-Besserat proposed, and perhaps more importantly given the preliterate status of the Ghassulian culture, had no demonstrable link to the development of writing.

That being said, it may be unwise to classify as ‘unstructured’ compositions which do not follow a formal linear narrative directional style, as quite sophisticated executions such as the Ghassul Star seem to combine a prominent central motif (the multifaceted star), and surrounding elements which could be argued to illustrate events within a ritual ceremony, involving processions of masked individuals, sacred animals and a sanctuary complex.

Interpretations of the richly detailed wall painting from Hierakonpolis Tomb 100, illustrating such Egyptologically significant elements as the warrior and opposed lions (the so-called ‘Gilgamesh’ motif), paired warriors in single combat, various hunting tropes, and the ‘smiting pharaoh’ motif, all set below a double line of curved-hull boats (Case and Payne 1962, pp. 12–16, Plate I; Kemp 1973, p. 37, Plates XXIII–XXV) have long been bedeviled by attempts to view them as a linear narrative (Midant-Reynes 2008, pp. 208–10). It may be that the association of individual elements may not be sequential and narrative, even though the scene is executed in two registers of linear motifs, but should perhaps be viewed as a singular multifaceted ritual/symbolic composition (Tefnin 1979, p. 224).

In the absence of clear literary/inscriptional support, some debate must remain about the introduction of linear narrative style to the mid-Fifth Millennium BCE, but there seems little doubt that as the subsequent Early Bronze Age (roughly the 4th–3rd Millennia BCE) unfolds, linear narrative compositions come to dominate seal art, both in Mesopotamia, as highlighted by Schmandt-Besserat (2007), and also in the (very probably related) seal art of the south Levantine Early Bronze Age (De Miroshedji 2011; Paz et al. 2013). Here, most interestingly, de Miroshedji draws direct parallels between the cult-related motifs on south Levantine Early Bronze Age (hereafter EBA) seals and elements well familiar in Ghassulian art, such as processions of animal-masked figures

(De Miroschedji 2011, pp. 74–80), strongly implying cultural continuity between the two sequential compositional assemblages.

The second potential contribution that the Ghassul frescoes make to art-historical studies concerns colour use. Red, black and white pigments were the most commonly employed, with the red/black contrast deployed to great effect on the Star, suggesting a deliberate juxtaposition with acknowledged symbolic force. Yellow pigment, while easy to obtain, was but sparingly employed, and it may be that the yellow/gold colour held a special significance, only employed to highlight objects and/or people of enhanced status.

The absence of blue/green colour is of perhaps greater significance, as the Ghassulian Chalco-(copper) lithic-(stone) period was the time in which copper metallurgy first comes to prominence within the material assemblages of the culture. It seems probable that both malachite (green) and azurite (blue) pigments were known to Ghassulian artists, given the broadly contemporary exploitation of the Faynan copper ores and the widespread association of Ghassulian cult and complex copper metallurgy (Levy 1986, p. 90; Bar-Adon 1980; Ussishkin 2014), and yet there is no convincing evidence that blue/green colour was ever employed in Ghassulian wall art. It is possible that blue/green colour was used (sparingly), but is no longer preserved, as the wet lime (*buon fresco*) technique might have played havoc with copper-based pigments (Cameron et al. 1977, p. 168; Pastoureau 2001, p. 22; Drabsch 2015, p. 128).

In slightly later (EBA) Mesopotamian practice, the brilliant blue colouration of lapis was employed in sculpture to indicate deity, with emphasis placed on eyes, nails and hair (Warburton 2007, pp. 230–39). Parallel with this, Egyptian Old Kingdom elite tomb architecture went to great lengths to veneer cult chambers with turquoise panelling, suggesting a similar association of blue colouration and the sacred (Edwards 1987, pp. 48–49, Plate 13; Corteggiani 1987, pp. 34–35, Plate 11). One is tempted to suggest that the later engagement with blue/green colour and its explicit association with deity should not be linked to the first (Chalcolithic) exploitation of copper ores, but viewed rather as one result of the (Early Bronze Age) mining of lapis in Afghanistan, and turquoise in the Egyptian Sinai. It may be that blue/green pigments did not prove colour fast when combined with fresh lime plaster, or (more probably) that blue/green colours did not feature in the Ghassulian artistic palette, playing no role in the Fifth Millennium BCE Chalcolithic cultic or artistic world-view (Thavapalan 2018, Section VI, pp 3–4).

3.3. Archaeological and Anthropological Importance

The built architecture and suburban landscape of Ghassul has long been difficult to categorize. The first clearances on the south/central mounded area (Tell 1–2) by Mallon (1929–31) exposed a roughly 60 m × 50 m area populated with rectangular 15 m × 5 m dwelling units, some with enclosed polygonal courtyards, all associated with irregular open spaces, and linked by winding alleyways (Mallon et al. 1934, pp. 32–34, Figure 12). Later excavations on the more northerly Tell 3 by Mallon and his team during 1931–1934 and Koepfel during 1936–1938 exposed a larger 150 m × 70 m rectangular area (Koepfel et al. 1940, End-Plan I (Niveaux IVB and IVA); Lee 1973, pp. 168–76, Plans 1 and 2). Excavations here uncovered a more complex architectural landscape, featuring larger, roughly square, multi-room complexes, featuring enclosed courtyards and many small rooms lining the inner courtyard perimeter on three sides, with a multi-room complex of large and small units, generally situated at one end of the courtyard complex (Bourke 2008, pp. 123–24).

Most general discussions of Chalcolithic architecture inevitably characterize Ghassul by the Tell 1 settlement plan (Porath 1992, pp. 41–42), ignoring the more complex and varied architectural units discovered on Tell 3 in later campaigns (Bourke 2008, p. 123). Most of the better-known wall paintings from Ghassul (Star, Notables and ‘Tiger’) derive from these multi-room complexes situated on Tell 3 (Lovell 2010, Figure 4) but the failure to correctly characterize these architectural contexts meant that early commentators (Porath 1992) implied that the wall paintings came from generic, undifferentiated

housing units, such as those typified in Tell 1 discoveries, which featured only in schematic form in the first publication (Mallon et al. 1934, Figure 12).

Some of the Tell 3 occupational horizons were published by Koepell in the early years of the Second World War (Koepell et al. 1940, pp. 5–23), but illustrated most schematically, in complex multi-phase and difficult to interpret endpapers (Koepell et al. 1940, End-Plates I & II), and largely ignored because of it (Lee 1973, pp. 168–71). When discussing the find-spots of the wall paintings, later commentators concluded that paintings came from just such undifferentiated domestic structures as those schematically illustrated in the earlier (Mallon et al. 1934) publication, but this surmise was incorrect on almost all counts (Bourke 2008, pp. 123–24). The buildings that contained the Star, ‘Tiger’, Notables and Processional wall paintings were certainly among the most elaborately constructed and fitted out in their respective architectural complexes, and several contained rich assemblages of decidedly non-prosaic artefacts (Drabsch 2015, pp. 66–103). When studying the earlier (and more famous) wall paintings from Çatalhöyük, a number of commentators (During 2005; Hodder 2007) have suggested that the buildings in which the Çatalhöyük paintings were found are exceptional in contents (burial numbers and associated goods), if not in structural form, although building continuity over time was identified as a key feature in characterising the importance of these structures (During and Marciniak 2005, pp. 175–80, Figure 5). Analysts have proposed that the Çatalhöyük painted structures be identified as ‘history houses’, which curate and celebrate the memories and physical remains of prominent members of social/lineage groups that underpinned the long-lived Neolithic society at Çatalhöyük (Hodder 2007, p. 109).

While the Ghassulian painted structures are not associated with the numerous adult burials unique to Çatalhöyük, they do have an (perhaps less overt) association with child burials (Lovell 2010, p. 113, Figure 4) which may serve to sanctify, protect and enrich symbolically the associated structures (Yıldırım et al. 2018, pp. 166–169). As well, the subject matter of the Ghassul paintings are more obviously symbolic/cultic (the ‘Star’ and the ‘Tiger’), or specifically anthropological (the ‘Notables’ and ‘Processional’) than those from Çatalhöyük (Drabsch 2015, pp. 154–62). In a previous analysis of the ‘Processional’ wall painting (Drabsch and Bourke 2014, p. 1096), we have suggested a public procession/cultic ceremonial interpretation for the ‘Processional’ wall painting, highlighting the ‘group-affirming’ public cult purpose behind the representation.

A similar case for anthropological relevance can be made for the ‘Notables’ fresco, as this illustrates a line of sitting richly attired figures, facing a much smaller figure drawn in silhouette, standing beside a prominent red and yellow painted star. The overall composition was deemed implicitly hierarchical by earlier commentators (Stager 1992, p. 28), and provides an intriguingly close (but much earlier) parallel for later Sumerian ‘Banqueting’ scenes, familiar from Sumerian glyptic (Aruz 2003, pp. 109–10), and most prominently illustrated in the famous ‘Standard of Ur’ inlays (Aruz 2003, pp. 97–100). As there are few agreed-upon material correlates to social stratification in later prehistory (Rowan and Golden 2019, pp. 66–69; Drabsch and Bourke 2014, p. 1095), such visual representational ‘hints’ as to the status of Ghassulian society are especially valuable, as are the potential symbolic/organizational parallels with Mesopotamian literate society, as here the first written texts vastly enrich knowledge of the social and artistic makeup of Sumerian civilization (Aruz 2003, pp. 451–53).

The most prominent symbol displayed on Ghassulian wall painting is the star, exemplified by the intricate design and careful execution in the ‘Star’ mural, detailed above. This huge geometric mural must have dominated the entire wall (and room) on which it was found. It is associated with processions of masked individuals, exotic animals and representations of an arguably cultic complex, all suggestive of a richly symbolic composition. When this discovery is coupled with that of the ‘Notables’ fresco, with the employment of a prominent star as an attention-fixing device, it seems manifest that the Star symbol had great cult/symbolic significance for the Ghassulians. Drabsch (2015, p. 154) has previously suggested that this Ghassulian ‘entanglement’ with star-symbolism be viewed in the context of later Mesopotamian worship of Ishtar, represented in Sumerian cult as a prominent star

(perhaps Venus). If this association has value, then it may be that the ‘Star’ mural illustrates the chief goddess of the Ghassulian culture on the wall of an early shrine/temple, and the ‘Notables’ a representation of a cult ceremony taking place in just such a temple/shrine.

The question of the existence of specialised cult complexes in the Chalcolithic remains highly controversial (Seaton 2008; Rowan and Ilan 2007, pp. 250–52), even though the broad similarities between the cultic enclosures at Gilat, En Gedi and Ghassul (where numerous small wall painting fragments were detected within destruction debris layers) are now grudgingly acknowledged (Rowan and Golden 2019, pp. 56–60; Rowan 2014, pp. 233–34). In this context, such wall paintings as the Star, Notables and Processional provide considerable evidence supporting the existence of distinctive cult complexes, dedicated specialist servitors, and public cult ceremonies (Drabsch and Bourke 2014, p. 1096).

The timing of the development of social complexity, and more particularly the emergence of structured inequality and hereditary elites, has long fascinated anthropologists (Yoffee 2005; Flannery and Marcus 2012), and here too the Ghassul wall paintings have a role to play, as the status of the Ghassulian culture within any such notional developmental framework is equally contested (Bourke 2008, p. 145; Ilan and Rowan 2011). Garfinkel’s seminal study (Garfinkel 1998) of dance and ritual in the Levantine Neolithic/Chalcolithic periods illustrated in relevant artworks, argued for a sequential development in representations of group dancing, which moved from a Neolithic norm featuring circles of similarly-sized dancers, to size-differentiated processions of dancers in the later Chalcolithic period (Garfinkel 1998, pp. 211–14). Garfinkel characterized this process as a movement from group-affirming egalitarian circle-dancing in the Neolithic, to one of hierarchically arranged linear processions in the Chalcolithic (Garfinkel 1998, pp. 226–31). The prominence of one large figure leading the Ghassul Processional wall painting (Drabsch and Bourke 2014, p. 1090) would seem to fit well within Garfinkel’s scheme, illustrative of another hierarchical event, similar in symbolic content to that indicated in the Notables painting (Drabsch and Bourke 2014, p. 1095). Together the compositions of both the Notables and Processional wall paintings provide strong supporting evidence for the existence of elite individuals, and a visible social stratification in the society of the later Chalcolithic age in the southern Levant.

4. Conclusions

The prehistoric wall paintings from Teleilat Ghassul have been largely ignored in various technical, artistic and compositional overviews of prehistoric art in the post-war years. And yet, considering their aesthetic beauty and technical sophistication, compositional uniqueness and anthropological importance, such an oversight remains inexplicable. Before Drabsch’s (2015) thorough re-examination of the more prominent wall paintings, there were few mentions, far less studies, of Ghassulian frescoes between Mallon’s initial publication in the 1930s (Mallon et al. 1934), and Cameron’s pamphlet in the 1980s (Cameron 1981).

Partly this may have been due to the relatively obscure final reports on the Ghassul excavations, appearing in Rome immediately before (Mallon et al. 1934) and during (Koeppel et al. 1940) the Second World War. As well, the contemporary discovery and lavish publication of the brilliant wall art from Minoan Knossos (Evans 1921–1935; Chapin 2010, pp. 225–27) tended to overshadow Levantine discoveries, and this, along with the post-war concentration on the Neolithic origins of civilization, and the discovery of much the earlier wall paintings at Çatalhöyük in central Anatolia (Mellaart 1967), saw the Ghassul materials slip into obscurity.

The current presentation aimed to describe some of the more spectacular frescoes from Ghassul, underline their precocious technical and artistic sophistication, while highlighting their unique anthropological importance. These first true frescoes provide a precious window on the world of the Chalcolithic Ghassulians, some six thousand years ago. Whether viewed as the end-point of millennia-long prehistoric traditions, or as the harbinger of the societal complexity soon to arise in the

world's first urban civilisations, the wall paintings of Teleilat Ghassul deserve a prominent place in the art history of the world.

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