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## MENORAHS IN COLOR: POLYCHROMY IN JEWISH VISUAL CULTURE OF ROMAN ANTIQUITY\*

### *Abstract*

*In recent years, polychromy has developed as a significant area of research in the study of classical art. This essay explores the significance of this work for interpreting Jewish visual culture during Roman antiquity, through the focal lens of the Arch of Titus Digital Restoration Project. In July 2012, this project discovered that the Arch of Titus menorah was originally colored with yellow ochre paint. The article begins by presenting the general field of polychromy research, which has developed in recent years and resulted in significant museum exhibitions in Europe and the US. It then turns to resistance to polychromy studies among art historians, often called "chromophobia," and to uniquely Jewish early twentieth-century variants that claimed that Jews were especially prone to colorblindness. After surveying earlier research on polychromy in Jewish contexts, we turn to polychromy in ancient Palestinian synagogue literature and art. Finally, the article explores the significance of polychromy for the study of the Arch of Titus menorah panel, and more broadly considers the importance of polychromy studies for contextualizing Jewish attitudes toward Roman religious art (avodah zarah).*

From June 5 to 7, 2012 an international team of scholars led by the Yeshiva University Center for Israel Studies, in partnership with the Soprintendenza Speciale per i Beni Archeologici di Roma, undertook a pilot study of the Arch of Titus, near the Roman Forum, the ancient civic center of Rome, Italy. The focus of attention was the menorah panel and the relief showing the deification of Titus at the apex of the arch. High resolution three-dimensional scans of the menorah and the deification reliefs were made, and part of the menorah relief was examined to determine whether any traces of paint decoration were preserved. Traces

of yellow ochre were found on the arms and base of the menorah. Dr. Piening was responsible for detecting the traces of yellow ochre on the menorah relief. His discovery was all the more remarkable in that he uses a non-invasive technique called UV-VIS spectrometry, which means that the arch can be studied with no risk of damage.<sup>1</sup>

The Arch of Titus Digital Restoration Project, of which I am the director, is the first major research project related to polychromy in an artifact of significance for the history of Judaism as yet undertaken (fig. 1). It is, in fact, part of a larger transformation in contemporary scholarship, whereby the significance of polychromy in ancient art has become a major new preoccupation. My purpose in this article is to present a kind of prolegomenon to the study of polychromy in ancient Jewish visual culture, both in terms of Jewish studies in Roman antiquity and within the larger frame of Roman art and archaeology. I will focus upon the polychromy of the menorah, and suggest some of the implications of this work for the larger study of Jewish culture during this period.

Truth be told, it is astonishing that the discovery of a few dots of yellow paint on the Arch of Titus menorah became international news. Any reader of the Bible, Josephus, or the Talmud<sup>2</sup> could reasonably ask, as some innocent members of the public have, "What other color would it be?" This question is far more insightful than it appears at first glance. Polychromy presents a stark contrast to the neo-classical and modernist fascination with whiteness, with black, white, and the shades in between. One modern author, David Bachelor, has even referred to this fascination with

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\* This essay is for Professor Ziony Zevit of the American Jewish University. Many thanks to Peter Schertz, Maya Balakirsky Katz, and Nachman Levine for reading earlier drafts of this paper.

<sup>1</sup> "Yeshiva University Team Discovers the Arch of Titus Menorah's Original Golden Color," June 22, 2012. The entire press release is available at <http://yu.edu/cis/activities/arch-of-titus/> (accessed January, 2013). See the preliminary report of this research by

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Heinrich Piening in this issue of *Images*.

<sup>2</sup> The literature on the menorah is vast. For a recent summary statement see Steven Fine, *Art and Judaism in the Greco-Roman World: Toward a New Jewish Archaeology* (Cambridge: Cambridge University Press, 2005), 148–65; *ibid.*, *Art, History and the Historiography of Judaism in Roman Antiquity* (Leiden: Brill, 2014), and my forthcoming *The Menorah: A Biography* (provisional title) (Cambridge, MA: Harvard University Press).



Fig. 1. The Arch of Titus, Rome, June 6, 2012. Courtesy of the Yeshiva University Center for Israel Studies.

whiteness to the exclusion of color as “chromophobia,” intending the sense of irrationality that the term “phobia” connotes.<sup>3</sup> In her 2006 essay, “Late Antique Aesthetics, Chromophobia, and the Red Monastery, Sohag, Egypt,” Elizabeth S. Bolman used the term “chromophobia” in relation to classical and late antique art, writing that “Western art and architectural historians have traditionally had something of a love affair with pristine white classical sculpture and architecture, often ignoring the colored paint that embellished both.”<sup>4</sup> Jan Stubbe Østergaard goes further: “A powerful trinity of Western ideals of the highest order— aesthetic, philosophical, and ideological—were grafted onto the white marble surface at the turn of the eighteenth and nineteenth century. The rediscovery of the polychromy of ancient sculpture and architecture accordingly meant—and still means—to challenge these ideals to their very core.”<sup>5</sup> Chromophobia has even touched our Arch of Titus Project. Soon after the announcement of our discovery in the *New York Times*,<sup>6</sup> an author in *The New Republic* attacked our enthusiasm for this work, and the discoveries themselves. Rochelle Gurstein expressed disdain for any work that changes the image of the ancient Rome preserved in the writings of Edward Gibbon (d. 1794),<sup>7</sup> or in the engravings of Giovanni Battista Piranesi (d. 1778).<sup>8</sup> Gurstein wrote: “I was struck by the international reach—Bavaria, New York, Virginia, Rome—of this project to get the colors of ancient Rome right; and how the image of a brightly

colored ancient Rome felt as disorienting to me as the image of a medieval Rome with ancient monuments turned into fortresses. But I also could not help thinking that this international project was another sign of the predominance these days of science and technique over humane learning. . . .”<sup>9</sup>

During the 1980s, scholars—mainly museum professionals—focused their attention on pigment remains on Greek and Roman artifacts. Scholars in Copenhagen and Munich in particular focused upon the discovery and reconstruction of the original polychromy of ancient artifacts, mounting exhibitions—some of them called *Bunte Götter*, and *Gods in Color*—in Munich, Istanbul, Cambridge MA, Berlin, Malibu, and other cultural centers.<sup>10</sup> The next generation of scholars, Europeans and Americans, scoured classical sources for mention of ancient polychromy and studied additional objects, more recently broadening their studies to include Assyrian and other near eastern artifacts.<sup>11</sup> The ancient world that they have discovered is a true “carousel of color,” as Walt Disney called it in the theme song of his long-running television program, “the world is a carousel of color, wonderful, wonderful color.”<sup>12</sup> “Baby boomers,” those of us brought up on the transition from black and white television to color (which hit its stride in the mid-1960s), might well remember celebratory messages declaring, “the following program is brought to you in living color.”<sup>13</sup> For those still watching black and white televisions, the lesson was

<sup>3</sup> David Bachelor, *Chromophobia* (London: Reaktion, 2000).

<sup>4</sup> Elizabeth S. Bolman, “Late Antique Aesthetics, Chromophobia, and the Red Monastery, Sohag, Egypt,” *Early Christian Art* 3 (2006): 1–24.

<sup>5</sup> Jan Stubbe Østergaard “The Polychromy of Ancient Sculpture: A Challenge to Western Ideals?,” *Circumlitio: The Polychromy of Antique and Mediaeval Sculpture*, ed. Vinzenz Brinkmann, Oliver Primavesi, and Max Hollein (Frankfurt am Main: Liebieghaus Skulpturensammlung, 2008), 82.

<sup>6</sup> Elisabetta Povoledo, “Technology Identifies Lost Color at Roman Forum,” *The New York Times*, June 24, 2012, <http://www.nytimes.com/2012/06/25/arts/design/menorah-on-arch-of-titus-in-roman-forum-was-rich-yellow.html> (accessed January 2013).

<sup>7</sup> Edward Gibbon, *The History of the Decline and Fall of the Roman Empire* (London: Printed for W. Strahan and T. Cadell in the Strand, 1781).

<sup>8</sup> Giovanni Battista Piranesi, *Opere varie di architettura, prospettive, grotteschi, antichità: Sul gusto degli antichi romani* (Rome: Si vendono presso l’Autore, 1750).

<sup>9</sup> Rochelle Gurstein, “In Praise of Ruins: What the Fallen Grandeur of Ancient Rome Teaches Us,” *The New Republic*, July 3, 2012, <http://www.newrepublic.com/article/books-and-arts/104636/hed#> (accessed January, 2013).

<sup>10</sup> Vinzenz Brinkmann and Raimund Wünsche, *Bunte Götter: Die*

*Farbigkeit antiker Skulptur* (Munich: Stiftung Archäologie and the Staatliche Antikensammlungen und Glyptothek, 2004); *ibid.*, *Gods in Color: Painted Sculpture of Classical Antiquity: Arthur M. Sackler Museum, Sept. 22, 2007–Jan. 20, 2008* (Cambridge, MA: Harvard University Art Museums, 2007); Brinkmann, Primavesi, and Hollein *Circumlitio*. For late antiquity, see Bolman, “Late Antique Aesthetics.” For an extensive bibliography of polychromy research, see the website of the Ny Carlsberg Glyptotek, Copenhagen, <http://www.trackingcolour.com/> (accessed January, 2013).

<sup>11</sup> Giovanni Verri, Paul Collins, Janet Ambers, Tracey Sweek, and St John Simpson, “Assyrian Colours: Pigments on a Neo-Assyrian Relief of a Parade Horse,” *The British Museum: Technical Research Bulletin* 3 (2009): 57–62; Mark Bradley, *Colour and Meaning in Ancient Rome* (Cambridge: Cambridge University Press, 2009). See also <http://www.trackingcolour.com/>.

<sup>12</sup> Referring to the classic television program, which premiered in 1961, “Walt Disney’s Carousel of Color.” See Jay P. Telotte, *The Mouse Machine: Disney and Technology* (Urbana and Chicago, IL: University of Illinois Press, 2008), 53–55.

<sup>13</sup> This is the NBC logo. For television logos vaunting the transition on all three major networks, see <http://www.evl.pair.com/colorTV/colorTVlogos.html> (accessed January, 2013). This transition took place in the United States during the 1960s with much fanfare. In other places, it took place considerably later, in Israel—among

clear. Recently Mary Bergstein has made a similar point regarding human perceptions of color in dreams, arguing that the technology with which we live determines the color of human dreams. Thus, in a period when black and white photography was the norm, informants suggest that they dreamed in black and white, and with the transition to color photography and cinematography, dreams were reported to be polychromic. She applies this insight to art historical interpretation, suggesting that the technology of presentation—especially black and white photography—has determined and limited interpretation.<sup>14</sup>

Questions concerning the polychromy of Jewish artifacts are all the more problematic. Among the well-known racial claims for Jewish artistic deficiency made during the nineteenth and twentieth centuries, perhaps the oddest was the claim that Jews are deficient in their capacity to perceive color—that they have a propensity for color-blindness.<sup>15</sup> This approach ascribed Jewish artlessness to a racial characteristic. This notion found popular expression in an essay by Immanuel Benzinger, a German Protestant scholar of the Old Testament in the *Jewish Encyclopedia* (1902). In his oft-cited entry, “Art of the Ancient Hebrews,” Benzinger explains that:

It was the religion of the Jews that precluded the full development of the art of sculpture, and so confined it within the above-mentioned narrow limits. In the most ancient times, when images were not proscribed, the technical ability to make them artistically was lacking; and when in later periods this artistic skill might have been acquired from others, images were forbidden. The persistent fight of the Prophets against images was waged with such success that in the end not only was any representation of the Deity forbidden, but even the portraiture of living beings in general, man or beast. Such a command as that of the Decalogue (Ex. xx. 4; Deut. v. 8) would have been impossible to a nation possessed of such

artistic gifts as the Greeks, and was carried to its ultimate consequences—as to-day in Islam—only because the people lacked artistic inclination, with its creative power and formative imagination.

*The same reason, to which is to be added a defective sense of color* (see Delitzsch, “Iris, Farbenstudien und Blumenstücke,” pp. 43 *et seq.*; Benzinger, “Hebr. Archäologie,” pp. 268 *et seq.*), prevented any development of painting.<sup>16</sup>

Perhaps the most startling thing about this statement is that it appears in a distinctly Jewish context, with no hint of explicit antisemitic. Benzinger supports his assertion through citation of the great philo-semitic Protestant Bible scholar Franz Delitzsch, whose *Iris, Farbenstudien und Blumenstücke* had appeared in Leipzig in 1888 and in English in 1889, leaving no doubt of Benzinger’s accuracy. The problem is that even the briefest perusal of Delitzsch’s “Iris” completely debunks Benzinger’s assertion, which Delitzsch clearly perceived to be an antisemitic slight.<sup>17</sup> Delitzsch drew his proofs from Jewish literature of antiquity, perhaps the most ingenious of which is his assertion that rabbinic sources that discuss slight distinctions in color between, say, blue and green at dawn and the colors of menstrual blood, reflect the deep color nuance of which rabbis were capable.

Yet Benzinger is not the only scholar to present color deficiency as a Jewish trait in the *Jewish Encyclopedia*. In another *Jewish Encyclopedia* article, this one entitled “Eye,” New York “physician and anthropologist,” Maurice Fishberg,<sup>18</sup> summarizes the *communis opinio among his mainly Jewish colleagues*, ascribing supposed high levels of colorblindness among Jews to social conditions:

The average percentage of color-blindness among Jews examined by Cohn, Carl, Ottolenghi, and others, is about 4 per cent. Among the English Jews Jacobs has found that

the latest—not until around 1980. See [http://en.wikipedia.org/wiki/Television\\_in\\_Israel#Colour\\_transmissions](http://en.wikipedia.org/wiki/Television_in_Israel#Colour_transmissions) (accessed January, 2013).

<sup>14</sup> Mary Bergstein, *Mirrors of Memory: Freud, Photography and the History of Art* (Ithaca, NY: Cornell University Press, 2012), 132–35. Many thanks to Maya Katz for bringing this reference to my attention.

<sup>15</sup> On alleged Jewish colorblindness, see Raphael Patai and Jennifer Patai, *The Myth of the Jewish Race* (Detroit: Wayne State University Press, 1989), 287–89.

On the trope of Jewish artlessness, see Kalman Bland, *The Artless Jew: Medieval and Modern Affirmations and Denials of the Visual* (Princeton, NJ: Princeton University Press, 2000); Margaret Olin,

*The Nation Without Art: Examining Modern Discourses on Jewish Art* (Omaha: University of Nebraska Press, 2002).

<sup>16</sup> Immanuel Benzinger, “Art of the Ancient Hebrews,” *The Jewish Encyclopedia* (New York: Funk and Wagnalls, 1901–5), 2:141 (emphasis added).

<sup>17</sup> Franz Delitzsch, *Iris: Farbenstudien und Blumenstücke* (Leipzig: Dörffling & Franke, 1888); translated as *Iris: Studies in Colour and Talks about Flowers*, trans. Alexander Cusin (Edinburgh: T. & T. Clark, 1889), 101–28, accessed February, 2013, <http://books.google.com/books?vid=HARVARD:32044069566255&printsec=titlepage#v=onepage&q&f=false>.

<sup>18</sup> Frank H. Vizetelly, “Maurice Fishberg,” *The Jewish Encyclopedia*, 5:404.

it is more than three times as large as this. These investigations confirm the general observations that color-blindness is more frequent in men than in women (Havelock Ellis, "Man and Woman," pp. 138–145). They also show that the East End (London) Jews, who are poorer, have a larger percentage of color-blindness than their wealthier brethren of the West End. [Joseph] Jacobs attributes color-blindness to the fact that the Jews are town-dwellers, where comparatively so little color, and especially so little green, is to be met with.<sup>19</sup>

To this high proportion of color-blindness he also attributes "the absence of any painters of great ability among Jews, and the want of taste shown by Jewesses of the lower grades of society," which manifests itself in the preference for bright primary colors for wearing-apparel.

It must also be remembered that in the main the Jews in almost every country are poor. They are consequently the class of people which is most predisposed to color-blindness. In the "Report" of the Committee on Color-Blindness appointed by the Ophthalmological Society of London it is stated that the reason for the high percentage of color-blindness found among the Jews lies in the fact that those of them who were examined were principally of the poorer class.<sup>20</sup>

For Fishberg, unusually high levels of Jewish color blindness were a reality. It was caused by poverty, and not by Judaism itself, as it was for Benzinger. Jacobs and his collaborator, Isidore Spielman, conclude their article by suggesting that:

Where there is so large an amount of total colour blindness, there must also co-exist a still larger proportion of dulled sense of colour and a general lack of interest in the delights of colour, especially in its more refined forms. It seemed to us worth while calling attention to this defect, as it is probable that early training can in some measure overcome it, and it is clear that colour lessons should form part of every Jewish child's training.<sup>21</sup>

The generous inclusion of Jewish visual culture—including numerous color plates—in the beautifully designed *Jewish Encyclopedia*<sup>22</sup> are indeed intended to

distance the Americanized community that produced it from charges of artlessness and color blindness.

An additional aspect of the Jewish experience has discouraged the study of polychromy in Jewish art and architecture. The omnipresence of black and white photography of Eastern European Jewry before the Second World War and especially during the Holocaust has served to reinforce a melancholy ("lachrymose") view of Eastern European Jewish culture, and at the same time to push that world farther into the past than it actually is. Samuel Gruber, head of the Jewish section of the World Monuments Society, made a similar point when a series of brilliantly colored tombstones was discovered in Radom, Ukraine:

These finds give impetus to a reevaluation of Jewish religious, popular and folk art in Eastern Europe. Because so much art was destroyed in the Holocaust, and because most of what was documented is known only in black and white images, we have inherited a skewed view of Jewish aesthetics. The veil of memory, inevitably somber and dark because of the tragedy of the Holocaust, has dimmed much of the exuberant color of pre-Holocaust Jewish life.<sup>23</sup>

Scholars of Jewish art, particularly of ancient synagogues, medieval manuscripts, and wooden painted synagogues, have long recognized the exuberant color of this material. The point I am making is that while "chromophobia" was an established position in regard to classical and neo-classical art, it was an even greater problem for Jewish materials, further distancing the possibility of really engaging this material.

This is not to say that some tentative steps were not underway. An exhibition entitled *Colors from Nature: Natural Colors in Ancient Times* at the Eretz Israel Museum in Tel Aviv in 1993 was moving in this direction.<sup>24</sup> Sylvia Rozenberg's work on the pigments and color decoration of Herod's palaces and on the Herodian temple at Omrit in northern Israel might be particularly suggestive for reimagining the polychromy of the Jerusalem Temple.<sup>25</sup> Purple (*argamon*)

<sup>19</sup> Joseph Jacobs and Isidore Spielman, "On the Comparative Anthropometry of English Jews," *The Journal of the Anthropological Institute of Great Britain and Ireland* 19 (1890), 83–84. The comments of these authors are far more classist than those of the American Fishberg: "Of its effects we may refer to two: the absence of any painters of great ability among Jewish celebrities, and the want of taste shown by Jewesses of the lower grades of society in the choice of materials for dress, &c." (p. 84).

<sup>20</sup> Maurice Fishberg, "Eye," *The Jewish Encyclopedia*, 5:311–13.

<sup>21</sup> Jacobs and Spielman, "On the Comparative Anthropometry of English Jews," 84.

<sup>22</sup> See Fine, *Art and Judaism*, 19–20. For color plates in the *Jewish Encyclopedia*, see the frontispieces to vols. 1, 4, 6, 8, and 12.

<sup>23</sup> See <http://samgrubersjewishartmonuments.blogspot.com/2008/07/poland-remarkable-discovery-of.html>. For additional images of the tombstones see <http://www.polin.org.pl/cities/363/galeria/16869/2/> (both accessed February, 2013).

<sup>24</sup> Hagit Soreq and Etan Ayalon, eds., *Colors from Nature: Natural Colors in Ancient Times* (Tel Aviv: Eretz Israel Museum, 1994), Hebrew with English summaries.

<sup>25</sup> Sylvia Rozenberg, "Pigments and Fresco Fragments from Herod's Palace at Jericho," Soreq and Ayalon, eds., *Colors from*

and royal blue (*tekhelet*) dyes extracted from Muricidae mollusks—well known from classical, biblical and rabbinic literatures—have been a subject of particular interest to Jewish and Israeli scholars since Isaac Herzog’s groundbreaking 1913 dissertation.<sup>26</sup> On a communal level, this research has been essential to a resurgence in the wearing of royal blue ritual fringes (responding to Numbers 15:37–41) among some Orthodox Jews.<sup>27</sup>

My own concern with polychromy was sparked by a group of sources preserved in rabbinic literature that refer explicitly to color. Frankly, I was not sure what to do with these sources, which jostled my preconceptions as well as my imagination, until I encountered the reconstruction of the polychromy on the so-called Sarcophagus of Alexander the Great carried out by Brinkmann and his team at the Archaeological Museum in Istanbul (figs. 2 and 3).<sup>28</sup> That vivid recreation was a jolt, and sent me in the direction of reevaluating both literary sources and ancient Jewish visual culture.

My immediate concern at that time was a liturgical poem by Yannai, a poet who flourished in Byzantine Palestine just before the Islamic conquest, perhaps in the sixth century. Yannai describes the biblical menorah in graphic terms:

Its parts were not welded together, but made from a [single] ingot,

The weight of a talent, of recognized value.  
Decorated with almond blossoms, [the lamps] inclined [toward the central lamp] and of beaten work, It was eighteen hand breadths tall in measure.

There were forty-two vessels on it, and all of them were drawn out of it.

*One gold was as in the vision, and the image of three [different] golds was seen.*

*The calyxes were formed (חרוץ) in green gold,*

*The bulbs in reddish ochre and the flowers in white.*

The shape of the calyxes was like cups,

According to the vision it was created and made.

The bulbs were made like apples,

And the beautiful flowers, like capitals (עמודים).<sup>29</sup>

What did it mean for the “golden” menorah to be formed of multi-colored gold? What was Yannai imagining? Let us assume for a moment that our poet (or at least his now-lost sources) was deeply scrupulous in his sense of technology, and would not suggest an object that he could not imagine could be fabricated. My first impulse was to suggest that various parts were made with differing admixtures of copper, silver, and other metals, adding a level of polychromy to the design.<sup>30</sup> The difficulty is that Exod. 25: 31–37 (= Exod. 37: 17–23) describes the menorah as having been made “of pure gold” and “of one piece,” and not assembled of individually cast objects. Seeking a solution, Daniel Sperber cites a rather rare tradition in the *Baraita*

*Nature*, 41–4; idem, “Interior Decoration in Herod’s Palaces,” *Herod the Great: The King’s Final Journey*, eds. Sylvia Rozenberg, David Mevorah (Jerusalem: Israel Museum, 2013), 110–15; idem, “Wall Painting Fragments from Omrit,” *The Roman Temple Complex at Horvat Omrit: An Interim Report*, eds. J. Andrew Overman, Daniel N. Schowalter (Oxford: Archaeopress, 2011), 55–72; idem, *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 excavations. Volume IV: The Decoration of Herod’s Third Palace at Jericho*, (Jerusalem: Israel Exploration Society, Institute of Archaeology, The Hebrew University of Jerusalem, 2008), 256–74; Ehud Netzer, with Roi Porat, Ya’akov Kalman, Rachel Chachy, “Herodium,” *Herod the Great*, eds. Rozenberg and Mevorah, esp. 148–60. See my “Polychromy and the Jerusalem Temple in Late Antiquity” *Talmuda de-Eretz Israel: Archaeology and the Rabbis in Late Antique Palestine*, eds. Steven Fine, Aaron Koller (Berlin: De Gruyter, forthcoming in 2014).

<sup>26</sup> Isaac Herzog “Hebrew Porphyrology,” ed. Moshe Ron, published in Ehud Spanier, ed., *The Royal Purple and the Biblical Blue (Argaman and Tekhelet): The Study of Chief Rabbi Dr. Isaac Herzog on the Dye Industries in Ancient Israel and Recent Scientific Contribution* (Jerusalem: Keter, 1987), 17–145 and the more recent contributions in this volume; See now: Zvi C. Koren, “Chromatographic Investigations of Purple Archaeological Bio-Material Used as Biblical Dyes,” *MRS Proceedings, Cultural Heritage and Archaeological Issues in Materials Science*, 1374 (2012), 29–48.

<sup>27</sup> Baruch Serman with Judy Taubes Serman, *The Rarest Blue:*

*The Remarkable Story of an Ancient Color Lost to History and Rediscovered* (Jerusalem: Gefen, 2012).

<sup>28</sup> Vinzenz Brinkmann, “A Colorful Legacy: The Colorants of the ‘Alexander-Sarcophagus’ in Istanbul,” in *Gods in Color*, ed. Brinkmann and Wünsche, 168–70.

<sup>29</sup> *Piyyut* to Exod. 26:1, *The Liturgical Poetry of Rabbi Yannai*, ed. Zvi M. Rabinovitz (Jerusalem: Bialik Institute, 1985–87), 1:330 (in Hebrew; emphasis added). See my discussion of this text in *Art and Judaism*, 162–63, upon which I build in this article. For an excellent introduction to Yannai’s oeuvre, see Laura S. Lieber, *Yannai on Genesis: An Invitation to Piyyut* (Cincinnati, OH: Hebrew Union College Press, 2010), 1–299.

<sup>30</sup> See Robert J. Forbes, *Studies in Ancient Technology* (Leiden: Brill, 1971), 8:171: “The alloys of gold and silver present a range of colours varying according to the increasing silver content from reddish yellow through pale yellow to white. For instance the modern alloy of silver and gold called ‘electrum’ (spec. grav. 12.5–15.5; 22–55% of gold) varies from pale yellow to white. By adding copper to a silver-gold alloy containing 10% of silver we get the modern alloy known as ‘green gold.’ A gold-silver-copper alloy was known in Antiquity as ‘Corinthian bronze’ (Pliny, Nat. Hist. IX. 139; XXXIV. 5–8; XXXVII. 49). The modern ‘white gold’ is a gold-platinum or a gold-nickel alloy.” Forbes is cited by Daniel Sperber, “Zutot,” *Jewish Studies: An Internet Journal* 11 (2012): 12–13 (in Hebrew), available online at <http://www.biu.ac.il/JS/JSIJ/11-2012/Sperber.pdf> (accessed March, 2013).



Fig. 2. Alexander Sarcophagus, Sidon, Lebanon, fourth century BCE, detail. Istanbul Archaeological Museum, courtesy of Wikipedia Commons.



Fig. 3. Alexander Sarcophagus, battle between Greeks and Persians. Partial color reconstruction on the basis of the preserved pigments. *Stiftung Archäologie*, 2006–7, reconstruction by V. Brinkmann, U. Koch-Brinkmann, H. Piening.

*de-Melekhet ha-Mishkan*, an early rabbinic reflection on the Tabernacle, suggesting that the calyces, bulbs, and flowers were made separately from the lampstand and affixed to it secondarily. How widely known this notion was known is unclear, however.<sup>31</sup> Another

option within the limits of Greco-Roman technology would involve the use of patinas. Directions for applying patina to metal have been found in an Egyptian papyrus of the third–fourth centuries.<sup>32</sup> This is indeed an option.

<sup>31</sup> Robert Kirschner, ed. and trans., *Baraita de-Melekhet ha-Mishnah: A Critical Edition with Introduction and Translation* (Cincinnati, OH: Hebrew Union College Press, 1992), 190–2, 235–36 and the comments of Meir Friedmann, *Baraita de-Melekhet*

*ha-Mishkan* (Vienna, 1908), 61–63; Sperber, “Zutot,” 13, esp. n. 21.

<sup>32</sup> Leiden Papyrus X, in *Les alchimistes grecs*, ed. Robert Halleux (Paris: Belles Lettres, 1981), 1:22, 40–41.

My sense, though, is that Yannai is not dealing with a deep technological problem, but that his poem reflects what might have been a widespread vision of the menorah in his day. Dozens of stone menorahs have been discovered in Israel and abroad, and it is my sense that, like Christian bas-reliefs of the same period in Palestine, these were painted brightly. Small amounts of pigment are visible on a few of these limestone and basalt objects. At En-Samsam in the Golan Heights, for example, the apparent base of a Torah ark from the fifth or sixth century retains reddish ochre pigment within the manes of the lions (figs. 4a–b),<sup>33</sup> and at Eshtemoa, near Hebron, remains of reddish ochre are found decorating a menorah (fig. 5).<sup>34</sup> It is not clear whether this reddish ochre pigment was the actual color of these objects—as it is in wall paintings from the Rehov synagogue (fig. 6)<sup>35</sup> and on Jewish tombstones from Zoar (fig. 7)<sup>36</sup>—or whether it served as the ground for other pigments. UV scanning of these and related objects is a desideratum. Fragments of a painted fresco were found in the Hammath Tiberias synagogue (level 2b). Moshe Dothan reports that “the painted fragments show traces of geometric or floral decoration, most in red on a white background and Greek letters.”<sup>37</sup> Green pigment decorated the walls of the Ein Gedi synagogue.<sup>38</sup> At distant Ostia Antica, evidence of likely gilding was found on menorahs on the corbels of the Torah shrine.<sup>39</sup> The problem of discovering original pigmentation is intensified, however,

by past conservation techniques. The excavator of the now iconic limestone menorah discovered in a synagogue excavation at Hammath Tiberias on the Sea of Galilee in 1921 describes a most egregious example: soon after its discovery his workers carried the menorah down to the lake, and washed “off the dust” (fig. 8)!<sup>40</sup> Worse, the discoverer of a major inscription during the 1990s recently told me how, upon finding this object, he wiped off its surface, only to have the color come off!

In order to contextualize Yannai’s poem, and to begin to make sense of the actual polychromy of Jewish artifacts in late antiquity, I decided to perform an experiment, choosing as my subject the Hammath Tiberias menorah. The shallow bas relief of this artifact is particularly rich, the branches decorated with alternating pomegranates and flowers, reminiscent of the biblical “bulbs and flowers.” This relief is not deep enough to be easily seen today without careful lighting, which enhances the possibility that it was once painted. Topping the branches is a broad register that includes round indentations to hold lamps—likely glass cups—similar to those that appear in mosaic depictions of synagogue menorahs. Mosaic images of menorahs are always colored in brown, bronze-like tones. What colors could possibly have been used to decorate our stone, I wondered. I decided to print numerous copies of the menorah in black and white, and, equipped with a 64-count box of Crayola crayons,

<sup>33</sup> On this object, Robert C. Gregg and Dan Urman, *Jews, Pagans and Christians in the Golan Heights: Greek and other Inscriptions of the Roman and Byzantine Eras* (Atlanta, GA: Scholars Press, 1996), 103–4, where this artifact is shown before extensive cleaning. I discovered the reddish ochre pigment during a visit to the Golan Archaeological Museum in June 2012.

<sup>34</sup> Currently on exhibition at the Rockefeller Museum, Jerusalem.

<sup>35</sup> Michal Dayagi-Mendels and Silvia Rozenberg, eds., *Chronicles of the Land: Archaeology in the Israel Museum Jerusalem* (Jerusalem: The Israel Museum, 2011), 159; Fanny Vitto, “The Interior Decoration of Palestinian Churches and Synagogues,” *Byzantinische Forschungen* 21 (1995): 294–97.

<sup>36</sup> The inscription illustrated in figure 7 was discussed by Jacob Bitton, Nathan Dweck, and Steven Fine in “Yet Another Jewish Tombstone from Late Antique Zoar/Zoora: The Funerary Marker of Hannah Daughter of Levi,” in *Puzzling Out the Past: Studies in Near Eastern Epigraphy and Archaeology in Honor of Bruce Zuckerman*, ed. Marilyn Lundberg, Steven Fine, and Dennis Pardee (Leiden: Brill, 2012), 7–12. More generally, see Haggai Misgav, “Two Jewish Tombstones from Zoar,” *Israel Museum Studies in Archaeology* 5 (2006): 35–46, for a full bibliography and a table of all discoveries to that date.

<sup>37</sup> Moshe Dothan, *Hammath Tiberias: Early Synagogues* (Jerusalem: Israel Exploration Society, 1983), 22, plates 23, 35.

<sup>38</sup> Dan Barag, “En-Gedi: The Synagogue,” *New Encyclopedia of Archaeological Excavations in the Holy Land*, ed. Ephraim Stern, (New York: Macmillan, 1993), 2:405–9. Steven H. Werlin, “The Late Antique Synagogues of Southern Palestine,” PhD dissertation (Chapel Hill: University of North Carolina, 2012), 117, suggests that the purpose of this band was “perhaps meant to draw attention to the feature [the Torah niche].” Many thanks to Steven Werlin for bringing this material to my attention.

<sup>39</sup> Maria Floriani Squarciapino, “The Synagogue at Ostia,” *Archaeology* 16 (1963): 195–203; Steven Fine and Miriam Della Pergola, “The Ostia Synagogue and Its Torah Shrine,” in *The Jews of Ancient Rome*, ed. Joan G. Westenholz (Jerusalem: Bible Lands Museum, 1994), 54; Anders Runesson, “The Synagogue at Ancient Ostia: The Building and its History,” in *The Synagogue of Ancient Ostia and the Jews of Rome: Interdisciplinary Studies*, ed. Birger Olsson, Dieter Mitternacht, and Olof Brandt (Stockholm: Svenska Institutet i Rom, 2001), 53.

<sup>40</sup> Nahum Slouschz, “Hamath-by-Tiberias,” *Journal of the Jewish Palestine Exploration Society* 1 (1921): 32 (in Hebrew), translated in *Art and Judaism*, 25. To the best of my knowledge, this object has not been scanned for signs of polychromy. Such a study is a desideratum.





Fig. 4a–b. Torah Ark Base with remains of red ochre pigment, en-Samsam. Golan Archaeological Museum, photographs by Steven Fine.

a bottle of white typewriter correction fluid, and a black marker pen, to color the Hammath Tiberias menorah in shades of red, the color drawn from Jewish inscriptions and from these mosaic depictions. I doodled on the stone in positive and negative, and present here the result of my experiment. I chose as my key comparative artifact for this experiment a sixth-century mosaic from a Samaritan synagogue from Beit She'an (Scythopolis, figs. 9a–b), which was apparently made by the same father-son team that laid the mosaic of the Jewish synagogue at Beth Alpha. This mosaic provides a detailed and especially polychromatic image

of the Torah shrine.<sup>41</sup> From there I drew the idea of using the reddish ochre pigment in both positive and negative (fig. 10, doodles a–b), and the vine that appears on the register of doodle b. Next, I decided to apply the greens of the Beit She'an mosaic (figs. 10c, 10a–b), drawing inspiration also from the polychrome Christian tombstones at Zoar that retain green pigment, which is far less stable than red (fig. 11). Feeling emboldened, I decided to add yellow, a color that also appears in the mosaic, and prominently in contemporaneous Christian wall paintings (fig. 10, doodles d–e).<sup>42</sup>

<sup>41</sup> Nehemiah Zori, "The Ancient Synagogue at Beth-Shean," *Eretz-Israel* 8 (1967): 149–67 (in Hebrew), illustrated in Dayagi-Mendels and Rozenberg, eds., *Chronicles of the Land*, 164–65.

<sup>42</sup> E.g., a wall painting from Caesarea Maritima, illustrated in Dayagi-Mendels and Rozenberg, eds., *Chronicles of the Land*, 172–73.



Fig. 5. Bas-relief of a menorah, Eshtemoa. Rockefeller Museum, Jerusalem, photograph by Steven Fine.

In the final phases of my doodling, I decided to take Yannai's description seriously, creating a menorah with "The calyxes . . . formed in green gold, The bulbs in reddish ochre and the flowers in white" (fig. 10, doodle f). I could even imagine the upper register without the vine, but sporting an Aramaic or Greek dedicatory inscription, a not-uncommon phenomenon in synagogue decoration (fig. 12, doodle g). In lieu of UV scanning, of course, I do not take my own coloration terribly seriously. Nonetheless, my sense is that a polychromatic Hammath Tiberias menorah was far more likely than the plain limestone that was washed in the Sea of Galilee. The notion of multi-colored menorahs is odd to modern sensibilities, the golden Arch of Titus menorah of the seal of the State of Israel being either white or a gaudy yellow gold (fig. 13a–b).<sup>43</sup> Medieval scribes, working in the polychromatic world of medieval northern Europe—and probably with related texts—did imagine the menorah much as Yannai describes it. We see this most clearly in the Regensburg Pentateuch (Regensburg, Bavaria, ca. 1300 CE, fig. 14a–b).<sup>44</sup>

The implications of this kind of reimagining are huge. If the Hammath Tiberias menorah was colored—whether minimally, or in a more extreme way—then it is most likely that the other bas-reliefs within at least some synagogues were as well, along with Torah arks (as in the Beit She'an mosaic), wall reliefs, furniture, and carvings of animals (particularly lions). These would interact with colored and decorated textiles of the sorts illustrated in our mosaics. In some cases, decorated mosaics (and perhaps carpets) as well would chime in to create a space that is not nearly so staid as previous interpreters imagined. If my approach is correct, the now-white limestone and basalt synagogues of Palestine were colored brightly, perhaps gaudily—an absolute "carousel of color." They might even appear to move in the flickering lights of the menorahs and other lighting fixtures, particularly the hanging *polycandela*. This would give resonance to literary sources, for example, that imagine the animals of Solomon's throne, Byzantine-period automata, moving and flying through the air<sup>45</sup>—in other words, an environment perhaps more akin to the Red

<sup>43</sup> On the history of the seal of the State of Israel see Alec Mishory, *Lo and Behold: Zionist Icons and Visual Symbols in Israeli Culture* (Tel Aviv: Am Oved, 2000), 165–99 (in Hebrew); *ibid.*, "Menorah and Olive Branches: The Design Process of the National Emblem of the State of Israel," in *In the Light of the Menorah: Story*

*of a Symbol*, ed. Yael Israeli (Jerusalem: Israel Museum and Philadelphia: Jewish Publication Society of America, 1999), 17–26.

<sup>44</sup> Reproduced in Israeli, *In the Light of the Menorah: Story of a Symbol*, 58–59.

<sup>45</sup> Fine, *Art and Judaism*, 105–8.



Fig. 6. Dedicatory inscription from the Rehov synagogue. Collection the Israel Antiquities Authority, photo © The Israel Museum, Jerusalem, photograph by Meidad Suchowolski.

Monastery in Sohag, Egypt, than to a German Protestant church!<sup>46</sup> The Christian parallel is, of course, vital, as synagogue architecture and furnishings in late antique Palestine were derivative of church architecture.<sup>47</sup> This exercise in “thick description,”<sup>48</sup> setting Yannai’s poem in the broadest possible context and using it as a key to imagine the polychromy of ancient artifacts begins with the texts, and works outwards. It

also reads the poem into the synagogue space, with the assumption that the extant texts and the extant visual materials should somehow relate. This, however, is an assumption, an admittedly creative act that attempts to “holistically” read surviving ritual space and surviving ritual texts together, without assuming the priority of either medium. My contextualization of “whiteness” as a modernist phenomenon further

<sup>46</sup> Bolman, “Late Antique Aesthetics.”

<sup>47</sup> Yoram Tsafrir, “The Byzantine Setting and its Influence on Ancient Synagogues,” in *The Synagogue in Late Antiquity*, ed. Lee I. Levine (Philadelphia: American Schools of Oriental Research, 1987), 147–56. See also Asher Ovadiah, “Reciprocal Relationship

Between Churches and Synagogues in the Land of Israel During Late Antiquity,” in *Between Hermon and Sinai: Memorial to Amnon*, ed. Magen Broshi (Jerusalem: Yedidim, 1977), 163–70 (in Hebrew).

<sup>48</sup> Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1979).



Fig. 7. Jewish funerary inscription from Zoar/Zoora, Ghor es-Safi, Jordan, 472 CE. Collection of Shlomo Moussaieff, Herzliya, photograph courtesy of Shlomo Moussaieff.



Fig. 8. Limestone menorah from the synagogue of Hammath Tiberias A. Israel Museum, Jerusalem, photograph courtesy of George Blumenthal, Center for Online Jewish Studies.

strengthens this interpretation, as a starkly “white” building is far less of an option for reconstruction than was previously thought, and color that much more plausible.

Let us return to the Arch of Titus. My interlocutor was right. Anyone who is even somewhat familiar with ancient Jewish literature would assume that the menorah was golden.<sup>49</sup> That does not mean, though, that the artisans who carved the bas-relief applied color, nor does it tell us how they applied it. From the very preliminary results, testing six locations on the

branches and base of the menorah, it does not appear that there was any variance in the color of the gold of the menorah. My sense is that this has implications for the actual menorah, brought to Rome from Jerusalem and exhibited just meters away in Vespasian’s Temple of Peace. The image on the arch must have been generally similar to the golden Temple menorah nearby. Still, it is surprising that the menorah on the relief was painted, and not gilt. My colleague, Peter Schertz, notes that based upon Latin sources, Domitian was no slacker when it came to the use of real gold.<sup>50</sup> Does

<sup>49</sup> See Steven Fine, “The Temple Menorah: Where Is It?” *Biblical Archaeology Review* 31, no. 4 (July/August 2005): 18–25, 62–63; *ibid.*, “When I Went to Rome, There I Saw the Menorah . . . : The Jerusalem Temple Implements between 70 C.E. and the Fall of Rome,” in *The Archaeology of Difference: Gender, Ethnicity, Class and the “Other” in Antiquity Studies in Honor of Eric M. Meyers*, ed. Douglas R. Edwards and C. Thomas McCollough (Boston, MA: American Schools Of Oriental Research, 2007), 1:169–80; Fergus Millar, “Last Year in Jerusalem: Monuments of the Jewish War in Rome,” in *Flavius Josephus and Flavian Rome*, ed. Jonathan Edmondson, Steve Mason, James B. Rives (Oxford: Oxford University Press, 2005), 101–28; Mary Beard, “The Triumph of

Josephus,” in *Flavian Culture: Culture, Image, Text*, ed. Anthony J. Boyle and William J. Dominik (Leiden: Brill, 2003), 543–58; *ibid.*, *The Roman Triumph* (Cambridge, MA: Harvard University Press, 2007), esp. 151–53; Ra’anan S. Boustán, “The Spoils of the Jerusalem Temple at Rome and Constantinople: Jewish Counter-geography in a Christianizing Empire,” in *Antiquity after Antiquity: Jewish and Christian Pasts in the Greco-Roman World*, ed. Gregg Gardner and Kevin L. Osterloh (Tübingen: Mohr Siebeck, 2008), 327–72.

<sup>50</sup> Robin H. Darwall-Smith, *Emperors and Architecture: A Study of Flavian Rome* (Brussels: Latomus, 1996), 105–10; Brian Jones, *The Emperor Domitian* (New York: Taylor & Francis, 1993), 1, 92, 96.



Fig. 9a–b. Mosaic from the synagogue of Beit She'an A. Collection the Israel Antiquities Authority, photo © The Israel Museum, Jerusalem.



Fig. 10. Doodles a–f (ordered left to right, top to bottom). Imagining the polychromy of the Hammath Tiberias A menorah, by Steven Fine.

the discovery of paint, Schertz wonders, raise the question of whether at some point actual gold was used, only to be removed later during one or another of Rome's economic crises and replaced with paint. The discovery of pigment has other implications. We might speculate that the description of Josephus and the rabbis, following Scripture, of a golden table of showbread and of silver horns might also have been depicted in the arch panel. If this is the case, the high relief of the menorah and the relatively low relief of the table, angled toward the arch of the Roman triumph, carry the movement of this image forward in ways that are far less obvious when the panel is viewed in bright white marble.

To release my imagination just a bit more, the procession of Roman celebrants in white or even purple tunics, their skin ruddy and heads bedecked with laurel wreaths, perhaps against a blue background (as some scholars have suggested) provides an almost life-like image of the menorah and vessels being brought into Rome. Setting the stage for this suggestion, Josephus describes the rich polychromy of the garments worn in Titus's triumphal parade—though not specifically of those carrying the Temple booty. He writes that:

The numerous attendants conducting each group of animals were decked in garments of true purple dye, interwoven with gold; while those selected to take part

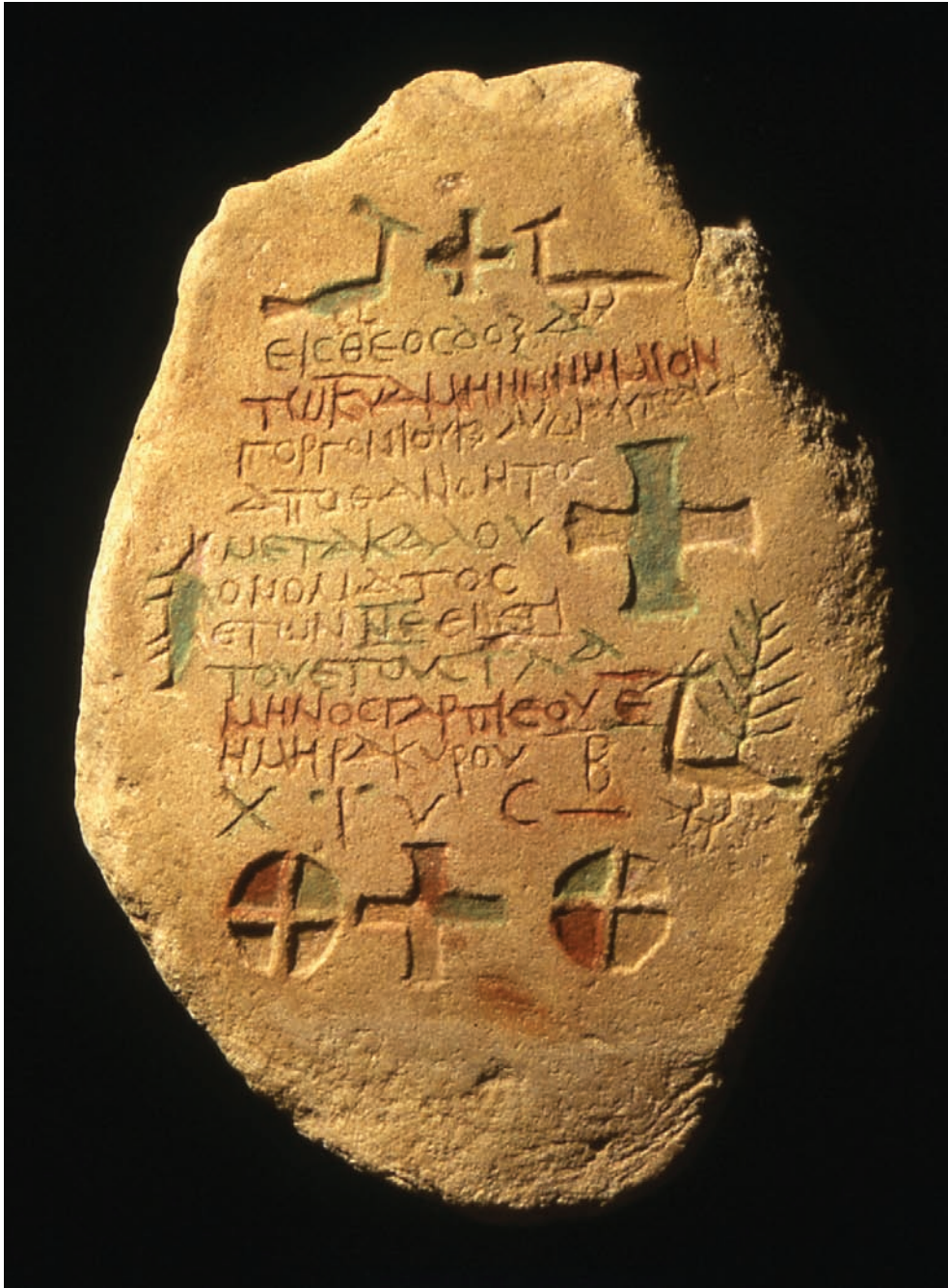


Fig. 11. Christian tombstone from Zoar/Zoora, Ghor es-Safi, Jordan, 436 CE. Photograph courtesy of Konstantinos Politis.

in the pageant itself had about them choice ornaments of amazing richness. Moreover, even among the mobs of captives, none was seen unadorned, the variety and beauty of their dresses concealing from view any unsightliness arising from bodily disfigurement.<sup>51</sup>

<sup>51</sup> Josephus, *The Jewish War*, 7:137–38, trans. Henry St. J. Thackeray (Cambridge, MA: Harvard University Press, 1961–1965). See also *War* 7:152.

A visitor in the latter first or second century could literally walk under the arch—having come from the Flavian theater (i.e. the Colosseum, which according to an inscription, built with funds taken from the Jerusalem Temple),<sup>52</sup> and move forward with the

<sup>52</sup> Géza Alföldy, “Eine Bauinschrift aus dem Colosseum,” *Zeitschrift für Papyrologie und Epigraphik* 109 (1995): 195–226; Louis H. Feldman, “Financing the Coliseum,” *Biblical Archaeology Review* 27, no. 4 (July/August 2001): 20–32, 60, 61.





Fig. 12. Doodle g. Polychrome Hammath Tiberias A menorah with a dedicatory inscription, by Steven Fine.

bas-relief of Titus riding his *quadriga* to his right (fig. 18) and the soldiers carrying the spolia of the Jerusalem Temple to his left (figs. 15, 16, 17)—all in bright and almost “life-like” color. Above, at the apex of the arch, the divine Titus ascends to heaven riding on the back of an eagle (fig. 19). The Roman visitor could figuratively escort this procession into Rome, through the arch, and to their final resting place down the hill mere meters away in the Temple of Peace—a ritualization of imperial Flavian piety.<sup>53</sup> The bas-reliefs parallel the sense of movement in Josephus’s description, though Josephus, the Jewish priest from Jerusalem turned rebel general turned Roman lackey, is far more deadpan in his description than the exuberant—and Jewishly unencumbered—painted bas-reliefs are. I quote just a small section of Josephus’s description:

The spoils in general were borne in promiscuous heaps; but conspicuous above all stood those captured in the temple at Jerusalem. These consisted of a golden table, many talents in weight, and a lampstand, likewise made of gold, but constructed on a different pattern than those which we use in ordinary life. Affixed to a pedestal was a central shaft, from which there extended slender branches, arranged trident-fashion, a wrought lamp being

attached to the extremity of each branch, of these there were seven, indicating the honor paid to that number among the Jews. After these, and last of all the spoils, was carried a copy of the Jewish Law. They followed a large party carrying images of victory, all made of ivory and gold. Behind them drove Vespasian, followed by Titus; while Domitian rode beside them, in magnificent apparel and mounted on a steed that was in itself a sight. . . .

. . . The triumphal ceremonies being concluded and the empire of the Romans established on the firmest foundation, Vespasian decided to erect a temple of Peace. This was very speedily completed and in a style surpassing all human conception. For, besides having prodigious resources of wealth on which to draw he also embellished it with ancient masterworks of painting and sculpture; indeed, into that shrine were accumulated and stored all objects for the sight of which men had once wandered over the whole world, eager to see them severally while they lay in various countries. Here, too, he laid up the vessels of gold from the temple of the Jews, on which he prided himself; but the Law and the purple hangings of the sanctuary he ordered to be deposited and kept in the palace.<sup>54</sup>

The brightly painted image of this event on the Arch of Titus would have been, for Jewish viewers, far more

<sup>53</sup> My interpretation here is influenced by Mary Beard, “The Triumph of Josephus,” esp. 151–53.

<sup>54</sup> Josephus, *The Jewish War*, 7:148–62.



Fig. 13a–b. The Seal of the State of Israel, 1949.

intense than the mere white shadows that we see today. The implications of this colorization for the study of the Jewish viewing of Roman art are significant. Images such as that of the arch would be that much more “real” and evocative. Thus, images that Jews construed as “idolatrous” or otherwise evocative of Roman imperialism would have been experienced with an intensity that we can only now understand. This became clear to me in viewing Brinkmann’s reconstruction of the coloration of a bust of Caligula from the Ny Carlsberg Glyptotek in Copenhagen (figs. 20, 21), displayed at the J. Paul Getty Museum as part of their exhibition, *The Color of Life: Polychromy in Sculpture from Antiquity to the Present* (2008).<sup>55</sup> My first experience of Caligula, face to face, as it were, in full color, led me to gasp and think: “Now I get what they were so upset about!” In fact, scholars of robotics have suggested this very sense

of approximating, but not quite reaching, full humanity causes revulsion or fear in humans. They refer to this effect as “the uncanny valley.”<sup>56</sup> The significance of this effect for the study of Jewish attitudes to Roman art may now be recognized as enormous. Consider, for example, the now very clear—and colorful—sense that we have of what exactly Jews “saw” when, say, Rabban Gamaliel bathed in the “Baths of Aphrodite” (m. Avodah Zarah 3:1), claiming that “I did not come into her domain, she came into mine” or when they practiced a form of cultural resistance in not looking at “idols”—as in Jerusalem Talmud tractate *Avodah Zarah* 3:13, 43b.<sup>57</sup>

Gamaliel Zuga supported himself on Rabbi Simeon son of Laqish [as they walked].

When they reached an image, he (Gamaliel Zuga) said to him:

<sup>55</sup> Roberta Panzanelli, *The Color of Life: Polychromy in Sculpture from Antiquity to the Present* (Malibu, CA: The J. Paul Getty Museum and the Getty Research Institute, 2008).

<sup>56</sup> See Masahiro Mori, “The Uncanny Valley,” *Energy* 7, no. 4 (1970): 33–35 (in Japanese), trans. Karl F. MacDorman and Takashi Minato and available online at: <http://www.movingimages.info/digitalmedia/wp-content/uploads/2010/06/MorUnc.pdf> (accessed January, 2013). A more recent study is Jun’ichiro Seyama, “The

Uncanny Valley: Effect of Realism on the Impression of Artificial Human Faces,” *Presence* 16, no. 4 (2007): 337–51. My student Caleb Fischer brought the “uncanny valley” to my attention, and is currently studying this phenomenon in relation to Rabbinic attitudes toward the sculptural environment.

<sup>57</sup> See my discussion in *Art and Judaism*, 113–14, and the extensive bibliography cited there.



Fig. 14a–b. The Regensburg Pentateuch, Regensburg, Bavaria, ca. 1300 CE. Photo © The Israel Museum, Jerusalem by Ardon Bar-Hama.



Fig. 15. Arch of Titus, spolia of the Jerusalem Temple. Courtesy of the Yeshiva University Center for Israel Studies.



Fig. 16. 3-D Scan of the spolia panel, Arch of Titus. Scan by Unocad, courtesy of the Yeshiva University Center for Israel Studies.



Fig. 17. Arch of Titus menorah, 3-D scan. Scan by Unocad, courtesy of the Yeshiva University Center for Israel Studies.



Fig. 18. Arch of Titus, Titus in triumph. Courtesy of the Yeshiva University Center for Israel Studies.



Fig. 19. Arch of Titus, apotheosis of Titus. Courtesy of the Yeshiva University Center for Israel Studies.

“Should we pass before it?”

He (Rabbi Simeon son of Laqish) said: “Pass before it and put its eyes out.”

Rabbi Isaac son of Matnah supported himself on Rabbi Johanan.

When they reached the statue at the *boule* (the council building), he (Rabbi Isaac son of Matnah) said to him:

“Should we pass before it?”

He (Rabbi Johanan) said: “Pass before it and put its eyes out.”

Rabbi Jacob son of Idi supported himself on Rabbi Joshua son of Levi.

They reached the image of *aduri* (or alternately, they came behind an image).

He (Rabbi Joshua son of Levi) said to him:

“Nahum of the Holy of Holies would pass, and you, you do not [wish to] pass? Pass before it and put its eyes out. . . .”

While our understanding of the polychromy of any particular artifact may not influence the particular

interpretation of any text, it does provide a wider context within which to comprehend the broader experience of “idolatry” by Jews and the more sustained sense of imperial presence experienced by one particularly literate people in the eastern Roman Empire who had been colonized.

In this essay I have focused upon the image of the menorah and on the Arch of Titus—specifically because of the richness of both visual and textual sources—as a way of demonstrating the value of polychromy studies for our understanding of ancient Judaism. These examples are just a beginning, as detailed scholarship on Greco-Roman period Jewish perceptions and deployment of color remains a desideratum, particularly in rabbinic literature, and beginning with the type of basic research carried out in regard to biblical literature by Athalya Brenner and Roman sources by Mark Bradley.<sup>58</sup> UV scanning of artifacts from Jewish antiquity similar to that carried out on Roman art, including the Arch

<sup>58</sup> Athalya Brenner, *Colour Terms in the Old Testament* (Sheffield: JSOT Press, 1982); Mark Bradley, *Colour and Meaning in Ancient Rome*. See Rivka Ulmer, “The Rabbinic Term *beget tseva’ ha-’isha*: The Semiotics of ‘A Woman’s Colored Garment,’” in *Or le-Mayer*;

*Studies in Bible, Semitic Languages, Rabbinic Literature, and Ancient Civilizations Presented to Mayer Gruber on the Occasion of His Sixty-Fifth Birthday*, ed. Yona Shamir (Beer-Sheva: Ben-Gurion University of the Negev Press, 2010), 203–21.



Fig. 20. Bust of Caligula. Courtesy of the Ny Carlsberg Glyptotek, Copenhagen.



Fig. 21. Reconstructed polychromy of the Caligula bust. Courtesy of the Ny Carlsberg Glyptotek, Copenhagen.

of Titus, is an important next step. Polychromy in the visual culture of Roman antiquity presents us with a colorful opportunity and challenge, one that I anticipate

will impact the study of color in Jewish contexts in later periods as well.<sup>59</sup>

<sup>59</sup> See Natasha Esther Zabolotnaya, "Cosmology and Color Symbolism in R. Eleazar of Worms," *Kabbalah: Journal for the Study of Jewish Mystical Texts* 12 (2004): 45–80.