THE ORIGINS OF ISLAMIC ART
AND THE ROLE OF
CHINA

ABD AL-RAHMAN MAHMUD AL-GAILANI

Ph.D. THESIS PRESENTED TO
THE UNIVERSITY OF EDINBURGH
1973
THE ORIGINS OF ISLAMIC ART
AND THE ROLE OF CHINA

ABD AL-RAHMAN MAHMUD AL-GAILANI

ABSTRACT.

In the introduction several points which relate to this thesis are discussed. Firstly it should be appreciated that Islamic ornament is still a fairly uninvestigated subject. Earlier scholars in this field have tended to stress Sasanian and Byzantine elements, both with a common Hellenistic origin, without considering the fact that the arts of Iran in general were imitative and that Indian and Chinese art did influence them, although this is admitted in the fields of Abbasid pottery and Islamic painting.

The theory that Chinese influence can be traced in most works of Islamic art is then put forward with the proposal that the extent minarets of Iraq be examined in this work, digressing wherever Chinese influence is apparent.

By shedding light on the written evidence of Arabic authors, it is hoped that, despite the problems involved through lack of excavation and, therefore, uncertain dating and provenance in both Chinese and Islamic art, recognition of these links will be re-established.

In the first chapter the textual evidence for early contact with China is examined, showing the important part played by the Chinese trade in silk and metalwork in bringing their culture to other peoples. Borrowings of Chinese motifs in various countries are pointed out and the role of the hajj is explained as a primary vehicle for the dissemination of artistic influences in the Islamic world.

The following four chapters are concerned with a detailed study of the minarets of Iraq in an attempt to establish the continuity of the use of borrowed Chinese designs as minaret ornament before studying the designs themselves more closely.

The origins of the minaret are traced and its decoration classified by means of a chart. Thus, dividing the minarets themselves on
BEST COPY

AVAILABLE

TEXT IN ORIGINAL IS CLOSE TO THE EDGE OF THE PAGE
BEST COPY

AVAILABLE

Poor text in the original thesis.
Some text bound close to the spine.
Some images distorted
stylistic grounds three distinct styles are established.

The first of these is the Abbadid style. Examples of this category are discussed with regard to their architectural characteristics and ornamentation. References are also made, where relevant, to occurrences of this style or elements of its ornamentation on minarets of the other styles.

In the study of the second style, the Intermediate Style, a number of minarets are discussed in detail, some built during the post-Abbadid period, others around the Ottoman period. Some of these minarets, however, exhibit points of departure towards a new style. Through these the evolution of the third style, the New Style, is traced.

The most characteristic feature of minarets of the New Style is the fluted head. In the last chapter of this section, chapter five, the appearance of fluted domes in wall paintings of Central Asia prior to the Islamic era and in Islamic miniature painting and the occurrence of fluting on other Islamic monuments and metalwork, with reference to parallels in Chinese art, are dealt with.

Having discussed the styles of the minarets in very general terms, the following three chapters go on to examine the various types of ornamentation in detail.

Chapter six deals with the rectilinear, geometrical ornament. The tradition of this type of ornament is unbroken, transmitted by timars and by direct copying from old monuments. At this point the whole range of geometrical ornament is laid out, with references to its use in other fields of Islamic art. The rectangular all-over patterns and related mixed motif patterns are then considered separately, tracing them to Chinese origins. Polygonal patterns are also
included in this chapter and their components subjected to analysis.

The following chapter provides a tentative classification of the curvilinear ornament of the minarets, dividing it into designs constructed with instruments and freehand designs, i.e. the arabesque. The origin of the arabesque scroll is discussed, tracing its descent from Chinese prototypes and its affinities with the dragon scroll. Its components, adaptations and usages in Islamic art are also studied.

The second half of this chapter deals with the heart-shaped motif in Islamic art, its appearance in Central Asian and Sasanian art, its relationship with the Chinese Joo-e, and its various adaptations in Islamic art, with their Chinese parallels.

In chapter eight a number of abstract motifs, which occur independently on minarets in the form of bands, are considered, identifying them in other fields of Islamic art as well as referring them to their Chinese prototypes.

The ninth chapter provides a brief introduction to the origins of Arabic script, Kufic, and Naskh.

Several Kufic inscriptions which decorate Iraqi minarets are reproduced, read, and studied in detail regarding the modes of their application and compositional arrangement. The appearance of square Kufic in other media is also discussed, together with its relationship to Mongolian writing and Chinese seal inscription.

Chapter ten has as its subject matter the influence of Chinese art in Sāmarrā. A number of purely Chinese motifs, hitherto unrecognised, in the wall painting and stucco ornament of Samarra are identified.

In the paintings, the Chinese phoenix, the yin and yang, and other textile patterns are detected; in the stuccoes, the development of the yin and yang, and the adaptation of other textile designs.

The major part of this chapter deals with the various forms and
adaptations of the zigzag band at Samarra and elsewhere in Islamic art together with their Chinese parallels.

The final chapter accumulates figural motifs, abstract motifs, and artifacts, all of Chinese origin, which occur in Islamic art.

Chinese figural motifs in Islamic art have not been recognised, until now, in works preceding the 14th Century. In the first part of this chapter a number of such motifs occurring on various media from the 9th Century onwards are identified and related to their Chinese prototypes. These include the si-murgh and the čanqä, other fabulous birds, the double-headed eagle, lions, elephants, and dragons.

Secondly a number of abstract motifs in Islamic art some of which have generally been believed to be of Sasanian origin, are identified as Chinese. Among these motifs are the three-dots, the crumpled pattern, the endless knot, and the pearl motif.

Finally many artifacts of Chinese origin, such as crowns, fluttering ribbons, thrones, and cauldrons, the majority of which appear in Islamic painting are examined.

The conclusion asserts that it must be admitted that the Islamic world and China were at least in regular contact but, in view of the weight of evidence put forward in this thesis earlier ideas on Islamic and Chinese art should be reviewed and a comparatively new field of study opened to scholarship.
TO MY BROTHER,

YUSUF.
II

ACKNOWLEDGEMENT.

I would like to take this opportunity to thank all those concerned in the production of this thesis: firstly, my supervisor, Mr. Robert Hillenbrand for his patient work with me over some considerable time and his guidance and helpful suggestions; then, for their valuable assistance in translation from Chinese and Russian texts, Mr. A.N.E. Dolby and Mr. Slava Pershenkov; lastly the staff of the university library and the librarian of the fine art department for their assistance and efficiency in obtaining important material and Mr. Murray for his careful work in producing many of the photographs vital to my text.

My gratitude to my friends, Mr. Faḍil F. Shawkat and Mr. K.M. Chalabi should also be expressed here. Without their help in making my prolonged stay in Edinburgh possible, this work might never have been completed.

It is impossible to express the great debt of gratitude I owe to the one man who, from the beginning, encouraged and aided my coming to Edinburgh and, during the last years of his life, was my friend and mentor, the late Professor David Talbot-Rice. I only hope that this work will prove worthy of his faith in me.
### CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>i - iv</td>
</tr>
<tr>
<td>Dedication</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>ii</td>
</tr>
<tr>
<td>Contents</td>
<td>iii</td>
</tr>
<tr>
<td>List of plates</td>
<td>viii</td>
</tr>
<tr>
<td>List of figures</td>
<td>xv</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td><strong>Chapter I</strong></td>
<td></td>
</tr>
<tr>
<td>Textual evidence for early contacts with China</td>
<td></td>
</tr>
<tr>
<td>Early contacts with Central Asia.</td>
<td>22</td>
</tr>
<tr>
<td>Early contacts with Persia.</td>
<td>29</td>
</tr>
<tr>
<td>Early contacts with Greece and the Hellenistic World.</td>
<td>47</td>
</tr>
<tr>
<td>Early contacts with the Arabs.</td>
<td>58</td>
</tr>
<tr>
<td>The Role of Hajj.</td>
<td>68</td>
</tr>
<tr>
<td>Appendix I</td>
<td>70</td>
</tr>
<tr>
<td>Appendix II</td>
<td>71</td>
</tr>
<tr>
<td>Appendix III</td>
<td>72</td>
</tr>
<tr>
<td>Plates 1 - 16</td>
<td></td>
</tr>
<tr>
<td>Figures 1 - 2</td>
<td></td>
</tr>
<tr>
<td><strong>II</strong></td>
<td></td>
</tr>
<tr>
<td>General characteristics of Iraqi minarets.</td>
<td>73</td>
</tr>
<tr>
<td>The Decoration :</td>
<td></td>
</tr>
<tr>
<td>Geometric</td>
<td>85</td>
</tr>
<tr>
<td>Arabesque</td>
<td>86</td>
</tr>
<tr>
<td>Inscriptions</td>
<td>87</td>
</tr>
<tr>
<td>Plates 17 - 39</td>
<td></td>
</tr>
<tr>
<td>Figures 3 - 4</td>
<td></td>
</tr>
</tbody>
</table>
Chapter III  Selected Iraqi minarets of the Abbāsid style.

The minaret of Mūjida 90
The minaret of the Umayyad mosque at Manṣūr 92
The minaret of the Nūrī mosque 94
The minaret of Ṭawūq 97
The minaret of Arbīl 99
The minaret of Sinjūr 101
The minaret of Sūq al-Ghasīl 103
The minaret of Dhu‘l-Kifl 108
The minaret of Wāsīṭ 114

Plates 40 - 61

Figures 5 - 14

IV  Selected Iraqi minarets of the Intermediate style.

The minaret of Jāmi‘ al-Khaffāfīn 116
The minaret of al-Shaikh Ma‘rūf al-Karkhī 120
The minaret of Jāmi‘ al-Qamāriya 123
The minaret of al-Aqūlī mosque 127
The minaret of al-Madrasa al-Marjānīya 129
The minaret of al-Gailānī mosque (al-Manārā al-Naḥībiyya) 130
The minaret of Jāmi‘ ʿUsayn Pasha 138
The minaret of Jāmi‘ al-Fāḍl 141
The minaret of Jāmi‘ al-Kawwāz at Baghā 144

Appendix IV 149

Appendix V 150

Plates 62 - 104

Figures 15 - 24
<table>
<thead>
<tr>
<th>Chapter V</th>
<th>Iraqi minarets of the &quot;New style&quot;: the origin of the fluted head.</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appendix VI</td>
<td>164</td>
</tr>
<tr>
<td></td>
<td>Plates 105 - 116</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Figures 25 - 30</td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>The Rectilinear geometrical ornament of the minarets.</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>Rectangular ornament:</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of slanting squares</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of interlaced squares</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of zig-zag lozenges</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of zig-zag bands</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>The rectilinear cloud-scroll and its derivatives</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of swastikas</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>All-over pattern of spirals</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>Polygonal ornament:</td>
<td>213</td>
</tr>
<tr>
<td></td>
<td>Basic shapes</td>
<td>214</td>
</tr>
<tr>
<td></td>
<td>Secondary shapes</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>Appendix VII</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td>Plates 117 - 202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Figures 31 - 72</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>The Curvilinear ornament of the minarets (the arabesque).</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>The arabesque</td>
<td>223</td>
</tr>
<tr>
<td></td>
<td>The heart-shaped motif</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>Appendix VIII</td>
<td>267</td>
</tr>
<tr>
<td></td>
<td>Appendix IX</td>
<td>268</td>
</tr>
<tr>
<td></td>
<td>Appendix X</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>Plates 203 - 245</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Figures 73 - 113</td>
<td></td>
</tr>
</tbody>
</table>
### Chapter VIII
Independent motifs of Chinese origin found on Iraqi minarets.

<table>
<thead>
<tr>
<th>Motif Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The key-motif</td>
<td>270</td>
</tr>
<tr>
<td>The 'S' motif</td>
<td>280</td>
</tr>
<tr>
<td>The 'Y' motif</td>
<td>284</td>
</tr>
<tr>
<td>The eight-pointed star</td>
<td>293</td>
</tr>
<tr>
<td>Other Chinese motifs in so-called &quot;Byzantine&quot; silks</td>
<td>299</td>
</tr>
<tr>
<td>Plates 246 - 275</td>
<td></td>
</tr>
<tr>
<td>Figures 114 - 133</td>
<td></td>
</tr>
</tbody>
</table>

### IX
The Origin and ornamental function of square kufic.

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix XI</td>
<td>333</td>
</tr>
<tr>
<td>Plates 276 - 284</td>
<td></td>
</tr>
<tr>
<td>Figures 134 - 152</td>
<td></td>
</tr>
</tbody>
</table>

### X
The Influence of Chinese art in Sāmarra.

<table>
<thead>
<tr>
<th>Motif</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The yin and yang</td>
<td></td>
</tr>
<tr>
<td>The zig-zag band at Sāmarra.</td>
<td>339</td>
</tr>
<tr>
<td>Plates 285 - 316</td>
<td></td>
</tr>
<tr>
<td>Figures 153 - 178</td>
<td></td>
</tr>
</tbody>
</table>

### XI
Figural motifs, abstract motifs, and artifacts of Chinese origin in Islamic art.

<table>
<thead>
<tr>
<th>Motif Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The &quot;canqā&quot; and the al murgh</td>
<td>359</td>
</tr>
<tr>
<td>Lions</td>
<td>372</td>
</tr>
<tr>
<td>Elephants</td>
<td>375</td>
</tr>
<tr>
<td>Fabulous birds</td>
<td>379</td>
</tr>
<tr>
<td>Camels</td>
<td>382</td>
</tr>
<tr>
<td>The double-headed eagle</td>
<td>383</td>
</tr>
<tr>
<td>The 'crumpled pattern'</td>
<td>389</td>
</tr>
<tr>
<td>The fillet scarf</td>
<td>394</td>
</tr>
<tr>
<td>The triatna</td>
<td>395</td>
</tr>
<tr>
<td>The endless knot</td>
<td>397</td>
</tr>
</tbody>
</table>
## Chapter XI

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pearl motif</td>
<td>399</td>
</tr>
<tr>
<td>Crowns</td>
<td>400</td>
</tr>
<tr>
<td>Cauldrons</td>
<td>402</td>
</tr>
<tr>
<td>Plates 317 - 367</td>
<td></td>
</tr>
<tr>
<td>Figures 179 - 208</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td>403</td>
</tr>
<tr>
<td>Bibliography</td>
<td>404</td>
</tr>
</tbody>
</table>
VIII

Pl. 1 - The Last Supper (Syriac manuscript, 1216-20)
2 - Chinese carpet depicting endless knots
3 - Death of the Virgin (Syriac manuscript, 1216-20)
4 - The Nativity (Syriac manuscript, 1216-20)
5 - The Marriage of Cana (Syriac manuscript, 1216-20)
6 - Samaritan woman at the well (Syriac manuscript, 1216-20)
7 - Christ before Caiphas (Syriac manuscript, 1216-20)
8 - Presentation at the Temple (Syriac manuscript 1216-20)
9 - Nestorian stela, Siganfu (780)
10 - Byzantine silk with elephant (1006)
11 - Chinese brocade with Islamic inscription (14th century)
12 - Chinese silk with confronted peacocks and suit character
13 - Chinese silk with lions, peacocks and tung character (T'ang)
14 - Detail from tsun with t'ao-t'ieh mask (T'ang)
15 - Detail from Sanchi stupa (1st century B.C.)
16 - Bronze vessel (Sung or later)
17 - Abu Zayd in a mosque at Basra (c.1230)
18 - Scene with mosque (1237)
19 - Abu Zayd preaching in a mosque at Basra (1237)
20 - Abu Zayd preaching in a mosque at Basra (1242-58)
21 - A minaret in Arbil (17th - 18th century)
22 - Minaret of Aghawat mosque (1703)
23 - Decapitation of the Shemakhi (1589)
24 - Minaret at the Xacoo (1501)
25 - Mosque scene (1529)
26 - Nushirwan and his son (1561)
27 - Zulaikha's arrival (1556-65)
28 - The army of Orghotu Noyan (1310)
29 - Mongol warrior killing a dragon (1295)
30 - The ascent of the Prophet (1539-43)
31 - Persian steel helmet (15th century)
32 - Decorative detail, Macamat of Hariri (c.1225-35)
33 - Decorative detail, Macamat of Hariri (c.1225-35)
34 - Decorative detail, Macamat of Hariri (c.1225-35)
35 - Man under dome, Macamat of Hariri (c.1225-35)
36 - Islamic miniature depicting a minaret 801/1399
37 - Islamic miniature depicting a minaret 801/1399
38 - Islamic miniature depicting a minaret 801/1399
39 - Tomb of Imam Dür (1036)
40 - Minaret of Qâna (11th-12th century) before restoration.
41 - Khilâliya minaret (10th-12th century).
42 - Minaret of Kujida.
43 - Minaret of Nurî mosque, Mosul
44 - Minaret of Tâwq (1148-90).
45 - Minaret of Sinjâr (1207).
46 - Minaret of Suq al-Ghazl (1279).
47 - Minaret of Suq al-Ghazl (1279) : macarnasânt, before restoration.
48 - Minaret of Suq al-Ghazl (1279) : shaft.
49 - Minaret of the Khâdîliya mosque before the latest restoration.
50 - Minaret of the Khâdîliya mosque : upper part (1754, restored 1813).
51 - Minaret of the Khâgâkî mosque (1656).
52 - Minaret of Suq al-Ghazl : detail of kural.
53 - Minaret of Suq al-Ghazl : detail of kural : during repairs.
54 - Minaret of Suq al-Ghazl : detail of Kural : star pattern.
55 - Minaret of Dhu'l-Kifl (1316).
56 - Minaret of Dhu'l-Kifl (1316).
Pl. 57 - Minaret of Dhu'l-Kifl: from the east.
58 - Minaret of the Aḥmadiya mosque, Baghdad (1796).
59 - Aḥmadiya mosque: drawing by early traveller.
60 - Minaret of the Sīraj al-Dīn mosque, Baghdad (1900).
61 - Minaret of the Sharabīya madrasa, Baghdad.
62 - Minaret of the Khaffārfīn mosque (possibly 1202).
63 - Minaret of the Khafṣāfīn mosque after the last restoration.
64 - The old minaret of the Gailani mosque, Baghdad (1498).
65 - Mosque of Shaikh Wāṣūf al-Karkhī, Baghdad, photographed c.1899.
66 - Dating inscription on minaret of mosque of Shaikh Wāṣūf al-Karkhī.
67 - Minaret of mosque of Shaikh Wāṣūf al-Karkhī before 1970
   restoration.
68 - Minaret of mosque of Shaikh Wāṣūf al-Karkhī: muqarnas.
69 - Inscribed poem on 'Amariyya mosque, Baghdad.
70 - Minaret of 'Amariyya mosque, Baghdad (founded 1229, rebuilt 1704).
71 - Minaret of 'Amariyya mosque, Baghdad: after last restoration.
72 - Minaret of the Azbāg mosque (1836); old minaret of Murādiyya
   mosque (1570).
73 - Minaret of the Khādir Beg mosque, Baghdad (1943).
74 - Minaret of the Urfālī mosque, Baghdad (c.1950).
75 - Old minaret of the mosque of Alī Afandī, Baghdad (sc.16th century).
76 - Minaret of the Great Mosque at Sulaimaniya (sc. 16th century).
77 - Minaret of the Āqūfī mosque, Baghdad (founded 1327).
78 - Minaret of the Āqūfī mosque: after the last restoration.
79 - Minaret of the Murādiyya mosque, Baghdad (1903) before repairs.
80 - Minaret of the Murādiyya mosque: after the last repairs.
81 - Minaret of the Murādiyya madrasa, Baghdad (founded 1307)
   before repairs.
82 - Minaret of the Gailānī mosque: historical inscription dated 1534.
83 - Minaret of the Gailānī mosque: before late Ottoman repairs.
84 - Minaret of the Gailānī mosque: after late Ottoman repairs.
85 - Minaret of the Gailānī mosque: before the last restoration.
86 - Minaret of the Naḥḥānīya mosque (founded 1771) after last
   restoration.
87 - Interlocked 'T' pattern on Islamic metalwork (1259).
88 - Minaret of the Ḥusain Fāshā mosque, Baghdad, after last
   restoration.
89 - Minaret of the mosque of Muḥammad al-Pāqī, Baghdad (1795).
90 - Old photograph showing minarets of Āṣir, Aṣifiya & Qaṣlānīya
   mosques.
91 - Minaret of mosque of Alī Afandī: transitional zone.
92 - Minaret of mosque of Yaḥyā Khān, Baghdad: transitional zone.
93 - Minaret of mosque of Yaḥyā Khān.
94 - Minaret of Aṣifiya mosque, Baghdad (1922).
95 - Minaret of the Sayyid Sultan Alī mosque, Baghdad (1938).
96 - Minaret of the Suhrawardī mosque, Baghdad (1948).
97 - Minaret of the Shāhī mosque, Baghdad (c.1950).
98 - Minaret from a Māqāmat of Ṣarīf, showing Kufic inscription.
99 - Minaret of the Kawās mosque, Bāpra (1861).
100 - Minaret of the Aḥṣāmīya mosque, Baghdad (founded 1534).
101 - Detail of western wall of Mustangiriyya madrasa, Baghdad (1322).
102 - Minaret of the 'Ayyānīya mosque, Baghdad (c.1940).
103A - Section of a tumār. After Rempel.
103B - Iraqi tumār.
104 a, b - Sections of a tumār. After Rempel.
105 - Minaret of the Saray mosque, Baghdad (1817).
106 - Second minaret of the Gailānī mosque (1877).
Pl. 107 - Minaret of the Kazimain mosque, Baghdad (from 1570).
108 - Minaret of the Kazimain mosque: square Kufic inscription.
109 - Minaret of the Munawwar Khātūn mosque, Baghdad (1850).
111 - Fluted dome of Shīr-Dūr madrasa, Samarrā (17th century).
112 - Golden minarets at shrine of Imām al-ʿṣālīn, Karbalā'.
113 - Bronze ever of Naqshībān type (12th - 13th century).
114 - Korean ever and bowl (11th century).
115 - Steel helmet (1500).
116 - Present minaret of the Khallāl mosque, Baghdad.
117 - Minaret of Gisaba, near Baghdad.
118 - Dome of Nabi Jūrjīs mosque, Kuqil.
119 - Dome of shrine of Sayf al-Jabir, at al-Jalīj.
120 - An ascetic, his son and the black serpent (Iraq, c.1230).
121 - A water clock (Cairo, 1554).
122 - Chinese silk. Han period.
123 - Minaret of mosque of al-Nabi Dānyāl, Kirkuk (12th-13th century).
124 - Minaret of the shrine of the Askaryain, Samarrā.
125 - Decoration above door, near Saray mosque (early 19th century).
126 - Bronze mirror (late 18th century B.C.).
127 - Bronze mirror (4th century B.C.).
128 - Han silk.
129 - Han silk (transparent stuff).
130 - Han silk (transparent stuff).
131 - Japanese print (18th century).
132 - Minaret of the Ḥāfiz̄n-ya mosque, Baghdad (1790).
133 - Miniature from the Gūlintān (1514).
134 - ʿAbd al-Jūnba, Iṣfahān.
135 - Turkish tomb cover (16th century).
136 - Turkish tomb cover (1793).
137 - Lamentation of Christ; Russian tapestry (1647).
138 - Body of Christ; detail from Russian tapestry (1561).
139 - Holoes;
140 - Painting from al-ʿAṭhar al-ʿAqīya by al-Bīrunī (14th century).
141 - Panel from door of tomb of Maimūd of Ghāzna (c.1050).
142 - Turkish dish with cloud scroll and endless knot (15th century).
143 - Persian plaque of pierced steel (16th century).
144 - South wall of Mustaṣfiriyah madrasa, Baghdad.
145 - Turkish carpet (late 18th century).
146 - The mīl of al-Shāhīkh ʿUmar al-Suhrawardī.
147 - Pierced metalwork lamp (1090).
148 - Inlaid brass ever (1235).
149 - Minaret of the waṣīr mosque, Baghdad (founded 1599).
150 - Great Mosque, Diyārbaḵr (12th century): swastika patterns.
151 - Mihrāb of the waṣīr mosque, Baghdad.
152 - Chinese garden seat of porcelain (sc. 17th-18th century).
153 - Imperial Dragon Robes (mid-19th century).
154 - Imperial Dragon Robe; detail.
155 - A lady's marriage robe; detail of background (c.1850-75).
156 - Chinese cloisonné enamel on copper (sc. 18th century).
157 - Chinese carpet (c.1800).
158 - Chinese carpet (18th century).
159 - Chinese carpet (19th century).
160 - Chinese carpet (18th century).
161 - Chinese carpet (19th century).
162 - Japanese sword guard with swastika design (18th century).
163 - Japanese print; courtesan smoking (1792-3).
164 - Chinese portable brazier (c.1800).
165 A & B - Damenkh stupa at Sarnath (6th century); swastika patterns.
166 - Rolls of Chinese silk, depicting a swastika pattern.
167 - Chinese bronze incense burner with swastika pattern.
Pl. 168 A - Japanese bronze lantern (1707).
168 B & C - Japanese bronze lantern (1707); details.
169 - Chinese openwork vase (sc.1662-1722).
170 - Wooden bedstead (16th century).
171 - "Fan Chai": the house of Wu Tsung-Chih.
172 - Japanese print showing swastika railings (1640).
173 - Damaek stupa, Sarnath: swastika pattern.
174 - North iwan of Bustansiriya madrasa, showing swastika pattern.
175 - Niche in the so-called Qabiliya palace, Baghdad (13th century).
176 - Chihil Dukhtarân mausoleum, Dâghân (1056): swastika design.
177 - Mosque of Cordoba (10th century): swastika window grille.
178 - Nâidâr Khâna mosque, Baghdad: portal on western wall (1893).
179 - Turkish ceramic dish (15th century).
182 - Minaret of mosque of al-Sayyid Salâmân, Baghdad (1877).
183 - Detail of Maqâmit al-ârîfî (1242-59).
184 - Minaret of mosque of al-Shâikh Ahmad al-Rifâî.
185 - Main portal of Bustansiriya madrasa, Baghdad.
186 - Main portal of Marjâniya madrasa, Baghdad (restored).
188 - Plan of octagonal dome, drawn by an Uzbek master mason; and an actual dome based on such a plan.
189 - Pointed blind arch with polygonal ornament from the mosque of Munawwar Khâtûn.
190 - Swastika groups from old portal of Qâbiliya mosque, Baghdad.
191 - Swastika group from Qâbiliya madrasa, Baghdad.
192 - Swastika motif from Shaikh Qâsar al-Suhrawardî.
193 - 'Mecca pilgrims in a tent' from Maqâmit al-ârîfî, 1337.
194 - 'The Wedding Banquet' (detail) from Maqâmit al-ârîfî, c. 1225-35.
195 - 'King Mushirvan and the owls' from Konsa of Nizâmî, 1539-43.
196 - Persian bowl, ming, with seated figures. Late 12th century.
197 - Ceiling of main room in the old al-Gâllûnî house, Baghdad: detail.
198 - Ceiling of main room in the old al-Gâllûnî house: detail.
199 - Ceiling of the middle kifishkan in main room of Gâllûnî house: detail.
200 - Detail of ceiling of glass-room in main room of Gâllûnî house.
201 - Detail of ceiling of glass-room in main room of Gâllûnî house.
202 - Detail of ceiling of main room of Kusannat al-Nâqîb, Baghdad.
203 - Minaret of Juwâiîi mosque, Naqil, 1695.
204 - Bronze 'T L V' mirror, Chinese. Late first century B.C.
205 - Bronze tiger, Chinese. 4th-3rd century B.C.
206 - Jade disc. Han dynasty.
207 - Medallion carpet, N.W. Persia, 16th century.
208 - Detail from a miniature from the Maqâmit al-ârîfî of Leningrad.
209 - Khusrâw Anushirvân conversing with Buyurjmîh (1486).
210 - Chinese textile with Joo-e head. Han period.
211 - East Asian silk with Joo-e heads. Mediaeval period.
212 - East Asian silk with Joo-e heads. Mediaeval period.
213 - Chinese porcelain from the Ardâbi shrine, 14th century.
214 - Chinese porcelain from the Ardâbi shrine, 14th century.
216 - Chinese hanging tapestry. 16th-17th century.
217 - Chinese box of wood and porcelain. 1537-1619.
218 - Throne of the Emperor Ch'ien Lung, 1644.
219 A & B - Details from a gourd-shaped vase. 18th century.
220 - Detail of Chinese lacquer dish. Ch'ien Lung period (1736-95).
221 - Chinese porcelain vase with 'pseudo-Kufic' motif. 1506-21.
223 - Silver salver inlaid for Alp Arslan, 1066-7
224 - Carpet from al-Din al-Din mosque, Konya
225 - Chinese silk with linked floral heads and a background of swastikas.
226 - Guard of a Japanese alabaster sword.
227 - Book cover. Herat, 1435.
228 - Chinese lacquer box. Ming period
229 - Persian carpet, c.1640: detail
230 - 'Court of Abu-l-Ath ibn Marin' from Shah-Name copied at Shiraz, 1420
231 - Fir-i Bagrani stucco ornament. 1303-12
232 - Detail of 'Meeting of Husayn and Umar bin al-Qasim', Herat, 1396.
233 - The minaret of Juma after restoration
234 - Segmental arch from Ka'ba al-Jumá, Bishá, c.1299
235 - Segmental arch, from miniature of the Kāvāf al-Baytí, 1242-58
236 - Segmental arch from miniature of the Kāvāf al-Baytí, c.1237
237 - Segmental arches on a minaret with sheet metal decoration, Hilla
238 - Facade of house in Karbalá' or Hilla with segmental arches
239 - Segmental arch from Ba'di al-Gailání house, Baghdad, c.1260.
240 - Chinese lacquer. c.1260.
241 - Chinese lacquer box. Ming dynasty
242 - Chinese lacquer box, carved with purl scrolls. 17th century
243 - Women and children at Nascaur.
244 - A Ya-yícíh rumor.
245 - Portrait of Fátima. Late Sung period.
246 - Slab with 'Celtic key' pattern, Scotland
247 - Bronze find at An-yang. 16th century BC.
248 - Loyang type mirror with 'slanting T' pattern, 3rd century BC.
249 - Textile from Mog with 'slanting T' pattern
251 - Ban silk depicting key devices
252 - Kshí plaque from the CoplaNída madrasa.
253 - Turkish jug, 16th century.
254 - Bronze mirror depicting dragon scrolls. Chinese, 2nd century BC.
255 - Bronze mirror of Loyang type depicting dragon scrolls
256 - Chinese mirror depicting dragon scrolls. 2nd century BC.
257 - Copper metalwork, 1317-18
258 - Kastel Khan: detail, 1230-40
259 - Inlaid vessel in the name of Baytay, Egypt. 15th century
260 - Mihrab of the Nuri mosque, Kassjil, 1172
261 - Detail from portal of Nuri, granada, 1357
262 - Detail from Islamic miniature, Cairo, 1250
263 - Detail from al-Burj al-Harír, 1237: Ubu Sayd questioned
264 - Scene from the Cema Nemat of Shukrí: 'Funeral Procession of Bayzid II'. Turkish, 1524.
265 - 'Shirin at the coffin of Farhad', Khosrov of Nošír. Turkish, 1524.
266 - Damaques besieged by the Turks'. Cema Nemat of Shukrí, 1530-4.
267 - Holy man boiling an egg during the feast. Persian, late 19th century
268 - Mosque scene from Naṣir al-Din al-Shamsi. Persian, 1552.
269 - Detail from painting on silk of the 87 immortals. Chinese, early 11th century.
270 - Wei-T'âu Chinese, c.1600
272 - Folding a length of silk. Utašaro, 1753-1805
273 - 'Singing girl'. Japanese, 1788-1868
274 - Group of women. Japanese print, probably 18th century
Pl. 275 - Han bronze vessel with Sung jade lid depicting hexagon pattern
276 - Old minaret of the Suhrawardy mosque, Baghdad. 1902
277 - Square Kufic plaques from Saray mosque, Baghdad
278 - Minarets of shrine of al-Imam al-Abbas at Karbala
279 - Oblique arrangement of calligraphic text. Baghdad, 1859
280 - Entrance to musalla of the Na'maniya mosque, Baghdad, 1919
281 - Window in al-Gailani mosque, Baghdad. 1902
282 - Square Kuric plaques from Saray mosque, Baghdad
283 - Uinarets of shrine of al-lmam al-Abbas at Karbala
284 - Oblique arrangement of calligraphic text. Baghdad, 1859
285 - Entrance to the Uusalli of the Uusalli mosque, Baghdad. 1919
286 - Portal with Kufic inscriptions in house of al-`Ayid `Umar al-Gailani. Baghdad, 19th century
287 - Ku:fic inscriptions and "kaleidoscopic swastikas", al-Gailani mosque
288 - S.,9.U3re Kuilic panels from tower of llaecud III, Ghazna. 1089-1115
289 - Samarco stucco ornament, depicting Yen and Yen
290 - Chinese silk depicting peacocks. 14th century
291 - Detail from miniature of Sa`adi's Pleasure Garden: lobed arch. 1555
292 - Canton: mosque of Holy Remembrance and its minaret. C.900
293 - Graffito from Bait al-Zakhari, Samarra. 9th century
294 - Graffito from Bait al-Zakhari, Samarra. 9th century
295 - Graffito from Bait al-Zakhari, Samarra. 9th century
296 - Graffito from Hai al-Zakhari, Samarra. 9th century
297 - Graffito from Bait al-Zakhari, Samarra. 9th century
298 - Chinese pagoda with octagonal shaft decorated with pointed arches
300 - Cantal: mosque of Holy Remembrance and its minaret. C.900
301 - Minaret of Fakumen's mosque, Manchuria
302 - Chinese minaret
303 - Graffito from Bait al-Zakhari, Samarra. 9th century
304 - Graffito from Bait al-Zakhari, Samarra. 9th century
305 - Graffito from Bait al-Zakhari, Samarra. 9th century
306 - Bronze tiger. Chou dynasty
307 - Embroidered cloud collar. Persian, later 16th century
308 - Portrait of Suljan Husain Kirz, 1506
309 - Chinese porcelain flask depicting cloud collar. 14th century
310 - The despot Oliver, from the church of Esnovo, Serbia. Mid-14th century
311 - The feast of KUBLAI KHA"N. 1263
312 - Segmented arch, Mustansiriya Madrasa
313 - Chinese bronze cauldron. 13th-14th century
314 - Chinese bronze cauldrons 13th-14th century
315 - Triangular plaque, Northern Mongolia. 2nd century A.D.
316 - Chinese casket with cloud motifs. 10th-11th century
317 - Chinese phoenix. Ming dynasty
318 - G'anga from Kitab Mansuri kal-Layawin. Karagha 1294
319 - Animal carpet with phoenixes - Persian, 16th century
320 - Animal carpet with combat between phoenixes and dragons. Persian, c.1640
321 - Detail of 320
322 - Persian tile depicting a phoenix. RAY, 14th century
323 - Top of Chinese imperial table. Early 15th century
324 - Tile depicting phoenix. Kashan, 14th century
325 - Combat between phoenix and dragon. Chinese lacquer cabinet, early 15th century
326 - Book cover with combat between phoenixes and dragons. Herat, 1440
1. *Turkish swords with combats between phoencees and dragons.*
2. *The Warby rug, Turkish, early 15th century*
3. *Bronze ritual vessel, early Chou dynasty*
4. *Lacquer cup, Pei, Han dynasty*
6. *Turkish carpet, 13th century*
7. *Chinese silk damask found in Egypt, 14th century*
8. *Chinese silk damask found in Egypt, 14th century*
9. *Chinese porcelain dish from the Ardabil shrine, 14th century*
10. *Return of the Buddha to Kapilavastu, 1st century A.D.*
11. *Chinese silk, Ming dynasty*
12. *Carved stone Kylin, Chinese, probably 17th century*
13. *Chinese silk, 639-668*
14. *East Iranian silk 8th - 9th century*
15. *Ivory wrist rest, Chinese, 16th century*
16. *Elephant clock, from al-Jazari's Kitab fi Ma'rifat al-Hiyal al-Hansasiyya, Syria, c.1315 probably*
17. *Chinese silk fragment with double-headed phoenix, Han period*
18. *Chinese silk, 4th century*
19. *Stucco ornament, Samarrā (inverted to show similarities with 344)*
20. *Badr al-Dīn Lū'ū', from Kitab al-Aphār, Mausil, c.1216-9*
21. *Polychrome silk depicting cloud bands, Chinese, Han period*
22. *Kirghiz women in gala dress, c.1915*
23. *Humay and Humayun from the manuscript of Khwaju Kirmani, 1396*
25. *Detail of Sasanian bowl, 6th-7th century*
26. *Statuette from Mohenjo-daro, 3000-1500 B.C.*
27. *Alamut besieged, from Juwaini's History of the Mongols, 1488*
28. *Turkish jug with the "Three Jewels" motif, 16th century*
29. *Canopy with the "Three Jewels" motif, Hucrestreme, Turkish, 1578*
30. *Textile with the "Three Jewels" motif, Japan, later 12th century*
31. *Inscribed marble mosaic from Mausil, 12th century*
32. *Inscribed marble mosaic from Mausil, 12th century*
33. *Attabegid copper coin, Mausil, 1229*
34. *Detail, frontispiece of Kitab al-Tiryaq, Iraq, 1199*
35. *Empress Ma Hou, Ming dynasty*
36. *Detail from wall painting of two princesses, Bezeklik, 9th century*
37. *Portrait of a lady at the court of Tabrīz, 16th century*
38. *Bronze cauldron from Bukhara, 13th-14th century*
39. *Bronze cauldron by Abu Bakr, Undated*
40. *Bronze cauldron, undated*
41. *Chinese ting, c.11th century B.C.*
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Altar slab with Pahlavi inscription near Madras</td>
</tr>
<tr>
<td>1B</td>
<td>Cross on Nestorian monument of Hsi-an-fu.</td>
</tr>
<tr>
<td>2A</td>
<td>Chinese cross found in Chu'an-Chow.</td>
</tr>
<tr>
<td>2B</td>
<td>Chinese cross found in Chu'an-Chow.</td>
</tr>
<tr>
<td>3</td>
<td>Wall painting from Plandjikent with funerary scene (7th-6th century).</td>
</tr>
<tr>
<td>4</td>
<td>Diaper pattern from Mäfam minaret (late 14th century).</td>
</tr>
<tr>
<td>5</td>
<td>Patterns of the Qar Headquarters minaret at Maqṣūl (mid-12th century).</td>
</tr>
<tr>
<td>6</td>
<td>Patterns of the Fārī minaret at Maqṣūl (1172).</td>
</tr>
<tr>
<td>7</td>
<td>Patterns of the Arrāl minaret (1190-1211).</td>
</tr>
<tr>
<td>8</td>
<td>Swastika patterns from the Arrāl minaret.</td>
</tr>
<tr>
<td>9</td>
<td>The minaret of Sinjar.</td>
</tr>
<tr>
<td>10</td>
<td>Minaret of Siq al-Ghazāl: reconstruction of the main pattern.</td>
</tr>
<tr>
<td>11A</td>
<td>Minaret of Dhu‘l-Kifl: main pattern.</td>
</tr>
<tr>
<td>11B</td>
<td>Same pattern on a swastika ground design.</td>
</tr>
<tr>
<td>12</td>
<td>Minaret of the Al-Qahdāmiyya mosque: design dominated by swastika ground.</td>
</tr>
<tr>
<td>13</td>
<td>Minaret of Dhu‘l-Kifl: reconstruction of triangulated Kufic inscription.</td>
</tr>
<tr>
<td>14</td>
<td>Minaret of Kūsiṭṭ: reconstruction of the design.</td>
</tr>
<tr>
<td>15</td>
<td>Designs decorating the head of the minaret of the Naṣāriyya mosque.</td>
</tr>
<tr>
<td>16</td>
<td>Geometrical narrow bands of some Iraqi minarets.</td>
</tr>
<tr>
<td>17</td>
<td>Minaret of Naṣāriyya mosque: pattern decorating lower cylinder.</td>
</tr>
<tr>
<td>18</td>
<td>Minaret of Naṣāriyya mosque: reconstruction of this pattern.</td>
</tr>
<tr>
<td>19</td>
<td>Minaret of Siq al-Ghazāl: analytical drawing of the design.</td>
</tr>
<tr>
<td>20</td>
<td>The 'basic T' device: various forms in Islamic ornament.</td>
</tr>
<tr>
<td>21A</td>
<td>The Khaffāfīn minaret: reconstruction of design on parapet of Jawz.</td>
</tr>
<tr>
<td>21B</td>
<td>The Khaffāfīn minaret: reconstruction of the original pattern.</td>
</tr>
<tr>
<td>22A</td>
<td>Zigzag lozenges: minaret of mosque of ʿAbd al-Ṣattar.</td>
</tr>
<tr>
<td>22B</td>
<td>Zigzag lozenges: minaret of mosque of Imam.</td>
</tr>
<tr>
<td>23A</td>
<td>Minaret of the Kawāwūz mosque at Bagh: analytical drawing of inscription.</td>
</tr>
<tr>
<td>23B</td>
<td>Minaret of the Kawāwūz mosque at Bagh: reproduction of inscription.</td>
</tr>
<tr>
<td>24A</td>
<td>Minaret of the Al-Qahdāmiyya mosque: reproduction of Kufic inscription.</td>
</tr>
<tr>
<td>24B</td>
<td>Reconstruction of 24A.</td>
</tr>
<tr>
<td>25A</td>
<td>Fluted head of minaret of Al-Qahdāmiyya mosque.</td>
</tr>
<tr>
<td>25B</td>
<td>Fluted head of minaret of shrine of Imam Instructor, Karbala.</td>
</tr>
<tr>
<td>26A</td>
<td>Fluted head of minaret of Qaliba, Qairawan.</td>
</tr>
<tr>
<td>26B</td>
<td>Fluted head of minaret of mosque of Ibn Tūlim, Cairo.</td>
</tr>
<tr>
<td>26C</td>
<td>Fluted head of minaret of mosque of the Kutubiyya, Marrakesh.</td>
</tr>
<tr>
<td>27A</td>
<td>Fluted head of minaret of mosque of al-ʿAskar, Cairo.</td>
</tr>
<tr>
<td>27B</td>
<td>Fluted head of minaret of ʿAbd al-Ghādānfar, Cairo.</td>
</tr>
<tr>
<td>27C</td>
<td>Fluted head of minaret of al-Cawāl madrasa, Cairo.</td>
</tr>
<tr>
<td>27D</td>
<td>Fluted head of minaret of khānaqā of Ṣusan, Cairo.</td>
</tr>
<tr>
<td>28A</td>
<td>Fluted dome of mausoleum of al-ʿAṣkor and Sayyida ʿAtika, Cairo.</td>
</tr>
<tr>
<td>28B</td>
<td>Fluted dome of mausoleum of Qub.</td>
</tr>
<tr>
<td>29</td>
<td>Minaret of the Khallal mosque, Bagdad: square Kufic inscription.</td>
</tr>
<tr>
<td>30A &amp; B</td>
<td>Minaret of the Khallal mosque: two combinations of the word &quot;Ali&quot;.</td>
</tr>
<tr>
<td>31A</td>
<td>Basic all-over pattern of mixed motifs, with a bird.</td>
</tr>
<tr>
<td>31B</td>
<td>The same pattern as it appears on minarets, with a filler motif.</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>32</td>
<td>Minaret of mosque of 'Abd al-Salām: waisted lozenges and squares.</td>
</tr>
<tr>
<td>33</td>
<td>Reconstructions of all-over patterns filling narrow bands on the minarets of the following mosques: (A) al-Khaṣṣafī; (B) al-Fāḍil; (C) al-Nāṣirī; (D) al-Naṣirī.</td>
</tr>
<tr>
<td>34</td>
<td>Analysis of the 'T' pattern of Samarrā border designs.</td>
</tr>
<tr>
<td>35</td>
<td>Samarrā geometrical border designs.</td>
</tr>
<tr>
<td>36</td>
<td>Reconstruction of Samarrā border designs.</td>
</tr>
<tr>
<td>37</td>
<td>Design of linked squares on minarets of mosques of Ḫusayn ibn ʿAbbas and ʿAbbās ibn ʿAbd al-Fattāḥ.</td>
</tr>
<tr>
<td>38</td>
<td>All-over pattern of interlaced squares of the Iraqi minarets.</td>
</tr>
<tr>
<td>39</td>
<td>Variations of this pattern on four Iraqi minarets.</td>
</tr>
<tr>
<td>40</td>
<td>Zigzag-lozenge pattern of Iraqi minarets.</td>
</tr>
<tr>
<td>41</td>
<td>Variations of this pattern on four Iraqi minarets.</td>
</tr>
<tr>
<td>42A</td>
<td>Pattern on the minaret of the Yaqtīye madrasa, Erzurum.</td>
</tr>
<tr>
<td>42B</td>
<td>Zigzag lozenge from the Cifte Minareli madrasa, Erzurum.</td>
</tr>
<tr>
<td>43</td>
<td>The evolution of the zigzag band according to W. Millet.</td>
</tr>
<tr>
<td>44</td>
<td>Faulted curvilinear meanders on early Chinese vessels.</td>
</tr>
<tr>
<td>45</td>
<td>Han silk Camask.</td>
</tr>
<tr>
<td>46</td>
<td>Chinese figured silks (Han period).</td>
</tr>
<tr>
<td>47</td>
<td>Han silk.</td>
</tr>
<tr>
<td>48</td>
<td>Han silk.</td>
</tr>
<tr>
<td>49</td>
<td>Han silk.</td>
</tr>
<tr>
<td>50</td>
<td>Minaret of ʿArbi, pattern of zigzag bands with squared loops.</td>
</tr>
<tr>
<td>51</td>
<td>Minaret of Gulpayagan: kurl pattern.</td>
</tr>
<tr>
<td>52</td>
<td>Samarrā stucco with cloud band motif.</td>
</tr>
<tr>
<td>53</td>
<td>The evolution of the rectilinear cloud scroll.</td>
</tr>
<tr>
<td>54</td>
<td>Variations of the cloud band in Islamic art.</td>
</tr>
<tr>
<td>55</td>
<td>Variations of the cloud band in Islamic art.</td>
</tr>
<tr>
<td>56</td>
<td>Cloud bands on Islamic carpets.</td>
</tr>
<tr>
<td>57</td>
<td>Rectilinear cloud bands in Islamic architecture.</td>
</tr>
<tr>
<td>58</td>
<td>The evolution of the rectilinear cloud band.</td>
</tr>
<tr>
<td>59</td>
<td>Square Kufic and swastika pattern on the mihrab of the Suhrāwārī.</td>
</tr>
<tr>
<td>60A</td>
<td>Bronze lamp (c.1187) from the Dome of the Rock.</td>
</tr>
<tr>
<td>60B</td>
<td>Bronze lamp (c.1187) from the Dome of the Rock.</td>
</tr>
<tr>
<td>61</td>
<td>Minaret of the Wazir mosque, Baghdad: swastika meander frieze.</td>
</tr>
<tr>
<td>62</td>
<td>Sassanian stucco panel with swastika meanders, Ctesiphon (6th century).</td>
</tr>
<tr>
<td>63</td>
<td>Swastika all-over pattern from monastery in Sikkim.</td>
</tr>
<tr>
<td>64</td>
<td>Stucco ornament with swastika patterns from Khirbat al-Mafjar. (After Aslanapa or after Hamilton) see also 65.</td>
</tr>
<tr>
<td>65</td>
<td>Stucco ornament with swastika patterns from Khirbat al-Mafjar.</td>
</tr>
<tr>
<td>66</td>
<td>Samarrā border designs with swastika patterns.</td>
</tr>
<tr>
<td>67</td>
<td>Swastika patterns from the later tomb tower at Khirrāqān.</td>
</tr>
<tr>
<td>68</td>
<td>Tomb of Suhrāwārī, Baghdad: sharqāli inscription.</td>
</tr>
<tr>
<td>69</td>
<td>Spirals of minaret of al-Sayyīd Ṣalmān (al-Gailliru. I).</td>
</tr>
<tr>
<td>70</td>
<td>Construction of pentagon and star.</td>
</tr>
<tr>
<td>71</td>
<td>Methods of constructing various geometrical figures.</td>
</tr>
<tr>
<td>72</td>
<td>Hexagonal pattern with secondary motifs.</td>
</tr>
<tr>
<td>73</td>
<td>Arabesque border designs.</td>
</tr>
<tr>
<td>74</td>
<td>Palmette and half-palmette scrolls.</td>
</tr>
<tr>
<td>75</td>
<td>Chinese &quot;scroll&quot; border designs.</td>
</tr>
<tr>
<td>76</td>
<td>Buddhist embroidery with heart-shaped motifs and &quot;arabesque&quot; scroll.</td>
</tr>
<tr>
<td>77</td>
<td>Yan li-Pen: Portrait of the Emperors (detail).</td>
</tr>
<tr>
<td>78</td>
<td>Variations of the bifurcated leaf in Islamic art.</td>
</tr>
<tr>
<td>79</td>
<td>Further variations of the bifurcated leaf in Islamic art.</td>
</tr>
<tr>
<td>80</td>
<td>Bifurcated leaf cloud bands in Islamic art.</td>
</tr>
</tbody>
</table>
Figures

81 - Arabesque composite motifs in Islamic art
82 - Analytical drawings of composite arabesque motifs in Islamic art
83 - Adaptation of bifurcated leaves for "palmette" and "tortoise" motifs
84 - Analytical drawings of cramped scrolls in Islamic ornament
85 - Geometrical band from minaret of Sirž-Džín mosque, and reconstruction of the entire pattern
86 - All-over patterns of heart-shaped motifs in Islamic art
87 - Trefoils and palmettes enclosed in heart-shaped motifs, Sāmarrā
88 - Sāmarrā border designs
89 - Silver strap mounts, Bāna (datable to the Hungarian conquest)
90 - Wall painting from Balalyk Tepe; Chinese silk batik
91 - Early Chinese petal motifs
92 - Early Chinese bronzes with symbols of longevity
93 - Chinese symbols of longevity in various stylised forms
94 - Chinese symbols of longevity in various stylised forms
95 - Detail of cotton fabric, Tang period
96 - Dish of inlaid metalwork. Northern Mesoopotamia, 12th-13th century
97 - Inscribed marble sarcophagus, Herat. First half of 15th century
98 - Pseudo-Kufic in Seljuk carpets
99 - Joo-e heads in Chinese and Islamic art
100 - Palaence mosaic in the Blue Mosque, Tabriz, 1465
101 - Analytical drawings of faulted curvilinear zigzag bands, Sāmarrā
102 - Islamic miniatures depicting strips of Joo-e heads
103 - Sāmarrā border designs: the "half palmette with the wing-like element"
104 - Joo-e heads on minbar of Qošidiya mosque, Iraq, 1153-4
105 - Chinese cloud forms in Islamic miniature painting
106 - Various forms of the Joo-e head in Islamic art
107 - Motifs from the miniatures of the Maqamāt al-Ḫarīrī. Baghdad, c. 1225-25
108 - The roc, from the Āja'īb al-Makhluqat of al-Sazwānī. Fāsīt, 1280
109 - Variations of the madārī arch in Islamic art
110 - Variations of the madārī arch inside Imām Dūr
111 - Detail from Rasch'īl Ikhmān al-Cafī (Iraq, 1287)
112 - Stucco panel from Ctesiphon, Sasanian
113 - The heart-shaped motif in Sasanian art
114 - Key border designs in Islamic art
115 - The 'slanting T' pattern in Chinese art
116 - Slanting 'T' pattern on pre-Han tomb tile
117 - Slanting 'T' pattern on textile from Skog
118 - Drawing of pattern of carpet in Ġalā' al-Dín mosque, Konya
119 - Variations of the laj-jen
120 - Plaque of the Qapšlaniya māhrāq turned horizontally
121 - Variations of the 'S' motif
122 - Stylized Chinese figural motifs displaying 'b' forms
123 - Chinese dragons depicted on pre-Han tomb tiles
124 - Sāmarrā stucco with 'Y' pattern
125 - Use of superimposed hexagonal patterns to obtain other patterns
126 - Superimposed hexagonal patterns
127 - Early Chinese textiles with variations of tortoise-shell pattern
128 - Chinese lacquer with diaper background patterns
129 - Development of the 8-pointed star in early Chinese textiles
130 - Design on a bronze mirror. Chou period
131 - Details from eastern textiles depicting Chinese elements
Figures

132 - Details from Western textiles depicting Chinese elements
133 - Byzantine and Chinese double-headed dragons
134 - Bands of square Kufic inscriptions from Iraqi minarets
135 - Plaques of square Kufic from bâd of al-Ghâlin minaret II
136 - Square Kufic inscription, Ja'far Khâna mosque
137 - Square Kufic inscription, minaret of al-Jâplînîya mosque
138 - Square Kufic inscription, minaret of the Ḍâliya mosque
139 - Analytical drawings of square Kufic inscriptions, from minaret of the Aṣfiya mosque and minaret at Karbalâ'
140 - Pattern on minaret of the ʿAbd al-Qâlânî mosque, Baghdad
141 - Square Kufic inscription, minaret of mosque of Hunawwar Khâtûn
142 - Square Kufic inscription, minaret of the ʿVazîr mosque.
143 - Kufic ornament on minaret of the Barâyy mosque, Baghdad
144 - Kufic ornament on minaret of the Ja'far Khâna mosque, Baghdad
145 - Spirals
146 - Square Kufic inscriptions from minaret of the Naṣ̄irînîya mosque
147 - Square Kufic plaques from the ʿJâplînîya mosque.
148 - Variations of the letter hâ' in square Kufic
149 - Square Kufic plaque from the ʿJâplînîya mosque.
150 - Combinations of the word ʿAllî in square Kufic from the Khallâl minaret.
151 - Special axe used for cutting bricks in Baghdad
152 - Golden paîza with Baspa inscription
153 - Samarrâ wall painting with yîn and yâng motif, 9th century
154 - Development of yîn and yâng from vine leaf proposed by ʿAmîd
155 - A possible development of the yîn and yâng at Samarrâ
156 - Samarrâ: rectilinear looped zigzag band with yîn and yâng
157 - Diaper pattern on wall painting from Sâmarra
158 - The faulted curvilinear zigzag band at Sâmarra
159 - Curvilinear zigzag band on Chinese urn and Sâmarra stucco
160 - Samarrâ meanders (curvilinear zigzag bands)
161 - Filler motifs of Sâmarra meander of fig. 160
162 - Vertical sections from curvilinear zigzag bands, Sâmarra
163 - Lobed curvilinear zigzag bands in Islamic art
164 - Tomb tower of Ṣâdkan East, Persia, possibly 1281
165 - Details of Baghdad Gate, Raqqa, 8th century
166 - Multi-lobed units of the meander in Islamic architecture
167 - Pointed lobed arches in Islamic art
168 - Other versions of the curvilinear zigzag band at Sâmarra
169 - Use of the curvilinear zigzag band on "bell-shaped" columns
170 - Chinese cloud motifs
171 - Peacock from ceiling of Cappella Palatina, Palermo, 12th century
172 - Pointed lobed arches in Chinese art.
173 - Ming tomb in Sining, 1624
174 - Reconstruction of border strips with joo-e heads
175 - Analytical drawing of all-over pattern evolved from zigzag band
176 - Chinese thrones in Islamic miniature painting
177 - Chinese thrones in Islamic miniature painting
178 - Fragment of Han silk
179 - Phoenixes from wall paintings in the Jausaq al-Khâqânî, Sâmarra
180 - Early Chinese phoenixes
181 - Phoenixes of Chinese origin in Islamic art
182 - Peacock dragon, Drinking bowl, Northern India, Sasanian period
183 - Details from pls. 11 and 339
184 - Lions and gryphons on textiles
Figures

185 - Early Chinese lions
186 - Chinese chimeras
187 - Elephants on various non-Chinese textiles
188 - Elephants depicted on wall paintings from Central Asia
189 - Elephant tusk, China, 11th century B.C.
190 - Elephants at Taq-i Bustan, 6th-7th century
191 - Fabulous birds
192 - Details from textiles depicting birds
193 - Detail from striped brocades, Venice, 14th century
194 - Double-headed eagles in Islamic art
195 - Detail of the pattern in pl.
196 - Han silk depicting cloud bands
197 - Cloud motifs in Islamic miniature painting
198 - Cloud scroll from a miniature, Herat, 1436
199 - The triatna motif in Sassanian textiles as shown on rock reliefs
200 - Evolution of the triatna motif in Ottoman textiles
201 - Endless knot motifs on the Arbil minaret
202 - Pattern on parapet of the Haghar mosque
203 - Copper coin, Ma'arrat, 1229
204 - Detail from frontispiece to the Ma'arif al-Diriri, 1334
205 - Crowns depicted in Islamic miniatures
206 - Crowns depicted in Islamic miniatures
207 - Ancient Chinese crowns
208 - Crowns in Turkish textiles
INTRODUCTION.

Chinese art has never been seriously considered as a main source of Islamic ornament. It has also not been recognized as a source for the non-Greek elements in both Byzantine and Sasanian art. Although these elements have been recognized as Asiatic, they have usually not been attributed to a specific region of Asia and the matter has been left largely uninvestigated.

Hersfeld maintains that these non-Greek elements in Byzantine art were produced by "the reaction of the oriental provinces of Hellenistic art against those of the west." (1) He further maintains that this reaction was caused by unhellenic ideals and views of art, but he does not define these more closely.

Godard has discussed the non-Greek elements in Sasanian art; he terms them 'Asiatic themes and procedures' (2). He refrains, however, from attributing them to any particular region. Godard ends his passage with an illuminating comment on the obscure and ambiguous nature of Sasanian art:

"The exact chronology of Sasanid art has not yet been established. Research still goes on, but there is a difficulty, apart from the one caused by the scarcity of inscriptions; it is the absence of graves, as George Salles remarked, "We lack," he said, "those reserves of documents and information which constitute the richest evidence for every other culture."

Godard maintains that these 'Asiatic themes and procedures which are completely opposed to the spirit of Greek art' appear from the beginning of the Sasanian dynasty.

---


Godard notes that the plant shapes of Hellenistic art were replaced by "a geometry conditioned by the very ancient craft of heraldry," in which the absolutely symmetrical composition was no longer concerned with mannered grace of line, but more concerned with the careful balance of its masses. Such compositions, according to Godard, include among their motifs a host of "unexpected animals whose juxtaposition has no meaning except from the purely decorative point of view," such as "flying ibexes, ducks, snarling wild beasts, doves, peacock-dragons and falcons", as well as "highly stylized ornaments, such as ribbons, pearls, palmettoes, trees of life within, or without, rosettes and roundels, or running in foliated scrolls."

Godard hints that these motifs may derive from a revival of the Achaemenid style during the Sasanian period, but he does not pursue the matter further.

It should be noted that the majority of these non-Hellenistic elements appear almost simultaneously in both Byzantine and Sasanian art.

In Byzantine art they are best preserved in mosaics, frescoes and textiles. In mosaics and frescoes they are mostly depicted as textile designs on garments worn by the persons depicted, (1) or as border designs. (2) They were also used in the form of all-over patterns for the ornamentation of vaults and other surfaces. (3)

In Sasanian art a number of these non-Hellenistic elements appear in the stuccoes of Ctesiphon, and the sculptures of Taq-i-Bustan, as well as on the so-called Sasanian silver plates and as textile ornament on garments, cushions, and saddle cloths.

Footnotes. (1), (2), and (3): see Appendix I at the end of Chapter I.
The appearance of these Asiatic elements in Byzantine and Sasanian art in the form of textile designs clearly indicates their arrival from a common source on textiles, and immediately brings to mind the celebrated silks of China which were one of the causes of dispute between the Sasanians and the Byzantines. This work traces back chronologically the majority of these Asiatic elements - whether they occur in Sasanian, Byzantine, or later in Islamic art - to Chinese prototypes datable to the Shang (1766 - 1122 B.C.), Chou (1122 - 256 B.C.), and Han (B.C. 206 - 220 A.D.) periods. A few of these "Asiatic elements" appear to be of ancient Indian origin; some are datable to the Mohenjo-daro period (3000 - 1500 B.C.), and the others to the early centuries of the Buddhist era in India.

Until very recently the accepted opinion among art historians has been that Byzantine and Sasanian art, both with an ultimately Hellenistic origin, are the main sources of Islamic art. Whenever an ornament or an art motif has had no obvious parallel in either of those two arts it has conveniently and vaguely been referred to Central Asia, Bactria, and occasionally (as at Mshattā) to India. In fact Chinese influence on early Islamic art has only been recognized in the field of Abbāsid pottery during the 9th century at Sāmarrā, and even then this recognition was limited to the technical aspects of the pottery and did not extend to its forms and decoration.

This is all the more strange since there is textual evidence of the arrival of twenty pieces of Chinese Imperial porcelain (§ in Faghfar) in Baghdad during the reign of Ḥarūn al- Ṭāhir (786 - 809). Moreover, this was the first time that the finest Chinese porcelain, (a term used by Lane but requiring further definition) which was so different from the common Chinese export ware already known in the area, had found its way to the West. Indeed, al-Baihaqi remarks with admiration that the like of these pieces "had never been seen at a Caliph's court before."
It should be noted that in Iraq faghar, and its corrupted form farfūrī are still used in the colloquial language to denote fine porcelain.

Chinese influence has been equally ignored in most other fields of Islamic art. Only in Islamic miniature painting has Chinese influence been recognized though here too its extent has not been fully understood. Thus the Chinese elements in the stylistic tendencies and technical characteristics of some Islamic painting, such as the drawing of lines and tints of their colour are generally accepted. Moreover, unmistakable Chinese motifs such as cloud forms, rock formations, and (though quite recently) dragons, phoenixes, cloud - collars, and Mandarin - squares that appear in Islamic miniature painting from the 14th century onwards have also been recognized. However, none of the textile patterns depicted on garments in Islamic miniatures of the various periods, apart from the so-called 'crumpled pattern', has attracted enough attention, and none was subjected to an extensive analytical and chronological study. This gap is all the more serious since such textile ornament may well have been an important source for Islamic architectural ornament.

However, the attribution of the bulk of Islamic ornament and art motifs to the art of Byzantium, Persia, and Central Asia, all of them heavily indebted to Hellenistic art, though perhaps short-sighted, is understandable and need not be taken as sheer bias for Greek art, thought and civilization.

Much of the discussion of early Islamic art has been based on the assumption that the Arab conquerors had no material civilization of their own, and that they simply adopted and patronized the arts which were prevalent in Byzantine Syria and Sasanian Iraq.
In consequence, the interaction between the two arts under Muslim rule has led, according to accepted theories, to the evolution; or, as Pope terms it, "the transition," from the pre-Islamic arts in this region into an Islamic style in which the Sasanian role was more dominant, whether in architecture, painting, or ornamentation.

The greatest achievement of Greek visual art is generally held to be the lifelike rendering of the human body as a means of expression. The same realistic tendency makes itself felt in acanthus ornament and other motifs derived from nature. But scholars have tended to overestimate the creativity of Greek art in the very different field of abstract ornamentation. This ornament shows that the tendency towards abstraction was alien to the Greeks. Their approach was governed by a philosophy of ideal beauty which left little scope for stylization. In fact the principal stylization apparent in Greek sculpture is indeed the simplification of the face. This was to avoid a centre of focus which would capture the eye of the beholder and distract it from appreciating the work as a whole. Greek architecture reflects the same idealism. Conventional ornament, whether in its architecture or on pottery, is rather meagre. Some motifs were borrowed from Assyrian fabrics; others derive from Chinese silks—especially those shown on garments worn by figures depicted on pottery. This Chinese influence reached the Greeks from two sources. The first and earliest, according to Potamianos, was through the Achaemenids (through presumably the so-called "Medic dress"), and the second was through the Scythian Haumawarga, and for that reason silks were called after them ('amorgis' or 'amorginon').

However, it should be noted that the so-called 'Greek key' and the 'swastika fret' both seem to have reached the Greeks through the nomads of the Steppes, most probably via silks and metalwork, at a very early date. (1)

The imitation by Greek and Roman artists of "Persian" silks (themselves most probably of Chinese origin, for it is a well known fact that until the Han period, the weaving of silk was an exclusive Chinese technique) is further confirmed by A. Grabar in his discussion of Byzantine ornament of the 5th century, for he states that "from the fifth century on, ornamental motifs of Persian origin are often present in Byzantine painting. But, before this, Greek and Latin artists too (in, for example, some Pompeian frescoes) had indulged in similar borrowings from the Iranian repertory". (2)

Furthermore, Greek art apparently never had a tendency towards symbolic abstraction, as is the case in Chinese art, neither did its abstract and geometrical ornament develop into a symbolic language as it did in Chinese art. (3) In fact there is no known meaning or significance for any of the ornamental motifs, whether naturalistic or otherwise, in Greek art.

Sasanian art is supposed, according to Pope, to have been a "renaissance consciously based on the national tradition," which influenced the arts from China to Romanesque Europe. (4) Pope believes that Iranian artistic traditions were not interrupted by the Islamic conquest, but were merely in transition from old to new values.

(1) See infra, The Key motif (pp. )

(2) A. Grabar, Byzantine Painting (Geneva; 1953), p. 32.


It has also been maintained that this transition was carried out wholly by Iranians. But it can also be argued that, apart from prehistoric times, Persia has never been a creative centre for art. In fact, for a long period the ancient Persians were fully dependent on the art of Mesopotamia, and especially on Assyrian art, as can be clearly seen in the Luristan bronzes, the sculptures of Pasargadae, and those of Persepolis. The art of the Achaemenids was thoroughly dependent on Assyrian art which they adopted from cylinder seals and human-headed winged bulls to cuneiform inscriptions.

It was only after Darius I had fully established his Empire that elements of non-Mesopotamian origin made themselves evident, such as the Egyptian grooved architraves on the gates of the palace in Persepolis, and the Ionian fluting of columns at the same site.

A closer study of Persepolis reveals that an attempt has been made at gathering all the best and the most characteristic features of the arts of the two great Empires defeated by the Achaemenids: Assyria and Egypt. The elevated platform and the main staircase leading to it, with its sculptured animals, are clearly a copy from Assyrian ziggurat construction. The grooved portals themselves, and the columned structures on the platform, are all clearly copied from the temple architecture of Egypt.

It should be noted that this is further confirmed by an important historical document known as "The Charter of the Palace of Susa."

In this document Darius I celebrates the completion of his palace there. He states with pride:

"The decoration of this palace which I built at Susa was fetched from far away ... The bricks were moulded and baked in the sun by Babylonians ... The decoration for the walls was brought from Ionia ... The stone dressers were Ionians and Sards."
The goldsmiths who wrought the gold were Medes and Egyptians. The men who worked the sunbaked bricks, they were Egyptians. "The men who decorated the walls were Medes and Egyptians." (1)

However, the surviving Achaemenid monuments exhibit hardly any form of ornament apart from the widely used Assyrian rosette. In one example, the frieze of enamelled brick from Susa depicting archers, the garments of the archers exhibit alternately a pattern of squares in the form of a diaper, and a pattern of rounds with rosettes inside them. All the garments (of both patterns) exhibit a border strip of the so-called "Sasanian pearls". The occurrence of this motif in particular on Achaemenid garments may well indicate their Chinese origin, for it will be proved in this thesis that this motif was widely used on Shang bronze vessels datable to the 11th Century B.C. Its uninterrupted use in China on various media - including silk fabrics - has been proved by Meister. Given such an ease, to dismiss it is very easy. As soon as the Greek conquest was complete, Persia was once again all too ready to adopt the art of the conquerors together with their way of life and culture. Coins were struck in the Greek style. Persian inscriptions were replaced by Greek inscriptions and a Greek style of inferior quality dominated sculpture and architecture.

(1) For the full text see A. Godard, op. cit., p. 106 n. 1.
The two centuries of Hellenism in Iran left such a strong influence on the Iranians that it made it impossible for the nomadic liberators, the Parthians, to do anything but express their admiration for Greek culture. In fact, the early Parthian monarchs, from Mithridates I on, designated themselves 'Philhellenes' on their coinage. According to Chirahman, this was - at least to begin with - a political gesture towards the completely Hellenized Iranian bourgeoisie and to the Greek colonies rather than a genuine appreciation of things Greek.

The cause for this attitude seems to be that the nomadic Parthians had nothing culturally or artistically superior to offer to the already established Hellenic civilization.

However, the important point here is that this respect for Greek culture continued all through the struggle between the Parthians and the Seleucids, and seems to have turned into a genuine appreciation. This can best be illustrated by an incident when the victorious Parthians refrained from entering Selucia or from harming it in any way. Instead they camped on the other side of the Tigris at first, and later built Ctesiphon for themselves.

This deep respect for Hellenism on the part of the Parthians may explain an important issue, namely that although the Parthians were the principal transmitters of Chinese silk to the west, very few surviving Parthian monuments and artifacts exhibit any discernable Chinese influence. Yet as early as about B.C.115 a treaty to facilitate the movement of international commerce through Iran as a transit area was concluded between Mithridates and the Emperor of China. (1)

(1) R. Cichman, Iran: From The Earliest Times To The Islamic Conquest (London 1954), p. 250.
This outward affinity to Hellenistic art can be clearly seen at Hatra, where apart from the adherence to 'strict frontality' in certain sculptures, all the other artistic conventions and elements were purely Hellenistic, including the ornamentation.

It seems that this Parthian abstention from imitating the Chinese art motifs which they encountered through their dealings with the silk trade was the outcome of their admiration of Greek art, and of their adherence to it. This may suggest that the Parthians may have preferred plain silks for their own use, in accordance with the Greek convention that highly decorative garments are characteristic of Asiatic peoples and the Amazons and thus subject to disapproval. It is thus possible that they might merely have passed on the Chinese figured and decorated silks to Western consumers without using them themselves. This would explain why these did not appear on their works of art.

If this reasoning is accepted, it would cast doubt on the assertions made by scholars that Sasanian ornament (and in consequence Islamic ornament) was based on the traditional Iranian repertoire. For neither the Achaemenid nor the Parthian repertoire had anything to offer in the field of stylized or abstract ornamentation which could have been revived by the so-called 'Sasanian renaissance of old Iranian traditions.' (1)

In fact the prevalent Iranian repertoire was so poor that when Ardashîr I wanted to show his disenchantment with Hellenism by instigating an Achaemenian revival, the only ornament that could be utilized for his palace at Firuzabad was the Egyptian grooving borrowed from the cornices of the palaces at Persepolis.

(1) Pope, op. cit., p. 5.
However, the Sasanian artist does not seem to have neglected the other two Achaemenid motifs at Persepolis, which are of Assyrian origin, namely, the rosette which he used much later for the decoration of horse trappings, and the stylized reed which makes its appearance in the 'boar-hunt' at Taq-i Bustan. (1)

This frustrating paucity of ornament seems to have driven the Sasanian artist to pursue a new source of ornamentation, from which he could borrow motifs very different from what was prevalent in Iran at the time. It seems that the Sasanian artist found his source in artifacts and textiles imported from further east. Some were imported from India, and the majority from China. These two were the major creative centres in the east for art at that time, and both had strong ties with Iran.

During the early days of the Achaemenids, the whole of western India and the Indus valley was under their rule, and was one of the major sources for timber and other commodities. The Achaemenids introduced Aramaic inscriptions into India and from this source Kharoshthi (the oldest known Indian Alphabet) was developed. The Achaemenids even had a certain influence on Indian architecture. This has been revealed by the uncovering of a palace in Patna dating from the Maurya dynasty and reproducing the plan of Persepolis. The flourishing trade with India during the Parthian period, and the translation of Indian books during the reign of Shapur II and Khosroes I provides evidence of further links between the two areas. The traditional friendship between the Gupta rulers and the Sasanians lasted for centuries. From them, the Sasanians got their elephants and learnt their use for was as the Parthians never used them. (2)

---

(1) The composite rayed rosette recently found on the tomb of Cyrus at Pasargadae; this recurs in the bas-relief of Ardashir II at Taq-i Bustan.

(2) Chirahman, op. cit., p. 313.
These eastern motifs seem to have reached Sasanian Iran by more than one means. Among these means were direct trade, migrant craftsmen, and the missionary activities of the Nestorian Christians in India, China, and Central Asia. Yet another way was through the dissemination of such motifs amongst people exposed to prolonged contact with either China, or India, or both. Such peoples inhabited the Russian Steppes, Central Asia, and Tibet; the Sasanians made contact with them either through trade or through war.

Neither the historical nor the geographical circumstances which enabled such pre-Islamic contacts to be made between Sasanian Iran and the areas to the east had changed markedly in the early Islamic period. It is thus legitimate to assume that such contacts continued. At first, Chinese motifs would become incorporated into Islamic art through their presence as a residual element in Sasanian art; but it was not long before these Chinese elements were strengthened and rejuvenated as a result of direct contact between Islam and China. This hypothesis is further confirmed by the appearance in Islamic art of Chinese motifs and elements which are not to be found in Sasanian art (e.g., the Yin and Yang, and the "angk"; both found at Samarra).

Thus, the origins of certain Islamic art motifs and ornament cannot be attributed to the art of Iran nor in fact to the art of Central Asia, the original homeland of the Parthians. For it is a well known fact, supported by considerable literary evidence, that the pastoral horse nomads of Central Asia, whether of Indo-European stock, such as the Yiieji (Yieh - Chih), and the Wusun, who inhabited Eastern Kashgaria, or whether of Hunnish stock such as the Haung-nu, who lived on the northern borders of China, had no material civilization of their own.
These nomads have depended greatly on China, and, to a much lesser degree, on India, for every aspect of their material and spiritual culture throughout their history.

The constant harassment of the Haiung - mu and their plunder of Chinese borders forced the feudal rulers of northern China to build defensive walls. These walls were incorporated into the celebrated wall of China during the reign of Emperor Ch'in Shih Huang Ti (ruled 246-210 B.C.), the 'First Emperor of Ch'in'.

The lack of cultural background which marked these nomads led their Chinese contemporaries to designate them as "barbarians," even though they were supposed to descend from the rulers of the legendary Hai dynasty (2205-1766 B.C.) and thus would have a common ancestry with the Chinese. Strzygowski maintains that the nomad steppe was the creative zone in formal ornament, and that out of it came the missionary influence which created the ornament of the Christian East, and almost all the art of Islam (1).

But the following quotation from The Records of the Grand Historians of China by the celebrated historian Sau - Ma Ch'ien illustrates the rudimentary existence of these tribes and may be thought to cast some doubt on Strzygowski's theory:

"The ancestor of the Haiung - mu was a descendant of the rulers of the Hai dynasty by the name of Ch'un - wei. As early as the time of Emperor Yao and Shun and before, we hear of these people, known as Mountain Barbarians, Haien Yun, or Hun-Chu, living in the region of northern barbarians and wandering from place to place pasturing their animals... They move about in search of water and pasture and have no walled cities or fixed dwellings, nor do they engage in any kind of agriculture... They have no writing, and even promises and agreements are only verbal... It is their custom to herd their flocks in time of peace and make their living by hunting but in periods of crisis they take arms and go off on plundering and marauding expeditions."

The only concern is self-advantage, and they know nothing of propriety or righteousness. The young men eat the richest food, while the old get what is left over, since the tribe honours those who are young and strong and despises the weak and aged. On the death of his father, a son will marry his stepmother, and when brothers die, the remaining brother will take the widows for their own wives. (1)

This statement reflects the fact that pastoral nomads (though they may have an outstanding oral tradition), due to their constant movement, lack advanced industrial and technological skills which are the basic requirements for material civilisation characteristic of urban society. Thus the nomads must always depend on the skills of craftsmen in settled communities. Once this fact is admitted, it is impossible to attribute artefacts requiring highly specialised and complicated techniques — such as those used for the production of early Chinese bronzes — to such people.

Though these nomads had access to Chinese artefacts through their raids on border towns and villages, and also through the barter of camels and horses for Chinese silks, lacquer, and other commodities, it was only after 202 B.C., when the Chinese first adopted the ho-Ch'in policy (which may be designated as "Women and Silk Diplomacy") that Chinese luxuries reached the nomads en masse. This policy seems to have stimulated a great desire for luxury goods and things Chinese amongst the nomads. They clothed and armed themselves in Chinese fashion. They wore Chinese cuirasses with overlapping scales and iron helmets with vast neck-pieces and they carried long lances.

(1) Wen-Yen Tsao, "The Haiung - nu Menace and the Han Expansionism" (Chinese Culture XII, No. 1, March 1971), pp. 36-7.
For the building and embellishment of their monuments, they employed Chinese artists and craftsmen. This can be clearly seen in the paintings of Khotcho, Tun-huang, and Bezeklik.

The non-existence of indigenous architecture or artistic formulae amongst these nomads of Central Asia is further confirmed by the fact that they continually imported foreign craftsmen. In 730, Chinese craftsmen were brought to Karakulgharun to build sumptuous temples to the memory of dead Turkish Princes. Around the year 1240 Ögedei carried off from Persia and the cities of Transoxiana all the artists and craftsmen he could find, and they were sent into Mongolia to work for his father, Chingiz. At the end of the 14th Century Timur resorted to the same practice, for he sent to Samarkand all the artists and artisans that he was able to find in Persia, Mesopotamia, and Syria.

If there had been a thriving independent and autonomous artistic tradition in Central Asia, in the 13th and 14th Centuries this mass transportation of artists by Ögedei and Timur would presumably have been unnecessary. It is possible that this state of affairs was equally marked in earlier periods.

Several scholars, such as Needham and Blochet, have argued that Central Asia was an area in which artistic influences were transmitted from one country to another. Blochet rightly states that:

"The clans in Central Asia never possessed a single form of art born of their own thought. All through the ages, to the most remote times, the Central Asian provinces were open to the influence of China, which always formed the staple element in Central Asian culture and civilization... Never at any period of their existence have the people who lived in Central Asia, or who came out of it, the Seljuks in Iran, the Osmanlis at Constantinople, the Great Moguls at Delhi, done anything but copy their surroundings." (2)


Other scholars, such as Ettinghausen and Cohn-Wiener, are doubtful of the originality of the so-called "Turkish Style," its extent, and of whether it was indigenous or imported. A third group of scholars, including Bussagli, though admitting the "melting pot" nature of the arts in Central Asia, seem very keen on giving an important role to the so-called "native creative genius," which supposedly "played a conspicuous part, over a vast area, in the creation of Islamic art." (2)

On the other hand, China was from high antiquity one of the most original and most creative centres of art. As early as the Shang period (1766 - 1122 B.C.) China had an advanced and distinctive style of metalwork of her own, embellished with an equally distinctive and highly stylized ornamentation. Both features of this early metalwork (that is, form and ornamentation) were intimately connected with the beliefs of the ancient Chinese. These beliefs included the worship of nature in its visible manifestations, and the worship of ancestors.

The great esteem in which the Chinese held antiquity and set forms resulted in the copying of ritual vessels and their stylized ornamentation in the most minute detail for generations, even up to the present day. This attitude towards their ancient art has kept both indigenous innovations and foreign influences in China to a bare minimum. In fact Chinese art remained clear of foreign influences until the introduction of Buddhism into China during the 1st Century A.D.

(2) M. Bussagli, Painting of Central Asia (Geneva 1963), p. 121.
The separate development of Chinese art was made possible by its geographical isolation. China, unlike the great river-valley cultures of the ancient world which continually interacted due to their proximity to each other, is protected from foreign influences on two sides by the sea, and on a third side by impassable mountain ranges. On the fourth side it is bordered by the vast deserts of Central Asia which in antiquity were inhabited by pastoral nomads who had no artistic conventions.

The uniqueness of Chinese culture can perhaps best be illustrated by its pictographic script which has continued in use up to the present day, whilst other scripts, such as cuneiform and hieroglyphic, developed syllabic alphabets.

The worship of nature's visible manifestations, such as the stars, the winds, the streams and the mountains seems to have led the Chinese to develop a set of abstract visual symbols with which all the phenomena known to man could be represented. This can best be illustrated by the Pa-Kua (eight trigrams) and its extensions, which had already evolved in the Chou dynasty.

The eight trigrams of the Pa-Kua consist of broken and unbroken lines. The unbroken lines represent the male, strong or celestial element in nature. The broken lines represent the female, weak, or terrestrial element. In fact a complete system of Chinese philosophy is built on this combination.

The extensive use of these abstract symbols by the Chinese artist, both individually and in various combinations, has led in the course of centuries to the creation of a large number of abstract motifs and patterns based on such symbols in the vast repertory of Chinese art, and to their eventual distribution and dissemination over wide areas in Asia and in Europe.
This is partly due to the extensive and almost continuous movement of the nomads of Central Asia towards the West, and partly due to direct trade with China in silk and other commodities, whether overland or by sea.

Failing to recognize Chinese abstract symbolism as well as the conservatism which maintained it, many scholars believed until very recently that China had nothing new to offer in the field of art, and that Chinese art generally consisted of borrowing from (or was at least strongly influenced by) the arts of Mesopotamia, Persia, Greece, and the Scythian nomads. Thus the sudden appearance of these Chinese abstract motifs in the arts of the West — and especially in the art of the Muslim world, through trade and otherwise — naturally led scholars to attribute them to the arts of some of the countries mentioned above. However, their symbolic meaning remained in the realm of hypothesis.

Some earlier scholars, in an effort to explain Islamic ornament of this type, produced theories ranging from the sublime to the ridiculous. Bourgoin, for example, maintains that the abstract ornament of "Arabic art" is the result of the "dry and abstract inspiration" of the Arabs.

More recently, a few attempts were made at explaining Islamic abstract ornament, but they were all descriptive and based on typologies.

1. In his book *Chinese Art* (Harmondsworth, 1958), W. Willetts cites views of this kind held by Legge (p. 23), Terrien de Lacouperie (ibid), Kaplan (p. 46, n. 2), Loehr (p. 110), Eberhard, Bishop and Creel (pp. 110–11).
None of them was able to provide a clue to its meaning within an Islamic context, apart from some unfounded attempts at linking the so-called 'abstract tree' which is supposed to occur in Islamic ornament, with Sidrat al-Rumâjâ (1) and eventually, associating both with the so-called 'Tree of Life'. The so-called 'abstract vase' has also been related to the minâhât of Sûrat al-Nûr. (2)

However, Chinese symbolic abstract patterns do occur profusely in Islamic art, together with a number of other Chinese motifs. In fact Chinese influence can be traced in almost any work of Islamic art. This seems to have been brought about by the comparative unpopularity of representational art in Islam. As both Byzantine and Sasanian art were mainly figurative, the Muslim artist seems to have resorted to the Chinese repertory (as did the Sasanian artist before him, though for a different reason) in quest of non-figurative ornamentation, which he found in abundance, together with representational motifs, on silks and other commodities which were ready to hand.


It is far-fetched to suggest that such a motif was popular in Islamic art, not only because of the religious significance of Sidrat al-Rumâjâ but also because this is a specific tree. It could therefore scarcely be elaborated or stylised as an Islamic art motif.

Furthere more Sidr has a rather morbid association for the Muslim mind. Its leaves are used for hûmitt (preparing the dead for burial). Also Sidr is planted at the heads of graves in cemeteries as a substitute for the palm, so it is associated with death and even feared by the common people because they believe that the Sidra is endowed with animistic qualities. If it is injured in any way bad fortune and even death will fall on the household. If it is cut down, they believe it would scream and then certain calamity will fall on the household.

Sidr has always been a source of trouble to the adult population in many ways, such as by being a refuge for sparrows which attract snakes to the house, thus constituting a permanent danger to children and adults alike.


(2) Herzfeld, ibid; Kizwînî, op. cit., 55-7.

This subject has been fully discussed on p.
The majority of these Chinese motifs were borrowed in their original forms. Others were further evolved in order to suit different media. But it has always been possible—in both cases—to trace them back to their original ancient Chinese prototypes.

In order to prove the full extent, continuity, and complexity of Chinese influence on Islamic art—an influence which has continued even to the present day—one of the areas of Islamic art least likely to reflect Chinese influence—the extant minarets of Iraq and their decorative elements—has been chosen to form the nucleus of this thesis. Although the point of departure for the thesis is thus apparently rather limited, even this relatively small area lends itself to extensive discussion of Chinese influence, and this influence can ultimately be discerned not only in Islamic art but also in the arts of the Near East as a whole.

Analysis of Arabic authors is intended to provide written evidence for the assertions made here. Art historians have long neglected written evidence from Chinese and Arab sources about early contacts between China and the West.

The circumstances which have most probably led to the transmission of Chinese art motifs and Chinese conventions to the West are also discussed in order to fill what may be termed the historical vacuum left by earlier scholars. This vacuum was partly due to doubts about the originality of Chinese art, which have even been voiced by some modern Chinese scholars, and partly due to the lack of systematic excavations of Chinese sites, as well as of sites belonging to the early 'Abbasid' period, when Chinese influence was at its peak.

Excavations in China were often, until very recently, of a random nature, and were mostly carried out for commercial purposes.
Excluding Sāmarrā, which cannot yield more than it already has, for it was abandoned peacefully and in consequence its houses were emptied of their contents carefully, none of the ābāṣid sites in Iraq - until 1958 - had been thoroughly examined. Baghdad for example, has never been excavated, and only very few tentative excavations have been carried out at Hira, Kufa, Wāṣit, and more recently at Baṣra. The incomplete nature of these excavations has resulted in uncertain dating and provenance in both Chinese and Islamic art, leading to the loss of much valuable information. But copies and parallels of Chinese work abound in Islam, and it is hoped that by shedding new light on the written evidence this thesis will help to re-establish recognition of these links.
CHAPTER I.

TEXTUAL EVIDENCE FOR EARLY CONTACTS WITH CHINA.
EARLY CONTACTS WITH CENTRAL ASIA.

It seems that through the 'ho-Ch'in' policy Chinese culture and Chinese artefacts reached the nomadic tribes of Central Asia systematically and in large quantities, rather than through commerce or through military presence.

This policy was instigated upon the suggestion of Liu Ching, a courtier of the Emperor Liu Pang after the defeat of the latter in a campaign against the Shan - Yu Mo - tun of the Haiung - nu in 202 B.C. (1)

Wen - Yen Tsao quotes the following passage from Liu Ching's suggestion to Emperor Liu Pang:

"If your majesty could see your way clear to sending your eldest daughter by the Empress to be the Consort of Mo - tun, accompanied by a generous dowry and presents; then Mo - tun, knowing that a daughter of the Emperor and Empress of the Han must be generally provided for, would with barbarian cunning receive her well and make her his legitimate consort and, if she had a son, he would make him heir apparent ....... As long as Mo - tun is alive he will always be your son-in-law, and when he dies your grandson by your daughter will succeed him as Shan - Yu, and whoever heard of a grandson trying to treat his grandfather as an equal? Thus your soldiers need fight no battles, and yet the Haiung - nu will gradually become your subjects ......." (2)

The provisions of this treaty include gifts of specified quantities of silk floss and cloth, grain and other food stuffs to be offered to Mo - tun each year. (3)

---

(1) Wen - Yen Tsao, op. cit., p. 41.
(2) Ibid.
(3) Ibid., p. 42.
The 'bo- Ch'in policy was continued by the Chinese until the reign of Emperor Wu Ti (C. 140 - 87 B.C.), who found it necessary to humiliate to the dignity of the Han, and decided to pursue a hardline policy against the barbarians. Thus the 'Woman and Silk' policy was brought to an end in about 133 B.C. (1). Wu Ti's campaigns brought the whole of Central Asia under the direct rule of the Han, and culminated in the conquest of Ferghana (in 101 B.C.), (2) the home of the 'tien ma' - 'the Celestial Horse' or 'The Blood-Sweating Horse of Ferghana!' (3).

The 'bo-Ch'in policy seems to have served a double purpose for the Chinese, for though it was originally intended to buy off their barbarian enemies, or as according to Sullivan (who quotes from the Discourses on Salt and Iron), "to impoverish them by stimulating a desire for luxury goods," (4) it was also used in order to achieve matrimonial alliances with the various tribes of Central Asia to the throughout the period of struggle between the Haiung-mu and Han-China. (5) For example, Emperor Wu Ti, seeking an alliance with the Wu-sun who inhabited Southern Szungaria, dispatched a mission in 105 B.C., with a girl of the Imperial family styled as "Princess" to be married to the King of the Wu-sun. When the Princess died, another girl of the Imperial family was sent to be married to another Wu-sun ruler. (6)

(1) Ibid., pp. 43 and 45.
(2) Ibid., p. 51.
(4) M. Sullivan, op. cit., p. 53.
(6) Ibid., pp. 50 - 1.
It is legitimate to assume that on such occasions the best of Chinese luxury goods would be sent with the Imperial Princesses to ensure their comfort and to impress the nomad rulers and their tribes with Chinese pomp and grandeur. No doubt, too, the large retinues accompanying these Princesses were able to impart much of courtly life, and indeed of the Chinese way of life in general to their hosts.

Even after the reign of Wu-Ti the 'bo-Ch'in' policy seems to have continued, though not always with an Imperial Princess as a bride. It took the form of bestowal of magnificent gifts on the nomad chieftains as well as on foreign realms, mainly in the West, through their embassies to the Chinese court. These Western embassies became extremely frequent during the second Century A.D. (1)

Trever relates a number of incidents in which magnificent gifts were bestowed on Central Asian rulers by Chinese Emperors. The earliest of these was in 174 B.C., when "a Chinese Emperor sent to the 'Tan-hu' an embroidered coat with lining, a long brocade gown, a gold head circlet, a girdle mounted with gold, a rhinoceros-horn buckle similarly mounted, 10 pieces of embroidered silk stuffs, 30 pieces of brocade stuff, 40 pieces of dark red and green silk stuff." (3)

The second incident which Trever quotes was in 50 B.C., when the 'Tan-hu' being on a visit at the Court of China, "The Emperor bestowed on him a hat, a girdle, clothes and underwear, a gold seal with yellow cords, a sword set with precious stones, a knife for wearing at the girdle, a bow and 4 sets of arrows (each set containing 12 arrows), 10 maces in a case, a chariot, a bridle, 15 horses, 20,000 ginn of gold, 200,000 copper coins, 77 suits of clothes, 8000 pieces of various stuffs and 6000 ginn of cotton wool." (4)

(2) Ibid.
(3) Ibid., pp. 19-20.
(4) Ibid.
A third incident occurs in 50 A.D. where the following gifts were sent to the "Tan - hu": a feather parasol, musical instruments, spears, kettle-drums, harnesses, dishes and plates, 25,000 bags of dried boiled rice and 36,000 head of cattle, big and small. (1)

Trever also relates that Chinese chronicles confirm that as a rule, the nomads had a penchant for objects of Chinese workmanship. (2)

This obsession of the nomadic stock with Chinese material civilisation and the Chinese way of life can best be illustrated by the advice given by a Chinese who had joined the Huns in the second Century B.C. Warning of the dangers of the "ho - Ch'in" policy, he admonished the "Tan - hu" as follows: -

"You are changing the old customs, O Tan - hu, you are fond of things Chinese. China has but to give away one tenth of her things, to have all the Huns siding with the House of Han. Tear the silk and cotton clothes you get from China by running among thorny bushes just to show that they hold worse than woollen and leather clothing. Do not use Chinese eatables, showing in this way your preference for milk and cheese." (3)

This quotation throws some light on the simple way of life prevalent amongst the Huns at that time, which is typical of all pastoral nomads.

However, seven hundred years later, the same obsession with China and things Chinese is expressed, this time by an Orkhon in the text of the famous Orkhon inscription left by another Turkish horde.

(1) Ibid.
(2) Ibid.
(3) Ibid., pp. 20-1.
This text is inscribed on the monument of Kulteghin. It reads as follows:

"The call of the Chinese who give us so much gold, silver, corn, silk (?) was (sweet), their riches were soft. Gaining favour by their sweet call and their soft riches, they (the Chinese) drew to them the remote people. They (the Turks) having been settled in their neighbourhood, they (the Chinese) introduced among them their civilisation and their knowledge. Having been subdued by their sweet call and their soft riches, many of them (sons), 0, Turkish people, have perished." (1)

The threnodic quality of this text reveals the extent to which the war-like people of Central Asia were subdued by the Chinese through the "ho-Chin" policy, and the promotion of the craving for Chinese luxuries amongst them.

Hence, presumably, Blochet's assertions that at all periods, the clans that lived in Central Asia borrowed their artistic formulae from the "Celestial Empire," (2) that they have never possessed a single form of art born of their own thought, (3) and that they even clothed and armed themselves after the fashion of the Chinese, (4) whether they remained in Central Asia, or came out of it, as did the Saljuks, the Mughals, and the Ottomans. (5)

Although early Arab travellers, such as al-Marwazi, Ibn Faḍlan, Ibn Khurdadhba, Ibn Battūta, Al-Ṭabarīnī, and others, gathered a great deal of information about the countries they visited, including their natural resources, industry, and artistic tendencies, none of them records a special local industry in any of the regions of Central Asia, apart from paper-making at Samarkand, which was already known as a relic of Chinese domination. (6)

---

(1) Ibid., p. 21.
(2) Blochet op. cit., p. 76.
(3) Ibid., p. 75.
(4) Ibid., p. 60.
(5) Ibid., p. 75.
In fact, al-Marwazi considered all the districts of Transoxiana to be a part of the Kingdom of China. (1) This opinion was most probably formed by the predominance of Chinese civilisation throughout Central Asia.

What could be termed the negative evidence of local craftsmanship is supported by the fact that most of these travellers agree that the produce of Central Asia was limited to raw materials and furs. For example, al-Tha'labī, who considers Tibet as a part of "the Turkish lands," specifies the produce of Central Asia in the following passage:

"In the profusion of their specialities, the Turkish lands form a parallel to India: musk; furs of the sable marten, the grey squirrel, the ermine, the mink, the black fox and the white mountain hare; rhinoceros horn (Khutu); Khadang hardwood, jade; white goshawks; horses; slaves; and Yaks, from whose shaggy coats and bushy tails are made fly-whisks and decorative emblems on the end of spear-shafts and flag-poles.

As for Tibet, which is to be included with the Turkish lands, it is famous for producing on the one hand a noble metal, and on the other hand, an exhilarating psychological effect. The precious metal is gold which is very plentiful there. ..... (2)

It should be noted that al-Tha'labī seems to have included rhinoceros horn by mistake, for the rhinoceros has never been native to Central Asia.

From the written evidence presented above, certain general conclusions may be reached. The people of Central Asia, throughout their history, or at least from the 2nd Century B.C., were fully dependent for their material culture and artistic conventions on China. This dependence led to their assimilation of these two aspects of Chinese life. It is therefore not surprising that they should have transmitted what they assimilated to Western Asia and to Europe in their westward migrations during the last two millennia.

(1) Ibid., pp. 14 and 18.
It is also probable that such a transmission of ideas and motifs was backed up by the import of Chinese artifacts and merchandise by the nomads of Central Asia who acted as middlemen between China and the West.
EARLY CONTACTS WITH PERSIA

Though the Achaemenids, as has been mentioned above, had access to Chinese silks, (1) it seems that only during the Parthian period was contact between China and Persia firmly established. It was based on commercial foundations after the conclusion of the trade treaty between Wu Ti, the Emperor of China, and Mithridates in B.C. 115. A more detailed account of the Chinese Embassy which concluded this treaty can be found in the "Shih Chi", as well as in the biography of Chang Ch'ien the envoy of Emperor Wu Ti to the Wu - sun in B.C. 115. Chang Ch'ien having failed to obtain the alliance of the Wu - sun, dispatched a number of his staff as envoys to various states in order to conclude some sort of alliance against the Haiung - nu. One of these states was Parthia. (2)

The middleman role of the Parthians was not limited to Chinese silk, for they also exported Chinese steel which as Ghirshman states: "had a high reputation among the markets of the world at that time." (3)

It is interesting to note that Wen - Yen Tsao mentions that during the Han period, the Chinese had made remarkable technological advancements. One of them was acquiring the skill of tempering iron, through which they were able to make harder and sharper weapons, thus gaining a great advantage over the nomads. (4)

---

(2) Wen - Yen Tsao, op. cit., p. 50.
(3) Ghirshman, op. cit., p. 284.
However, the Parthians seem to have taken full advantage of Chinese steel, for they armed themselves with it first and peddled what was left over. (1) In consequence, Chinese steel arms which were sold by the Parthians to the West were considered to be of Parthian manufacture. Ghirshman relates that Plutarch calls the arms of the Parthian cavalry "the Arms of Merv," (2) and rightly concludes that Merv can only have been an intermediary centre for the trade in Chinese steel. (3) He also maintains that the Damascen steel which was so renowned in the Middle Ages was of Chinese or of Indian origin. (4)

However, this commercial intercourse between the Parthians and the Han empire seems to have ceased with the collapse of the Han dynasty and the loss of Chinese control over the Silk Route, which had fallen into the hands of the nomads. But contact with China were maintained by the Sogdians and.

During the 3rd Century, the Sassanians were still able to obtain silk through Sogdian middlemen. (5) But later they turned to the sea-most probably in order to avoid these Sogdians and to secure a steadier supply of the commodity.

(1) Ghirshman, op. cit. p. 28.
(2) It should be noted, that the early Arabs also knew the "Arms of Merv". Al - Suyūf al - Mawdya, literally: "the Swords of Merv," were one of the many kinds of swords used by the Arabs which were designated after places of origin, such as, al - Suyūf al - Hindiya (Indian swords), al - Suyūf al - Shamiya (Damascen swords), al - Suyūf al - Yamaniya (the swords of Yemen), and al - Suyūf al - Caliyya (the swords of Cal'a).
(3) Ghirshman, op. cit., p.28.
(4) Ibid. Ghirshman does not specify whether the Damascen steel was imported from China, or whether it was made at Damascus according to Chinese technique. However, it seems very likely that at first, Chinese steel arms were imported into Syria during the Parthian period, but later, they were made in Damascus after the secret of the Chinese technique came to be known. In the same manner with the Chinese technique came to be known, it has led to the which the importation of Chinese silks into Syria has led to the establishment of ariculture in Syria. The attribution of this type of steel during the Middle Ages to Damascus may well have been the outcome of European acquaintance, for the first time, with this type of steel at Damascus during the Crusades.
In a recent article, Colless relates that Palladius mentions that Sasanian shipping in the Indian Ocean was as early as the 4th Century. (1) He also quotes Hamsa al· Isfahani who mentions that Ardashir I (226/7 - 242) improved some of the ports on the Gulf. (2) Cosmas' Indicopleustes relates that as early as 522 the Persian traders were entrenched in Ceylon to intercept Chinese goods including silk. (3) Hence to a lesser or to a greater degree by Chinese art. The Sasanians' complete monopoly over the silk trade and their control of both trade routes; that is, overland as well as by sea, can be clearly illustrated by the following observation made by Procopius:

"for it was impossible for the Ethiopians to purchase unlimited silk from the Indians, since the Persian merchants always station themselves at the very harbours where the Indian ships (coming back from China) first put in and are accustomed to buy the entire cargoes." (4)

Even though a number of scholars cast some doubt whether Sasanian ships did actually reach China, or merely waited for the Indian and Chinese ships to come to Ceylon, the fact that the Sasanians had the ends of both of the silk routes in their hands cannot be doubted. (5) The commercial intercourse between Persia and China was by no means hampered by the Islamic conquest of Persia. In fact, there is abundant written evidence to the effect that the Arabs and the Persians joined to exploit the trade with China, and that they established a joint trading community in Canton which was strong enough in 758 to sack the city and to exact terms from its Governor. (6)

(1) Ibid., p.19.
(2) Ibid.
(3) Ibid., p.19.
(4) Ibid. p.20.
(5) For the various arguments to support this see Colless, op. cit., passim.
This collaboration seems to have continued throughout the Islamic period, and to have given rise to the flourishing ports of the Persian side of the Gulf, such as Siraf, Hurmus, New Hurmus, and Qais. (1)

In view of this evidence of Persian contacts with China it becomes very difficult to believe that the art of Iran has never been influenced to a lesser or to a greater degree by Chinese art motifs. This becomes even more difficult to believe when one recalls the undoubted dependence of pre-Islamic Iranian art on Egyptian, Greek and Hellenistic models.

However, Chinese influence on the arts of Persia was not limited by the extent of the direct trade with China. In fact, it was supplemented by the missionary activities of its Nestorian subjects in Central Asia, where they came in contact with peoples who had already assimilated Chinese conventions and art motifs, and later through their missionary activities in China itself.

The well-documented missionary activities of the Nestorians of Mesopotamia were triggered off by their persecution by the Sasanians who held them in suspicion for their religious affinity with the Romans, a distrust sharpened whenever Iran was at war with its Western neighbours.

On three occasions, the Sasanians put the Nestorians to the sword and subjected them to "refined forms of torture," as Stewart puts it:

The first persecution occurred in 339 during the reign of Shapur II. The second persecution was in 420 during the reign of Bahram V, and the third persecution was in 448, during the reign of Yazdagird II. (2)

(1) Collens, op.cit., p.25
(2) J.M. Stewart, Nestorian Missionary Enterprises, Foreword by S. Zwemer (Edinburgh, 1928), p.XIII.
During these persecutions, large numbers of terrorised Nestorians fled from Mesopotamia. Some went to Arabia and others went to Central Asia where they sought employment with the nomad princes. Some served as secretaries and physicians, others practised their old professions. At the same time, their clergy were spreading their religion among the tribes.

According to Stewart, the Nestorians did not only teach the people of Central Asia "letters," but invented alphabets for them based on "Syriac." However, Stewart maintains that the Turks and the Tartars are supposed to have received the Gospel as early as 120-140 A.D., at the hands of Aggai. He also relates that amongst the signatories present at the Council held under the presidency of the Patriarch of Seleucia in 424, were the bishops of Herat and Merv; and that in 781 a king of the Turks had been converted by the Nestorians, and that he requested the Nestorian Patriarch of the time to appoint a metropolitan for his country.

The golden age of Nestorian missions in Central Asia is considered to be between the end of the 4th Century and the end of the 9th Century, whilst the period of great activity in Mongolia, China, and Siberia began later and continued well into the 13th Century.

It should be noted however, that the Nestorians who went to Central Asia were not only missionaries, nor were they always driven out of Mesopotamia by persecution.

(1) Ibid., pp. 76 and 79.
(2) Ibid.
(3) Ibid., p. 81.
(4) Ibid.
(5) Ibid., p. 82.
(6) Ibid., p. 76.
Some of them, as has been pointed out above, were artisans; others were merchants; a third group went in the company of presbyters who were on a special mission. The majority of these people, though they married Central Asian wives and settled in Central Asia, never severed all connections with their original home country. In fact some of them went back to Mesopotamia. Others—especially the merchants and traders—frequently travelled between Mesopotamia and their new home towns in Central Asia. Stewart relates an incident which throws some light on this situation. He relates that in or about 498, when Kāwādh was on his way to seek refuge with the Turks because of a rebellion in Persia, he was accompanied by the Bishop of Arrān who was on his way to Central Asia in response to a vision in which he was commanded to proceed to the country of the Turks and instruct them in the truth of the Gospel. The Bishop of Arrān was accompanied by four presbyters and two laymen. After the success of the mission the Bishop seems to have left the presbyters and the laymen in Turkestan. The presbyters remained there for seven years and taught the Turks the art of writing in their own language. The laymen settled down there, married and had children, and only returned to their own country in 530 A.D., after an absence of thirty years. (1)

This story gives a part of the historical context for the transmission into Mesopotamia of Chinese and Buddhist art motifs which had already been assimilated by the people of Central Asia.

(1) Ibid., pp. 81-2.
It seems legitimate to suggest that these expatriates, and especially their sons who were brought up in an environment saturated with Chinese culture and with Chinese artistic conventions, may be at least partly held responsible for the transmission of Chinese artistic motifs and for their eventual appearance in Islamic art, and the art of the Syrian Jacobites.

The miniatures of the Syrian Jacobite lectionary of the British Museum (1) abound with Chinese and Buddhist motifs - especially on the silk stuffs depicted.

Examples are the "triadna" (the three dots or jewels) on the silken table-cloth of pl. 1 (2) and the hexagonal pattern composed of hexagons and trigrams (the 'T' shaped pattern) on the cloth covering the seat of Christ. Other motifs appear on the tympana of the horseshoe arches in the same miniature. This is possible, the earliest depiction of such arches in miniature painting.

The two outer tympana contain what looks like a pattern composed of identical units. The units are almost in the shape of a broad capital 'T', the vertical line of which is pointed. A pointed process appears in the centre of its horizontal line. A closer examination reveals that these shapes are secondary, and that the basic pattern is a linear design composed of an all-over motif of 'Jain Swastikas'. (3) The arrangement of these swastikas in the pattern is symmetrical and without connecting bars. The two tympana flanking the central one contain a well-known Buddhist motif, 'the endless knot', (4) in its simplest form. It symbolizes the cycle of endless rebirth. (5)

(1) MS. Add. 7470.
(2) 'The Last Supper', MS. Add. 7470 fol. 139 v°.
(3) T. Wilson, The Swastika: The earliest known symbol, and its migration (Washington 1902), figs. 33 and 34.
(4) In Chinese it is called Ch'ung. It signifies longevity. See Hsiao Ch'ien A Harp with a Thousand strings (London 1944) p. 380, fig. 29.
More elaborate forms of this symbol appear on numerous ritual objects and works of art in Tibet, China, and probably India and Central Asia. They are found on lacquer, cloisonne, enamel, porcelain and carpets (pl. 2). (1)

In another miniature (pl. 3), (2) a distinct lobed cloud band (most probably a half of a four-sided cloud-collar) forms the centre-piece of the silk material covering the deathbed of the Virgin. The background of this centre-piece is a typically Chinese compartment pattern (3). A hexagonal all-over pattern composed of hexagons and trigrams (or hexagons in the centres of a 'Y'-shaped pattern) decorates the cover of the Virgin's coffin (4).

In another miniature (pl. 4), (4) appears the earliest depiction of the so-called 'crumpled pattern.' It appears distinctly on the dresses of the two standing Wise Men and probably on the dress of the bowing Wise Man too, because traces of it can be seen on his back.

It is interesting to observe that all the other figures are clad in plain dress; this is in keeping with the Greek and Roman convention whereby richly decorated (embroidered) garments were considered characteristic of Asians. (5)

---

(1) W. Grote-Hansenbalg, Der Orientteppich (Berlin 1922), p. 220, and pl. 139.
(3) For the attribution of this type or diaper pattern to China see P. Simmons, "Some recent developments in Chinese textile studies" Bulletin of the Museum of Far Eastern Antiquities, (Stockholm) XXVII (1956), p. 33.
(4) "The Nativity" (MS Add. 7170 fo 21).
Other motifs of Chinese origin occur in the miniatures of this
which is chiefly of the Sangar period and later in China and
lectionary: the "oblique fret" (pl. 6, 7) which is considered as a
non-Hellenistic, (1) the "S" pattern on the head of the well in
pl. 6, the socketed angular "Y" pattern on the wine jars in pl. 5:
(The Marriage of Cana), a variety of hexagonal patterns decorating
textiles depicted in the miniatures, and lastly the tile facing
(pl. 8) which is a typical Seljuk convention.

The decorative patterns in Jacobite book-illustration have
scarcely been investigated. It has always been held that Byzantine
art was the main source for early Islamic miniatures such as those of
the Fables of Bidpai, and the Maqamat of Hariri. Jacobite paintings
were supposed to be the means through which Byzantine influence was
transmitted to the school of Mesopotamia. (2) This belief seems to
be reasonable but the connections between the two arts have never
been fully defined. (3) It seems that this belief was based chiefly
on compositional similarities such as the distribution of figures
and subject matter.

Buchthal, on recognizing the so-called "crumpled" pattern in
both Mesopotamian and Jacobite miniatures, rejects the commonly held
belief that Jacobite painting carried Byzantine influence to Islamic
painting and arrives at the conclusion that the Jacobite miniatures
must have been influenced by early Islamic miniatures even though the
Jacobite miniatures were earlier than surviving Mesopotamian ones. (4)
on the assumption that the art of the Jacobites "was not of outstanding
quality or originality." (5)

(1) E. Herzdeld, Die Ausgrabungen von Samarra, I. Der Wandenschmuck der
Bauten von Samarra und seine Ornamentik (Berlin 1923) p. 120.
(2) H. Buchthal, op. cit., p. 149.
(3) Ibid.
(4) Ibid. p. 150.
(5) Ibid.
Buchthal seems to forget the major role which was played by the Jacobites and the Nestorians in translating "virtually the entire range of Syrian Christian and pagan Greek thought" into Arabic.\(^{(1)}\)

According to Ḥaddād, in the first "age of transmission", (which covered the period from \(^{\text{C.750}}\) to \(^{\text{C.950}}\)) translators who were largely Nestorians and Jacobites were working from Greek into Arabic directly or, more commonly, through extant translations in their native Syriac.\(^{(2)}\)

Stephen the elder translated for the grandson of Muḥāwī, Ḥumāin Ibn Ḥaṣāq, Thābit Ibn Qurra, and Severus Ibn al-Muqaffa\(^{(3)}\) and others, who were all Christian translators, could hardly have recruited other than Nestorians or Jacobites for the illustration of their works. They would, after all, have known the feelings of the Muslim laity towards painting.

In some respects Ḥāmid takes the same stand towards Jacobite miniatures as Buchthal, but he states:

"The painters of these religious books borrowed some iconographic motifs, the type of dress, the treatment of the folds of the garments and some ornamental patterns from the productions of the painters of the Mesopotamian school."\(^{(4)}\)

Ḥāmid does not seem to realize that the Jacobite miniatures are in fact earlier than those of the Mesopotamian school.

---

\(^{(2)}\) Ibid.
It seems that he has overlooked the significance of an earlier statement of his where he mentions that most of the illustrated books of the Mesopotamian school were "scientific treatises, which are either direct translations of Greek works or at least based on them,"(1) and he gives a number of titles such as The Materia Medica, The Book of Antidotes, The Description of Animals, the Fixed Stars, and the Automata. But these works would certainly have had illustrations, which the copyists would then have reproduced. There is thus no doubt that the Mesopotamian school drew on Christian prototypes, either Byzantine or Syriac or both. In such books, illustrations are an absolute necessity and may be considered as part of the text. But Ḥāmid suggests that "the popularity of certain scientific and literary works was the main reason for their being illustrated."(2) It is difficult to accept this reasoning.

It seems very likely that the Christians of Mesopotamia were responsible for the execution of the early Islamic miniatures. Later, their converted descendants who had the 'secrets of illumination and the art of miniature painting' handed down to them by their fathers as was customary, would have continued this tradition. Thus al-Ẓārīṭī, for example, (Yahyā ibn Mahfūd ibn Yahyā ibn Khuwarij) was the descendant of a family of Aramean Christians.(3)

Western Mesopotamia was essentially Christian even before the Islamic conquest. Al-Shābushātī mentions 37 monasteries in Iraq alone(4). He mentions ten monasteries around Baghdad(5) alone, and five in the Samarrā - Tikrit area,(6) apart from numerous monasteries scattered all over the country, at Hira, Kūf, Najaf, Anbūr, Cāna, and Kuṣūr.

(1) Ibid.
(2) Ibid.
(3) Blochet op. cit., pp. XXIV (caption).
(4) K. ʿAwwād, in al-Shābushātī's Kitāb al-Diyārāt, (Baghdad 1951), p. 7 (the introduction).
(5) Ibid., pp. 3, 21, 30, 35, 41, 45, and 171.
(6) Ibid., pp. 52, 96, 104, 109, and 111.
It is established that many of the Christians of Mesopotamia were Nestorians, but the paintings of the lectionary are Jacobite, and as no Nestorian paintings have survived, one cannot assume that the Jacobite paintings reflect Nestorian influence. Thus Buchthal was driven to suggest that Jacobite painting reflected Islamic influence. But it could also be argued that the Buddhist and Chinese motifs in Jacobite painting were part of the heritage of a school of Christian painting in Mesopotamia. Perhaps, therefore, they offer a clue as to the nature of vanished Nestorian book painting of an earlier date. There is, as already noted, textual evidence for the existence of Jacobite translators. There seems also to have been a large Jacobite minority in Mesopotamia. Shibushtī mentions a Jacobite monastery which he calls Dair al-Ǧayyārī; it is situated on the left bank of the Tigris on a spring that emits bitumen about four farsakhs from Māsīl. Furthermore Shibushtī specifies that this monastery has a tower ( qa'im) and he states that every Jacobite and Malikite monastery has a qa'im, while Nestorian monasteries have no qa'ims.

Twice in history (during the Sasanian period) great numbers of Monophysites (or Jacobites) were transported from Syria to Mesopotamia. Stewart relates that "In A.D. 540, Chosroes I carried a huge train of captives, mostly Monophysite, from Antioch to Seleucia and built a town called New Antioch for their reception. In A.D. 573 ... 290,000 captives brought from Rome to Persian territory were settled in various towns and formed a welcome addition to the hitherto numerically weak Monophysite body."
It seems highly improbable that the two sects lived in complete isolation from each other in Mesopotamia because of sectarian differences, and it is equally unlikely that the Jacobites of Mesopotamia did not keep in touch with those of Syria in the following centuries.

Tritton states that there was some tolerance towards each other among both sects in Mesopotamia. He mentions a particular incident where "Mattai ibn Yūnus, a Nestorian, studied under Jacobite teachers."(1) Bar Hebraeus, (d.1286) who was a Jacobite, was well acquainted with Nestorian Church politics.(2) When the Chinese Nestorian monk Yahb ḍ-Allāḥa was elected Patriarch of the East, Bar Hebraeus spoke of his soundness of belief and his friendship for the Jacobites.(3)

The answer to the conflicting opinions about the origins of the Mesopotamian school of painting and its relationship to Byzantine and Sasanian painting seems to lie in a reconsideration of the combined roles of both sects. The Jacobites (and the early Nestorians) probably introduced the Byzantine element, which manifests itself in the general arrangement of the composition, the naturalistic rendering and the movement of the human figure. The later Nestorians introduced the non-Byzantine element which manifests itself in the decorative patterns on textiles and on architectural features depicted in the miniatures (these are-as was pointed out above - Buddhist and Chinese conventions).

(1) A.S. Tritton, op. cit., p.168.
(3) Ibid., p.3.
The Nestorians presumably acquired such motifs through their missionary efforts in Central Asia, China, and Tibet. Central Asia was probably an especially fruitful source, for here, according to Zimmer:

"identical motifs served to ornament the Buddhist, Manichaean, and Nestorian - Christian monasteries and sanctuaries of the area during the sixth and the early seventh centuries A.D." (2)

In fact there is evidence showing that the Nestorian missionaries were responsible for the transmission of Chinese elements to India across Sasanian Iran, as can be seen in fig. 1A. This altar slab was found in the Church of St. Thomas, on St. Thomas's Mount, near Madras. The lobing of the extremities of the cross, and the two cloud motifs (or vapour) rising from its base are evidence of Chinese influence brought to India by the Nestorians. The shape on top of the cross might well be the 'flaming pearl' (a Buddhist symbol) judging from another Nestorian cross on the Chinese monument (stele) at Hai - an - fu (pl. 9 and fig 1B). This evidence is however not enough in itself to support the theory that Nestorians conveyed Chinese art westward. On account of the Pahlavi inscription on the altar slab of St. Thomas this find cannot be dated later than the 6th Century, unless one assumes that Pahlavi remained in use amongst the Nestorians in India after this date.

Two other Chinese - Nestorian Crosses (fig. 2. A and B) exhibit the same characteristics as the Madras Cross. The first springs from a 'flaming pearl', and the second springs from two clouds. They are both enclosed in lobed forms (sections of lobed curvilinear meanders).

(1) J. Stewart, op. cit., p. XXIX.
(3) Budge, op. cit., figs. on p. 14.
(4) The stele was set up in 781 A.D. (Budge, op. cit., p. 117, pls. X, XI).
(6) Budge maintains that it springs from a lotus (op. cit., p.116).
Fig. 1:

A. Alter slab preserved in the Church of St. Thomas, near Madras. After Budge.

B. Cross sculptured on the famous Nestorian monument at Hsi-an-fu. After Budge.
Fig. 2:
A. Chinese cross found in Ch'üan-Chow.
    After Budge.

B. Chinese cross found near Ch'üan-Chow.
    After Budge.
It seems from the study of these examples that all that the Nestorians were able to contribute to Chinese art was the shape of the cross and the inscriptions. The total lack of Nestorian miniatures seems to suggest three possibilities:

a). The Nestorians did not paint or illustrate their books. But this is unlikely because the sources show that there were many wall paintings in their monasteries (see below).

b). All the illustrated books of the Nestorians were purposely destroyed. This also seems very unlikely, though no doubt deliberate and accidental destructions were frequent. Thus in one incident a great number of books at one of the monasteries of Mausil, which were hidden in some secret place at a time of political unrest, were destroyed outside the monastery by a torrent of water from the surrounding mountains which had flooded their hiding place. (1)

c). That the Jacobite miniatures and the miniatures of Mesopotamia are two branches of the same school of painting which was established in Mesopotamia by the combined efforts of the Jacobite and Nestorian sects, as mentioned above. The only connection of this school with Sasanian Iran is that most of the Nestorians of Mesopotamia and Persia were converted natives of Persian stock.

Both sects were recruited by the Muslims for the building and the ornamentation of palaces and towns. (2) They were presumably at least partially responsible for the wall paintings at Samarrā and perhaps for its decorative styles which seem to have been derived from Chinese textiles.

---

Ckwwad, describing the al-Mukhtâr palace at Samarrâ — which was
built by al-Mutawakkil — quotes Yâqût (1) as follows:

"وَكَانَ فِي هَي صُورٍ عَجِيبَةٍ مِنْ حَجَلٍ صُورَةً بَيْعَةٍ مِّنْهَا، رُصَابٌ وَأَحْمَنَّا صُورَةُ شَهْرٍ رَبِيعَ...

This may be translated:

"it contained astonishing pictures; amongst them the
picture of a Church (bayâ)<sup>c</sup> with monks; and the best
of them was the picture of Shahhar al-Bayâ." (3)

It seems highly unlikely that a Muslim would know enough about
the various ranks of monks to be able to differentiate between them
in painting them.

---

(1) Yâqût al-Kitâb, Manâm al-Buldân (Cairo 1905) III, p. 17.
(2) Ckwwad in Shalushtî, op. cit., (the appendix) p. 235.
(3) Shahhar is a Syriac word meaning the monk who is on night duty.
 He is in charge of the night prayers (Ibid., n. 2).
The second stage in which the Nestorians of Mesopotamia were subjected to Chinese influence was through their direct contact with the Chinese.

Stewart relates an incident from the Chinese records which confirms the arrival of two Christian missionaries as early as A.D. 64 at the Court of Emperor Ming-ti. He also relates that the first Nestorian bishop to China may have been appointed by Patriarch Akha (410 - 415) or by Silas (503 - 520). Stewart gives another quotation from Ibn al-Tayyib, on the authority of Mingana. According to this quotation, the bishoprics of Samarkand, India and China were elevated to the rank of metropolitan sees by the Patriarch Isha - Yabb (628 - 643). Stewart also mentions another metropolitan who was appointed by Patriarch Saliba Zacha (744 - 728).

Most scholars agree that the Nestorians first arrived in China during the T'ang dynasty where they were favourably received by the Chinese.

In 745 the Emperor Huien Tsang issued an edict declaring that "the religion of the sacred books known as Persian had originally come from Ta T'aiin and that, .... it had made its way into the middle kingdom and had been for a long time practised therein." There is no need to dilate further here on the activities of the Nestorian missionaries in China, for much work has been done on this subject by Western scholars in the past century.

(1) Stewart, op. cit., p.168.  
(2) Ibid., p. 183.  
(3) Ibid.  
This makes it all the more surprising that the European scholars who have dealt with Islamic art and the origins of its ornament have not taken into consideration the possibility that the Nestorians who travelled to Central Asia and China had an important role in the transmission of Chinese art motifs into Islamic art.
EARLY CONTACTS WITH GREECE AND THE HELLENISTIC WORLD

As was mentioned above, the Greeks do not seem to have had direct contacts with China, and Chinese silks only reached them through the Achaemenids during the 5th and 4th Century B.C. (1) Potamianos relates that the Greeks identified silk with the 'Median dress', (2) but later they came to know that silk was imported to Iran by the Haumawrga. For that reason the Greek appellation amorgis or amorginis came to mean silk. (3)

She also maintains that "Towards the end of the 5th Century B.C. the garments on Greek sculpture as well as on pottery appear to be soft, diaphanous and clinging to the body " (4) and that these flowing garments represent silk. (5) She further maintains that "such thin garments are mentioned in the Iysistrata of Aristophanes as amorginon or amorgis." (6) However Potamianos expresses her disagreement with Richter who suggests that amorgis was the name given to silk by the Greeks because the island of Amorgos was situated on the trade route by which silk was imported, (7) and Potamianos maintains that writers and lexicographers having forgotten this fact, tried to explain the word amorgis by identifying it with the Greek island in question. (8)

Later, the conquest of Bactria and India may have opened another source of Chinese silks for the Greeks.

As for the Romans and the Byzantines, it is a fairly well established fact that the Parthian and later the Sasanian monopoly of the silk trade stood as an effective barrier between them and the Chinese.

(1) Potamianos, op. cit., p. 41.
(2) Ibid., p. 42.
(3) Ibid. It must be emphasised however, that this is an extremely tentative argument, and (that it should not be accepted uncritically.
(4) Ibid., p. 41.
(5) Ibid., p. 42.
(6) Ibid.
(7) Richter, opud Potamianos, ibid., p. 41.
(8) Ibid., p. 42.
On the other hand Kendrick maintains that Roman merchants reached Cochin China in 166 A.D. after an alliance between the Romans and the Indo-Scythians. (1)

Important roles were attributed to silk weaving industries that had left no certain traces on their manufactured articles. The silk industries of Sasanian Persia and Central Asia are examples of this. The Chinese industry on the other hand, was virtually ignored even though it has continued the production and export of woven silks until the present day.

It is almost as if Chinese silk had had no effect on the Byzantine silk industry, nor on the Byzantine decorative repertoire. Yet so much importance was attached to Chinese silks that a route was sought to avoid the Persian monopoly and much money was spent to secure such silks. The depiction of Chinese silks on garments and other fabrics shown in Byzantine murals and floor mosaics has been ignored.

Apart from Potamianos and Richter none of the authorities on silk mentions the word amorgia or amarginis nor its association with silk. In fact the whole subject of Chinese influence and the Greek designation of silk has been treated in such a way that even the so-called 'Greek and Roman' designation 'Seres' to the Chinese seems to be dubious.

Von Falke states:

"When silk was introduced from China to Rome it was called "Serica" from the word "Seres", the name given by the Greeks and Romans to the Chinese and people of Central Asia connected with the silk industry." (1)

Hudson relates:

".... and the Chinese derived the name of Seres, by which they were usually known to the Greeks and Romans, from the Chinese word for silk." (2)

Hudson does not give the Chinese word for silk but he mentions:

"the alternative name Sinæ .... which .... (is) derived from the dynasty of Ch'in or Ts-in..." (3)

Dyer Ball gives the various Chinese designations for themselves and for China, and then concludes as follows:

"The general consensus of opinion now is that 'Land of Sinim', mentioned in the Book of Isaiah, is China. In modern Latin, .... Lingua Sinica is the Chinese language .... the Seres of the Greeks and Romans are also considered to be China." (4)

Von Falke mentions a kind of cloth called "Koik" or Bombycina (5) which was made from the cocoons of caterpillars which was similar to silk. (6)

Budge believes that Christianity might have entered China much earlier than the 7th Century because Arnobius who wrote about A.D. 300 "reckoned the people of the Seres as Christians." (7)

Budge gives the following quotation from Arnobius:

"(enumerari enim possunt, atque in usum computationis venire, ea quae in India gesta sunt, apud Seres, Persas et Medos)." (8)

---

(2) Ibid.
(3) Ibid.
(4) D. Ball, Things Chinese (London 1892), p. 64.
(5) From the Latin "Bombycinus" - "silken."
(6) Von Falke, op. cit., p. 2.
(7) Budge, op. cit., p. 32.
(8) Ibid.
Kendrick mentions that Procopius says: "that silk-weaving was then carried on at Tyre and Beyrout." Kendrick relates that: "three centuries later the Papal Inventories refer to 'rotae siricae', and to 'vestis de tyrrio', showing that a type of Syrian stuffs was known at the time." (1)

In reviewing the previous texts one finds two words recurring repeatedly: Sinae/ Sinica and Serica / Siricae. Their orthography is similar, one being written with an "r" and the other with an "n". They could thus easily be taken for each other. Anyhow the words that contain the "r" denote "Syria" and "Syrian", whilst the others denote "China" and "Chinese".

Thus Von Falke seems justified in deriving Serica from Seres, but his conclusions are debatable. The term Serica suggests Syria, not China as he seems to assume; also he seems to interpret the word in far too general a way. If the Greeks and the Romans knew that silks originally came from China, there would have been no need for them to call it Syrian. The most probable explanation is that the Greeks and Romans received their silk from the Syrians and they knew it by that name. When silk reached them from China (2) they naturally called it Serica, because they already knew it by that name. In the same way lacquering which is a Chinese technique is still called Japanning because the first knowledge of it reached Britain from Japan.

Another indication that Seres means Syrians rather than Chinese may be found in a text by one Arnobius dated c. 300 A.D. which has been discussed by Budge.

(1) Kendrick, op. cit., p. 17
(2) Perhaps via another route such as that established after the military alliance of 166 A.D. between the Romans and the Indo-Scythians on the Oxus mentioned above.
Budge suggests that Seræ means Chinese (1) but it seems that
Arnobius was simply referring to the Christian minorities in India
who are listed as follows: Seras (Syrians or Syriacs), Persas
(Persians), and Medos (Medes). (2) In fact these were the first
missionaries who went to India from the Near East. It is surely
unlikely that Christian missionaries reached India from China at
this early date.

The Papal Inventories also suggest that Sericae means "Syrian"
rather than "Chinese". The Inventories refer to two stuffs, one
made at Tyre (Vestis de tyrto) and the other in Syria (rotae siricae).

Lastly, one may draw attention to the prevalence of the prefix
"Sin" in words associated with China in European languages, and the
corresponding lack of words of similar meaning beginning with "Sir".

A good number of Late Greek and Byzantine fabrics
exhibit distinct Chinese elements such as phoenixes, dragons, cloud
forms, meanders and other elements (figs. 131-133, D, E
and F, A and K, and pl. 10).

These fabrics and their Chinese elements have been fully
discussed in Chapter VIII (infra, pp. 299ff.) and Chapter X (infra, pp. 337,
338 & 355).

(1) Budge, op. cit., p. 32.
(2) One may assume that Seræ means "Syrians" here largely because
the name is bracketed with Persians and Medes, who are part of
the same Near Eastern context.
It seems that the whole issue of the influence of Sassanian silk patterns on the silks of Byzantium and the role of China is very confusing indeed, and contradictory at times.

Godard maintains that Shapur I founded the Iranian silk industry by transporting the weavers of Antioch to Shushtar in A.D. 260. (1) Von Falke states that Shapur II also transported silk weavers from Syria to improve the Sassanian silk industry. (2)

Furthermore Godard maintains that "Iran itself did not produce the silk it wove until the reign of Justinian (A.D. 527-565)" (3) which suggests that Iran borrowed silk culture from Byzantium after its introduction in 552. (4) This presumably means that earlier silk weaving in Iran as well as in Byzantium depended on unravelled silk (5) and on yarn. (6) This also suggests that the technique of polychrome silk weaving might have reached Persia from Byzantium at that date; together with a special type of loom for its production. But the art of figured silk weaving was still an exclusive Chinese monopoly in the Han period (7) and it was in all probability from China that these special looms came.

Chubanshe maintains that: "A jade knife in the National Palace Museum bears traces of fine silk figured brocade. It is clear that already two thousand five hundred years ago the Chinese had mastered the arts of figured brocade work." (8)

(1) Godard, op. cit., p. 217.
(2) Von Falke, op. cit., p. 3.
(3) Godard, op. cit., loc. cit.
(4) The knowledge of silk culture, together with the eggs of the mulberry worm, was brought to Byzantium by two monks from Serindia (Khotan) in 552 (Von Falke, op. cit., p. 5.)
(5) Godard, op. cit.
(6) Falke, op. cit., p. 3.
(7) Sullivan, op. cit., p. 53.
This figured brocade belongs to the Han dynasty (1027-256 B.C.) (1)
This seems to prove that special looms for the production of figured silk were known in China as early as the 3rd Century B.C. at least. They were most probably introduced to Byzantium together with sari-culture (2) and not (as Godard maintains) that the Byzantine weavers especially arranged their looms for the production of symmetrical compositions. (3) This seems to be the reason for the non-existence of Byzantine or Persian figured silks prior to the 6th Century.

Furthermore, "the striking family likeness" which Godard points out between the Byzantine fabrics and the Sasanian ones in regard to subject matter, the symmetrical composition, the colours, the reversing of the pattern (by using special looms), and the enclosing roundels would all render it almost impossible to distinguish between Sasanian and Byzantine silks were it not for inscriptions on some of the Byzantine silks. Even so some "Byzantine" silks might have been made to order by Chinese weavers in China as is often the case with Chinese silks for Muslim countries (pl. 11 (4)) during the mediaeval period and later. One might cite, for example, the Chinese brocade which was made for the Mamluk Sultan Muhammad Nasir about 1320 and is preserved in Danzig and Berlin (5) as well as the 14th Century brocade vestments in Lisbon (6) and in the Brunswick Museum (7). Apart from the Arabic inscriptions on those brocades, a host of Chinese motifs forms the geometrical, floral and animal units of their decoration. These include endless knots, quatrefoils, triagrams, eight-pointed stars, maastikas in squares, lions, dolphins, ducks, deer,

---

(1) Ibid. For early Chinese silks in general see Lübo-Deichmann, op. cit.
(2) See W. Willetts, Chinese Art (Hammondsorh, 1958), pp. 229-252, for Chinese looms and weavers in the Han period.
(3) Godard, op. cit., p. 218.
(4) Von Falke, op. cit., p. 268.
(5) Von Falke, op. cit., p. 287.
(6) Ibid., pls. 288, 291 and 292.
(7) Ibid., pl. 292.
dragons and parrots. Von Falke refers to these fabrics as "Chinese export stuffs for the Islamic Orient." In fact there is evidence that the Arab or Muslim settlers in China established factories in Chinese ports from the 9th Century onwards, most probably for the production of such silks by Chinese weavers.

A similar practice was followed in the 17th Century: a number of Russian banners captured by the Swedish army at the battle of Narva in 1700, "were made of Chinese floral-patterned damasks of every hue and colour." Many of them were emblazoned with the Order of St. Andrew.

Simmons maintains that these were recent importations from China, on the grounds that the Order of St. Andrew was not created until 1698.

This seems to confirm the idea that a number of occidental inscriptions and motifs (emblems in this instance) were incorporated on Chinese silks over backgrounds of purely Chinese designs in compliance with orders placed by occidental patrons.

This perhaps elucidates the meaning of some unexplained textile motifs, such as the head of a wild boar which appears on textiles and silver plates. Apart from occurring on these media, the head of the wild boar appears in a 6th Century Buddhist wall painting in Gyzyl in Chinese Turkistan. The painting depicts King Ajatasatru learning of the Buddha’s Parinirvana.
The wild boar in Hinduism represents the Cosmic Boar 'Avatar' (1) who has rescued the Goddess Earth from the depths of the Cosmic Ocean. (2) It appears in Hindu sculpture in the form of a boar-headed deity. (3)

The so-called Sasanian influence on earlier Byzantine silks (4) on early Islamic silks, and on Chinese silks of the T'ang period seem to have consisted mainly of the so-called 'Sasanian pearl' motif and asymmetrically placed animals (whether affronted or addorsed).

Meister has proved conclusively that the pearl roundel in the silks of the T'ang period have their origin and development in the Han repertoire. (5) In fact the pearl motif appears on a number of pre-Han bronze mirrors (as was pointed out when dealing with the zigzag lozenge pattern of the minarets of Iraq) as well as on Shang dynasty Chinese bronze vessels of the 12th Century B.C. (pl. 14). (6)

The pearl motif used as a border design on textiles appears in Indian relief sculpture of the 1st Century B.C. In pl. 15 (7) the saddle-cloths of the horse and the elephant are bordered by pearl motifs as well as the two bands on the bolster under "The Universal King's" feet. The appearance of this motif in Indian art is probably due to the importation of Chinese silks into India.

(1) Ibid., pl. 47.
(2) Ibid., I, p. 290.
(3) Ibid., pls. 109, 138.
(4) Godard maintains that the Byzantine weavers replaced such traditional subjects as confronted animals by circus scenes (e.g. a quadriga driver in the Cluny Museum, Paris) or Christian subjects (the Annunciation, in the Vatican); op. cit., p. 218.
It seems that such influence has been completely ignored, though India had a great role in the transportation of Chinese silks to the West, and an important branch of the 'Southern silk route' went through Indian territory. (1)

Godard states that:

"confronting animals, which we know already from Iranian sculpture and metalwork, decorate the reputedly Byzantine and the reputedly Iranian silks...." (2)

It is worth noting that Godard seems to avoid the use of the word Sasanian in referring to sculpture and metalwork in this quotation, possibly because he is aware that such confronted animals do not exist in Sasanian sculpture neither in Sasanian metalwork. Perhaps for that reason he has resorted to the general term 'Iranian' to include Parthian and Achaemenid art, where such representations do occur. In fact the only Sasanian sculpture depicting creatures in roundels occurs, significantly enough, as textile ornament in the relief of Taq-i Bustān. (The creatures are mostly birds.) The animals which occur on silver plates are single animals, apart from those which appear in hunting scenes which are in their turn never symmetrically arranged as on silks. Apparently the only confronted animals in the whole of the Sasanian repertoire are the two ibexes representing the sign of the Zodiac 'Gemini' on Sasanian (flat seals) gem stones.

(2) Godard, on cit., pp. 217-8.
In any case, influences and interactions between the arts should not be based on such a universal phenomenon as symmetry at the expense of more precise stylistic conventions.

Symmetry, being the earliest form of order, has often been resorted to in order to achieve two ends: the achievement of perfect compositional balance, and compositional economy which is arrived at by reversing the same motif.

The attribution of the 'confronted animals' motif to Sasanian Iran seems unjustified, for it has been pointed out above that confronted birds (phoenixes) occur in Chinese metalwork of the early Chou period. The Chinese vessel in pl. 16 shows that not only confronted phoenixes but also confronted dragons were used. Such confronted dragons led to the creation of the 'te'ao te'ish' mask, a very well known Chinese motif composed of two confronting k'uei dragons. (It would however be desirable to cite more satisfactory parallels for the t'ao-t'ieh mask.)

(1) See Milletts, op. cit., pp. 161-5 and figs. 26 and 27.
(2) Ibid.
EARLY CONTACTS WITH THE ARABS

According to early Arab historians, the earliest contact with China was through the exploits of 'Tubba\(^c\): the King of Yemen, during the reign of Qubād (Kawādh). It is said that Tubba\(^c\) dispatched two expeditions, one under his son Hassan to conquer Sogdia, the other under his nephew Shammar dhul - Janāh against Qubād. (1) According to Tabarî, both expeditions met with great success, and both ended up in China. (2) Tabarî also relates that, according to some, Shammar and Hassan, and their armies, settled in China until they died; while others think that they returned to Tubba\(^c\) with all their spoils. (3)

Minorsky maintains that as early as 300 A.D. the Arabs are supposed to have had a settlement in Canton. (4)

Broomhall states that "commercial intercourse between China and Arabia probably dates back to a period prior to that of any existing historical records."(5) However the first positive statement that he cites concerning such intercourse appears in the first half of the 5th Century. (6)

---

(2) Ibid., p. 691.
(3) Ibid., p. 692.
(5) Broomhall, op. cit., p. 5.
(6) Ibid.
At that time, he maintains, "the Euphrates was navigable as far as Hira... at which busy mart ships from ... India and China were constantly to be found."(1) To trace the course taken by these "Junks", Broomhall refers to the Annals of the T'ang dynasty.(2) It should be noted that the Tigris must also have been used for such a purpose since the important market place called 'Baghdad,' which was flourishing throughout the Sasanian period, and most probably during the Parthian period, was on its bank.

The commercial intercourse between the Arabs and China seems to have been brought about not only through Hira, which was an Arab town at the time, but also through the intermediary role of the Arabs as carriers of Indian and Chinese merchandise to the Hellenistic world. This was done by the great caravans between Yemen and Damascus. Broomhall suggests that Roman competition partially ruined the flourishing overland traffic, thus forcing some of the people who lived in the prosperous mercantile stations on the caravan routes to emigrate to Syria, the Persian Gulf, and Hira. Furthermore, Broomhall suggests that this may have stimulated the Arab merchants to turn to the sea. Following in the main the route taken by the Chinese, they set sail for China. (3) After a journey of three months, they normally reached Khanfu (modern Kampa or ancient Hangchowfu).(4) It seems that the Arab merchants established factories, most probably for silk weaving, in Canton prior to the Hira and established a settled community long before their famous uprising of 758.(5)

(1) Ibid.
(2) Ibid.
(3) Ibid., p. 6.
(4) Ibid., pp. 7-8.
(5) Ibid., p. 8; Needham op. cit., p.42; Minorsky, Hudud al-Cham, p. 224. It should be noted that Minorsky dates this incident to 738.
The Chinese Annals do not contain any reference to Arabia before the rise of the Caliphate; to the Chinese, Arabia was only a remote part of the Persian Empire.\(^{(1)}\)

However, during the Sui dynasty it is clear that the Chinese were aware of the political change in Persia caused by the Arab conquest. It is known that Yazdigird, who had taken refuge among the Turkish tribes of Ferghana,\(^{(2)}\) sent an embassy to the Chinese in 638,\(^{(3)}\) seeking their support against the Arabs. They themselves in 650 sent an embassy to the Caliph \(\U{052c}th\text{`}\text{m}\) an pleading the cause of Firuz, the son of Yazdigird,\(^{(4)}\) and the following year (651) received an embassy from that Caliph.\(^{(5)}\) Yet the concept of the Arabs being a part of Persia persisted among the Chinese until the T'ang period. This concept is well illustrated by an extremely interesting quotation from the T'ang History cited by Broomhall:

"T'a - shih comprises territory which formerly belonged to Persia. The men have large noses and black beards. They carry a silver knife on a silver girdle. They drink no wine and know no music. The women are white and veil the face when they leave the house. There are great temples. Every seventh day the King addresses his subjects from a lofty throne in the temple in the following words: - 'Those who have died by the hands of the enemy will rise again to heaven; those who have defeated the enemy will be happy.' Hence it is that the T'a - shih are valiant warriors. They pray five times a day to the Heavenly spirit .... At the time of the Sui dynasty, 610 A.D., a man from Persia was feeding his cattle on the Western mountains of Medina (\(\text{Mo - ti - na}\)). A lion said to him, 'On the Western side of the mountains are many holes. In one of these is a sword, and close to it a black stone with inscription in white, 'Whoever possesses me becomes ruler.' The man went and found everything as the lion had said. He overcame all who withstood him."\(^{(6)}\)

\(^{(1)}\) Broomhall, op. cit., p.8.
\(^{(2)}\) Ibid., p. 10.
\(^{(3)}\) Ibid., p. 12.
\(^{(4)}\) Ibid., p. 13.
\(^{(5)}\) Ibid.
\(^{(6)}\) Ibid., p. 15.
After the embassy of the Caliph 'Uthman of 651 which was in response to that of the Emperor Kao Tsung, Arab - Chinese contacts became more frequent, partly as a result of the Islamic conquest of India and Central Asia, and many embassies were exchanged.

References to most of these embassies can be found in Chinese records. The earliest of these embassies was sent by Qutaiba in 713 after the defeat of the Chinese army which was sent to check his advance against the Tibetans. Broomhall quotes the following passage from the Chinese record about this embassy:

"In 713 A.D. an envoy appeared from Ta-shih bringing as presents, beautiful horses and a magnificent girdle. When the envoy was being presented to the Emperor Hsuan Tsung, he refused to perform the prescribed obeisance, saying, 'In my country we only bow to God (T'ien Shen), and never to a Prince.' At first they wanted to kill the envoy; one of the ministers, however, interceded for him, saying that a difference in the Court etiquette of foreign countries ought not to be considered a crime." (1)

The T'ang Annals mention several embassies from 'Abbasid Caliphs to the Chinese Court; the most important of these is one from Abū `Abbās al-Saffār. (A - bo - lo - ba), (2) and another from Abū Ja'far al-Manṣūr (A - p'u - Ch'a - fo) who upon the request of Emperor Sū Tsung (756 - 763) sent in 757 a contingent of some 4,000 men, and enabled the Chinese Emperor to recover his capitals from the insurgent An Lu-shan. (3) The Emperor T'ai Tsung (763 - 780), the successor of Sū Tsung, must have sent an embassy to Baghdad when he appealed to Abū Ja'far for military aid to repel the Tibetans who had invaded his frontiers. (4) According to Broomhall, the contingent sent by Abū Ja'far was so large that the Chinese Government was obliged to double the tax upon tea in order to raise the funds needed to pay the troops. (5)

(1) Ibid., p. 17
(2) Ibid., p. 25
(3) Ibid., pp. 25-6.
(4) Ibid., p. 27.
(5) Ibid.
As a result of these two campaigns of Abū Ja'far in aid of the Chinese an alliance was formed between the Abbasids in the West and the Chinese in the East against their mutual foe, the Tibetans. (1) The T'ang Annals give the date 787(2) as the beginning of this alliance, and thus in the second year of the reign of the Caliph Hārūn al-Rashīd, better known to the Chinese by the name 'A-lun'. (3)

However it is interesting to note that the Chinese called the Abbasids by the name Heh-i Ta-shīh, meaning "The Black-robed Arabs." (4) Minorsky states that between the year 716 and 759, nineteen Arab embassies are mentioned in Chinese sources. (5)

One can imagine, from the number of embassies and from the custom, inherent in the tradition of the Chinese Court, of bestowing magnificent gifts on foreign embassies, the vast number of fabulous presents arriving at the Abbasid Court in Baghdad - especially after the effective support of the Abbasids to the Chinese and the alliance between them.

One can also imagine the impact these gifts may have had on the people of Baghdad in general, and on artisans in particular, for no doubt some of these presents were rarities the like of which the Arabs had never seen before.

---

(1) Ibid., p. 29.
(2) Ibid.
(3) Ibid., p. 25.
(4) Ibid.
The interest of the Arabs in China and things Chinese seems to have been greatly stimulated by such embassies as well as the usual trade. A great deal of information about the various aspects of Chinese civilisation, history, industry, art, and way of life has been collected by Arab and Muslim travellers in the various periods. For example, al-Tha alibī states that "In the past, as at the present time, the Chinese have been famous for the skill of their hands and for their expertise in fashioning rare and beautiful objects." (1) Speaking of their ability in sculpture and painting, al-Tha alibī states that:

"They are extraordinarily skilled at shaping statues and they excel at making carved representations and pictures;... that one of their artists will make a representation of a man, leaving out absolutely nothing except the man's soul; then the artist will no longer feel satisfied with it, and will turn it into a man who is laughing. Then he will be still further dissatisfied, and will differentiate between the laugh of a man laughing derisively and laughing out of confusion; or between a man smiling and one wondering in amusement; or between a laugh expressing pure joy and one expressing scorn...." (2)

Of Chinese porcelain, al-Tha alibī states:

"They also have fine, translucent pottery, used for cooking purposes; a piece of this may be used equally for boiling things, for frying or simply for eating from. The best of these are the delicate, evenly-pigmented, clearly resounding apricot-coloured ware, and after that the cream-coloured ware with similar characteristics." (3)

It seems that Chinese metalwork had as great an impact on the Arabs and the Muslim world as their porcelain had, to the extent that the word "Chinese" has become a designation for both. The feminine gender for "Chinese" (ṣīniya) stood for the metal tray, and the masculine gender (ṣīnī) stood for porcelain.

(1) Bosworth, op. cit., p. 141.
(2) Ibid.
(3) Ibid.
(4) Although there appears to be no evidence suggesting that Chinese metalwork has been found or preserved in the Near East.
This is most probably because the Arabs used to call Chinese metallic vessels: awānī ṣinīya, which is feminine in Arabic.

When the word awānī was dropped, the word ṣinīya remained feminine in agreement with the vanished noun.

On the other hand, Chinese porcelain was called Ḍāmāl al-Fakhkhār al-Ṣinīl ("the work of the Chinese potter"). At some stage the first word was dropped, then the second, and the remaining word stood in its original masculine gender for porcelain.

As early as the 10th Century this usage was already old.

Al Thā' al-Libī states:

"كَانَتْ الْعَبْدَةُ تَنْؤُولُ لِكُلِّ طَرَفٍ مِّنَ الْإِرْوَانِ وَيَا شَيْئًا مِّنْهَا كَانَتْ مَا كَانَتْ لِلْخَاصِصِ الْعَبْدَةُ بِالْطَّرَفَانِ . وَقَدْ كَانَ هَذَا الْانْهَادُ إِلَى الْإِرَانِ عَلَى هُذَا الصَّوَائِلِ الْمَخْرُونِ.

"(from old) The Arabs used to call every novel vessel and such-like "Chinese" (in the feminine gender) whatever it might be (shape or origin) because China specialises in novelties, and this designation has continued to be applied to these known trays of the present day." (4)

A clearer designation of ṣinīya for a metal tray can be found in a text by al-Shābūshti describing the wedding of Harūn al-Rashīd to Zubaida:

"وَاحْصَرْ نَسَا، بِنِي حَاضِمْ، ثُمَّ يَدْعُوا إِلَى كُلِّ وَاحِدٍ مِّنْهَا كَيْسٍ فِيهِ دِنَانِيرٍ، وَكَيْسٍ نَهْيَاء دراَمَ وَصْنِيْهُ كَيْسٍ فِيهُ نَهْيَاء ثِبٌبٍ." (5)

which means:

(1) Awānī is the broken plural of ʿānia which means vessel.
(3) Ibid.
(4) See appendix No. 2.
"... and (he) summoned the women of Banī Hashim, and to each one of them was dispensed a purse with dirhams inside it, and a purse with dinars inside it, and a large silver sīniya with tībe inside it ...."

It seems that no metalwork of any other country could reach the proverbial fame and repute of Chinese metalwork. Apart from a few examples where Persian golden drinking cups were described in poems by Abu Nuwas, there is scarcely any mention of any other make in the available Arabic sources, though Muslim and Arab writers have gathered a great deal of information about the industry, products, and natural resources of most neighbouring countries and of countries farther afield.

If the name sīniya had already become so common that its origin or derivation had been forgotten by the time of al-Tha'labī (10th Century), even to the extent that he has found it necessary to explain it, then the importation of Chinese metalwork must have taken place very early indeed.

When al-Shabuṣṭī mentions the silver sīniyas of the wedding of Harūn al-Rashīd (who reigned from 170-193/786-809), he presumably quoted a source contemporary to the wedding; consequently the word might well have been in common use as early as the 8th Century. Therefore the flow of Chinese metalwork to Islamic countries might have started with the Islamic conquest of Central Asia, if not much earlier.

It is interesting to note that the same designation has passed into Persian and Turkish from Arabic. Because of the difficulty in pronouncing the 'ād' this letter was changed into 'Sin' and the word became sīniya or siniya. The lack of a separate form for the feminine gender in the adjectives of both languages must have led at some stage to the dropping of the ha', with the result that the word for "metal tray" in Persian and Turkish is sinī, whilst the word for "Chinese porcelain" is Chini.

(1) See appendix No. III.
Al-Tha'alibi does not forget to mention that the Chinese
make the best 'Damask' blades (al - Fird aws al - Fā'id), and the
'processed iron' (steel) from which mirrors and talismanic
amulets are made. He maintains that this type of steel is sold for
many times its weight in silver. Nor does he forget to mention the
famous figured silk called Kimkhā, nor to mention Ksandil al - Ghamr
(Asbestos handkerchiefs) which when soiled are cleansed by throwing
them in the fire. (1)

Al - Marwazi says of the Chinese:

"The people of China are the most skilful of men in
handicrafts. No nation approaches them in this. The
people of Rūm are highly proficient (in crafts), but
they do not reach the standards of the Chinese ..." (2)

As regards drapery and tailoring, Marwazi relates that "the
Chinese possess in it an elegance and skill which is not attained
by other nations." (3) Speaking of Chinese silk, he relates that a
Magian called Bihāfarīd had "brought with him from China a green
shirt which being folded could be held in the hand so that nothing
would appear of it." (4) He also recounts a story related to him by
a merchant, in which it is said that a black mole on the chest of a
Chinese Court messenger was discernable from beneath five silken
shirts. (5) He also says that they possess many other kinds which
are exported together with other "astonishing and strange rarities." (6)

Chinese craftsmanship, and ingenuity, technical and artistic
achievements and resourcefulness, are highly praised by the Arabs
and Persians who visited China or wrote about it. India occupies
second place in this respect, and hardly any reference is made to
Sasanian or Persian skills, inventiveness or artistic achievements.

(1) Ibid.
(3) Ibid., p. 16.
(4) Ibid.
(5) Ibid.
(6) Ibid.
Al - Marwazi speaks of Chinese tradesmen having carts that go by themselves, without animals to draw them. They are stopped or set in motion by their owners who sit in them with their stuffs and goods. (1)

The creativity and originality of China and its immunity from foreign influences can be further clarified by the nature of its imports. These imports were mostly if not all in the form of natural produce, or raw materials. Al - Marwazi, presents a specific account of Chinese importations in the following passage:

"The importations to their country are: ivory, frankincense, genuine Slavonic amber .... There is also a demand for Khutu, which is the horn of the Rhinoceros, and this is the most precious freight for China because they make of it girdles, and the price of each such girdle reaches high sums among them." (2)

In another passage, he relates the following:

"The goods imported to them are Elephant's tusks, pepper, asafoetida, glass, lapis lazuli, saffron, steel, tamarisk wood, walnuts, all kinds of dried fruit, such as dates and raisins." (3)

It seems that the interest of the Arabs in China was further stimulated by the rise of the Turks to power in the Abbasid period. The building of the Jawsaq al - Khāqānī for the Caliph by Khāqān the Turk, and the appearance of so many Chinese textile designs in its wall paintings, may be considered the beginning of this renewed interest.

The famous trip of Salām al - Turjumān (Salām the interpreter) to the wall of Gog and Magog, is proof of the continued interest in Chinese affairs. He was sent by the Caliph al - Wāthiq to investigate the condition of the wall. (4)

---

(1) Ibid.
(2) Ibid., pp. 16 - 17.
(3) Ibid., p. 22.
THE ROLE OF ḤAJJ.

The role of hajj in this context has been very much underestimated, though it has been recognized by some(1) as a factor in establishing solidarity and confidence among peoples of different origin. It is in fact the most effective factor in the movement of culture and artistic conventions.

Though hajj is one of the five obligatory farāqās, its obligatory nature was limited to those who were capable of making the trip either financially or physically, as can be seen in the following ēya:

"wa lillāhī āqal la - nāū ḥajju 'l - baiți, man isticā'ū a īlaihī sabīlā."(2) (Pilgrimage to the House (of God) is a duty which men owe to Allah, whoever can find a way to it).

This leniency towards the poor and the incapable seems to have been completely ignored and everyone, whether rich or poor, wanted to make the pilgrimage to Mecca. This applies especially to the poor, who worked their way to Mecca and back, and quite often settled down temporarily or permanently somewhere on the route. This attitude towards hajj seems to have been brought about by the following dictum: "al - Ajru āqal qadr al - Mashaqqa" which means: "the reward is judged by the amount of hardship."

Donaldson in her work on magic and folklore in Iran, touches on this subject rather lightly, without realizing its cultural and artistic implications. She writes:

"... The longer the journey and the greater the number of hardships endured, the more merit there is for the pilgrim. If a misfortune is experienced on the road, it helps to make the pilgrimage acceptable, or if the pilgrim dies on the way, he goes direct to heaven. Many undertake long and perilous journeys on foot, either in fulfilment of a vow or to gain merit through the sufferings which they know full well are before them ...(3)

(2) Quṛān, Sūra 3, V.96.
(3) Donaldson, op. cit., p. 61.
One can only realize the significance of the hajj when one remembers that this mass movement of people has happened every single year from the beginning of the 7th Century until the present day, and that it involves people from all walks of life.

Overlooking this factor, Grabar wonders at the constant mobility, in time and space, of the Islamic geometric decorative units. He states:

"The more significant facts about the geometric units used seem, however, to be, first, their constant mobility in time and space, for in early designs such as those of Uzgend (figs. 112 ff.) we find basically the themes of Samarkand or Turkestan two hundred years later or even, translated into stone, those of Anatolia (figs. 365, 382, etc.) two thousand miles away .......

No doubt great numbers of pilgrims are competent craftsmen and artisans, masons, metalworkers, carpenters, swordsmiths, goldsmiths, potters and so on. Some of them had to practise their professions because of want or to increase their hardships in order to get a greater reward, whilst the others observed, absorbed and most probably gave their professional expertise with the benevolence of a hajj to be.

Quite often a pilgrim has to spend considerable time at some place on route waiting for a caravan to join and quite often a caravan arrives late at Mecca for the hajj, and consequently its members have to stay in the Holy Land for a whole year waiting for the next hajj. Even at present, it takes a poor pilgrim from India three years to get to Mecca and back to his home. They normally do the journey in three stages: they arrive at Baghdad to spend a whole year working to collect enough money for the trip to Mecca - the women taking domestic work, while the men do labouring jobs. They spend another year in Mecca or Madina (after the hajj) to save enough for their fare to Baghdad before they can afford the fare back home.

APPENDIX I.

(1) Such as the patterned silks worn by the retinue to the left of Empress Theodora in San Vitale, Ravenna (before 547). The shawl and the dress of the first lady depicts a polygonal pattern with an eight-pointed star embroidered on the shawl. The dress of the second lady exhibits a pattern of swimming ducks. Another pattern of ducks appears on the dress of the fourth lady (in the foreground) whose orange shawl has a pattern of three dots, a very well known Buddhist symbol called 'The Triadna' or "The Three Jewels." In twelfth Century mosaic in the South gallery of St. Sophia the cuff of the Empress Irene is decorated with a foliated scroll, and her dress bears a composite design based on the scroll mentioned above and on the heart-shaped motif (the Chinese Joo-s). In an 11th century mosaic at the Church of Nea Moni at Chios, the hem of the dress of the Centurion at the foot of the cross is composed of heart shaped motifs, as is the embroidered segmentum on his cape. These are only a few examples among the many to be found in Byzantine mosaics (See A. Grabar, Byzantine Painting (Geneva 1953) pls. on pp. 63, 101, and 111).

(2) A number of border designs of the foliated scroll and the so-called 'enclosed palmette' occur in Byzantine mosaics, and carved marble, such as the carved marble border immediately below the mosaics in the naves of the Church of Daphni (c.1100). This is the type of decoration known as Salima, in Iraq. Examples of the same scroll can be seen around the mosaic depicting the Enrollment For Taxation Before Cyrenius in the Kahrle Jami at Constantinople. A so-called enclosed palmette border can be seen in the same building on both sides of an arch whose Soeff depicting a figure of a martyr saint. These patterns at Daphni and at the Kahrle Jami are illustrated in A. Grabar, op. cit., pls. on pp. 116-7, 133 and 136.

(3) As on the vault of the Mausoleum of Galla Placidia at Ravenna datable to the first half of the 5th Century (ibid., pls. on pp. 52-3).
C.E. Bosworth gives a slightly different translation with which he transforms the whole meaning of the Arabic text through failing to recognise a number of important points.

The following is Bosworth's translation:

"The Arabs used to call every delicately or curiously made vessel and suchlike, whatever its origin, "Chinese," because finely made things are a speciality of China. The designation 'China' has remained in use till this day for the celebrated type of dishes ...." (1)

One may make the following commentary on this translation:

(1) The difference between the masculine ǧīnī meaning "Chinese" and the feminine ǧīnīya meaning "tray" is ignored.

(2) 'Turfa' is translated as delicately or curiously made, but the meaning in this context is "novel" or "elaborate."

(3) 'Al-ǧafrūfa' is translated as "the celebrated" but here it means "the known" (or even "the commonly known").

(4) 'Kā'inānat mī kānat' is translated as 'whatever its origin,' but it means "whatever it might have been" or "whatever it was," (although this could, it is true, mean "whatever its origin" or "whatever its shape.")

Consequently the meaning of the Arabic text according to this translation would be that the Arabs called all curiously made vessels 'Chinese' regardless of their origin; and that this designation has continued to be applied till the present day to the celebrated type of dishes.

This makes one wonder about what sort of celebrated dishes these were, since al-Tha'labī did not find them interesting enough to describe.

(1) Bosworth, "op. cit., p. 141."
APPENDIX III.

The following description of such a cup is extremely interesting as it covers shape, decorative scheme and motifs of the vessel:

The following translation attempts to preserve the meaning as much as is possible in any translation of poetry:

"For us wine is served, in golden (cups) embellished by Fars, with many kinds of pictures.

(in) Its basin is (the portrait of) Kisrā, gazelles hunted with bows, by knights, on its sides.

Up to their collars for the (measure of) wine, and only enough water to keep their helmets afloat above the level of the wine."

This description reveals that the Sasanian style of the 'Silver plate' was practised in gold also. It also reveals the continuation of the style well into the 'Abbāsīd period, especially in the reign of Harūn al-Rashīd, when Persian influence was most powerful, and before the rise of the Turks to power.

The cup of Abu Numīs seems to be deep enough to accommodate a hunting scene on horseback, and to form suitable means for expressing his generosity by filling it up to the riders' necks with wine; leaving but a little space (between the riders' necks and the rims of their helmets) for water. See O. Grabar "An Introduction to the art of Sasanian Silver" in Sasanian Silver, (Michigan 1967), pp. 34-36.
Fl. 1: "The Last Supper"

Fl. 2: Chinese temple carpet depicting endless knots. After Grote-Hasenbalg.
Pl. 3: "The Death of the Virgin" 1216-20.

After Buchthal

Pl. 4: "The Nativity".

1216-20. After Buchthal.

Pl. 7: "Christ before Caiphas". 1216-20.

After Buchthal.

Pl. 8: The Presentation at the Temple. 1216-20.

After Buchthal.
Pl. 9: The Nestorian stele at Siganfu (Hsi-an-fu).

780. After Budge.
Pl. 10: Byzantine silk textile (detail). 1006.
After Von Falke.

Pl. 11: Chinese brocade vestment. 14th Century.
After Von Falke.
Pl. 12: Chinese silk depicting confronted peacocks, with Chinese character "cui" between Nan Bei Shao and Sui period. After Chubanshe.

Pl. 14: Detail from a Tsun depicting T'ao-t'ieh mask. Shang dynasty, 12th Century B.C. After J.A. Pope.

Pl. 15: Detail from an Indian carved panel from the stupa at Sanchi. 1st Century B.C. After Zimmer.
Pl. 16: Chinese bronze vessel. Sung period or later but following early Chou style. After J.A. Pope.
CHAPTER II.

GENERAL CHARACTERISTICS OF IRAQI MINARETS.
The origins of the minaret are well documented. Bilāl the Ethiopian, the first mu'allahin in Islam, used the highest roofs around the temporary mosque, such as the house of Umm Zaid ibn Thābit, (1) and the house of the daughter of O'umar ibn al-Khaṭṭāb, (2) for the call to prayer. When the Prophet's mosque at Madīna was built, a platform was raised for Bilāl on its roof. (3)

It is generally accepted that the first minaret was built in Egypt during the Caliphate of Mu'āwiyah ibn Marwān. On his orders, (4) Maslama ibn Muhḥammad al-Anfūsī, his governor there, supervised the work. It is also believed by some Arab authorities that he had seen the lighthouse (Pharos) of Alexandria, and was greatly influenced by its shape and style, (5) though this was fully researched later by Thiersch, (6) elaborating on Butler's theory (7). Creswell argues the matter and reaches the conclusion that it was the Syrian style which was developed in Egypt rather than the shape of the Pharos.

---

(1) Al-Suyūṭī, apud M.B. al-Ātharī, in M.S. al-Āṣim’s Ta'rīkh Maṣṣājīd Baghdad wa Athūrīn.
(3) Al-Suyūṭī, apud al-Ātharī, op. cit., relates that Ibn Sa‘ād related that Umm Zaid said “My house is the tallest house about the mosque, so Bilāl used to call on top of it from the start until the Messenger of God built his mosque. Then he started to call from its roof after something was raised for him on it.”
(4) It is also believed that the first minaret was built in the Congregational Mosque of Baṣra, by Ziyād ibn Abīh during his appointment as governor by Mu‘āwiyah (44/664 or 45/665), al-Baladūrī, apud/Janabī op. cit. p. 6.
(5) In fact Maslama built four minarets for ‘Amr’s mosque at Fustat on Mu‘āwiyah’s orders (Janābī, ibid.).
G.R. Muhammad reached the conclusion that the towers of the church of St. John the Baptist at Damascus, and other Syrian towers, were used as minarets and were the origin of the square minaret in Egypt, North Africa, and al-Andalus. (1) He argues that they were used for the purpose of adhan until the reign of al-Walid I, and the construction of the Great Mosque. This he says on the grounds that there was no mention of any minaret being built in Syria until then, whilst orders were given by Mu'awiya to his governors "outside Syria" to built them. (2) This leads one to conclude that Syria already had them.

This conclusion should clearly explain the reason for applying the word Sawmaqa to the mi'dhana in Syria, and put an end to the various speculations (3) about its meaning; especially as a Christian monk had his Sawmaqa (hermitage) in the Great Church tower, and al-Walid had to bring him down when he wanted to add the Great Church to the mosque.

The text in Ibn Asakir's "History of the City of Damascus" (4) even suggests that the tower was not demolished by al-Walid. He relates that "Abd al-Karim ibn Rād al-Akīnī told him, "When al-Walid son of "Abd al-Malik commenced the demolishing of the church of Ma'ir Yohanna in order to annex it to the mosque, (he) entered the mosque and went up the minaret with the ribs, "better known as the hours," where there was a monk who stayed in a sawmaqa of his.

---

(2) Ibid, pp. 143 and 169.
(4) "لاعم الوليد بن عبد الملك برم كتب ورَجَحَنا لبناءه ويبزده في صير دجلة. ثم صغيرة المهاد داراً أضراب المعروفة بالصائغة وفما أذهب بايوه يظهر النموذج له. فنا حره من الصوامع ما خطر الأسابيع، لآذلالاً بيد الوليد في قفها حتى أزمرارة.

He brought him down from the sawmaqa. The monk argued ceaselessly, but al-Walîd's hand was at his back until he brought him down the minaret. The way Ibn al-Akfanî differentiates between the sawmaqa (within the minaret) and the minaret itself is very clear and suggests that the name sawmaqa did not equal manâra in Syria as yet. Though it has been suggested that the name manâra, or rather manâr, originated in Egypt, it was also widely used in Syria and Iraq.

Al-Farazdaq reviled Khâlid al-Qasrî for demolishing the minarets, using the word manâr, and Ibn al-Akfanî calls the church tower "al-Manâra Dhit al-Ağâliq, which was called later al-Sâqīrt"; most probably it had sun dials with metallic indicators projecting outwards and resembling ribs.

The predominance of the word manâra over ma'dhana and sawmaqa could probably be related to the fame of the Pharos amongst the Arabs, as it was well known to them as one of the Seven Wonders of the World and was described by most travellers. It is highly improbable that this edifice had no influence on the Egyptian builders who constructed the four minarets for Maslama, and who most probably had never seen the square towers of Syria; it is true, however, that Maslama must have seen them.

A number of restorations were carried out by Muslim rulers in Egypt to save the Pharos; a replica was even attempted by al-Ḥâṣîr.(3)

---

(1) Van Berchen, apud Kuḥammad, op. cit., p. 111.
(2) Ašûl qud al-ḥâjī, Ṭarîq, min ṭarîq al-ṭalam, Ṭanâdûd min ṭamîṣ al-ṭalam.
(3) Ibn Bâṭûta, Rihlat Ibn Bâṭûta, I, (Cairo, 1929) p. 9.
With the spread of Islam, mosques were built all over the domain of Islam, but styles and decoration varied according to the architectural and artistic tradition prevailing in each part of Dār al-Islām.

Iraq must have been to some extent an artistic melting pot even before the transfer of the seat of the Caliphate to it, and most certainly afterwards. But very few monuments have survived flood and invasion.

The minarets in Iraq that have reached us are even fewer, especially those that can give a clear idea of their original shape and proportions. Most retain only their bases (kuršī)\(^1\) topped by cylindrical stumps usually no more than a few feet in height. A few taller minarets do, however, survive. They include the minaret of Wujīda (11th Century, according to Herzfeld and to Creswell)\(^2\) "al-Ḥadbā"; the minaret of the Nūrī mosque at Mauṣil, the minaret of the Umayyad mosque at Mauṣil\(^3\) the minaret of Tāwūq\(^4\) the minaret of Arbīl (5) (al-Muṣaffariya) and the minaret of Wustīf.

It is unfortunate that very few minarets were depicted in early surviving miniature paintings, and that the earliest of such miniatures belong to the first half of the thirteenth century, mostly in the "Assemblies of al-Hariri".

---

\(1\) This is the term used by Iraqi masons. In Arabic the word kuršī is applied to both chair and stool. The lower part of a minaret has never been referred to as base (gaqīda) nor as a pedestal (manṣāṣa).

\(2\) K.A.C. Creswell, op. cit., p.292.

\(3\) Ibid.

\(4\) Ibid., op. cit., p. 295

G.L. Bell, palace and mosque at Ukhnadir (Oxford, 1914) p.40 and pl. 43 (1)


\(5\) Creswell, op. cit., loc.cit.


Thiersch, op. cit., p. 148, pl. 203.
The manuscript of the Oriental Institute, Academy of Sciences in Leningrad (1) contains a miniature (in its 50th Assembly) depicting Abu Zayd preaching in the mosque at Basra (pl. 17) and a minaret with muqarnas is depicted. The miniature is thought to have been painted around 1230. (2)

In the copy of the Bibliothèque Nationale in Paris two other minarets are depicted (3) (pls. 18 and 19).

In another copy of the Assemblies in Istanbul, another minaret is depicted (4) (pl. 20).

None of these miniatures depict a complete minaret. They all show the lower cylinder with the balcony (hawd), and a very small part of the upper cylinder with the small door of the hawd. This does not render them useless as evidence; on the contrary, one can learn a great deal from them about the prevalent style at the time in Iraq and especially Baghdad, as most of these manuscripts were most probably written and illuminated in Baghdad or copied from manuscripts from that city.

---

(1) A. 23, Oriental Inst.
(2) I.S. Zāmid, op. cit., pl. 108 and caption.
(3) Assemblies of al-Ḥarīrī, Baghdad, 634/1237. (Bib. Nat. Ms. Arabe 587 (Shefer Hariri)). The miniatures were painted by Yahyā ibn Māmūd al-Wāṣiti. They depict discussion near a village (43rd Maqāma, and 50th Maqāma).
(4) Abu Zayd in a mosque at Baṣra (50th Assembly): (Essad Efendi 2916, Süleymaniye Mosque, Istanbul) Between 1242 & 1258.
All the minarets in these miniatures display a unity of architectural style, despite variations in some details. They share this style with a number of the existing minarets, which may belong to the same period as the miniatures. (1)

The points of similarity are:

a) All are built of brick.

b) The centre of importance in size and decoration is the lower cylinder, and the "base" in the existing minarets. Most of the "pawds" depicted in the miniatures are surrounded by wooden railings.

c) Proper "muqarnas" consisting of tiers of pointed arches and not mere corbelling as is the case with the minarets of 'ay-yahs. (2)

d) Shorter and thinner upper cylinders, with little or no decoration.

e) Coloured tiles (kashk) if any are limited to the head and to the "base".

(1) These dates are subject to verification later. The assumed dates are as follows:

1. The minaret of Masjid al-Hasan (al-Sagha, or al-Khaffafin) was built in 599/1202.
2. The minaret of al-Shakib Ma'tuf al-Kairidh 612/1215.
4. Wasi (al-Madrasa al-Sharabiya) 1st half of 6th Century/1st half of the 8th Century.
5. Khulafa (Sug al-Chazi) 678/1279.
7. Jami' al-Qa'it 728/1327.

These are the minarets of the pre-Ottoman era. The dates given represent the years when they were first built.

(2) Except the minaret of al-Qa'it and that of Marjan, which are different from both types of muqarnas i.e., the corbelling of 'ay-yahs and the arches of the rest of Iraq.
f) - All their heads are keel-domes (basalı).

The earlier minarets (2) are mostly decorated with geometrical patterns executed in brickwork in the form of broad bands of equal widths, separated by narrow bands containing other decorative motifs. They alternate like this to cover the whole cylinder of a minaret, as can be observed in the following minarets: Müjida, al-Kawwâzîn, Wâsîţ, Arbîl, and Sinjâr, and Dhî‘l-Kifl. On the minaret of Sûq al-Ghazl there is a slight difference in composition, which is that only one broad band of decoration is used to cover the whole lower cylinder, bordered by two identical narrow bands (3) at its extremities.

It is worth noting that both schemes have survived in minarets of later dates.

The successive bands continued in Ma‘ṣîl (4) whilst the one band which will be called from now on "the all over pattern," prevailed in the rest of Iraq apart from two examples. They are the minaret of the Kawwâz mosque at Baṣra (5) and a minaret in Arbîl (6) (see plate no. 21), which shows an interesting treatment of the head, comprising a strange combination between a keel-dome and a fluted dome.

(1) Except the head of the Dhî‘l-Kifl minaret, and that of al-Aqüî. They both have convex fluting (Torî), as Aga-Oglu calls it. (M. Aga-Oglu, "The use of architectural forms in Seljuk metalwork," Art Quarterly, VI (1943), p. 93.)

(2) Or the minarets of the Abbasid Style.

(3) These narrow bands of the Sûq al-Ghazl minaret have been copied many times by Baghdâdi masons and were given the name of bîzâm al-manaara "the belt of the minaret," which they still have.

(4) Such as the minarets of the following mosques: al-Aghawât, Abâl, al-Juwaiti, al-’Umarîya, and Khazzâm; all of them belong to the XVII & XVIII centuries.

(5) This minaret was built in 1278/1961.

(6) It was photographed by Mr. Adams, an Englishman, in 1967.
It should be mentioned that not all the heads of the minarets of Maqṣil are not the original heads of the minarets when first built. This may be due to two reasons. The first is the discontinuation of the use of brick as a building material in that part of the country, and the second is that the head of a minaret is the most vulnerable part of it to the elements and the rapid change of temperature.

The discontinuation of brick led of course to the substitution of original heads by heads constructed from the available building material, which was in fact rough pieces of local stone called iḥlān or ḥillān(1) plastered over with gypsum, as can be seen on the existing minarets. This is also relevant in cases where corrugated conical dome heads exist on minarets which are in mosques that contain original brick semi-spherical domes. (This type of corrugated conical dome appeared in Maqṣil during the 10th/17th Century).(2) This is found in the al-ʿUmariya minaret, and the ʿAbdāl minaret.

The head of the al-ʿAghwāt minaret shows a faithful attempt at restoring the head as near as possible to its original shape and to the shape of the brick-dome (pl.22 ) (this is on the assumption that the head of the minaret and the larger dome of the mosque are of the same style and shape). But the attempt was not very successful, since the fullness of the curve of the dome as it approaches the drum has not been achieved.

(1) Similar to Portland stone in texture and hardness. Two types are known in the north of Iraq: a) from the Ba Qadhr mountain, which is white and of a fine texture; b) from the Sinu mountain, which is of a coarse texture. Both stand weathering well, and both were used in Mesopotamia for building and sculpting from ancient times.

(2) Such as the tomb of al-Nabi Dānqīl, al-Fatr al-Maṣūlī, Qaṭb al-Ḥab, al-Shaikh Ṭālā ibn Musafir, and a good number of Yazidi shrines in the area al-Daiwāchī, Jawāmīʿ al-Maṣūlī ff Mukhtalaf al-utches (Baghdad 1963) p. 190.
In miniature painting, I have found only one minaret with a similar fluted head, and similar proportions to those of Iraq; it occurs in a Turkish manuscript belonging to 989/1589 (pl. 23).

A second miniature from Nizāmī's Khamsa, another Turkish manuscript at the Bodleian Library, dated 907/1501 (pl. 24), depicts a fluted-head minaret, but this has slightly different proportions. The decoration on the lower cylinder is reminiscent of the decoration on the minaret of the Kāzimain mosque, especially the geometric band immediately below the head.

There are only three miniatures (pls. 25, 26, and 27) of the 16th century where a complete minaret is depicted; they show unfluted and rather bulbous heads, more akin to the old style in shape and proportions.

It seems that the fluted head did not enjoy such popularity amongst the Persians as it did amongst those of Turkish stock. It does not appear on the existing Persian minarets nor as the head of a minaret in Persian miniatures, though a number of domes occur in the miniatures of Tabrīz and Shīrāz during the 14th and the 15th century, such as the fluted dome which occurs in a miniature painted at Tabrīz about 1310 (pl. 28) in Rashīd al-Dīn's "History of the Mongols." This miniature is very interesting as it shows the tent (or yurt) of Orghotu Novān with the top of its wooden structure protruding from the characteristic central opening of the Mongol (Turkish) yurt. This has such close affinities with the fluted dome that it seems quite possible for the fluted dome to have been derived from it.

---

(1) "Shāhīns̄hāh-nāmeh of Lugāmān," dated 989/1589, at the University Library of Istanbul: Yıldız, 2652/260, fol. IIIV.
(2) Bodleian Library, Oxford (Elliot 192).
(3) E. Blochet, op. cit., pl. LXII.
This is further confirmed by the appearance of a silken cupola surmounting a mobile bier in the wall paintings of Piandjikent (fig. 3), (1) dating from the 7th - 8th Century, (2)

The bier is believed to be constructed of wood, and is moved on wheels by pulling on ropes, as can be seen in the plate. The cupola is made of silk strips and supported by a wooden structure. The ribbing of this cupola is most probably caused by the seams of tapered strips of silk (which is the only sensible approach to the covering of such wooden structures) and by the wooden ribs beneath them. This type of structure may well have been the forerunner of the fluted brick domes and consequently the forerunner of the fluted heads of minarets.

It should also be noted that on this cupola the earliest faulted lobbed zigzag meander makes its appearance. The motif in this example precedes the Samarrā motif by about two centuries.

Another miniature painted at Shīrāz in 1410 contains seven domes, four of them fluted. (3)

On the other hand quite a number of fluted helmets and head-dresses, such as skull-caps and kulaha occur from the middle of the 13th century onwards, in the miniatures of Tabrīz (pls. 29, 30), Herāt (4) and Bukhara (5).

(1) A.J. yakubovskiy, Zhivotop Drevnego Piandjikenta (Isdatelstvo Akademi nauk, SSSR) (Moscow 1954), pl. XIX.
(3) B. Gray, Persian Painting, (Geneva 1961), pl. 75.
(4) Blochet, EB, Cit., pl. LXXV.
(5) Ibid., pl. CXIII.
Fig. 3: Wall painting from Piandjikent, showing funeral of a priest or a god. 7th-8th century. After Yakubovsky.
Even fluted utensils with fluted dome-shaped covers are depicted in miniatures; examples are illustrated in plate 30 (the ascension of the Prophet on Buraq). These miniatures coincide with the reigns of the Turks and the Mongols over Persia.

By comparing the helmets of the miniatures, the steel helmet of the Victoria and Albert Museum (pl. 31), and the fluted head of the minaret of al-Ahmadiya mosque, one realises how close the resemblance is between them and how appropriate is the Persian designation sarpūsh.

In Iraq, the earliest examples of fluted domes make their appearance in miniature painting as early as the beginning of the 13th Century. Three miniatures in the Maqāmāt of al-Ḥarīrī of Leningrad (1) (executed in Baghdad between 1225 and 1235) depict such domes. In two of the miniatures (pls. 32, 34) they appear in symmetrically arranged pairs, flanking the ʿIwān; on each dome a sky-light opening is depicted. In the third miniature (pl. 35) the dome covers the captain's cabin on a ship and seems to have been constructed of wood.

This seems to prove the existence and popularity of such domes before the Mongol invasion, and during the rule of another dynasty of Central Asian stock, the Saljuks. This in turn reflects favourably on the idea of the fluted head of the minaret of Dhūʿl-Kifl (4) being an original feature; consequently the fluted head of this minaret might have influenced the minarets of Najaf and Karbala.

---

1. MS. S 23, Oriental Institute, Academy of Science, Leningrad.
2. Abu Zayd before the ʿĀṣi of Sāda (Thirty-seventh Maqāma) f.250; Abu Zayd before the governor of Merv (Thirty-eighth Maqāma) f.256.
3. Abu Zayd asks to be taken aboard a ship (Thirty-ninth Maqāma) f.260.
4. See p. 109 for a discussion on the fluted head of the minaret of Dhūʿl-Kifl.
Judging from the fluted head of the Tūlūnīd minaret in Egypt, which was built in 265/879 after the style of the Samarrā' minarets, \(^{(1)}\) that is the Malwiya, and the Abu Dulaf minarets, the two helicoidal minarets of Samarrā' may have had similar heads. Thus the appearance of the fluted head on minarets in Iraq may have occurred as early as the 9th Century, at Samarrā', due, most probably, to the influence of the Turks.

Another type of fluted head appears in another manuscript\(^{(2)}\) (pls. 36 A and B, 37 A); it is akin in form and proportions to the Habkhara type of Egypt.\(^{(3)}\)

In these miniatures, the upper cylinders are fluted and very short. Their heads cannot be distinguished from their cylinders. They appear as if they were elongated fluted heads placed directly inside their bawds.

There is one example only in the early miniatures (pl. 38) depicting a minaret with what seems to be a polygonal short upper shaft, surmounted by a spherical shape; this may be considered as a head, or as a finial, if the polygonal form is to be considered as an elongated head.

It is extremely interesting to observe that this miniature is believed to belong to the middle of the 13th century (1242-1258), a date which corresponds perfectly with that of the minaret of Sultan Sālih's madrasa (641/1242), and falls in the middle of the evolutionary process (discussed by Creswell)\(^{(5)}\) of the minarets of Egypt.

---


\(^{(2)}\) Bodleian Library, Or. 133.


\(^{(5)}\) Creswell, "The Evolution," passim.
The only difference between the two types seems to be that the hawd̂s of the Egyptian minarets are borne by square shafts, whilst in the case of this minaret (pl. 38), the hand is borne by a cylindrical shaft.

The Decoration.

The decoration of the early minarets consists of three types of ornamental motifs: geometric designs, sinuous designs (arabesques), and inscriptions.

I - The Geometric: This type can be divided into two categories:

a - Rectilinear designs or patterns consisting of straight lines and angles, whether acute, right, or obtuse.

b - Curvilinear designs consisting of circles or parts of circles, such as the quatrefoil which is formed by the crossing of the arcs of four circles.

The rectilinear designs are realized by one or two of the following methods:

1. One-level "hāṣīrī" (the so called ḥazarbāf) achieves the pattern through the process of brick bonding in a flat surface, by placing some of the bricks in a vertical position, and others in the usual horizontal manner. This type of "hāṣīrī" occurs in two forms:

   i) Simple (one-level) hāṣīrī which is achieved without the use of "headers" such as the herring-bone pattern of the lowest band of the al-Ḥadābā' minaret in al-Manṣūl, and the middle band of the minaret of Wāṣīṣ (Pls. 43 and 62), though the latter is rendered in convex form.

(4) This word literally means 'matting'. It is applied to all brickwork decoration including square-Kufic; this nomenclature emphasizes the direct relationship between this type of decoration and mat-weaving and textile-weaving. The Persian term "hazarbāf" or "thousand twistings," which is used by Herzfeld confirms this relationship rather than contradicts it (Sarre and Herzfeld, op. cit., II, p. 44).
This form is used in slanting square Kufic, giving it a plaited appearance, as in fig. 23.

II) Complex (one level) Ḥasīrī, which is rendered with the use of "headers": These are normally carved, as in the second band of the Ḥadba minaret which represents an all-over pattern of concentric squares in the form of the so-called diaper pattern; and in the design of the lower part of the Kugaitīma minaret near al-Ŷusufiyā. (1) (fig. 4).

2. Two-level Ḥasīrī: this renders the pattern in relief, one level higher than the background, which is sunk one level lower than the actual surface of the minaret.

3. The three-level Ḥasīrī: this is similar to type 2, but there are three receding concentric squares; an example is the top-most wide band of the Ḥadba minaret.

This type has no parallel in existing Iraqi minarets other than at Mausil and the base of the conical dome of Imam Dūr (al-Imām Muḥammad al-Dūrī) (2) (pl. 39).

II - Arabesque: This normally decorates the niches of the muqarnasāt and other parts of the minaret. It appears in the niches of the minaret of al-Shaikh Maṭrūf al-Karkhī, and the niches of the minaret of Suq al-Ghazl, and those of Dhūl Kifl, and in the facets of the Kursi of the Suq al-Ghazl minaret (Pls. 67, 47, 52-54 and 56). According to Herzfeld, the arabesque is a "surface decoration, composed of undulating lines suggesting branches, leaves, and scrollwork." (3)

(1) This is a minaret near al-Ŷusufiyā. It is probably the minaret which Herzfeld calls "Abu Sa’dār" and attributes to the 13th century. Built between A.H. 478 and 495/1085 and 1101 A.D. by Muslim ibn Quraysh, according to Herzfeld. Herzfeld spud Creswell "The Evolution" p. 295.


Fig. 4: Diaper pattern of concentric squares from the lower cylinder of the Migețîme minaret near al-Yūsifiyya. Late 14th century.
III. Inscriptions \[1\] these are in the form of bands surrounding
1) one of the cylinders, or 2) the kurnā\[\] (base), or 3) in
the niches of the kurnā\[. They are in Nashī or decorative
Kufic, such as the floriated, foliated, or square.

Although there are only two minarets attributed to the pre-
Ottoman era that have survived, and can be accurately dated to
the end of the 13th and the beginning of the 14th centuries
through the parts of their upper cylinders and heads preserved
sufficiently to give an idea of their original shape, we find
that most of the other minarets which are attributed to the
same period or a little earlier are true to this same style.
This is also true of a number of minarets which were built
during the early Ottoman period. The rest display different
proportions but retain the same decorative motifs and elements
rendered in colour kāshī.

It is necessary to assemble also the meagre information in
various sources concerning their erection, repairs, and rebuild-
ing in order to put them in a chronological order. This must be
done before any attempt is made to study the development of their
styles and decoration.

(1) Except on the minarets of Marsil and al-mas'hīr al-ba'id\[, "the white minarets." The term "white" means here "without
colour, or embellishment," and hence means plain minarets.
The Geometrical Ornament of
the ancient

Rectilinear

Rectangular

Polygonal

Curvilinear

Existent

II.

I.

III.

all-over patterns

Rectangular

Curvilinear

The square and related shapes (octagon etc.).
The hexagon and related shapes (dodecagon etc.).
The pentagon and related shapes (decagon etc.).
The so-called 'arabesque'.

Swastikas.
Linked lozenges around swastikas.

Zigzag lozenges.
Waisted lozenges interrupted by swastikas.
Linked lozenges interrupted by squares.
Linked lozenges with obtuse angles.

Linked squares.
Linked lozenges with obtuse angles.

Simple

Complex

Primary

Secondary

Triband

Dihedron

Triangles

Squares

Trigrams.

Zigzag lozenges.

Zigzag lozenges interrupted by swastikas.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.

Zigzag lozenges.

Zigzag lozenges.

Zigzag lozenges.
Zigzag lozenges interrupted by swastikas.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Zigzag lozenges interrupted by squares.

Zigzag lozenges.
Pl. 17: Abu Zayd preaching in a mosque at Basra.

C. 1230. After Grabar.
Pl. 18: A scene with a mosque. (detail). 1237.

After Ettinghausen.
Pl. 19: Abu Zayd preaching in a mosque at Basra, 1237. After Grabar.

Pl. 21: A minaret in Arbīl.
17th - 18th Century.

Pl. 22: The minaret of the Aghawat mosque, 1703. After Iraqi D.G.A.
Pl. 23: The decapitation of the Shemakhi (detail). 1589.
After Stchoukine.

Pl. 24: Majun at the Ka'ba. 1501
After Binyon.

After Binyon.
Pl. 26: Nūshīrwan and his son. (detail). 1561.

After Stchoukine.
Pl. 27: Zulaikha's arrival (detail). 1556-65.

After Stchoukine.
Pl. 28: The army of Orghotu Noyan. 1310. After Blochet.

Pl. 29: A Mongol Warrior killing a dragon. 1295.

After Blochet.
Pl. 30: The ascent of the Prophet. 1539-43.

The British Museum.
Pl. 31 : Steel helmet, Persian, 15th Century.
The Victoria and Albert Museum (5577-1927).

Pl. 32 : Detail from the Maqāmāt of Ḥarīrī (Abu Zayd before the Qādi of Sa'da), c. 1225-35. After Ettinghausen.
Pl. 33 : Detail from the Maqamät of Ḥarīrī (Abu Zayd before the Qaḍa of Saʿd), c.1225-35. After Ettinghausen.

Pl. 34 : Detail from the Maqamät of Ḥarīrī (Abu Zayd before the Governor of Merv), c.1225-35. After Ettinghausen.
Pl. 35: Detail from the Maqāmāt of Ḥarīrī

(Abu Zayd asks to be taken aboard a ship) c. 1225-35. After Ettinghausen.
Pl. 36: Islamic miniatures depicting minarets. 801/1399 After Rice.

Pl. 37: Islamic miniatures depicting minarets 801/1399 After Rice.
Pl. 38: Detail from a miniature painting from the Maqamat of Hariri of the Suleymaniya mosque Istanbul. 1242-1258. After Grabar.
Pl. 39: The tomb of Imam Muhammad al-Duri

(Imam Dūr). After Abbū.
CHAPTER III.

SELECTED IRAQI MINARETS OF THE ABBASID STYLE.
In this chapter the term "Abbasid style" is used to describe not only those Iraqi minarets erected before the fall of the Abbasid caliphate in 656/1258 but also the minarets built in that style during the 14th century.

Apart from the two helicoidal minarets of Samarra, and the two octagonal minarets of 'Ana, only a very few cylindrical minarets can safely be assigned to the pre-Mongol period. These are: the minaret of Mūjtida near Ukhaidir, the minaret of the Nurī mosque at Mausil, the minaret of Tiwāq, to the south of Kirkuk, the minaret of Arbīl, al-Muzaffriya, and the minaret of Sinjar, and the minaret of the Umayyad mosque at Mausil.

The two helicoidal minarets will not be discussed in this work, for in their present state they lack ornamentation.

Though the two octagonal minarets of 'Ana also lack ornamentation, they display certain features which often recur in Chinese pagoda architecture. These features are duly dealt with whenever relevant in the

---

(1) Namely, the Malwiya and the minaret of Abu Dulaf's mosque. According to Muhammad, the Malwiya was built by al-Mutasim between 234/848 and 237/852 (Muhammad, op. cit., p. 283). The minaret of Abu Dulaf was built between 860 and 861 by the builder of the Malwiya (Creswell, apud Muhammad, ibid., p. 289).

(2) Namely, the minaret of the Island of Lubbad, and the Khilaliya minaret. For the controversial dating of the former minaret see infra, p.

(3) Creswell assigns this minaret (under reserve) to the 12th century (Creswell, "Evolution" III, p. 292 and n. 33).

(4) Creswell assigns this minaret to the year 543/1146 (ibid.)

(5) According to Herzfeld, this minaret can be placed after the minaret of the Nurī mosque at Mausil, and before the minaret of Arbīl (ibid., p. 295).

(6) Built between 586/1190 and 608/1211-2 (ibid.)

(7) Dated Muharram 598/October 1201 (ibid.)

(8) This minaret is referred to as the minaret of the Citadel. Herzfeld gives it the same date as that of the minaret of the Nurī mosque (Herzfeld, apud Creswell, ibid.)

(9) It should be noted that a similarity between this form and the form of Chinese helicoidal towers has been observed by Thiersch.
Fig. 5: The Qal'a minaret (from the Umayyad mosque at Mauzil, better known as the Kawwazín mosque); mid. 12th century. After Hersfeld.
Fig. 6: The minaret of the Nuri mosque at Mauqil (better known as the al-"Hašbah"); 1172. After Herzfeld.
Fig. 7: The minaret of Arbīl. 586–608/1190–1211. After Herzfeld.
Fig. 8: Swastika all-over patterns from the minaret of Arbîl (the al-Hagaffariye).
After Herzfeld.
course of this work.

As the vast majority of the surviving minarets of Iraq which are decorated belong to a third type i.e. the round or cylindrical minaret. The study of the Iraqi minaret will primarily be limited to this type.

Initially, the minarets of the pre-Mongol period can be divided into two groups:

A. Cylindrical minarets with square kursīs, such as the minaret of Mājīda, the minaret of the Nurī mosque (al-Ḥadbā’), and the minaret of the Umayyad mosque at Mauṣil (the ʿalīa minaret).

B. Cylindrical minarets with octagonal kursīs, such as the minaret of Arbīl, the minaret of Sinjār, and the minaret of Ẓawūq.

In both of these groups, the cylindrical shaft rises directly from the kursī, without a zone of transition of any form, whether Turkish triangles or otherwise.
The minaret of Mujida.

Though the date of this minaret cannot be fixed with certainty, it seems on stylistic grounds to be the oldest surviving minaret of this type.

This minaret was unknown to Western scholars until 1914, when it was first published by Miss Bell. However, she does not recognise Mujida as a minaret, and considers it to be a tower intended as a landmark for caravans passing from Najaf to Ain al-Tamr instead. She assigns it a date earlier than that of the Mustansiriya (1233). Nevertheless, despite her failure to recognise the structure as a minaret, she gives an excellent description of "the tower of Mujiaah." This will be quoted in part presently.

Creswell, on the other hand, recognises this monument as a minaret and points out that Miss Bell failed to recognise the wall which takes off to the right from its square kurb, which indicates that it must have been attached to the wall of a mosque. But he assigns Mujida, with some reservations, to the 12th century.

The decoration.
The most clear and concise description of this minaret is probably that of Miss Bell:

"The tower is built of bricks ..... It rests upon a base of 4.35 metres square and 2.85 metres high, each side of which is adorned with three rectangular niches ..... Each niche is covered by a triply recessed arch. Above the square niched sub-structure the tower is circular, and for a height of about 2 metres the wall is plain."

(2) Ibid., p. 40.
(3) Ibid.
(5) Ibid.
second decorated zone consists of a band of rectangular flutings, forming a zigzag in plan. Two courses above these flutings there is a course of bricks laid corner-wise so as to constitute a dog-tooth motive. The wall is then carried up for another six courses in plain masonry, above which lies a second course of brick dog-tooths. The succeeding zone is adorned with eight triply recessed niches with rectangular heads. After four more courses of plain brickwork there is a third course of dog-tooths, and on the west side of the tower five courses of plain brickwork are preserved above the dog-tooths. That there was at least one other decorated zone seems certain ..." (1)

It should be noted that this convention of ornamentation - i.e. the division of the surface of the cylinder into a succession of decorated zones or wide bands - persists not only on the minarets of the Abbāsid period, but also on minarets of the post-Abbāsid period (of the Intermediate Style), excluding the minaret of Sūq al-Ghazl.

Examples are the minarets of Dhu‘l-Kifl and Wāsit.

The unusual method of three-dimensional ornamentation at Müjida has no parallel on existing Iraqi minarets.

---

(1) ibid. p. 36; figs. 39 - 40.
The minaret of the Umayyad mosque at Mauṣil

The Umayyad mosque at Mauṣil was built by CAtaba ibn Farqad al-Salamī soon after the conquest of Mauṣil (17/638).(1)

The first minaret to be built at this mosque was during the Governorship of Marwān ibn Muḥammad in 128/745. (2) This minaret is believed to have been of square shape following the Syrian type. (3)

As a result of the political unrest during the Īqailid and the Saljuk periods at Mauṣil, the Umayyad mosque was badly neglected and eventually reached a state of extreme dilapidation. (4)

When the Atabega established themselves at Mauṣil, they renewed the Umayyad mosque and rebuilt the present minaret in 543/1143 during the reign of Saḥ al-Dīn I son of CImād al-Dīn Zangī. (5)

In his report to the D.G. of Antiquities, Ahmad al-Ṣūfī, who visited this minaret in 1936, states that "what remains of this minaret does not exceed 15 metres, and that very little of its decoration is left." (6)

The Decoration.

Fortunately, the shape and the brick ornamentation (ḥaṣīrī) of this minaret are preserved in a drawing by Herzfeld (fig. 5). From this drawing, it can be seen that the lower cylinder was divided into five wide decorative bands or zones, separated from each other by narrow bands similarly decorated.

(1) Daiwāchi, op. cit., p. 5.
(2) Al-CUmarī spud Muḥammad, op. cit., p. 237.
(3) Ibid., p. 238.
(5) Ibid., p. 10; Muḥammad, op. cit., p. 238.
(6) File No. 22/35 in the Department of Investigations, D.G. of Antiquities, Baghdad.
The first wide band (which is above the door) is decorated with an all-over pattern of vertically stretched hexagons (a variation of the Chinese 'tortoise shell' pattern). The second wide band is decorated with a strip of a diaper pattern of lozenges with bosses at their centres, in three-level haşır. The third is decorated with a chequerboard pattern in two-level haşır. The fourth exhibits a pattern similar to that of the second wide band, but in two-level haşır. The fifth wide band depicts an all-over pattern of swastikas in two-level haşır with bosses inside them.

The narrow bands separating the decorative zones are decorated with strips obtained from the all-over patterns of the wide bands.

The upper cylinder is decorated with herring-bone patterns in two level haşır followed by a narrow band, apparently of squares. The remaining part of the cylinder displays a pattern of vertical strips, alternating with each other in two-level haşır. Each strip is broken up by horizontal hatching.

The cylindrical shaft rests directly on a square kūrā and the hawd is supported by simple corbelling, a feature peculiar to the minarets of Mauşil. Indeed, not a single minaret at Mauşil displays muqarnāsāt.

The whole appearance of this minaret shows marked similarities with the minaret of Mūjīda as regards the square kūrā, the system of decoration and the absence of tapering. This is in strong contrast to the minaret of the Nūrī mosque and the minaret of Āruṭīl, where tapering of the lower cylinders can be clearly detected.
The minaret of the Nūrī mosque.

According to Abu Shāma al-Maqdisī, Mauṣil had only one Congregational mosque until 566/1170. This was the Umayyad mosque which was renovated by Saif al-Dīn.(1) Upon his conquest of Mauṣil in 566/1170, Nūr al-Dīn Zangī noticed that Mauṣil was in real need of another Congregational mosque in order to accommodate the large number of worshippers. Thus he ordered a mosque to be built on a ruined site at the centre of the market area. Nūr al-Dīn entrusted the building of this mosque to his Shaikh, ʿUmar al-Mullā, and left Mauṣil after a stay of fourteen days.

The building of the Nūrī mosque was completed in the space of two years (566-568/1170-1172).(2) Upon its completion, Nūr al-Dīn visited Mauṣil for the second time (in 568/1172) and ordered that it should be furnished with masts and rugs. He also appointed a khaṭīb (preacher) and a mudarris (teacher) for it.(3)

The minaret of this mosque (better known as al-Ḫadbāʾ, that is "the hunchback" in Arabic) depicted in pl. 43 and fig. 6 is an original feature of the mosque and must have been built between 566/1170 and 568/1172.

It consists of a cylindrical shaft resting on a square kūrsī. The surface of the shaft is divided into seven decorative zones of wide bands, executed in ḫāṭīrī. The lowermost band depicts a herringbone pattern in one-level ḫāṭīrī, while the second depicts a diaper pattern of concentric squares, also in one-level ḫāṭīrī. The third

---

(2) Ibid., pp. 20-1.
(3) Ibid.
zone depicts a diaper pattern of squares, the inner spaces of which are occupied by a filler motif composed of detached elements. This motif resembles a four-pointed star or a four-petalled rosette. Its points (or petals) alternate with round points. The centres of these stars are formed by circles. The points of these stars extend towards the corners of the squares containing them. The whole diaper pattern — including the elements of the filler motifs — is rendered in two-level ḥašīr. The fourth zone depicts a pattern of four-pointed stars alternating with squares. The stars are rendered with a slight slant whilst the squares are rendered horizontally. Both elements depict circles at their centres. Within the four-pointed stars these circles are surrounded by four points. A closer study of this pattern reveals that it is actually composed of an all-over pattern of whirl-like elements, each of which is composed of a central square with four arms stemming from its corners. The arms stem from the corners at a 45 degree slant and in an anti-clockwise direction. Midway between the arms of these whirls and the corresponding side of the central square is a point. In fact this whirl-like form is another version of the swastika, and what looks like a four-pointed star in this pattern is a secondary motif formed by the slanting arms of neighbouring whirls or swastikas. The whole pattern of this zone is rendered in two-level ḥašīr.

The fifth zone depicts a diaper pattern of concentric squares rendered in three-level ḥašīr, and the sixth zone depicts an all-over pattern of quatrefoils with circles in the intervening spaces, both of which are rendered in two-level ḥašīr.

The seventh zone depicts a diaper pattern of concentric squares rendered in four-level ḥašīr. All these zones are separated — as in the case of the Umayyad mosque minaret — by narrow bands. The lower-
most band depicts a plaiting motif in two-level ḥāṣīrī, while the
second band depicts an 'arabesque' meander similarly rendered. The
third band exhibits a strip from the all-over pattern of quatrefoils
of the seventh wide zone. The fourth narrow band depicts a strip
from an all-over pattern of intersecting zigzag lines defining diam-
onds and other polygonal shapes. The fifth narrow band depicts a strip
from another version of a quatrefoil pattern. All of these bands are
executed in two-level ḥāṣīrī.

The sixth narrow band depicts interlace or plaiting. The plaite
ing in this example consists of two parallel lines forming four inter-
laced loops at regular intervals. An exact parallel to this band
appears as a border design on the square base of the minaret. The base
of the minaret is decorated on each side with a panel displaying a
diaper pattern of concentric squares, some in three-level and others
in two-level ḥāṣīrī.

According to al-Ǧumārī, the original hawd of this minaret was
destroyed by a hurricane in 1211/1796. It was replaced by a simple
contraption erected by al-Šaikh Muḥammad al-№ūrī during his restora-
tion of the mosque between 1281/1864 and 1286/1869. In 1925 the hawd
was restored by the D.G. of Āwqāf after the same fashion. The upper
cylinder has a chevron pattern crowned by a band of small squares,
alternately projecting and recessed in two-level ḥāṣīrī.

---

(1) Herzfeld's drawing of this band (see fig. 6) is inaccurate.
(2) Al-Ǧumārī amud al-Ǧaṭālātī, ibid., p. 42, N. 48.
(3) Ibid., p. 25.
(4) Ibid., p. 42.
The minaret of Ţawūq.

Herzfeld assigns this minaret to the period between the building of the minaret of the Kurî mosque and the building of the minaret of Arbîl. (1) Gertrude Bell on the other hand assigns this minaret the same date as that of the al-Mustanṣiriya (1233) or a little earlier. (2)

She seems to have based this dating on the similarity between the architecture of a small gateway - seen by Rich - near the minaret of Ţawuq and the portal of the Mustanṣiriya. (3) She also maintains that:

"the brickwork zigzags of the minaret are not unlike the decoration of the minaret of Sūq al-Chaṣl at Baghdad which may have been built about the same time as the Mustanṣiriya or a little earlier." (4)

Incidentally, Gertrude Bell mentions that she was not able to find any reference to the minaret of Ţawūq "by the earlier Arab geographers." (5)

The decoration.

The minaret in its present state consists of a cylindrical shaft resting on an octagonal kursî. The facets of the kursî are decorated with three registers or tiers of blind arches. The ruinous state of the transitional zone, between the octagonal kursî and the cylindrical shaft, does not allow a firm assumption that the kursî might have terminated with a muqarnas; this is clear from pl.

What remains of the lower cylinder is divided into four wide decorative zones. These zones are separated from each other by three narrow bands. A fourth narrow band separates the lowermost decorative

(2) Bell, op. cit., p. 40.
(3) Ibid.
(4) Ibid.
(5) Ibid.
zone from a plain band immediately above the surface of the kursî.

The first wide zone displays an all-over pattern of simple zigzag bands rendered in vertically laid brick stretchers in simple (one-level) hasîrî. The second wide band exhibits a diaper pattern of concentric squares rendered in four-level hasîrî. The third wide band exhibits the same pattern as the first wide band, but rendered in two level hasîrî, while the fourth wide band depicts a diaper pattern of squares with bosses at their centres. It is in two level hasîrî.
The Minaret of Arbîl.

Very little is known about this minaret. It is commonly attributed to Muzaffar al-Dîn Kukburi who reigned from 586/1190 to 608/1211-2. (1) Creswell suggests that it may have been built at the beginning of this period. (2)

The structure of this minaret consists of an octagonal kursî surmounted by a cylindrical shaft (fig. 7). The facets of the kursî are decorated with two registers of blind arches, as can be seen in fig. 7.

The decoration.

The upper register of these arches depicts an all-over pattern of connected swastikas and octagons (fig. 8 A). The blind arches of the lower register depict another all-over pattern of connected swastikas (fig. 8 B) closely related to the pattern of the lower cylinder of the Nâmâniya minaret (figs. 17 and 18).

The kursî of the minaret terminates in a wide recessed band which must have accommodated a historical inscription, surmounted by the traces of muqarnas which must have supported a lower octagonal hawd.

What remains of the tapering cylinder is divided into four wide decorative zones separated from each other by three narrow bands.

The first wide decorative zone - immediately above the apex of the arched door - depicts an all-over pattern of looped zigzag bands rendered in three-level ḥâşîrî (fig. 7 1). The second depicts a complex all-over pattern of what looks like squares and 'L'-shaped or key-shaped elements, also rendered in three-level ḥâşîrî (fig. 7 2).

The third wide decorative zone exhibits another complex all-over pattern of what looks like squares and Maltese crosses, depicted in three-

(2) Ibid.
level hasiri (fig. 7 3). The fourth wide zone depicts a diaper pattern of squares enclosing a motif consisting of a central square surrounded by four connected squares (fig. 7 4).

The lower narrow band separating the first from the second zone depicts a row of hexagons (fig. 7 A). The second narrow band is formed by two lines of square Kufic inscriptions. Each of these lines is formed by the repetition of one word: "Muḥammad." In this example, the words are connected with each other, i.e. the lower stroke of the dāl is fused with the first mām of the following word, as can be seen in fig. 7 B.

These two lines of square Kufic are in an inverted relationship to each other. It should be noted that this inscription is the earliest surviving example of square Kufic occurring on Iraqi minarets.
The minaret of Sinjar.

According to Herzfeld, this minaret was built in Muḥarram 598/1201. He believes that it is the minaret of the Ṣimāḍiya madrasa of Sinjar. However, this view has been recently challenged by Šabbū on the grounds that Ṣibṭ Ibn al-Jawzī mentions that the Ṣimāḍiya madrasa was built on the outskirts of Sinjar, whilst the present minaret stands at the centre of Sinjar; it thus could not be considered to have belonged to the madrasa in question. (2)

This minaret is another example of group B, i.e. a cylindrical shaft resting on an octagonal kursī (pl. 45 and fig. 9).

The decoration.

Though the damaged condition of the lower half of the kursī does not allow an exact reconstruction of its decorative scheme, the parallels offered by earlier minarets of the same group suggest that the facets of the kursī of this minaret were adorned with two registers of arched niches, of which the upper register only has survived.

The apices of these arched niches are decorated with polygonal ornamentation, as are the rectangular borders framing the niches. One of the rectangular fields within the better preserved niche (see pl. 45) depicts a square Kufic inscription. Above the upper register of niches a recessed band of historical inscriptions, the greatest part of which is missing, separates the facetted kursī from the first row of blind arches of the ruined muqarnās which used to support the lower ḥawd. The cylindrical shaft rises in plain kafqām bonding from the level of the ḥawd to the apex of the door, to terminate in a narrow band of the so-called 'key motif'. After four courses of simple kafqām bonding, a wide decorative band of polygonal ornament constitutes

Fig. 9: The minaret of Sinjar as drawn by Herzfeld.
the first ornamental zone of the lower cylinder. This zone is bordered by a narrow band of horizontally laid lozenges followed by another narrow band of the so-called 'key motif'. This in turn is bordered by a second narrow band of horizontally laid lozenges. The remainder of the lower cylinder displays a rectilinear ornament in what appears to be two-level ḥāšīrī, but as Creswell asserts that this minaret was decorated with "fayence mosaic", (1) one may suggest that this zone may originally have been rendered in simple (one-level) ḥāšīrī, and the present two-level ḥāšīrī appearance is due to dislodged faience mosaic squares which once adorned this zone and filled the recessed squares.

Herzfeld's reconstruction of this zone (fig. 9) indicates that this zone was decorated with a square Kufic inscription in the form of an all-over pattern. This was further confirmed when the writer examined the minaret at close quarters in 1967. Unfortunately, what remains of this zone does not allow accurate reconstruction of the text.

At some time before 1967, the D.G. of Antiquities carried out an extensive restoration of the minaret. The removal of the temporary plastering, which was intended to strengthen the kursī, revealed that all the niches of the upper zone were decorated with square Kufic. It has also revealed that the facets of the kursī were actually adorned with two registers of niches, the lower of which was much shorter than those of the upper register.

The Minaret of Suq al-Ghazl.

According to al-Khāṭib al-Baghdādi, the mosque to which this minaret belongs (Jāmiʿ al-Khalīfa) was built by al-Muktafi as soon as he succeeded to the Caliphate in 289/901, on the site of the dungeons of al-īkṣāṣād in the palace (Dūr al-Khalīfa), and was called by the name of Jāmiʿ al-Khalīfa as early as 580/1184.

It was burnt down by the Mongols in 656/1258. The minaret was built by Alāʾ al-Dīn Atā' al-Juwaini, the Sāhib al-Dīwan, in 670/1272, and was completed late in the month of Shabaḥān, but it collapsed in Rāmāḍān after the tarāwīh prayers.

The present minaret was built and completed in 678/1279 also by Alāʾ al-Dīn, as can be seen from the Kufic band immediately below the minbarātāt.

It is known that a number of restorations and rebuildings were carried out during the Ottoman period. Sulaimān Pāsha al-Ṣaghīr in 1224/1809 according to Ābād al-Ḥamīd Ibāda rebuilt the mosque from the remains of two māqṣūd (conical domes) which he demolished. There is no mention of any restoration carried out on the minaret, though it could probably be assumed.

---

(2) Ibn Jubair, Rihlat Ibn Jubair (Cairo, 1908), p. 207.
(4) Al-ʿAzzāwī, op. cit., p. 25.
(6) Al-ʿAzzāwī, op. cit., loc. cit.
The minaret was restored after the First World War by the newly established Directorate-General of Public Works, under the supervision of a British engineer. A number of restorations were carried out on the minaret by the D.G. of Antiquities between the years 1935 and 1945. In 1958, the kurtah was restored under the supervision of al-Ainischi of the D.G. of Antiquities.

A modern mosque was built around the minaret and was opened in 1967.

It is very difficult to assume that the minaret was not repaired during the Ottoman period, even if such repairs were not mentioned, especially as one can see that recently, during the space of ten years, repairs were required four times. In any case such repairs could hardly be detected, as the technique, materials and weathering make it very difficult to differentiate between the old and the new. Most probably the repairs were limited to the head and the hawd.

The muqarnasāt were apparently not repaired most probably owing to their intricate designs and their inaccessibility (see plate 47).

The Decoration

An old photograph (pl. 46) shows that the head of the minaret was decorated with a strip of a diaper pattern composed of three layers of diagonally rendered squares, starting from the springing points of the dome and terminating at the dome's widest circumference. Thus the whole decorative pattern is limited to the lower curve of the springing. The upper cylinder which is rendered in common bonding lacks decoration.

---

(1) Repairs were carried out in 1935, 1937, 1941 and in 1969; see File No. 15/40, Jami' al-Khulafa', Baghdad, (in the Department of Investigations, D.G. of Antiquities, Baghdad).

(2) Designed by the architect M. Makiya.
No decoration can be seen on the wall of the band as it appears to have been restored not so long ago.

The muqarnāsāt seem to have very few pieces of their carved arabesque in situ.

The muqarnāsāt seem to have consisted of four tiers (excluding the lowermost tier of blind arches), as can be judged from the horizontal series of holes which used to contain wooden radials for the reinforcement, support, and outlining of the various tiers of the muqarnāsāt (pl. 47). Some of these radials are still in position.

The upper part of the lower cylinder is decorated with what remains of the Kufic historical inscription, bordered by two brick torus mouldings. The upper torus is separated from the lower tier of the muqarnāsāt by a sikka, and another sikka separates the lower cable from the upper decorative band that borders the main geometric decoration of the lower cylinder.

The decorative band seems to be a strip of a much larger all-over pattern consisting of interlace and six-pointed stars.

The main decoration is an all-over pattern in "two-level Ṣaṣīr" of double-line swastikas in slanting position, all anti-clockwise and connected to each other (2) by means of short connecting bars. It should be noted that the actual pattern is sunken, whilst the background is lifted to surface level (pl. 48 and fig. 10). This must be why a number of writers and historians, such as Herzfeld, Massignon, al-Ḥazīmī, and al-Kīwīnī, have considered it as the real pattern and referred to it as "Chār Cāll". (3) It is not immediately obvious why this part of the

---

(1) Pls. 47, and 55 of the minaret of Sūq al-Ḥazīmī and the minaret of Dhū‘l-Kifl show that these wooden reinforcements are cut (previous to their installation on the minaret) into the shape of an individual tier of the muqarnāsāt and slightly recessed so that they can be hidden with thin pieces of brick. Their function (other than reinforcement), is the transfer of a good part of the weight of a muqarnāsāt tier to the main cylinder of the minaret, i.e. to act as a concealed bracketing system.

(2) Each swastika is connected to four neighbouring swastikas.

(3) Sarre and Herzfeld, op. cit., II, p.158. Al-Kīwīnī, op. cit., p. 69, fig. 3.
Fig. 10: Reconstruction of the pattern of the minaret of Suq al-Ghazl.
background was called "Chär CAll"; the reason is probably that four of these motifs surround a single swastika, thus suggesting a parallel between this and square Kufic "Chär CAll". (1)

The outlines of the pattern are raised squares of carved headers; the design on each header is a delicately carved flower. One can see the same swastika pattern on the minarets of the Ottoman era, such as the lower cylinder of the minaret of Jāmiʿ al-ʿAdiliya al-Kābir (2) (pl. 49) and on the lower cylinder of the minaret of al-Khaṣṣakī (3) (pl. 51). There is one difference only: the design on these is executed in khaṭi.

The swastika pattern of the minaret of Sūq al-Ghazl is bordered by another decorative band on its lower extremity, similar to the band previously described. (4)

The remainder of the cylinder is plain brick from the apex of the pointed arch of the door to where the floor of the kursî might have been. Until recently the minaret base was very dilapidated and none of the present muqarnasât of the kursî existed except the lower tier of blind pointed niches (filled with carved arabesque), alternating with wider blind arches whose segments are in lancet form.

---

(1) See p. 324 and footnote.

(2) The mosque was first built in 1168/1754 by ʿIdila Khāṭūn, the daughter of Ahmad Pasha, the wālī of Baghdad, and the wife of Sulaimān Pasha, also the wālī of Baghdad. The minaret may have been rebuilt or renewed in 1229/1813 according to the date depicted in one of the eight-pointed stars of its āqīq. (pl. 51).

Longrigg, Arbaʿat Qurūn fi Tarīkh al-ʿIraq al-Māṣūmī, p. 157 (Arabic Translation of Four Centuries of Modern Iraq).

(3) This was first built by Muhammad Pasha al-Khaṣṣakī, (the wālī of Baghdad) in 1067/1656. A number of repairs were carried out on the mosque such as the repairs of 1077/1666, 1079/1668, and 1094/1682. No mention of later repairs could be found in the available sources.


(4) A band consisting of interlace and six-pointed stars described suqra p. 366.
The lancets are filled with arabesque, whilst the main part of the niches are filled with "Dab-šūm" (1) (pl. 52). The existing muqarnāsāt were reconstructed by the D.C. of Antiquities in 1958.

Some of the kursīs' facets still retain parts of the decorative wide band of interlaced design, (2) studded with carved six-pointed stars, each of their points penetrating a small carved hexagon. The interlace around the hexagons takes the form of a six-armed whorl in a clockwise direction.

The centres of the areas of interlace situated between the six-pointed stars are incrusted with lozenges, each of their corners penetrating a smaller hexagon of the same type as those penetrated by the points of the stars (plas. 52, 53).

---

(1) The name used by Baghdādi masons is Dab-šūm al-ʿAshra or Kund al-ʿAshra; the term is Persian. The first word (dab) means "ten" in Persian and the second might be the name of the basic shape which is utilised for the production of the design. The Arabic term is a corruption of the Persian, and the word (ʿAshra) which also means "ten" was inserted most probably because the Arabic speaking mason did not know it was mere repetition.

(2) This interlaced design is based on hexagonal patterns which are superimposed, fragmented, dissected, and picked out.
The minaret of Dhu'l-Kifl.

The building of this minaret was, most probably, commenced in 716/1316 upon the order of Uljaitu (703-16/1313-1316).

According to Ḥamid Allah Mustawfī "Sultan Oldjaitu .... built a masjid with a minaret at Dhu'l-Kifl." The fragmentary historical inscription below the muqarnāt of this minaret clearly indicates that it was completed shortly after Uljaitu's death, probably at the very beginning of Abu Sa'īd's reign. (2)

Herzfeld translates this inscription as follows:

"I .... the august Sultan Chiyath al-Dunya wa'l-Din (Khūthub)anda Muhammad, may the earth be light on him, and it was finished under the reign of his son, the sultan ....

2 .... seeking the proximity of Allah, be He exalted! and demanding His most generous pardon, the exalted emir, the Just, the malik al-Umara', the promoter and establisher of Justice ......") (3)

Until 1937 it was still possible to read the inscription, as can clearly be seen in pl. 57. But in 1939, the Directorate of Public Works of Hilla (without the knowledge of the D.G. of Antiquities) started the restoration of the minaret and completely destroyed the historical inscription, replacing it by Surat al-Fatīha. The restoration was interrupted by the D.G. of Antiquities and was completed under the supervision of its representative. (4) Before 1939

(1) Ḥamid Allah Mustawfī, npud E. Herzfeld, "Damascus" p. 29.
(2) The inscription as published by Herzfeld:

(Ibid.)


(4) The report of Muhammad ʿAll Mustafā, Ibid.
the inscriptions and the decoration on the western side of the lower cylinder were in ruins, from the hawa to the base of the minaret. On the eastern side, the decoration and the text were almost intact, as appears from the photographs (pls. 55-57). It seems that no attempt has yet been made to read and copy the triangulated Kufic on the lower cylinder. (1)

Al-"Azzāwī (2) believes that it was built by the pupil of the master builder who built the minaret of Sūq al-Ghazl, and relates the traditional story which is usually attached to all the minarets that have two intertwined staircases, where the jealous master makes an attempt on his student's life by throwing him from the balcony, only to find that the victim has descended the other staircase to safety.

The only disturbing feature in this minaret is the fluted head which might have been introduced at some time not very long before 1934 as a replacement for the unfluted old head. Most probably this would have occurred during the 19th century or the early 20th century, (3) as has happened to the minaret of al-"Aqūlī mosque in particular (pls. 76 and 77). The same material and technique were used in both cases. However it is possible to argue that the head of this minaret is "the surviving example" which proves the early existence

(1) See the reconstruction of the triangulated script in fig. 13.
(3) A number of photographs taken by Western travellers from about 1880 (such as Oppenheim, Dieulafoy, Herzfeld and others) show a number of minarets (which have now fluted heads) with unfluted heads. Examples are the minarets of al-"Aqīllānīya mosque, al-Wazīr mosque, and al-"Aqūlīya. Though no fluted-head minaret exists in Iraq, a fluted drum for a dome did exist in al-Madrasa al-Marjānīya (dating from 758/1356), as can be seen in plate 80.
of the fluted-head minaret in Iraq, or is the prototype for this style in the area. Moreover, although the head of a minaret is usually the most vulnerable part, the preservation of its original shape in the case of this particular minaret could be due to the repairs which were constantly carried out by the custodians of the shrine, since the building has been in constant use since the date of its erection.

The designs:

The head of the minaret and the upper cylinder are void of decoration other than the fluting of the head.

The upper part of the wall of the hawd (which seems to have been reconstructed later) is also void of decoration. From the floor-level of the hawd downwards, it is decorated with hexagonal-interlace till its lower fringes form pendentives to the pointed arches of the upper tier of the muqarnasät.

The muqarnasät consists of four tiers of arches decorated with arabesque, followed by a band of brick squares, then by a narrow sikka. Two torus mouldings (similar to that of the minaret of Sūq al-Ghazl) separate the sikka. The lower cylinder is equally divided into three zones.

The decorative design of the upper zone (wide band) is composed of an all-over pattern consisting of waisted lozenges which are made up of two linked squares. These are laid out vertically and horizontally in an alternating manner, and in such a way that the two apices of the horizontal lozenges fit into the waists of the vertical lozenges. The intervening spaces automatically form squares, as in plate 57.

When the pattern is flattened and reconstructed (fig. A and B) new aspects of the design become apparent:
Fig. 11:
A. Analytical drawing of the main pattern of the minaret of Dhu' l-Kifl.
B. The arrangement of the waisted lozenges of the same pattern on a swastika groundwork.
a) The existing design is only a strip of an all-over pattern composed of reciprocating waisted lozenges, and the design was not made especially to fit the cylinder. That is why we see the formation of three fused squares (indicated by the two arrows in fig. 11 A).

b) The lozenges are grouped in fours around a central square, and arranged according to the direction of the bent arms of the swastika. (1) as in fig. 11 B.

The same design is used on a number of minarets belonging to the Ottoman period, with slight alterations; for example the upper cylinder of the minaret of the Āhmadiya mosque (pl. 58); the lower cylinder of the minaret of the Sirāj al-Dīn mosque (pl. 60); the upper cylinder of the minaret of the Khāṣakī mosque (pl. 51) and the middle cylinder of the minaret of the Jāmi' al-ʿĀṣifiya.

These later designs are executed in Kāshī, and with more emphasis on the swastika. The swastika was put in the centre of the swastika-forming "waisted lozenges" as one can see in fig. 12, with a different filler motif.

The middle zone is decorated with triangulated Kufic inscriptions in two-level ḫāṣirī. The raised letters are composed of hexagonal interlace similar to the motif depicted on the so-called pisām al-manāra of the minaret of Sūq al-Ghazl described above (p. 105 and pl. 48). The Kufic words are made to fit alternate upright and inverted triangles. (pl. 57 and fig. 13).

(1) This method is used in the grouping of identical words in square Kufic, such as the grouping on the upper cylinder of the minaret of al-ʿĀṣifiya mosque (ʿĀṣila Khatūn mosque) in plate 49 and in figure 31.
Fig. 12; Analytical drawing of a mineret design (of the upper cylinder of the mineret of the Ahmediya mosque) dominated by a swastika ground work.
Figure 13: The reconstructed Khufu inscription of the pyramid of Khufu.
As has been stated above, no attempt has yet been made to read this inscription. Wilber describes it with the following words:

".... an elaborate section built up of small pieces of moulded terracotta, the whole spelling out pious words in alternate upright and inverted triangles ...." (1)

However, an attempt to read it has been made here, and the reproduction, and partial reconstruction of the inscription revealed that the cylinder is surrounded by six reciprocating triangles. Each of the vertical triangles contains the same inscription while the inverted triangles repeat a different one.

A closer study of the inscription reveals that the text under consideration is shared by three adjacent triangles, that is: two inverted and one vertical triangle.

Each inverted triangle contains two words, the word Muhammad along its horizontal side and the word ġalā or ǧallī filling its apex, and with the tail of its 'kā' overlapping the adjacent triangle on the right. Each of the vertical triangles contains the word 'hub' (2) along its base and three separate letters fill its apex. The letters are 'dāl' or 'dham' or 'kā' or 'zā'. Next to it is a letter which looks like an 's'. This could be read as a single letter, possibly a 'hamza', or a 'vā', or read as two connected letters as 'bī' or 'țī' or 'Î', and so on. The third letter is obviously a 'mān'.

The inscription as described above allows only two meaningful readings:

1. ġalā jubbī- dhawī Muhammad. That is: for the love of the kin of Muhammad (or his descendants).

2. ġalā jubbī Rabīʿa wa Muhammad. That is: for the love of my God and Muhammad.


(2) For lack of pointing: this word could be read in many forms but none of them would make any sense in this context, thus reading it as ġub has been chosen.
The two readings clearly indicate the dedicatory nature of the inscription.

The first reading however, should not be considered, for it is obviously a Shi'ite motto, and although Uljaitu became a Shi'ite in 1310, (1) he died as a Sunni. (2) Thus it is very unlikely that he would have agreed that such a motto be depicted on his minaret. For this reason the second reading should be taken into consideration.

(2) Ibid.
The Minaret of Wāsit.

The famous minaret of Wāsit was built by Ḥamīd Ibn al-ʿAbbaṣ in 304/916, according to Ibn al-Jawzī (1). It was built for al-Muqtadīr and the people of Wāsit were very proud of it. It collapsed in 497/1103.

The present remains of a minaret in Wāsit (2) were reconstructed by the D.G. of Antiquities of Iraq in or around 1968 (3) (pl. 61).

Its design at present comprises alternating wide bands of Ḥāfīrī separated by wide "sikkas." The lower band is in two-level Ḥāfīrī, the background of which is carved in order to deepen the shadow for the purpose of enhancing the foreground.

The second wide band of Ḥāfīrī is comprised of a convex herring-bone motif which is reminiscent of the decorative style of the minaret of Mūjīda, near Karbalā'. It is illustrated in pl. 61.

Though it is very difficult to give a precise date to this minaret, the style suggests that it probably belongs to the 13th century. The two-level bands are much akin in style and motif to those of the southern wall of the Mustansiriya madrasa and those of the minaret of Dhūʾl-Kifl; the similarity extends to the two portals as well (the border motif of hexagons alternating with "stretched-hexagons" (4) occurs at both the Wāsit and the Mustansiriya portals).

---

(2) It is one of two twin minarets flanking the portal.
(3) The photograph was taken by Mr. al-Kassār of the D.G. of Antiquities.
(4) The stretching of geometrical shapes and motifs is a common decorative device in Islamic art. It was widely used, especially for border-strips. Many examples can be seen on existing Iraqi minarets and monuments and also in other fields of Islamic art. The shapes which are normally used are: the hexagon, the lozenge, and the eight-pointed star (zhbrat al-mūrabba'). The latter can be seen on the minaret of the Aṣżamīya mosque in plate 100, (the upper band of the lower cylinder), where a stretched-star alternates with a zigzag lozenge.
The Design

The design of the two-level band of Hasiri consists of two vertically linked squares forming a kind of waisted or contracted lozenge, alternately upright and inverted with one cross at the centre of each square, and a large square in the centre of the intervening spaces of the background of the design. The two sides of the squares (nearest to the two horizontal borders of the design) have symmetrical projections towards the borders, where they terminate at one end, whilst they turn back at right angles at the other end (pl. 61 and fig. 14).
Pl. 40: The minaret of ʿAna (on the island of Lubād) before restoration. 11th - 12th Century. After Hersfeld.
Pl. 41: The Khilaliya minaret, near C'ana. 10th - 12th Century D.C.A.
Pl. 42: The minaret of Mujida.
Pl. 43: The minaret of the Nūrī mosque at Ma‘ṣūl (better known as al-Ḥadba’).

/                * Iraqi D.G.A.
Pl. 44: The minaret of Ţawūd, near Kirkuk.

543/1148 - 586 - 1190. After Bell.
Pl. 45: The minaret of Sinjar. 598/1207.
Iraqi D.G.A.
Pl. 46: The minaret of Suq al-Ghaal (an old photograph), 678/1279. Iraqi D.G.A.
Pl. 47: The muqarnas of the minaret of Suq al-Ghazl before restoration. Iraqi D.G.A.
Pl. 48: The minaret of Sūq al-Ghazl.

Iraqi D.G.A.
Pl. 49: The minaret of the C-Adiliya mosque (better known as Jami' al-Adiliya al-Kabir) before the last restoration.
Pl. 50: The minaret of Jamiᶜ al-Ǧadiliya al-Kabīr. First built in 1168/1754, restored in 1229/1813 Iraqi D.G.A.

Pl. 52: Detail from the kursī of the minaret of Suq al-Ghazl.
Pl. 53: The kūrāl of the minaret of Ṣūq al-Ghazāl during the last repairs.

Pl. 54: Detail from a facet of the kūrāl of the same minaret.
Pl. 55: The minaret of Dhu'l-Kifl, near Kufa.
C. 1316. Iraqi D.G.A.

Pl. 56: Another view of the same minaret. Iraqi D.G.A.
Pl. 57: The minaret of Dhu'l-Kifl viewed from the east.
Fl. 58: The minaret of the Ahmadiya mosque,
Baghdad. 1211/1796.
Pl. 60: The minaret of the Sirūj al-Inān mosque, Baghdad. 1318/1900.
Pl. 61: The minaret of Wāṣīt (the minaret of the Sharabiya madrasa 916. Photograph supplied by A. al-Kassār.

Fig. 14: The main pattern of the minaret of Wāṣīt.
CHAPTER IV.

SELECTED IRAQI MINARETS OF THE INTERMEDIATE STYLE.

A minaret (赞助) is situated above it. It is of unusual size and proportions, and looks out of place in the present surroundings. This it is because it is out of proportion and seems to have belonged to a much larger and nobler construction. The nibel of the sheikh's maqbara contains a carved fragment which is from the original archway nişabū, judging by the style of its arches and the carving. In the centre of the minaret and a little above the

(2) "Sheikh al-Fakhri died in 1232/1233, for details see Al-Fakhri, Al-Maṣāḥif al-ṣūr, 169/5, 180/6, p. 186.
(3) Idem, p. 186.
The minaret of Jāmiʿ al-Khaffārīn.

This mosque, according to contemporary Iraq authors, is the Masjid al-Ḥadāʾir. It was built in 599/1203 but its history was shrouded in obscurity over a very long period until 1212/1797 and 1223/1808 when two waqfiya were issued from the Sharqiya Court of Baghdad by which Abu Bakr ʿUthmān Beg al-ʾPāchachi gave all his lands and property (ʿAqār wa Ṭusqarāt) for the maintenance of the mosque and its madrasa, which he had renewed; and he installed as custodians, Sālim ibn ʿAbd-Allah and his descendants after him. It can be assumed that a minaret was built when the mosque was first built, because the wall of the musalla (prayer-hall) forms an integral part of its kūrṣ and both, most probably, date from 1203. This wall separates the Hanafi musalla from the Shafiʿī one, and a connecting door is situated in the middle of it. A wind catcher (ḥāḍir) is situated above it; it is of unusual form and proportions, and looks out of place in the present surroundings. This is because it is out of proportion and seems to have belonged to a much larger and nobler construction. The miḥrab of the Shafiʿī musalla contains a carved fragment which is from the original marble miḥrab, judging by the style of its arabesque and the carving. In the centre of the miḥrab, and a little above the

(1) al-ʿAẓzāwī, Tārīkh al-ʿIrāq, al-Masāliḥ wa al-Tabākh, al-ʿIrāq (Baghdad, 1428).
(2) ʿUthmān al-ʾPāchachi died in 1232/1816. For details see Al-Durūbi, Al-ʾBaghdādiyūn, Alkhābār, wa Ṭaḥārūhum wa Ṭalāṣālīhum, p. 186.
(3) Ibid., p. 186.
carved slab, a small piece of marble is embedded, on which the following inscription is painted in gold: (Judida ft sanat 1329) renewed in the year 1329.

In another room situated at the south-eastern corner of the courtyard on its southern wall, a magnificently carved piece of marble was fixed; it was inscribed with the following inscription:

```
قَالَ الَّذِيْنَ يَبْدِؤُونَ
وَالَّذِينَ يَتَّبِعُونَهُ
"مَالِلِلَّهِ ضَيْرًا وَتَعَاوُنَ إِنَّا يُحِبْنَ اللَّهَ عَبَادَهُ الْمُتَعَلِّقَاءَ
999 ق.
```

"God has said "blessed and elevated": It is those who have knowledge who fear God (most) from (among) his worshippers, in (the year) 999."

This has great significance in dating the present minaret.

In 1948 repairs were carried out on the head of the minaret at the request of the Directorate of Aqāf for the Baghdad area under the supervision of an architect from the Directorate-General of Antiquities. (2)

A comparison between a picture of the minaret before the latest restoration (pl. 62), with a picture of the minaret after the restoration (pl. 63) reveals the extent to which the restoration was carried out. The main features were:

a - The head: though the "hexagon and star" design was reproduced, a third of the lower part was cut and only halves of stars run along the lower edge of the head, instead of complete stars. Moreover, a number of lines which used to give an interlaced appearance to the original six-pointed stars were eliminated and replaced by a number of concentric multipointed stars now forming successive bands around the apex of the dome of the head until the smallest, which forms the base of the finial.

---

(1) It is most probably by the famous calligrapher Qawāl al-Baghdādí, who was nick-named ʿAḥīb al-Thalāth Tisʿat. It is reproduced in al-Qazwī's Tarikh al-ʿIrāq, IV, pl. 10, opposite p. 160.

b - The upper cylinder: it seems that the upper cylinder has been almost rebuilt, as appears from the pictures which were taken from approximately the same position.

There is a new ventilation opening slightly above the wall of the balcony whilst the two old ones (below the upper band) were sealed off completely.

A completely new band of the so-called key-meander has replaced the old band of "tilted squares," and a new second band has been added in the form of a simple zigzag, as a terminal zone for the key-band.

Though the wall of the balcony was heightened, the cylinder after restoration was seven brick courses higher than it was before the restoration.

(2)

c - The balcony: the wall of the balcony was 22 courses high, while the wall after restoration is now 24 courses high and has two convex brick bands; one of the bands forms a lip to the wall whilst the other surrounds the lower circumference of the wall, one course above the lower rim.

The tiled decoration was restored to its original design.

(3)

d - The muqarnāsāt: it seems that the muqarnāsāt have also been rebuilt, as has most of the balcony, as appears from the photographs. Though the same plan of muqarnāsāt was followed, the uppermost tier of arches was tilted at a much wider angle than the original tier, and resulted in lifting the whole balcony upwards and at the same time giving the muqarnāsāt greater depth than before the restoration.

(1) Normally, the outer surface of a minaret is rebuilt, whilst the inner layers are repaired.

(2) The number of brick courses starting from the upper edge of the wall of the balcony in the old picture is 47, whilst in the new picture it is 54.

(3) See pls. 62, 63 and fig. 21.
The minaret of al-Shaikh Maqrūf al-Karkhī

The minaret is dated by an inscription in one of the blind arches of the muqarnasat. This date has been read as 612/1215; other than that very little is known about the minaret.

On the authority of Nazmī Ẓādā (1) al-ʿAzzāwī mentions the following incident:

"In 1200/1688 Ahmad ʿAghā the Kaktkhuda of ʿUmar Pāsha, found that the walls of Jāmiʿ al-Shaikh Maqrūf al-Karkhī were in a state of dilapidation because of the passage of time, and its musallā was getting overcrowded with the people (worshippers) because of its smallness; he rebuilt and enlarged it ... He did not write (put) a new date for his rebuilding (achievement) but he left the previous date (unaltered), so that the pious work and the fine memory of those who passed should not be forgotten." (2)

One Iraqi author mentions that Ṭāhir Pāsha built a dome over the tomb of al-Shaikh Maqrūf, and in 1310/1892 the mosque was repaired. Von Oppenheim visited Baghdad in 1895 (3) and photographed the mosque and what remained of its minaret (pl. 65). The picture shows the lower cylinder and the lower part of the muqarnasat up to the first outward projections. The hawd and the whole of the upper cylinder did not exist.

The whole of the inscription which must have filled the empty band has fallen off. Only the carved bricks and the two narrow bands of the original minaret are left. The bricks of both the cylinder and the hawd wall are of modern type and proportions, and lack the kafqām technique which is a characteristic feature of the round minaret. (4)

---

(1) Nazmī Ẓādā, Ṭāhir al-ʿIrāqī, ʿIrāq II, p. 106.
(2) ʿAzzāwī, ibid., V, p. 126.
(3) J. Von Oppenheim, Vom Mittelmeer Zum Persischen Golf, (Berlin 1899-1900).
(4) The term means, literally, "culling (or "pushing back") the mortar". In this technique the mortar joints are recessed; the mortar is kept back while wet with a right-angled ruler. The upper part of this ruler determines the thickness of the mortar bed and ensures that this bed is even throughout. The bricks are laid over the ruler, which is later withdrawn. The lower part of the ruler acts as a brace against the outer face of the brick coursing and ensures that the depth of the recession is kept even.
The lower cylinder: The restoration seems not to have altered the lower cylinder significantly, except the door, which was heightened and a brick sikka bonded to form its lintel.

All the previous alterations would seem hardly perceptible were it not for the old photograph. Though the restoration was carried out under the supervision of an official attached to the V.G. of Antiquities, the alterations were within a deep-rooted traditional style that has survived to the present day. This style has resulted in an improvement in the appearance of the minaret, making it more monumental and impressive.

With regard to the date of the minaret, it seems that the year 999/1590 is the most suitable, on the grounds that the muqarnasāt of the minaret are identical with the muqarnasāt of the dated minaret of the mosque before the latter's restoration (see pl. 64). This must have been the model for the minaret of al-Khaffā'īn. The date of the Gailānī minaret is 1st Muharram 904/19th August 1498 A.D. (see pl. 82).

(1) See pls. 63 and 64.
(2) A sikka is a course of square bricks bonded vertically to form a thick heavy rectangular construction used as a terminal for walls, dakka's, steps and door-steps in order to prevent the dislodging of the horizontally laid bricks beneath it. It is also used in transitional zones where a cantilever or corbelling is to be used, and also in minarets as reinforcements, especially under the muqarnasāt.

In decorated minarets the sikka's are normally covered by bands of decoration or by historical inscriptions such as in the following minarets: Šūq al-Ghazl, Dhu' l-Kifl, al-Shaikh Kārūf al-Karkhī (only the space which the inscription used to occupy remains), and most of the Ottoman minarets.
But it can be safely assumed that later restorations were carried out by the Directorate of Alṣaf or the Directorate of Antiquities, which explains the use of such bricks.

The inscription giving the date and the arabesque are in an excellent state of preservation as are the two bands. But the wide band of inscription has disappeared completely and has been replaced by square flat bricks.

In any case, the attribution of the minaret to the year 612/1215 should be reconsidered, and should be read 912 instead. This is because the ٰاٰ can be clearly seen in its appropriate place (though it is artistically rendered in the form of two volutes and exuberantly detached). The ٰاٰ here cannot be considered as a decorative filler motif, because none of the inscription is decorated; furthermore, the first letter of the word should be considered as ٰٰ and not ٰٰ, because had it been an initial ٰٰ, it should have had two more upright strokes, similar to those of the word "بان", two lines above, as can be seen in pl. 67.

In a recent work (Dirūsa Jadīda Li Kītabāt al-Mawṣil al-Athariya) Yusuf Dhulnūn deals with similar inscriptions in al-Mawṣil which have led to mistakes in dating during the end of the 10th century A.H. due to the prevalent calligraphic mode of shortening the ٰٰ in the words "تیسٰالیا" or dropping it out altogether. (2)

As far as is known, this is the only example in Baghdad of this usage.

The script is مهمل al-Thulth, (3) i.e. undotted, or rather partially dotted, ثثلث.

(2) Ibid., p. 234.
(3) Literally it means "neglected thulth."
It seems that the elimination of the *sin* from the words "tie-i'ayā" was practised in Baghdad much earlier, but in this case one can see that the *sin* was not dropped, but it was in fact "Sin Mādūda" (a "stretched *sin*" without upright strokes, similar to the *din* of "Gashar" in the line above it, and the stem of the detached *ayn* points out the extent of its length, as can be seen in plate 65.

**The decoration:**

The *kāshi* decoration of the head is a diaper pattern or chequer-board of concentric squares. The inner squares are rendered in white *kāshi* whilst the outer squares are rendered in turquoise, as in colour plate 67.

The upper rim of the upper cylinder is decorated with a band of rectangular "wishbone" design (this resembles a rectangular letter "Y", laid horizontally). The same band decorates the top and the base of the wall of the hawd.

The muqarnās consist of two tiers of arches, the lower of which (the remaining part of the original muqarnās) is composed of blind pointed arches decorated with carved arabesques, alternating with two narrow pointed arches decorated with carving consisting of heart-shaped motifs (pl. 68).

A round band with a design resembling pierced beads, the so-called "Sassanian pearl" motif, separates the muqarnās from the lower cylinder, followed by a sandwich of two sikkas enclosing an empty band which formerly accommodated the historical inscription. A second round band with a design resembling pierced beads alternating with stretched pierced beads forms the lowest border of the decoration.
The Minaret of the Jam' al-Qarnayn

The mosque was completed in Sha'ban 626/1228 during the Caliphate of al-Mustansir billah. It was built on the banks of the Tigris, and was inaugurated in Ramadan of the same year after being supplied with gold and silver lamps and with a rich library (according to the author of the so called al-Rawadith al-Jami'a). (1)

Many restorations were carried out on the mosque during the Abbasid and later periods, such as the restoration of 668/1259 by 'Ali al-Din al-Juwaini, 'Abd al-Din al-Dayn, after it was badly damaged by the floods of 653-4/1255-6. (2) Al-'Alusi mentions that the most important restorations during the Ottoman period were those of 'Aisha Khatun (the daughter of Ahmad Pasha) in 1177/1763, and of Sa'id Pasha; the latter was completed in 1230/1814. (3) Al-'Alusi attributed this repair to his father Sulaiman Pasha, though it is very clear from the last verse of the historical poem that Sa'id carried it out. In fact Al-'Alusi, though he mentions the restoration of 'Aisha Khatun of 1177/1763, seems not to have noticed another historical poem dating another restoration by the same benefactor; this restoration was completed in 1179/1765 (4) (see pl. 69). This must have been very extensive, because the first restoration was carried out on the place of "wudū", as one can see from the poem.

---

(1) This manuscript was edited by Mr. M. Jawad on the assumption that it is "Kitāb al-Rawāḥit al-Jami' wa al-Tajārib al-Mafrūqa fi al-'Iyān al-shī'ah 'alā al-'Ibādah" by Ibn al-Fuwat. But later the editor withdrew his claim. For details see "Al-lwan wa'l-Kanz al-Śahīra al-Islamiya" Sumar XXV (1969) Nos. 1 and 2, pp. 163-176.

(2) See the so-called "Al-Rawāḥit al-Jami'". pp. 4, 304.

(3) See Appendix IV at the end of this Chapter.

(4) This poem was composed by al-Šaikh 'Abd al-Rahman al-Jawaidī. It is in his recently discovered diwan. (A.R. al-Cailānī, "Al-Makhtūt Rām 1355/1945" Extract from Ma'jallat al-Majma' al-'Ilmī al-Dīrāq XIX (Baghdad 1970)).
There is no mention of any restorations carried out on the minaret in any of the authors who have mentioned the mosque, such as Jawūd, Sarkīn, al-'Azzānī, the author of the so-called al-Ḥawadith al-Jāmī'a, and others. None of them have mentioned the minaret except al-'Alūṣī who describes it in the following words:

"... a white minaret, built of brick and gypsum, ancient, (and) sturdily built". (1)

This minaret has no parallel amongst existing Iraqi minarets in its happy proportions. (2) The only minaret which was similar was that of the Murādiya mosque before its demolition and rebuilding in 1319-1321/1901-1903, in the reign of Sultan ʿAbd al-Ḥamīd II.

The previous minaret of the Murādiya mosque might have been built around 978/1570, when the mosque was first built by Murād Pāsha, the vālī of Baghdad.

The minaret of al-ʿAmriya seems more likely to belong to the same period, i.e. the 10th/15th Century, as it seems very difficult to believe that ʿAlāʾ al-Dīn al-Juwainī, who built the minaret of Sūq al-Ghazl, would build such an austere minaret, and even more difficult to believe that he should have repaired such a minaret, had it been there.

Longrigg maintains that Ḥusain Pāsha "The Mad", who was a boon-companion of Sultan Murūd, was known as the founder of the ʿAmriya. (3)

Ḥusain Pāsha reigned for five months only. (4) This would pinpoint the date of the founding (5) (rebuilding) of the mosque, and most probably the erection of the minaret to the middle of the

(1) (النحذة بِيضاء مَنْيَه بالْعَرَبِيّة قَدْيَهَ العَرَبِيّة البَيْنَيّة مَنْيَهْ البَيْنَيّة )

(2) See the minarets in the early miniatures (p. 78).

(3) S. Longrigg, op. cit., p. 81.

(4) Ibid., p. 82.
The use of a transitional zone and of Turkish triangles supports the probability of such a date: (pl. 71). In any case, the minaret has been repaired during the last decade by the Directorate of Antiquities, as appears from the comparison of plate 70 which was taken by the Photographic Department of the S.O. of Antiquities, and plate 71 which was taken in 1969. The head has been repaired, the wall of the had was heightened, the one-tier muqarnas brought to the same level as that of the had, and new tiles put on the outer surface of the had.

From the photograph it seems that on one of the previous repairs of Qā'isha Khātūn and Sā'id Pāsha, the upper cylinder was heightened, as can be noticed from the abrupt break in the continuity of the spirals and the clumsy plain cylinder that intervenes between the head and the original construction of the upper cylinder.

One of the most interesting aspects of its decoration is that no coloured tiles were used on either cylinder, though it might seem the other way round, judging by the empty squares forming the diaper pattern and the spirals. But a closer inspection reveals that the central square of the central cluster of four sunken squares (forming a cross in the centre of each square of the diaper pattern of the lower cylinder) is still in place and on the same level as the surface of the cylinder. This indicates that it must have been from the beginning, as it is now, without tiles; otherwise it would seem unlikely that all the tiles around the central brick squares had fallen except the brick ones, unless the brick squares were embedded deeper in the surface of the cylinder.

(1) The second Ottoman conquest by Sultān Hurūd IV occurred in 1048/1638.
This treatment shows the capability of the "Usta" (master-mason) and his deep knowledge of his materials, as well as his utilisation of shadow for decorative purposes. This was possibly necessitated by the absence of brick-carvers to produce carved incrustations, or of ceramicists to provide coloured kashi-squares, or by economic reasons.

In fact, the period beginning with the flood of 1356 and ending with the capture of Baghdad by Murūd IV in 1638, was full of disasters to the economy of the country. Economic factors led to the creation of the symbolic minaret (al-Manāra al-Ramziya), which is not functional, but used to mark the mosque. Examples are the minaret of the al-`Urbag mosque (pl. 72), and of the mosque of Khidir Beg (pl. 73).

In recent years economic factors have led to the creation of a stunted type of minaret. The circumference was retained to enable the mu`adhchin to ascend to the hawd, whilst their height was drastically reduced. The result is a stout and squat type with a rather unpleasing effect, such as the minaret of the Urfallī mosque (pl. 74), of the Ju`Caifir mosque, and a number of others.

(1) Such as Timur’s conquest in 1393, the reign of the `Aq-Qaysīn ìn Turkmen from 1411, the reign of the "Aq-Qaysīn ìn 1469, the conquest of Shāh Ismā'īl al-Ja'fawī in 1508, the conquest of Sulaimān al-`Anūnī (the Magnificent) in 1534, the second Persian conquest in 1621, the flood of 1633, the plague of 1635, and the second Ottoman conquest in 1638. For details see A. Sūsa, "Atlas Baghdad" (Baghdad 1952) p. 31.

(2) Since the introduction of cement into the building of minarets, a number of minarets have been built with reinforced concrete and faced with brick. Some were also built on top of the mosque portal in such a way that the gate of the mosque is immediately beneath them, such as the Urfallī minaret in plate 74.
The minaret of al-ṢĀquí mosque.

According to al-ʿĀlusi, this is a plain minaret. The only kāshā decoration is one square of square Kufic inscription which reads ʿāshāʾ Allāh ("what God has willed"). fixed to the hand and facing the qibla.

The mosque was built in 728/1327 around the tomb of al-ṢĀquí who was buried in his own house.

The mosque was most probably rebuilt in 1095/1683 by Muhammad Fāsha, and also during the reign of ʿAbd al-ʿĀshā (from 1163/1749 to 1175/1761). Another restoration was carried out by Qamar Fāsha, the sāli of Baghdad from 1177/1763 to 1186/1772. The last Ottoman restoration was carried out in 1320/1902.

No reference to the date of the minaret could be found. But al-ʿĀzawī claims that it was built in 797/1394 on the grounds that it resembles (in shape and style) the minaret of al-madrassa al-Marjāniya, which was built in 758/1357.

In the light of the numerous restorations previously mentioned it would be very difficult to agree with al-ʿĀzawī's assumption, especially as two more Iraqi minarets are known of the same style and characteristics as al-Marjāniya minaret and that of al-ṢĀquí: namely, the minaret of al-Ṣāli al-Sinā mosque (pl. 75) and the minaret of the Great Mosque in Sulaimāniya (pl. 76).

---

(2) Al-ʿĀlusi calls it a white minaret.
(3) Al-Shaikh Jamāl al-Dīn ibn ʿAbd Allāh ibn Muḥammad ibn ʿAlī al-Ṣāquī, muṣarrī al-Mustanṣūriyya (ibid.).
(4) Referred to as a statesman the State (ibid.).
(5) These dates are taken from al-ʿĀlusi, who seems to have... gathered them from inscriptions on the walls of the mosque (ibid.).
(6) Al-ʿĀzawī, Tarīkh al-ʿIraq, ibid.
(7) The mosque was demolished in 1958, as it fell within the planned course of a new street cutting through the old side of al-Ripāfa from North to South. The actual remains of the minaret were bought by Rifʿāt al-Chādirī, a Baghdad architect.
(8) The evanishment of this minaret have been plastered over and the missing head was reconstructed with sheets of tarpaulin, most probably due to the discontinuation of the use of brick as a building material in this area.
The most distinctive characteristic which they share is the type of muqarnāsāt which is more akin to straightforward corbelling than to conventional muqarnasāt. It consists of a series of saw-toothed mouldings corbelled over each other.

This method is not limited to those minarets, nor is it only used for balconies, as it has been used for a transitional zone between the lower cylinder and the rectangular base of the existing minaret of al-Kurādiya mosque after its last restoration, which was carried out by the D.G. of Awqaf, Baghdad, sometime during the first quarter of this century.

The keel-domed head has been replaced by a fluted head, most probably during the last Ottoman restoration. (see pls. 77 and 78).

It is worth mentioning that the upper sikka of the lower cylinder is missing from the present minaret. This is fair evidence that a major restoration has taken place of that part of the minaret, and that the mason has neglected a basic constructional requirement of his art. All the three other minarets have sikkas below their muqarnāsāt (pls. 75, 76 and 81) and so indeed do all other Iraqi minarets considered here, even those which are largely or completely decorated with kāshī, where the upper sikka is always behind a band of inscription or design.

This suggests that the sikka is the source from which the decorative hizān belts and bands of inscriptions were evolved, and is also the reason for their actual location on the minaret.

(1) The Kurādiya mosque was demolished completely in 1319/1901 and was rebuilt and completed in 1321/1903. Since then the minaret has undergone another major repair, as one can see from the two photographs (pls. 79 and 80). The change occurs on the upper cylinder (shortened by a third of its original length), the muqarnāsāt, the decorative band which is situated below the muqarnāsāt, and the transitional zone.
The minaret of al-Madrassa al-Harisiyya

The madrasa was completed in 758/1357 for al-Xawāja Amīn al-Dīn al-Marjān, the governor of Baghdad.

There is no mention of repairs or of the rebuilding of the madrasa or its minaret in the available sources until 1200/1758, when Sulaymān ʿAṣāf repaired the mosque of the madrasa. (1) Further repairs of the madrasa were carried out in 1345/1926 by the Ministry of al-ʿAwāf during the office of its minister Amīn ʿAlī al-Bāsh-ʿAṣāf al-ʿAbbāsī. (2)

In the years preceding World War II, a large section of the madrasa and the mosque, including the fluted drum and the dome above it, were demolished in order to straighten the course of al-Rashīd Street.

No record of the minaret being rebuilt or restored could be found, but an old photograph (pl. 81) surprisingly shows the minaret in an excellent state of preservation, in comparison with the portal, which one would expect to be better preserved.

This suggests that the minaret might have been restored more often or—most probably—was rebuilt (keeping, as was normal, to its former state).

---

(1) Al-ʿAẓzāwī, Tārīkh al-ʿIrāq, II, pp. 84 and 93
(2) Al-ʿAthīrī, apud al-ʿAlūsī op. cit., p.

It seems that Amīn ʿAlī was very active as a patron of architecture. During his office a good number of mosques were restored, rebuilt, or altered. For further details of this activity see Al-ʿAthīrī, op. cit.
The minaret of al-Gailānī mosque (al-Manāra al-Naqībiya) (1)

This is one of the very few dated minarets in Iraq. (2)

The inscription containing the date is carved on three square bricks and fixed to its octagonal kūrūrī facing the qibla (pl. 82). Though the part of the text on the first brick does not run smoothly with the rest, the date is very clear. It is 1st Muharram 941/1438. This is contrary to all the later sources which date the minaret and the dome of the shrine to 941/1534. (3) The earlier sources do not, however, mention the minaret.

Al-ʿazzāwī quotes the Sulaimān-nāma as follows (4): "The Sūltān (Sulaiman) saw that the shrine of al-ḥaikh ʿAbd al-ʿādir had weakened and fallen into ruins, so he ordered that a high dome should be erected for it (on it), and a house for hospitality (charity) ...". Al-ʿazzāwī goes on to say: "there is no doubt that the Jamīʿ existed in the days of the Sūltān Sulaimān al-ʿĀṣūnī; its white minaret is a proof of that." But he does not give the reason for his belief that the white minaret or the mosque (other than the shrine) were there.

Evliya Çelebi (5) mentions the dome being erected by Sulaimān, a mosque, a takiya, and a building (probably the almshouse), but there is no mention of a minaret.

(1) Relating the minaret to the Naqībs of Baghdad, who are the descendants of al-Shaikh ʿAbd al-ʿādir al-Gailānī and the custodians of the mosque and its Waqf. Naqībat ishrāf Baghdād was in the Gailānī family from 941/1534 until 1300/1980 when it was unofficially discontinued after the death of the last Naqīb, al-Sayyid Ibrāhīm Ġaʿif al-Dīn ibn al-Sayyid Muḥammad al-Gailānī.

(2) The Arabic text is:

"شكر الله سبحانه وتعالى لذروره ذو القدر من سعورها" وذكرل في غرة قوم الراهم من سنه تسعين أربعون.

(3) Al-ʿazzāwī Ṭarīkh al-ʿIraq IV, p. 32.
(5) Evliya Çelebi, and al-ʿazzāwī, "Ṭarīkh al-ʿIraq" IV, p. 32.
Al-Churābī in his history, speaking of the mosque, states that "in 561 al-Shaikh (GAbd al-ʿĀdir) al-Jālī died and was buried in his madrasa in Baghdad, and a mīl (a conical dome) was built over his grave. When al-Sulṭān Sulaymān came to Baghdad, (he) demolished the mīl, and built a high dome over it (the grave)." At any rate the date proves that a mosque existed before the first Ottoman conquest of 941/1534. This mosque had a minaret, which was built by one of the custodians of the shrine and mosque.

It seems that most of the minarets which are dated (whether by a historical inscription or by a date contained in poetry) are later additions to old mosques, or replicas of older minarets.

Judging by the numerous repairs carried out on the Gailānī mosque at various times, whether because of the passage of time, or of the two Persian occupations of Baghdad, this minaret also probably underwent a number of repairs. The most important of these must have happened after 1317/1899, and before the First World War, most probably between 1318/1900 and 1322/1904. Extensive repairs took place at the shrine and at the great dome of al-Muṣallā al-Ḥanafī.

After these repairs the minaret's height was increased considerably and the muqarnāsāt were changed completely, as can be seen by comparing pl. 83 and pl. 84. But the style of the minaret was not changed at all. On the contrary, steps were taken to preserve

---

(1) A manuscript in the library of the Iraq Museum (p. 129).
(2) The erection of the dome of the shrine in 941/1534.
The repairs of Sulṭān Murād in 1169/1755.
The covering of the shrine dome with kashī 1169/1755.
The renovation of the dome of the shrine in 1281/1864.
" " " " " " " " 1318/1900.
" " repairs of the same dome, the covering of the tomb with silver, and the building of the storey of upper rooms around the sahn in 1322/1904.
the proportions of the old minaret by increasing the length of the upper cylinder by seven courses of bricks. This can easily be seen in the photograph (pl. 85 ). The taller upper cylinder corrected the loss of height, or rather imbalance of proportions, caused by the renovation of the muqarnasāt and the balcony, and the consequent shortening of the upper cylinder.

The deepening of the muqarnasāt and the heightening of the upper cylinder seems to have improved the minaret aesthetically. It became more monumental and more impressive. Thus the style has been enhanced through an evolutionary process. (1)

None of the decorative elements were changed during the process, not even the decoration of the head, which must have been pulled down completely in order to heighten the cylinder. It is very likely that the kāshī tiles were carefully removed and re-used, or perhaps they were reproduced after the same design.

The only change (other than in the muqarnasāt) in the square Kufic inscriptions inside the stars surrounding the hawd. On the old hawd there were two alternating phrases : "Ya Allāh " and "Ya Muhammad". On the later hawd, two more phrases were inserted; they are : "Ya Rāshīd" and "Ya Salām". This could have happened during the restoration of 1355/1936, which was dated, and the date was depicted in one of the west-facing stars of the hawd until 1965, when another major restoration took place. At that time the whole

(1) The tendency to increase the height of minarets and mosques in order to improve on previous achievements can be felt all the time; but one should not assume that this has led ultimately to the development of the "Elegant Minaret" style exemplified by the minarets of al-Ahmadiya, al-Adiliya, al-ʻAzamiya, Sirāj al-Dīn, and the like.
outer surface was removed from the top to the base, including the band and the muqarnas. All the decoration of the lower cylinder and the inscription on the pendentives of the lower door (1) (dating back, most probably, to 924/1428) were lost with the rubble.

The old decoration consisted of two elements:

a). A band of diagonal squares in low relief; at the centre of each square is another square carved with intersecting diameters in relief. These diameters are flush with the outer square. The spaces between these diameters form four sunken triangles around its centre. (2) This band is bordered by two bands of turquoise coloured kāshī (one on each side) and these are bordered by two cikkas, creating a fairly wide band.

b). A band of navy blue kāshī surmounted by one band of the so-called zigzag band motif rendered in kāshī squares. It is very difficult to explain the sudden interruption of the pattern and its abandonment. But one can assume that it might have been caused by another restoration in 941/1534, together perhaps with Sultan Sulaimān al-Gānūnī's restoration.

(1) The text was: "Allah" on the right side facing the entrance and "akbar" on the left; the type of the calligraphy is the same as that of the historical inscription on the kūfī.

(2) This method is widely used in backgrounds of carved calligraphy in order to deepen the shadows and to enhance the inscription.
The minaret of the Ḫāmīs al-Naḥāṣīya

The mosque was built in 1180/1772 (1) by a lady named al-
Ḥājja Fatima bint al-Sayyid Baktash ibn al-Sayyid al-Salī. She
appointed her husband al-Hājj Nuṣār Aghā ibn al-Hājj Ibrahim
Aghā Al-Pāchachī as a custodian, and when he died he was buried
in the mosque. (2)

No mention could be found regarding the building of the minaret
nor of any previous restoration of it. This may suggest that it was
erected when the mosque was first built. An inscription on the right
side of the door to the prayer hall facing the entrance reads "Jadda-
dahū Ḳabd al-Ḥamid 1338" (1919). (3)

Since 1945 the minaret has been restored twice, and it was in
need of a third restoration in 1970.

The restorations did not alter the design nor the shape of the
head in any way, except in one minute detail of colour distribution.
This occurs along the lower curve of the head, where the decorative
motif is composed of three adjacent triangles, the central one of
which is topped by a diagonally positioned square. (4) Only the
central triangle and the diagonal square above it were coloured
originally with turquoise kāshī; the other two triangles were
coloured with white kāshī. (Fig. 15 & cp. pl.86) After the
last restoration the other two triangles were also coloured.

The Decoration

At first glance the decoration of the head seems to be a
reticulated pattern of concentric squares, but a closer look reveals
that it consists of a reciprocal so-called "zigzag band." (5) with

(1) Al-Alūsī (op. cit.) states that he saw the waqfiya of the
mosque which was dated in 1180/1772.
(2) Al-Alūsī op. cit.
(3) This renovation took place after the occupation of Baghdad by
the British during the First World War, so it should not be
assumed that the renovation was carried out during the reign
of Sultan ʿAbd al-Ḥamīd II, as the inscription might suggest.
(4) This motif will be referred to as the squared-rectilinear
cloud band.
(5) This motif will be referred to as the squared-rectilinear
reciprocal cloud band.
Fig. 15:

A. Reconstruction of the design decorating the head of the minaret of the Na'maniya mosque before the last restoration.

B. The same design after the last restoration.
concentric squares used as a "filler motif" to occupy the spaces within the angular folds of the band. Fig. 15 shows the diagonal lines of black squares of \( \text{kāshi} \) forming the reciprocal open squares.

The resulting triangular spaces situated between the rim of the head and the lower row of open squares are filled with the motif described above.

The uppermost band of the upper cylinder consists of a chain of horizontally linked " \( \mathcal{C} \) " patterns in white \( \text{kāshi} \) on a black background, which makes it difficult to recognize, followed by a band of square Kufic.\(^{(1)}\) The rest of the cylinder's surface is divided into four spirals rising towards the left. Each spiral contains the "Kalimat al-Tawād" in slanted square Kufic.

The wall of the \( \text{hawd} \) is decorated with a band of \( \text{zahrat al-murabba}^{c} \) (eight-pointed stars); the borders of this band are made up of a motif composed of three adjacent triangles separated by smaller ones at regular distances. The resulting spaces between the borders, and the outlines of the stars, are filled with squared-rectilinear cloud bands with the central triangle enlarged.

The design of the two-tier \( \text{muqarnas} \) consists of a checkerboard pattern in coloured squares of \( \text{kāshi} \).

The upper part of the lower cylinder is surrounded by three successive bands, immediately below the \( \text{muqarnas} \).

The uppermost band consists of oblong units, apparently strips from a diaper pattern, with inverted triangles of coloured \( \text{kāshi} \). The arrangement of the design causes the exposed part of the background to take the shape of a horizontal zigzag band interrupted by vertical lines at equal distances.

\(^{(1)}\) The square Kufic text is: \“Allahu akbar. Lā Ilaha illā Allāh wa Allāhu akbar, wa li'llāh al-ḥamdi.\"
The middle band consists of a reciprocal "T" pattern. Each unit in this consists of two elements: a stretcher and a header, either of brick or of kāšī. The length of the stretcher is three times the width of the header which is placed under the middle part of the stretcher to form the vertical part of a rather squat letter "T" (fig. 16 A).

The lower band consists of a chain of interlocking devices resembling a rectangular letter "Y," laid horizontally as in fig. 16 G.

The main part of the lower cylinder is decorated with a wide band of a diagonal pattern based on the "T" motif in double outline. Each of the horizontal arms of the "T" has a pendant projection half-way along its length. The whole unit vaguely resembles a scarecrow. Half the number of these units are rendered in turquoise kāšī, and the other half in black kāšī. They alternate and reciprocate with each other (pl. 86 and fig. 17) around the cylinder.

The flattening and reconstruction of the pattern (fig. 18) reveals the complexity of the decorative units to the full. It shows that the perpendicular shaft of the "T" ends in a similar horizontal device, making the top a mirror image of the bottom. At each corner the voids of the pattern form a swastika in double outline. The voids connect the swastikas with each other both within the group and with the swastikas of the neighbouring groups. The directions of the swastikas alternate, so that if one swastika is clockwise, the other one is anticlockwise.

Although a version of this interlocked "T" pattern was used in Islamic metalwork from the 11th century, the swastikas thus
Fig. 16: Geometrical narrow bands of some Iraqi minarets.
Fig. 17: The pattern decorating the lower cylinder of the minaret of the Na'maniya mosque.

Fig. 18: Reconstruction of the all-over pattern decorating the lower cylinder of the minaret of the Na'maniya mosque.
created were in single outline only. On the Naṣrāniya minaret the background of the pattern is more fully utilised. The significance of the interlocked " T " pattern springs from its being a device which when used in a certain manner will produce swastika patterns. That is why a " T " pattern is not found used separately (unlike the swastika). This fact has apparently been overlooked hitherto partly because on metalwork the pattern occurs in small fragments or rendered so densely that the right angles of the swastikas become rounded corners (pl. 87). This makes it difficult to recognise the swastika pattern which is the main motif.

The same conclusion is applicable to the so-called "charqāt" of the minaret of Jāq al-Ghazl, which is composed of four " T " devices arranged around a square (fig. 19).

The interlocked " T " pattern is in fact a complex decorative device composed of four basic " T " units, symmetrically arranged on both sides of a connecting shaft. There are other combinations of the basic " T " to suit other variations of the swastika pattern. They include:

a) The reciprocal pair of basic " T "s (fig. 20 A).
b) The twisted adjoining pair of basic " T "s (fig. 20 B.), which are partially overlapping.
c) The rectangularly joined pair of basic " T "s (fig. 20 C).
d) The pair of basic " T "s joined at an obtuse angle (fig. 20 D).

These combinations occur in two main categories which are:

1. A Rectangular category, such as in fig. 20 A, B, C, and D.
2. A Slanted category, to which almost all the previously mentioned shapes could be subjected, such as fig. 8 a and b of the minaret of Arbīl.

The rendering of the " T " elements in two different colours has confused its identification, as half of the elements were obscured, whilst the other half were considerably enhanced.
Fig. 19: Analytical drawing of the design of the minaret of Suq al-Ghazl.
Fig. 20: The various forms of the 'basic T' device in Islamic ornament.

A.

B.

C.

D.

AA.

BB.

CC.

DD.
The minaret of Jamc Hussain Pasha.

In 1085/1674, Iwâd Aghâ the Katkuda of Hussain Pasha (1) built this mosque around the tomb (marqad) of al-Shaikh Ibrahim al-Fadl, and provided all that was necessary for the mosque.

It seems that Husain Pasha believed allegations that his Katkuda had embezzled the money with which the mosque was built (2) and so he dismissed him from his post, and imprisoned and tortured him. His property was confiscated, and he was deported to Bagra. That is why the mosque was called after Husain Pasha and not after its builder (3).

Perhaps a minaret was built on the same spot as the present minaret.

In 1967, repairs were carried out on the minaret. The keel-shaped dome of the head was replaced by a clumsy fluted head (4) and the wall of the head was also replaced. The rest of the minaret was not altered, except for the row of pointed arches (decorated with a realistic floral motif) immediately below the lobes of the head, and the lowermost part of the minaret (below the bottom band of decoration) where modern brick can clearly be seen.

The Decoration:

The design of the old head was very similar to the designs of the minaret heads of the Shaikh Makruf, and Fadl mosques (see plates 67 and 89).

The upper band of the upper cylinder is a chain of the so-called "S" pattern, rendered in turquoise kâshî on a white background.

---

(1) Husain Pasha al-Silahdar, was wall of Baghdad from 1082/1671 to 1085/1674 (al-"Azawi, Tarikh al-"Iraq V, p. 108).

(2) Ibid., p. 109.

(3) Ibid., p. 109: Nazmi Zada, Tarikh Gulshin Khulna (Constantinople, 1730) is his source.

(4) The author saw the minaret before the repairs.
The main body of the cylinder is covered by an all-over pattern composed of linked squares in a slanting position on the surface of the cylinder. The resulting spaces within the pattern are waisted lozenges alternating with squares.

The lozenges have a filler motif consisting of two joined superposed squares. These are rendered in turquoise kāshī, whilst the rest of the pattern is in black kāshī.

The decoration of the band consists of two narrow bands of chevrons, enclosing a wider band of eight-pointed stars. Each of the stars contains a filler motif composed of a central octagon, surrounded by eight qundaqa, or "trunja". (1)

The direction of the upper band of chevrons is to the right whilst the lower points to the left.

The muqarnasāt consist of two tiers of arches, decorated with fragments of a diaper pattern and zigzag lines, followed below by a row of flattened niches filled with segments of a diaper pattern similar to that of the muqarnasāt. A strip of the zigzag band pattern enclosed by two rounded kāshī bands in relief separates this from the main decoration of the lower cylinder. This consists of an all-over pattern composed of zigzag lozenges. (2) (pl. 88, and , fig. 22 ). The central space of each lozenge is filled with the word "Ilāh" in square Kufic whilst the other two spaces are filled with small squares.

The pattern is in double outline. The Kufic words and the small squares are in single outline.

(1) Trunja is a word of Persian origin, meaning a kind of citron.
(2) For this term, see W. Willetts, Chinese Art (Harmondsworth, 1958) I, pp. 257, 259 and 260.
Fig. 21: Reproduction of the design decorating the parapet of the minaret of the Khaeffafin mosque.
Fig. 22: Sections from all-over patterns of zig-zag lozenges decorating Iraqi minarets.

A. From the lower cylinder of the minaret of Husain Pasha's mosque.
B. From the upper cylinder of the minaret of Hannan's mosque.
Another band of the "S" pattern (in black kāshī on a brick background) forms the lower border of the main pattern. This band is also bordered by two rounded bands, but only the upper one is of kāshī; the other is of brick.

This minaret resembles the minaret of al-Naṣrāniya mosque to such an extent that one should perhaps assign them to the same period.
The minaret of Jāmīʿ al-Fāḍl

Information about this mosque is very meagre indeed. No historical inscriptions could be found anywhere within it to fix the date of erection or repairs. (1) All that is known about the mosque is that it was in a state of dilapidation during Sulaimān Fāsha's reign, and that it was renewed by him in 1210/1795. (2)

If this minaret was built by Sulaimān Fāsha, then it would be one of two (3) surviving examples of the minarets belonging to that period which has retained its keel-dome head. The minaret of the ʿaplanīya mosque (4) and that of the ʿazīr mosque (5) had unfluted domes in c.1895 (pl. 90) which the present minarets no longer have.

The minarets of this period (except that of the kawwāz mosque), such as the previously mentioned minarets of the ʿazīr and ʿaplanīya mosques, show marked heightening of their upper cylinders. This is most probably due to the influence of the style of "the elegant Minaret," which seems to appear only in minarets built well within the Ottoman era i.e. before c.1190.

It seems that the minarets of the Intermediate Style were first influenced by the extensive use of kāshā in the New Style (6) and then by the height of the upper cylinders of minarets in the New Style, as one can see in the cases of the minarets of the Fāḍl, ʿazīr, and ʿaplanīya mosques.

(1) Al-Ḥusain, op. cit., p. 57.
(2) Ibid.
(3) Other than the minaret of the kawwāz mosque in Basra, which was built in 1278/1861; See plate 99.
(4) First built in 1205/1790.
(5) First built in 1003/1599.
(6) As in the cases of the minarets of Ḥamāniya and Yūsīn Fāsha mosques and probably of the Ḥamāniya mosque; these raised and carved designs in plain brick seem to have had little influence.
The abandonment of the Abbasid style seems to have gone through three stages:

1. The introduction of kāshī patterns in an extensive way.
2. The heightening of the upper cylinder.
3. The abandoning of the plain unfluted dome of the head.

The changing of existing unfluted domes to fluted ones (a tendency which has persisted till the present day (1)), led to the complete decline of the Intermediate Style.

The Decoration:

The decoration of the head is identical with that of the minaret of Nāṣrūf al-Karkhī, and of Ḫusayn al-Ṯāna (before its last restoration). It consists of a diaper pattern of concentric squares, followed by a band of "S" pattern in white on a black background. This separates the head from the main decoration of the upper cylinder, which is made up of spiralling strips of square Kufic.

The decoration of the head is a band of the by now traditional zahrat al-murabba', containing the phrases: Ṭā Allah and Ṭā alḥāmad in square Kufic, bordered by two bands of chevrons.

The muqarnāsāt are composed of two tiers of niches.

A band of what looks like two rows of reciprocating triangles separated by a zigzag line, which is most probably a strip of a diaper pattern of squares, separates the muqarnāsāt from the upper register.(2)

(1) The last minaret which was subjected to this treatment was the minaret of al-Shaikh Nāṣrūf al-Karkhī in 1968.

(2) This register became a fixed feature of the minarets of later date, and contained either the bismillah and the āyat al-ḥādith (Haǧrūn minAllah wa fathun qarib), which means "Victory is from God and conquest is near" or the āyat al-fath (Innā tatānā laka fathān rubāna), which means "We have achieved a signal conquest for you."

For these inscriptions a special type of what may be called Stepped Kufic was used; it occurs in the inscriptions of the minarets of the following mosques: al-Haidar Khānā (pls. 92 and 93 ), al-Ṭāfīya (pl. 94 ), al-Ṭāyīyīd Sulṭan ʿAlī (pl. 95 ), al-Shaikh ʿUmar (pl. 96 ), and al-Ḫawīl (pl. 97 ). It should be noted that the same hand is depicted in the miniatures of the kadāmat al-ʿarīfī (see pl. 98).
This register is composed of two rounded bands of kāshī enclosing two bands using the motif of a rectangular "Y". These bands in their turn enclose a band of arabesque decoration.

The main decoration of the lower cylinder consists of an all-over pattern composed of closely placed horizontal zigzag bands with squared loops at each angle of the zigzag. The squared loops are filled with coloured kāshī. White kāshī is used for the upper loops, and turquoise for the lower ones. This is all followed by another register similar to the upper one but with minor differences; e.g. the colour of the "S" band is black on a brick background, and the rectangular "Y" patterns both run in the same direction. This is followed by an architectural zone of transition from the cylinder to the octagon of the kūrsī. This is achieved by means of "Turkish triangles" (1) reaching from the sides of the rectilinear figure (whether it is octagon, hexagon, or a square) to the circumference of the base of the cylinder, and resulting in other triangles reaching in the opposite direction. The bases of some of the triangles are rounded, as they are formed by segments of the circumference, and their surfaces are moulded into slight curves. This technique is at its clearest when the transition is from a square (such as plate 91 which shows the transition zone of the present minaret of ʿAbbās Afandī's mosque) and especially at the corners, and consequently less clear when the transition is from a hexagon or an octagon such as in plate 92 of the minaret of the Haidar Khāna mosque.

The minaret of Jāmiʿ al-Jawzāʾ at Bāṣra

According to Cābū al-ʿĀṣir Bāshayān this mosque was built for al-ʿĀṣir Muḥammad Āthār al-Jawzāʾ (Shaikh al-Tāriqa al-Hashshaliyya) by the Bāshayān family, who were followers of the “Tariqa”, but he does not give an exact date. It can be assumed that the mosque was built before 1861, i.e. before the minaret was built.

A historical poem dates the completion of the minaret to 1278/1861, in the usual “Risāb al-Jumāl” method. (1)

This minaret is remarkable in many ways. First, it is the last minaret retaining the characteristics of the Ṣabbāṣid Style, such as the shape of the head and the proportions of its cylinder.

Second, it has retained the multi-band system of decoration of the lower cylinder. Third, and this is the most important feature, it has an octagonal band which is the only one of its kind in the country. (2)

The proportions of this minaret are almost identical with those of the minarets of Ṣuq al-Ghazl and al-Muḥāsin. Its muqarnas is unique and impressive, giving the minaret a feeling of loftiness, monumentality, and grandeur, matched only by the minaret of Ṣuq al-Ghazl.

(1) Cābū al-ʿĀṣir Bāshayān, Al-Bāṣra Fi Adwarathal-Taʾrīkhīyā (Baghdād, n.d.)
(2) The last sentence of the last line containing the date is:
   (عَمَّر اللَّهُ سَناَهَا بِأَيَّامِ دَايَ) which means: "May God prolong her brilliance with adhān" (Cāmara Allāh u ʿamāh bīʿ Adhān).
(3) Not taking into consideration the kursi of the minaret of Ṣuq al-Ghazl.
The Decoration:

It is difficult to discern the designs on the head of the minaret from the available photographs, but the rest of the designs are fairly clear.

The upper cylinder has an upper band of the familiar motif of a triangle surmounted by a square reciprocating with a similar motif, but leaving a part of the background visible to form a kind of rectilinear scroll. This is followed by the main motif of the upper cylinder, which consists of a succession of zigzag bands surrounding the cylinder.

The muqarnāšīt are decorated with kāshī squares placed aslant. A band of rectangular pattern separates the muqarnāšīt from the band of inscription, of which only very few pieces of kāshī are left.

The decoration of the lower cylinder underneath the band of inscription consists of three wide bands: the upper is composed of a strip of large concentric squares executed in one-level ḫašīrā as well as in coloured kāshī. The ḫašīrā is made of stretchers, the double lines that articulate the ḫašīrā are made of headers. This band is separated from the second wide band by a rounded brick border.

The second band is twice as wide as the first band. It is enclosed by two rounded brick borders followed by two narrow bands of reciprocal triangles surmounted by squares. The decoration of this band consists of a succession of broad zigzag bands, widely spaced. The intervening spaces are filled with a large inscription in downward-slanted square Kufic which reads: Allahū Akbar ("God is most great"). The squared words are made to fit into the corners of the zigzag (pl. 99 and fig. 23). This is very similar to the decoration of the upper cylinder of the minaret of the Jāmiʿ al-ʿAṣamīya (pl. 100 and fig. 24) except that the corners of the zigzag of the latter
Fig. 23:

A. Analytical drawing of the square Kufic inscription on the lower cylinder of the minaret of the Kawāz mosque at Basra.

B. Reproduction of the square Kufic inscription as it appears on the minaret.
Fig. 24:

A. Reproduction of square Kufic inscription on the upper cylinder of the minaret of the Atamiya mosque.
B. Reconstruction of A.
have squared loops, and the lines are executed in *murabba*cāt.

Another band of a rather unusual type, beneath the lower rounded band, is composed of a reciprocal motif which looks like out-stretched wings. A closer look reveals that these motifs are halves of the complex "T" pattern notched at the middle of its horizontal bar, in double outline.

The design of the third wide band also appears to be a part of an all-over pattern composed of a succession of broad zigzag bands made of stretcher. Each corner of the zigzag is surmounted by a partially squared loop i.e. the two sides of the square which are connected to the corner of the zigzag are replaced by a calyx, the lips of which meet the other two sides a third of the way up the side from the original corner of the square, leaving the ends of those sides loose. This gives it the appearance of a slightly geometric fleur-de-lis.

In principle this design is a variation of the design on the lower cylinder of the minaret of the mosques of al-Faḍl, al-ʿaplāniya, al-Ăhmadiya, and al-Gailānī. The oldest example of this design can be seen on the outer western wall of al-Ăustangiriya (see pl. 101).

From this study one can reach the following conclusions:

a - The architectural characteristics of the Abbasid style in Iraq (1) have survived until the 20th century without major changes; the minaret of the ʿAywāğiya mosque (previously called ʿAbd al-Ilāh mosque) of plate 102 is a clear example.

b - Any of the decorative schemes and designs were continued until the second half of the 20th century also. This may be attributed to the following factors:

1 - The frequency with which restoration and rebuilding of mosques and minarets was carried out, owing to the nature of the building

(1) See Appendix V.
materials and natural conditions in the midlands and the south of Iraq.

Most of the minarets in Iraq gradually develop a list towards the east and the south-east after a while. This is probably due to the heavy easterly rain-storms (known as sharīf) which soak the eastern side of the minaret from head to base followed by the prolonged steady pressure of the westerly wind (known as gharbī) on the other side. This causes the western side to dry readily, whilst the eastern side (especially its mortar) stays saturated and consequently yields to the sustained pressure, thus bringing about the dilapidation and crumbling of the surface of the eastern side as well as the gradual leaning of the minaret over the years.

There are numerous examples of this phenomenon such as the minaret of Dhu'l-Kifl (pl. 56), and the minaret of Sūq al-Ghazl (pl. 46).

2 - The use of the ȡmār (1) which is a long roll of thick paper, used by the master-masons of Iraq (and no doubt it was used by all the master-masons of the Islamic world) as an album containing their decorative patterns.

(1) ȡmār is most probably a corruption of the word ȡmār, which is a particular width of paper in the form of a roll. It was known during the Caliphate of ȫmār II and probably earlier. A calligraphic hand was evolved to suit its width which was named qalam al-ȡmār. It was reserved for the use of the Caliph and the writing of monograms on decrees and their official correspondence. The word ȡmār in Persian also means scroll or a roll. ȡmār means volute, and tūmār means voluted. (S. Haim, The Shorter Persian-English Dictionary, Tehran 1958, p. 477). A number of ȡmārs were made; they varied in width. There is the Baghdādī ȡmār which is: one Egyptian dhīrū wide, the Ṣūdānī ȡmār which is narrower than the Baghdādī, and the Shāmī ȡmār which is even less wide. Other ȡmārs such as the Egyptian and the Ṣaghrī are even narrower. A number of hands were evolved from the ȡmār hand such as the muktāṣar al-ȡmār, al-thulāth, al-thulāthain, and al-nilf which are named according to the relation between their width and the width of the ȡmār.
Timurrs are very difficult to come by, as they are jealously guarded and only handed down from father to son, or within the same family.

The roll consists normally of a number of oblong pieces pasted together. Each piece contains one quarter (called rubu) of a design drawn with the point of the compass (i.e. incised lines only) without any kind of colour, in order to baffle the uninitiated (plls. 103 & 104). The same method is used for drawing the plans of mugarnasat.

This method must have been the most effective and most direct means of spreading decorative motifs and designs throughout the Islamic world.

Rempel has published four sections (quarter-design) from such scrolls (plls. 103 & 104) in his work on the architectural ornament of Uzbekistan. He refers to them as svitok. They are identical in every way with Iraqī-rūrs.

c - A new architectural style was introduced during the Ottoman period, which co-existed with the intermediate style at first, and later gained dominance over it.

which equals the width of 24 hairs of barthūn (horse or mule), and accordingly the width of khattāl-nisf is twelve hairs, al-thulth eight hairs, and al-thulthain eighteen hairs of barthūn. N. Zain al-Dīn, "Mujawwar al-Khaṭṭāl-Gārābī" (Baghdad, 1963) p. 367; al-Qalqashandi, rubb al-ʿāsha (Cairo 1914) III, pp. 47-9.

(1) L.I. Rempel, "Arkhibekturm Ornament Uzbekistana" (Tashkent, 1961), fig. 1 on p. 399 and figs 1, 3, on p. 401 and fig. 1 on p. 402.
APPENDIX IV

Both restorations of the 'amariya mosque were commemorated by poems. On the first occasion the poem was composed by al-shaikh 'Abd al-Rahman al-Juwaidl. It reads:

( وعائشة العميري قمرت
( ولا تزوجت به من فجر اليماء
( سماح ريم شراباً طهراً)

The second occasion was commemorated by another poet with the following poem:

( ولا ألم بنياً ببرد بنغسج
( فما ضربا برمبا عرصا تبه
( وصارت حضباًgetStatus) التجارة
( برص لى الأهرام ولقن فنسل
( تراء سليمان الوزير الهمذن
( حياة سمير اسمه الله نهر
( ومن هنا فيه باحسن سير
( إلى أن أتم الفنون وعطاء

The dates are included in the underlined sentences, using "Hisab al-Jumal." The date is normally contained in a verse preceded by a word derived from the root "arrakha." The poems are published by al-Alusi, op. cit., p. 114.
The spread of the Shi'a in Iran during the reign of the Safavids (1502-1722) prompted the abandonment of the Jum'a prayers, and consequently the abandonment of building congregational mosques, and minarets. Husainiyas were built instead. These are a form of small building consecrated for public lamentations, elegies, and processions during the month of Muharram, to commemorate the martyrdom of the Imam al-Hasan Ibn 'Ali and his family at Karbalah.

These buildings normally contain a small room for prayers (performed by individuals without the leadership of an imam) referred to as a masjid. Even in the deserted great jami's, and madrasas of pre-Safavid Iran one can find such small rooms set aside as masjida today, such as the Chahar-Bagh madrasa of Isfahan.

Shi'a scholars propagated the abandonment of the Jum'a prayers on the basis that they are not valid unless conducted by al-Imam al-aql (i.e. the Legitimate Imam), such as al-Mahdi, and, as long as he is absent, no Jum'a can be performed.

In 1969, al-Shaikh Muhammad al-Khaliqi, a prominent Shi'i scholar of Iraq, published his book "Al-Jum'a" in which he denounced the abandonment of the Jum'a prayers and proved its obligatory nature according to numerous citations from important Shi'a sources (op. cit., pp. 22, 23). He actually conducted Jum'a prayers at the Karbimain mosque, and most probably he has continued doing so.

Hence it can be concluded that the evolution of the round minaret was limited to Iraq during the period concerned and onwards to the present day.

It is interesting to note that the great majority of the terms used in architecture and decoration in Iraq are Persian such as aspar, chuaba, kaluk, kashna, char-lang, se-karun, naja, and shaha; similarly the names of the tools. This is by no means limited to architecture but extends to all the other crafts as well. A good number of Turkish terms appear among the technical terms in Iraq today.

APPENDIX-V
Pl. 62: The minaret of masjid al-Ḥadā'ir (better known as the al-Khaffā'īn mosque), believed to have been built in 599/1202.

Iraqi D.G.A.

Pl. 63: The minaret of masjid al-Ḥadā'ir after the last restoration.
Pl. 64: The old minaret of the al-Gailānī mosque (better known as al-manāra al-Naqībiya).
904/1498.
Pl. 65: The mosque of Shikh Ma'ṣūf al Karkhī, Baghdad.

After Von Oppenheim photographed 1899-1900.

Pl. 66: The dating inscription of the minaret of Shikh Ma'ṣūf al Karkhī. Iraqi D.G.A.
Pl. 67: The minaret of Shaikh Maqrûz al-Kakhî before the restoration of 1970.
Fl. 68: The muqarnas of the minaret of Shaikh Ma‘ruf al-Karkhī.
Fl. 69: Poem on the Qamariya mosque, dating the restoration of G' isha Khutun. 1176/1762.

Irqi D.C.A.
Pl. 70: The minaret of the Qamariya mosque, Baghdad. First built 1229, rebuilt 1704. Iraqi D.G.A.

Pl. 71: The minaret of the Qamariya mosque, Baghdad, after the last restoration.
Pl. 72: The minaret of the al-'Aybag mosque (in foreground), Baghdad, 1252/1836, and the old minaret of the Muradiya mosque (within the circle), Baghdad.

978/1570.
Pl. 73: The minaret of Khidir Beg mosque, Baghdad.
1363/1943.
Pl. 74: The minaret of the UrfaI mosque,
Baghdad, c. 1950.
Pl. 75: The old minaret of the mosque of Ṣalīm Afendi, Baghdad. Probably 18th Century. Iraqi D.G.A.

Pl. 77: The minaret of the ǦĀʿūlī mosque, first built in 1327. After al-Ǧānżāwī.

Pl. 78: The minaret of the ǦĀʿūlī mosque after the last restoration.
Pl. 79: The minaret of the Muradiya mosque (1903), Baghdad, before the last repairs. Iraqi D.G.A.

Pl. 80: The minaret of the Muradiya mosque after the last repairs.
Pl. 81: The minaret of the Marjāniya madrasa, Baghdad, before the restoration of the portal. First built 758/1307. Rebuilt or restored c. 1200/1785.
Pl. 82: The historical inscription of the old minaret (better known as the al-Manāra al-Naqībiya) of the al-Gailānī mosque, Baghdad. 941/1534.
Pl. 83: The al-Manara al-Naqibiya before the Ottoman restoration.

Pl. 84: The al-Manara al-Naqibiya after the Ottoman restoration.
Pl. 85: The al-Manāra al-Naqībiya before the last restoration.
Fl. 86: The minaret of the Na'umaniya mosque, Baghdad, after the last restoration.
First built 1185/1171.
Pl. 88: The minaret of the Husain Pasha mosque, Baghdad, after the last restoration.

First built 1817.
Pl. 89: The minaret of the mosque of Muḥammad al-Faḍl, Baghdad. 1210/1795.
Pl. 90: From left to right: the minaret of the Wazîr mosque, the twin minarets of the ʿAqīfiya mosque and the minaret of the Qapplâniya mosque, Baghdad. After Von Oppenheim. Photographed c. 1900.
Pl. 91: The transitional zone of the new minaret of the Kalī Afandī's mosque, with the so-called Turkish triangles.

Pl. 93: The minaret of the Haidar Khana mosque, Baghdad.
Pl. 94: The minaret of the Asifiya mosque, Baghdad.

Dated 1341 (1922).
Pl. 96: The minaret of the Suhrwardī (Shaikh ʿUmar) mosque, Baghdad. Dated 1368 (1948).
Pl. 97: The minaret of the Shāfiʿi mosque,
Baghdad, c. 1950.
Pl. 98: A minaret in a manuscript of Maqamat al-Ḥarīrī, detail showing a band of Kufic inscription, which is closely related to the 'Stepped Kufic' bands of the present Iraqi minarets. After Grabar.
Pl. 99: The minaret of the Kāwāz mosque,
Baghra 1278 (1861).
Pl. 100: The minaret of the A'zamiya mosque, Baghdad.

First built 941/1534. Rebuilt or restored 1217/1802.
Fl. 101: Detail of the western wall of the Mustansiriya madrasa, Baghdad. 630/1232.
Pl. 102: The minaret of the "Aywaziya mosque, Baghdad.
c. 1940. Iraqi D.G.A.
Pl. 103:

A. Section of a 'tmar. After Rempel.

B. An Iraqi 'tmar.
Fl. 104: A, and B.

Sections of a Tümar.

After Rempel.
CHAPTER V.

IRA\[I MINARTS OF THE "NEW STYLE";

THE ORIGIN OF THE PILOTED HEAD.
The minarets which display the "New Style" are those of the following mosques: the Ahmadiya (pls. 58 and 59), the Saray (pl. 105), the Aqṣāmiya (pl. 100), the al-Gallūnī II (pl. 106), the Sirāj al-Dīn (pl. 60), and others. Their characteristics have already been summarised.

1. The building of this mosque was begun in 1210/1795 and completed in 1211/1796. A comparison between pl. 58 and pl. 59, which is a drawing by an early traveller, shows that neither the shape nor the designs of this minaret have changed in the slightest. This suggests that the present minaret was built at the same time as the mosque.

2. The upper band of square Kufic inscription surrounding the upper cylinder of this minaret gives the date 1233 (1818) as can be seen in fig. 134A. This suggests that the minaret might have been rebuilt or renovated at that date.

3. The first minaret of this mosque was built in 941/1534 upon the conquest of Sultān Sulaimān al-Qānūnī. The present minaret may have been built in 1217/1802 by Sulaimān Pasha, the wāli of Baghād.

4. This minaret was built in 1294/1877. The date of its completion was commemorated by a historical poem (see p. 158).

5. The band of square Kufic inscription surrounding the lower cylinder of this minaret depicts the date 1318 (1900). This can be seen in fig. 134B. The occurrence of this date suggests that this minaret might have been rebuilt or at least restored at that date.

6. Such as the minarets of the following mosques:

   1. The al-Ḳādiliya (pl. 49). To judge by the date depicted in one of the eight-pointed stars of the parapet of the minaret's band, this minaret might have been rebuilt or restored in 1229/1813.

   2. The Halīṣ Khāna, most probably rebuilt or renovated in 1311/1893 (pl. 93) during an extensive restoration carried out on the mosque at that date.

   3. The Kurādīya. The whole mosque, including the minaret, was rebuilt between 1319/1901 and 1321/1903. A comparison between pl. 79 and pl. 80 shows that the upper cylinder has been considerably shortened. The muqarnāsāt and the transitional zone between the lower cylinder and the kursī have also been altered. This indicates another restoration, which might have been carried out during the 1930's.

7. For the characteristics of these minarets see Chapter II.
This new style, which may be called the style of the elegant minaret, may well have been introduced between 926/1519 and 978/1570, during the reign of Sultan Selim II, as the oldest known minaret of this style is the minaret of al-Kāzimain mosque. This minaret, according to al-ʻAlūsī, is "the one which exists on the corner situated between the north and the east." (pl. 107).

A historical poem was composed in Turkish by Fahmi al-Baghdādī to date its completion. (2) But this date should not be accepted without reservations i.e.: it can be applied with certainty to the lower cylinder and the hawd, and probably to the upper cylinder excluding the fluted head. Two factors should be taken into consideration:

1. The inscriptions in square Kufic on the lower cylinder do not contain any Shi'ī motto, and likewise all the three other minarets which were built after the same style and decoration (pl. 108). This confirms that the minaret was built under Sunnī rule.

2. The gold covering of the upper cylinder, including the head and the canopy over the hawd, belong to a much later date because the first shrine to be covered with gold in Iraq was the shrine of Imām ʻAlī at Najaf in 1155-6/1742-3 by Kādir Shāh. (4) This work included the dome of the shrine and the two minarets. These minarets were built in 1067/1656 by Muḥammad Pāsha al-Kāfisakī. (5)

(1) al-ʻAlūsī, op. cit., p. 118.
(2) The part of the verse containing the date is as follows: Oldī bu ḫanfūza mnārā tamm. (al-ʻAẓzāwī, Ṭarīkh al-ʻIraq IV, p. 114; al-ʻAlūsī, op. cit., p. 118.
(3) See Appendix VI.
(5) Ibid., p. 64; Longrigg maintains that Sulaimān Pāsha added "a minaret to the shrine at Najaf." (Longrigg, op. cit., p. 90.)
All the gilded minarets at Baghdad, Najaf and Karbala have fluted heads except the smaller symbolic minarets at the four corners of the Kazimain shrine. Even the minaret of al-Azmadiya mosque which was built on the order of Sultan Sulaiman al-Qanuni (The Magnificent) in 943/1534 probably acquired a fluted head in 1217/1806 when Sulaiman Pasha decorated it and covered its head with gold. Apart from the minaret of Dhu'l-Kifl the earliest groups of fluted head minarets (other than the gilded minarets) which have original fluted heads seem to belong to the second half of the 18th Century and the first half of the 19th Century. They include the minaret of al-Ahmadiya mosque 1210/1795-1211/1796 (pl. 58), the minaret of Jadid Hasan Pasha mosque 1233/1817 (pl. 105), the minaret of the Haidar-Khana mosque 1242/1826 (pl. 94), the minaret of Munawar Khattun mosque 1267/1850 (pl. 109), and the minaret of the Great mosque of Jadila Khattun 1229/1813 (pl. 49).

---

(1) al-Churabi amr al-Azawi, op. cit., IV, p. 32.
(2) al-Alusi, op. cit., p. 22.
(3) al-Azawi, Tarikh al-Iraq VI, p. 119.
(4) This date was found on the minaret (see p. 151, N7).
(5) al-Azawi, op. cit., VI, p. 299.
(6) al-Alusi, op. cit., p. 30. The verse containing the date of the twin minarets quoted by al-Alusi is:

شئرف فيه أربوا رمالات.

which means: "Initial two minarets were built."

(7) According to the following historical verse:

"قلت اذ أكملت باليمن أرج جامع الأئذار شذاد منور." 8761.

(8) The minaret was first built in 1168/1754. There is a date in one of the eight-pointed stars of the band. The date is depicted in rectangular Arabic numerals in this manner (١١٦٨) which can be seen in pl. 50. This suggests that, at that date, at least a restoration of the band was carried out, and most probably the fluted head introduced, if not the whole minaret rebuilt. The date of the completion of the mosque is contained in the following historical verses:

"ولا تكل قيل ارج.. فنتم دار المغني.

1) تاريخ جا. الهنا
2) الإيام حي على العملة"
Most of these dates fall within the reign of Dāwūd Fāsha (1232/1816 – 1247/1831) who took a special interest in the restoration, rebuilding, and building of mosques.

Most of the fluted heads in Iraq have a deep keel-shaped vertical section, slightly pointed but never cusped; examples are the minarets of the following mosques: the Āhmadiya (pl. 58), the Čādiliya (pl. 48), and the Kāzimin (pl. 108).

The general appearance of these heads is melon-like and slightly bulbous at its widest span (fig. 25 A and B), but they appear to be more squat when seen from ground level.

No exact parallel can be found for the fluted head of Iraqi minarets amongst the existing minarets of the Islamic world, even though a good number of fluted head minarets still exist. In the Maghrib (North Africa), the minaret of the mosque of ĪṢā qa (fig. 26 A) at Īṣā qa (105–125/724–43), the minaret of the Kutubiya (593/1197) at Marrakesh (fig. 26 C) have fluted heads.

In Egypt, the minaret of Ibn Tūlūn (Ramadan 356/May 879) (fig. 26 B), the minaret of the Jākın mosque (380–403/1963–66) have fluted heads.

(3) Creswell, "Evolution" I, p. 139.
Fig. 25:
Fluted heads of Iraqi minarets.
A. The head of the minaret of the Ahmadiya mosque.

B. The head of the minaret of Imam ʿUsain’s shrine at Karbalāʿ.
Fig. 26: Minarets with fluted heads in Maghrib and Egypt.

A. The minaret of the mosque of Uqba from the al-Qairawan (105-125/724-43). After Glück and Diez.

B. The minaret of the mosque of Ibn Tulun at Cairo (Ramadan 356/Haj 879). After Glück and Diez.

C. The minaret of the Kutubiyya at Marrakesh (593/1197). After Marceis.
the minaret of the Abu'l Chahan-far mosque (552/1157) (fig. 27 A), (2) the minaret of Cangar al-Gauli (703/1303-4) (fig. 27 B), (3) the minaret of the Khānqā of Emir Qusūn (735/1335-6) all at Cairo also (fig. 27 D) exhibit fluted heads.

As far as I know, the fluted head does not appear on the surviving Syrian minarets, but judging from the fluted domes of Syria, (6) it may still be assumed that fluted heads existed in Syria.

Apart from the fluted head of the minaret of the Great Mosque of Kairūn (1176), (7) none of the surviving minarets of Turkey have fluted heads. The same is true in regard to Persia, Turkestan, and Afghanistan even though a number of fluted domes do occur in these countries. Examples are: Qubbat-i Sahih (c. 13th Century) at Kirmān in Persia, Khoja Ahmad Yāsawi (1397) (8)

(1) Creswell, "Evolution" III, Table of Minarets.
(2) Glück and Dies, op. cit., pl. on p. 159 (below).
(3) Creswell, "Evolution" II, p. 257, and pl. II A.
(4) Ibid., p. 257 and pl. II F.
(5) Ibid., p. 258, and pl. III J.
(6) Such as the dome of the al-Bukriyya madrasa at Salihia (621/1224). This dome is fluted from within and from without; the dome of Turbat al-Najmiyya (575/4th October 1179), and the dome of the Tomb of ʿalāʾ al-Dīn which was built according to Horsfield by the son of ʿalāʾ al-Dīn al-Malik al-ʾĀṣim "Uthmān of Egypt, probably during his reign over Egypt from 589 to 595/1193 to 1195. (E. Horsfield, "Ctesiphon I: Studies in Architecture III" Ars Islamica XI - XII (1949), pp. 20, 44, and 47, and pls. 35-39, 131, 131 and 132)
(7) Hill and Grabar, op. cit., pl. 403. The lobes of this minaret have triangular sections, unlike those of the minarets of Iraq which have round sections. Triangular fluting is known in Iraq as early as the second half of the 8th Century on the inner surfaces of hoods and domes in Ukhaidir (see K. A. C. Creswell, Early Muslim Architecture (Oxford 1932-40) II, pl. 10b, 19a and c, and 13b).
(8) Hill and Grabar, ibid., pl. 111.
Fig. 27: Cairo minarets exhibiting fluted heads.

A. The minaret of the mosque of al-Ḥākim (380-403/990-1012). After Glück and Diez.

D. The minaret of Qūsūn's Khānqā (735/1335-6). After Creswell.
in Turkistan; Shāh-ī Zindah (1435)\(^1\) in Samarkand, Gūr-ī Amīr (begun in 1403),\(^2\) and Shīyār madrasa (early 17th Century)\(^3\) at Samarkand, in Turkistan, and the mausoleum of Gawhar Shīr (15th Century)\(^4\) at Herat in Afghanistan.

A closer study of the fluted minaret heads of Maghribi origin reveals that they are hemispherical in form, and none of them show any tendency towards flaring out at the springing zone as the Iraqi minaret heads do. The fluted domes of the Maghrib exhibit the same characteristics as the fluted heads of its minarets. This can clearly be seen in the domes of Cūqba’s mosque at Qairawān. It should be noted that these domes, as well as the minaret heads, are more akin in form and contour to the Umayyad domes of Syria, such as the Dome of the Rock which itself exhibits Byzantine characteristics such as those exemplified by the dome of the Hagia Sophia.

A comparison between the fluted Iraqi minaret heads depicted in fig. 25 A and D, and the fluted minaret heads of fig. 26 A and C clearly shows the dissimilarity between the two types.

The Egyptian minarets exhibit three distinct types of fluted heads. The first is exemplified by the head of the minaret of Ibn Tulūn (fig. 26 B). The second is exemplified by the head of the minaret of al-Ḥakim’s mosque (fig. 27 A), and that of the Abu’l-Ghasanfar’s mosque (fig. 27 B). The third type is exemplified by the head of the minaret of the Sālār and Sangar al-Gawli madrasa (fig. 27 C) and that of the khānlā’ of Qūsūn (fig. 27 D).

\(^{1}\) Ibid., pl. 71.
\(^{2}\) Ibid., p. 51 and pls. 31 and 32.
\(^{3}\) Ibid., pls. 65 and 66.
\(^{4}\) Ibid., pls. 126 and 127.
Though the majority of these heads are keel-shaped, none of them have any similarity to the fluted heads of Iraq, for none of them exhibit the most characteristic feature of the Iraqi heads, that is, the tendency of flaring out at the springing zone. Some of them spring in a continuous arch directly from the upper shaft towards the apex, as in the head of the minaret of Ibn ʿUllūn, the minaret of the Gawli Ṿdrakan, and that of the Ḥārum. of Ḥāmīn, and others rise vertically at first, then bend at a distinctly obtuse angle towards the apex, as in the minaret of the Hārūn, and that of ʿAbū ʿUṣāf. Egyptian fluted domes reflect the same features. For example, the fluted dome of the mosque of the mosque of the mosque of ʿAbū ʿUṣāf (fig. 28 B) springs directly from the polygonal drum in an uninterrupted arch, whilst the fluted dome of the mosque of ʿAbū ʿUṣāf (fig. 28 A) rises vertically to a great height before curving towards its apex. This is due to the fact that the drum has also been fluted and so has merged with the dome giving it an elongated appearance.

However, the fluted domes of Syria mentioned above (see p. 155 N. 6) also lack the 'flaring out' feature of the fluted head of the Iraqi minaret.

In fact the only really close parallels in form to these heads are the two domes of the Shīr-Dār Ṿdrakan at Samarkand. The only difference between them is that the lobes of the Iraqi heads are supported mostly by inverted half-cones (pl. 110 A), whilst the Samarkand lobes are supported by a small squinch. (1)

Most of these Iraqi heads were rendered in Ṿarrā repaired stretchers vertically set in moulds (pl. 110a, b, and c.) in order to form

(1) Hill and Creber, On. cit., plats. 55, 66 (see pl. 111).
Fig. 28: Egyptian fluted domes.
A. Mausoleum of al-Ga'farī (left) and Sayyida 'Atika (right) c.1100-1120 A.D. After Creswell.
B. Mausoleum at Qūṣ. Built against the Great Mosque. From north. After Creswell.
the convex shape of the lobes. These are generally stout and well formed. Their number ranges from sixteen to eighteen on the older minarets (1) whilst on the majority of the later minarets the number rises to twenty-two lobes and to thirty-two in one example only, the present minaret of the Kurūdiya mosque (pl. 110 c). Here the designer has split each lobe into two lobes including their supporting inverted half-cones. This has no precedent in Iraq or elsewhere as far as I know.

This minaret was completed in 1321/1903. The date of the rebuilding of the mosque and its minaret can be seen today on the western portal of the mosque in the form of a historical poem.(2)

Though the minaret has been subjected to major repairs and shortened considerably (which necessitated the demolition of the head), the lobes have been restored to their original shape.(3)

In other minarets the lobes seem to have been divided into sections, the seams of which can be seen distinctly, as on the head of the Callūnī minaret II (4) (pl. 106).

This phenomenon appears widely on all the gilded minarets, where gilded squares of sheet copper are utilized to form coverings for lobes as well as for the cylinders (pl. 112).

(1) It seems that most of the later minarets of this type have rather squat heads. This is most probably due to a lack of accuracy on the part of the mason and a lapse from trueness of style.

(2) كان يذكر الله أن بُعِرَ عبد الله الزفزاري المتفرع رشيدًا وأذنه ومنه من رأس عُرُقُنا لم يبرع نعَلَم كُلَّ ساجدًا مَكَّنَ برأي سلطان الوَرَعاتَ ألا يَلْبَسُ الْإِسْلَامَ فيَنْهَ بُيْنَهُ بالابنَةَ ذُجُوا

(3) Compare pl. 79 and pl. 80

(4) Built in 1249/1837, by the Naqīb of Baghdad, al-Sayyid Salīm al-Callūnī. Its completion was dated by the following historical poem:

أما دولي قَسَمَت عَرَتْ خَدَمَتُهَا فَقَدْ أَذَذَنَا بِعَرَتُهَا بِتِلْكَ تَأْرِخَةَ
Similar sections were made in kāshi for the lobes of the minaret of Kunawar Khātūn (pl. 109).

This method has been used extensively in recent years for new minarets as well as for repairing old minarets. The reason for this is probably the practical advantage of handling small pieces of kāshi and using them directly without having to set them in moulds first.

Recently, attempts were made at producing complete lobes in single pieces of kāshi, in order to reduce labour even further, but it proved to be impractical for a number of reasons such as the distortions caused by firing such large pieces, the difficulty in manoeuvring such pieces at such great heights, and the distortions to the outlines, shapes, and proportions of the minaret these ready-made lobes can cause.

From this study the following conclusions may be made:

a) The fluted head may have been introduced into Iraq before the Mongol invasion but failed to get a foothold against the established old style, and consequently it fell into oblivion.

b) It is very likely that the style was revived or re-introduced into Iraq during the Ottoman period probably during the reign of Sultan Selim II, by Turkestani masons who were on pilgrimage.

c) It is fairly unlikely that the new style came from Iran, Turkey, or any Arab country, as they do not have any close parallel in existence.

(1) Such as the recent restoration of the minaret of Husain Pāsha.

(2) Baghdadi masons apply the term nakhla (palm-tree) to the assembly of the head and upper cylinder, whilst they refer to the assembly of the lower cylinder and the hawd as manāra. This is probably for two reasons. Firstly, the shape and colour of the lobes resemble palm-tree leaves and the upper cylinder resembles the trunk. Secondly, the original shape of the light tower might have consisted of a shaft and a balcony only.

(3) See "The Minaret of Dhu'l-Kifl", pp. 109 and 110.

(4) By this term, Turkestan and Afghanistan are excluded.
The only probable sources consequently would be Turkestan and Afghanistan, where such parallels are in evidence, though not as heads of minarets. This should not preclude the existence of such heads in these countries in earlier times.

It is virtually impossible to say exactly when the new style was introduced into Iraq and by whom, as all the available sources remain silent in this respect apart from one incident which may have some relevance on this subject. This concerns the visit of Imān Qulī, the ruler of Turkestan, to Baghdad on his way to Mecca to make the pilgrimage, and his death and burial in Baghdad in 1060/1650. In 1092/1681 his nephew ʿAbd al-ʿAzīz Khān came to Baghdad on his way to Mecca and built a mosque over his uncle's grave. The mosque is known in Baghdad as Jāmīʾ al-ʿAzbagh. Though this incident is not significant in itself, it does bring into focus one of the most important factors, if not the most important, in the spreading of cultural and artistic aspects of the various Islamic countries in the shortest possible period of time, and between countries as far apart as Samarkand and Spain within the period of no more than a few months. It is the ḫājī. Apart from the appearance of fluting on domes, convex fluting (or ṭουم as it is referred to by Aga-Oglu) appears on the cylindrical drums of a number of 12th and 13th Century Saljuk

---

(1) Longrigg, op. cit., p. 82.
(2) al-ʿAzzawi, Tarikh al-ʿIraq V, p. 25.
(3) This mosque was renewed in 1243/1827 by Dāvid Pāsha. See al-ʿAzzāwī, ibid.; al-ʿAlūsī, op. cit., p. 28.
(4) Aga-Oglu, op. cit., p. 93.
tomb towers and minarets in Turkistan and Iran. Examples are
the minār of Jar Kurgan (12th Century)(1) near the city of
Tirmidh, and the miḥrāb of Rādkān (possibly dated 680/1281)(2)
near Qūchān in Iran.

This type of fluting is considered by Aga-Oglu to be one of
the dominant architectural elements of the period.(3) He suggests
that it originated during the pre-Islamic period in Turkistan and
was carried westwards over Khurāsān into Asia Minor.(4) The
earliest existing example of such fluting appears on the facade
of Rabāt-i Malik (471/1078-79) on the road between Samarkand and
Bokhara.(5)

Convex fluting also appears on Saljuk brass ewers dating to
the same period, such as the ewer of the J.P. Morgan Library
(pl. 113).

This type of ewer is generally attributed to north-western
Persia, Armenia, and northern Mesopotamia,(6) but in 1935 the
discovery of a fluted ewer (in the collection of the Georgian
State Museum in Tiflis) which was dated 577/1181-82 and which
bore the name of a Harāti artist (7) caused these ewers to be
attributed instead to eastern Iran (Khurāsān).(8)

The occurrence of convex fluting in architecture and on
metalwork of the same period has led Aga-Oglu to believe that the
fluting on the ewers was "influenced by architectonic thought."(8)

---

(1) Ibid., p. 94.
(2) Ibid.
(3) Ibid., p. 93.
(4) Ibid.
(5) Ibid.
(6) Ibid.
(7) Ibid.
(8) Ibid.
This seems very unlikely for a number of reasons, both aesthetic and structural:

1) - Aesthetically, fluting is not an architectonic element because it destroys the sculptural qualities and the solidity of mass and surface, and consequently hinders the monumental qualities of the building. Therefore fluting is more suited to small objects.

2) - Structurally, fluting is superfluous in architecture - especially in brick constructions - because it is a form of external corrugation which has no constructional function apart from bearing its own weight when vertical. When curved (as on domes) it adds an extra burden (unless composed of a tougher material acting as reinforcement) to the brick structure. Furthermore, it exposes a larger surface area and more points of weakness to the elements. (1)

In metalwork, as distinct from architecture, fluting has an important structural function. Here corrugation is most needed and often resorted to in order to give rigidity to forms contrived from sheet metal. This is especially true when a high degree of resistance to bending is required, as in war helmets, shields, and other forms of armour (pls. 31 and 115).

This could best be illustrated by the effect of corrugation on a sheet of paper when folded repeatedly, and then alternately in the same direction.

Furthermore, the appearance of convex fluting in both forms of Saljuk art at the same time does not constitute a firm base for Aga-Oglu's assumption that fluting occurred in architecture first.

(1) These points are the corners between the underlying surface and the flutes, created by fluting into which rain water is most likely to penetrate.
This should render the first part of his theory (i.e. that fluting is an architectonic element which was imitated on metalwork) suspect and suggests that the opposite is more likely to be the case.

The second part of his theory (i.e. that this type of ewer was carried from Central Asia across Khurāsān into Asia Minor) seems to be valid. But the part of his statement which maintains that this style has been developed in Central Asia from pre-Islamic times seems to be only partially correct. Even assuming, as was suggested earlier, that fluted domes did, in fact, develop from the wood and silk construction of Pianjikent and the Turkish yurt (fig. 3 and pl. 28),(1) his assumption that fluting in general has been developed in Central Asia should be regarded with reservation.

The appearance of similar ewers in the 11th Century in Korea (pl. 114) (2) proves the existence of fluting in Korea and most probably in China at an even earlier date.

The similarities between the ewer of pl. 114 and the ewer of pl. 113 are astounding. The fluting, the flat circular shoulder, the slight flaring of the body, and the shape of the base are very much the same. (3)

The appearance of this type of ewer in Korea points yet again to China as a source of the artistic repertoire of the Saljuks and the other Altaic peoples of Central Asia.

(1) See pp. 81 and 82.
(2) J. Fontain and R. Hempel, China, Korea, Japan (Berlin, 1968) pl. 224.
(3) It is worth noting that the way in which the rim of the water receptacle (pl. 114 B) has been rendered is still followed by the coppersmiths of Iraq when shaping the rims of their ḫinīya, which are of the same shape and type. ḫinīya in this context means "tray," but the original meaning of the word is "Chinese" (feminine form).
The depiction of Shi'a mottoes in minarets' decorative inscriptions can be best illustrated by the inscriptions of the minaret of the Khallâl mosque (pl. 116 and fig. 29).

According to al-Ḥanbali, al-Khallâl (d. 311/923) was a famous Ḥanbalite scholar. It seems that from the date of his death onwards, his tomb and the mosque attached to it were in Sunnî hands. During the Ottoman period, they were still under the custody of a Sunnî family. The last of this family was a lady who became the custodian of the Khallâl mosque (and shrine), and thus she came to be known locally as the al-Gaimâ or al-Ġayma (the custodian in the feminine gender).

This lady was married to a member of the al-Gâilânî family and she had a son by him named Muḥammad (better known as Muḥammad ibn al-Gaima or simply, Ibn al-Gaima). Upon the death of his mother, Muḥammad became the custodian.

Due to certain circumstances, Muḥammad resigned his custodianship. This happened most probably before or during World War II and the custodianship of the Khallâl mosque passed into Shi'a hands for reasons unknown to me.

Upon this change, extensive restorations were carried out on the tomb chamber, the mosque, and the minaret. The base of the minaret was covered with a canopy, a feature characteristic of Shi'a minarets. Its head was rebuilt and provided with a trap-door to allow access to the mîl (finial), and the square Kufic inscriptions decorating both of its cylinders were altered.

The square Kufic inscriptions on the lower cylinder are contained in an all-over pattern of two-register spirals (fig. 29). In the upper register, though the inscription is slightly corrupted, it clearly shows the Shi'a adhan, which differs in two respects from that of the Sunna. The first is the inclusion of the phrase 'Ashadu anna ġAllya wa laiya Allâh' i.e. 'I profess that ġAllah is the Saint of God' and the inclusion of the phrase 'řay ġalâ khair al-'Amal', meaning 'make haste at good work.' Both phrases can be clearly seen in the third frame from the right and the second phrase can be seen in the sixth frame.

On the upper cylinder of this minaret, the name of ġAll was introduced in two combined forms (fig. 30 A and B).

Other Shi'a mottoes, such as 'Ya ūsusain,' and 'Ya ġAll' occur on other Shi'a minarets such as the minaret of a recently built Shi'a mosque at Ĥârthîya in Baghdad.

(1) Al-Ḥanbali, Shadharat al-Dhahab II (Cairo 1931) p. 361.
Fig. 29: The square Kufic inscription depicted on the lower cylinder of the minaret of the al-Khallâl mosque, Baghdad.

Fig. 30: Two combinations of the word 'Ali as depicted on the upper cylinder of the minaret of the al-Khallâl mosque.
Pl. 105: The minaret of the Saray mosque (better known as Jadīd Hasan Pāsha mosque), Baghdad. 1233/1817.
Pl. 106: Minaret II of the al-Gailānī mosque (better known as the Sayyid Salīm minaret), Baghdad, 1294/1877.
Pl. 107: The minarets of the Kāzīmān mosque, Baghdad. The earliest of which was built in 978/1570.

Pl. 108: One of the minarets of the Kāzīmān mosque exhibiting the square Kufic inscriptions.
Pl. 109: The minaret of the Munawwar Khatun mosque, Baghdad. 1267/1850.
Pl. 110: Various types of fluted Iraqi minaret heads.
A. Al-ʿAdiliya
B. Al-Khassaki
C. Al-Muradiya
Fl. 111: A fluted dome in the Shīr-Dar madrasa, Samarkand.
Pl. 112: The golden minarets of the shrine of the Imam al-Husain at Karbala'.
Pl. 113: Bronze ewer, Nakhshivan type, engraved and inlaid. 12th - 13th Century. After Pope.

Pl. 114: Korian ewer and bowl. 11th Century. After Fontain and Hempel.
Pl. 115: Steel helmet. 1500.

Victoria and Albert Museum

(M37 - 1915).
Pl. 116: The present minaret of the al-Khallâl mosque, Baghdad.
CHAPTER VI.

THE RECTILINEAR GEOMETRICAL ORNAMENT OF THE MINARETS.
The geometrical ornamentation can initially be divided into two categories: rectilinear and curvilinear. The rectilinear ornament occurs in two forms: rectangular and polygonal.

1 - The rectangular ornament occurs in one of the following orders:

1) All-over patterns consisting of two types:

a) Identical motifs in the form of nets, with or without filler motifs such as:

1 - All-over pattern of slanting squares (2) such as in fig. 4 and pls. 22, 43, 44 and 70.

2 - All-over pattern of zigzag lozenges (3) such as in fig. 22 A and B and pls. 21, 60, and 87.

3 - All-over pattern of zigzag bands (4) such as in fig. 23 and pl. 44 and 99.

4 - All-over pattern of squarely-looped zigzag bands (5) such as in figs. 74, 24 and pls. 21, 58, 74, 89, and 109.

5 - All-over pattern of swastikas (6) such as in figs. 8, 10, 17 and 18 and pls. 48 - 51, and 86.

6 - All-over pattern of spirals (7) as in figs. 29 and pls. 70, 86, 93, 105, 109, and 116.

b) All-over patterns consisting of mixed motifs, in the form of a net, with or without filler motifs:

(1) Also called 'diaper pattern,' or 'compartment pattern.' The spaces within these patterns are filled normally with secondary motifs and quite often with square Kufic (see p. 313 above on square Kufic as a decorative element). In several cases the lines of the diaper are composed of square Kufic with square Kufic as a filler motif, such as in pls. 94, and 96 and figs.

(2) See p. 170 for a description of this pattern.

(3) See p. 139 above for the description of the pattern.

(4) See p. 145 (the minaret of al-Kawâz) for the description of the pattern.

(5) See p. 143 above for the description of the pattern (the minaret of al-Faql).

(6) See p. 105 for the description and analysis of the pattern on the minaret of Sâq al-Ghâzl, and p. 136 for the pattern on the minaret of the Na'imaniya mosque.

(7) See pp. 211 and 212 for the description of the various kinds of spirals.
1 - All-over pattern of square-ly-looped zigzag bands interrupted by swastikas, such as in fig. 31 and in pls. 51, 58, and 60.

2 - All-over pattern of linked-squares (1) as in figs. 38, 39 and pl. 88.

3 - All-over pattern of waisted-lozenges and squares, as on the minaret of ʿAbd al-Salām (fig. 32).

4 - All-over pattern of waisted-lozenges and swastikas (2) such as in fig. 11 a and b and pl. 57 of the minaret of Dhuʾl-Kifl.

ii) Independent geometric motifs:

a) The key motif.

b) The 'S' motif.

c) The rectangular 'Y' motif (socketed 'Y' band, or chain).

d) The eight-pointed star.

It should be noted that almost all the rectangular narrow bands are only strips cut from the various all-over patterns shown in this work. (3)

Figure 16 shows the range of narrow band motifs on the minarets of Baghdad, and fig. 33 show partial reconstructions of the all-over patterns from which the bands were taken.

It is extremely interesting to realise that this method of obtaining a narrow band or rather a border design from an all-over pattern was in use as early as the first half of the 9th Century in Iraq at Sāmarrā.

Overlooking this possibility led Herzfeld to assume that the fret border motifs of the three styles of ornament were of Hellen- (1) See p. 39 for the description of this pattern (the minaret of Husain Pasha).

(2) See pp. 111 and n. 1 for the description and analysis of this pattern.

(3) See p. 35 for the description of some of the narrow bands of the minaret of the Naʾmāniya mosque.
Fig. 31 : All-over pattern of mixed motifs occurring on Iraqi minarets.

A. Basic all-over-pattern of mixed motifs (looped zigzag band and swastikas).

B. The same pattern as it appears on minarets, with a bird filler motif.
Fig. 32: All-over pattern of waisted-lozenges and squares decorating the kursî of the minaret of Abd al-Salām's mosque.
A. Fig. 33: Reconstruction of original all-over patterns which appear in narrow bands on some Iraqi minarets. Band A, from the minaret of the Khaffafin mosque; B, from the minaret of the FaqII mosque; C, from the minaret of the Na'maniya mosque; D, from the Na'maniya minaret.
istic types, but he excludes the oblique fret. For the same reasons A.A. Ḫamīd, in his work on the ʾṢāmārāʾī stucco ornament, regarded them as individual border designs and consequently tried to establish their evolution from the "Greek Key pattern fret," the 'T' shaped fret and the oblique-Key fret.

According to Ḫamīd, the 'T' shaped fret:

"... was emphasized by doubling the line (fig. 1) ... In Style C, the continuity of the line which forms the T-shaped units is no longer present; the units are in no way connected to their neighbours (fig. 2). Other borders of the same type were found emphasized by alternating Z-shaped motifs with T-shaped motifs (fig. 3). In the later period of ʾṢāmārāʾ the former motif replaced the latter completely, as in (fig. 4)." (4)

On reconstructing the design his assumption seems hardly acceptable as figure 1 and figure 2 seem to be the same motif (5) with one slight difference, i.e. that the upper border line of fig. 1 was slightly shifted upwards (see fig. 3+.).

In figure 2, the basic 'T's were equidistantly separated from each other, resulting in the appearance of parts of the background in the shape of the so-called Z-shaped motif. This could hardly be considered an evolution of the pattern, as this system of separating the decorative units to enable the designer to manipulate the background for decorative purposes is a common practice which is often used at the same time with the original pattern, as in the bevelled style of ʾṢāmārāʾ.

---

(2) Ibid., p. 120.
(4) Ibid., p. 175, figs. 1 – 4.
(5) The basic "m" discussed earlier, which occurs on the minaret of al-Ḥaḍimiyya mosque (pl. 86 fig. 16 A).
Fig. 34: Analysis of the 'T' pattern of Sāmarrā border designs.

A. Ḥamīd's Sāmarrā border designs. After Ḥamīd.

B, and C. Corresponding motifs as they occur on Iraqi minarets.

D. Reconstruction of the original patterns.
On dealing with the evolution of the "simple forms of fret which descended from the original motif" (the oblique key-pattern), Ḥamīd includes a number of highly stylized curvilinear meanders, the so-called arabesque scrolls, (fig. 35 A-D), (1) amongst other motifs supposedly derived from the oblique key-pattern mentioned above.

Among the plant borders of Ǧamālā, Ḥamīd includes two designs, (fig. 36 A and B), (2) which are obviously strips from all-over patterns and are very Chinese in character. It is especially interesting to note that the design of fig. 36B occurs later, in Islamic miniatures of the early 14th Century at Tabriz, as a textile pattern. (3)

The reconstruction of three other Ǧamālā "plant borders" (4) also published by Ḥamīd (fig. 37 A-C) reveals that though the first two are clearly petalled meanders ("arabesque"), they may also represent strips from diaper patterns usually found on textiles. In both examples, the original patterns are composed of meanders symmetrically juxtaposed. In fig. 37 A the pattern defines an unusual secondary shape. In fig. 37B the pattern defines a heart-shaped motif (Jo)e enclosing a five-petalled palmette. On the other hand, the original pattern of fig. 37C indicate that the border design is definitely a strip from an all-over pattern of heart-shaped motifs enclosing so-called palmettes, and not a meander.

(1) Ḥamīd, ibid., figs. 19, 22-4.
(2) Ḥamīd, ibid., figs. 95 and 78.
(3) See Blochet, op. cit., pl. XLIX ("The Death of Moses") from Rashīd al-Dīn's History of the World (Tabriz 1306-1314).
(4) Ḥamīd, op. cit., figs. 63, 72, and 75.
Fig. 35: Samarra geometrical border designs. After Hamid.
Fig. 36 A, and B: Reconstruction of border designs from Samarra.
Fig. 37: A, B, and C. Reconstruction of border designs from Samarra.
In any case, Ḥamīd maintains that:

"The border designs played an independent but important role in all the three styles. They all seem to be based on simple Classical and Sasanian styles." (1)

Though Ḥamīd regards the palmette as "the core of the whole design" of style C at Sāmarra; (2) he seems to be unable to recognize that the motif of figure 95 (fig. 36 A) is a split (so-called) palmette with one wing-like element; instead he refers to it as "plant motifs set in rows." (3)

One can see from the reconstruction of the patterns (from which his figures were of course derived) that the arrangement of their motifs is in fact a textile arrangement and is very similar to the motifs of the style C panels, which he rightly relates to textile designs. (4)

(1) Ḥamīd, op. cit., p. 398.
(2) Ibid., pp. 295-300.
(3) Ibid., p. 207.
(4) Ibid., p. 295.
This ornament consists of all-over patterns in the form of a net, with or without filler motifs. They occur in the following forms:

All-over pattern of slanting squares, or diaper patterns (fig. 4 )

This is one of the most popular and widely used patterns in Islamic architecture. It appears in the various forms of ḥāṣirāt(1) on the early minarets of Iraq, such as the Ḥaddāri minaret at ʿAmashil (p.43) the minaret of Tawūq (pl. 44), the Megāšma minaret (fig. 4), and the minaret of Arbīl (fig. 6). It also occurs on the shrine of Imām Muḥammad al-Ḏūrī, otherwise known as Imām Dūr (pl. 39).

On later minarets it appears in kāshāh insertions, such as the heads of the following minarets:

Cāmariya (2) (pl.70 ), Fāḍl (pl.89 ), the old heads of the minarets of Ḥusain Fāša and MaḠrūf al-Karkhī, and the old minaret of Cāli Afandī (pl. 75).

The pattern normally occurs in one of the following forms:

a) - Slanting squares with a central motif in the form of a single square or in the form of a cross, depending on the actual size of the pattern.

b) - Slanting concentric squares of different colours, such as on the heads of the minarets previously mentioned.

c) - Slanting squares with filler motifs, such as square Kūfī, as on the minaret of Gēṣaba (pl. 117).

(1) See p. 85 for the various forms of ḥāṣirāt.

(2) The pattern on this minaret is executed in sunken squares only, without insertions of any kind (see p.125).
On the minarets of the Āṣifīyā mosque (pl. 94), and of the Suhrawardī mausoleum (known as Shaikh Čūmar), the pattern itself was not only rendered in square Kufic, but also filled with square Kufic.

Numerous parallels for these forms can be found on various Islamic monuments including minarets, in Persia, Turkestan, and Turkey as early as the first half of the 12th Century. Examples are the minaret of the Kalayān (mosque (the so-called "Tower of Death"), the mausoleum of Jalāl al-Dīn al-Ḥusain at Uzgand, the minaret of Bistān, a minaret at Dāmghān (beside the Tarīk-khāna mosque), and on certain minarets of Isfahān (Chihil Dukhtārān, Masjid cāhlī, and Sarabān), and numerous other buildings of later periods.

On a number of examples this pattern was used to cover domes from within and from without, such as the dome of the Gur-i Amīr (from without), and the dome of the Masjid-i Jāmī at Varamīn.

In one isolated incident the pattern appears in the Great Mosque in Cordova, only to make Marqais wonder at its origin.

(1) pl. 96
(2) Built in 1127, Hill and Grabar, op. cit., figs. 10, 11.
(3) in the early 11th Century, ibid., fig. 196.
(4) in 1120; ibid., fig. 184.
(5) in the early 11th Century, ibid., fig. 196.
(6) in 1107; ibid., fig. 317.
(7) in the late 12th Century, ibid., fig. 316.
(8) Possibly datable to the 14th Century; ibid., fig. 319.
(9) Possibly datable to the 14th Century; ibid., fig. 319.
(10) Built between 1322-1326 (Wibber, op. cit., pl. 134).
In Iraq the pattern also occurs on the domes of the plain domes of Mausil, such as the dome of the Aghawāt mosque (pl. 83), the dome of the Aḥmad mosque, (2) that of the Naṣīmiyya mosque (3) and on the dome of Prophet Jarjis (rebuilt in 1328/1910; see pl. 118).

An old photograph (pl. 119) depicts the dome of the shrine of Sa'dib Ibn Jubair, near the modern city of Najaf before its demolition and replacement; the same pattern appears on the drum. This proves that the same style was in use in the south as well.

In Baghdad only one small dome displaying the pattern remains: the dome of the tomb of Shaikh Ābd al-Jabbar al-Gailānī, probably belonging to the year 904/1498 (pl. 83).

A single slanting square and a band of half-slanting squares appear in the palace mosque at Ukhaídir (5).

In Turkey the pattern seems to occur less frequently. It appears on brick monuments only. This is most probably due to the suitability of the pattern to that medium. The pattern occurs on the Qādūk Lūnār (1347-8) at Aṣīrā, in the form of a swastika in a square diaper (5).

In contrast to architecture, miniature painting offers no exact parallel to this pattern. Nevertheless, another all-over pattern of what looks like crosses and squares, or octagons with squares at their centres (depending on the emphasis put on the various elements of the pattern by means of colour or proportions) exists as early as the first half of the 13th Century in

---

(1) Built in 1124/1703 (al-Da'iwānī, op. cit., p. 176).
(2) " 1140/1629 (ibid., p. 152, pl. 37).
(3) " 1213/1758 (ibid., p. 226, pl. 47).
(4) Ibid., p. 113.
(5) G. Bell, op. cit., pl. 20 figs. 1, 2.
(6) According to Creswell, Ukhaídir was built in 159/775-6 (Creswell, Early Muslim Architecture II, p. 98).
(7) Hill and Grabar, op. cit., pl. 364.
miniatures of the Mesopotamian school. The pattern is used for textile ornament in these miniatures (pl. 120). The earliest near-parallel can be seen on the robe worn by a priest depicted on a wine jar (reconstructed by Herzfeld) found in al-Jawaq al-Khāqānī (836-839) at Sāmarrā. (2)

It is very difficult to assign a certain provenance to such a diaper pattern, for it has an extremely wide distribution in textiles as well as in other media. Von Falke draws attention to its occurrence on Assyrian reliefs, in a mosaic depicting the Battle of Issus, in an Achaemenid context and on Greek textiles of the 6th - 4th Century B.C. which are depicted on Greek vases. (3) He has also shown diaper patterns datable to what he calls the "Late Greek" period (4th - 6th Century A.D.), exhibiting characteristics similar to those of Iraqi minarets. Some of these 4th - 6th Century silks exhibit distinct Chinese features. (4)

Willett has published a reconstruction of a pattern from a Shang-Yin twill (5) which is an exact parallel in every respect to the Kashî pattern depicted on the head of the minaret of the Faḍl mosque (pl. 69). In this silk the rendering of the concentric squares in the diaper, and the central square acting as a boss, both call to mind the diaper pattern of the minaret of the Qamriya mosque (pl. 70). Even the way in which the Shang-Yin pattern has been rendered in small squares formed by the

---

(1) It seems that this pattern was adopted afresh by textile weavers after passing to woodwork, where it evolved to its present shape for technical reasons. The sides of the square were widened and grooved on the sides to frame the inner square, and hence the lengthened hexagonal arms of the cross came into being, causing the apparent hexagonal pattern (compare the same pattern on pl. 120 and pl. 121).

(2) Ettinghausen, op. cit., p. 191, illus. 5.

(3) Von Falke, op. cit., p. 1, and pls. 3, 4, and 6.

(4) For a discussion of these textiles and their motifs see supra pp.

(5) Willett, op. cit., I fig. 30.
threads of the weft passing alternately over and below the warp is very similar to the bonding of the kāshī faience of the Islamic pattern. This strongly suggests that Chinese textile patterns were often imitated for the decoration of Islamic monuments.

As far as is known, none of the cultures of the West — ancient or modern — attach any particular significance to such a diaper pattern (whether it is composed of concentric squares or of lozenges with a central boss). On the other hand, the Chinese from time immemorial have attached a great significance to it.

A number of bronze vessels datable to the Shang period (1766-1122 B.C.) exhibit diaper patterns of squares with a cone in their centres. These cones are often surrounded by spirals or meander patterns, such as the Lei published by Bulling;¹ and the Kuei of the Mount Trust collection (2) published by Watson.

The spiral patterns surrounding the central cones in both examples are rectilinear 'cloud and thunder' patterns. They are placed parallel to the sides of the squares forming the diaper, and thus the all-over pattern (the diaper) appears to be formed by concentric squares with bosses at their centres.

According to Bulling, lozenges and squares are signs for mountains according to the ancient Chinese. (3) On a vase from Pan shan, a band of diagonal concentric squares or lozenges is depicted. To Bulling this rendering is the conventional ancient Chinese method used for indicating height. (4) Thus each square

---

¹ A. Bulling, The meaning of China's most ancient art, (Leyden, 1952). Bulling's work has come to be regarded as eccentric and speculative, and must be treated with considerable caution.
or lozenge of this kind represents a mountain rising in steps to end in a square plateau. (1) He also maintains that squares of this kind can be associated with the cosmic mountain known as Jü-Chou which is a "truncated" mountain with a square top. (2) The Jü-Chou is connected with the "setting sun" and with autumn as well as working the entrance to the nether world. (3) The Jü-Chou had many features in common with the cosmic K'un Lun mountain which has — from the Han period onwards — ousted all the other cosmic mountains in importance. The K'un Lun is described as a square mountain. It is also believed to rise to nine storeys ending in a square plateau, (4) and to contain the gate to "The Dark City" (the entrance to the nether world). (5) Bulling relates that in the Chu China it is twice mentioned as a mountain range on the western side of the world, but in the late Chou and Han periods the K'un Lun was believed to stand more or less in the centre of the world. (6) Thus he suggests that the squares in the centres of cosmic mirrors of the Han period (TLV) symbolize the K'un Lun mountain. (7)

Bulling further suggests that lozenges and squares could also be associated with the Islands of the Blessed. (8)

In the latter part of his study, Bulling associates this pattern with terrestrial mountains, such as the Five Holy Mountains of China, with earth, with darkness, with the starlit night

(3) *Ibid*.
(4) *Ibid*.
(6) *Ibid*.
(7) *Ibid*.
during the cold season, with the moon, and in a wider sense as a symbol of Yin. (1)

Speaking of the lozenge patterns of the Shang and early Chou periods, such as the patterns of the lei and the kui mentioned above, Bulling maintains that the cones in the centres of the squares are not only a symbol of the mountain, but at the same time of a post or pillar of the sky standing in each mountain, and the all-over pattern is a sign of the night-sky divided into rectangular sections.

Towards the end of his discussion of the lozenge pattern Bulling presents a comparison between the symbolism of the circle and the compound lozenge or all-over pattern, based on the cosmological conceptions of the 'exterior' and 'interior' and Yin and Yang which were connected with them in the Han period, as expressed by Huai-nan-tzu in the following poem:

"The way of Heaven is termed circular
The way of Earth is termed square.
The square governs darkness,
The round governs brightness,
The bright exhales the breath (Ch'i)
Therefore fire is called the external aspect.
The dark contains breath.
Therefore water is termed the internal aspect.
That which contains it, transforms.
Thus the Yang endows and the Yin transforms." (2)

Bulling also mentions the use of such patterns on the walls of clay models of houses used in Han tombs as tomb furniture and the persistence of such patterns to the present day in China, for they are believed to protect the inhabitants from evil influences and from approaching demons. This seems to stem from the persistent belief in the efficiency of the mountains as barriers against such dangers. (3)

(1) Ibid., p. 84.
(2) Ibid., pp. 87-8.
(3) Ibid., p. 87.
This protective quality of the diaper pattern should explain its popularity as a textile design as well as a wall ornament in Chinese art which was later imitated - without its Chinese significance - in the Islamic repertoire from Chinese models such as silks, metalwork, lacquer and other artifacts. The same conclusion may well apply to their appearance on Roman and Byzantine silks.
All-over pattern of interlaced squares.

This pattern occurs on some of the minarets of the "Intermediate Style", e.g. on the upper cylinder of the minaret of the mosque of Husain Pasha (pl. 88), as well as on minarets of the "New Style," as on the upper cylinder of the minaret of the Sayyid Sultan Alí mosque and the upper cylinder of the minaret of the Harithiya mosque.

Other than the minarets of Iraq, this pattern occurs on the polygonal drum of the tomb chamber of the Khānqāh at Natanz (1307). The pattern in this example is rendered horizontally. It also occurs on the dome of Do Manār Dādasht (c.13340) at Isfahān. A third example can be seen on the dome of Ḥasan Gāh (1643) near Nišāpur.

The pattern under consideration is perhaps one of the most difficult patterns to describe or analyse. It may seem to have been composed from a succession of squarely looped zigzag bands fused together which define a background pattern of vertical waisted lozenges alternating with squares. Or it may seem to have been formed by a number of adjacent zigzag lines. These zigzags are vertically and symmetrically arranged to intersect each other at every angle along their lengths, in order to define the background pattern described before (fig.38, pl. 88). The general appearance of this pattern resembles that of a net.

A study of other Islamic media reveals no parallels to this pattern. On the other hand there is an exact parallel on a Han

(1) Hill and Grabar, op. cit., pl. 271.
(2) Wilber, op. cit., p. 102 and pls. 158-9.
(3) A.J. Pope, Persian Architecture (London 1965) plbs. 311-12 and captions.
Fig. 38: Analysis of an all-over pattern of linked-squares defining waisted-lozenges as it appears on the upper cylinder of the minaret of Husain Pasha and the kurni of the minaret of 'Ali Afandi's mosque.
gauze tissue (1) found in Kamchatka, and now in the Hermitage (pl. 122). (2)

Lubo-Lusnichenko describes this pattern as consisting of "two rows of fused rhomboids having small rhomboids between them." (3)

The striking similarities - in every detail - between the pattern of the minarets and the pattern of the Han gauze is conclusive evidence of the Chinese origin of this pattern, and confirms yet again that Chinese silk patterns were often adopted for other media in Islamic ornament.

---

(1) E. Lubo - Lusnichenko, Drevnie Kitaiskie Shelkhovye Thani I Vyshchii (Leningrad 1961), pl. IX.
(2) Museum No. P.1842-83.
(3) Lubo - Lusnichenko, op. cit., p. 29.
All-over pattern of zigzag lozenges (fig. 40).

This pattern occurs on a number of minarets, such as the minaret of the Nabi Danyal (Prophet Daniel) mosque (pl. 123) at Kirkuk, the unidentified minaret of pl. 21 at Arbil, the minaret of the Saray (Jaddid Hasan Pasha) mosque (pl. 1405), the minaret of Husain Pasha (pl. 88), the minaret of Siraj al-Din (pl. 60), the twin minarets of Samarra (pl. 124), and the minaret of Hannan (fig. 41D).

On the Nabi Danyal minaret the pattern is rendered in broad lines consisting of kashi stretchers. On the minaret of Husain Pasha and that of Hannan, the patterns are rendered in double lines of headers. On the minaret of the Saray mosque, and that of Siraj al-Din, the patterns are rendered in single lines of headers.

The patterns on the Samarra minarets are rendered in double lines on multicoloured underglaze painted tiles, which themselves bear the design rather than forming part of a larger design.

It is worth mentioning that the filler motif of the zigzag lozenges of the Samarra minarets is a highly stylized form of the zigzag lozenge, apparently composed of two vertical arrow-heads pointing in opposite directions and projecting from the vertical corners of a central slanting square.

It is interesting to note that, apart from the Iraqi minarets mentioned above, the minarets of the Ulugh Beg madrasa (1420) (1) a minaret at the Bibi Khutun mosque (at the eastern corner of the main Imam) (begun in 1398 and finished in 1404), (2) and the minarets of the Shir-dur madrasa, (3) all of which are at Samarkand, none of the existing Islamic monuments offer an exact parallel to this pattern.

1 Hill and Grabar, op. cit., pls. 60 and 61.
2 Ibid., pl. 44; Pope, "Persian Architecture," p. 197.
3 Hill and Grabar, ibid., pls. 65 and 66.
Fig. 40: The zigzag-lozenge pattern of the Iraqi minarets.
Fig. 41: Variations of the all-over pattern of zigzag lozenges as they appear on the following Iraqi minarets—A) the upper cylinder of the Sarāy minaret; B) the upper cylinder of the Sirāj al-Dīn minaret; C) the lower cylinder of the Husain Pāsha minaret; D) the upper cylinder of the Ḥannān minaret.
It should be noted that a similar but totally unrelated pattern of zigzag lozenges (pl. 125) occurs extensively on Islamic monuments of various periods as well as on the various media.

Though this pattern may seem to be another version of the pattern under discussion, the mere fact that the angles of its staggered lozenges are obtuse indicates that it is a secondary pattern based on a basic pattern of hexagons. The units of this secondary pattern (the lozenges) are in fact, composite devices formed by the fusion of a secondary shape with two basic shapes, i.e. one six-pointed star fused with two hexagons. This can clearly be seen in fig. 72C. (1)

The oldest example of this pattern is found carved in stone on the round towers flanking the entrance of the Çifte Minareli madrasa at Silvās dated 1272. (2) Parallels can also be seen on a tower of the wall of the old city of Herāt (3) (early 15th Century).

As early as 1253, isolated zigzag lozenges of this kind were incorporated in different schemes of ornament, such as the two zigzag lozenges on both sides of the main entrance of the Çifte Minareli madrasa at Erzurum (fig. 42 B) datable c. 3242. (4)

The pattern seems to have gone through an important stage of evolution on the minaret of the Yağtiiye madrasa (5) (1310) at Erzurum (fig. 42 A). In this example, the intersecting lines of the pattern have been dismantled and reassembled in a new relationship. In this version, though the original pattern has been fragmented, its general impression has been preserved.

(1) See Chapter VI, 213-220 for the analyses of the various shapes of polygonal ornament.
(2) Hill and Grabar, op. cit., pl. 363.
(3) Ibid., pl. 136.
(4) Ibid., p1s. 331 and 335.
(5) Ibid., p1s. 340-1.
Fig. 42:

A. The pattern of the minaret of the Yaqūtiye madrasa, Erzurum. After Grabar.

B. Zigzag lozenge with obtuse angles from the Çifte Minareli madrasa, Erzurum. After Grabar.
In miniature painting the latter pattern of zigzag lozenges (with obtuse angles) appears as a wall ornament in the Zafar-nama of Sharaf al-Din Qalī Yazdi (Shiraz, c. 1434) of the Freer Gallery of Art, Washington. (1)

The zigzag lozenge pattern of the Iraqi minarets does not seem to appear in any of the known miniatures, textiles, woodwork, or metalwork of the Islamic world. Exact parallels to this pattern are apparently limited to China and Japan.

According to White, the earliest zigzag lozenge pattern seems to be limited to the late Chou period (4th to 3rd Century B.C.) on bronze mirrors, (2) such as pl. 126 and pl. 127.

The zigzag lozenge is referred to as 'lozenge with faulted angles,' (3) 'involved lozenge,' (4) 'lozenge with zigzag sides,' (5) and 'stepped lozenge.' (6)

The lozenge and the zigzag lozenge are interpreted as stylized mountains. (7) Bulling maintains that they are cosmic mountains. (8)

Though there are some differences of opinion about its evolution amongst these authors, they all agree that it is indigenous to China. (9)

Willetts maintains that the zigzag lozenge has developed from

---

(2) W. C. White, Tomb Tile Pictures of Ancient China, (Toronto 1939) p. 60.
(3) Willetts, op. cit., I, p. 258.
(4) White, op. cit., p. 60.
(5) W. Watson, op. cit., p. 87.
(7) White, op. cit., p. 60.
(8) Bulling, op. cit., pp. 78-89.
(9) Willetts, op. cit., p. 258.
three adjacent lozenges linked together (fig. 43). He adds that
the zigzag band is derived from the zigzag lozenge by placing such
lozenges "end to end," giving rise to an intermediate form, and
subsequently the lozenges are cut into two horizontally, and
the two halves separated to form two zigzag bands.

He rejects, as complicated and unconvincing, the suggestion
made by Karlgren that the zigzag lozenge is the result of "bringing
symmetrically confronted half-lozenges together," and that these were
derived from a zigzag band, which in turn was derived from the inter-
locked "T" pattern.

The appearance of the zigzag band pattern defining lozenges in the 4th Century B.C., as on the late 4th Century B.C. bronze
mirror of pl.126, prior to the appearance of individual zigzag lozen-
ges in the 3rd Century B.C., renders Willetts' hypothesis invalid.

A closer study of the zigzag lozenge pattern on the early bronze
mirrors illustrated in pl.126 and pl.127 reveals that the pattern
appears in two versions:

a - On the mirror of pl.126 (in the British Museum) it is formed
by a series of identical zigzag bands defining zigzag lozenges.

The zigzag bands are broad with faulted lines rather than faulted
angles. The straight lines of the zigzag are broken into another
angle halfway down their lengths, then redirected towards their orig-
inal directions. The zigzag bands are placed in such a way that their

(1) Willetts, op. cit., fig. 38a.
(2) Ibid., fig. 38b.
(3) Ibid., fig. 38c.
(4) Ibid., p. 258, fig. 38d.
(5) Ibid., p. 258.
(7) Ibid., p. 86.
Fig. 43: The evolution of the zigzag band according to W. Willetts. After Willetts.
peaks meet without being fused together, in a symmetrical fashion. This causes the parts of the background which are enclosed between the zigzag bands to take the form of zigzag lozenges, or as Watson deftly puts it: "zigzag bands defining lozenges."

A more suitable designation for this distinct type of zigzag band would be: 'faulted zigzag' or 'doubly-zigzagged band'.

This method of faulting the lines of the zigzag (whether rectilinear or curvilinear zigzag) seems to be an exclusively Chinese one. It appears on Chinese bronzes of the Chou period as early as the middle of the 10th Century B.C., as in fig. 44 A (1) and through the 9th, 8th and down to the 5th Century B.C., (2) where the zigzag develops a slight cusp in the centres of the upper corners (fig. 44 B).

In curvilinear faulted zigzag bands, this feature seems to be the precursor of lobing and cusping in Chinese art. This phenomenon (faulting of the zigzag) should be given considerable importance in a consideration of Islamic art for it dominates the Sāmarrā' style of decoration, as will be shown later.

A number of scholars have interpreted these types of faulted zigzag bands of the Middle Chou bronzes as cosmic mountain ranges. (3)

The faulted zigzag band appears on a number of Han silk damasks found in Palmyra (fig. 43 D); (4) and in Lou-lan (fig. 45), (5) where the faulted zigzag bands are widely spaced from each other. The

---

(1) J.D. La Plante, The Art of the Chou Dynasty (Stamford, 1958), pl. 42.
(2) Watson, op. cit., pls. 52, 53, 55.
(4) Willette, op. cit., fig. 38a.
Fig. 44: Faulted curvilinear meanders on early Chinese vessels.

A. Bronze vessel. Middle Chou. After La Plante.

B. Neck of a bronze vessel. Early 5th century B.C. After Watson.

C and D. Bronze vessel. D. Late 9th century B.C. After Watson.
Figure 33. Reconstruction of pattern-units on part of a Han silk damask from Lou-yan, drawn by R. J. Clutton-Brock.

Lighter areas were reconstructed on the basis of the surviving pattern (darker areas).

Figure 45: Han silk damask, Lou-yan. After Willert.
spaces are occupied by dragons, phoenixes, and T'ao-t'ieh masks.
The bands themselves are decorated with rectangular scrolls (probably a cloud pattern). The whole arrangement suggests that the faulted zigzag bands represent rectilinear cloud bands (or scrolls) inhabited by supernatural beings. The dragon is a symbol of 'Yang', the coming of spring, and the East. The phoenix is another symbol of 'Yang', the coming of summer, and also of the South. (1) This association between dragons, phoenixes, and clouds leaves little doubt that these zigzag bands are stylized cloud scrolls rather than mountains. This is even more distinct on textiles which often actually depict cloud bands or curls within the zigzag bands (figs. 43 D, 45 46 and 47). The fact that the designs on pre-Han bronze mirrors were copied from textiles is a further proof of this, as it has already been agreed that this pattern on the pre-Han mirrors has been copied from textile patterns. (2)

This also suggests that the zigzag lozenge is a derivative of the zigzag band, and not vice versa.

A further proof of these bands being cloud bands, and not stylized mountains, can be found in the composition of another Han silk (fig. 47) (3) found near Tun-huang by Stein, where the same arrangement of stylized cloud bands, with dragons, phoenixes, and griffins which occupy the intervening spaces, is found.

The curvilinear cloud bands here are clearly defined as clouds by two tiers of cloud curls. It seems that Falke was not able to

---

(1) Willetts, op. cit., p. 271.
(2) Watson, op. cit., p. 85.
(3) O. von Falke, op. cit., fig. 77; Andrews, op. cit., fig. 10.
Fig. 46: Chinese figured silk. Han period.

A. Figured damask.
   After Andrews.

B. Figured damask.
   After Lubo Lusnichenko.

A. Colour, dull saffron.
Fig. 47: Han silk (probably 1st century A.D.). After Lubo-Lusnichenko.

Fig. 48: Han silk. After Lubo-Lusnichenko.

Fig. 49: Han silk. After lubo-Lusnichenko.
recognize the cloud pattern and considered it as a compartment pattern composed of "pointed oval frames." (1) Andrews recognizes the cloud bands but he takes the vertical bodies of the descending dragons (from the upper cloud bands to the lower cloud bands) for "pilasters", and their heads for "grotesque horned and tusked heads which form the key-stones to the arches." (2)

Sections of the faulted zigzag band appear on mirrors of the 3rd Century B.C., in the form of half zigzag lozenges standing up from the outer rim of the mirror, and surmounted by a bird or a petal. (3)

Sullivan furnishes two diagrams (D.38 and D.40) (4). In D.38, the gap between the inward corners formed by the faulting of the lines is open. In D.40, they are fused together to form a square.

Both types appear on a number of Han silks in the Hermitage Museum (5) of a much later date (pl. 128) with other forms of conventionalized cloud motifs and birds. In pl. 129 (6) a band of adjacent half lozenges is depicted.

On another Han silk in the Hermitage (7) (fig. 48) two registers of adjoining half lozenges are depicted (D.40) type.

---

(1) Von Falke, ibid.
(3) Sullivan, op. cit., p. 21, diagram 38, diagram 40.
(4) Ibid.
(5) MR-1836; MR-1108; MR-1105 (see Lubo-Lusnichenko, op. cit., pls. XV-XVIII).
(6) Ibid., pl. VII2.
(7) MR-986; (see Lubo-Lusnichenko, ibid., pl. I3 and I4).
The only difference between these two bands and the bands of the Arbil minaret published by Flinders Petrie (fig. 50) and those of fig. 48 is that they do not reciprocate.

In fact the technique of weaving is so similar in effect to brick bonding that it seems most likely for the latter motifs to have been borrowed from the former.

b - On the bronze mirror of pl.127 the design appears in an all-over pattern forming the background for other motifs in high relief.

The faulted zigzag bands are fused completely in exactly the same way as in the Islamic pattern of fig. 40 to form a net enclosing zigzag lozenges filled with triangles and spirals. The zigzag bands defining the lozenges are filled by a line of dots.(1)

The same pattern appears on a Han silk (pl. 130) in the Hermitage, where the emphasis was put on the secondary motif (the inner zigzag lozenge) to make it stand out whilst the original pattern was pushed back to take the role of the background.

Other forms of reduced zigzag lozenges occur on Han textiles (fig. 49),(3) and later occur extensively in Islamic decoration, as in the filler motif on the upper cylinders of the twin minarets of Sāmarrā (pl.124).

The pattern occurs frequently on Japanese textiles of the 18th Century (pl.131) and most probably on earlier textiles.

---

(1) The four pointed petals radiating from the corners of the central square are akin in every way to the decorative motif which appears on the main body of the so-called 'bottle motif' at Sāmarrā including the so-called 'Sasanian pearl motif'.

(2) KR-1366, ibid., pl. XII 1: Trever, op. cit., pl. 21 2.

(3) See p.156, pl.7.
Fig. 50: Pattern of zigzag bands with squared loops from the minaret of Arbil. After Flinders Petrie.

Fig. 51: Detail from the kursî of the minaret of Gulpaygan.
All-over pattern of Zigzag bands:

This pattern seems to occur in two forms on existing minarets:

a) The simple zigzag band pattern, such as on the first and second-wide bands of the minaret of Tawūq (pl. 44), and the upper cylinder of the minaret of al-Kawās mosque (pl. 99), which are composed of series of equidistant horizontal bands. The spaces separating the bands (i.e. the background) are normally of the same width as the bands. They are rendered in horizontally bonded bricks or kāshīs while the bands are rendered in vertical bonding.

b) The square (or rectangular) looped zigzag band pattern, such as that on the first-wide band of the minaret of Arbil (fig. 7), and the western outside wall of the Mustanṣiriya madrasa (pl. 101).

According to Herzfeld's reconstruction of the pattern as shown in figure 7, the bands are looped at each right angle. This is consistent with the appearances of the motif on other monuments of the period, such as the western outside wall of the Mustanṣiriya (pl. 101), and the kūra of the Dānūl minaret (pl. 123). It recurs on most of the existing minarets of the Ottoman period (confined usually to their lower cylinders) such as the following minarets: al-ḍaql (pl. 59), Munawwār Khātūn (pl. 109), the Qapalāniya (pl. 132), the Ahmadiya (pl. 58) and others.

Though the zigzag bands on these minarets are reciprocating, a fairly wide space intervenes between their outlines. Another type appearing on the lower cylinder of the Sayyid Sulṭān ʿAlī minaret (pl. 95), is fully reciprocal.

On the other hand Flinders Petrie gives a slightly different reconstruction for the pattern of the minaret of Arbil (fig. 50).

(1) Completed in 630/1232.
where the pattern appears to be composed of reciprocating pairs of bands looped only at the reciprocating sides, separated from the next pair by a simple zigzag. (1)

Apparently the only surviving example of this pattern appears in a Persian miniature of 1514 (in the British Museum). (2) The pattern on the miniature is almost an exact parallel, except that the separating simple zigzag has been omitted entirely and has thus become more akin to the pattern of the minaret of Sayyid Sultan Ali (compare pl. 95 and pl. 133).

On the lower cylinder of the Kawāz minaret, the second wide band shows a variation on the pattern of the zigzag by stretching the spaces between the bands, and by the introduction of square Kufic inscription in the spaces (pl. 99) and (fig. 23).

The same treatment was carried out on the looped zigzags of the upper cylinder of the Quṣaydiya minaret (pl. 100 and fig. 24).

Though both of these examples of zigzag bands have early parallels on Islamic monuments, it appears that the simple zigzag only occurs when the pattern is rendered in bold lines, i.e. formed by oblong bricks (3) (stretchers) or ḫāshi as on the minaret of Tarq, the minaret of Kawāz, the mausoleum of Chiyāth al-Dīn at Qal'ah-i Bust, (4) and the mausoleum of Jahāngīr at Shahr-i Sabz. (5)

---

(2) Or. 11847, fol. 75 V° (I. Etchoukine, "Les Peintures Des Manuscrits Safavides de 1502 à 1587", (Paris, 1959) pl. V.)
(3) Each of these bricks is equivalent to three square bricks of the type used for rendering patterned brick designs.
(4) Dating from the 11th or the 12th Century (Hill and Graber, op. cit., pl. 157, 160).
(5) Belonging to the latter half of the 14th Century (ibid., pl. 101)
or when incorporated with square Kufic inscriptions in the manner depicted on the Kawwāz minaret, the mausoleum at al'Qah-i Bust, and the twin minarets of Pār al-Bāttīkh at Iṣfahān. The looped zigzag appears in bold lines as on the first wide band of the Kawwāz minaret, and in the usual single line whether plain, or incorporated with square Kufic, as on the Aʿzamiya minaret. This suggests that the boldness of the lines did not permit the depiction of the loops for lack of space between the bands. For the same reason the loops were dispensed with whenever square Kufic is incorporated in order to retain the uniformity and density of the pattern. Conversely, the sparse distribution of the single-line pattern allowed the retention of the loops (even when square Kufic was incorporated) without upsetting the pattern in any way, as on the upper cylinder of the Aʿzamiya minaret (fig. 24). This suggests the probability of the simple zigzag being derived from the looped zigzag.

The zigzag band pattern of the twin minarets of Jumbān, where the two types are depicted in the same pattern, confirms this possibility. The wide spaces between the three zigzag bands are filled with concentric squares (pl. 134). The positioning of the squares follows the angles of the zigzag, and subsequently displaces the loops from the corresponding angles of the upper and lower looped zigzag bands, and completely eliminates the loops of the middle zigzag band, turning it into a simple zigzag.

(1) C.1325-50; Wilber, op. cit., p. 171, pl. 163.
(2) The so-called 'Shaking minarets' at Gārīkān in Iṣfahān c.1315; see Wilber, op. cit., pp. 152-4, pl. 117.
Further proof of this derivation can be found on Turkish textiles (pls. 135 (1) and 136 (2)), where, upon closer study, the seemingly simple zigzag band of (pl. 135 ) appears to have foliated finials instead of squared loops.

Those finials are situated on one side of the zigzag band, where the inscription is less densely distributed. On the other side of the zigzag band, where the inscription has greater density, the finials were omitted completely.

The pattern of simple zigzag in pl.135 is extremely interesting. The displaced finials have been retained (though greatly reduced and disconnected) next to the corners from which they were disconnected.

Another important clue to the close affinity between the simple zigzag and the looped zigzag appears as early as the 12th Century on the kurei of the minaret at Gulpayağan (3). On the second panel, situated to the left of the entrance, where the pattern is rendered in recessed squares (two-level [hag̱ir]), an ingenious method was used to allow the imagination of the beholder a choice of interpretations. The two types of zigzag band were incorporated in one pattern simply by the introduction of two more squares (one at each corner of the squared loops) linking the reciprocating loops. This results in the depiction of the two patterns in one, and consequently the eye can focus on either of them at will (fig. 51).

(1) T. Öz, Turkish Textiles and Velvets, XIV-XVI Centuries (Ankara 1950) pl. XXVII.
(2) T. Öz, Türk Kumaş ve Kadifeleri II. (Istanbul 1954), p.237 and pl. CXXXIII (No. 4600 (TKS)).
(3) Probably of the 12th Century (Hill and Grabar, op. cit., pl. 286.)
In any case, the pattern as reconstructed by Flinders Petrie seems to be the earlier of the two (i.e. reciprocating zigzag bands with squared loops on one side only).

It is worth noting that an exact parallel to the zigzag band of the Iraqi minarets (the reciprocating band) appears on 16th and 17th Century Russian embroideries (pls. 137 and 138). The pattern appears as a textile design. This may indicate a common origin for the Islamic and the Russian patterns.

The appearance of the "slanted 'T'" all-over pattern (the Chinese 'cloud and thunder' pattern) on the robe of the angle (pl. 139) in the same embroidery confirms its Chinese origin. This shows that Chinese silk designs were often borrowed or imitated in other media.

A near-exact parallel appears in the stucco ornament of 'Style B' at Sāmarrā (fig. 52) from House III excavated by the Iraq D.G.A.

---

(1) A.N. Cuirin, Drevnorusskoe skvitye Gosudarstvennoe Izdatelstvo "Iskusstvo" (Moscow 1963) pl. on p. 121, and pl. on p. 60 (the plate on page 121 is a detail from colour plate on p. 77).
(2) Ibid., pl. on p. 81.
(3) Fig. 38 is based on pl. XXI of Hamīd, op. cit. Each of the two bands is an exact facsimile of the motif on the head of the Naṣārīya minaret, consisting of three triangles, the middle one of which is surmounted by a square.
Fig. 52: Detail from the stuccoes of Samarra.
The rectilinear cloud-scroll and its derivatives

The rectilinear version of the cloud-scroll on the Iraqi minarets is shown in fig. 53. It consists of three adjacent triangles, the central one surmounted by a diagonally positioned square. It seems to have given rise to two other motifs both of which appear on the lower cylinder of the minaret of the Saray mosque, otherwise known as the Jadid Hasan Pasha mosque.

The first occurs as a filler motif. It occupies the triangles formed by the sides of the diagonal frames (1) and closed by the horizontal square Kufic bands below the hawd. The second motif occurs in the corresponding triangles below the diagonal frames (fig. 143).

The first motif resembles a capital 'T', the horizontal bar of which ends at both ends in a key device, while its vertical bar ends in a cross. (fig. 53 C.).

The second motif resembles two adjacent right angles symmetrically arranged. Both arms of the right angles end in a key device (fig. 53 D).

The first motif seems to have been achieved through the all too familiar process of manipulating the secondary spaces. In this example not only the inner spaces of the cloud band were enhanced, but the actual cloud-band is itself completely eliminated. The three evolutionary stages can clearly be seen in fig. 53B, C, and D respectively.

The second motif in this example (fig. 53 D) is the result of splitting the first motif in halves by the vertical dotted line descending from the head of the triangle.

However, both phenomena - i.e. the contrivance of a motif from the inner space of another motif and the splitting of motifs - are

(1) These frames contain "Square Kufic."
Fig. 53: The evolution of the rectilinear version of the cloud scroll.
by no means isolated incidents, nor are they limited to architectural ornament. In fact an exact parallel to both can clearly be seen in a 17th Century miniature from al-Bīrūnī's Al-Āthār al-Bāḏja in the Bib. Nat., Paris (pl. 140). In this miniature both phenomena appear in the forms of metallic decorative bands strengthening the corners of the gate of the besieged fortress. An even earlier parallel to the split motif can be seen in the form of iron bands reinforcing the corners of the early 11th Century wooden door of the mausoleum of Ḥāfīz of Ghazna (pl. 141).

The Bird Motif

This filler-motif is usually found on the minarets of the 'New Style' occupying spaces within all-over patterns of mixed motifs (looped zigzag bands interrupted by swastikas). Examples occur on the upper cylinder of the minaret of the Āhmadiya mosque (pl. 58 and fig. 31 B), as well as in triangles left by all-over patterns of spirals containing "square Kufic" as on the upper cylinder of the minaret of the Munawwar Khūṭūn mosque (pl. 109 and fig. 141).

This motif resembles a capital 'W' rendered in double line; its central peak is surmounted by a diagonally positioned square.

This motif is the geometrical abstraction of one of the many versions of the cloud-scroll, which were developed simultaneously in parallel but slightly different directions (see figs. 54 - 57).

The nearest parallels to it can be seen in curvilinear rendering in the elaborate cloud-scroll of a 15th Century Turkish plate (pl. 142 and fig. 55 E), and of a 16th Century Persian plaque of pierced steel (pl. 143(2) and fig. 55 II).

(1) O. Aslanapa, Anadoluda Türk Çini ve Keramik Sanatı (Istanbul 1965), pl. 32.
(2) A.U. Pope, Masterpieces of Persian Art (New York, 1945) pl. 143.
Fig. 54: Variations of the cloud band in Islamic art.
(see the following page)
Fig. 54:

B. = = = = carpet. Persia. 16th century.
C. = = = = 1550.
D. = = = = 16th century.
E. = = = =
F. = = = = 17th century.
H. = = = = carpet. Persia. 15th century.
I. = = = = 16th century.
J. = = = = Asia Minor.
K. = = = = c. 1800.
Fig. 55:
Variations of the cloud band in Islamic art.
(see the following page)
Fig. 55:

A. Cloud band on Islamic carpet. East Persia. 2nd half of the 17th century.
B. From a miniature painting. Persia. 1515.
C. From a carpet. Persia. 1st half of the 16th century.
D. = = = = = C. 1600.
E. = = dish. Turkey. 15th century.
F. = = carpet. Persia. 2nd half of the 16th century.
G. = = dish. Turkey. 16th century.
H. = = carpet. Herat. 1st half of the 17th century.
I. = = = Late 17th century.
J. = = = Persia. 2nd half of the 16th century.
K. = = = 16th-17th century.
L. = = = Anatolia. Late 16th century.
Fig. 56: Cloud bands on Islamic carpets.
A and A l. Persia. 1640.
B. Persia. C. 1600.
C. Persia. 1st half of the 17th century.
D. Qarabāgh. 1848.
Fig. 57: Rectilinear cloud bands in Islamic architecture.

A and B. From the congregational mosque of Nā'īn. 350/960. Persia.

C. From a wooden column depicted in a miniature from the Resā'il Ikhwān al-Ṣafā. Iraq. 1237/1428.

D. As they appear on Iraqi minarets.
It should be noted that the motif of the steel plaque is so similar to the so-called cloud collar (1) when horizontally halved that it becomes extremely difficult to decide whether this motif is in fact a scroll or half of a cloud collar. On the other hand, the motif of the Turkish plate mentioned above is clearly a cloud scroll.

However, the so-called 'Bird-motif' of the Iraqi minarets is most probably another version of the geometrically looped cloud-scrolls depicted on the Iwān of the Congregational mosque of Mā'in, datable in the 4th/10th Century (fig. 57 A and B).

A further study of the various lines of evolution (fig. 58 ) of this motif clarifies the origin of two early ʿhandīrī all-over patterns. The first of these is the pattern depicted on the second wide band of the minaret of Arbīl (fig. 7 ). This pattern is composed of identical reciprocating units. Each unit is formed by a central square diagonally positioned, with two L-shaped lines stemming from two opposite corners in a symmetrical arrangement. The 'L-shaped' lines at first continue the directions of the sides of the square forming their respective angles, and the lines then turn symmetrically outwards in a right angle. An almost exact parallel to this pattern occurs on the southern outside wall of the Mustansiriya madrasa (pl. 144). The only difference between the units of the Arbīl pattern and the Mustansiriya pattern is that in the latter the other two plain corners of the central square, which at Arbīl were left without an attachment of any sort, are surmounted by one diagonal square each.

A closely related pattern appears on the lower cylinder of the minaret of ʿAṣīṭ (pl. 61 and fig. 14 ). However, due to the

(1) This is normally formed by four ʿjoo-e heads.
Fig. 58: The evolution of the rectilinear cloud band.

A. The evolution of the cloud band into a bird motif.

B. The evolution of the cloud band into a tortoise-like motif.
scarcity of this motif on existing monuments; evidence as to its evolution must be sought elsewhere. Study of the ornament of Islamic carpets not only provides the outline of this evolution but also conclusive evidence of the fact that original motifs and their derivatives (which become increasingly remote from their source) appear side by side in the same work regardless of time. This seems to explain the vast wealth of Islamic ornament where nothing falls out of fashion and nothing is discarded. Every element, its derivatives and their derivatives in turn are in constant use in various media, in both old and new combinations.

An illustration of this is provided by an 18th Century Turkish carpet (pl. 145). On the borders of this carpet three stylizations of the looped cloud-scroll are depicted (see fig. 54).

Stylization B in this carpet is an exact parallel to the cloud-scroll of the 10th Century Iwan at Na'in. Stylization a - d can still be recognized as a corrupted version of the cloud-scroll of fig. 54 j which is from a 17th Century Turkish carpet. Stylization a throws some light on the pattern of the Arbil minaret. It seems to be composed of two scrolls of stylization B arranged in an upside-down relationship, in such a way that the rectangular or the square loops of the two scrolls are superimposed on each other completely. In fact the two scrolls share a common loop. This provides conclusive evidence of the fact that the Arbil motif is a composite motif derived from two cloud scrolls composed in this manner. The motifs of the southern wall of the Mustansiriya madrasa, and those of the minaret of Wasit, can be similarly explained.

(1) Grote-Hasenhübel op. cit. I (Berlin 1922) pl. 50.
All-over pattern of Swastikas

On the minarets of Iraq, two types of swastika all-over patterns occur. These will be referred to as 'Type A' and 'Type B' respectively.

Both types consist of identical units; each unit is composed of four connected swastikas.

The 'unit of four' in Type A (fig. 10) defines the so-called Châr-Callî (Chahâr-Callî in Persian) as on the lower cylinder of the minaret of Sûq al-Chazl, and the lower cylinder of the minaret of the Čâdîiya mosque (pl. 49).

In 'Type B' (fig. 18), the units define the so-called 'interlocked T's pattern' as on the lower cylinder of the minaret of the Na'mâniya mosque (pl. 86).

Other than on minarets, Type A can be seen on the southern outside wall of the tomb chamber of Shaikh ʻUmar al-Suhrawardî (pl. 146 and fig. 59). The pattern in this example is slightly different from that of the minarets; it is in fact another version of it. In this version the pattern is rendered in single lines whilst the so-called ʻChâr-Callî' is rendered in double lines. This seems to have led to the reduction of the size of the swastikas to the size of the central squares, and caused the dissection of the whorl-shaped secondary motif into separate key devices.

---

(1) This type was fully examined when dealing with the minaret of Sûq al-Chazl (supra pp. 105 and 106).
(2) This type was fully examined when dealing with the minaret of the Na'mâniya mosque (supra pp. 36 and 137).
(3) This pattern, as well as the square Kufic inscriptions enclosed within it, were destroyed during one of the recent restorations carried out by the D.G. of Asqâf. The reconstruction of the pattern and the inscription of fig. 59 were based on the old photograph reproduced in pl. 146.
Fig. 59: Reproduction of the square Kufic inscription ans the swastika pattern on the southern wall of the miḍ of the Suhrawardi.

The earliest existing parallel to 'Type A' appears on a piece of pierced metal used as a patch on a metal lamp (dated 483/1090) in the Türk Ve İslam Eserleri Müzesi in Istanbul (pl. 147). The use of this piece as a patch seems to suggest that it might have belonged to an earlier lamp than the one depicted in the plate, or at least that it is contemporaneous to the lamp.

Another parallel to 'Type A' appears on an Islamic lamp in pierced metalwork datable to c.1187 (fig. 60) in the Louvre Museum.

The only difference between the pattern of the lamp and the pattern of the minarets is the central square, which is rendered in a diagonal position on the lamp. This is most probably due to the nature of the work (pierced metal or openwork), where no decorative element or device can be completely isolated from the rest of the design.

Apart from the 12th - 13th Century metalwork of Muṣkil (pls. 87 and 148) and work influenced by it, no exact parallel can be found to the 'Type B' pattern on any of the existing Islamic monuments of Western Asia or North Africa. In fact the only exact parallel known to me is found on one of the turrets of the Congregational mosque of Madīnat az-Zahra in Andalusia.

However, strips of 'Type A' occur on a number of Iraqi minarets of the 'New Style', either in the form of an independent narrow band (Swastika meander) surrounding the cylinder, as on the lower cylinder of the minaret of the Wazīr mosque (pl. 149 and fig. 61), or incorporated within an all-over pattern of spirals.

---

(2) Bronze lamp from the Dome of The Rock (D.S.Rice, op. cit., pp. 219-220.
(3) Near-exact parallels to this pattern can be seen on the columns of the Western façade of the mosque of Diyarbakr (pl. 150 B and C). See H. Van Berchem and J. Strzygowski, Amida (Heidelberg 1910), pls. X and XI.
(4) Near-exact parallels to this pattern too can be found on the columns of the western façade of the mosque of Diyarbakr (pl. 150 D).
(5) Immediately below the band of monumental "Kufic" inscription.
Fig. 60:
A. Bronze lamp from the Dome of the Rock. C.1187.
B. Detail from the lamp. After D.S.Rice.
Fig. 61: A frieze of horizontally laid swastika meander from the minaret of the Wazir mosque. 1234/1818. Baghdad.
containing square Kufic inscriptions, as on the lower cylinder of the minaret of the Haidar-Khāna mosque (fig. 144). (1)

Though no similar strips (i.e. bands or meanders) of 'Type B' can be found on any of the existing minarets, the old mihrāb (now destroyed) of the Wazir mosque exhibited such a band in the form of a rectangular frame (katība) enclosing the niche and the tympanum. In the pattern of this frame, halves of the so-called interlocked 'Ts' can clearly be seen, in contrast with the band from the minaret (pl. 151), where no such device can be observed.

Although the origin of Islamic ornament, including the swastika motif, (2) is generally attributed to Sasanian Iran, a search for a parallel to both patterns (Type A and B) in the Sasanian repertoire reveals no exact parallels. Apart from the so-called swastika meander (fig. 62) from Ctesiphon (531-579) (3) and the all-over pattern of the same characteristics from which the meander was derived, (4) no other types of swastika pattern have yet been found.

On the other hand, a search through the Chinese and Indian repertoires yields astonishing results. Both patterns occur extensively (especially 'Type B') on Chinese work in various media such as porcelain (pl. 152), silk (pls. 153 - 155), enamel (pl. 156), lacquer (5) and carpets (pls. 150, 160 and 161). They also occur in the Japanese repertoire as extensively, as on

(1) The band of the minaret of the Wazir mosque is a horizontal strip from such an all-over pattern, whilst the incorporated band of the Haidar-Khāna minaret is a diagonal strip.
(2) Dalton, op. cit., p. 362.
(4) Pope, Persian Architecture, pl. 67.
Fig. 62: Reproduction of a Sasanian stucco panel depicting a half palmette scroll and two swastika meanders. Ctesiphon. 6th century. After Pope.
the sword guard (tsuba)\(^{(1)}\) of pl. 162 and the silken waist band in pl. 163. The same pattern also appears in abundance in the repertoire of Tibet (Fig. 63).

The border patterns of the Chinese carpets of pls. 157, 158 - 161 are identical with the band of the minaret of the Wazir mosque. The all-over patterns of the Chinese carpet of pl. 157, of the Imperial Dragon Robes (pls. 153 & 154) and of the Chinese silk (in the Victoria and Albert Museum) of pl. 155 are identical with the pattern of the minaret of the Na‘māniya mosque (Type B). Similarly the pierced top of the portable copper brazier in the Victoria and Albert Museum recalls the metal lamp of pl. 147 and fig. 60.

Garner maintains that this pattern (Type B) was developed in the Ch‘ing Dynasty (commencing in 1644) in a statement which for other reasons too, deserves to be quoted in full:

"In the Ch‘ing dynasty a background diaper, used often in inlaid lacquer, was developed in which the threads of the design, incorporating swastika symbols, run from one side of the piece to the other. This diaper shown in figure 21........"

Garner's statement should be completely ignored for the following reasons:

Firstly, this pattern could not possibly have been developed in China after 1644, for the simple fact that it appeared during the 12th Century on the metalwork of Mauqil, and probably on earlier works which have not survived.

Secondly, the earliest exact parallel to this pattern appears (amongst other related patterns) in the 6th Century on the walls of

\(^{(1)}\) According to Robinson, the parts of a Japanese civilian sword include the guard (tsuba), which is as a rule flat and comparatively thin (B.W. Robinson, Arms and Armours of Old Japan, (London 1951), p. 7.

\(^{(2)}\) S. Himmel, Die Lamasistische Kunst in der Umwelt von Tibet, (Leipzig 1955), pl. 98.

Fig. 63: Reproduction of a swastika all-over pattern on a monastery in Sikkim. After Hummel.

the Buddhist Dageh-Stupa at Sarnath in India (pl. 165B). (1)

Thirdly, Garner ignores all the other media where such a pattern might be found, whether in China or outside her borders, and depends solely on lacquer for his conclusion. Furthermore, he does not take into consideration the fact that though lacquer is an ancient art in China, it is also a fragile material and it is thought that there is no pre-Han lacquer at all. Only very few examples of lacquer survive from the succeeding 1200 years. (2) Ming lacquer is rare, and only the products of the last three centuries are abundant. (3) Willetts has shown that in the Law-Beer Collection a pre-Han plaque of lacquer does exist. (4) Garner's conclusion excludes all the missing lacquer pieces which might have existed during the twelve centuries after the Han period and which might have had such a pattern depicted on them.

The mere appearance of this pattern on the 'Dragon Robes' of Emperors should confirm an older existence of the pattern than the date given by Garner, for the Chinese had an extremely rigid tradition in regard to the emblematic figures and patterns rendered on the Official Robes, let alone the Imperial Robes. (5) This tradition would scarcely allow a sudden change in the 18th Century of the background pattern of the Imperial 'Dragon Robes.'

With regard to other swastika patterns occurring in Chinese carved lacquer (diapers consisting of swastikas set inside single

---

(2) W. P. Yetts "Discoveries of the Kozlov Expedition" Burlington Magazine XLVIII (1926) pp. 250-64.
(3) Ibid.
(4) Willetts, op. cit., p. 201.
or double squares). Garner maintains that "In Chinese art the symbol is found in Buddhist sculpture and is a variant of the character Wan, meaning "myriad" or "ten thousand." Garner also maintains that "the swastika symbol was developed into more complex diapers in the late Ming dynasty (1368-1644), where it is found in blue and white porcelain." (2)

Thomas Wilson in his encyclopaedic report on the swastika (submitted to the Smithsonian Institute), cites the following quotation from The History of the T'ang Dynasty by Lui Hai, which states that "the Emperor Tai Tsung (763-779) has issued a decree forbidding the use of the swastika on silk fabrics manufactured for any purpose."

Wilson reproduces a drawing of such silk fabrics (pl. 166). (7)

One of the silk rolls depicts an all-over pattern of 'Swastikas in Squares' similar to the pattern depicted by Garner in fig. 20 and the other roll depicts an all-over pattern of connected swastikas without connecting bars. This pattern could easily be taken for an all-over pattern of small simple crosses composed of identical bars, crossing each other at the centre and at right angles. (8)

---

(1) The units of this diaper pattern are referred to in this thesis as the 'Swastika in Squares' motif.
(2) Garner, op. cit., p. 178 and fig. 20A, B and C.
(3) Ibid., p. 178.
(4) Wilson, op. cit., p. 800.
(5) Mentioned in an article by Ho Yen-Shing in Wilson, op. cit., p. 800.
(6) Ibid., p. 800 and pl. 3.
(7) Ibid., pl. 3.
(8) Both patterns appear in the ornament of Islamic monuments. The former appears on the drum of the so-called Cudük Minare (1347-8) at Sivas (Hill and Grabar, op. cit., pl. 364) and the latter appears on the outer wall of the Mausoleum of Khoja Ahmed Yassavi (1397) in Turkistan (ibid., pl. 108) as well as on the tower of Bahranshah (1117-1149) at Ghazna (ibid., pls. 149 and 150) where it can be clearly seen on the upper wide band (consisting of oblong shapes) immediately below the band of "Kufic" inscription. The same pattern can also be seen on one of the columns of the Diarbakr mosque (pl. 150A).
A prohibition was imposed on the production of these patterns in the second half of the 8th Century, most probably on the grounds of their sanctity, and most probably in order to reserve their use for the Imperial Court. This seems to indicate their wide and general use among the Chinese, long before the 8th Century, on silk and most probably on other media as well.

Though the swastika is one of the most ancient symbols and has a very wide distribution in prehistoric times, its origin and significance (apart from India and later China) remain unknown despite the various theories and speculations.

Among the various designations for this motif, such as 'fylfot,' 'croix gommée,' 'Cammadon,' 'croix cramponnée,' 'croix pattée,' and 'croix crochet,' only the Sanskrit designation now remains in common use, i.e., 'Śvastika' or 'Suastika.' According to Wilson, *Littre's French Dictionary* gives the following etymology for the Sanskrit word:

"A Sanskrit word signifying happiness, pleasure, good luck. It is composed of Su ... 'good' and 'asti' 'being' good being" with the suffix ka...." (4)

In India, the swastika appears in literary sources as far back as the middle of the 4th Century B.C. as one of the signs for marking cattle. (5)

Wilson relates (on the authority of Max Muller) that the swastika was exclusively an early Aryan symbol of the supreme Aryan god, till about 600 B.C. It continued in use until it

---

(2) Ibid., pp. 769-70.
(3) Ibid., p. 768.
(4) Ibid.
(5) Ibid., p. 772.
became the device and symbol of Brahma, and finally of Buddha.\(^1\)

According to Wilson, the swastika existed in China before the advent of the Buddha. It stood as a symbol for a sect called "Tsocco" ('Doctors of reason' or 'Followers of the Mystic Cross').\(^2\)

According to Wilson, in Chinese, the swastika is referred to as 'San'. It stands for "infinity," "many," "ten thousand," and "great number"; and by a synecdoche is construed to mean "long life, a multitude of blessing, great happiness," and so on.\(^3\)

Wilson relates an incident in the Chinese Legation in Washington, where he saw the swastika depicted on the robes of state worn by a Chinese Attaché (Mr. Chung); when Wilson asked about its name and significance in modern China, he was told that "The name given to the sign was ....San, and the signification was "longevity," "long life," "many years."\(^4\) Thus Wilson rightly arrives at the following conclusion:

"Thus was shown that in far as well as near countries, in modern, as well as ancient times, this sign stood for blessing, good wishes, and by a slight extension, for good luck.\(^5\)

Strange, when dealing with the characteristic patterns of carved lacquer, confirms that the swastika signifies infinity; and "in conjunction with the character 'Shou' it would be read as "myriad ages."\(^5\)

Though the swastika appears in China before the introduction of Buddhism,\(^6\) it does not seem to have gained wide popularity

---

\(^1\) Ibid., p. 779.
\(^2\) Ibid., p. 774.
\(^3\) Ibid., pp. 799-800.
\(^4\) Ibid., p. 800.

---
in ancient China, as it does not appear on the ritual vessels of the early Han period nor of the preceding periods. In fact, the earliest swastika decoration on Chinese bronze vessels occurs in the Sung period (960-1280).

Tao Kuh of the Sung dynasty, in his work Ta'ing-l-Luh, records that an Empress in the time of the South T'ang dynasty had an incense burner the exterior of which had the swastika design on it. This is further confirmed by Garner's statement that the swastika in Chinese art is found in Buddhist sculpture. (3)

In India the swastika appears in abundance in the inscriptions on the rock walls of Buddhist caves. (4) Except on the stupa of Sarnath it does not seem to appear in the form of an all-over pattern.

This seems to be the reason for Dalton to attribute the 6th Century Sarnath patterns to Mesopotamian influence "from the West of the Euphrates," and for making him lean heavily on the 12th and 13th Century metalwork of Mausil to support his claim. (5)

He asserts that the damascening of the metalwork of Mausil is an ancient style, even though he cannot produce a single parallel or prototype from the area west of the Euphrates prior to the so-called 'Athens dish' which he considers to be earlier than the 12th Century. (6) It is in fact datable roughly to the 10th or 11th Century. This dish certainly contributes no evidence that damascening

(1) Wilson, op. cit., pp. 800-1.
(2) Ibid., pl. 66.
(3) Garner, op. cit., p. 178.
(6) Ibid., pp. 362-3, fig. on p. 386.
is an "ancient" (i.e. at least pre-Islamic) style in Mesopotamia. However, reverence for the swastika seems to have increased in China after the introduction of Buddhism (most probably during the 4th Century, when, according to Dyer Ball, "nine-tenths of the inhabitants of China were Buddhists.") It was most probably incorporated with the ancient Chinese all-over pattern of the "Cloud and Thunder," or perhaps it evolved into an all-over pattern which replaced the 'Cloud and Thunder' pattern. This latter pattern is an archaic representation of clouds, used as a "filler motif for the diaper pattern of bronze cauldrons of the Chou period. Thereafter, the swastika all-over pattern came to be used widely on silk and on other media such as lacquer and bronze (pl. 168), porcelain and wood railing (pls. 169 - 171) in China and in countries influenced by Chinese culture and Chinese art in subsequent periods.

(1) In China damascening appears as early as the 4th Century B.C. on bronze ritual vessels and other objects. Damascening continues in China throughout its history, for example the 4th Century tui of the British Museum published by Watson (see R. Soame Jenyns and W. Watson, Chinese Art - The Minor Arts, London 1963, pl. 51), the 2nd - 1st Century B.C. bronze censer of the Freer Gallery of Art, Washington also published by Watson (ibid., pl. 38), and on numerous works of the following centuries.

(2) Ball, op. cit., p. 51.

(3) Speaking of the Key-pattern on Chinese lacquer, Strange maintains that it is a derivative of the archaic pattern known to the Chinese as 'Cloud and Thunder' or simply 'Thunder pattern' (Strange, op. cit., p. 30).

(4) Ibid.

(5) Ibid.

(6) It is worth noting that a version of the 'Cloud and Thunder' pattern occurs in the Šapallāniya mosque in Baghdad in the form of a square panel executed in kash mosaic (pl. 252). A band of the so-called "Key meander" (a related motif) appears on the upper cylinder of the minaret of the Khaffāfīn mosque (The Hāfīz). It dates from its last restoration (pl. 65).
It seems very likely that swastika all-over patterns thus evolved were re-exported to India on silk as well as via other commodities by traders as well as by Chinese Buddhist pilgrims.

The appearance of such patterns in the 6th Century on the stupa of Sarnath could most probably be attributed to the copying of silk patterns transmitted in this way. The complete lack of information of early Indian silks may further prove this suggestion. Although single swastikas are common in Indian art, Sarnath is the only example of the swastika being used as an all-over pattern.\(^1\)

However, the swastika does not have such a significance (if indeed it has any at all) in Islam, nor in Zoroastrianism, nor in Manichaeism. Thus the numerous variations of swastika patterns in Islamic art, whether on the stuccoes of Khirbat al-Mafjar (figs. 64 and 65), the stuccoes of Samarra (fig. 66), the columns of Diarbâkhr (pl. 150) the tomb towers of Kharraṣān (fig. 67) the metalwork of Mousil or on other monuments\(^2\) could not have developed from a local Sasanian prototype (fig. 62) which itself is supposed by Dalton to have been borrowed from the Greek fret or Swastika meander. This has, to my knowledge (unlike the 'triseklión') no specific meaning in Greek religion, mythology or art, apart from the general idea that the individual swastika is a symbol of the supreme Aryan god.\(^3\)

---

\(^1\) See Appendix VII.

\(^2\) Such as the ʿIwan of the Mustanjīriya madrasa (pl. 174), a niche in the so-called Abbāsid palace (pl. 175), the Chihīl Dukhtārān mausoleum at Dāmghān (pl. 176), the window of the Congregational mosque of Cordoba (pl. 177) and so on.

\(^3\) This has been mentioned above (p. 203).
Fig. 64: Stucco ornament from Khirbat al-Mafjar, depicting swastika patterns. After Aslanapa.
Fig. 65: Stucco ornament from Khirbat al-Mafjar, depicting swastika patterns. After Aslanapa.
Fig. 66: Sāmarrā border designs, depicting swastika patterns. After Herzfeld.

A. A strip from an all-over pattern of swastikas in the form of the so-called 'T' pattern.

B. A strip from an all-over pattern of swastikas defining 'T' and 'Z' patterns.
Fig. 67: Swastika patterns from the tomb towers of Kharraqan. 1067-8. After Seher-Thoss.
Those Islamic swastika motifs, like their Sasanian (1) and possibly even their Greek versions, could only have come from a country where such patterns had definite meaning, such as India, Tibet, Central Asia and China.

For the reasons given above, India is less likely as a source for the Islamic swastika patterns.

Central Asia (including Tibet) has never been a centre for scientific, technological or artistic advances though it has always been an area of transmission between China and India on one hand and the West on the other hand. (3)

Thus, the only possible source remains China - as has already been suggested - principally through its silk, metalwork, and porcelain as well as lacquer and other artifacts.

In Islamic art a number of swastika all-over patterns based on the 'Swastika in Square' units make their appearance on the monuments of various periods. Such patterns could also be categorized and classified, such as the type depicted on the later tomb tower at Kharragán (fig. 67 A) (4) where the swastikas are arranged in a kaleidoscopic manner. Another type is that of fig. 67B (5) where the 'Swastika in Square' units are arranged around six-pointed stars. In this example, the swastikas in squares are repeated in ever-increasing circles in the form of

---

(1) As was mentioned above, Persia during the Sasanian period was partly Buddhist (infra p. 370) in its eastern provinces.
(2) The Greeks might have obtained the swastika meander from Parthian Iran, Bactria or through the silk trade. But it is of course also possible that the motif developed independently there.
(3) J. Needham, "Central Asia and the History of Science and Technology," on cit., p. 30; Blochet, on cit., p. 76.
(4) Sehrr-Thoss, on cit., pl. 22.
(5) Ibid., pl. 18.
expanding ripples radiating from a common centre (the six-pointed star). The central section of such a pattern (arranged around an eight-pointed star) occurs in a kashī plaque in the Haidar Khāna mosque (pl. 178).

The Haidar Khāna pattern was executed in 1311/1893 according to the date depicted in the ten-pointed-star within the design of the tympanum (in the middle of the field to the left of the crown of the arch). This seems to constitute another proof of the fact that once a pattern was introduced to the Islamic world, it was fully assimilated and widely dispersed all over its domain and was kept alive through constant use and adaptation.

It should be pointed out that the effect of the swastika is by no means limited to the all-over patterns of the conventional swastika (1) mentioned above. In fact the study of a number of geometrical all-over patterns of the minarets of Iraq, such as the pattern of waisted lozenges of the minaret of Dhu‘l-Kifl (pl. 57) and the all-over pattern of zigzag bands interrupted by swastikas of the minaret of the Ahmadiya mosque (pl. 58) reveals an underlying swastika form or plan. In these arrangements the traditional form of the swastika is disguised. The arms of the traditional swastika are replaced by cartouches, trapezoid forms or whole words (usually identical). This makes it difficult to recognise immediately the swastika form which underlies these compositions.

This can clearly be seen in the two analytical drawings made for the patterns under consideration (figs. 11 and 12). Here the waisted lozenge shapes formed by

(1) That is, a swastika formed by the crossing of two identical bars or lines at right angles, with their arms identically bent at right angles and in the same direction.
the pattern are arranged in the direction of the bent arms of the swastika. In the first drawing (fig. 11) the shapes surround a square. In the second drawing (fig. 12) the shapes surround a 'Swastika in Square.'

Recent excavations at Samarrā reveal that the same procedure was used in the stuccoes there. The square panel in pl. 180 shows this composition in use as early as the 9th Century. The same method can also be seen in the İznik plate (pl. 179) where cartouches are assembled in the same manner, and in a kāshī panel from the Great Mosque of Isfahan, where the trapezoids (not the space between them) are arranged in a swastika fashion.

The same phenomenon appears in all-over patterns composed of "square Kufic" as on the upper cylinder of the minaret of the Ġadiliya (Ğadila Khātūn) mosque (1) (pls. 49 and 50), and the pattern of the western outside wall of the tomb of Shaikh Ǧūmar al-Suhrawardī (fig. 68).

In the former example, the whole pattern is composed of the word 'Allah' grouped in fours according to a swastika formation. An exact parallel to this pattern can be seen on the drum of the tomb of Shaikh Ǧaff al-Dīn at Ardabil. The same formation appears incorporated in a pattern of square Kufic on the base of the minaret of Bāgh-i Qūsh Khāna at Isfahan (pl. 181).

In the all-over pattern of square Kufic of the second example (fig. 68) the group of four is composed of the word 'All' according to the swastika framework, and that is where the real Ḟār-Ǧālī appears.

(1) There were two mosques in Baghdad called after Ğadila Khātūn: Jāmī Ğadila Khātūn al-Saghīr (the small mosque of Ğadila Khātūn) and Jāmī Ğadila Khātūn al-Kabīr (the Great mosque of Ğadila Khātūn). The small mosque was demolished around 1950 and was replaced by another mosque in the Sarrāfiya area. The new mosque was called by the same name as that which it replaced. All references to the Ğadiliya mosque in this thesis refer to the Great Mosque (al-Kabīr) of Ğadila Khātūn.
Fig. 68: Reconstruction of a char-
- All inscription in square
Kufic from the western wall
of the Suhrawardi tomb.
All-over pattern of spirals.

A number of minarets in Iraq exhibit all-over patterns composed of spirals. These spiral patterns can be divided into two types on the basis of how they are used. One type acts as a framework for 'square Kufic' texts (figs. 141-144 and pl. 105) discussed in Chapter IX. The other type forms a pattern in itself. The majority of these spirals are very simple. They are composed of single lines of kasba squares set at fixed distances from each other and spiralling around the upper and/or lower cylinder of the minaret. Examples are the upper cylinder of the minaret of the al-Awqa mosque in Baghdad and the upper cylinder of the minaret of the Qasrriya mosque (pl. 70).

A more elaborate version of this type may be seen on both cylinders of the Galânî mosque minaret II (fig. 69 and pl. 182), known as the minaret of Sayyid Salmân al-Naqîb.

All-over patterns of spirals - mostly filled with 'square Kufic' inscriptions - occur on some of the minarets of Persia, such as the Dâgh-i Qâsh Kâhna minaret at Isfahân, (1) and the twin minarets of the Masjîd-î Shâh (17th century) (2) in Isfahân. A pattern of spirals also appears on the dome of the congregational mosque of Gâzvîn. (3)

On the minaret of Wâsit, another type of spiral pattern appears: spirals executed in three dimensions (pl. 61). The spirals in this example are rendered in convex fluting. The existing minarets of Iran do not offer a parallel for this kind of spiral, but parallels do exist in Turkey, such as the Durnâlî (4) minaret at Amasya (1245). (5)

---

(1) It should be noted that Grabar considers this minaret as a 15th century monument (Hill and Grabar, op. cit., pl. 318 and caption) whilst Pope gives it a 14th century date (Pope, Persian Architecture, pl. 164, and caption).
(2) Pope, ibid., pl. 110 and caption.
(3) Hill and Grabar, op. cit., pl. 251 and caption.
(4) Durnâlî is a Turkish word meaning 'twisted.'
(5) Hill and Grabar, op. cit., pl. 353 and caption.
Fig. 69: The spirals of the minaret of al-Sayyid Salman (The al-Gailānī minaret II).
This brings to mind the discussion about the origin of fluting on some of the minarets in Iraq, and on Seljuk tomb towers, and the role of metalwork in the development of this feature. All-over patterns of spirals continue to appear on metalwork down to the 17th century, as on a candlestick published by Pope.

Though spirals often occur on convex mouldings surrounding the pointed arches of portals such as the portal of the Marjâniya madrasa, on engaged columns flanking portals, such as the portal of the Ulugh Beg madrasa, Samargand, and on a good number of columns, as in the Masjid-i Wâsit at Shârz, it is very difficult to give a definite provenance for this motif, though its derivation from metalwork is probable.

Minarets depicted in miniature painting offer further evidence on this problem. Two minarets in the Naqâmat of Harîrî of the Suleymâniya Mosque library in Istanbul datable to 1242–1258 show spiral brick bonding on their cylinders (pls. 20 and 183).

The unprecedented brick bonding in both examples may suggest that the painter might have misinterpreted the conventional brick pattern of spirals (i.e., executed in horizontal-brick bonding), but his apparent knowledge of the utilization of the various forms of this art for elements such as arches, sikkas, and the spiral cable moulding surrounding the door of the minaret in pl. 20 leaves no doubt about the existence of such unusual spiral brick bonding during that time. This is further supported by the appearance of such spirals — though much smaller — on the minaret of Wâsit, where they are even executed in three dimensions.

(1) Suprâ, pp. 161 – 63.
(2) Pope, Masterpieces, pl. 145 .
(3) Hill and Grabar, op. cit., pls. 60, 62
Polygeonal Ornament

It seems that other than the band of eight-pointed stars, the so-called 'Cross and Star' motif, polygonal ornamentation was seldom used on the minarets of Iraq which are decorated with kashā. It can, however, be seen more frequently on minarets decorated with brick patterns, such as the minarets of the 'Old Style', the minaret of Shaikh Ahmad al-Rifā'ī (pl. 103), and the ʿAywādīya minaret (pl. 102). On the other hand, polygonal ornamentation seems to have been more popular on flat surfaces, such as blind arches, portals, pendentives and spandrels. This is most probably due to the technical difficulty of cutting the decorative units in convex and concave forms as well as cutting them according to their polygonal shapes to suit the round surface of the minaret. Occasionally, however, polygonal ornament can be found on (rather restricted) curved architectural elements, such as the cable and cavetto mouldings of portals. In such cases the position of the ornament necessitates such a treatment in order to preserve the unity and harmony of the design; examples are the following portals: ʿAṣīf (pl. 61), the Mustansiriya (pl. 105), the Marjānīya (pl. 106), and the portal of the Gailānī mosque (pl. 107).

(1) The minaret of the Khāshāki mosque has two bands of the so-called 'Cross and Star' pattern around the two extremities of its lower cylinder; the minaret of the Khallāl mosque and the minaret of Sayyid Sulṭān ʿAllā each have a band of astikā meander with intervening polygonal shapes (pls. 51, 116 and 95).

(2) Namely: 1. the minaret of Sūq al-Chāzī, which has two narrow bands of hexagonal pattern on its lower cylinder (see p. 105 above for a description of the pattern), and other polygonal designs on the facets of its kūrā; 2. the minaret of Dhūl-Kifl where the triangulated text on the lower cylinder is composed of a hexagonal pattern similar to that of the Sūq al-Chāzī minaret (see pl. 57); 3. the Ḥudāʾīnā minaret (the minaret of the Nūrī mosque at Kausil) which has two narrow bands (3 and 4) and one wide band (4) as in fig. 6; 4. the kālīnā minaret at Kausil (fig. 5); 5. the minaret of Sinjār, which has a band on what remains of its lower cylinder, and on the niches of its kūrā. It is believed that it is the earliest example in Iraq of a minaret decorated with faience mosaic (see Creswell, "The Evolution", p. 295); 6. the minaret of the Ḥudāʾiʿr mosque in Baghdad which has a polygonal pattern on its head (see p. 117 of this work).
It seems that this ornament is composed of rectangular and polygonal shapes rather than linear or interlaced patterns; it has been described as "... built up by intersecting polygons." (2)

This ornament consists of two kinds of polygonal shapes:

I. **Basic Shapes**

These are the shapes which can be contrived within the circle by the simplest methods and with the least need for specialized instruments or knowledge of geometry; as Grabar puts it "all the designs can be achieved simply with a ruler and with a compass." (3) In fact the instruments which are actually required are a length of string and a couple of nails. (4)

Apart from the circle itself, (5) which plays the most essential role in creating the basic structure of all the polygonal patterns and constitutes the underlying structure of most of the geometrical ornament, these shapes are:

1. - The square/polygons based on multiples of four, such as the octagon, and the 16-sided polygon. (6)
2. - The pentagon, and polygons based on multiples of five such as the decagon.
3. - The hexagon, and polygons based on multiples of six such as the 18 and 24-sided polygons.

---

(1) Hill and Grabar, op. cit., p. 80.
(3) Hill and Grabar, op. cit., p. 80.
(4) Two nails are tied to both ends of the string and act as a compass. The string is used as a ruler when made taut, and as an aid for finding divisions, such as the half and the quarter of a given length when folded accordingly.
(5) Except the pentagon, which is achieved by placing five identical circles close together forming a circle and drawing straight lines between the centres of neighbouring circles as in fig. 70 A.
(6) Rempel has published a sketch drawn by an Uzbek mason, showing the method by which an octagon is derived from two identical squares. This is sufficient for the construction of an octagonal dome. (L.I. Rempel, op. cit., pl. 206 (1 and 2); see pl. 188 (1) and (2)).
A. The construction of a pentagon from four circles.

B. The construction of a five-pointed star from five pentagons.
By superimposing two identical concentric hexagons in such a way that the radii of each intersect the sides of the other at right angles, one may arrive at one of the very important star shapes: the twelve-pointed star.

By surrounding a hexagon by six identical hexagons in such a way that each hexagon touches the central hexagon at one corner and touches each of its neighbouring hexagons at one corner at the same time, a six pointed star is achieved (fig. 71 G).

A pentalpha (pentagram or five-pointed star) can be achieved by utilizing five identical pentagons in like manner (fig. 70 B).

By repeating the grouped hexagons of figure 71 G as an ornamental device, a basic hexagonal pattern is obtained with vast potentialities for creating derivative patterns (fig. 72), by fusing or incorporating a number of basic shapes (units) with parts of the background by eliminating the lines forming their sides, or by introducing such lines wherever needed in order to emphasize the outlines of new derivations (fig. 72 A – D).

By superimposing two identical squares in the same manner as the two identical hexagons mentioned above, an eight-pointed star is obtained (fig. 71 B).

An octagon can be obtained by drawing straight lines between the points of the eight-pointed star (fig. 71 D). From this it becomes apparent that all the principal star shapes in Islamic art are arrived at as by-products of other motifs; and this does suggest that any connection between the star motif in Islamic art and Islam itself is purely coincidental. This renders any attempt at creating such a relationship or significance purely hypothetical. Such an attempt was made by al-Kınānī (1); although she quotes Sūrat al-Nūr

(1) Al-Kınānī, op. cit., pp. 70, 71.
(2) Qur’ān, Sūra XXIV, verse 25.
Fig. 71: a) The construction of a square from a circle.  
b) The construction of an eight-pointed star from two concentric squares.  
c) The construction of the so-called cross and star pattern.  
d) The construction of an octagon from the eight-pointed star (two concentric squares).  
e–f) The construction of a hexagon from six arcs within a circle.  
g) Pattern of hexagons and six-pointed stars.
Pl. 189: Detail of a blind arch from the mosque of Munawwar Khatun showing polygonal ornament.

Fig. 72: An all-over pattern of hexagons showing a variety of secondary motifs.
and leans on Coomaraswamy for support; she does not seem to be able to prove the point, and resorts to using a "schematic chronological survey of the history of the star in ornament" to bring the discussion to a close.

By juxtaposing identical eight-pointed stars, the so-called 'cross and star' pattern is obtained (fig. 71 c).

The bands of the Khāsakī minaret (pl. 51) are strips of this pattern, but cut in such a way that the focus is directed on the secondary motif, i.e. the so-called 'cross,' whilst the main motif (the star in this case) is cut in half and consequently falls out of focus and into obscurity, whilst the secondary motif is enhanced by extending the lines forming the points of the four stars across the intervening space which forms the secondary motif (see, pl. 51).

II. Secondary Shapes

These constitute the bulk of the decorative motifs, such as:

1. Stars and related shapes (fragments), such as the seh kerūn.
2. Trapezia and trapezoids.
3. Arrow-heads.
4. Diamonds.
5. Irregular polygons.
6. Chevrons.
7. Trigons (triagrams).
8. Triangles.

These are all parts of the backgrounds of basic patterns, and their shapes are governed by the various systems to which the basic motifs are subjected. On the whole, however, these shapes seem to fall into three groups:

1. - Simple shapes:

These are parts of the background which are left as empty spaces by the basic shapes or by the composite devices, such as the cross-like shape of fig. 71, which is left by four eight-pointed stars, and the diamond of pl. 190, which is left by the group of four swastikas.

2. - Composite shapes:

These are simple shapes which are linked or fused with one or more basic shapes to form a composite device, such as the triangles intervening among the hexagons of fig. 72, which are fused with the central hexagon to form a six-pointed star (hexagram).

3. - Fragmentary shapes:

These are brought about by conscious manipulation of the simple shapes in order to enrich the design, as in the case of the crosses of the Khūsakī minaret, which were discussed earlier (pl. 51). Another example is the three-pointed shape sch-kartān (1) which is in fact a third of a pentagram or a third of a hexagram. One could also cite waisted lozenges and plum-like trapezoids, which are but fragments of the diamonds resulting from the quadruple grouping of the basic shape 'the square' (the swastika in a square on this occasion); see pl. 190 and pl. 191.

A closer study of the plates reveals the extent to which the fragmentary shapes are affected by the slightest change in the positioning of the basic shapes.

In pl. 190 the 'Swastikas in squares' are closely grouped without connecting bars, whilst the 'Swastikas in squares' of pl. 191 are grouped in pairs and linked with connecting bars which run in parallel pairs to meet their counterparts. (2) This has led to the alteration

(1) A Persian phrase which means 'three projections,' or 'three processes.'

(2) Both of the Swastika groups of four are derived from basic patterns composed of a succession of alternating 'Swastika in square' meanders. The Swastika group of four of pl. 190 is a facsimile of the group of the lower bands of the minarets of the Seyyid Sultan Ṣāliḥ and the Khallīl mosques.
of the diamond shape enclosed by the group of four, by cutting across its tapering extremities and creating a waisted lozenge instead.

In pl. 192, a detail from the tomb of al-Shaikh Ḥāmil al-Suhrāwādi, the same diamond shape has been fragmented by the insertion of a hexagon in its middle, which results in two arrowhead shapes, one at either side of the hexagon.

Polygonal patterns of this type do not seem to occur on the Umayyad monuments of the 8th century such as Khirbat al-Kafjar and earlier buildings. The earliest occurrences of such patterns are at Samarrā. They appear in the stucco of Herzfeld’s ‘Second Style’, (Cresswell’s ‘Style D’), (1) as well as in the wall paintings of the palace of the Jawāf al-Khwāṣṣ palace.

The patterns of the stucco were not fully investigated or reconstructed, partly because they were so enlarged that only a narrow strip of the all-over pattern was large enough to occupy the full height of the stucco panel, and partly because the attention of scholars was focussed on the secondary motifs and their evolution within the Samarrā period.

In the wall paintings the patterns mostly occur as textile designs, (2) they were completely ignored by scholars, apart from passing references to the ‘Dancing Girls,’ and the ‘Priest’ on the wine-jar in the course of attempts at linking the paintings of Samarrā to vanished Sassanian paintings. Thus the study of textile

(1) E. Herzfeld, Die Ausgrabungen von Samarra. I.Der Wandachmack der Bauten von Samarra und seine Ornamentik (Berlin, 1923), plas. LXXI, LXXXII, and LXXXIII.
(2) E. Herzfeld, Die Ausgrabungen von Samarra. III. Die Malereien von Samarra (Berlin 1927), plas. XXIV and XXXII.
designs prevalent at Sāmarra, despite the wonderful reconstruction of the paintings by Hersfeld, has subsided into oblivion.

However, from the 9th century onwards there was hardly a branch of Islamic art that did not exhibit one form or another of the many combinations and variations of these patterns.

The columns of the Congregational mosque of Iṣḥāq (generally dated in the 10th century) already exhibit an advanced curvilinear version of this polygonal type. The tower of Harūn III (1089 - 1118), (2) the Mausoleum of Jalāl al-Din at Usagand (1152), (3) the minaret of Jām (1153 - 1203), (4) and numerous other buildings in Persia, Anatolia and Turkestan all exhibit a wide variety of patterns derived, by means of superimposition, fusion, and fragmentation, from patterns composed of basic polygonal shapes.

In metalwork, the earliest surviving example occurs on the 11th century (483/1090) brass lamp from the Umayyad mosque at Damascus (pl. 11.7), now in the Türk ve İslam Eserleri Müzesi. (5)

In woodwork, examples of polygonal patterns in open-work appear on the minbar of the Maidān mosque at Abyāna (466/1073). (6)

On the carved minbar of the Ulū Camī at Aksaray (datable to the 13th century), (7) polygonal patterns appear in openwork as well as

(1) Pope, Persian Architecture, pl. 81.
(2) Hill and Grabar, op. cit., pl. 145.
(3) Ibid., pl. 113.
(4) Ibid., pl. 151.
(5) D.S. Rice, op. cit., pl. X.
(7) D. Talbot Rice, Islamic Art (London 1965), pl. 177.
In Islamic miniatures, the polygonal patterns appear in abundance from the 12th century onwards. (pls. 193 - 195).

They also occur in pottery (pl. 195).

It is extremely interesting to note that in the early miniatures, e.g. those of the school of Mesopotamia, as well as on pottery, the patterns appear in the form of textile designs on garments, cushions, back-rests and tents. In later miniatures the patterns seem to have been transferred to tile designs (pl. 195) and woodwork. This seems to indicate yet again that textile designs were often borrowed for the ornamentation of other media.

However, polygonal patterns have remained in use in Iraq until the present day for the decoration of mosques and other religious buildings as well as secular and domestic structures. They were in constant use not only for ḩagīrāt, but also for the taʿshiq of ceilings such as those of the Harem al-Kabīr of the al-Gailani house (pls. 197 - 201) and those of Musanāt al-Naqīb (pl. 202), which are executed in two kinds of wood (teak and citron-wood) and also have strips of the surfaces covered with mirrors. Unfortunately, this type of work and its patterns seem to have come to an end with the advent of modern American domestic architecture.

1 Taʿshiq is an Arabic technical term denoting a method by which a design is executed in small units of different shapes and fitted together in mosaic form by means of grooves on the sides of some units and ledges on the sides of others, the whole slotted together without the use of nails. The term is rather picturesque, for it is derived from ḩishq which means a state of intense love and longing to embrace one's beloved.

2 'King Nūrīrvān and the Owls', a miniature from Ḩizāmī's Khamsa (1539-43) in the British Museum (Cr. 2265, 6. 15b).

3 The former ceilings were executed around the end of the 17th century, and the latter dates from as late as 1900.
APPENDIX VII

It should be noted that the stupa of Sarnath exhibits four forms of swastika patterns. Two of them resemble superficially the pattern of the minaret of Suq al-Ghazl (Type A). These are (a) the pattern which occurs in the wide recess of the stupa wall shown in plate 165 A; and (b) the pattern depicted on the buttress to the right. A closer study reveals that only the pattern of the buttress is an exact parallel to that of the Suq al-Ghazl minaret, with two minor differences, namely that the secondary pattern (the so-called 'Chir Gha') is rendered in single and sunken lines and that it lacks a central square.

The pattern of the recess appears to be a variation of 'Type B' of the minaret of the Na'amanaya mosque, and is very similar to a pattern from Khirbat al-Mafjar, where the key-devices (the basic T shapes) stemming from the central square turn towards each other in pairs.

The pattern in the wide recess of pl. 165 B is an exact parallel to the pattern of the Na'amanaya minaret (Type B); the pattern of pl. 173 is another variant of 'Type B' and an exact parallel to the pattern of the minaret of Arbîl (fig. 8 B).
Pl. 117: The minaret of Gesaba, near Baghdad.

Pl. 118: The dome of the Nabî (Prophet) Jarjis mosque, Mausil.
Pl. 119: The dome of the shrine of Sayd Ibn Jubair near the city of al-Ma'aj.
Pl. 120: An ascetic, his son and the black serpent

Iraq c.1230. After Blochet.

Pl. 121: A water clock. Cairo 1354.

After Blochet.

Fig. 39: All-over pattern of interlaced squares of the Iraqi minarets.
Fl. 123: The minaret of al-Nabi Danyal, Kirkuk.

12th - 13th Century.
Pl. 124: The minaret of the shrine of the ʿAskariyān at Sāmarra.
Pl. 125: The decoration above the door of house No. 20/15, in the vicinity of the Saray mosque, Baghdad. Early 19th Century.
Pl. 126: Bronze mirror. Late 4th Century B.C.

British Museum. After Watson.

Pl. 127: Bronze mirror. 4th Century B.C.

After Karlgren.
Pl. 128: Han silk. After Lubo-Lusnichenko.

Pl. 129: Han silk. After Lubo-Lusnichenko.
Pl. 130: Han silk
(transparent stuff).
After Lubo-Lusnichenko.

Pl. 131: Japanese wood-
block colour print, 1703-
1770. After Münsterberg.
Pl. 132: The minaret of the Qapplâniya mosque,
Baghdad, 1205/1790.
Pl. 133: A miniature from the *Gulistan* of the British Museum. 919/1514. After Stchoukine.
Pl. 134: The minaret of Jumban, Isfahan.
Pl. 135: Turkish sitr (tomb cover), woven upon the order of the Şultan Sulaiman (probably Sulaiman al-Qanûnî). After Oz.
Pl. 136: Turkish sitr (tomb cover). Dated 12.8 (1793).

After Oz.
Pl. 137: 'The body of Christ in the grave'. Russian tapestry.
1647 After Svirin.

Pl. 138: 'The body of Christ'. Detail from a Russian tapestry.
1561 After Svirin.
Pl. 139: Detail from a Russian tapestry. 1561

After Svirin.

Pl. 141: A panel from the wooden door of the Mausoleum of Mahmud of Ghazna. c. 421/1030. After Ettinghausen.
Pl. 142: Turkish dish, with a cloud scroll and endless knot. 15th Century. After Aslanapa.

Pl. 144: The southern outside wall of the Mustansiriya madrasa, Baghdad.

Pl. 145: Turkish carpet. Late 18th Century. After Grote-Hasenbalg.
Fl. 147: Lamp in pierced metalwork. Dated 1090.

After D.S. Rice.
Pl. 148: Inlaid brass ewer made at Meusil in 1235. The British Museum.
Pl. 149: The minaret of the Wazir mosque, Baghdad.

1344/1922. First built 1008/1599.
Pl. 151: The mihrāb of the Wazīr mosque, Baghdad.

Dated 1008 (1599). After Iraqi D.C.A.

(T 197-1948, and T. 197-1948)
Pl. 154: Detail from a Chinese Emperor's Dragon Robe.

19th Century. The Victoria and Albert Museum
(T 197-1948).
Pl. 155: Detail from a Lady's Marriage Robe K'o Ssu

(woven silk). Third quarter of the 19th Century.

The Victoria and Albert Museum (T.223-1948).
Pl. 156: Chinese cloisonne enamel on copper.

Probably 18th Century. The Royal Scottish Museum (1874.30.3).
Pl. 157: Chinese carpet 1800.

After Grote - Hasenbalg.
Pl. 158: Chinese carpet. 18th Century.

After Grote - Hasenbalg.

Pl. 159: Central Asian carpet. 19th Century.

Kashgar. Grote - Hasenbalg.
Pl. 160: Chinese carpet. 18th Century.

After Grote Hasenbalg.


After Grote-Hasenbalg.
Pl. 160: Chinese carpet. 18th Century.

After Grote Hasenbalg.


After Grote-Hasenbalg.

Fl. 165: All-over patterns of swastikas from the Damaik-stupa.

Dated doubtful, but very possibly post-

at Sarnath. 6th Century. After Dalton.
Pl. 166: Rolls of Chinese silk, depicting swastika patterns.
After Wilson.

Pl. 167: Chinese bronze incense burner with swastika pattern.
After Wilson.

Pl. 170: Wooden bedstead. 16th Century. After Fontain and Hempel.
Fl. 171: "Wan Chai."
The house of Wu Tsung-Chieh, with swastika railings. After Wilson.

Fl. 172: Japanese wood block colour print, showing swastika railings. 1640. After Fontain and Hempel.
Pl. 173: All-over pattern of swastikas from the Damikh stupa at Sarnath. 6th Century. After Dalton.

Pl. 175: A niche in the so-called Abbasid Palace, Baghdad, Iraq. D.G.A.

Pl. 176: Detail of the Chihil Dukhtar mausoleum, Damghan, showing swastika border strips. 1056. After Hill and Grabar.
Pl. 177: All-over pattern of swastikas in squares forming the windows in the mosque of Cordoba, 10th Century. After Kühnel.

Pl. 179: Turkish dish. ceramic. 15th Century.

After Aslanapa.
Pl. 180: The stucco ornament of Bait al-Zakhārif,
Sāmarrā, 9th Century.
Fl. 181: Base of Bāgh-i Qūsh Khāna minaret,

Isfahān, 14th Century.

Pl. 184: The minaret of al-
Sheikh Ahmad al-Rifa'i, Iraq.
Ottoman period.

Pl. 185: The main portal of
the Mustanṣiriya madrasa.
Baghdad.
Pl. 186: The main portal of the Marjāniya madrasa, after the last restoration. Baghdad. 758/1356.
Pl. 187: Detail from the main portal of the al-Gailāni mosque, Baghdad.
1. A plan for an octagonal dome based on the superimposition of two squares drawn by an Uzbekistani master mason.

2. An octagonal dome based on the above plan. After Rempel.
Pl. 190: Swastika groups from the old portal of the Čādiliya mosque Baghdad.

Pl. 191: Swastika group from the Čapllāniya madrasa, Baghdeđ.
Pl. 192: Swastika motif on the base of the miḥ of al-Shaikh ʿUmar al-Suhrawardi, Baghdad.
Rebuilt after 1234.
Pl. 195: "King Nushirvan and the owls" from the Khamseh of Nizami. 1539-43. British Museum.
Pl. 196: Persian bowl. Painted in Polychrom minai with gilding. Late 12th Century.
After Finder-Wilson.
Fl. 197: Detail of the central part of the ceiling of the main room in the old al-Gailāni house (al-Haram al-Kabīr). Baghdad, 18th Century.

Fl. 198: Detail from the ceiling depicted in pl. 197.
Pl. 199: Detail of the ceiling of the middle kifishkan (kabishkan) in the al-Haram al-Kabir, Baghdad, 13th Century.
