Gandhāran Birchbark Scrolls

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The Gandhāran Scroll Tradition
Gandhāra straddles Northern Pakistan and Eastern Afghanistan, where in antiquity Indian and Iranian cultures met with Hellenistic influence.
### Key Events in Gandhāran Manuscript Culture

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</table>
| 4th c. BCE | Use of Aramaic language, script, and manuscripts under Achaemenid administration (Nearchus, archives from Bactra)  
Development of Kharoṣṭhī and transition to Gāndhārī as administrative language; production of short-format administrative documents using birch bark |
| 3rd c. BCE | Application of Kharoṣṭhī and Gāndhārī to Buddhist material in Aśokan edicts (Shahbazgarhi and Mansehra)  
Production of short-format Buddhist manuscripts; development of Gandhāran long format |
| 1st c. CE   | Short- and long-format Gāndhārī Buddhist manuscripts; transition to palm-leaf manuscripts |
| 4th c. CE   | Brāhmī and Sanskrit                                                             |
| 2nd c. CE   | Establishment of Chinese translation procedures for Indian Buddhist texts |
Gandhāran birch-bark scrolls have survived from antiquity due to their interment in clay pots in arid climate.
They are inscribed in the local Gāndhārī language (related to Sanskrit) and the Kharoṣṭhī script (invented for Gāndhārī on the basis of the Aramaic script of the Achemenid empire).
Like the script, the Gandhāran scroll format is inspired by that of Achemenid Aramaic documents: folded up from bottom to top, with the primary side facing inwards, and sometimes subsequently folded horizontally into a smaller pack, as illustrated here for Aramaic scrolls (Porten 1979)...
... and here for a Gandhāran scroll.
Scribal habits also carried over from the Aramaic to the Gandhāran scroll tradition, such as the adding of lines to a full writing surface in the right and then top margin, as illustrated here for an Aramaic...
... and here for a Gandhāran scroll.
Longer scrolls are constructed by joining several sheets vertically.
Joins are glued and typically reinforced with medial stitching, with margin stitching providing overall vertical cohesion.
The height of individual sheets in these composite scrolls can be standardized within a single scroll or scroll set (BL 9 and 13) or vary (Dhp-G^K), with a general width ranging from ca. 15 to ca. 20 cm.

<table>
<thead>
<tr>
<th></th>
<th>Width of sheets (cm)</th>
<th>Heights of sheets (cm)</th>
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</thead>
<tbody>
<tr>
<td>BL 9</td>
<td>14</td>
<td>19.8, 25.2, 25.2, 25</td>
</tr>
<tr>
<td>BL 13</td>
<td>14</td>
<td>27, 29</td>
</tr>
<tr>
<td>BL 1</td>
<td>15.1</td>
<td>49, 36, 30</td>
</tr>
<tr>
<td>BL 12 + 14</td>
<td>ca. 15.5</td>
<td>23.5, 27</td>
</tr>
<tr>
<td>Dhp-G^K</td>
<td>21</td>
<td>ca. 45, 46.9 ... 23.5, 20.4, 20, 23.1, 17.5, 13.1</td>
</tr>
</tbody>
</table>
Colophons occur at the top of the recto of scrolls and were not visible when the scroll was rolled up, i.e., did not serve as labels.

Budhavarmasa śamaṇasa Budhaṇadisa[r]dhavayarisa ida Dharmapadasa postaka Dharmaśraveṇa likhida araṇī

“This book of the Dharmapada of (= belonging to) the monk Buddhavarma, student of Buddhanandin has been written by Dharmaśrava in the monastery.”
The handling of scrolls is illustrated in Gandhāran art, in scenes of the Buddha’s schooling...
... monastic scenes ...
... and secular scenes.
The bottoms of scrolls were their most tightly folded part, sometimes leading to damage in use that necessitated repair.
In South Asia, the scroll died out as a general-use manuscript format with the advent of Sanskrit, Brāhmī and the pothi format, but lived on in special applications such as in amulets and for ceremonial use (above a scroll of the Bhāgavatapurāṇa).
Sample Manuscript and Catalog Entry
CKM 4 - British Library Verse Commentary Scrolls

Findspot: unknown (probably Pakistan or Afghanistan)

Date: ca. first century CE (based on paleography and find context)

Location: British Library (shelf mark Or. 14195.7,17,19–21,26–27,35)

Support: birch bark

Volumes: four (BL 7, 9, 13, 18) and colophon fragment (BL 3B)

Preserved dimensions:
- BL 7: 14 cm × 12.3 cm
- BL 9: 14 cm x 118.6 cm
- BL 13: 14 cm × 70.3 cm
- BL 18: 14 cm × 22.8 cm
- BL 3B: 10 cm × 4.5 cm

Weight: unknown

Construction:
- BL 7: one sheet fragment
- BL 9: four sheets (height 19.8, 25.2, 25.2 and 25 cm) and one sheet fragment
- BL 13: two sheets (height 27 and 29 cm) and one sheet fragment
- BL 18: one sheet fragment
- BL 3B: one fragment

Content:
- British Library Verse Commentary 2 (BL 7, 18, 9 and 13; 39 sections in 413 lines)
- British Library Verse Commentary 3 (BL 13 verso. later addition; 6 sections in 40 lines)
- Colophon (obverse of BL 3B; 3 lines)
- Unknown (reverse of BL 3B; 4 lines)

Scribes: British Library scribes 4 (Verse Commentary 2 and obverse of colophon fragment), 14 (Verse Commentary 3) and 3 (reverse of colophon fragment)

Associated name: Samghaśrava (on colophon fragment; owner?)
Further Reading


Image sources: Museum Fünf Kontinente (title), Luczanits 2008 (map), Salomon 1999 (scroll in pot and unrolled scroll), Falk 1996 (Aramaic script and Kharoṣṭhī), Porten 1979 (Aramaic scroll format), Khan & Khan 2004 (folded scroll), Porten 1979 (Aramaic margin writing), Khan 2008 (Kharoṣṭhī margin writing), Baums 2014 (format overview), Senart 1898 (sheet join), Stefan Baums (colophon), Taddei (monks with scrolls), Rahman 1993 (man under tree with scroll), Baums 2009 (repair), Gaur 1972 (Sanskrit scroll), Stefan Baums (CKM 4).
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