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MULE AND IMITATIVE FULŪS OF EGYPTIAN COINS
FROM BILĀD AL-SHĀM IN THE EARLY ISLAMIC ERA
TYPOLOGICAL STUDY

BY

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[AR]

الفلوس الهجين والمقلدة للنقود المصرية من بلاد الشام في العصر الإسلامي المبكر

يهدف هذا البحث إلى دراسة النقود النحاسية والبرونزية المقلدة للفلوس التي كانت تُضرب في مصر في العصر الإسلامي المبكر، والتي كانت تتميز باتباع التقاليد البيزنطية في ضرب النقود النحاسية من حيث السُمك، وثقل الوزن، وغلظة الكتابات وخلوها من الأخطاء. وقد كانت هذه النقود المقلدة تُضرب في المدن الشامية لتعويض نقص الفئات النقدية الصغيرة إلا أنها تفتقد للتقاليد المتبعة في النقود المصرية آنذاك، فقد كانت خفيفة الوزن، رقيقة السُمك، وكثيرة الأخطاء، وأحياناً كانت تُضرب بقالب وجه لطرز مختلف عن طراز قالب الظهر وربما من أماكن غير متجاورة. ولهذا فإن أهمية الدراسة تكمن في تصنيف طرز هذه النقود المقلدة حتى لا يلتبس الأمر على الباحثين في مجال المسكوكات الإسلامية عندما يدرسون هذه النقود عن طريق الصور، أو إذا لم يتمكنوا من دراستها مباشرة. وكذلك فإن الدراسة تنشر عدد كبير من هذه النقود لأول مرة، مما يزيد من أهميتها في تغطية أكبر عدد من طرز هذه النقود المقلدة، واستعراض مميزات في محاولة للوصول إلى تأريخها وتحديد أماكن سكها.

[EN] The Egyptian copper coins were of highly importance in the trades of monetary circulation in the early Islamic state. They maintained the traditions of Byzantine minting techniques, like a marked heaviness in weight and thickness in size, and ruggedness in inscriptions. Groups of imitative light copper and bronze coins have emerged, bearing those features of the Egyptian *fulūs*, but in shape only, they differ in minting techniques, size, weight and thickness. Some of them are hybrid imitated resemble the inscriptions of the Egyptian copper coins in one side, and the characters of the *Bilād al-Šām* inscriptions on the other side. This paper contributes imitative coins of Egyptian *Fulūs* from *Bilād al-Šām*, some of them are unpublished, in an attempt to identify the source of the imitation and monitor the most important features.

KEYWORDS: Egyptian *Fulūs*, imitative *Fulūs*, mule coins, **Fuṣṭāṭ**, *Atrīb*.

I. INTRODUCTION

When Muslims armies conquered Egypt in 18 AH/639 AD, the common circulating copper coins were the 12-nummia piece minted by Heraclius (r. 610-641 AD) in Alexandria. There is no doubt that those copper coins of Heraclius, and later of his successor Constants II (r. 641-668 AD) continued to circulate for several years. Despite the high activity of the Egyptian mints in producing coins at that time, the numismatic evidence states that there were no transitional types for Egypt comparable to those issued in Syria and Palestine¹. Egypt began issuing coins directly with Arabic inscriptions, and coins emerged which hold the names of the Egyptian mints.

The Egyptian bronze and copper coins of reformed Arab types struck during the Umayyad and early 'Abbāsīd periods can be easily distinguished by their characteristic technique of minting, as the new authorities established a mint in *al-Fuṣṭāṭ* along the line with Egyptian Byzantine minting traditions. These coins are marked by their heaviness in weight, thickness in size, and ruggedness in inscriptions. Sub-mints were also established in *Atrīb*, *Fayyūm* and *Ahnās*, while the mint of Alexandria continued issuing coins intermittently throughout the Islamic era in Egypt.

Groups of imitative light copper coins have turned up, bearing features of the Egyptian *fulūs* in their design. But they differ in minting techniques, size, weight and thickness. Some of them are mules. That means one side resemble the inscriptions of the Egyptian copper coins, and the other side imitates a different Syrian copper coin type of another mint.

II. PREVIOUS STUDIES

In 1980, Lutz Ilisch published his invaluable contribution on the Umayyad and 'Abbāsīd copper coins of *Ḥimṣ*², he mentioned to the small copper coins which were circulated in Syria especially during the periods of the absence of the 'Abbāsīd *fulūs* after the decline of the *Umayyads*. In 2000, Nikolaus Schindel³, indicated to the Egyptian imitative copper coins, according to the previous indications of Lutz Ilisch without any more information.

- In 2003, Stefan Heidemann⁴, published a group of Syrian mules of copper coins imitation coins of al-Kūfa. A one group among them were mules with Egyptian coppers. Those imitation could be dated to the year between 167 and the 180 AH.

¹I presented this contribution in the 3rd symposium of Money and monetary circulation in the Mediterranean countries, Antalya 2017. MILES 1958: 471- 472.

² ILISCH 1980: 23-30.

³ SCHINDEL 2000: 52-53.

⁴ HEIDEMANN 2003: 154.

III. THE PRESENT STUDY

This paper contributes more examples of these imitative light copper coins, some of them are unpublished, in an attempt to identify the source of the imitation and monitor the most important features.

IV. PROPOSED CLASSIFICATION

The prototype of the imitative types 1, 2, & 3 is the most prolific type of the Umayyad Egyptian copper coins. It is particularly interesting because it used the Arabic word «*Miṣr*» which denoted on the one side in «all embracing town», in the meaning of a Muslim garrison city, and in particular the name of the Egyptian province. The other side has the name of that «military city» the specific mint name *Fuṣṭāṭ*. Probably, it is to be read «*Miṣr al-Fuṣṭāṭ*'» the military city *Fuṣṭāṭ* [FIGURE 1]⁵.



[FIGURE 1]. WILKS & CURTIS: Auct. 11 N^o. 45

Although these coins do not bear dates, they are closely datable. They carry the names of the last Umayyad Caliph, Marwān II (127-132 AH) and of 'Abd al-Malik ibn Marwān, the finance director of Egypt from Raġab 131-Ġumādā I 132 AH.

Type 1 A (*Miṣr al-Fuṣṭāṭ* type)

bv. Within a dotted circle *مصر*, Marginal legends *عبد الله عبد الملك بن مروان*

Rev. within a dotted circle *ط / الفسطاط*, Marginal legends (*sic*) [*... الله ضر ...*]

- Walker 1956: N^o. 910 (1.16 g. 14 mm)⁶
- SNAT III 2017: N^o. 1197 (1.15 g. 15 mm, 8h)
- SNAT III 2017: N^o. 1196 (0.70 g. 13 mm, 9h)
- Universität Hamburg, photo N^o. SB 12857 (0.92 g, 15 mm, 7h)⁷ [FIGURE 2]
- Universität Hamburg, photo N^o. SB 12855 (0.79 g, 15 mm, 2h)
- Universität Hamburg, photo N^o. SB 12856 (0.93 g, 14 mm, 3h)

⁵ MILES 1958: 477; WILKS & CURTIS: Auct. 11 N^o. 45 (6.78 g).

⁶ WALKER 1956: 910

⁷ The photos of the coins with the SB numbers were provided by STEPHAN HEIDEMANN.



[FIGURE 2]. University Hamburg, photo N^o. SB 12857

Type 2 A (Miṣr Type)

The coins of type two are frequently die linked, suggesting that they come from one single workshop.

Obv. Within a circle مصر , Marginal legends عبد الله عبد الملك بن مروان

Rev. within a circle لا إله إلا الله / وحده [محمد رسول الله]

- SNAT III 2017: N^o. 1189 (2.47 g, 19 mm, 11h)⁸ [FIGURE 3]
- Universität Hamburg, photo N^o. SB 12859 (1.70 g, 18 mm, 10h; same obverse die as SB 12858, 12860, 12863 and Zeno, N^o. 1646)
- Universität Hamburg, photo N^o. SB 12860 (1.92 g, 18 mm, 2h; same obverse die as © SB 12858, 12859, 12863 and Zeno, N^o. 1646)
- Zeno: N^o. 1646 (16 mm; same obverse die as SB 12858, 12859, 12860 & 12863)



[FIGURE 3]. SNAT III 2017: N^o. 1189

Type 2 B

Obv. Within a circle مصر , Marginal legends [الأمير] عبد الله عبد الملك

Rev. within a circle لا إله إلا الله / وحده محمد ر [سول الله...]

- Goussous 2014: 61 N^o. 2 (2.00 g, 17 mm, 6h)
- SNAT III 2017: N^o. 1186 (1.70 g, 18 mm, 5h) [FIGURE 4]
- SNAT III 2017: N^o. 1187 (1.61 g, 18 mm, 10h)
- Universität Hamburg, photo N^o. SB 12858 (1.85 g, 18 mm, 4h; same obverse die as SB 12859, 12860 & 12863)

⁸ YOUNIS 2017: 1198.



[FIGURE 4]. SNAT III 2017: N^o. 1186

Type 2 C

Obv. Within a circle مصر , Marginal legends [الأمير] عبد الله عبد الملك

Rev. within a double circle with annulets in between محمد/ رسول / الله

- SNAT III 2017: N^o. 1188 (2.28 g, 19 mm, 5h) [FIGURE 5]
- Universität Hamburg, photo N^o. SB 12863 (1.50 g, 17 mm, 7h; same obverse die as SB 12858, 12859; 12860)
- Universität Hamburg, photo N^o. SB 12864 (1.21 g, 14 mm, 6h)
- Zeno: N^o. 111809 (1.15 g, 16 mm)
-



[FIGURE 5]. SNAT III 2017: N^o. 1188

Type 2 D

Obv. Within a circle مصر ,∴ above and a crescent below , Marginal legends ...]

Rev. عبد الملك / بن يزيد , marginal legends ...

- SNAT III 2017: N^o. 1190 (0.66 g, 13 mm, 9h) [FIGURE 6]

‘Abd al-Malik Ibn. Yazīd (133-141 h.) issued a considerable number of glass weights and vessel stamps, and his career is well documented not only by the coins and glass weights, but also in the historical literature. In this case both sides referred to Egyptian types.



[FIGURE 6]. SNAT III 2017: N^o. 1190

Type 2 E

Obv. Within a circle مصر , Marginal legends الأمير عبد الله عبد الملك

Rev. within a circle jerboa to right, marginal legends ضرب هذا الفلّس بحمص⁹

- SNAT III 2017: N^o. 1191 (1.00 g, 14 mm, 3h) [FIGURE 7]
- Tübingen, inv. N^o. AC9 B4 (1.58 g, 15 mm, 7h)
- Universität Hamburg, photo N^o. SB 12853 (1.05 g, 16 mm, 5h)
- Universität Hamburg, photo N^o. SB 07433 (1.12 g, 14 mm)

Marwān ibn Bišr, governor of *Ḥimṣ* in later 130s AH.



[FIGURE 7]. SNAT III 2017: N^o. 1191

Type 2 F

Obv. Within a dotted circle مصر Marginal legends [الأمير عبد الله عبد الملك]

Rev. within a double circle with annulets in between ضرب / بدمشق¹⁰

- Zeno: N^o. 158153 (1.19 g, 15.5 mm) [FIGURE 8]



[FIGURE 8]. ZENO: N^o. 158153

⁹ For more information and examples about the coinage of the jerboa from *Ḥimṣ*, see: ILISCH 1980: 28; WALKER 1956: N^{os} 804-806.

¹⁰ For more about the prototype of this coin, see: WALKER 1956: N^o B.46, PL. XXVII

Type 3 A (AL-FUṢṬĀṬ type)

Obv. Within a circle ط / الفط marginal legends على يدي الأمير [عبد الملك بن] مروان

Rev. within a double circle with annulets in between لا إله / إلا الله / وحده

- Universität Hamburg, photo N^o. SB 12865 (1.13 g, 15 mm, 1h) [FIGURE 9]



[FIGURE 9]. Uni. Hamburg, photo no. SB 12865

Type 3 B

Obv. Within a circle ط / الفسط marginal legends [على يدي الأمير عبد الملك بن مروان]

Rev. within a double square لا إله / إلا الله / وحده

- Universität Hamburg, photo N^o. SB 12854 (3.34 g, 16 mm, 4h) [FIGURE 10]



[FIGURE 10]. University Hamburg, photo N^o. SB 12854

Type 3 C

Obv. Within a circle ط / سف marginal legends [عبد الملك بن] مروان على يدي الأمير

Rev. within a double circle with annulets in between محمد / رسول / الله

- SNAT III 2017, N^o. 1194 (1.59 g, 14 mm, 9h) [FIGURE 11]
- ANS: inv. N^o. 1991. 3. 199 (0.899 g, 13 mm)
- ZENO: N^o. 100915 (1.29 g, 14 mm)



[FIGURE 11]. SNAT III 2017, N^o. 1194

Type 3 D

Obv. Within a circle ط سف / marginal legends... ؟ سنة ثلث

Rev. within a dotted square محمد / رسول / الله

- SNAT III 2017: N^o. 1192 (1.11 g, 15 mm, 5h) [FIGURE 12]
- SNAT III 2017: N^o. 1193 (1.19 g, 14 mm, 12h)



[FIGURE 12]. SNAT III 2017: N^o. 1192

Type 3 E

Obv. Within a dotted circle ط سف / marginal legends ...

Rev. within a circle سعيد أ / صلحه الله / ...

- SNAT III 2017: N^o. 154 (2.36 g, 14 mm, 11h) [FIGURE 13]



[FIGURE 13]. SNAT III 2017: N^o. 154

Type 3 F

Obv. Within a dotted circle ط سف / marginal legends ... مروان

Rev. Brockage of the obverse

- SNAT III 2017: N^o. 1195 (1.36 g, 15 mm, 12h) [FIGURE 14]
-



[FIGURE 14]. SNAT III 2017: N^o. 1195

Type 4 A (Muḥammad ibn Sa‘īd Type)¹¹

Muḥammad ibn Sa‘īd ibn ‘Uqba was finance director of Egypt, and possibly also governor, for some time- if not the entire period between 152-157 AH./ 769–774 AD. His name can be found on glass weights and vessel stamps, and also in a papyrus document dated 153 AH.¹², where he used the title *amīr*.

Obv. Within a circle ↓ محمد بن/ سعيد أ/ صلحه الله ↓

Rev. within a circle لا إله إلا / الله محمد/ رسول الله

- Snat III 2017: N^o. 153 (1.84 g, 15 mm, 5h) [FIGURE 15]
- Snat III 2017: N^o. 152 (2.09 g, 16 mm, 6h)
-



[FIGURE 15]. SNAT III 2017: N^o. 153

Type 5 A (Maṭar Type)¹³

Maṭar was a client (*mawla*) of the caliph al-Manṣūr, the dates of his governorship are uncertain (159 AH according to one tradition¹⁴, 157-159 AH /773-776 AD according to another¹⁵)

Obv. Within a dotted circle ↓↓↓ يك له / marginal legends لا شر إلا الله وحده لا شر

Rev. within a dotted circle ضرب هذا [الفلس على يدي مطر] marginal legends المؤمنين أكر/ مه الله [مولى أمير]

- SNAT III 2017: N^o. 169 (3.29 g, 14 mm, 8h) [FIGURE 16]
- SNAT III 2017: N^o. 168 (3.81 g, 17 mm, 12h)
- Universität Hamburg, photo N^o. SB 13458 (2.49 g, 16 mm, 5h). The reverse of this coin is from the same mater to produce the mould as N^o. SB 13457, confirming that they are produced at the same time.

¹¹ For more about the prototype of this coin. MILES 1958: N^o 15b; FAHMI 1965: N^o 2866; YOUNIS 2017: N^{rs} 147-151.

¹² FAHMI 1957: 118-122.

¹³ For more about the prototype of this coin, see: MILES 1958: N^o. 16; NÜTZEL 1898: N^o. 2253-4; LAVOIX 1887: N^o. 1601; FAHMI 1965: N^o. 2876-2884; YOUNIS 2017: N^{rs}. 155- 167.

¹⁴ ZAMBAUR 1927: 27.

¹⁵ MILES 1958: 487.



[FIGURE 16]. SNAT III 2017: N^o. 169

Type 5 B (*Kūfa* Types I-II)¹⁶

Obv. Within a dotted circle ↓↓↓ / يك له / marginal legends لا إله إلا الله وحده لا شريك له

Rev. within a dotted circle الله / رسول / محمد / marginal legends مما أمر به المهه... مئة

- Universität Hamburg, photo N^o. SB 04532 (published in HEIDEMANN 2003a, 154 N^o. SB 532, illustration 312, PL.54; 2.46 g, 17 mm, 1h; the reading of the marginal legend is taken from this coin) [FIGURE 17]
- Universität Hamburg, photo N^o. SB 04533 (published in HEIDEMANN 2003a, 154 N^o. SB 533 illustration p. 312 PL.54; 2.95 g, 18 mm, 5h)
- MORTON & EDEN, Auct. 76, December 15, 2015, N^o. 328 (2.77 g)



[FIGURE 17]. University Hamburg, photo N^o. SB 04532

Type 5 C: Unknown Prototype from the Time of Hārūn al-Rashīd.

Obv. within a dotted circle لا إله إلا الله وحده / لا شريك له , marginal legends: off flan. The prototype for this obverse is from the time of Hārūn al-Rashīd, either Qinnasrīn 181, al-Rāfiqa 181 or a similar coin.

Rev. within a dotted circle الموز / منين أكر / مه الله , marginal legends [ضرب هذا الفلاس على يدي مطر]
[مولى أمير]

- Universität Hamburg, photo N^o. SB 13457 (2.59 g, 16 mm, 8h) [FIGURE 18]. This coin shares the same mater for the mould as SB 13458.

¹⁶ The classification of the *Kūfa* type follows HEIDEMANN 2003a & b.



[FIGURE 18]. University Hamburg, photo N^o. SB 13457

Type 6 A (Ibrāhīm ibn Šālīḥ Type)¹⁷

Governor of Egypt (165-167 AH)

Obv. Within a circle .../... مما أمر به / الأمير

Rev. within a circle إبراهيم / بن صلح أكر / مه الله , a crescent above reverse legends

- Nicol 2009: N^o. 1580 (1.86 g, 9h)
- SNAT III 2017: N^o. 182 (1.78 g, 15 mm, 12h)



[FIGURE 19]. SNAT III 2017: N^o. 182

Type 6 B

Obv. Within a dotted circle لا إله إلا الله وحده لا شريك له , marginal legends

Rev. within a circle إبراهيم / بن صلح أكر / مه الله , a crescent above reverse legends

- SNAT III, N^o. 183 (2.17 g, 16 mm, 9h) [FIGURE 20].



[FIGURE 20]. SNAT III, N^o. 183

¹⁷ For more about the prototype of this coin, see: YOUNIS 2017: N^{os} 179-181.

V. DATING

The imitations show two groups. The first group (types 1 to 3) are lightweight *fulūs* mostly cast. The prototype is mostly coins of the governor ‘Abd al-Malik ibn Marwān (r. 132 AH). It suggests that the casts are later, perhaps between the 130s and 150s. The mules are coins from *Ḥimṣ* and Damascus. It can be assumed that these coins were minted within Syria. Especially the coins of type 2 are interlinked. The second group centers on coins of the governor Maṭar (r. 157-159 AH/773-776 AD). Also here are links to coins which were produced in the 170s and 180s (*Kūfa* type coins and coins from the time of Hārūn al-Rashīd. Mules with *Kūfa* coins types also exist with coins of Qinnarsīn 169 AH., Naṣībīn 181 AH., al-Rāfiqa 181 AH./ and Dimashq 183 AH. The mules and imitations of Egyptian type coins belong also to this context¹⁸. While the sources for both groups are Egyptian copper coins, they are likely to be produced in *Bilād al-Šām*.

VI. CONCLUSION

This paper presented the imitative copper coins of the Egyptian *fulūs* in the early Islamic era, the original Egyptian *fulūs* followed the Byzantine traditions of minting copper coins, like a marked heaviness in weight and thickness in size, and ruggedness in inscriptions. Groups of imitative light copper and bronze coins have emerged, bearing those features of the Egyptian *fulūs*, but in shape only, they differ in minting techniques, size, weight and thickness. Some of them are hybrid imitated resemble the inscriptions of the Egyptian copper coins in one side, and the characters of the *Bilād al-Šām* inscriptions on the other side. This paper contributes imitative coins of Egyptian *Fulūs* from *Bilād al-Šām* in a typological system, some of them are unpublished, in an attempt to identify the source of the imitation and monitor the most important features.

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¹⁸ For the mule of *al-Rāfiqa*; HEIDEMANN, 2003b: 120 N^o. II-IV/K1,154.

BIBLIOGRAPHY

- AL-KINDĪ, M.B. YŪSUF: *Kitāb al-wulāh wa kuttāb al-quḍāh*, Beirut (al-Abā' al-Yasū'iyīn Press) 1908.
- BACHARACH, J. & AMIN AWAD, H.: «*The Early Islamic Bronze Coinage of Egypt: Additions*», Near Eastern Numismatics, Iconography, Epigraphy and History, Studies in Honor of George C. Miles Beirut (American University of Beirut) 1974, 185-192.
- BACHARACH J. (ed.), *Fuṣṭāṭ Finds, Beads, Coins, Medical Instruments, Textiles, and Other Artifacts from the Awad Collection*, Cairo (AUC Press) 2002.
- FAHMĪ, A.: *Ṣinağ al-sakka fi fağr al-Islām*, Cairo (Egyptian National Library Press) 1957.
- FAHMĪ, A.: *Mausū'at al-nuqūd al-'arabiya wa-'ilm al-munamnat I, fağr al-sakka al-'arabiya*, Cairo (Egyptian National Library Press) 1965.
- GOUSSOUS N., ALZUOD H. & NAGHAWY A.: «*Inedited and Rare Islamic Coins*, Amman (Jordan Ahli Bank Numismatic Museum) 2014.
- HEIDEMANN, S.: «Der klein Geldumlauf in der Ġazira in früh-'abbāsīdischer Zeit und die Münzmissionen aus *al-Kūfa*», in: S. HEIDEMANN & A. BECKER (eds.), *Raqqa II. Die islamische Stadt*, Mainz Am Rhein, 2003, 141-167.
- HEIDEMANN, S.: «Die frühe Münzprägung von ar-Raqqa/ar-rāfiqa als Dokumente zur Geschichte der Stadt », in: S. Heidemann & A. Becker (eds.), *Raqqa II. Die islamische Stadt*, Mainz Am Rhein, 2003, 115-140.
- ILISCH, L.: «Die umayyadischen und 'abbāsīdischen Kupfermünzen von Hims Versucheiner Chronologie», *Münstersche Numismatische Zeitung* 10, 1980, 23-30.
- KAWATOKO, M.: «On the Coins Found at al-Fuṣṭāṭ», *Senri Ethnological Studies* 55, (2001) 55-71.
- LAVOIX, H.: *Catalogue des monnaies musulmanes de la Bibliothèque Nationale I, Khalifes Orientaux*, Paris (Imprimerie Nationale) 1887.
- MILES, G.: *The Early Islamic Bronze Coinage of Egypt*, New York (Centennial Publication of the American Numismatic Society) 1958, 471-502.
- MORTON & EDEN: *Auction 76*, London, Dec. 15, 2015.
- NICOL, N.: *Sylloge of Islamic Coins in the Ashmolean*, vol.2, Early Post-reform Coinage, Oxford (Spink & Son) 2009.
- NÜTZEL, H.: *Königliche Museen zu Berlin, Katalog der orientalischen Münzen*, vol. 1, (W. Spemann) 1898.
- REIS, L. , SCHINDEL, N.: «Von Mäusen und Menschen: Frühislamische Bronzemünzen mit bildlichen Darstellungen», *Money Trend* 4 , 1999, 56-61
- REIS, L. , SCHINDEL N. & WELLENHOFER, S.: « Der früheste 'abbāsīdische Münztyp aus Ägypten», *Mitteilungen der Österreichischen Numismatischen Gesellschaft* 44/3, 2004, 101-106.
- SCHINDEL, N.: « Einige omajjadische Kupfermünzen II », *Money Trend* 9/2000, 52-53.
- WALKER, J.: *A Catalogue of the Arab-reform Umayyad Coins*, Oxford (Oxford University Press) 1956.
- YOUNIS, M.: *Sylloge Numorum Arabicorum Tübingen (SNAT), III Egypt*, Berlin (Ernest Wasmuth Verlag Tübingen) 2017.
- ZAMBAUR, E.: *Manuel de Généalogie et de Chronologie pour l'histoire de L'Íslam*, Leipzig (Buchdrurtie W.Hoppe) 1927.