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Amanda Goodman  and Jessica Lockhart University of Toronto 

amanda.goodman@utoronto.ca

jessica.lockhart@utoronto.ca

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**Article**

# Displays of Devotion: On the Uses (and Reuses) of Illustrated Buddhist Prints from Tenth-Century Dunhuang

**Amanda Goodman and Jessica Lockhart | Toronto**

## Abstract

Although Mogao Cave 17 near Dunhuang is renowned as a vast repository of manuscripts and paintings, it also contained a greater volume of printed materials than is commonly represented; and while enigmatic, these surviving artefacts provide windows onto print reception from close to the beginning of the era of mass printing in East Asia. Among the documents recovered from the library cave are thirty-odd illustrated Buddhist prints commissioned in 947 CE by the ruler of Dunhuang, Cao Yuanzhong, which were over fifty years old at the time the cave was sealed. Now scattered across a global network of museums, libraries, and private collections, the prints were transmitted as a consequence of their creative reuse as Buddhist votive objects: the prints, which began their lives as sponsored displays of power, prestige, and merit-generation, passed into new contexts as personalized (often anonymous) devotional objects, displayed and sometimes physically reconfigured using traditional techniques, including mounting, cropping, backing, colouring, and collaging. By considering the alterations made to the Cao corpus of paper prints alongside similar surviving woodblock illustrated prints and portable paintings from Dunhuang, this essay reflects on the forms and significance of the creative uses of the prints of 947 and helps to clarify the relationship between an emerging print culture, traditional technologies, and local Buddhist devotional practices in the tenth century.

## Keywords

Buddhism, Dunhuang, prints, reuse, votive objects

## 1. Introduction

In June 1900, a large hoard of medieval Buddhist manuscripts was discovered in a sealed shrine room at the Mogao cave site near the old Silk Road town of Dunhuang, present-day Gansu province, China. The shrine room, now called Mogao Cave 17, or simply, ‘the library cave’, housed an estimated 60,000 manuscripts.<sup>1</sup> Stored alongside these manuscripts were dozens of Buddhist

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<sup>1</sup> The manuscripts date from the fourth to the early eleventh century and are written in close to twenty languages. See Galambos 2020, 3; Doumy 2021. The cave once served as a mortuary shrine, but at some point it became a storehouse for bundles of manuscripts, prints, paintings, and textiles until it was sealed in what was likely the first decade of the eleventh century. Many of these objects were locally produced and most date to the ninth and tenth centuries. For a summary of the scholarly hypotheses on the nature of the library cave and its closure, see van Schaik and Galambos 2012, 18–28. On the arrangement of the bundles as they were encountered in the first decade of the twentieth century by M. Aurel Stein and

prints ranging in format from long rolls of repeated impressions of small votive images, to texts imprinted on scrolls and concertinas, to *dhāraṇī* ('incantations') and other illustrated single-sheet prints. These printed materials, which include the world's oldest printed book with a secure date,<sup>2</sup> exhibit a range of possible functions, from books copied for merit, to talismans for successful childbirth, to ritual prompts (didactic instruction sheets) for conjuring buddhas and bodhisattvas.<sup>3</sup> Dating from the first half of the eighth century to the late tenth century, these extraordinarily rare artefacts mark shifts in traditional printing technologies and tools, from seals and stamps to woodblocks, and shed light on the early days of printing in East Asia.<sup>4</sup> As we will see, they also include some of the oldest dated Buddhist votive objects on paper, suggesting that single-sheet woodblock prints circulated as part of a local 'economy of merit' like the Buddhist votive paintings on silk, hemp, and paper also recovered from the library cave.

While the total number of printed materials recovered from the cave is somewhat difficult to quantify, we can estimate a number approaching 200.<sup>5</sup> Although this is vanishingly small compared to the handwritten documents that were also preserved in the library cave, it renders Dunhuang one of the largest known repositories of early Buddhist prints and underscores the importance of the region for Buddhist print culture through the early eleventh century when the cave was most likely sealed. As such, the printed materials of Dunhuang represent part of a larger network of burgeoning print centres operating across China by the tenth century.<sup>6</sup>

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Paul Pelliot, the two figures responsible for the eponymous Stein and Pelliot Dunhuang collections in London and Paris respectively, see Doumy 2023a, b.

<sup>2</sup> British Library (hereafter also BL) Or.8210/P.2, <<https://idp.bl.uk/collection/51FDAEAFB4A24E2E9981692A98130BC8/>> (all links were active before October 2023), a copy of the *Diamond Sūtra* dated 868. While discovered at Dunhuang, this copy of the *Diamond Sūtra* was printed in Sichuan.

<sup>3</sup> While most of the text-bearing prints are in Chinese, several bilingual Chinese-Sanskrit prints and at least one Tibetan printed sheet also survived. On the Sanskrit *dhāraṇī* prints from Central Asia, including Dunhuang, see Formigatti 2017, esp. 78–80. On the only Tibetan print to be identified among the Dunhuang cache, Pelliot tibétain 4216, see van Schaik 2016, 171–172.

<sup>4</sup> On early Buddhist sealing or stamping practices going back to the first century BCE, see Kornicki 2012, 51ff. Cataloguers of the Pelliot collection at the Bibliothèque nationale de France (hereafter also BnF), date the stamped sheets from Dunhuang to the eighth century. See for example: BnF P.4514 (17) A, P.4514 (17) B, P.4514 (18), P.4514 (20), P.4514 (22), and P.4514 (23). Rong Xinjiang (2021) has recently identified what he argues is the earliest extant example of a dated woodblock print, a precept certificate with three stamped Buddha images from Dayun Monastery in Dunhuang dated to the twenty-ninth year of Kaiyuan 開元 (741 CE) (objects Dx.02881+Dx.02882 at the Institute of Oriental Manuscripts, Russian Academy of Sciences; hereafter also IOM, RAS). What appears to be the latest dated print from Dunhuang is an illustrated *dhāraṇī* sheet with an image of an eight-armed Mahāpratisarā at its centre (British Museum [hereafter also BM] 1919,0101,0.249, Ch.xlii.004; <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-249](https://www.britishmuseum.org/collection/object/A_1919-0101-0-249)>). This remarkable print is dated to the fifth year of the Taipingguoxing 太平國興 era (980) and includes the name of both the print's donor and the woodblock cutter (see Whitfield and Farrer 1990, 106–107).

<sup>5</sup> Dunhuang printed materials are often described as numbering 'a couple of dozen or so' (Barrett 2008, 130; cf. Galambos 2015, 49), but this count omits the multiple copies of many woodblock prints. As a partial metric: Stein 1921, vol. 2 records approximately 72 printed items representing some 22 different printings now held by the British Museum, the British Library, the Royal Ontario Museum, and the National Museum in New Delhi. Séguy 1979 catalogues 120 individual items in the BnF Pelliot collection, not all of which overlap with the digitized items currently available on Gallica. The tallying of printed artefacts is more complicated than might be supposed, as the earliest Dunhuang catalogues do not always distinguish between woodblock and copies, and some catalogue numbers have changed over time; additionally, there are collages as well as fragments that can be demonstrated to have once belonged together, and some Dunhuang prints were mistakenly catalogued as having been discovered at Khara-Khoto. All these factors make the total number of prints in the Dunhuang collection difficult to assess.

<sup>6</sup> Huang 2011a, 135.

Modern Dunhuang scholarship holds shifting interpretations of this collection and its broader significance in print history. In 1908, Paul Pelliot assesses the high level of technical skill evident in the Dunhuang printed materials, which he describes as ‘d’un travail déjà très habile, et qui paraissent être dus uniquement à des artisans locaux’.<sup>7</sup> Aurel Stein similarly notes that these early survivors imply a full-fledged print culture, but observes that the collection included printed material imported from elsewhere as well as local efforts.<sup>8</sup> More recently, some scholars have placed greater weight on the tiny proportion of printed to manuscript materials in the library cave as evidence that in tenth-century Dunhuang, printing still played very little role in ‘the production and spread of Buddhist texts’.<sup>9</sup> For example, contrasting the small number of largely single-sheet printed materials from Mogao Cave 17 against the greater quantity and length of the printed texts found in a later trove at Khara-Khoto, Imre Galambos accepts that the Dunhuang collection represents a period ‘before the widespread use of printing’.<sup>10</sup> Against this line of interpretation, Timothy Barrett argues for a re-evaluation of the evidence and its gaps, questioning:

If only a couple of dozen or so printed items may be found among these [Dunhuang] manuscripts is this really testimony to printing’s irrelevance even right to the start of the eleventh century, when this archive was closed? Or did the impact of printing lie elsewhere, in ordinary homes, about which we know virtually nothing?<sup>11</sup>

This essay is intended to offer a contribution in response to Barrett’s challenge, closely examining the case of a group of single-sheet woodblock prints preserved in the cave to consider the glimpses they do offer of ‘the impact of printing [...] in ordinary homes’ of the Dunhuang Buddhist community. The objects of our study are some thirty-odd single-sheet illustrated prints commissioned in 947 CE by the ruler of Dunhuang, Cao Yuanzhong 曹元忠 (r. 944–974 CE).<sup>12</sup> These prints are among the oldest extant documents found in Mogao Cave 17 known to have been printed locally: when the cave was sealed, these prints were over fifty years old.<sup>13</sup> Their material condition sheds light on what happened to the prints during these decades, revealing a complicated story of commission and creative reuse. The prints, which began their lives as sponsored displays of power, prestige, and merit-generation, passed into new contexts as personalized (often anonymous) devotional objects, displayed and sometimes physically reconfigured using traditional craft techniques and workshop practices.

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<sup>7</sup> ‘[...] of a workmanship already very sophisticated, and which appeared to be made solely by local artisans’: Pelliot 1908, 526, our translation.

<sup>8</sup> Stein 1921, vol. 2, 893.

<sup>9</sup> Zürcher 1989, 55; Zürcher 1989, 55.

<sup>10</sup> Galambos 2016, 136.

<sup>11</sup> Barrett 2008, 130.

<sup>12</sup> On the dates of Cao’s reign see Rong 2013, 46.

<sup>13</sup> Rong 2004, 62.

Cao Yuanzhong's prints are examples of the *shangtu xiawen* 上圖下文 (image above, text below) format and come in two designs, placing an image of either the bodhisattva Avalokiteśvara (*Guanshiyin pusa* 觀世音菩薩)<sup>14</sup> or the protector deity Vaiśravaṇa (*Pishamen tianwang* 毗沙門天王) above a devotional inscription (Fig. 1).<sup>15</sup> Dozens of devotional prints in this format, often referred to as 'prayer sheets', survive among the printed materials from Dunhuang, suggesting that this object type was well-established in the region in the tenth century.<sup>16</sup> However, the prints of 947 are unusual for the Dunhuang corpus in several respects: most *shangtu xiawen* prints found in the cache either contain a *dhāraṇī* to be recited or worn, or that record ritual instructions for the worship of a specific deity, but the text underneath the images in Cao's prints is a dedicatory inscription with a public orientation and regional focus: after listing his titles, the inscriptions express Cao's hope for peace, health, and prosperity in the region, and that the highways remain open and bandit-free. These prints are also distinctive in listing a specific date for their creation: the fifteenth day of the seventh moon of the *dingwei* 丁未 era, the fourth year of Kaiyun 開運 in the Great Jin 大晉 dynasty (947 CE).<sup>17</sup>

Scholars have contextualized the significance of Cao's prints in a variety of ways, including their role in positioning Cao politically at the outset of his reign and exemplifying his enthusiasm for new technologies, including woodblock printing.<sup>18</sup> It is also worth observing that the day and month specified on the 947 prints further links them to a specific event: the fifteenth day of the seventh

<sup>14</sup> The cartouche in the upper left of these prints identifies the deity as, 'The Greatly Compassionate, Greatly Merciful Bodhisattva Avalokiteśvara, Saviour from Suffering' (*Daci dabei jiuku Guanshiyin pusa* 大慈大悲救苦觀世音菩薩). For a description of the layout and design of the Avalokiteśvara prints, together with a transcription and translation of Cao's inscription, see the digital record for BM 1919,0101.0.242 at <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-242](https://www.britishmuseum.org/collection/object/A_1919-0101-0-242)>. Avalokiteśvara was among the most popular bodhisattvas in greater Dunhuang; see Wang 2018, 138–155, and van Schaik 2006. On the Avalokiteśvara cult among the Uyghur at Dunhuang and nearby Turfan, see Kasai 2022.

<sup>15</sup> The cartouche in the upper left of these prints identifies the deity as, 'The Great Sage and Heavenly King Vaiśravaṇa' (*Da sheng pishamen tianwang* 大聖毗沙門天王). For a description of the layout and design of the Vaiśravaṇa prints, together with a transcription, see the digital record for BM 1919,0101.0.245 at <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-245](https://www.britishmuseum.org/collection/object/A_1919-0101-0-245)>. Vaiśravaṇa is one of the Four Heavenly Kings (*Sida tianwang* 四大天王), and revered as the protector of the North. There was a particularly strong Vaiśravaṇa cult in Khotan. For a brief discussion on the connection between Vaiśravaṇa, Dunhuang, and the kingdom of Khotan, see Whitfield and Farrer 1990, 106. For the martial imagery of the Vaiśravaṇa figure on these prints, see Tsiang 2010, 216–217. On the *shangtu xiawen* format as the standard layout for later illustrated prints, see Whitfield and Farrer 1990, 101.

<sup>16</sup> Illustrated *dhāraṇī* sheets like those found at Dunhuang have been excavated at sites across China, including from tombs and pagodas, suggesting that votive prints like those found at Dunhuang were commonly used in the Tang dynasty (618–907 CE). On the form and function of these printed sheets, see Tsiang 2010. For an illuminating discussion on the rise and spread of Chinese illustrated prints in the tenth through thirteenth centuries, see Huang 2011a and b.

<sup>17</sup> Galambos and Wang, forthcoming, comment further on the significance of the year listed as the date for the study of Dunhuang's relationship to the central Chinese polities.

<sup>18</sup> Cf. Lee 2012, 220; also Rong 2013, 46. Rong 2004 suggests that these 947 CE prints 'are possibly the first material printed in Dunhuang itself' (62). The Avalokiteśvara print names its carver, Lei Yanmei 雷延美 (act. 947–950), with whom Cao Yuanzhong undertook at least one other printing project: an edition in 949/950 CE of the 32-section version of the *Diamond Sūtra*, three fragmentary copies of which survive in concertinas Or.8210/P.11, BnF P.4515, <<https://gallica.bnf.fr/ark:/12148/btv1b8300672c>>, and P.4516, <<https://gallica.bnf.fr/ark:/12148/btv1b8300986f>>. On these early Buddhist books, see Galambos 2020, 30–31. For a discussion of this printing see Galambos and Wang, forthcoming.

month (aka, at the full moon) is a clear reference to the Ghost Festival.<sup>19</sup> Historical accounts such as that of the Japanese pilgrim Ennin 圓仁 (793–864), who visited the Tang capital of Chang’an from Japan in the year 840 CE, record this festival as marked by city-wide decorations, offerings, music, food, and public celebration, in keeping with the inscriptions in Cao’s prints.<sup>20</sup> The significance of this date would not have been lost on a medieval festival goer or a (literate) passerby taking in Cao’s posters, which presumably had been disseminated throughout the community by Cao as part of the cycle of merit-generation that came from the commissioning, distribution, and display of sponsored Buddhist votive objects.<sup>21</sup>

Cao’s prints also carry material evidence of their use, including various forms of deliberate modification and devotional use characteristic of such presumably inexpensive, ephemeral, and portable paper prints. While some scholars have noted individual examples of these modifications, this article is the first to bring together all known surviving copies of the 947 prints to consider the story they tell as a group.<sup>22</sup> Taken collectively, they provide a window into the activities of the mostly anonymous makers and users of portable, paper Buddhist devotional objects from a period close to the beginning of the era of mass printing in East Asia.

This paper examines critical moments in the life cycle of the 947 prints to underscore the layered histories and changing significance of these objects as they moved beyond the context for which they were created. We approach this by means of the concept of ‘object biography’ first introduced by Igor Kopytoff in 1986 and recently adapted by Halle O’Neal.<sup>23</sup> As developed by Kopytoff, Gosden and Marshall, and others, object biography shifts attention from the circumstances of a cultural artefact’s creation to contemplate the shifting web of relationships, uses, and cultural meanings that mark its social ‘life’, as it moves ever further from its point of origin. The premise is that an object attests to its own story, carrying physical signs of the practices that led to its current condition, with signs of its manufacture alongside traces of wear and repair and marks of other significant events such as ownership changes, reuse, and recycling.

As formulated by O’Neal and others, concepts of reuse draw attention to the materiality of an object as a way to access changes in its signification over time. O’Neal explains:

Reuse is frequently an umbrella term for all manner of shifts – materially, conceptually, and functionally. Reuse exists along a continuum with conceptual and/or functional change that largely preserves the material object at one end (e.g., a rubber boot repurposed as a planter) and destruction and remaking at the

<sup>19</sup> According to Chinese tradition, the fifteenth day of the seventh month in the lunar calendar is called the Ghost Day and the seventh month is generally regarded as the Ghost Month, in which ghosts and spirits, including those of deceased ancestors, emerge from the hell realms. The modern Ghost Festival was ultimately derived from the Indian Buddhist tradition centred on the *Yülanpen jing* 盂蘭盆經 or *Ullambana sūtra* specifically. Cf. Teiser 1988, 1994.

<sup>20</sup> Reischauer 1955, 268–269; Teiser 2020, 3.

<sup>21</sup> On the Buddhist belief that religious merit could be accrued by copying or printing Buddhist scriptures and votive objects, see Kieschnick 2003, 172 and Park et al. 2013. On the cycle of merit outlined here, see Adamek 2005, Schmid 2017, and Sørensen 2019.

<sup>22</sup> Cf. Whitfield and Farrer 1990, Shen 2019.

<sup>23</sup> Cf. Kopytoff 1986; Gosden and Marshall 1999. More recent applications and refinements of object biography include contributions from archaeology, anthropology, book history, and histories of art and religion; see for example O’Neal 2019.

other (plastic bottles recycled into a park bench). Across a broad spectrum of changes, reuse can denote the application of a new function to an object, its transfer into different hands, as well as changes to its appearance and construction.<sup>24</sup>

This concept of a continuum of reuse is particularly useful for thinking about our materials, as the Cao prints attest to a variety of creative moments of renewed use, reuse, and re-making, ranging from simple repairs and repeated hangings to more spectacular transformations into new votive objects with renewed devotional significance. By ‘creative reuse’ we mean to call attention to two overlapping processes in the construction of individual objects: (1) the intentional alteration of the prints, and (2) the application, or transfer, of traditional technologies across object types and media, referred to by Shih-shan Susan Huang as ‘media transfer’.<sup>25</sup> As we will argue, the prints represent the meeting of devotional practices and traditional techniques in the form of individual creative reuses.<sup>26</sup>

In its traditional form, object biography focuses on a single object, revealing aspects of its partial story from material evidence. By considering multiple prints of Cao Yuanzhong’s – as many as we have been able to view in person or in digitized form – we adapt this methodology, turning the ‘biography’ into something more akin to a cohort study or a family history. Because all of these artefacts likely came into being at the same time, as more-or-less identical duplicates falling into two parallel groups, a collective examination of their features allows us to see both cumulative incidence and variable outcomes, and to compare the two groups as they moved through time. We outline our findings along these lines in the typology and examples offered below, also connecting them to the larger corpus of printed and painted votive objects of Dunhuang.

Before turning to the prints directly, we offer a few reflections on the limitations to this approach. The first is the enigmatic nature of the sample set. Although a comparatively large number of artefacts have survived from Cao’s 947 print runs, in keeping with a larger pattern of multiple copies of prints preserved among the Dunhuang cache, they are all extraordinary by virtue of having survived decades past their original creation to be included in the cave. We have no way of knowing how representative they may be of how Cao’s prints were received in general. These examples may all have been associated with one particular institution or household, or have some other factor that makes them uncharacteristic of the wider, lost corpus. The question of how these prints came to be part of the library cave – and whether some or all of these prints were ultimately collected and stored together – also remains unanswered at this point in time. However, the variety of alterations and conditions represented within this existing sample set does suggest that before their eventual reunion in the library cave, at least at some stages of their history, these printed sheets were accessed by a variety of people who used and adapted them in different ways.

A second limitation to this study is its reliance on digitized images. While the authors have been able to examine closely the print at the Royal Ontario Museum and to view in person some prints

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<sup>24</sup> O’Neal 2023, 2.

<sup>25</sup> Huang 2011a.

<sup>26</sup> Cf. Fricke 2019.

at the Bibliothèque nationale de France, the Musée Guimet, and the British Museum, we have not been able to examine all of the prints to the same degree. Our reliance on digitized images will inevitably mean that our descriptions miss some, perhaps critical, details. Future studies would also benefit from biochemical analysis of the stains and accretions on many of the sheets. With permission of the Royal Ontario Museum, in collaboration with Sarah Fiddymont of Beasts2Craft, we undertook eZoomMS testing of one of the accretions in hopes that it might yield a peptide signature. Although the results were inconclusive, other modes of scientific analysis may help to yield a deeper understanding of the life stories of these prints and the other printed materials from the Dunhuang corpus, and we encourage future researchers to undertake this work.

In turn, as the object biography approach acknowledges, the artefacts themselves will not reveal the entirety of their stories. Where a sheet is missing its corners, it cannot be counted among the sheets that carry nail holes, although that form of display may be part of the explanation for why the corners are now gone. A sheet that is now part of a collage may have had a previous life as a separate sheet; a sheet that is currently separate may, at one point, have been part of a collage. While this current study must therefore remain preliminary and incomplete in some respects, we now proceed to introduce these prints and the stories they collectively tell of their printing, display, and creative reuse in the Dunhuang community.

## 2. Cao's 947 CE print corpus and its printing

To understand how Cao's prints were used and modified, it is helpful first to consider the extant corpus and some details of their original printing, including paper substrate, the page layout and design, and the print process.

Cao's prints were dispersed alongside the rest of the Dunhuang finds at the beginning of the 20th century, and they are now scattered across a global network of museums, libraries, and private collections that include the British Library (BL) and British Museum (BM) in London; the Bibliothèque nationale de France (BnF) and the Musée Guimet (MG) in Paris; the Metropolitan Museum of Art (Met) in New York City; and the Royal Ontario Museum (ROM) in Toronto; as well as one example whose whereabouts are not currently known but which was sold at auction in Beijing in early 2019 for a reported 10.6 million yuan or just under 1.5 million in American dollars.<sup>27</sup> There may be additional copies of these prints currently in other collections or in private hands. As of the time of writing, the authors have identified sixteen artefacts including fragments and collages that began life as up to twenty-three separate prints of the Avalokiteśvara design, and at least seventeen that originated as prints of the Vaiśravaṇa design; see the descriptive catalogue of these artefacts in the appendix.

The paper used as the substrate for both print runs appears to be of a similar stock: a rag paper with original dimensions approximately 46.5 × 32.5 cm at maximum, and laid lines oriented parallel

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<sup>27</sup> See the Beijing Wulun International Auction Co., Ltd. website: <[http://www.wulunpaimai.com/mobile/news\\_show.aspx?id=203](http://www.wulunpaimai.com/mobile/news_show.aspx?id=203)> (2018; last accessed 21 January 2024). See Fang Guangchang and Li Jining 2023 for a catalogue of more than twenty pre-Song works handled by the Beijing Wulun International Auction Co., Ltd., including several works from Dunhuang.





Fig. 1a: Single-sheet woodblock print of Vaiśravaṇa with attendants and dedicatory inscription, sponsored by Cao Yuanzhong. Guiyijun period (848/851–1030/1036), dated 947. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4514 (1) 10.



Fig. 1b: Single-sheet woodblock print of Avalokiteśvara with dedicatory inscription, sponsored by Cao Yuanzhong and carved by Lei Yanmei. Guiyijun period (848/851–1030/1036), dated 947. From Mogao Cave 17, Dunhuang. Toronto, Royal Ontario Museum, 927.24. Courtesy of ROM (Royal Ontario Museum), Toronto, Canada. © ROM. Photographer: Brian Boyle.

to the long axis with a spacing approximately 4 lines per cm, the imprint of a bamboo or reed sieve used during the paper-making process.<sup>28</sup> Examination with a lightbox reveals a clearer view of these lines along with some irregularities in the paper pulp distribution (Fig. 2). The general aspect of this substrate is that of inexpensive local paper.

The commonality of paper substrate between these prints lends credence to the proposition that despite differences in design and layout (see below), both prints were nonetheless connected in their production, and are likely to have been produced in the same milieu, if not by the same (official) printer or printshop, in the days or weeks surrounding the Ghost Festival and their date of commission. In fact, the Avalokiteśvara print directly names its carver, Lei Yanmei 雷延美 (*fl.* 947–950), who may or may not have been responsible for both prints.

Despite this apparent similarity in paper stock, and although both prints are configured according to the *shangtu xiawen* format mentioned above, the two prints are distinct from each other in terms of the number and style of woodblocks used to produce them. The Vaiśravaṇa xylographs were printed using a single large, vertically oriented rectangular woodblock measuring 40.0 × 26.5 cm comprising an upper image and lower text in a 2/3 : 1/3 ratio, with a well-defined outer border and line divisions separating the columns of text. The woodblock's impression takes up the majority of the space of the large paper sheet and in all surviving copies of this print it is essentially centred, with between 3–5 cm of upper and lower margins, and approx. 2.0–2.5 cm of left and right margins between the impression and the edge of the paper (when intact).

The Avalokiteśvara xylographs, by contrast, were made using two blocks, one vertically oriented with dimensions 20.3 × 13.4 cm for the image, and one horizontally oriented with dimensions 11.2 × 20.0 cm for the text; there is a border for the image, but neither external border nor internal line divisions for the text.<sup>29</sup> The two blocks are centred together on the sheet, the text block positioned immediately beneath the image block to create the complete impression. Because the two blocks together occupy a substantially smaller area than the Vaiśravaṇa block, this print format results in substantial margins on a full-sized sheet (see Fig. 1 above) – and the printer(s) appear to have experimented with block placement on the substrate given these variables.

The corpus offers us a clear view of the appearance of six original Avalokiteśvara prints imprinted on full-sized paper; these show variations in the vertical placement of the blocks on the substrate.<sup>30</sup> Two prints have the two blocks centred in the middle of the paper substrate, with symmetrical

<sup>28</sup> For an analysis of paper types represented at Dunhuang, see Tsien 1985, 47; Drège 1981; Helman-Ważny and van Schaik 2013. We follow Helman-Ważny and van Schaik in using ‘laid lines’ to indicate the imprint left by the reed sieve.

<sup>29</sup> Dimensions obtained by measurement of ROM 927.24. Image block dimensions of 20.5 × 13.3 cm are given in the catalogue entry for P.3965, <<https://gallica.bnf.fr/ark:/12148/btv1b8300849t>>.

<sup>30</sup> In the following discussion ‘artefact’ refers to the present object, and ‘print’ to the historical single-sheet impression in its original appearance. Four artefacts are essentially unaltered full-size Avalokiteśvara prints: BnF P.4514 (6) 2, <<https://gallica.bnf.fr/ark:/12148/btv1b8300075j>>; ROM 927.24, <<https://collections.rom.on.ca/objects/351646/Avalokiteśvara-prayer-sheet>>; Met CP5, <<https://www.metmuseum.org/art/collection/search/63182>>; and the Beijing Wulun auction house copy now in private hands, <[http://www.wulunpaimai.com/mobile/news\\_show.aspx?id=203](http://www.wulunpaimai.com/mobile/news_show.aspx?id=203)>. Three artefacts consisting of two fragments and a collage, BnF P.4514 (6) 5, <<https://gallica.bnf.fr/ark:/12148/btv1b8300076z>>; P.4514 (6) 6, <<https://gallica.bnf.fr/ark:/12148/btv1b8300077c>>; and P.3965, <<https://gallica.bnf.fr/ark:/12148/btv1b8300849t>>, preserve two complete full-size prints in fragmentary form.



Fig. 2: Lightbox view showing laid lines and mounting holes in paper substrate. Toronto, Royal Ontario Museum, 927.24. Courtesy of ROM (Royal Ontario Museum), Toronto, Canada. ©ROM. Photographer: Janet Cowan.

upper and lower margins of c. 7.5 cm.<sup>31</sup> One features its image and text blocks positioned higher, with the upper margin roughly half the space of the lower margin.<sup>32</sup> Three prints have the top of the image block nearly flush with the top of the sheet.<sup>33</sup> Although these are only six examples, they are enough to demonstrate that the Avalokiteśvara prints on full-sized paper did not have the same uniform appearance as their Vaiśravaṇa cousins.

Close examination of the paper substrate for the remaining artefacts suggests that the Avalokiteśvara single-sheet prints were also printed in an alternative ‘half-size’ format with narrow margins and paper dimensions close to 32 × 23 cm – the size of a sheet of 46 × 32 cm paper divided in half, with the maximum width for the full-size sheets now becoming the maximum height. Five artefacts retain these dimensions.<sup>34</sup> To test whether these sheets might be the same substrate cut down to a smaller size, we examined the orientation of the laid lines in the paper, using a combination of in-person examination, consultation of catalogue information, and close study of the digitized images (for full results, see the appendix). Aspects of a specific print (e.g. oil) have sometimes rendered laid lines visible in the digitized image. These lines become clearer when the image’s contrast is heightened and brightness reduced. Where in-person examination was not possible, we used the ruler provided for scale in the digitizations to verify whether any lines perceived are the laid lines (spaced 4 per cm). In-person examination has confirmed that one of these artefacts (MG EO1218 D) retains vertically oriented laid lines and may have been cropped significantly down to achieve this size, but the other four artefacts have visible horizontally oriented laid lines in their paper substrate. The most likely explanation for the combination of their size and the laid lines’ orientation is that sometimes the Avalokiteśvara image and block were printed two to a sheet, the sheet cut in half. This resulted in a smaller but much more uniform appearance comparable to the Vaiśravaṇa xylographs (see Fig. 8 below).

The remainder of the Avalokiteśvara artefacts have largely been cropped or damaged sufficiently that their original shape and format are unclear, although further examination of their paper might be revealing. However, one of these artefacts has unusual features that may suggest the possibility of a further alternative to these two printing formats. BnF P.4514 (6) 4,<sup>35</sup> is a fragment of 30.5 × 21.5 cm on which the image block is printed at centre, with roughly symmetrical margins of 5–6 cm around each edge – one of them created by the addition of a vertical strip of reused paper from an official document. The BnF catalogue lists this example as having the same paper as other examples but does not specify the orientation of the laid lines; however, horizontal striation around the oil stains visible to the naked eye and a pattern of horizontal lines at the upper left

<sup>31</sup> ROM 927.24 and Beijing Wulun copy.

<sup>32</sup> Met CP5.

<sup>33</sup> BnF P.4514 (6) 2, P.4514 (6) 5, P.4514 (6), and P.3965.

<sup>34</sup> BnF P.4514 (6) 1, <<https://gallica.bnf.fr/ark:/12148/btv1b8300063b>>; BM 1919,0101,0.242, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-242](https://www.britishmuseum.org/collection/object/A_1919-0101-0-242)>; BM 1919,0101,0.243, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-243](https://www.britishmuseum.org/collection/object/A_1919-0101-0-243)>; and BL Or.8210/P.9, <<https://idp.bl.uk/collection/87CE35302CBA4A348492DA162EF539A2/?return=%2Fcollection%2F%3Fterm%3DOr.8210%252FP.9>>.

<sup>35</sup> BnF P.4514 (6) 4 <<https://gallica.bnf.fr/ark:/12148/btv1b8300151g>>.

corner visible under enhanced contrast suggest that this substrate is likewise potentially a ‘half-size’ sheet. The lower margin preserves no trace of the text block and has sufficient blank space to suggest (although this supposition would need further confirmation with multi-spectral imaging) that the text block may never have been printed together with the image block on this leaf, and thus that in this case the Avalokiteśvara block may have been printed independently. It is worth noting that the righthand cartouche carved in the Avalokiteśvara image block lists Cao Yuanzhong’s name as the donor, so even the image block alone would have retained his connection to the printing.

Put together, an interesting picture starts to emerge of the design and print process of these sheets in 947. The Vaiśravaṇa block was apparently carved with the dimensions of the full-size paper stock in mind (or anticipated paper of a certain size), but the Avalokiteśvara blocks were not, at least not to the same degree, and the printer(s) subsequently experimented with alternative layouts during production. In addition to the above-mentioned differences in iconography and technology (one woodblock versus two woodblocks) which other scholars have already noted, we may now also wonder at this difference in the matching of block to paper substrate when other elements of the production remained consistent. Were these in fact separate commissions to different artisans, and Lei Yanmei was responsible only for the Avalokiteśvara print? Or did the Avalokiteśvara block exist independently (as perhaps suggested by the example of P.4514 [6] 4 noted above), and Cao Yuanzhong paid Lei Yanmei to carve a text block to suit it to the present occasion alongside the newly-commissioned Vaiśravaṇa print? Given that the ‘text below’ portion does not refer directly to Avalokiteśvara, is it possible that the text block was also paired with images of other deities, in prints which have not survived? Further questions abound: how were these pieces then produced? Why did the printer alternate between full-size and half-size page formats for the Avalokiteśvara print, rather than remaining consistent throughout? Printing two to a page would have been more efficient and economical as a use of resources; does this variability suggest tailoring to different consumer tastes, or a decision made partway through the printing process to shift from one format to the other? Were large numbers of prints premade to be sold in shops, or were individual sheets printed on-demand, perhaps at stalls during the Ghost Festival?

### 3. Evidence of use of the 947 ㄸ prints

In 947 then, Cao’s prints entered the Dunhuang Buddhist community: Vaiśravaṇa prints at full-size, and Avalokiteśvara prints in both full and half-size page formats. Roughly sixty years later, a fraction of these experienced an eventual reunion among the materials sealed within the Mogao cave, sometime in what was likely the first decade of the eleventh century.<sup>36</sup> These extraordinary survivals allow us a glimpse into how Cao’s prints were received across their subsequent decades. What kind of devotional practices do the surviving examples encode, and what evidence (if any) do they carry for how their significance may have changed across the second half of the tenth century?

The following pages offer a typology of alterations made to these prints, comparing them at each stage with examples from the wider body of illustrated Buddhist prints and votive paintings

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<sup>36</sup> Cf. Galambos 2020, 3.



Fig. 3a: Upper right corner, detail (front).



Fig. 3b: Upper right corner, detail (back).



Fig. 3c: Lower right corner, detail (front).



Fig. 3d: Lower right corner, detail (back).

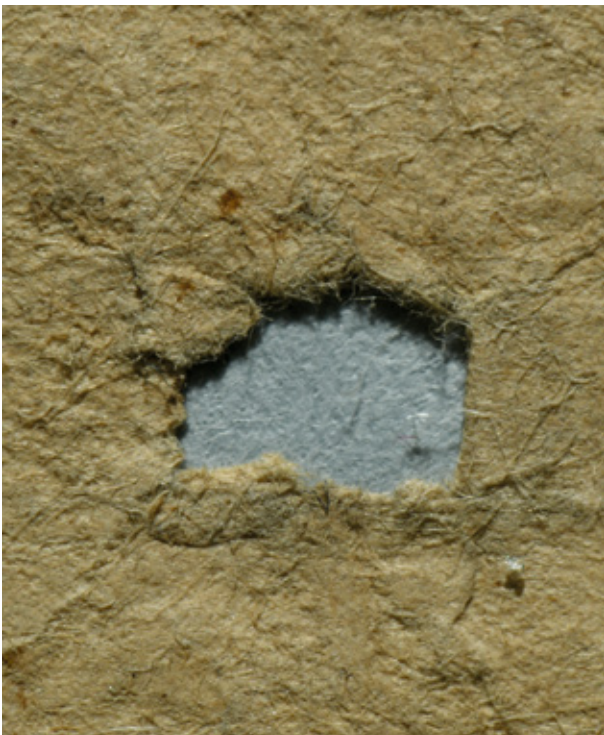


Fig. 3e: Lower centre margin, detail (front).



Fig. 3f: Lower centre margin, detail (back).

Fig. 3: Probable mounting holes in the margins of Toronto, Royal Ontario Museum, 927.24. Courtesy of ROM (Royal Ontario Museum), Toronto, Canada. ©ROM. Photographer: Janet Cowan

from Dunhuang in order to place their signs of use in context. Most of the Vaiśravaṇa and Avalokiteśvara prints show some evidence of mounting, and roughly one third (almost exclusively among the Avalokiteśvara prints) show additional signs of repair, reuse, or alteration in the form of cropping, collaging, and/or additions of backings, colour, and inscriptions. Modifications occurred at different stages in the lives of these objects, closer or farther from their original printing; in some cases, layered modifications attest to multiple stages of use of a given print.

Because there is no way to know how representative the surviving Dunhuang sample set may have been, this typology should not be considered comprehensive, nor quantitative information (such as the proportion of artefacts to bear a certain alteration) necessarily predictive of the whole. Rather, what follows is a description of types of modifications that could and sometimes did happen to these prints. In most of these cases, the alterations were made to ready the received print for subsequent or enhanced display.

### 3.1 Mounting holes

The majority of surviving full-sized artefacts from the original 947 print runs show possible evidence of a hanging display, in the form of evenly spaced holes across their upper and lower margins, or at the four corners (which are also the areas most likely to be damaged or missing in the other artefacts). Stein notes these ‘pin-holes at corners’ in his first published description of these prints, and our examination of Royal Ontario Museum 927.24 under magnification has been able to confirm that at least some of these holes are indeed still clearly puncture marks, the fibres driven through from front to back, as opposed to simple tears from wear or rolling (Fig. 3).<sup>37</sup> Although other explanations cannot be ruled out, the simplest explanation for the frequency and regularity of the damage at corners and central margins across this collection is that the prints were displayed, and that many of these current holes originated as mounting holes, from a period when the prints appear to have been affixed to or hung from a flat surface, likely a wall, with some type of fastener, possibly nails (see below).

Based on the presence of these possible mounting holes on otherwise unmodified copies of these prints, we may assume that many of these displays happened on or close to the original occasion of their printing.<sup>38</sup> However, on several sheets there are also multiple holes in the same general area, suggesting repeated hangings (or multiple attempts at hanging; see for example Met CP5), and in other cases, holes for mounting were clearly made after other modifications. For instance, BnF P.4514 (6) 3,<sup>39</sup> cropped down to the Avalokiteśvara image alone, has holes in all four corners; and there are holes in the hanging tabs discussed below. The picture created by the presence of the holes across the corpus is that mounting methods using nails or other simple fasteners remained a viable method of display for the prints across multiple stages in their circulation, including those that changed hands and were subjected to different techniques and tools.

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<sup>37</sup> Stein 1921, vol. 2, 974.

<sup>38</sup> E.g. ROM 927.24, BnF P.4514 (1) 1, P.4514 (1) 2.

<sup>39</sup> BnF P.4514 (6) 3 <<https://gallica.bnf.fr/ark:/12148/btv1b8300151g>>.



This interpretation becomes both more plausible and more interesting when one situates Cao's prints in the context of the wider corpus of illustrated prints and paper paintings preserved at Dunhuang. As previously mentioned, dozens of other devotional prints featuring Amitābha, Kṣitigarbha, Mañjuśrī, and Samantabhadra, as well as Avalokiteśvara and Vaiśravaṇa, survive from the Dunhuang cache, and often (as with Cao's prints) in multiple impressions from the same woodblock. One illustrated print featuring Mañjuśrī (framed by an identifying inscription and a dedication in the upper register and a ritual text in the lower register) exists in at least twenty-nine surviving impressions, and examples from this corpus provide more solid evidence to associate corner and marginal holes with mounting methods.<sup>40</sup> One example, BnF P.4514 (2) 4,<sup>41</sup> has evenly spaced holes along the upper and lower margins, like several of the 947 prints. Other impressions made from this same woodblock show a pattern of mounting holes now clearly associated with display; for example, P.4514 (2) 26,<sup>42</sup> retains a piece of string that runs through holes along the upper edge of the object, suggesting that the print at some point may have been fitted with an additional type of hanging apparatus (Fig. 4).

A similar range of hanging methods are observable in a number of paintings on paper from Dunhuang, modest votive objects featuring a variety of iconographical themes and showing slight variations – in materials and construction – from the presumably more expensive paintings on silk and hemp that were outfitted with suspension loops.<sup>43</sup> Numerous paintings on paper have visible mounting holes along the upper and lower margins, as can be seen in BnF P.4518 (22),<sup>44</sup> (Fig. 5), a rather humble painting of a standing figure with halo, crown, and bowl, together with donor image and two extremely clumsy inscriptions (possibly written by the donor himself). Presumably less expensive paper paintings like this one were pinned up at the corners in the manner of the 947 paper prints, often without suspension loops. This suggests that the hole-producing techniques used to display the 947 prints were commonly used to display prints and paintings in the greater Dunhuang area.

What type of fasteners might have been used to affix these paper prints and paintings to a wall or other flat surface? While many of the possible mounting holes show evidence of wear, and

<sup>40</sup> See Whitfield and Farrer 1990, 106 for a description of this woodblock. Among the twenty-nine impressions of the Mañjuśrī woodblock print catalogued under shelfmark P.4514 (2) at the BnF, several show clear evidence of mounting and alteration. See, for example, P.4514 (2) 2, <<https://gallica.bnf.fr/ark:/12148/btv1b8300117f>>; P.4514 (2) 17, <<https://gallica.bnf.fr/ark:/12148/btv1b83001324>>; P.4514 (2) 25, <<https://gallica.bnf.fr/ark:/12148/btv1b8300140p>> (see below); or P.4514 (2) 28 <<https://gallica.bnf.fr/ark:/12148/btv1b83000744>>. See also P.4514 (3) B, <<https://gallica.bnf.fr/ark:/12148/btv1b8300147k>>.

<sup>41</sup> BnF P.4514 (2) 4 <<https://gallica.bnf.fr/ark:/12148/btv1b83001198>>.

<sup>42</sup> BnF P.4514 (2) 26 <<https://gallica.bnf.fr/ark:/12148/btv1b83001413>>.

<sup>43</sup> These suspension loops are often made of the same material as the paintings themselves, including banner paintings. Many of the paper paintings catalogued under shelfmark P.4518 in the Bibliothèque nationale de France have visible mounting holes; some show signs of more than one display method. See for example, P.4518 (3), <<https://gallica.bnf.fr/ark:/12148/btv1b83000247>>; P.4518 (5), <<https://gallica.bnf.fr/ark:/12148/btv1b52513407b>>; P.4518 (6), <<https://gallica.bnf.fr/ark:/12148/btv1b8300027g>>; P.4518 (16), <<https://gallica.bnf.fr/ark:/12148/btv1b8300089k>>; P.4518 (19), <<https://gallica.bnf.fr/ark:/12148/btv1b8300048n>>; P.4518 (25), <<https://gallica.bnf.fr/ark:/12148/btv1b52514185z>>; P.4518 (27), <<https://gallica.bnf.fr/ark:/12148/btv1b8300009j>>; P.4518 (29), <<https://gallica.bnf.fr/ark:/12148/btv1b525134097>>; and P.4518 (35), <<https://gallica.bnf.fr/ark:/12148/btv1b52508634d>>.

<sup>44</sup> BnF P.4518 (22) <<https://gallica.bnf.fr/ark:/12148/btv1b52513347m>>.



Fig. 4: Single-sheet woodblock print depicting Mañjuśrī seated on a lion with attendants and ritual text; string visible on upper margin, mounting holes also visible (see blue arrows). Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4514 (2) 26.



Fig. 5: Painting on paper depicting standing figure (with halo, crown, and bowl) with donor and inscription; mounting holes along margins. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4518 (22).

hence look quite undefined, a good number of the holes are precise pinholes. It is possible that nails of some size, shape, and material were used, just as we might today use pushpins, nails, or tacks to affix a poster or a calendar to a wall. We might further extrapolate that some of these nails were made of metal: what appear to be rust stains are visible in the corners of some of the prints where broad-headed nails seem to have been used to pin the image or to affix another hanging apparatus. For example, BnF P.4514 (2) 25,<sup>45</sup> (Fig. 6), yet another impression made from the same Mañjuśrī woodblock discussed above, shows evidence of what appear to be at least two sets of mounting holes in the upper corners; one set shows signs of discolouration (rust stains?) around those holes. This same effect can be seen on a finely painted illustrated print of Avalokiteśvara, BM 1919,0101,0.234, (Fig. 7).<sup>46</sup>

In lieu of mounting holes, at least two of the 947 prints were adjusted to add supports for a hanging display: one copy each of the Avalokiteśvara and Vaiśravaṇa prints in the British Museum collection, BM 1919,0101,0.243,<sup>47</sup> (Fig. 8), and BM 1919,0101,0.245,<sup>48</sup> still retain sets of three tabs for hanging attached to the upper edges of the print.<sup>49</sup> These tabs appear in both instances to have been adhered onto the back of the prints and to be made of paper of similar stock and quality as the prints themselves. Notably, both prints lack mounting holes in the corners of their original sheets; this suggests that the tabs were added to these prints from their earliest period of display.

Prints beyond the 947 corpus were sometimes outfitted with hanging tabs as well, albeit in slightly different configurations than we see in the print corpus of 947. For example, BnF P.4514 (2) 1,<sup>50</sup> (Fig. 9), still another impression made from the same woodblock print of Mañjuśrī introduced above, was modified to include a single suspension loop made of brown silk attached to the centre of the sheet's upper edge.

This is similar to the types of silk and hemp loops affixed to the headpieces of banner paintings from the library cave. See for example BM 1919,0101,0.147,<sup>51</sup> (Fig. 10), a banner painting made of hemp, complete with triangular headpiece and suspension loop at the apex.<sup>52</sup>

By contrast, the paper tabs preserved on our illustrated prints seem more closely related to those affixed to paintings on paper and hemp at Dunhuang, forming variations on a mode of suspension-

<sup>45</sup> BnF P.4514 (2) 25 <<https://gallica.bnf.fr/ark:/12148/btv1b8300140p>>.

<sup>46</sup> BM 1919,0101,0.234, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-234](https://www.britishmuseum.org/collection/object/A_1919-0101-0-234)>. Two additional prints mounted on similar stenciled blue paper like that found in BM 1919,0101,0.234 include a print of Kṣitigarbha P.4514 (5), <<https://gallica.bnf.fr/ark:/12148/btv1b8300062x>>, and Shanghai Museum No. 3296, which is also a print of Avalokiteśvara coloured in a way that matches the BM mounted print. These three prints, mounted on similar types of paper, might represent a set of votive images commissioned by the same family and/or constructed in the same workshop.

<sup>47</sup> BM 1919,0101,0.243 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-243](https://www.britishmuseum.org/collection/object/A_1919-0101-0-243)>.

<sup>48</sup> BM 1919,0101,0.245 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-245](https://www.britishmuseum.org/collection/object/A_1919-0101-0-245)>.

<sup>49</sup> Whitfield and Farrer 1990, 106, refer to these tabs as 'paper loops'. Shen 2019, 29 calls them 'hanging tabs', and we follow suit.

<sup>50</sup> BnF P.4514 (2) 1 <<https://gallica.bnf.fr/ark:/12148/btv1b83001161>>.

<sup>51</sup> BM 1919,0101,0.147 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-147](https://www.britishmuseum.org/collection/object/A_1919-0101-0-147)>.

<sup>52</sup> For a description of the banner paintings from Dunhuang, including the construction of the headpiece and suspension loop, see Whitfield and Farrer 1990, 52 and Doumy 2023b. For a recent study on the long banners from Dunhuang, see Hwang 2023.



Fig. 6: Single-sheet woodblock print depicting Mañjuśrī, showing mounting holes in upper corners ringed by rust-coloured discolourations. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4514 (2) 25.



Fig. 7a: Single-sheet woodblock print of seated Avalokitesvara with ritual text, coloured and with blue paper mounting. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. London, British Museum, 1919,0101,0.234.

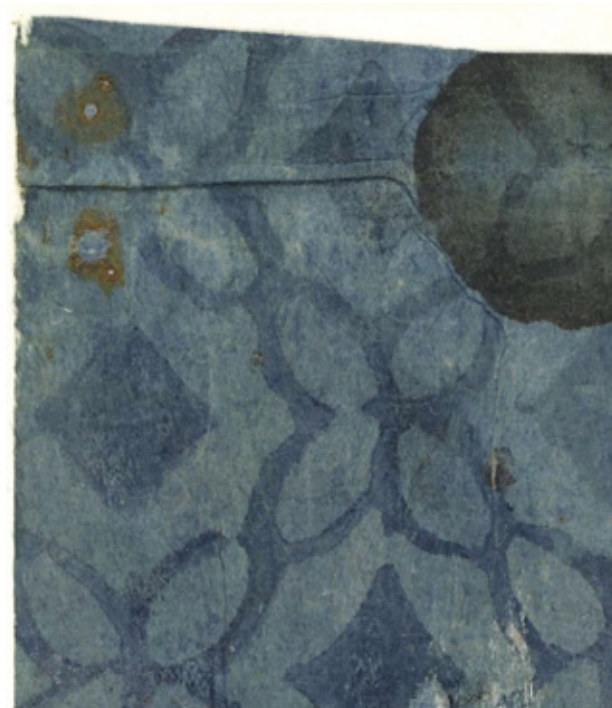


Fig. 7b: Detail of upper portion. Note the rust-coloured rings in upper left.

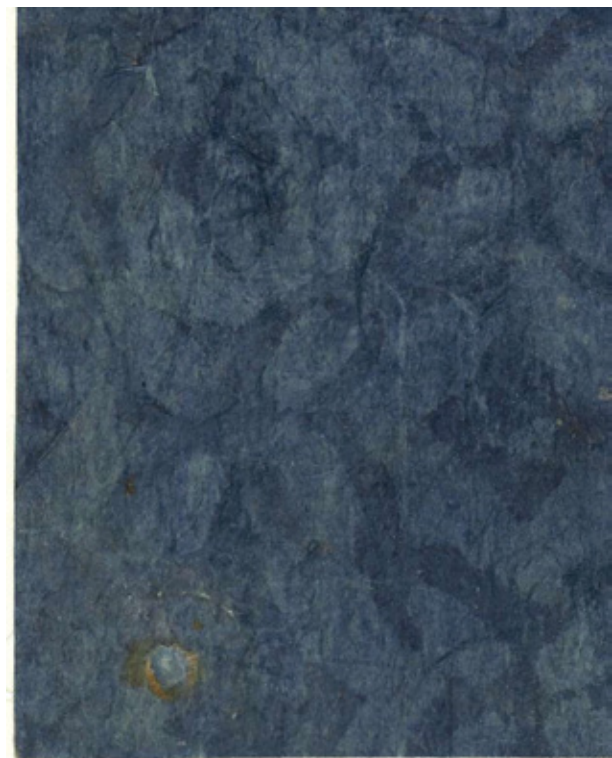


Fig. 7c: Detail of lower portion. Note the rust-coloured ring in lower left.



Fig. 8: Single-sheet woodblock print of Avalokiteśvara, half-sized paper format with hanging tabs added. Guiyijun period (848/851–1030/1036), dated 947. From Mogao Cave 17, Dunhuang. London, British Museum, 1919,0101,0.243.



Fig. 9: Single-sheet woodblock print depicting Mañjuśrī seated on a lion with attendants and ritual text, with added suspension loop in silk. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4514 (2) 1.





Fig. 10: Detail of coloured hemp banner depicting Avalokiteśvara, with seated Amitābha Buddha in triangular headpiece. Guiyijun period (848/851–1030/1036), c. 901-950. From Mogao Cave 17, Dunhuang. London, British Museum, 1919,0101,0.147.

rod display that likely has its origins in traditional methods used to display paintings on silk.<sup>53</sup> BnF P.4518 (21),<sup>54</sup> (Fig. 11), a painting on paper of a seated buddha with attendants and donor image, has two small paper tabs that were glued flush against the outer edges of the upper margin of the painting. The bottom of the sheet is wrapped around a wooden rod that serves as a ballast.<sup>55</sup> Three paper loops likewise run along the upper edge of the paper painting in BnF P.4518 (13).<sup>56</sup> Here the three intact tabs appear to have been glued to both the front and back of the sheet, creating a loop through which a rod or hanger could have been threaded. Still other paintings, such as the hemp painting of Avalokiteśvara in the British Museum, BM 1919,0101,0.201<sup>57</sup>, were prepared to be displayed by stitching a loop along the upper edge to create an opening for a suspension rod to be added, in the manner similar to a curtain on a rod.

Overall, the mounting holes and hanging tabs observable among the 947 prints are among a range of display technologies that link these prints to a spectrum of other printed and painted pieces on paper, hemp, and ultimately silk.<sup>58</sup> These hanging displays represent centuries' worth of innovation by the time we arrive in the tenth century.

### 3.3 Creative modifications: cropping and collaging

Roughly a third of the surviving prints show signs of creative modifications to their appearance and content. On some occasions, these modifications employed traditional workshop techniques such as cropping and collaging, and/or additions of paper borders (new or recycled), colour, and in one instance a handwritten dedicatory inscription. Although as previously mentioned Cao's prints were unusual in their occasion-specific and regionally oriented content, these more elaborate creative modifications are not unique to our print corpus of 947, as similar examples exist across the wider illustrated print corpus preserved at Dunhuang. Instead, as with the mounting holes and hanging tabs, we once again see a transfer of technologies and devotional practices across media and object types intended for display. Our study thus suggests that as time wore on Cao's prints were ultimately

<sup>53</sup> The earliest forms of Chinese banners and hanging images appear to date back to at least the time of the Han dynasty, samples of which are found at the Mawangdui burial site.

<sup>54</sup> BnF P.4518 (21) <<https://gallica.bnf.fr/ark:/12148/btv1b83000084>>.

<sup>55</sup> At least four additional samples of paintings on paper from the Pelliot collection in the BnF include hanging tabs, all of which show (slight) variations in their construction: P.4518 (1), <<https://gallica.bnf.fr/ark:/12148/btv1b52513338n>>; P.4518 (9), <<https://gallica.bnf.fr/ark:/12148/btv1b52513408s>>; P.4518 (12), <<https://gallica.bnf.fr/ark:/12148/btv1b52513341x>>; and P.4518 (13), <<https://gallica.bnf.fr/ark:/12148/btv1b52513342c>>. Additional examples include BM 19191,0101,0.19, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-19](https://www.britishmuseum.org/collection/object/A_1919-0101-0-19)>; BM 19191,0101,0.52, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-52](https://www.britishmuseum.org/collection/object/A_1919-0101-0-52)>; and BM 1919,0101,0.59, <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-59](https://www.britishmuseum.org/collection/object/A_1919-0101-0-59)>.

<sup>56</sup> BnF P.4518 (13), <<https://gallica.bnf.fr/ark:/12148/btv1b52513342c>>.

<sup>57</sup> BM 1919,0101,0.201 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-201](https://www.britishmuseum.org/collection/object/A_1919-0101-0-201)>.

<sup>58</sup> Several theories have been proposed to account for the different types of votive objects, made of materials of differing quality and cost, that circulated as part of the local Buddhist merit economy. On this topic, see Zhang 2007, who goes so far as to propose that the portable paintings on silk, hemp, and paper at Dunhuang were low-cost (or lower-cost) options for Buddhists with less access and means than the painted wall murals commissioned by local elites in their family cave shrines at Mogao. We thank Yu-ping Luk for referring us to Zhang's study.



Fig. 11: Paper painting depicting seated Buddha triad with standing Bodhisattvas and donor, with hanging tabs added; mounting holes in upper and lower margins. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4518 (21).

treated like other Buddhist votive objects (deity images; ex-votos): creative modifications effected a rededication of the prints, guided by traditional Buddhist devotional practices and craftwork techniques. In this medieval context, the devotional and the artisanal met.<sup>59</sup>

Before describing the creative modifications that link these prints to others from Dunhuang, it is worth considering the specific case of the 947 prints in light of what we can know of their historical context and complex temporality, although our findings must remain suggestive given the limitations of our sample. We hypothesized that, as images of the deities, across the decades of their circulation these prints would have held continuous religious significance; however, Cao's dated inscriptions also bind these prints to their historical moment in ways that may have given them a different reception over time. The question can thus be asked: among the community members who valued these prints in any capacity sufficiently to preserve them to the point that they survived in the cave, to what extent did Cao Yuanzhong's inscriptions (the blocks of text beneath the Vaiśravaṇa and Avalokiteśvara images) remain an important part of the prints, compared to the votive images? This question can be approached on a material level by examining a modification specific to our prints: separation of Cao's 'text below' from the 'image above'.

For both prints, a substantial number of artefacts retain the image and text together, even when other modifications reshaped the prints, such as collaging or additions of new border or backing materials.<sup>60</sup> When modifications were made that did affect image and text differently, individuals varied in how they dealt with these inscriptions upon separation, some choosing to preserve the texts as separate fragments rather than reuse or discard them. Overall, a greater survival of intact images suggests that Cao Yuanzhong's devotional inscriptions did 'age' somewhat differently from the images, becoming less relevant or valuable over time.<sup>61</sup> However, intriguingly, separations of text and image are much more prevalent for the Avalokiteśvara prints than for their Vaiśravaṇa counterparts.<sup>62</sup> While this last point must remain especially tentative, these differing ratios of the prints' survival 'complete' into the modern day may preliminarily suggest that overall, community members were readier to modify the Avalokiteśvara prints. Whether this was a choice based on the deity, the perceived relevance of Cao's different inscriptions, the visual appearance and format of the prints, or some combination of these or other factors, the authors do not hazard a guess.

In many cases these separations of text and image represented a step in the preparation of the image for new display, whether placed on a backing or mount with borders or combined into a collage. The most spectacular example of this practice is BM 1919,0101,0.244,<sup>63</sup> a compound of

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<sup>59</sup> Fricke 2019, 45.

<sup>60</sup> See Appendix. Of the thirty-three artefacts surveyed, at least twenty-one currently preserve both their original text and image.

<sup>61</sup> See Appendix. Among the Vaiśravaṇa artefacts surveyed, in total there are fifteen intact images and thirteen-to-fourteen texts; the question case is Stein Ch.00158, described in Stein 1921, vol. 2, 969, with a partial image on vol. 4, plate C, which we have not been able to examine in person or in modern digitized form. Among the Avalokiteśvara artefacts surveyed there are twenty-two images in total, compared to twelve texts.

<sup>62</sup> See Appendix. At least twelve and likely thirteen of the seventeen Vaiśravaṇa artefacts surveyed preserve both image and text together (Ch.00158 again being the question mark). Nine of the sixteen Avalokiteśvara artefacts surveyed currently preserve both image and text together.

<sup>63</sup> BM 1919,0101,0.244 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-244](https://www.britishmuseum.org/collection/object/A_1919-0101-0-244)>.

nine separate image-blocks of Avalokiteśvara cut to size and arranged into three rows and columns (Fig. 12). A close look at these individual components reveals signs that they were assembled together after they had already been in use for some time: each image is weathered and faded to a different degree, and numerous smudges and oil stains end abruptly at the point of trimming, indicating that they occurred before the pages were collaged. This artefact tells the story of a period where one or more Buddhists in Dunhuang collected old prints that had already had a previous period of circulation, and cut out the images of Avalokiteśvara to create a new devotional collage.

A similarly layered story of use and reuse is represented in three surviving objects in the BnF: two lower halves of what were once Avalokiteśvara prints in the full-size format, torn off at the text block<sup>64</sup> and a collage of two (again, full-size) Avalokiteśvara print upper halves, showing evidence of having spent time as a roll (Fig. 13a). Although the BnF catalogue information does not indicate this, close comparison of the torn edges of these artefacts suggests that the left side of P.3965 and P.4514 (6) 5, and the right side of P.3965 and P.4514 (6) 6, were originally two complete leaves (Fig. 13b).

P.4514 (6) 5 and P.4514 (6) 6 also share a light-coloured area, possibly indicating a former adhesive, comprising approximately the bottom 4 cm of both leaves, which for P.4514 (6) 5 also extends up the page's right edge, corresponding to the location of the seam between the sheets in P.3965. If these light discolourations were indeed caused by an adhesive or its removal, then they suggest not only that these lower halves were part of the original configuration of the collage now represented in P.3965, but that additional sheets or border materials were once attached below them. (This is a case where additional scientific analysis might prove highly fruitful.) These sheets together suggest a multilayered story: a period of aggregate display, to borrow a phrase from art historian Hsueh-man Shen, as two or more full-sized sheets collaged together, followed by a relatively careful tearing to remove the text blocks, leading to a new life for the two Avalokiteśvara images as a roll.<sup>65</sup> It is interesting that despite being detached, the lower halves containing Cao Yuanzhong's text were not discarded.

Similar collages comprised of whole or cropped illustrated single-sheet prints have been found among the other printed materials at Dunhuang, sometimes accompanied by additional dedicatory inscriptions or other features. A well-known example is a collage of four *shangtu xiawen* prints of Mañjuśrī with ritual text found in BM 1919,0101,0.239.<sup>66</sup> Here we see the prints mounted on a larger sheet and the addition of a strip of paper with an inscription beneath an image of a seated buddha with added colour. Similarly, BnF P.4514 (3) A,<sup>67</sup> is a collage of paired printed images of Amitābha at the right, Mañjuśrī at the left, backed onto a paper reinforcement (that looks to have been recycled at some point) (Fig. 14). Remarkably, strips of paper were added to either side

<sup>64</sup> P.4514 (6) 5 <<https://gallica.bnf.fr/ark:/12148/btv1b8300076z>>, and BnF P.4514 (6) 6 <<https://gallica.bnf.fr/ark:/12148/btv1b8300077c>>.

<sup>65</sup> Shen 2019, 83–86 discusses several Dunhuang collages.

<sup>66</sup> BM 1919,0101,0.239 <[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-239](https://www.britishmuseum.org/collection/object/A_1919-0101-0-239)>. A second collage of what appear to be four Mañjuśrī prints now preserved in several fragments (TK283) is reproduced in *Eluosi kexueyuan dongfang yanjiusuo Shengbidebao fensuo*, et al. 1997, 372.

<sup>67</sup> BnF P.4514 (3) A <<https://gallica.bnf.fr/ark:/12148/btv1b8300061h>>.



Fig. 12: Collage of nine Avalokiteśvara image blocks. Guiyijun period (848/851–1030/1036), c. 947. From Mogao Cave 17, Dunhuang. London, British Museum, 1919,0101,0.244.



Fig. 13a: Collage of two single-sheet woodblock prints depicting Avalokiteśvara, upper halves only. Guiyijun period (848/851–1030/1036), c. 947. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.3965.

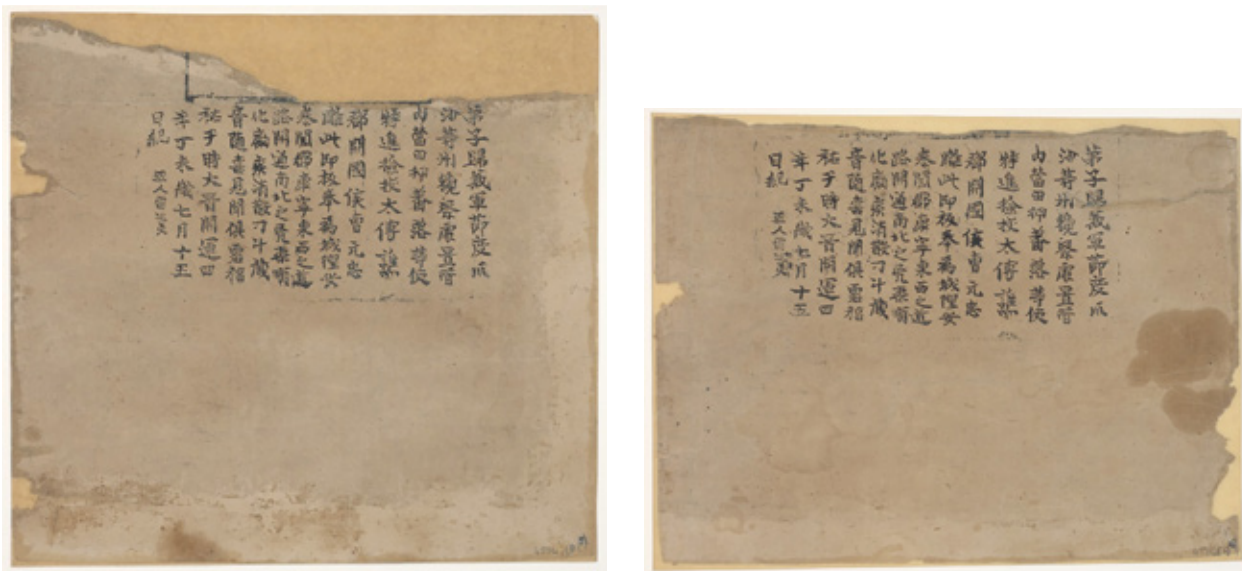


Fig.13b: Two detached lower halves. Paris, Bibliothèque nationale de France, P.4514 (6) 5 (top) and P.4514 (6) 6 (bottom).

of the composite image to allow the makers of this votive object to inscribe new dedications for the repurposed prints. The inscription on the right reads ‘A record of Master Youyi’s meritorious deeds, dated the sixth day of the third month of the *jiashen* year (924? 984?)’ 甲申年三月六日右壹大師流次功德記. The inscription on the left reads, ‘he disciple and *bhikṣu* Zhiduan installed the bodhisattva Mañjuśrī on the sixth day of the third month of the *jiashen* year (924? 984?).’ 甲申年三月六日弟子比丘智端安置文殊利菩薩.<sup>68</sup>

<sup>68</sup> Translations our own. The reference to Master Youyi’s ‘meritorious deeds’ in the inscription on the right might refer to the making of the collage itself, a votive image that might have been used in the altar rite mentioned in the inscription on the left. It is also possible that the collage was made to memorialize the completed Mañjuśrī altar rite.



Fig. 14: Collage of two single-sheet woodblock prints, seated Amitābha (right) and Mañjuśrī seated on a lion (left) with paper backing reinforcement and handwritten dedications. Guiyijun period (848/851–1030/1036), tenth century. From Mogao Cave 17, Dunhuang. Paris, Bibliothèque nationale de France, P.4514 (3) A.

### 3.4 Creative modifications: remounting, colouring, and re-dedicating

Among the Avalokiteśvara print corpus of 947 there is also a complex example of remounting and the addition of bordering material, colour, and a dedicatory inscription, which connects to the wider tradition of creative modifications used in the rededication of an existing votive object alluded to above.<sup>69</sup> British Library Or. 8210/P.9,<sup>70</sup> began life as a ‘half-size’ Avalokiteśvara print (Fig. 15). The print has been reinforced with a new mount fashioned from recycled paper to create borders along all four sides. In addition, colour has been added to the deity image, transforming the object into what is in effect a mounted painting of Avalokiteśvara, a painting whose underdrawing was the original printed black-ink image of the deity.<sup>71</sup> BL Or. 8210/P.9 has been further enhanced through the addition of a handwritten inscription that reads, ‘An offering made whole-heartedly

<sup>69</sup> MG EO1218 D is a particularly curious example of the colouring of a 947 print.

<sup>70</sup> British Library Or. 8210/P.9 <<https://idp.bl.uk/collection/87CE35302CBA4A348492DA162EF539A2/?return=%2Fcollection%2F%3Fterm%3DOr.8210%252FP.9>>.

<sup>71</sup> We would like to thank Michelle McCoy for this insight.



by the elder Yuanjing’ 老子願淨造一心供養.<sup>72</sup> Here the donor, or some proxy, has added a hand-written dedication using a devotional formula seen across portable Buddhist votive objects at Dunhuang.<sup>73</sup> But was this same individual also responsible for making this object from a repurposed Cao print? And if so, when did they remount, colour, and inscribe the image? And from where did they source the tools, pigments, and paper needed to complete the job? While such questions must remain unanswered, we can say that BL Or. 8210/P.9, dark with oil stains and much folded, a witness to traditional craftwork techniques, is representative of the rich and long histories of production and use represented by the corpus of paper Buddhist votive objects at Dunhuang.

#### 4. Implications

Ultimately, the woodblock prints of 947 were treated as versions of what we are more accustomed to thinking about as Buddhist votive paintings.<sup>74</sup> This interpretation is supported by the observation that the inked prints were both mounted and modified in ways similar to those applied to the portable paintings from Dunhuang and were used, at least in some cases, as underdrawings to which washes of colour were applied (paralleling the preparation method used to create the Dunhuang paintings). Additionally, the illustrated prints were sometimes outfitted with tabs for hanging, a practice that also connects our prints to some of the surviving portable paintings. Together, these votive objects give us a sense of the various display methods that were in use in the region.

The original commissioning and distribution of the prints for merit by the sitting ruler of Dunhuang, and their subsequent histories of use and reuse by local Buddhist devotees, constitute separate but interconnected acts of merit dedication and rededication. Clearly, the prints circulated



Fig. 15: Single-sheet woodblock print of Avalokitesvara, half-sized paper format remounted on recycled paper with colour and handwritten inscription, and mounting holes along upper and lower margins; horizontal laid lines also visible. Gui-yijun period (848/851–1030/1036), dated 947. From Mogao Cave 17, Dunhuang. London, British Library, Or.8210/P.9.

<sup>72</sup> The phrase *laozi* 老子 (certainly not Laozi?!), might be translated as ‘the elder’, or even ‘father’, and appears to be a diminutive used by Yuanjing to refer to himself. Teiser 1994, 122 reports on ‘an old man of eighty-five’ (*bashiwu laoren* 八十五老人) who hand copied *The Scripture on the Ten Kings* in Dunhuang during the tenth century. While *laozi* and *laoren* call up very different images, both epithets could have been used by male donors of a certain age or status. It is possible that Yuanjing 願淨 (lit. ‘pure vow’ or ‘vow of purity’) is not a name at all but a reference to the act of making a ‘pure donation’ in the form of the votive object labeled Or.8210/P.9.

<sup>73</sup> On the devotional formulas used in the dedications on banner paintings and other votive objects from Dunhuang – formulas that invoke the practice of the transference of merit (*huixiang* 迴向), in which the living perform meritorious deeds on behalf of their deceased relatives – see Soyminié 1999–2000; Adamek 2005; Sørensen 2019.

<sup>74</sup> Our argument here builds on Huang 2011’s treatment of Song dynasty ‘printed paintings’.

in an economy of merit like their votive cousins, the portable paintings – and by extension the commissioned wall murals that adorn the family shrine caves at Mogao. The inscriptions on our print samples make this clear: Cao, as original donor, had his dedications carved into woodblocks and printed for distribution; later hands inscribed their own names and added their own dedications using ink and brush (or pen), thereby enhancing these same prints, now reused or repurposed, to make their own displays of devotion. This is the type of offering on display in the repurposed print artefact in British Library Or.8210/P.9 and many of the other examples we have offered.

We may also usefully think of these votive objects as Buddhist craftworks: taken together, the print corpus of 947, and the various materials, tools, and techniques required to produce them, offer a rare window onto local artisanal practices and their intersections with local Buddhist devotional practices. These votive objects give us pause to consider both the makers and the users (and re-makers) of these paper creations (were they the same individuals?), and to speculate about the ways in which acts of creative reuse, whether simple or more adaptive, can be understood as acts of ‘pious devotion’, whether undertaken by trained craftspeople, by monks and nuns, by regional rulers, or by lay practitioners for personal use.<sup>75</sup>

Most of what we first took to be peculiar features of the 947 prints have been revealed to participate in larger patterns of use and reuse visible across portable votive images from Cave 17, whether on paper, hemp, or silk. And yet, a number of questions remain: why did the Avalokiteśvara prints as a group undergo so much variation – from their initial printing to their received forms – and is it a coincidence that the surviving Vaiśravaṇa prints were largely unmodified by comparison? Exactly how many times were these portable devotional objects used? Do these objects represent ‘humble’ or ‘modest’ privately made objects or were they purchased in a local workshop or printshop? Why recycle the prints, instead of commissioning new printed images?

While these questions must go unanswered, the approach we have taken here, what we have called a cohort study guided by our intuition as object biographers, has revealed a number of common features across a wider set of printed and painted Buddhist votive objects that, for one reason or another, were collected and stored in Mogao Cave 17. Having poured over the Dunhuang collections as they exist today, whether in Toronto, New York, London, or Paris, we have tried to bring together enough examples of the Dunhuang prints to paint a picture of Buddhist print history that acknowledges the layered histories and changing significance of individual votive objects, including the period of their modern collection and dispersal (on which, see our notes in the appendix). While much remains unclear about our print corpus, it is clear is that these printed materials represent, to borrow a phrase from art historian Beate Fricke, ‘complex processes of collaboration involving donors, patrons, designers, and fabricators’.<sup>76</sup> Further cohort studies of the groups of illustrated Buddhist prints only touched on here may continue to shed additional light on the role of printing within the Dunhuang community and the reception and use of print materials. We might go one step further to suggest that the combination of methodologies on display in this essay, methods drawn from object biography, art history, Buddhist studies, and beyond, have given

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<sup>75</sup> Fricke 2019, 45.

<sup>76</sup> Fricke 2019, 52.

us greater insight into the many lives of these old Buddhist prints and the many hands that helped create and recreate them over time.

### Acknowledgments

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Fig. 15: © The archive of the British Library.

## Appendix

### Arrangement of the appendix

This appendix provides a descriptive catalogue of the known copies of Cao Yuanzhong's 947 CE Dunhuang print corpus. It is divided into two parts: a list of the Avalokiteśvara (AV) prints followed by a list of the Vaiśravaṇa (VS) prints, each identified by holding institution and museum accession number or library shelfmark. Additional notes are based on published catalogue information as well as our own examination of the prints, both in-person and online.

Sample entry:

AV1 BnF P.4514 (6) 1

[<https://gallica.bnf.fr/ark:/12148/btv1b8300063b>](https://gallica.bnf.fr/ark:/12148/btv1b8300063b)

Woodblock print, ink on paper. 32 × 23 cm.

Complete (half-size; horizontal laid lines).

Evidence of display: holes at four corners.

First line: our internal numbering system for the print corpus of 947; the holding institution and current, alternate, and past accession numbers.

Second line: a link to the digitization when available.

Third line: materials and dimensions. Unless otherwise noted, the dimensions of individual sheets are taken from catalogues published by the holding institutions and are provided in the following format: Height × Width.

Fourth line: description of the basic survival condition of individual sheets.

- ‘Complete’ refers to the sheet surviving intact including the full impressions of both text and image, as opposed to an upper or lower portion of the sheet, or in some cases ‘image only’ or ‘text only’ when a fragment has been heavily cropped.
- ‘Collage’ refers to multiple prints pasted together onto a backing.
- ‘Full-size, vertical laid lines’ refers to a paper substrate of dimensions c. 46 × 32 cm with laid lines running parallel to the long axis (vertical with the orientation of the artefact).
- ‘Half-size, horizontal laid lines’ refers to a sheet c. 32 × 23 cm with laid lines running crosswise to the long axis (horizontal with the orientation of the artefact).
- ‘Cropped’ refers to the removal of blank paper from one or more margins, a step in the composition of the surviving object.

Fifth line: identifies signs of a possible hanging display, such as the presence of hanging tabs, or of holes where implements (nails?) may have been driven through portions of the sheets, typically the corners.

Additional lines: misc. notes regarding the survival condition, provenance, and present location of the object.

### Museum accession numbers, library shelfmarks, and abbreviations

1919,0101

Objects (paintings, banners, and prints, totaling 283) from Dunhuang collected by Stein on his Second Central Asian Expedition (1906–08) and held at the British Museum, London, acquired in the year 1919

BL

British Library, London

BM

British Museum, London

BnF

Bibliothèque nationale de France, Paris

Ch.

Objects from Dunhuang held in the Stein Collection at the National Museum, New Delhi, and the British Museum, London

## EO

Objects from Central Asia held in the Pelliot collection at the Musée national des arts asiatiques–Guimet, Paris, transferred from the Musée du Louvre, Paris

## Or.8210/P

Printed documents from Dunhuang held in the Stein Collection at the British Library, London (Or. 8210/P.1–19; shelfmarks Or. 8210/S.1–6980 refer to the Chinese manuscripts from Dunhuang at the British Library)

## MG

Musée national des arts asiatiques–Guimet, Paris

## Met

Metropolitan Museum of Art, New York City

## P.

Objects from Dunhuang held in the Pelliot chinois collection at the Bibliothèque nationale de France, Paris; printed documents are mainly catalogued under shelfmarks P.4514, P.4515, and P.4516.

## ROM

Royal Ontario Museum, Toronto

**1. List of paper artefacts of Avalokiteśvara (AV) prints, c. 947 CE**

## AV1 BnF P.4514 (6) 1

<<https://gallica.bnf.fr/ark:/12148/btv1b8300063b>>

Woodblock print, ink on paper. 32 × 23 cm.

Complete (half-size; horizontal laid lines).

Evidence of display: holes at four corners.

## AV2 BnF P.4514 (6) 2

<<https://gallica.bnf.fr/ark:/12148/btv1b8300075j>>

Woodblock print, ink on paper. 46.3 × 32.2 cm.

Complete (full-size; vertical laid lines), blocks at top of sheet; oil stains, deterioration with many missing portions on right edge of sheet.

Evidence of display: holes at centre of upper and lower margins and at corners (where corners remain).

## AV3 BnF P.4514 (6) 3

<<https://gallica.bnf.fr/ark:/12148/btv1b8300151g>>

Woodblock print, ink on paper. 25.4 × 14.6 cm.

Image only (vertical laid lines), cropped.

Evidence of display: holes at four corners.

## AV4 BnF P.4514 (6) 4

<<https://gallica.bnf.fr/ark:/12148/btv1b8300152w>>

Woodblock print, ink on paper. 30.5 × 21.5 cm.

Image only (horizontal laid lines) with blank margins of several cm on left, upper, and lower sides; image block is cropped flush with the right edge, but a strip of recycled paper is attached, creating an even margin of similar proportions to the others.

Evidence of display: none visible.

## AV5 BnF P.4514 (6) 5

<<https://gallica.bnf.fr/ark:/12148/btv1b8300076z>>

Woodblock print, ink on paper. 29.5 × 32.0 cm.

Lower half of full-size sheet (vertical laid lines), ripped horizontally between image and text blocks; sheet contains text and lower left corner of image.

Evidence of display: no holes visible; possible adhesive along lower and right margins.

Notes: Lower half of left sheet of collage P.3965.

## AV6 BnF P.4514 (6) 6

<<https://gallica.bnf.fr/ark:/12148/btv1b8300077c>>

Woodblock print, ink on paper. 24.5 × 32.1 cm.

Lower half of full-size sheet (vertical laid lines), ripped horizontally between image and text blocks.

Evidence of display: no holes visible; possible adhesive along lower margins.

Notes: Lower half of right sheet of collage P.3965.

## AV7 BnF P.4514 (6) 7

<<https://gallica.bnf.fr/ark:/12148/btv1b83001539>>

Woodblock print, ink on paper. 9.5 × 23.5 cm.

Text only (vertical laid lines), closely cropped along upper and lower edges and torn at right, some characters cut off at bottom and right edges.

Evidence of display: none visible.

## AV8 BnF P.3965

<<https://gallica.bnf.fr/ark:/12148/btv1b8300849t>>

Woodblock print, ink on paper. 22.4 × 62 cm.

Collage of upper halves of two full-size sheets (vertical laid lines) adhered together with additional paper reinforcement at upper middle; lower halves of the sheets have been torn off roughly at the text block, with lower left corner of left image block missing.

Evidence of display: holes in centre upper margin of right image only; upper far left and right corners cropped and missing.

Notes: These collaged sheets are the upper halves of P.4514 (6) 5 and P.4514 (6) 6; at some point the text blocks were detached, and the collage that is now P.3965 was rolled into a scroll format.

## AV9 BM 1919,0101,0.242 (Stein painting 242; Ch.00185.d)

<[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-242](https://www.britishmuseum.org/collection/object/A_1919-0101-0-242)>

Woodblock print, ink on paper. 31.7 × 20.2 cm.

Complete (half-sized; horizontal laid lines), slightly cropped. Multiple oil stains, concentrating over lower third and text block; burn in text block, at centre of oil stain. Section missing from lower right corner.

Evidence of display: none visible.

## AV10 BM 1919,0101,0.243 (Stein painting 243; Ch.00185.c)

<[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-243](https://www.britishmuseum.org/collection/object/A_1919-0101-0-243)>

Woodblock print, ink on paper. 32 × 20 cm.

Complete (half-sized; horizontal laid lines, confirmed by in-person examination), three paper tabs for hanging added to upper edge. Character added in lower right corner of image block.

Evidence of display: hanging tabs; hole in central hanging tab.

## AV11 BM 1919,0101,0.244 (Stein painting 244; Ch.lvi.0026)

<[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-244](https://www.britishmuseum.org/collection/object/A_1919-0101-0-244)>

Woodblock prints, ink on paper. 63 × 42 cm.

Collage of 9 image blocks arranged in 3 × 3 grid; laid line alignment of individual sheets indeterminate.

Evidence of display: multiple holes at upper and lower margins; several also in upper margins and corners of specific images.



## AV12 BL Or.8210/P.9

<<https://idp.bl.uk/collection/87CE35302CBA4A348492DA162EF539A2/?return=%2Fcollection%2F%3Fterm%3DOr.8210%252FP.9>>

Woodblock print, ink with added colour on paper. 43.8 × 26.8 cm.

Complete (half-sized; horizontal laid lines), cropped and reinforced on all sides with borders of recycled paper. Sheet reinforced with recycled paper, colour and inscription added; heavily stained, apparently much used.

Evidence of display: holes at corners and centres of upper and lower margins.

## AV13 MG EO1218 D

<<https://idp.bl.uk/collection/26DBF6F33C0E814780F5C8A490981EA8/?return=%2Fcollection%2F%3Fterm%3DEO%2B1218>>

Woodblock print, ink with added colour on paper. 32 × 23.8 cm.

Complete, cropped (vertical laid lines, confirmed by in-person examination). Colour added, somewhat obscuring the deity's face.

Evidence of display: none visible.

## AV14 ROM 927.24 (Stein painting 241; Ch.00185.a)

<<https://collections.rom.on.ca/objects/351646/avalokitesvara-prayer-sheet>>

Woodblock print, ink on paper. 46 × 32 cm.

Complete (full-size; vertical laid lines, confirmed by in-person examination), oil stains along left side of sheet.

Evidence of display: holes at corners and centres of upper and lower margins; many additional holes around margins of sheet.

Notes: received from BM on 29 December 1927 in exchange for three Han dynasty bronze belt fittings (now BM 1927,1217.1, 1927,1217.2, and 1927,1217.3). A photograph of this print, precleaning, appears in Stein 1921, vol. 4, plate CIII.

## AV15 Met CP5

<<https://www.metmuseum.org/art/collection/search/63182>>

Woodblock print, ink on paper. 47.6 × 32.4 cm.

Complete (full-size; vertical laid lines).

Evidence of display: multiple holes at each of the four corners.

Notes: gifted by Paul Pelliot to the Pierpont Morgan Library and transferred to the Metropolitan Museum of Art. Cf. correspondence between Bosch-Reitz, Belle Greene, and Paul Pelliot, 1924 Feb. 5, 10.

AV16 Formerly at: Beijing Wulun International Auction Co. Ltd. Sold at: 2018 Autumn Auction (Guanshiyin pusa xiang)

<[http://www.wulunpaimai.com/mobile/news\\_show.aspx?id=203](http://www.wulunpaimai.com/mobile/news_show.aspx?id=203)>

Woodblock print, ink on paper. 46 × 32 cm.

Complete (full-size; vertical laid lines).

Evidence of display: holes at top left, top right, and lower left.

## 2. List of paper artefacts of Vaiśravaṇa (VS) prints, c. 947 CE

VS1 BnF P.4514 (1) 1

<<https://gallica.bnf.fr/ark:/12148/btv1b8300018h>>

Woodblock print, ink on paper. 46.7 × 32.1 cm.

Complete (full-size; vertical laid lines).

Evidence of display: holes at upper left, upper centre, lower left, lower right; upper right corner missing.

VS2 BnF P.4514 (1) 2

<<https://gallica.bnf.fr/ark:/12148/btv1b83000655>>

Woodblock print, ink on paper. 46.5 × 32.2 cm.

Complete (full-size; vertical laid lines), printed slightly askew.

Evidence of display: holes at top centre; other corners and bottom centre margin all missing.

VS3 BnF P.4514 (1) 3

<<https://gallica.bnf.fr/ark:/12148/btv1b8300066k>>

Woodblock print, ink on paper. 46.7 × 32.5 cm.

Complete (full-size; vertical laid lines), faded.

Evidence of display: holes at outer corners.

VS4 BnF P.4514 (1) 4

<<https://gallica.bnf.fr/ark:/12148/btv1b83000670>>

Woodblock print, ink on paper. 46 × 32.2 cm.

Complete (full-size; vertical laid lines) apart from deterioration at left side of sheet.

Evidence of display: holes at upper left and upper right corners; lower corners and upper and lower centre margins missing.

Notes: partial sketch visible on reverse; suggests sheet was either repurposed or reinforced with recycled paper.

## VS5 BnF P.4514 (1) 5

<<https://gallica.bnf.fr/ark:/12148/btv1b8300068d>>

Woodblock print, ink on paper. 46.3 × 32.2 cm.

Complete (full-size; vertical laid lines), very faded.

Evidence of display: holes at outer corners.

## VS6 BnF P.4514 (1) 6

<<https://gallica.bnf.fr/ark:/12148/btv1b8300069t>>

Woodblock print, ink on paper. 46.7 × 32.5 cm.

Complete (full-size; vertical laid lines), very faded, with some oil stains.

Evidence of display: holes at upper left and upper right corners and lower left.

## VS7 BnF P.4514 (1) 7

<<https://gallica.bnf.fr/ark:/12148/btv1b8300019x>>

Woodblock print, ink on paper. 46.8 × 32.4 cm.

Complete (full-size; vertical laid lines).

Evidence of display: multiple holes clustered at upper corners and centre margins; lower corners missing.

## VS8 BnF P.4514 (1) 8

<<https://gallica.bnf.fr/ark:/12148/btv1b8300070g>>

Woodblock print, ink on paper. 46.5 × 32.5 cm.

Complete (full-size; vertical laid lines), faded and possible water stains, oil marks throughout.

Evidence of display: holes at both centre margins and lower left corner; upper left, upper right, and lower right corners all missing.

## VS9 BnF P.4514 (1) 9

<<https://gallica.bnf.fr/ark:/12148/btv1b8300071w>>

Woodblock print, ink on paper. 46.7 × 32.5 cm.

Complete (full-size; vertical laid lines), faded.

Evidence of display: holes at both centre margins and possibly at right corners; left corners missing.

## VS10 BnF P.4514 (1) 10

<<https://gallica.bnf.fr/ark:/12148/btv1b8300020k>>

Woodblock print, ink on paper. 47 × 32.5 cm.

Complete (full-size; vertical laid lines).

Evidence of display: holes at four corners.

## VS11 BnF P.4514 (1) 11

<<https://gallica.bnf.fr/ark:/12148/btv1b83000729>>

Woodblock print, ink on paper. 31.2 × 32.3 cm.

Upper portion including image only (full-size; vertical laid lines), neatly torn to remove text block.

Evidence of display: holes at upper corners; lower margin missing.

## V12 BnF P.3879

<<https://gallica.bnf.fr/ark:/12148/btv1b83006605>>

Woodblock print, ink on paper. 25.5 × 32 cm.

Text and lower half of image (full-size; vertical laid lines).

Evidence of display: none visible.

## VS13 BnF P.4514 (7) A

<<https://gallica.bnf.fr/ark:/12148/btv1b8300064r>>

Woodblock print, ink on paper. 46.2 × 32.5 cm.

Image and right two-thirds of text block (full-size; vertical laid lines); large square of lower left corner ripped, now missing.

Evidence of display: none visible.

## VS14 BnF P.4514 (7) B

<<https://gallica.bnf.fr/ark:/12148/btv1b8300078s>>

Woodblock print, ink on paper. 38 × 32.3 cm.

Image and upper part of text (full-size; vertical laid lines); ripped along lower margin with losses in all lines of text.

Evidence of display: none visible.

## VS15 BM 1919, 0101, 0.245 (Stein painting 245; Ch.xxx.002)

<[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-245](https://www.britishmuseum.org/collection/object/A_1919-0101-0-245)>

Woodblock print, ink on paper. Dimensions of block only are 40 × 26.5 cm.

Complete (full-size; vertical laid lines), three paper tabs for hanging added to upper edge; middle tab torn.

Evidence of display: hanging tabs; holes also visible on the two intact tabs.

## VS16 BL Or.8210/P.8

<<https://idp.bl.uk/collection/183C7375754F4E25A3001BC741BE6189/?return=%2Fcollection%2F%3Fterm%3DOr.8210%252FP.8>>

Woodblock print, ink on paper. 48.5 × 32.6 cm.

Complete (full-size). Complete (full-size; vertical laid lines).

Evidence of display: holes at upper corners, lower corners, and lower centre margin.

VS17 National Museum of New Delhi (?) Ch.00158

<<https://archive.org/details/in.gov.ignca.13289/page/n213/mode/2up>>

Woodblock print, ink on paper. Dimensions unknown.

Complete (?).

Evidence of display holes: (?).

Notes: A partial image of Ch.00158 is included in Stein 1921, vol. 4, plate C, sufficient to identify this as a separate print from examples VS1–16 listed above. The BnF catalogue's record for VS1 (see entry P.4514 [1] 1) indicates that this is at the National Museum, New Delhi, but we have not yet been able to examine the full print.

Additional notes:

Unlike Ch.00185.a, c, and d, which are here identified, the authors have been unable to positively identify the present locations of Ch.00185.b, e, and f, all of which are simply described by Stein as having 'pinholes at corners' (Stein 1921, vol. 2, 974); the BnF catalogue record for P.4514 (6) 1 indicates Ch.00185.e is located at the National Museum, New Delhi but we have not been able to confirm its present location.

## References

### Primary sources

Institute of Oriental Manuscripts, Russian Academy of Sciences, Dx.02881+Dx.02882; TK283

Metropolitan Museum of Art, CP5

Pelliot chinois collection, Bibliothèque nationale de France, P.3879, P.3965, P.4514 (1) 1, P.4514 (1) 2, P.4514 (1) 3, P.4514 (1) 4, P.4514 (1) 5, P.4514 (1) 6, P.4514 (1) 7, P.4514 (1) 8, P.4514 (1) 9, P.4514 (1) 10, P.4514 (1) 11, P.4514 (2), P.4514 (2) 1, P.4514 (2) 2, P.4514 (2) 4, P.4514 (2) 17, P.4514 (2) 25, P.4514 (2) 26, P.4514 (2) 28, P.4514 (3) A, P.4514 (3) B, P.4514 (5), P.4514 (6) 1, P.4514 (6) 2, P.4514 (6) 3, P.4514 (6) 4, P.4514 (6) 5, P.4514 (6) 6, P.4514 (6) 7, P.4514 (7) A, P.4514 (7) B, P.4514 (17) A, P.4514 (17) B, P.4514 (18), P.4514 (20), P.4514 (22), and P.4514 (23), P.4515, P.4516, P.4518 (1), P.4518 (3) P.4518 (5) P.4518 (6), P.4518 (9), P.4518 (12), P.4518 (13), P.4518 (17), P.4518 (19), P.4518 (21), P.4518 (25), P.4518 (27), P.4518 (29), P.4518 (35)

Pelliot collection, Musée national des arts asiatiques – Guimet, EO1218 D

Royal Ontario Museum, Toronto, 927.24

Shanghai Museum, 3296

Stein Collection, British Library, Or.8210/P.8, Or.8210/P.9, Or.8210/P.11

Stein Collection, British Museum, 1919,0101,0.19, 1919,0101,0.52, 1919,0101,0.59, 1919,0101,0.147, 1919,0101,0.201, 1919,0101,0.234, 1919,0101,0.242, 1919,0101,0.243, 1919,0101,0.244, 1919,0101,0.245, 1919,0101,0.249

Stein Collection, National Museum of New Delhi, Ch.00158

### Secondary sources

Adamek, Wendi (2005), 'The Impossibility of the Given: Representations of Merit and Emptiness in Medieval Chinese Buddhism', *History of Religions*, 45/2: 135–180.

Appadurai, Arjun (1986), *The Social Life of Things: Commodities in Cultural Perspective*, Cambridge: Cambridge University Press.

Bai Huawen 白化文 (2004), 'Cao Yuanzhong yu Lei Yanmei' 曹元忠与雷延美, *Chuban shiliao* 出版史料, 4: 1.

Barrett, T. H. (2008), *The Woman Who Discovered Printing*, New Haven: Yale University Press.

Binyon, Laurence (1916), *Catalogue of Japanese and Chinese Woodcuts Preserved in the Sub-Department of Oriental Prints and Drawings in the British Museum*, London: British Museum.

Cohen, Monique and Nathalie Monnet (eds) (1992), *Impressions de Chine*, Paris: Bibliothèque nationale de France.

Drège, Jean-Pierre (1984), 'Eléments méthodologiques pour l'étude des documents de Dunhuang', in M. Soymié (ed.), *Les peintures murales et les manuscrits de Dunhuang*, Paris, Fondation Singer-Polignac, 53–59.

Doumy, Mélodie (2021), 'Dunhuang Texts', *Oxford Research Encyclopedia of Religion* <<https://doi.org/10.1093/acrefore/9780199340378.013.771>>.

—— (2023a), 'Shaping the Stein collection's Dunhuang corpus (1): Wang Yuanlu the first “curator”' <<https://idpuk.blogspot.com/2023/06/shaping-stein-collections-dunhuang.html>> (last accessed 20 July 2024).

- (2023b), ‘Shaping the Stein collection's Dunhuang corpus (2): the items from Cave 17's “miscellaneous” bundles’ <<https://idpuk.blogspot.com/2023/07/shaping-stein-collections-dunhuang.html>> (last accessed 20 July 2024).
- Edgren, Sören (1972), ‘The Printed Dhāraṇī-Sūtra of A.D. 956’, *Bulletin of the Museum of Far Eastern Antiquities*, 44: 141–152.
- (1984), *Chinese Rare Books in American Collections*, New York: China Institute in America.
- Eluosi kexueyuan dongfang yanjiusuo Shengbidebao fensuo 俄羅斯科學院東方研究所聖彼得堡分所, Zhongguo shehui kexueyuan minzu yanjiusuo 中國社會科學院民族研究所 and Shanghai guji chubanshe 上海古籍出版社 (1997), *Eluosi kexueyuan dongfang yanjiusuo Shengbidebao fensuo cang Heishuicheng wenxian* 俄羅斯科學院東方研究所聖彼得堡分所藏黑水城文獻, vol. 4, *Hanwen bufen* 漢文部分 (TK158–TK300), Shanghai: Shanghai guji chubanshe.
- Fang Guangchang 方廣錫 and Li Jining 李際寧 (eds) (2023), *Wulun jingyan gujing tulu* 伍倫經眼古經圖錄, Beijing: Guojia tushuguan chubanshe.
- Formigatti, Camillo A. (2016), ‘A Forgotten Chapter in South Asian Book History? A Bird’s Eye View of Sanskrit Print Culture’, in Hildegard Diemberger, Franz-Karl Ehrhard, Peter Kornicki (eds), *Tibetan Printing: Comparison, Continuities, and Change*, Leiden: Brill, 73–174.
- Fraser, Sarah E. (2004), ‘An Introduction to the Material Culture of Dunhuang Buddhism: Putting the Object in Its Place’, Special Issue on Buddhist Material Culture, *Asia Major*, 17/1: 1–13.
- Fricke, Beate (2019), ‘Artifex and Opifex: The Medieval Artist’, in Conrad Rudolph (ed), *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe*, 2nd edn, Hoboken, NJ: Wiley-Blackwell, 45–69.
- Galambos, Imre (2015), *Translating Chinese Tradition and Teaching Tangut Culture: Manuscripts and Printed Books from Khara-Khoto*. Berlin: De Gruyter.
- (2016), ‘Manuscript and Print in the Tangut State: The Case of the Sunzi’, in Hildegard Diemberger, Franz-Karl Ehrhard, and Peter Kornicki (eds), *Tibetan Printing: Comparison, Continuities, and Change*, Leiden: Brill, 135–152.
- (2020), *Dunhuang Manuscript Culture: End of the First Millennium*, Berlin: De Gruyter.
- and Michelle C. Wang (forthcoming), ‘The Tang-Song Transition Through the Lens of Buddhist Patronage at Dunhuang’, in Robert Hymes and Anna Shields (eds), *From Tang to Song: Transitions and Creations in China’s Middle Period*.

- Giles, Lionel (ed) (1957), *Descriptive Catalogue of the Chinese Manuscripts from Tunhuang in the British Museum*, London: Trustees of the British Museum.
- Gosden, Chris and Yvonne Marshall (1999), 'The Cultural Biography of Objects', *World Archaeology*, 31/2: 169–178.
- Helman-Ważny, Agnieszka and Sam van Schaik (2013), 'Witnesses for Tibetan Craftsmanship: Bringing Together Paper Analysis, Palaeography, and Codicology in the Examination of the Earliest Tibetan Manuscripts', *Archaeometry*, 55/4: 707–741.
- Hidas, Gergely (2014), 'Two Dhāraṇī Prints in the Stein Collection at the British Museum', *Bulletin of the School of African and Oriental Studies*, 77/1: 105–117.
- Huang, Shih-shan Susan (2011a), 'Media Transfer and Modular Construction: The Printing of Lotus Sutra Frontispieces in Song China', *Ars Orientalis*, 41: 135–163.
- (2011b), 'Early Buddhist Prints in Hangzhou', in Lucille Chia and Hilde De Weerd (eds), *Knowledge and Text Production in an Age of Print: China, 900–1400*, Leiden: Brill, 135–165.
- Hwang, Yoonah (2023), 'Materialized Wishes: Long Banner Paintings from the Mogao Caves of Dunhuang', *Religions*, 14/58 <doi.org/10.3390/rel14010058>.
- Kasai, Yukiyo (2022), 'The Avalokiteśvara Cult in Turfan and Dunhuang in the Pre-Mongolian Period', in Yukiyo Kasai and Henrik Sørensen (eds), *Buddhism in Central Asia II: Practices and Rituals, Visual and Material Transfer*, Leiden: Brill, 244–269.
- Kieschnick, John (2003), *The Impact of Buddhism on Chinese Material Culture*, Princeton: Princeton University Press.
- Kikutake Jun'ichi 菊竹淳一 (1975), 'Tonkō no bukkyō hanga – Daiei hakubutsukan to Pari kokuritsu toshokan shūzōhin o chūshin ni' 敦煌の仏教版画 —大英博物館とパリ国立図書館収蔵品を中心に, *Bukkyō Geijutsu* 仏教芸術 101: 3–35.
- Kornicki, Peter (2012), 'The Hyakumantō darani and the Origins of Printing in Eighth-Century Japan'. *International Journal of Asian Studies*, 9/1: 43–70.
- Kopytoff, Igor (1986), 'The Cultural Biography of Things: Commoditization as Process', in Arjun Appadurai (ed.), *The Social Life of Things: Commodities in Cultural Perspective*, Cambridge: Cambridge University Press.



- Li, Ling and Ma De (2017), 'Avalokiteśvara and the Dunhuang Dhāraṇī Spells of Salvation in Childbirth', tr. Ilia Mozias and Meir Shahar, in Yael Bentor and Meir Shahar (eds), *Chinese and Tibetan Esoteric Buddhism*, Leiden: Brill, 338–351.
- Lee, Sonya S. (2012), 'Repository of Ingenuity: Cave 61 and Artistic Appropriation in Tenth-Century Dunhuang', *The Art Bulletin*, 94/2: 199–225.
- O'Neal, Halle (2019), 'Inscribing Grief and Salvation: Embodiment and Medieval Reuse and Recycling in Buddhist Palimpsests', *Artibus Asiae*, 79/1: 5–28.
- (2023), 'Introduction: Reuse, Recycle, and Repurpose: The Afterlives of Japanese Material Culture', *Ars Orientalis*, 52/1: 1–9 <doi.org/10.3998/ars.3985>.
- Park, David, Kuenga Wangmo, and Sharon Cather (eds) (2013), *Art of Merit: Studies in Buddhist Art and Its Conservation: Proceedings of the Buddhist Art Forum 2012*, London: Archetype Publications.
- Pelliot, Paul (1908), 'Une bibliothèque médiévale retrouvée au Kan-sou', *Bulletin de l'École française d'Extrême-Orient*, 8/3–4: 501–529.
- Reischauer, Edwin O. (tr.) (1995), *Ennin's Diary: A Pilgrimage to China in Search of the Law*, New York: Ronald Press Co.
- Rong, Xinjiang (2004), 'Official Life at Dunhuang in the Tenth Century: The Case of Cao Yuanzhong', in Susan Whitfield and Ursula Sims-Williams (eds), *The Silk Road: Trade, Travel, War and Faith*, Chicago: Serindia Publications, 57–62.
- (2013), *Eighteen Lectures on Dunhuang*, tr. Imre Galambos, Leiden: Brill.
- (2021). 'The Earliest Extant Example of Woodblock Printing: The Precept Certificate of the 29th Year of Kaiyuan (741 A.D.)', *Pis'mennye pamiatniki Vostoka*, 46/3: 118–126.
- van Schaik, Sam (2006), 'The Tibetan Avalokiteśvara Cult in the Tenth Century: Evidence from the Dunhuang Manuscripts', in Ronald M. Davidson and Christian K. Wedemeyer (eds), *Tibetan Buddhist Literature and Praxis. Studies in its Formative Period, 900–1400. PIATS 2003: Tibetan Studies: Proceedings of the Tenth Seminar of the International Association for Tibetan Studies, Oxford, 2003*, Leiden: Brill, 55–72.
- (2016), 'The Uses of Early Tibetan Printing: Evidence from the Turfan Oasis', in Hildegard Diemberger, Franz-Karl Ehrhard, and Peter Kornicki (eds), *Tibetan Printing: Comparisons, Continuities and Change*, Leiden: Brill, 171–191.

- and Imre Galambos (2012), *Manuscripts and Travellers: The Sino-Tibetan Documents of a Tenth-Century Buddhist Pilgrim*, Berlin: Walter de Gruyter.
- Schmid, Neil (2017), ‘The Material Culture of Exegesis and Liturgy and a Change in the Artistic Representations in Dunhuang Caves, ca. 700–1000’, *Asia Major*, 19/1–2: 171–210.
- Séguy, Marie-Rose (1979), ‘Images xylographiques conservées dans les collections de Touenhouang de la Bibliothèque nationale’ in M. Soymié (ed.), *Contributions aux études sur Touenhouang*, Geneva: Droz, 119–133.
- Shen, Hsueh-man (2019), *Authentic Replicas: Buddhist Art in Medieval China*, Honolulu: University of Hawai’i Press.
- Sørensen, Henrik H (2019), ‘Donors and Image in Dunhuang: A Case Study of OA 1919,0101,0.54’, *BuddhistRoad Paper*, 4.1 <DOI: <https://doi.org/10.13154/rub.br.121.107>>.
- Soymié, Michel (1999–2000), ‘Les donateurs dans les peintures de Dunhuang’, *Cahiers d’Extrême-Asie*, 11: 1–24.
- von Spee, Clarissa (ed) (2010), *The printed image in China from the 8th to the 21st centuries*, London: The British Museum Press.
- Stein, M. Aurel (1921), *Serindia: Detailed Report of Explorations in Central Asia and Westernmost China Carried Out and Described under the Orders of H.M. Indian Government*, 5 vols, Oxford: Clarendon Press.
- Sun Jimin 孙继民, Song Kun 宋坤, and Chen Ruiqing 陈瑞青 (2015), *Yingcangji Ecang Heishuicheng Hanwen wenxian zhengli 英藏及俄藏黑水城汉文文献整理*, Vol. 1, Tianjin: Tianjin guji chubanshe.
- Teiser, Stephen (1988), *The Ghost Festival in Medieval China*, Princeton: Princeton University Press.
- (1994), *The Scripture on the Ten Kings and the Making of Purgatory in Medieval Chinese Buddhism*, Honolulu: University of Hawai’i Press.
- Tsiang, Katherine R. (2010), ‘Buddhist Printed Images and Texts of the Eighth–Tenth Centuries: Typologies of Replication and Representation’, in Matthew Kapstein and Sam van Schaik (eds), *Esoteric Buddhism at Dunhuang*, Leiden: Brill, 201–252.
- Tsien Tsuen-hsuei (1985), ‘Paper and Printing’, in Joseph Needham (ed), *Science and Civilisation in China*, Vol. 5, Part 1: *Chemistry and Chemical Technology*, Cambridge: Cambridge University Press.

- Twitchett, D. C. (1983), *Printing and Publishing in Medieval China*, New York: Frederic C. Beil.
- Wang, Michelle C. (2018), *Maṇḍalas in the Making: The Visual Culture of Esoteric Buddhism at Dunhuang*, Leiden: Brill.
- Whitfield, Roderick (1982–1985), *The Art of Central Asia: The Stein Collection in the British Museum*, 3 vols, Tokyo: Kodansha.
- and Anne Farrer (1990), *Caves of the Thousand Buddhas: Chinese Art from the Silk Route*, New York: George Braziller.
- Wu, Chi-yu (1984), ‘Quatre manuscrits sanskrits de Touen-houang conservés à la Bibliothèque Nationale de Paris’, in Michel Soymié (ed.), *Contributions aux études de Touen-houang*, Vol. 3, Paris: École française d’Extrême-Orient, 55–75.
- Wu Jianjun 吴建军 (2013), ‘Wudai Dunhuang Cao Yuanzhong tongzhi shiqi diaoban yinshua yanjiu’ 五代敦煌曹元忠统治时期雕版印刷研究, *Zhuangshi 装饰*, 4: 82–85.
- Zhang Peijun 张培君 (2007), ‘Dunhuang zangjing dong chutu yihua zhong gongyang ren tuxiang chutan’ 敦煌藏经洞出土遗画中供养人图像初探, *Dunhuang yanjiu 敦煌研究*, 4: 91–97.
- Zorin, Alexander and Alla Sizova (2019), ‘On the History of the Formation and Processing of the Collection of the Tibetan Texts from Khara-Khoto Kept at the IOM, RAS’, *Written Monuments of the Orient*, 2: 3–18.
- Zürcher, Erik (1989), ‘Buddhism and Education in Tang Times’, in Wm. Theodore de Bary and John W. Chaffee (eds), *Neo-Confucian Education: The Formative Stage*, Berkeley: University of California Press, 19–56.