ROMAN GLASS IN LIMBURG

by

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Preface

Dutch Limburg is rich in finds from the Roman period and numerous objects have come to light. The most important collections of Roman Antiquities from this region are to be found in the Municipal Museum at Heerlen and in the Provincial Museum 'Bonnefanten' at Maastricht. A Dutch catalogue of the Heerlen collection of glass will appear simultaneously, the Dutch edition of the Maastricht collection appears as a catalogue of the museum 'Bonnefanten'. Both are combined, with slight alterations, in this English version.

In some cases more references for comparison are given than in others. This is done whenever in cited general works sub-types were not considered, or when more datable material had come to light. References about the objects themselves are kept as concise as possible, a full bibliography being mentioned by either Byvanck, Excerpta Romana and/or van Doorselaer, Repertorium van de Begraafplaatsen/Repertoire des necropoles d'époque romaine en Gaule septentrionale.

I want to express my sincere thanks to those who enabled me to study this interesting material: from the first I have had the untiring help of Dr. J. Sprenger, Maastricht, later also of Drs. J. H. F. Bloemers to whom I am indebted for much information, I am thankful to Drs. I. L. Selenakay, director of the museum 'Bonnefanten' for making a Dutch edition of this catalogue possible. I want to express my warm thanks also to Drs. L. E. M. A. van Hommerich, director of Heerlen museum for his permission to study the glass, and to his staff of whom I want to mention especially Mr. Jos. Gielen, who never tired in bringing new finds and information. I remember with great pleasure the days I spent working in both museums. I am very thankful to Prof. Dr. J. E. Bogaers, for his permission to publish the glass from the Maastricht-Belfort excavation before the full publication of this find has appeared, without it the Maastricht catalogue would not have been complete, especially so since this is one of the most important finds from the town itself.

I am thankful to the draughtsmen and woman of the University Workroom who made the drawings publishable and to Prof. Dr. W. A. van Es, Director of the State Service for Archaeological Investigations for the drawings of the Maastricht-Belfort glass, as well as to F. J. Fannekoek and W. Vermeulen, who made the photographs.

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Glass from the Roman Period in the Provincial Museum 'Bonnefanten' at Maastricht
The Maastricht collection of Roman glass consists of finds from several sites, some of them unknown, the majority situated in the present Dutch Limburg. Some fragments were found at dwelling sites, such as Roman villae or settlements, the majority of the glass vessels was found in graves, some belonging to dwelling sites already known, others indicating Roman occupation nearby. Part of the collection came to light during regular excavations and the objects were kept in context—a large part however was discovered accidentally and so little documentation is available. The earliest glass dates from the 1st century A.D., the majority from the period of efflorescence of this region: the 2nd and 3rd centuries. In the course of the 3rd century most villae were deserted and towns like Maastricht and Heerlen were fortified—only a few fourth-century glass objects represent the late Roman period. In general the collection provides us with a picture of glass in daily life in this region, ordinary household ware and packing glass as well as fine luxury glass, comparable to glass finds from the Rhineland and from Belgium.

Most numerous are Roman finds in the southern half of Dutch Limburg, here important Roman roads crossed the country, on the Limburg hills many Roman villae have been discovered.

In the South-West, near the Belgian frontier, at Eysden, burials were discovered at a site called appropriately 'het Doodwater' (Dead-water); they date from the second half of the 2nd century. In the same region foundations of a villa had been found. At Metch (municipality of Eysden) prismatic bottles and a conical jug indicate rich graves (or a grave?) from the end of the 1st or the early 2nd century. At the end of the 1st or the early 2nd century, they too may come from a cemetery near a villa. Gulpen is an important site, during the construction of a tramline six graves in rows of three came to light, together with a foundation thought to belong to a Roman temple. Unfortunately only part of the finds was given to the Maastricht museum, the others, described summarily and without illustrations, remained private property and are now untraceable. From the description and the dating of the objects now in the Maastricht museum it may be deduced that the graves dated from the end of the 1st and the 2nd centuries. At the site of St. Joseph’s asylum another cemetery apparently was cut into, damaging the grave goods among which an oval bowl with snake-thread ornaments, dating from the 3rd or early 4th century. Gulpen may have been situated at a road from Maastricht to Aix, at the confluence of Gulp and Geul the site must have been important as well as pleasant. At Vlengendaal, near the German border (municipality Bocholtz) a Roman villa was excavated, few glass

4 H. van de Weerd, *Inleiding tot de Gallo-Romeinse Archeologie der Nederlanden*. Antwerpen 1944, map n (road Maastricht–Aix)
fragments are mentioned, from square bottles, a bowl, and from window glass—the latter a necessity in this climate. Maastricht was a civil settlement, later a fortress, parts of wall and two round turrets have been found, as well as other important remains of the town including a Roman bath. Some glass fragments come from the town itself, they date from several periods, the earliest fragment being a marbled bowl (below, nr. 49). More glass came to light in the cemeteries of Tractium Superioris, a twin sarcophagus excavated at Maastricht—Belfort in 1964 e.g. contained much glass, among which glass jars used as urns, and numerous bowls from a set of one type, dating from the 2nd century. The Maastricht—Limburg cemetery apparently dates mainly from the 2nd and 3rd centuries, one unguentarium being of a first-century type and possibly from an earlier grave. This cemetery may have belonged to another settlement at Maastricht, on the road to the North. At Maastricht—Sint Pieter graves date from the 1st to 4th centuries, a first-century glass rod is the only glass find now in the museum. At Strabrecht-Houthem many finds were made, part of the Roman road from Maastricht to Heerlen was also discovered. Burials date from the 1st to 3rd centuries, finds from them included a glass beaker. Voerendaal was the site of a Roman villa, numerous finds have been made. A square bottle comes from a grave in one of the cemeteries nearby. Roman graves have been discovered at Kerkrade also, possibly they belong to the inhabitants of a Roman villa, a glass aryballos was found in one grave. The Maastricht Museum possesses one glass object from Heerlen, a flask. The majority of the finds from this site is in the Municipal Museum of Antiquities (cf. below pp. 59 ff.). At Ubach—over Worms fourth-century glass has been found, in the hamlet of Groenstraat Roman cremation burials date from the second half of the 2nd century and from the 3rd. At Hoensbroek a Roman villa is mentioned a cemetery from the second half of the 2nd century was discovered at the site of the present Dorpsstraat; among the grave goods is a glass aryballos. Finds of Roman pottery are known from Amstenrade, and some graves have come to light. Unfortunately they are not very well datable. At Puth—Schinnen a fragmentary hexagonal bottle and a fourth-century bottle may belong to graves from a cemetery or cemeteries from which other finds are known. Stein was an important site, excavations revealed a mansio and a villa, as well as an indigenous fortress and a cemetery from the Roman period. No Roman road has been discovered thus far, it is suggested by Van de Weerd. The site was occupied from the end of the 1st into the 4th century, its finest objects date from the end of the 3rd, finds from rich sarcophagi

burials include luxury glass with snake-thread ornament. On the moor ‘De Graetheide’ pre-Roman and Roman finds have been made, glass from Roman graves date from the second half of the 2nd century and from the 3rd. In 1875 a rich grave was excavated at Obbicht, dating from the Flavian period, finds from other graves date from the same period. Perhaps they belonged to a cemetery for the inhabitants of one of the villae known there. At Echt-Diergaarde graves were discovered accidentally, probably from a cemetery from the second half of the 2nd century or the early 3rd. At Linne a cremation burial was discovered in 1943, the only glass object from this grave is a fragment of a bowl. The road along the left bank of the river Meuse may have passed near Eli-Hunsel, graves found there indicate occupation, possibly on the bank of the Neer.

Three glass vessels are left out of this catalogue intentionally. The Merovingian cemetery excavated in St. Servaas cloisters at Maastricht (a publication of which, by another than the present author, is in preparation) included a rectangular amphorisk, of a type already known from Maastricht museum and a hexagonal bottle, represented also. A bulbous jug with chain-handle is important because the two others in the collection are only fragments and this is almost complete. The jug was already an antique, when put into the grave, possibly it had been found accidentally and was re-used, this time in a fifth-century burial.
1. Unguentaria and small flasks


2. Inv. no. 445 (fig. 1) Found at Maastricht. H. 8.4 cm; W. 5.1 cm. Greenish, only a few bubbles. Everted, rounded rim, short neck about 1/2 of total height, constriction at base of neck. Iridisation and brown spots of weathering. This is a variety of Morin-Jean 21. Isings o.c. 8, some specimens may be not datable. Illustrated: Fremersdorf, Praeh. Zeitschr. 1927, p. 262, fig. 10, mid 1st century; Van Doorselaer, Rep. II, p. 326 (Maastricht-Wijk) H. 11.2-11.5 cm, d. 3 cm.

2. Inv. no. 446 (fig. 1) Found at Aarhus. H. 8.4 cm; W. 5.1 cm. Bluish green, numerous bubbles. Everted, rounded rim. Neck about 1/2 of total height, constriction at its base. Part of rim missing. Some white weathering. Morin-Jean 21, Isings, o.c. 8. Other examples with neck 1/2 of total height: Rietzler (Hofheim) type 18, Claudian-Vespuian; Louvigny-Bavay (Renaud, B.A. 1909, pl. viii, p. 155) Claudian; Nijmegen (Vermeulen, Hunnerberg, 1920) mid 1st century; Zadar (cat. 1876, p. 254, vii, 20, t. 107) early 2nd century; Vaison (Sautel, Vaison, nr. 208a) Hadrian-Antoine; Tipasa (Lancel, Verrecie, pl. viii, 6 and 8, m. 109, 108, 109, end 1st century. Cf. also: Fremersdorf, Denkmäler IV, pl. 82, h. 1, p. 40.

4. Inv. no. 455 (fig. 1) Found at Maastricht-Limmel. Ref.: Van Doorselaer, Rep. II, p. 326 (Maastricht-Wijk) H. 11.2-11.5 cm, d. 3 cm. Comparable are: Locarno (Simonet, Tess. Graber, p. 61, fig. 128, mid 1st century, p. 245, fig. 217, Claudian-Neronian); Colchester (May, Colchester, pl. LXVII, 7, p. 254, Claudian-Neronian); Pompeii (Museo Atestino) ; Pompeii, Antiquarium Pompeii, Nuovi Scavi 1958, p. 228, fig. 35, t. 9) early 2nd century; Vespasian; t. 16, p. 160, fig. 128, mid 1st century; Vindonissa (Berger, Gagniere, Grenier, Perrot, Gallia 1961, p. 239, figs. 3 and 6, 24-45) Claudian-Neronian; Sannes (Dumoulin, Gallia 1928, p. 228, fig. 35, t. 9) early 2nd century; Stree (van Bastelaer D.R.S.Ch. 1876, p. 254, vii, 20, t. 107) early 2nd century; Vaison (Sautel, Vaison, nr. 208a) Hadrian-Antoine; Tipasa (Lancel, Verrecie, pl. viii, 6 and 8, m. 109, 108, 109, end 1st century. Cf. also: Fremersdorf, Denkmäler IV, pl. 82, h. 1, p. 40.

Catalogue
1st century, from Necropoli Nord t. 6, Flavian; Pompeii, examples from before a.d. 79; Cologne (Germania 1953, p. 74, mid 1st century); Vindonissa (Berger, Gl. nr. 150, pl. 20, p. 79) 1st century; Colchester (May, Colchester, t. 32, pl. II) to the 2nd and 3rd centuries. By Van Doorselaer to the 2nd and 3rd centuries.

5. Inv. no. 442 (fig. 1)

Unknown provenience, acquired from Jaeger collection.

H. 9.5 cm., d. 3.1 cm.

Bluish green, some bubbles. Everted rim, folded inward. Neck more than half of total height, construction at base. Somewhat concave bottom. Slightly weathered.

Isings o.c. 28b, which comprises examples with and without construction at base of neck. Comparable to this specimen: La Calade (Bérand, Gallia 1961, p. 175, pl. vii, t. 7, mid 2nd century; p. 123, pl. xii, t. 12, Claudia-Neronian; t. 13, pl. xiv, p. 123, Flavian; p. 134, pl. xix, t. 19, Claudia-Neronian); Sannes t. 1 (Dumoulin, Gallia 1958, fig. 22, t. 23, 1st century; Ete: Necropoli Sud, Moriglino t. 11, end 1st century; t. 19, end 1st century; t. 93 mid 1st century to 2nd half 1st century; Museo Aetniano); Locarno (Simonetti, Tos. Gräber, t. 174, fig. 145,12, Cadra t. 53, Nero-Vespasian; Stree, t. 56, (van Bastelaer, D.R.S. Chr. 1876, p. 247, pl. vii, 17) Flavian; Verviers t. 11 (Vanderhoeven, Verres Romains, p. 28, nr. 25; Philippe, Homm. Grenier, p. 1428 Flavian; Feurs, Maison Chamoux (Beuze Museum) 1st century; Colmar (Fremersdorf, Denkmäler IV, pp. 43 f., parallels for n 734 and 735) Claudian-Trajanic; Remagen t. 173 (Funck B.J. 122, pl. xx, 8, p. 866, Flavian; Tipasa (Lancel, Verrières, nr. 167, 159, 131, 132) mid to 1st century; Ampuries (Almagro, Ampurias ii, p. 148, fig. 1144, Torres t. 5, with coin of Domitian; p. 149, fig. 116, not datable; p. 150, fig. 118, t. 9 with coin of Titus; p. 127, fig. 127, t. 15, not datable, p. 169, fig. 131, t. 20 not datable; p. 201, fig. 173, Nofre t. 5, with coin of Hadrian; p. 279, fig. 255, Bonjoan t. xxii, with coin of Domitian); Nijmegen (from cemetery OH, Museum) Trajan-Hadrian.

Rif.: Remagen t. 25; Philippe, Homm. Grenier, p. 279, fig. 255, Bonjoan t. xxii, with coin of Domitian; Nijmegen (from cemetery OH, Museum) Trajan-Hadrian. Found in burial 2, nr. '7a at Maarstricht-Belfort, exc. 1964.


H. 13.5 cm., d. 5.4 cm.

Bluish green, with streaks and bubbles. Rim folded outward horizontally and inward. Concave bottom. White patches of weathering on the inside.

Type Morin-Jean 24, Isings o.c. 28b/28a/28b (fig. 5) probably from 2nd and 3rd century. Comparable are: first-century examples from cemeteries of Palazzolo Vercellese and Crescentino (in Turin Museum); Duklya t. 145 (Inventaria Archaeologica Yugoslavia, Y 67) 1st century; Apt (Dumoulin, Gallia 1954, p. 99, t. 9, fig. 78) end 1-early 2nd century; Gallia 1958, t. iv, p. 214, fig. 19, probably 2nd century); Straubing (Walke, Straubing, pl. 75,4, p. 49) 2nd century; Nijmegen (Bruningh, Grafveld Hees, p. 177, pl. 9, fig. 7) second half of 2nd century; Fresin (Schuermans, B.C.R. 1863, p. 142 and 143, pl. iv, 6) 2nd century—early 3rd; San Gavino Monreale (N.d.Sc. 1950, pl. 281, fig. 1) end 2nd or 3rd century; York (Harden, in: Eburacum, p. 57, fig. 98) and 16, P. 157) among glass from late 1st to 2nd centuries, with base-marking.

6. Inv. no. 429 (fig. 1)

Found at Eyseoen, site 'Het Doodwater' at Hoog-Caestert

Ref.: De Maasgouw 1966, pp. 70 and 72; 1987, p. 12; 1937, p. 68

H. (extant) 11.4 cm., d. 3.3 cm.


Same type as nr. 5. Finds from this site date from the middle of the 1st century to the first half of the second.

7. Inv. no. gr. 2-178 (fig. 12,5)

Found in burial 2, nr. 178 at Maastricht-Belfort, exc. 1964.


H. 18.1 cm., d. 10.9 cm.

Bluish green tinge. A few bubbles. Rim folded outside and inside, somewhat concave bottom. Irreducible and dulling. Part of side missing.

Type Morin-Jean 24/25, Isings o.c. 82 (fig. 5) c. 2nd-3rd century, from 2nd and 3rd centuries. Comparable are: first-century examples from cemeteries of Palazzolo Vercellese and Crescentino (in Turin Museum); Nimes, G. Chemin de Beauroca (in museum Nimes) end 1-early 2nd century; Colchester (May, Colchester, Jarmin coll. pl. xc, p. 279, fig. 286) 2nd century—early 3rd century; Apt (Dumoulin, Gallia 1954, p. 99, t. 9, fig. 78) end 1-early 2nd century; Gallia 1958, t. iv, p. 214, fig. 19, probably 2nd century); Straubing (Walke, Straubing, pl. 75,4, p. 49) 2nd century; Nijmegen (Bruningh, Grafveld Hees, p. 177, pl. 9, fig. 7) second half of 2nd century; Fresin (Schuermans, B.C.R. 1863, p. 142 and 143, pl. iv, 6) 2nd century—early 3rd; San Gavino Monreale (N.d.Sc. 1950, pl. 281, fig. 1) end 2nd or 3rd century; York (Harden, in: Eburacum, p. 57, fig. 98) and 16, P. 157) among glass from late 1st to 2nd centuries, with base-marking.

8. Inv. no. 436 (fig. 1)

From Jaeger collection, Heerlen, find spot unknown.

H. 8.6 cm., d. 2.8 cm.


Variety of Isings, o.c. 82 (fig. 5). Comparable are: Fresin (Schuermans B.C.R. p. 142) end to early 3rd century; Nijmegen, examples from cemeteries KL and WW (Museum G. M. Kam), A.D. 70-240; Cologne (Fremersdorf, Denkmäler IV, pl. 91, comparison to n. 749, 745, 744, one of the examples mentioned found with coin of Domitian); Kreuznach (Behrens, Rom. Gl. fig. 5) probably from early 2nd century; Aat (Dumoulin, Gallia 1958, fig. 196, p. 215, gr. 74) probably 214, 237; Heidenheim (O.R.L. Lieferung XLI, pl. xi, 31) II-III; Remagen t. 37 (Funck, B.J. 116, pl. 64) 3rd century; Colchester May, Colchester, Jarmin coll. pl. xo, p. 288) 2nd century.

9. Inv. no. gr. 1-7

Found at Maastricht-Belfort, burial 1, nr. 1, excavation 1964.


H. 18.1 cm., d. 10.9 cm.

Bluish green tinge. A few bubbles. Rim folded outside and inside, somewhat concave bottom. Irreducible and dulling. Part of side missing.

Type Morin-Jean 24/25, Isings o.c. 82 (fig. 2) dating from 2nd-3rd centuries, the majority from nb-III.

10. Inv. no. 2511 (fig. 1)

Found in town-park, Maastricht, 1959 D. at rim: 3.3-3.4 cm.

Bluish green, with numerous bubbles. Rim and part of neck. Rim folded outward and inward. Some dulling. Probably form Isings, o.c. 82, dating from 2nd and 3rd centuries.
11. Inv. no. 448 (fig. i)
Found possibly at Stein
H. 8.5 cm., d. 5.4 cm.
Greenish with some bubbles. Rim folded outward horizontally and inward, flattened bottom. White and brown weathering. Small fragment missing, cracked.

Small variety of Morin-Jean 39 and Isings, o.c. 101 (cf. p. 120 for small specimens) to examples may be added: Aguntum (O. Jh. xxiii, 1955, sp. 79) from 4th century; Niederemst, gr. 3 (B.J. 1960, p. 486, fig. 98,4) end early iv; York (Harden, Eburacum fig. 89, p. 141, nr. 109,1) late Roman; Cologne, Kataäuscherhof (Doppelstedt, B.J. 1959, p. 156, Fig. 3,4) 4th century; Cologne Waidmarkt (La Baume, Mouseion, p. 80, fig. 16) 4th century; Cologne, St. Severin (K.,b. 1962/63, p. 156, fig. 16,8) 4th century; Krefeld-Gelpe (Firling, B.J. 1959. p. 241, fig. 3,3) end iv.

12. Inv. no. 444 (fig. i)
Found at Obbicht en Papenhoven, gift of J. Meuleneers
H. 8.3 cm., d. 5.4 cm.
Greyish green glass, a few bubbles. Rim folded outward horizontally, down and upward. Bottom only slightly concave. Some white and brown weathering. No precise parallel known to me, possibly variety of Isings, o.c. 16. Perhaps comparable to flasks with different rim-types: Weisenau, gr. 40 (Neeb and Kesler, M.Z. 1913/14, p. 48, nr. 11) Claudian-Neronian; Cologne, St. Se­verin, gr. 78 (Fremersdorf, B.J. 1933, p. 48, fig. 7) and gr. P. 3 (K.Jb. 1962/63, p. 157, fig. 2,3) mid-first-cen­tury.

13. Inv. no. 447 (fig. i)
Unknown provenience
H. 9 cm. extant, d. 4.5 cm.

Paralleles are mainly near-Eastern, poss­ibly from Mesopotamia (Negro Fonzi, Mesopotamia 1935/65, pp. 316 ff., nr. 159) dating from the Sasanian period. From western sites a possibly second-century bottle from Stree seems to be of similar shape (van Bastelaer, D.R.S.Ch. 1876, pl. vii, 21, p. 163 and 254) and also one from Allogny (Gallia 1956, p. 324, fig. 128) from 3rd c.

14. Inv. no. 477 (fig. i)
Found at Heerlen, cremation burial near the ‘Geleenhof’, Valkenburger­weg, in 1925.
H. 5.5 cm., d. 5.8 cm.
Bluish green, with numerous bubbles. Somewhat everted rim, folded inward, neck short, flat bottom. Some white weathering. May be compared to late specimens as mentioned by Isings, c.c. form 26 or the small variety of 101, dating from the 3rd century. In view of this the bottle may be dated end II to III.

15. Inv. no. 413 (fig. i)
Found at the Houterd on Stein, grave 1, nr. 3, in 1944
Ref.: Beckers, Publ. 1926, p. 597, nr. 3.
Van Doorselaer, Rep. II p. 332-333
H. 8.3 cm., d. 5.7 cm.
Cylindrical bottle, bluish green, some bubbles. Everted rim, folded inward, slightly concave base. Some white weathering at one side.
No exact parallel known to me. A specimen with long neck in the Antiqu­unum at Pompeii dates from before a.d. 70. A bottle from Freisin (Schiemann, B.C.R. III, pl. III, 14, p. 145) dates from end of the 2nd century or early 3rd.

Not datable is a long-necked one from Cologne (Fremersdorf, Denkmaler IV, pl. 93, left).

16. Inv. no. 423 (fig. i)
Found at Maastricht–Limmel
H. 11.5 cm., d. 5.1 to 5.5 cm.
(Maastricht–Wijck)
Mercurius-bottle, without stamp. Green­ish, with some bubbles. Rim folded outward horizontally and inward, neck and shoulder avory. White weathering on the inside. Cracked and part of rim missing.

Type Morin-Jean 19, Isings o.c. 84. As metal and quality of Mercurius bottles are very similar they possibly came from one centre. The majority dates from the 2nd to 4th centuries. To examples may be added: Tongres, gr. 1 to 54. n. 5 in zememtery (Vanderhoeven, Rom. Glover. 1943, nr. 139 and 140) IllA; Geich (B.J. 1959, p. 414, fig. 48,2) end n-early II; Opzinge (Whiting, Arch. Cant. xxviii, p. 127, nr. 151 probably end II; Robechies (Sipitsch, Ant. C. 26, p. 120, gr. 2, nr. 843,b) end III; Cologne, Waidmarkt (La Baume, Mouseion, p. 80, fig. 21) IIIA; Cologne, Kataäuscherhof (Doppelstedt, B.J. 1959, p. 154, gr. 2) IV; Laurenzberg, gr. 2 (B.J. 1959, 1963, p. 541, fig. 28,1) mid 3rd century.

17. Inv. no. 415 (fig. i)
Found at Stein, Houterd on, grave 2, nr. 2, in 1924
H. 11.5 cm., d. 5.5 cm.
Ref.: Beckers, Publ. 1926, p. 829, nr. 2.
No exact parallel known to me. Compar­able are (with different rim-types) Merida (A. E. Arq. 1961, fig. 9) dated to a.d. 20-50; Colchester (May, Colchester, Joslin coll. gr. 51, p. 267, pl. lxxxi) Flavian. With constricted neck: Weisenau gr. 28 (Neeb and Kesler, M.Z. 1913/14, p. 44) early n. The Stein grave dates from the Flavian period.

11. Inv. no. 424 (fig. i)
Found at Amstelrade, grave 1 at the Heilbergerweg, during digging opera­tions in 1934.
H. 13.2 cm., d. 7.2 cm.
Ref.: Van Doorselaer, Rep. II, p. 330
Bluish green, numerous bubbles. Rim folded outward and downward and inward obliquely, making a mushroom profile. Neck with constriction at base, horizontal ridges are tooling marks. Rather flat, only slightly concave bot­tom. Some dulling.

Variety of flask Isings, o.c., form 16, comparable to: specimen with horizontal­wheel-engraved lines from cemetery 05, Nijmegen (anterior to a.d. 70, in the museum Kam); from Hannerberg cemetery. Nijmegen (Vermeulen, Hannerberg, type Illb, gr. 107) mid­first century; Holstein type 16, Claudius-Flavii; Colchester (May, Colchester, Joslin coll. pl. lxxx, gr. 3, p. 253) late Neronian; from excavations Colchester (Harden, Camulodunum, p. 904, nr. 85-86), a.d. 41-65; Saintes (Saint­Germain-en-Laye Museum) from a Claudian-Neronian burial.

18. Inv. no. 475 (fig. i and pl. i)
Found at Stein, Houterd on, sarcoph­agus 1, in 1949.
H. 16.5 cm., d. 10.5 cm.
Leiden 1962, nr. 829.
Dark olive green, apparently black, with some streaks and bubbles. Funnel
Examples of the second sub-type often have horizontal engraved lines on the body. A flask from St. Severin cemetery, Cologne (Fremersdorf, Denkm., pl. 35/36, fig. 12) is datable to the 2nd century; another from Nijmegen (Brunsveld Hees, p. 188, find no. 32) projects from the Hadrianic period; Kisselbach (Vandenhoeven, Verres tardifs, pl. XXII, 6, p. 28, nr. 26) is of uncertain provenience.

The majority is more bulbous, like the Morin-Jean type. There are different types of neck. Comparable examples: Cologne (Fremersdorf, Denkm., pl. 36, fig. 21) and Brussels (Glasv. nr. 332-333). Colourless glass. Funnel mouth, thick, rounded rim, massive stem. Snakethread decoration in blue, white and yellow. White spiral thread on neck, shoulder and lower side. Part of foot restored. Some devitrification.

Morin-Jean 64 and Isings, o.c. form 93. The majority is more bulbous, like the Morin-Jean type. There are different types of neck.

23. Inv. no. 1418 (fig. 2) Found near the so-called Roman villa at Stein (possibly from Germanic hill-fort?) H. ± 7.8 cm., d. 8.4 cm.


Greenish glass, numerous bubbles. Everted, rounded rim. Body blown into vertically fluted mould. Horizontal wheel-engraved lines above and below fluting. Four fragments, incomplete. Exact parallel not known to me. Mould-blown flasks with vertical or horizontal fluting known among forms like Isings, o.c. 101, e.g. from Mayen (Habercy, B.J. 1943, p. 236, type 8).

24. Inv. no. 418 (figs. 2 and pl. 1) Found at Stein, Houterend, sarcophagus 1, in 1924 H. 19.5 cm., d. 7 cm.

Ref.: Beckers, Publ. 1926, p. 376, nr. 5; Van Doorselaer, Rep. n, pp. 332-333.

Colourless glass. About 4 of body, with base-ring, mouth, neck and part of shoulder. Everted rim, rounded. Between mouth and neck a colourless spiral thread, and one at the lower side. Coil base. Cracked. Milky and brown weathering, the latter as a heavy layer on the body. An exact parallel not known to me, however flasks like those illustrated by Fremersdorf, (Denkm., pl. 46 and 48) among the snake-thread glass from Cologne have a similar shape. Also similar, but without the spiral threads, is an example in the Metz museum and Loeschke, cat. Niessen 561.

Sarcophagus II was probably buried at the end of the 3rd century.

III. Arzfeld

A. Plain

26. Inv. no. 431 (fig. 2) Unknown provenience H. 5.7 cm., d. 5.3 cm.

Bluish green, numerous bubbles of all sizes. Rim folded outward horizontally and inward, overlapping into the mouth. Concave bottom with traces of pontil-mark. Dulling. Type Morin-Jean 53. Isings, o.c. form 61, to which may be added: Ospringe (Whiting, Arch. Cant. 38, pl. 125, pl. xvi) II; Corbridge (A. Ael. 30, pl. viii, p. 259) III; Bédirich (B.J. 1959, p. 388) III; Tongres (Vanderhoeven, Rom. Glasversemeling, nr. 149).

Sarcophagus I was probably buried at the end of the 3rd century.
27. Inv. no. 433 (fig. 2)

Found at Ogrimby (Belgium) near the Belgian-Dutch frontier, in 1928.
H. 4.5 cm., d. 5.9 cm.
Bluish green, with some bubbles. Rim folded outward horizontally and inward again. Concave bottom. The end of the coil used for the handles is folded back over the handles up to the rim. Dulling on the inside.

Variety of Morin-Jean 33 and Isings, o.c. 61.

The more oval type of body is later apparently than the bulbous one, an example from Cologne appears to be of this shape (K.Jb. 1925, p. 117, fig. 5) end n-early n.; two others from Cologne were dated by Fremending to the 2nd century (Denkmäler iv, pl. 40). Two bottles from Tongres are still more oval than the Ogrimby one, another is decorated with a spiral coil (Vanderhoeven, Rom. Gläser, nr. 99-101, pp. 47 f.); a bottle from Ospringe (Whiting, Arch. Cant. 38, pl. xvi, 141, group x1) has a more convex bottom, it dates from the second half of the 2nd century; an example from Cologne appears to be of this shape (K.Jb. '955, p. 117, fig. 3) end II-early III; two others from Cologne were dated by Fremersdorf to the 2nd century.

Other finds from this site date from 2nd to early 3rd centuries.

31. Inv. no. 450 (fig. 3)

Unknown provenience.
H. 4.2 cm., d. 4.8 cm.
Colourless, with greenish tinge. Numerous bubbles and streaks. Rim folded outward horizontally and inward. Con...
38. Inv. no. 411 (fig. 3)
Found at Stein, Houterend, sarcophagus I, in 1924.
H. 3 cm., long: 8.2 cm.
Ref.: Beckers, Publ. 1926, p. 277, nr. 10, fig. 9.

39. Inv. no. 418
Found at Stein, near the so called Roman villa (Probably masonic).
Length ca. 17 cm.
Colourless glass. Fragments of a large harrods-shaped bottle, with opaque white spiral coils at the ends for hoops. Almost no weathering or impurities. Mouth and feet missing, as well as neck.
Type: similar to nr. 38, to which especially two other large examples may be compared (Fremersdorf, Denkmaler v, pl. 91a and 96, the last dating from end n-early m).

IV. Beakers

40. Inv. no. 416 (fig. 3)
Found at Stein, sarcophagus I, in 1924.
Found standing in Inv. nr. 472 (here nr. 41).
H. 4.6 cm., d. 7.2 cm.
Ref.: Beckers, Publ. 1926, p. 376, nr. 2, fig. 9; Van Doorselaer, Rep. II, pp. 332-333.

41. Inv. no. 474 (fig. 3)
Found at Stein, Houterend, sarcophagus I, in 1924.
H. 5.5 cm., d. 7.7 cm.
Ref.: Beckers, Publ. 1926, p. 376, nr. 9, fig. 9; Van Doorselaer, Rep. II, pp. 332-333.
Cat. Glas tent. Leiden 1962, nr. 484.

42. Inv. no. 2415
Found at Stein, Houterend, sarcophagus I, in 1924.
D. basering: ± 4 cm.
Colourless. Two fragments of lower side and base. One base ring cut-out, the other a coil ring. Milky weathering.
Type: similar to the former two described and from a set.

43. Inv. no. 901 (fig. 3)
Found at Gulpen, during building of St. Joseph's asylum, in 1931
H. ± 5.6 cm., d. 7 cm.
Colourless, with a few bubbles. Fragments of rim and side with complete base. Mended. Rounded rim, turned inwards. Two base rings, one cut out, the inner one a coil ring. Milky layer of weathering.

44. Inv. no. 1061 (fig. 3)
Found at Ubach over Worms
H. ± 4.7 cm., d. 7-8 cm.
Ref.: Van Doorselaer, Rep. II, pp. 333-334
Bluish green to greenish glass, with few bubbles. Fragments of rim, side and base. Rounded rim thickened to inside. Cut out base ring. Isings, o.c. 85a, dating from end n-1.

45. Inv. no. 484 (fig. 3)
Found at Strabekk, municipality of Valkenburg-Houthem, from graves found at building site, near motorway.
H. 6.3-7 cm., d. 7.8 cm.
Ref.: Van Doorselaer, Rep. II, p. 334
At 1.5 cm. below rim a horizontal engraved line. Broken and mended, covered by milky weathering. Parallaxes are not numerous. A brown beaker.
from Cologne (Fremersdorf, Denkmäler iv, pl. 78, from the Bonnerstrasse) is dated to the 1st century AD. A bluish green one from Cologne (Fremersdorf, Denkmäler iv, pl. 78, from Luxemburgerstrasse gr. 45) was found with coins of Lucius Verus, it probably does not date from it but from the 3rd century; Torgny (Vanderhoeven, Rom. Glasv. nr. 15, p. 83) an apparently black beaker, with wheel-cut lines, not exactly datable; Franchimont (Namur Museum) possibly and century. The form seems to be mainly 2nd-3rd century one.

46. Inv. nr. gr. 2-39 (fig. 12, 6)
Found at Maastricht-Belfort, grave 2, nr. 59. Excavations in 1964
H. 7.5 cm., d. at rim: ± 6.8 cm.
Yellowish with numerous bubbles. Everted rim, polished, cut out baserim and pontil-mark on bottom. Body with horizontal wheel-cut lines, 1, 4 and 1 respectively. The type may be compared to similar beakers from Italy, these, however, have a greenish green tinge. Some of them show the typical domed concave bottom, seen often among glass from the 1st century in Italy. Comparable are several examples in the Naples museum of Antiquities (nr. 12652 without decoration, nr. 109357, 110278, 114780, 114787, 129261, 12287, 12293a, 12293b, 12293c with wheel-cut lines) and in Locarno museum (nr. 31/56, a., and 31/56b). These date from the end of the 1st century, how long the type continued is as yet uncertain.

47. Inv. no. 2415 (fig. 4)
Found at Steins, Houterend, sarcophagus 5, in 1954.
D. at rim: ca. 6 cm.
Isings, J.Gl.St. 1969, p. 87 ff.
Fragments of a colourless goblet. Rim rounded and bent inwards. Shape of base uncertain, a fragment of a beaded stem might belong to this goblet. Decoration consists of white spiral coil below the rim and on the lower side and vertical stepped bands on which mould pressed blue and colourless shells are sitting. The metopes between the rows of vertical stepped bands carried snake-thread decoration, of which fragments of a gilded spiral survive. A fragment of an indented beaker with gilded snake-thread ornament might belong to this goblet, however, on the other parts no traces of indentation survive, so another goblet may have existed. A fragment with opaque light blue spiral thread and remains of an opaque light blue applique or handle may belong to some other beaker also. Brown and white weathering.
The type probably was Morin-Jean 108, variety Isings, o.c. 86. Similar in outline are some goblets from Cologne (Fremersdorf, Denkmäler v, pl. 14-15, 44. 45 and 47, the latter with a decoration similar to snake-thread from the 4th century (e.g. Morin-Jean figs. 990, 251, 259). The 'Muschelpokal' from Cologne, from the first half of the 4th century, may be brought in comparison also, for its outline and for its mould-pressed shells (Doppelfeld, B.J. 1959, pp. 152 ff.) Similar shells occur on fancy-shape flasks from Cologne and Trèves (Fremersdorf, Denkmäler v, pl. 62 ff., pl. 8a-8b) the former having been found with a coin of Tetrius. The Trèves flask also cannot be earlier than the late 3rd century A.D.
Mould pressed shells are also known as handle ends of trullae or handle decorations on pseudo-diatteta (Fremersdorf, Denkmäler v, pl. 12 and Doppelfeld, B.J. 1959, p. 162 ff.) The snake-thread spiral may have been an ornament like the one on a glass bucket from Cologne (Fremersdorf, Denkmäler v, pl. 60, pp. 11 ff and 53), which dates from the second half of the 3rd century. Similar fine ornaments may be seen also on the so-called 'Masterpieces', of which a 4th-century fragment is known. A masterpiece from a Nijmegen sarcophagus is late-Roman also, possibly 4th century (Fremersdorf, Denkmäler v, pl. 70-71, p. 56 ff., Isings, J.Gl.St. 1969, p. 90). So the Steins goblet cannot be earlier than the late 3rd century A.D.

48. Inv. no. 2415A (fig. 3)
Found at Steins, Houterend, sarcophagus B, in 1944.
H. ± 11.2 cm., d. at rim: ± 6.8 cm.
Colourless with a greenish tinge. Everted and rounded rim, with cut-out ridge at 0.8 cm. below the rim. Sixfold beaded stem, footstand with rounded rim. Intricate coil handles between rim, stem and foot. Incomplete, restored with wax in 1939, but broken again during world war II.
Unique piece. Fremersdorf rightly pointed out its similarity to the silver goblets from the Trapprain hoard (Germania 1930, p. 217, fig. 4) from the 4th century, but dated the glass goblet to the late and century A.D. The beaded stem is similar to stems of (footless) lamps from the 5th to 6th centuries at Gerras (Kraeling, Gerras, p. 519 ff.)
A unique goblet in terra sigillata in the Leiden Museum was dated to the 3rd-4th centuries A.D. by Braat (Germania 1938, p. 255). Comparable as to the cup-shape is a stemmed goblet in the Liège museum, probably from Egypt, 4th-5th centuries (Cat. Trois Mill. 184).

50. Inv. 328 (fig. 11)
Unknown provenience
D. at rim: ± 14 cm.
Greenish to bluish green, with some bubbles. Fragment of rim and side. Some dulling.
Bluish green glass, with numerous bubbles, some of them in foamy streaks. Rim folded outward and downward vertically. Carinated profile of side imitates terra sigillata form Drag. 29. Base ring cut out. Almost no weathering.

Isings, o.c. 44b. Comparable examples, some of them less carinated in profile: Kretz (B.J. 1958/59, pp. 404 ff., fig. 36, 4) to parallels mentioned may be added also a bowl from Bois-la-Louvière, with less carinated side: cf. Faider-Yeomans, Rev. Belge 1940, p. 218, pl. III, 1; Richborough (Richborough III, pl. 15, 9, 85, no 65) Flavian; fragments from Corbridge (Charlesworth, A.Ael. 1959, p. 49, fig. 7-4); Caerleon no 14, less carinated side, probably Flavian.

I am very thankful to mr. G. C. Boon for his information and permission to use it.) Pompelri, small bowls of similar shape.

Bowls with sloping ribs on the sides may also be brought in comparison: Re- magen (Funck. B.J. 129, pp. 265 ff.) Flavian; Orsinton (Brunswick museum, unpublished) probably Flavian; From- chimont (Namur Museum) from a cemetery dating from the first to early second century.

Morin-Jean 84, Isings, o.c. 44a, from the second half of the 1st century. If found in the same burial as the former number, it belonged to a set.

57. Inv. no. 424 (fig. 3)
Unknown provenience
H. 4.2 cm., d. 9.1 cm.

Imitation of metal ware, also comparable to terra sigillata Drag. 35. In glass form Isings 44a in a deeper variety. To examples may be added: Ap. gr. 27 (Dumoulin, Gallia 1964, p. 94, fig. 126) probably 1st century; Esc gr. 3 (Ann. du 2nd Congrès des Journees Int. du Verre, Leyde 1962, p. 69), probably 2nd century.

58. Inv. no. 420 R (fig. 12 and pl. 2)
Found at Gulpen, during building of St. Joseph's asylum, in 1931.
D. of base: 7.8 and 11.4 cm.
Bluish green glass, with a few bubbles. Fragment of lower side with complete base, of an oval bowl. Base ring cut out.

59. Inv. no. 1061/XXVII (fig. 11)
Found at Ulmen over Worms.
D. at rim: 17 cm.
Isings o.c. 47, imitation of terra sigillata Drag. 31, dating from mid-first to 2nd centuries.
Cologne, Halberstadt, Germany 1935; pl. 39, from 5th century and the Egyptian variety: Harden, Karanis, 246-255, class iv, iii a, p. 96, posterior to Constantinian.

61. Inv. no. 443 (fig. 3)
Found at Groenstraat, municipality of Utrecht over-Worms, in 1956.
H. 5.2 cm., d. rim: 10.4 cm.
Bluish green, numerous bubbles. Thick rounded rim. Cut out ridge at 2.6 cm. below rim, base ring cut out. Some milky weathering and pink weathering within ridge.
Imitation of metal bowls and of terra sigillata Drag. 98. Form Martin-jean 85, to which may be added: Merken (museum Bonn) from ca A.D. 175; Nijmegen (Brunting, Grafveld Hees, gr. 21, p. 185) ca. 280 A.D.; the form also occurs without base ring e.g. one found in a fourth century burial at Nijmegen, in 1951. Other finds from the site date from the 2nd century to early 3rd century.

62. Inv. no. — (fig. 4)
Found possibly at Maastricht, Grote Staat.
H. 5.9 cm., d. 7.5 cm.
Colourless with greenish tinge. Fragments of rim, side, bottom and base, about 3/4 of a shallow bowl. Some bubbles. Polished all over. Broad, horizontal rim, rounded; at the rim, near the side, two wheelcut ridges separated by a groove. Foot triangular in section. Within, on bottom, a wheelcut circle in relief. Milky white weathering.
Pressed and rotary polished bowls of similar shape of coloured glass are known from the 1st century A.D., colourless bowls from the 2nd century onwards (cf. Harden, Camulodunum, pp. 300 ff. Isings, o.c., form 5; Charlesworth, A.A.D. 1956, pp. 85 ff. and Transactions of the Cumberland and Westmoreland Ant. and Arch. Soc. 1960, pp. 34 ff.; Berger, Glaser Vindonissa, pp. 25 ff.; Alarcò, Vidros romanos Conimbriga, p. 56). They may have been made in Alexandria, as is generally accepted. Some may have come from a Western centre, as is thought for a green bowl in the Tuilie House Museum, Carthage (Charlesworth, Transactions ... i.e., p. 35, thinks Italian manufacture possible). Fragments from Conimbriga (Alarcò, Vidros romanos Conimbriga nos. 109 and 104, p. 76 are compared to Class i b ii of Karanis, cf. Harden, Karanis, seq. 74 and 76). Fragments from Duru Epokes present some similarities, other centres in the Near East might be possible also (Clairmont, The Glass Vessels, p. 18 ff.). They probably belong to the 2nd century (cf. Barag, review of Clairmont, I.E.J. 1967, p. 197). Fragments from Caerleon date from before 140, one found with Hadrianic pottery (Information from G. C. Boon, whom I am very thankful.).

63. Inv. no. gr. 2-19/20
Found at Maastricht-Belfort, burial 2, nos. 19 and 20, excavated in 1964.
H. ± 3.5 cm., d. 11.2 and 14.3 cm.
Colourless glass, two shallow bowls crushed on top of each other. Horizontal rim with a cut-out ridge at the under side. Cut-out base ring. Covered with milky layer of weathering. Type similar to the abovementioned.

64. Inv. no. gr. 2-21
Found at Maastricht-Belfort, burial 2, no. 21, excavation in 1964.
H. 2.5 cm., d. 17-17.5 cm.
Fragment of colourless bowl, completely crushed. Rim horizontal, with cut-out ridge at the under side. Cut out base ring. Covered with milky layer of weathering. Type similar to the abovementioned.

65. Inv. no. gr. 2-22b
Found at Maastricht-Belfort, burial 2, no. 22b, excavated in 1964.
H. ± 3 cm., d. ± 13.5 cm.
Fragment of colourless glass, with yellowish tinge, crushed. Horizontal rim with cut-out ridge at the under side. Cut-out base ring. Milky weathering. Type like the abovementioned.

66. Inv. no. gr. 2-23 (fig. 12,8)
Found at Maastricht-Belfort, burial 2, no. 23, excavation in 1964.
H. 3.6 cm., d. 12 cm.
Colourless glass with greenish tinge. Horizontal rim with cut-out ridge on the under side. Cut-out base ring, pontil mark. Iridescence and white weathering. Molded. Type similar to the abovementioned, but deeper variety.

67. Inv. no. gr. 2-24
Found at Maastricht-Belfort, burial 2, no. 24, excavated in 1964.
H. ± 2.7 cm., d. ± 10 cm.
Yellowish glass, almost colourless. Horizontal rim, with cut-out ridge on the under side. Cut-out base ring. Type similar to the abovementioned.

68. Inv. no. gr. 2-32 to 35b
Found at Maastricht-Belfort, burial 2, nos. 34, 35, 35a and 35b, excavated in 1964.
Four shallow bowls crushed on top of each other. Types of rims and bases probably similar to those of the abovementioned bowls, forming a set with them.
Type similar to the abovementioned.

69. Inv. no. gr. 2-36 (fig. 19,10)
Found at Maastricht-Belfort, burial 2, no. 36, excavated in 1964.
H. 1.7 cm., d. 18.4 cm.
Yellowish glass. Horizontal rim with cut-out ridge on the under side. Cut-out base ring and bottom kicked in higher than the others of this set. Dulling on the surface. Type similar to the abovementioned.

70. Inv. no. gr. 2-47/47a
Found at Maastricht-Belfort, burial 2, nos. 47 and 47a, excavated in 1964.
D. ± 22 cm.
Two yellowish bowls crushed on top of each other. Rim horizontal with cut-out ridge on the under side like the above-
71. Inv. no. gr. 2-48 to 49c
Found at Maastricht-Belfort, burial 2, nr. 48, 49, 49a, 49b and 49c, excavated in 1964.
Nrs. 48 and 49: d. ± 11 cm, 49 a-c: d. ± 18-20 cm.

72. Inv. no. gr. 2-52 to 52c
Found at Maastricht-Belfort, burial 2, nr. 52, 52a, 52b, 52c, excavated in 1964.
D. 11-15 cm.

73. Inv. no. gr. 2-53d
Found at Maastricht-Belfort, burial 2, nr. 53d, excavated 1964.
H. ca. 2.5 cm, d. ca. 13 cm.

74. Inv. no. gr. 2-55 (fig. 129)
Found at Maastricht-Belfort, burial 2, nr. 55, excavated in 1964.
H. 3.7 cm, d. 6.7 cm.
Ref.: Bogaers, Nieuws Bulletin Kon.

75. Inv. no. gr. 2-46
Found at Maastricht-Belfort, burial 2, nr. 56, excavated in 1964.
H. ± 2.5 cm, d. ± 10 cm.

76. Inv. no. gr. 1-21 (fig. 13,21)
Found at Maastricht-Belfort, burial 1, no. 21, excavated in 1964.
H. 5.7 cm, D. 10.7 cm.
Ref.: Base: 7.3 cm.

77. Inv. no. gr. 1-22 (fig. 129,2)
Found at Maastricht-Belfort, burial 1, no. 22, excavated in 1964.
H. 4.18 cm, d. 6.7 cm.
Ref.: Bogaers, Nieuws Bulletin Kon.
sires (cf. Fremersdorf, K.Jb. 1965/66, p. 31, n.vi). The villa is dated to the 1st and 2nd centuries, A.D.

82. Inv. no. 385 (3034 mts) [p. 2]

- Found at Maastricht, during restoration of Our Lady's Church, in 1966.
- Base: 5 x 5 cm.
- Bluish green glass, with some bubbles.
- Base fragment, with marking: circle with cross in the centre, inscribed in a square. Some white weathering.
- Morin-Jean 14, Isings, o.c. 50a. Similar marking, but on a larger sized bottle, from Welwyn and from Baldock (Charlesworth, J.Gl.St. 1966, fig. 11, pp. 33 ff.) and from one from Sichelse thought to be variations of the same marking, possibly from the same workshop.

83. Inv. no. 387 (p. 2)

- Unknown provenience.
- Base: 7 x 7 cm.
- Bluish green glass with some bubbles. Fragment of base, with corner. Pontil mark. Base marking: two concentric circles, with a cross in the centre. Some dulling.
- Morin-Jean 14, Isings, o.c. 50a. Base marking comparable to others with cross in the centre and possibly from the same workshop (cf. abovementioned: Charlesworth, J.Gl.St. 1966, pp. 33 ff.)

84. Inv. no. 495 (fig. 5)

- Found at Voerendaal, in cremation burial.
- H. 9.5 cm., sides: 4.2 x 4.2 cm.
- Morin-Jean 14, Isings, o.c. 50a, dating from mid-first century well into the 2nd century.

85. Inv. no. 457 (fig. 5)

- Found at Mesch (municipality of Eysden), in a gravel pit on the 'Steenenberg', in 1932.
- H. 14 cm., base: 7.4 x 7.4 cm.
- Rim: Charlesworth (J.Gl.St. 1966, p. 26, type 1a), occurring from end 1st century (e.g. Lovenich, B.J. 1955, p. 480, fig. 39:1) onwards. The base marking is an ordinary one (cf. Fremersdorf, K.Jb. 1965/66, p. 310). Side markings occur on bottles and jars in Italy (among Pompeii and Herculanum finds) but are also known from the provinces.

86. Inv. no. 458 (fig. 5)

- Found at Mesch (municipality of Eysden), in a gravel pit on the 'Steenenberg', in 1932.
- H. 13.8 cm., side: 6 x 7 cm.


Type Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth, J.Gl.St. 1966, variety of 1b (wider than the mushroom type illustrated). Similar to the mid-68–70 abovementioned although not identical. Dating from the same period, possibly also from the same burial.

87. Inv. no. 492 (fig. 5)

- Found at Mesch (municipality of Eysden), in a gravel pit on the 'Steenenberg', in 1932.
- H. 14.2 cm., br: 7.4 x 7.4 cm.
- Rim: Charlesworth 1a, almost identical with the former number, abovementioned, but slightly wider.
- Possibly from a set of bottles in the same burial, dating from end 1st into the 2nd century.

88. Inv. no. 464 (fig. 5)

- Found at Mesch (municipality of Eysden), in a gravel pit on the 'Steenenberg', in 1932.
- H. 19.8 cm., side: 6 x 7 cm.


Type Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth 1b, variety. Base marking may be compared to three examples from Cologn (Fremersdorf, K.Jb. 1965/66, p. 31, a:n).
show rectangular tooling indents. Some milky weathering. Morin-Jean 14, Isings, o.c. 50a, with rim Charlesworth 1b.

Base marking is an ordinary one. (cf. Fremersdorf, K.Jb. 1965/66 p. 31, c. xv). Flat handles occur from the 1st century (e.g. Berger, Glaser, Vindomose, pl. 81, 82 (169), p. 79) onwards. The Limmel cemetery is dated to the 2nd century by Byvanken. Van Doorselaer dates it to end and 3rd centuries. The earliest burials may have from the end of the 1st century. This very carefully executed bottle may date from 2nd or 3rd century.

91. Inv. no. 1402 (fig. 6)

Found at Gulpen, in cremation burial, during construction of tramway Maastricht-Vaals, near Neuborgh castle, in 1922.

H. 17.5 cm., base: 8.4 x 8.4 cm.


Type Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth 1b. Similar base markings occur at Weissnau (Behrens, M.Z. 1925/26, fig. 5, p. 65); Cologne (Fremersdorf, Denkmäler iv, pl. 116, left, dated by Fremersdorf to ca. A.D. 100, Fremersdorf, K.Jb. 1965/66, p. 31, c.xvii); London (Roman London fig. 65, 32, Charlesworth, J.G.L.St. 1966, fig. 3 and appendix 4, 44); Flavian.

For other finds at the site cf. above p. 3.

Finds seem to date from end and century to early 3rd for the majority, but as 6 burials were found exact dating is not possible.

92. Inv. no. 1403 (fig. 2)

Found at Gulpen, cremation burial found during construction of tramway Maastricht-Vaals, near Neuborgh castle in 1922.

Base: 10.5 x 10.5 cm.


Type Morin-Jean 14, Isings, o.c. 50a. Lettering occurs with different other markings, in some cases P is retrograde. (cf. Kisa Ill, p. 950, ms. I08-110 and Charlesworth, J.G.L.St. 1966, p. 34; Fremersdorf, K.Jb. 1965/66, pp. 29 f.) Comparable though not identical markings: Cologne, villa of Koln-Mülndorf (Fremersdorf, Köln-Mülndorf, p. 98, pl. 48, Streufunde 3) stray find 4th century to 244-245; (fig. 14,7) Square bottle, bluish green, with numerous small bubbles. Multi-ribbed handle. Base marking: three concentric circles, the two inner ones connected in two places by a small bar. Mouth missing, remainder mended. Milky weathering and iridescence.

Type Morin-Jean 14, Isings, o.c. 50a. No parallel known to me for the base-marking. Found like the two above-mentioned, dating from the same period.

93. Inv. no. gr. 1-19 (fig. 14,9)

Found at Maastricht-Belfort, burial 1, nr. 19, excavated in 1964.

H. 13 cm., base: 7.1 x 7.2 cm.


Type Morin-Jean 14, Isings, o.c. 50a, rim: Charlesworth 1b. Similar base markings on high square bottles (50b) from Tongres (Vanderhoeven, Rom. Glasverz. 61 and 62, not dateable with certainty). Similar, but in smaller size: Cururum (Gallia 1965, p. 377, fig. 13b) possibly end 1st or early 2nd century. Bogaers dates the burial to the 2nd century.

94. Inv. no. gr. 1-7 (fig. 14,7)

Found at Maastricht-Belfort, burial 1, nr. 7, excavated in 1964.

H. 13 cm., base: 7.6 x 7.9 cm.


Type Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth 1a. Base marking is an ordinary one, occurring in different sizes (cf. Fremersdorf, K.Jb. 1965/66, p. 31, 8.xv). Bogaers dates the burial to the 2nd century.

95. Inv. no. gr. 1-10 (fig. 14,10)

Found at Maastricht-Belfort, burial 1, nr. 10, excavated in 1964.

H. 13.3 cm., base: 7.6 x 7.9 cm.

Ref.: Bogaers, Nieuws Bulletin Kon.
Type Morin Jean 14, Isings, o.c. 50a.

98. Inv. no. 481 (fig. 7)
Found at Maasricht-Belfort, burial 2, nr. 16, excavated in 1924.
H. 13.5 cm., base: 6.9 x 7.3 cm.
Morin-Jean 14, Isings, o.c. 50a.
Rim: Charlesworth 1b. Base marking is an ordinary one (Fremersdorf, K.Jb. 1963/64, p. 31, a. 78), very similar is the base of a bottle of type 50b from Tongres (Vanderhoeven, Rom. Glasverz. nr. 69), which cannot come from the same mould, however.

99. Inv. no. 482 (fig. 8)
Found at Ell (municipality of Ell-Hunsel) site 'De Schupstal', gift of P. Hubertus Rietjens.
H. 9.5 cm., d. 6.5 cm.
Type Morin-Jean 16b, Isings, o.c. p. 64 (a variety of the square bottles).
Rim: Charlesworth 14/b. Hexagonal bottles date from the same period as the square ones (e.g. Tenero, Silvestrini, R.St.Tax. 1940, p. 327, fig. vn.19; Claudian-Neronian, p. 330, fig. vn.20; end 1st century); Locarno (Munio Cadra gr. 28, Simonetti, Tes. Gräber, p. 160, nr. 28, fig. 138, pl. 12.5.2); Claudian-Neronian; Aislein (Ubert, Aislein und Burghhofs, p. 99, pl. 13) mid 1st century; Pont (Kreis Geldern, p. 215, gr. 14) 1st century; Pompeii (Napels Museum) anterior to A.D. 70; Stein (cf. below, nr. 103) Nero-Flavi; Mainz (M.Z. 1929/1930, p. 150, fig. 9a) end 1st century; Tongres (De Schaetzen-Vanderhoeven, Oude Land van Loon 1955, p. 10 f., nr. 3, fig. 9, gr. II) early III; Xanten (Houben, Xanten pl. xvi, 7) with coin of Titus, but probably not earlier than 2nd century; St. Clerges (Kamer, Vertentes, p. 10-11, nr. 13, Jb.S.G.U. 1961/66, p. 173, fig. 45) end II, but in the same layer 1st-century fragments also; York (Harden, Eburacum, fig. 88, nr. 34 c, p. 197) from a grave posterior to A.D. 250, fragment itself dated to 2nd century; Remagen gr. 78 (Frensch, B.J. 1937, p. 152, pl. 8b) end I-II early III; Machelein (Mertens, Arch. Belg. 28, figs. 4-5, p. 7) a very large bottle mid 2nd century.
Comparable to the squat variety of hexagonal bottle: one in the Amiens Museum and some very large examples: Hemav (B.C.A. IV, pl. 1, fig. 2, p. 906) I-II; Fayt-les-Manage (Fai-ter-Feytman's, Revue Belge 1960, p. 215) 2nd century; Chastre-Ia-Chaussee (Carmont, Ann. Brux. xiii, pp. 372 f) end II to early III; Amay (Vanderhoeven, Verres romains, nr. 729, p. 114) probably 2nd century; Yerseke-en-Caux (E. Chiriol, Rev. d. Soc. Sav. de Haute Normandie xxx, pp. 25 ff) end early III.
Whether the small squat bottle dates from the same period as the large one is, as yet, uncertain. Finds from the 'Schupstal' seem to be mainly 1st century.

100. Inv. no. 483 (fig. 6)
Found at Graetherheide (municipality of Sittard) H. 18 cm., d. 14.5 cm.
Rif.: Van Doornelaar, Rep. II p. 332
Squat hexagonal bottle, pale green, with some bubbles. Rim variety of mushroom shape. Constriction at base of neck, multi-ribbed handle. Faint marking on sides, base marking: four concentric circles. Weathering and iridescence on the inside.
Type Morin-Jean 17b, Isings, o.c. p. 64, cf. examples mentioned for nr. 100 above, especially the large squat bottles, which seem to date mainly from the 2nd century to early 3rd.
Rim-type: Charlesworth 1a/b.

101. Inv. no. 481 (fig. 6)
Unknown provenience 11. 17 cm., d. 7.2 cm.
Small bottle, bluish green, with streaks and numerous bubbles, some of them forming blisters on surface. Broad rim folded outward and inward. Handle with three ribs. Base marking: two concentric circles. Pontil mark. Fragment of rim missing, mended. Some iridescence and milky weathering.
Type: Morin-Jean 17b, Isings, o.c. p. 64 (variety 50a). Rim: Charlesworth 1a. Dating from the same period as the square bottles (cf. examples above, the large ones excepted, cited for nr. 100). Base marking an ordinary one (cf. Fremersdorf, K.Jb. 1963/66, p. 31, b.vm.)
C. CYLINDRICAL BOTTLES

106. Inv. no. 450 (fig. 6)
Found at Maastricht-Limmel in 1890.
H. 9.5 cm., br. of sides: 6.4 cm.
Bluish green or almost colourless cylindrical bottle, almost cylindrical, with pale greenish tinge, a few bubbles. Narrow rim, with folded lip. Side with horizontal wheel-cut lines (1, 2 separated by engraved lines, and 1 line resp.). Flat handle. Slight constriction at base of neck. Marking: two concentric circles with 4 circle segments inscribed, looking like a wheel with four spokes, with dot in the middle. Small fragment of rim missing. Dulling and white and yellow weathering.

Type: Morin-Jean 17B, Isings, o.c. pl. 64 and above, nr. 100, datable bottles. Medium sized hexagonal bottles probably datable to the same period as the large ones. Rim: Charlesworth 14/5; Base marking somewhat similar, though not identical, to marking on square bottle from Meesch, above, nr. 99. The burial is dated to the 1st century A.D.

107. Inv. no. 459 (fig. 6)
Found at Maastricht-Limmel in 1890.
H. 22.5 cm., base: one side: 8.3 cm.

Type: Morin-Jean 17B, Isings, o.c. pl. 64 and above, nr. 100. Rim: Charlesworth 1b. Very large hexagonal bottles probably date from the end to early 3rd centuries. The burial is dated to the 2nd century A.D.

108. Inv. no. 460 (fig. 6)
Found at Ubach-over-Worms, at building site, in 1931.
H. 9.6 cm.-10.2 cm., d. 5.6 cm.
Bluish green, with numerous bubbles. Rim folded outward and inward. Sides narrowing to base. Flat handle. Slightly concave base. Some fragments missing, mended. Milky weathering. Variety of the cylindrical bottle Isings, o.c. 51a, with a broader rim than most. Similar small examples (rim type excepted) from Cologne (Fremersdorf, Denkmäler IV, pl. 42 below, p. 31: 'this small variety often occurs at Cologne, in colourless glass as well') dated to the early 2nd century by Fremersdorf. A small bottle from Rückingen, however (O.R.L. Lief. XXXVIII, pl. 6, p. 34-5. gr. 49) probably dates from 3rd-4th.

Other finds from the site date from the 2nd and 3rd centuries A.D.
weathering on inner surface of shoulder, dulling on the outer surface.

Isings o.c. 51b, with rim comparable to square jugs, Charlesworth, J.Gl.St. 1966, 13/14. The type dates from 1a into the 4th century. To examples one from Lüvenich may be added (B.J. 1955/56, p. 480, fig. 39.3) from end 1-2.

The jug was found together with unguentarium nr. 3, and probably dates from end 1-early 2.

111. Inv. no. 478 (fig. 7)

Found at Gulpen, cremation burial, during construction of tramway Maastricht–Vaals, near Neuborgh castle, in 1922.

H. 19.5 cm., d. 8 cm.

Ref.: De Maasgouw 1923, p. 10; Beckers, Zuid Limburg, pp. 244 f.; Van Doorselaer, Rep. II pp. 318 f.

Colourless glass, impurities no more visible. Rim folded outward downward and upward, forming a collar. Flat handle wit faint ribs. Side with groups of horizontal wheel cut lines (2, 6 and 3 resp.). Wheel cut circle on base. Opaque milky weathering. Cracked.

Colourless variety of high bottle Isings o.c. 51b, cf. also parallels mentioned above, nr. 108, and sculptured bottle on the Simpelveld sarcophagus in Leiden museum, which may have a similar rim also. O.M. Leiden, 1931, suppl. pp. 27 f., Mnesomyse 1935/36 p. 88 ff., late 1. Charlesworth, Studies, p. 6.

Similar rims (of square bottles Charlesworth, J.Gl.St. 1966, type 2b) occur from the second half of the 1st century onwards (examples in Pompeii Anti-quantum and in the Naples museum, one of them with horizontal wheel-cut lines). Fragments of an emerald green bottle were found in the Nijmegen castra, probably dating from ca. A.D.

70-104. The same type of rim also occurs on other forms, dating from 1st to 3rd centuries (e.g. on square bottles, Vanberg, Op. Arch. vii, 1932, p. 129, pl. vii, = S.C.E. iv, 3, fig. 47.5). Similarity to examples mentioned above, p. 93 may point to a possibly second to early third-century date for this one. The majority of the objects from the 6 graves at Gulpen seem to belong to the 2nd and 3rd centuries.

112. Inv. no. gr. 2–15 (fig. 12, 13)

Found at Maastricht–Belfort, burial 2, no. 15, excavated in 1964.

H. 18.1, d. 16.2 cm.


Bluish green with some streaks. Mushroom-shaped rim. Neck with constriction at its base. Multi-ribbed handle. Some white weathering on the outside. Handle for the most part missing. Type Isings o.c. 51a, in its large variety, examples of which date from the Flavian period to the end of the 2nd century A.D. The rim is comparable to type Charlesworth, J.Gl. St. 1966, 15.

113. Inv. no. 588/7 (fig. 8)

Found at Stein, Houtcrond, burial 1, in 1942.

H. (recta) 13.2 cm., d. rim: 9.5 cm.


Upper part of bluish green jug, with a few bubbles. Rim folded outward and inward. Constriction at base of neck. Handle with three ribs, one ending in spur on the side. Some milky weathering.

Type Morin-Jean 57, Isings, o.c. 55a, Harden, Ant. J. p. 228 ff., dating mainly from the second half of the 1st century (examples from: Xanten (B.J. 122, p. 418, pl. XVIII, 13) Claudian-Neronian; Tavel (Gagniere etc., Gallia 1961, p. 229, no. 48, fig. 8, p. 240) probably Claudian; Locarno (Liverpool unter gr. 44). Simonetti, Tess. Graberf. p. 115, Claudian-Neronian; Minisio Cadra, gr. 14, p. 128, fig. 114, Claudian-Neronian); Tencro (Silvestrini, R.S.T. 1940, p. 229, fig. 715, micromint century; p. 331, fig. 716, 60, gr. 80, posterior to Vespasian; p. 297, fig. 716, 29. gr. 80; Křeslo (Koethe, T.Z. 1939, p. 161) Neronian; Aramon (Caylus, Recueil VI, pl. cvii, p. 334 f.) Claudian-Neronian; Aislingen (Ulbert, Aislingen und Burggräber, p. 63) nr. Palazzolo Vercellese and Gravellona (Turin Museum) 1st century. Richborough (Richborough IV, no. 367, p. 158) dating from A.D. 190–195, from a pit containing Flavian material also.


Examples with a more conical outline: Avennes (Vanderhoeven, Verres romains, 79) end 1; Vervoz (Vanderhoeven, Verres romains, 80 and Philippe, Hym. Grenier, p. 245) Flavian; Palazzolo (Flavian museum) anterior to A.D. 79; Este, Necropoli Nord, gr. 4 (Este Museum) later 1st century; Radvage (Ant. J. ii, 1923, p. 324, pl. xxxv) Flavian; Hofheim (Ritterling 13) 15;

D. CONICAL JUGS

In a later variety the neck becomes longer, the body wider. Burial 1 dates from the Neronian-Flavian period.

114. Inv. no. 461 (fig. 9, and pl. 9)

Found at Meesch (municipality of Eysden) in gravel pit on the 'Steenenberg', in 1942.

H. 17.9 cm., d. 8.2 cm.

Ref: De Maasgouw 1939, p. 72; Van Doorselaer, Rep. II, p. 316 f.

Bluish green to greenish tinge, numerous bubbles, rim folded outward, downward and inward. Long neck, body semicircular in outline. Three-ribbed handle, ending in nicked spur on the side. Very deep bulbous kick. Brown weathering on handle, white weathering on inner surface. Variety of Morin-Jean 58, Isings, o.c. 55a, in the later variety (not illustrated) with high neck and wide body. Faider-Feytmans, Et. Nam. 1955, pp. 76 ff., some of them with pre-moulded ribs. Most examples have a more conical outline than this one, a deep kick is rare. Comparable is a jug from Bexhill (British Museum, London. Charlesworth, A. Arch. 1935, 8 ff., Payne, Arch. Cant. 1874, pp. 170 ff. Guide to the Ant. of Roman Britain pl. xi, nr. 10, p. 44) from late 1. Comparable in shape: Richborough (Richborough IV, nr. 397, p. 158) dating from A.D. 150–155, from a pit containing Flavian material also.

Examples with a more conical outline: Avennes (Vanderhoeven, Verres romains, 79) end 1; Vervoz (Vanderhoeven, Verres romains, 80 and Philippe, Hym. Grenier, p. 245) Flavian; Palazzolo (Flavian museum) anterior to A.D. 79; Este, Necropoli Nord, gr. 4 (Este Museum) later 1st century; Radvage (Ant. J. ii, 1923, p. 324, pl. xxxv) Flavian; Hofheim (Ritterling 13) 15;
3.2 of found 1 St-2nd 2 cm. O.Jh. (Clippers, B.J. '962, p. 306) H.A; er VI, pI. 10 I, pp. 5 I, 43, on jug pI. 27 centuries (cf. J-GI.St. 224) three E), "5. Inv. no. 473 II6. Inv. no. gr. 2-38 jug is also possible (e.g. Isings o.c. 55a Beckers, PubI. 1926, p. 377, m. 3rd centuries; Flavion (Delmarmol, found in the grave, the mask may have end I

115. Inv. no. 473 (fig. 8) Found at Stein, Houterend, sarcophagus I, in 1924. Dimensions: 2.3 x 2.2 cm. Ref.: Beckers, Publ. 1926, p. 377, nr. 10.; Van Doorenslaer, Rep. II pp. 332 f. Pressed mask, bluish green, originally decoration on handle end, possibly on a conical jug, although a more bulbous jug is also possible (e.g. Isings o.c. 55a or b, or 53b). Thin trail from pressing on top of mask. Some dulling. Masts on handle ends were popular during 1st-2nd centuries (cf. J.1.Gl.St. 1964, p. 62, notes 18-19). It is somewhat similar to a mask from Cologne, at the end of the handle of a bulbous jug (Fremersdorf, Denkmäler \( \text{fig. 17, pl. 101, pp. 51, 40, on jug pl. 73} \) dating from the end of the 1st century. No trace of the jug to which the Stein mask belonged having been found in the grave, the mask may have been used as an amulet after the jug was broken.

116. Inv. no. gr. 2-38 (fig. 17-7) Found at Maastricht-Belfort, burial 2, nr. 38, excavated in 1964 H. 10 cm., d. 10.1 cm. Ref.: Bogaers, Nieuws Bulletin Kon. Ned. Oudh. Bond 1964, p. *108. Almost colourless, with yellowish tinge. Horizontal rounded rim, folded downward. Base ring probably cut-out. Handle with square section. Construction at base of neck. Incomplete and restored. No exact parallel known to me, may however be compared to a more bulbous variety of Isings, o.c. 55b (e.g.


117. Inv. no. 386 G-4 (pl. 3) Found at Stein, Houterend, sarcophagus I, in 1924. H. of handle: 10.6 cm. Ref.: van Doorenslaer, Rep. II, pp. 332 f. Not mentioned by Beckers. Colourless, with a greenish tinge. Part of shoulder, with most of handle, upper part of this fragmentary. Body with vertical ribs, nipt diamonddays before final blowing. Chain handle starts on shoulder as two coils, which are nipt together 6 times after which they end as one ribbed band, originally doubled along mouth with a loop above the rim. Dulled.

Chain handles occur on several types of jugs, Morin-Jean illustrates three (figs. 128, 134 and 135) and mentions 4 types of jugs with chain handles (p. 40, note 3, forms 50, 53, 50 and 61, all) of them of third- to fourth-century date. As this handle is rather long, it may possibly belong to a jug of type 50 (= Isings, o.c. 1200) or 61, or to one as found in a fifth-century grave of the Dark Ages cemetery in St. Servaas’s cloisters at Maastricht (Glazema-Ypey, Kunst en Schoonheid uit de Vroege Middeleeuwen, Nijmegen—Amersfoort 1950, pl. 85) of Morin-Jean’s type 51. Fragments of chain-handles were found on the Saalburg (Fremersdorf, Saalh. Jb. 1939, pp. 19 f.) 3rd century.

118. Inv. no. 469 (fig. 7) Provenience unknown.

D. rim: 6.4 cm. Upper part of a colourless jug, with slightly greenish tinge. Some streaks and bubbles. Bowl-shaped mouth with rounded rim, with horizontal trail below it. Vertical ribs on body, nipt diamonddays before final blowing. Handle starts as two separate trails on shoulder, these are nipt together 6 times after which they remain joined going on as a ribbed band joined to the rim, doubled and ending with a loop above the rim. Milky and yellow weathering.

General forn variety of Isings, o.c. 120. A similar jug found at Colchester (Harden, Glass and Glazes. In: Singer and others, A History of Technology ii, Oxford 1956, p. 340, pl. 27 a), exhibited: K. S. Painter, in: Masterpieces of Glass, British Museum London, 1968, nr. 111) it is dated to the 3rd century; another at Mainz Alba­inges, together with two others with vertical ribs and chain handles (Beu­rens, Röm. Gl.Fl. fig. 8. Morin-Jean fig. 128) 3rd-4th century; Vertical ribs, not nipt together: Gelsdorf, Jahn R. J. 1963, p. 224) 3rd century. Without decoration: Strasbourg (Straub, Cimetière, p. 27) 3rd-4th centuries. The fragments of handles mentioned above (nr. 117) found at the Saalburg are thought to have belonged to similar jugs (Fremersdorf, l.c., pp. 19 f.) dating from the 3rd century.

119. Inv. no. 1093 (fig. 11) Found at Maastricht, Havenstraat, in 1932. H. ± 10.5 cm., d. 8.5 cm. Ref.: Bymanck, Exc. Rom. iii, p. 6. Glass with bluish green tinge, with numerous bubbles. Fragments of neck from just below rim, from side and bottom as well as most of the handle. Flat handle starting low on neck, with (one or more) thumbrest(s) on rim, ending on shoulder with end-trail folded back. Constriction at base of neck. High shoulder. Indented base. Some dulling. Probably form Isings, o.c. 88, which continues the earlier shape 56. For this specimen with its high shoulder and handle starting near the base of the neck, no exact parallel can be mentioned. The jug probably dates from the 2nd or early 3rd century.

VIII. Rectangular amphorik

120. Inv. no. 459 (fig. 9) Found at Graetheide, municipality of Sittard. H. 13.5 cm., base: 5.7 x 8.8 cm. Ref.: Van Doorenslaer, Rep. II, p. 392. Dark bluish green, with a few bubbles. Rim folded outward and inward. Multi-ribbed base. Base marking: tabula ansata and lettering: V V1 and illegible letter. Cracked. Some milky weathering and iridescence. Morin-Jean 16, Isings, o.c. form 90. Morin-Jean dates this to the first two centuries (Roman I), but later examples also occur. To form 90 may be added: Validkewa (Woschitzky, O.Jh. 1959, Beiblatt, col. 55) early II; Font gr. 2 (Cüppers, B.J. 1954, p. 306) IIa; a colourless small example from a Nijmegen sarcophagus date from the late Roman period (cf. Isings, J.Gl.St. 1960, p. 30).

The base marking probably is v V1. It seems to be identical with a marking from Cologne (Loeschke, Cat. Nissen, nr. 354, pl. 1v), with a similarly faint T. Kiss (o.c. m, p. 594, nr. 97)
IX. Large Jars

121. Inv. no. 454 (fig. 10)
Found at Obbicht, grave discovered in a gravel pit, in Roman cemetery on the site ‘Het Heidje’, East of the church, in 1875. H. 23 cm., d. 19.3 cm.
Bluish green two handled jar, with a few streaks and bubbles. Funnel mouth, rim folded downward and upward, like a collar. Pushed in base. Two Ω shaped handles, with end of the trail folded over the handle. Lid no. 129 found on it. Part of the base missing. Iridescence and milky weathering on inner surface.

Type Morin-Jean 17, Isings, o.c. form 64 (with different rims and handles). Comparable are (not identical) a specimen in the Napels museum, with different rim; London (Roman London, pl. 56) not datable with certainty; Cologne (Fremersdorf, Denkmäler IV, pl. 98, and 99/100, with different height of mouth, pl. 100 with small handles) dated by Fremersdorf mid 1st century to 10, and 20, none by context); Ventimiglia gr. 89 (museum Ventimiglia) Neronian-Vesuvian; Apt (Dumoulin, Gallia 1959, pp. 207-208, 211, one of them not exactly datable, the others ca. A.D. 100 or 110). The Obbicht grave dates from the Flavian period.

122. Inv. no. 2-18 (fig. 12, 2)
Found at Maastricht-Belfort, burial 2, nr. 18, excavated in 1964.

H. ca. 30 cm., d. rim: 13 cm.

Morin-Jean 2, Isings, o.c. 63. The high neck, narrowing towards the mouth, is a second-century feature (Morin-Jean, p. 48). Similar is a jar from Nijmegen (Bogaers, Numaga XII, 1965, fig. 10) from the early second century; one from Heidenberg (Koethe, T.Z. 1999, p. 125) 2nd century; Cologne (Fremersdorf, Denkmäler IV, pl. 100, from a grave dated by him to the 2nd century and pl. 108, with more angularly folded handles, similar to the Maastricht ones); a jar with a very long neck, handles missing, from Colchester (May, Colchester, p. 275, gr. 83/79, pl. lxxxiv) from ita.

123. Inv. no. 488 (fig. 9 and pl. 3)
Found at Obbicht, in 1882. Gift from J. Meulleners.
H. 14.3 cm., d. 16.5 cm.
Bright green glass with some bubbles. Two-handled jar. Rim folded outward and inward horizontally. Short neck, slightly concave bottom. Three-ribbed handles. Horizontal wheel-cut lines on body (one line on upper and lower side resp., two lines on the middle of the side). Iridescence, white and yellow weathering on inner surface.

Morin-Jean 3, which has several variations in details. Comparable examples are not very well datable: a jar in the Trier museum was found with a coin of Domitian (Hettner, Führer, Trier, p. 105, fig. on p. 105a); Le Busin, St. Laurent des Églises (Gallia 1961, p. 418, fig. 37) not datable; examples in the Saint-Germain-en-Laye Museum, one of them from Vaison; examples in the Avignon museum, from Vaison, one of them contained an Üsküböh and an unguentarium of form Isings 69 (Guimet, R.A. 1900, pp. 75 ff., and Saullet, Vaison, 1742 ff); Cologne (Fremersdorf, Denkmäler IV, p. 49, pl. 107) with parallels, without datable context. Fremersdorf dates the type to A.D. 100, which may be correct; Scarpone (Nancy museum) without datable context.

124. Inv. no. gr. 2-17 (fig. 12, 2)
Found at Maastricht-Belfort, burial 2, nr. 17, excavated in 1964. H. 27 cm., d. rim: 12 cm.

Morin-Jean 3, Isings, o.c. 65, dating from 2nd into 3rd. Later examples have higher and narrower necks than the early ones. Comparable to this one: Hermeskeil (Trier museum) 2nd century; Remagen gr. 140 (Funck, B.J. 1907, p. 144-4, with somewhat higher neck) 2nd century to early third; Wickenrodt (narrowing neck, has no datable context. T.Z. 1956/58, p. 530, fig. 116) dated to A.D. 100.

125. Inv. no. 688 (fig. 10)
Found at Stein, Houterend, sarcophagus II, no. 4, in 1924. H. 11.7 cm., d. rim: 7.3 cm.

Morin-Jean 5, Isings, o.c. 62, the majority dating from the Neronian-Flavian period into the second century, later examples exist also, however. Comparable examples are: Pompeii (Napels Museum); Locarno (Minuo Casra, gr. 31, nr. 8: Simone, Ten, Grabler, p. 165, fig. 142) Neonian-Vesuvian; Mainz (M.Z. 1928, broad collar. Base pushed in. Incomplete and mended. Milky weathering, mainly on rim, together with yellow weathering. Oblique ribs, made by optic blowing.

Morin-Jean 5, Isings, o.c. 67c. This type of jar apparently dates from the Flavian period to Antonine period (Fälder-Feytmans, Et. Nam. p. 74). To examples mentioned may be added: Grügelborn (Hettner, Führer Trier, p. 100); St. Clares (Kasser, J.B. U., 1960/61, p. 173, fig. 43,3) dated to 1st, but first-century material came from the same layer; Cologne, Aachenstrasse (Gollub, K.Jb. 1960/61, p. 62, fig. 12, 2, not datable; cf. also: Fremersdorf, Denkmäler IV, pp. 48 f, for examples mentioned with pl. 106); similar, but without ribs, is a jar from Löwenich (B.J. 1955/56, p. 480, fig. 39,3) from end 1-early 2.
p. 67, fig. 1.1) found with coin of Nero;
M.Z. 1995/96, p. 190: second half of
2nd century; cemetery of La Calade
(Bérard, Gallia 1961, p. 127, gr. 17,
p. xvn) Cauadan-Nerolan; Trier
(Hetsner, Führer, p. 106, fig. on p.
107, ms. 6-7) one of them found with
coin of Vespatian; Tombe de Hêma
(B.C.R. IV, pl. 1, p. 369) IA;
(Corinth xx, nr. 656, p. 103) 1st cen-
tury; Laurenberg gr. 2 (B.J. 1965,
p. 541, fig. 28.2) mid 3rd century.

127. Inv. no. 1199 (fig. 11)
Found at Maastricht, Oude Minde-
broedersstraat, Post Office.
D. at rim: 7-7.1 cm. and 10 cm.
a. Pale greenish with numerous bub-
bles. Rim-fragment. Rim folded twice
outward and downward, making
broad collar. Dulling.
b. Bluish green glass with some bub-
bles. Rim-fragment. Rounded rim,
folded outward and downward, mak-
ing broad collar. Dulling.
Morin-Jean fig. II b, Isings, o.c. form
66a, from 18 until end II or early III.
The Obbicht grave dates from the
Flavian period.

XI. Jars

128. Inv. no. 428 (fig. 8)
Unknown provenience.
H. 4.8 cm., d. 3.7 cm.
Greenish glass with a few bubbles.
Funnel mouth, rim folded inward.
Slightly concave bottom. Milky weath-
ering.
Jars with funnel mouths are known
from Pompeii, dating from before a.d.
79 (Antiquarium Pompeii). The type
seems to be mainly near Eastern
(‘Negro Pouzi, Mesopotamia 1968/69,
p. 330 ff., ms. 19-23, figs. 153, 158)
there are a few Western examples,
one from cemetery WW at Nijmegen
(period a.d. 70-240), another from a
cemetery fourth century at Nijmegen
and a more bulbous jar from Cologne,
St. Severin (Fremersdorf, B.J. 1943,
p. 40, fig. 5) from ± a.d. 300.

XII. Strigil and rods

130. Inv. no. 417 (pl. 4)
Found at Stein, Houterend, prob-
ably in sarcophagus II, in 1924.
Length: 8 cm., 8 cm. and 0.8 cm., d.
0.8 cm.
Ref.: Beckers, Publ. 1926, p. 384, Van
Three fragments of a greenish strigil,
with numerous bubbles. At one end
probably ending in a ring, part of
which remains. Part of the handle
with spiral ribs, some dulling.
Comparable are strigils from Hürth-
Berrenrath (B.J. 1955/56, p. 473, fig.
34.1) from 1924; Laurenberg, gr. 2
(B.J. 1953, p. 542, fig. 28.2) mid-
third-century; Cologne and from the
Saalburg (Fremersdorf, Saalb. Jb.
IX, 1939, p. 21, pl. 10.1, Denkmäler
VI, pl. 50, p. 5.1 he dates the Saalburg
fragment to ca 200 a.d.); an undat-
able strigil in the Musée Curtius at
Liège.
The strigil is probably the ‘stick-
shaped handle’ mentioned by Beckers
among the contents of sarcophagus II,
which dates from the end of the 3rd
century.

131. Inv. no. 471 (pl. 4)
Found at Maastricht-St. Pieter, site
‘Klein Pruisen’ near Canne.
Length: 25 cm.
Bluish green glass with numerous
bubbles. Cut-out base ring. Pontil
mark. Dulling.
Perhaps from a bowl, uncertain type.
Finds from the villa dated to 2nd and
3rd centuries.

XIII. Miscellaneous

133. Inv. no. 370 Gg (fig. 11)
Found at site of Roman villa at
Vleugendaal (municipality of Bocholtz)
in 1911/1912.
D. base: ± 6.5 cm.
Bluish green glass with numerous
bubbles. Fragment of basin.
Byvanck, Exc. Rom. iii, p. 17.
Bluish green glass with numerous
bubbles. Cut-out base ring. Pontil
mark. Dulling.
Perhaps from a bowl, uncertain type.
Finds from the villa dated to 2nd and
3rd centuries.
126. Inv. no. 1061.xxxi n II (fig. 11)
Found at Ubach over Worms.
D. at rim 9 cm.
Almost colourless glass with greenish tinge with numerous pin-prick bubbles.
Fragment of rim and side. Rounded rim.
Uncertain shape, may have been cup or bowl or beaker. The metal looks similar to that of 2nd–3rd century glass.

127. Inv. no. 1139 (fig. 11)
Found at Maastricht, Oude Minderbredersstraat, Post Office.
D. of neck: 5.1 cm.
Bluish green glass with a few bubbles.
Fragment of neck, with constriction at its base. Dulling.
Uncertain type of flask or bottle. Probably 1st century.

128. Inv. no. 1140
Found at Maastricht, Oude Minderbredersstraat, Post Office.
W. 2.5 cm.
Bluish green glass, with spikes and one large bubble making an oblong hollow.
Ribbon-shaped handle with thin rib in the middle. Dulled.
Uncertain type of jug or amphorisk.

143. Inv. no. 1538
Found in Roman grave at Gulpen, during construction of tramway Maastricht-Gulpen, near Neurlocher castle in 1922.
Greenish glass with a few bubbles. Fragment of cut-out base ring. Milky weathering.
Uncertain type, finds from this site mainly date from the 2nd century.

144. Inv. no. 1540 0 (fig. 11)
Found at Linne, 'de Ossenberg', in cremation burial, in 1943.
D. base 3.6-3.85 cm.
Ref.: Van Doorselaer, Rep. n, pp. 324.
Uncertain type. Other finds from the burial date from the second half of the 2nd century.

145. Inv. no. 2141 IA (fig. 11)
Found at Maastricht, Our Lady's church.
D. base: ± 5 cm.
Ref.: Byvanck, Exc. Rom. n, pp. 1 and 2.
Uncertain shape, may have been flask, bowl, beaker or jug.

146. Inv. no. 2415
Found at Stein, Houterend, sarcophagus II, in 1924.
Fragment of thin colourless glass, with part of a fine snake-thread ornament.
Uncertain type, it may have belonged to abovementioned nr. 47, or another object in the same style. The find dates from the end of the 3rd century.

147. Inv. no. 2415 A (fig. 10)
Found at Stein, Houterend, sarcophagus II, in 1924.
Extant H. of handle: ± 2.9 cm.
Uncertain shape, but possibly comparable to a cantharos from Aquileia (Cali, Vetri, pI. 7, p. 64) which has a rounded rim. The object may have come from the snake-thread workshop. The find dates from the end of the 3rd century.

148. Inv. no. 2415 A (fig. 9 and pl. 3)
Found at Stein, Houterend, sarcophagus II, in 1924.
D. of neck ± 6 cm.
Ref.: Van Doorselaer, Rep. n, p. 334-335, J.Gl.St. '969, p. 29, fig. 2.
Colourless glass. Fragments of side and shoulder (line of fracture suggests start of neck, rather than lower side of bowl). Snake-thread ornaments in leaf pattern or rosettes in blue and white. Heavy brown layer of weathering.
Uncertain type, may have been a flask or a jug with broad and flat shoulder (this contrary to my earlier opinion). The snake-thread ornament is of very good quality, comparable with the best known in this type of decoration. The sarcophagus dates from the end of the 3rd century.
D. at rim: 4.4 cm.
Uncertain type, flask or jug. The find is dated to the 2nd century.

XIV. Window Glass

152. Inv. no. 370 0 2 (fig. 11 and pl. 4)
Found at site of Roman Villa Vlengendaal (municipality of Bocholtz) in 1911/12.
T. 0.37-0.47 cm.
Ref.: Goosens, I.A.E. 1918, p. 19.3.
Bluish green, with a few bubbles. Fragment of undulating rim. Dulled.
Window glass was made from the 1st century onwards, glass was also used for wall decorations (Haevernick and Hahn-Weinsheim, Saalb. Jb. 1955, pp. 66 ff) they were probably cast on a rough surface and then worked into the right shape (cf. Boon, J.Gl.St. 1966, pp. 42 ff. Harden, Glastech. Berichte 52, nr. vvm, 1959, pp. vvm/8-16, however, thinks them made by the 'muff' process). In this case the undulating rim points to casting. The muff process seems to have come into use in the late Roman period (Boon, note 7).

153. Inv. no. 489a (fig. 11 and pl. 4)
Unknown provenience.

154. Inv. no. 1418
Found at Stein, near the so-called Roman villa.
Bluish green glass, with tooling marks. Similar to abovementioned.

155. Inv. no. 2141 A, B, B (fig. 11 and pl. 4)
Found at Maastricht, Our Lady’s church.
Ref.: Byvanck, Exc. Rom. iii, pp. 1 and 2.
2141 A: Greenish glass, with numerous bubbles. Fragment of rim. Layering visible. Dulled. T. 0.3-0.45 cm.
2141 B: Bluish green glass, with some bubbles. Fragment of rim. Layering visible. Dulled. T. 0.5-0.55 cm.
2141 B, Bluish green glass, with numerous bubbles. Dulling. T. 0.4 cm. Similar to abovementioned.

T. 0.2-0.6 cm.
Six fragments, one of them not Roman:
a. Olive green glass, two fragments, with some bubbles. Dulling on surface.
b. Bluish green to greenish glass. Fragment with parts of the rims of two adjoining sides. Some iridescence and dulling.
c. Bluish green to greenish glass, with numerous bubbles, some of them large. Two rim-fragments. Tooling marks near the rim. Layering visible.
Similar to no. 152 abovementioned.

XIV. Window Glass

152. Inv. no. 370 0 2 (fig. 11 and pl. 4)
Found at site of Roman Villa Vlenendaal (municipality of Bocholtz) in 1911/12.
T. 0.37-0.47 cm.
Ref.: Goosens, I.A.E. 1918, p. 19.3.
Bluish green, with a few bubbles. Fragment of undulating rim. Dulled.
Window glass was made from the 1st century onwards, glass was also used for wall decorations (Haevernick and Hahn-Weinsheim, Saalb. Jb. 1955, pp. 66 ff) they were probably cast on a rough surface and then worked into the right shape (cf. Boon, J.Gl.St. 1966, pp. 42 ff. Harden, Glastech. Berichte 52, nr. vvm, 1959, pp. vvm/8-16, however, thinks them made by the 'muff' process). In this case the undulating rim points to casting. The muff process seems to have come into use in the late Roman period (Boon, note 7).

153. Inv. no. 489a (fig. 11 and pl. 4)
Unknown provenience.

154. Inv. no. 1418
Found at Stein, near the so-called Roman villa.
Bluish green glass, with tooling marks. Similar to abovementioned.

155. Inv. no. 2141 A, B, B (fig. 11 and pl. 4)
Found at Maastricht, Our Lady’s church.
Ref.: Byvanck, Exc. Rom. iii, pp. 1 and 2.
2141 A: Greenish glass, with numerous bubbles. Fragment of rim. Layering visible. Dulled. T. 0.3-0.45 cm.
2141 B: Bluish green glass, with some bubbles. Fragment of rim. Layering visible. Dulled. T. 0.5-0.55 cm.
2141 B, Bluish green glass, with numerous bubbles. Dulling. T. 0.4 cm. Similar to abovementioned.
Figure 6

Figure 7
Figure 14

Plate 1
Glass from the Iron Age and Roman Period in the Municipal Museum at Heerlen
Coriovallum, situated at the important cross-roads Cologne-Tongres-Bavay-Bologne sur Mer and Xanten-Aachen-Trier, has been an important vicus from the Augustan period onwards. Excavations revealed part of this town—including the Roman Bath and ditches of a late Roman fortification, numerous finds came and still come to light, important graves have been discovered as well. Much of this became property of the Heerlen Museum, its collection of antiquities is one of the largest and most varied ones of finds from the province of Limburg. Glass has been found in the town's cemeteries: the complete objects as well as within the town: the less spectacular fragments. These fragments however complete our picture of glass vessels used in the vicus. Pillar-moulded bowls seem to have been popular for first-century table ware, and also jars and jugs with ribs trailed before final blowing. And of course numerous fragments from the ordinary square and cylindrical bottles came to light.

The majority of the finds from Heerlen dates from the 1st and 2nd centuries, from the centre of the town came fragments datable to the 3rd–4th centuries. Some of these belong to the late Roman fortress, others came from its cemeteries. A late Roman cemetery may have been situated near the present Coriovallumstraat (Western side), of the two glass vessels found one (nr. 43) dates from the late Roman period, nr. 45 is datable to the early 5th century. That an early cemetery existed in the neighbourhood is made plausible by the find of an unguentarium of 1st to second-century date. At the northern half of this street finds from the 1st century and one late Roman fragment belong to the town itself. Finds from the sites Kolenburg, Aldenhof, corner Coriovallumstraat-Kruisstraat, Southern corner Kapt. Berixstraat-Nobelstraat, date from the 1st to 2nd centuries. At the Euterpelaan foundations of a large building were excavated, glass fragments date from the 1st and 2nd centuries, including Iron Age fragments, probably from the earliest period of the town. Finds from the Valkenburgweg may be dated to the first two centuries as well, but later fragments were found also: e.g. no. 38. At the Uilestraat, North of the Roman baths and at the site of the bath itself many glass fragments of first- to second-century date came to light as well as one late Roman fragment. Window glass was used for buildings within the town and, of course, also for the bath’s building.

Glass from all periods came to light in the cemeteries at the East-side. Well known are sarcophagi found in the gravel-pit of Simons Ltd, which were sold to the Museum of Antiquities at Leyden (good copies of some objects were made recently and are now exhibited at Heerlen, together with some fragments which remained at Heerlen). Glass from these sarcophagi apparently dates from different periods. The square bottle with base marking CPC may date from the 2nd century (cf. below, nr. 154). Grape-shaped amphorisks are dated

1 Van Hommerich, Heerlen ... verleden, p. 15. This article also gives a survey of Heerlen’s history and the history of the museum’s collections.
2 Van Hommerich, Het Land van Herle 1964, pp. 65 ff.
usually to the 2nd and early 3rd centuries A.D. Their later development may be the stemmed amphoriski, datable to the end of the 3rd and the 4th centuries by comparison of their shape of rim and neck with those of late Roman jug-types. If indeed the one form developed into the other, the date for the Heerlen amphoriski might be slightly later, mid-to second half of the 3rd century. Another possibility is, that they were made independently by different glasshouses, as the earlier form may have come from Belgium or Northern France, whereas the other seems to be one from the Rhineland. A dark green, apparently black jar with white marvered festoons is not very well datable. Fragments found in a mid-first-century context at Krommenie are among the earliest known, apparently black glass was made at a later period also, though. In shape the jar is comparable to a jar with incised decoration from Cologne, dated to the 3rd century A.D. by Fremersdorf. Latest in this find are a small amphorisk and a jar in pale opaque green and red marbled glass. The amphorisk looks like an example in miniature of the large cylindrical amphoriski from the 4th century A.D. Although an exact parallel cannot be mentioned, these marbled vessels seem to belong to the group of late-Roman marbled and variegated ware from Cologne. Interment may have taken place in the early 4th century, heirlooms being placed among the contents. Finds from this site in Heerlen Museum include a colourless cylindrical bottle from the 2nd century, as well as fourth-century glass. From an earlier part of the same cemetery at the Voskuilweg came a fragment of a conical jug, datable to the end of the 1st or the first half of the 2nd century.

One glass vessel, a second- to third-century unguentarium, came to light in the Northern cemetery, at the Geerstraat. From the Western cemetery, between Pijnsweg and Geelenbeek, at the Valkenburgerweg, came glass datable to end 1st to 3rd centuries as well as one fourth-century bowl. In the Southern cemetery a first-century unguentarium was found as well as a base of a bowl, re-used as a lid on an urn in a late Roman burial. Finds from the cross-roads Bekkerweg–Kruisstraat–Nobelsstraat date from end 1st to 2nd and 3rd centuries.

Finds above mentioned show, that glass from all periods is represented in graves, whereas most of the fragments from the vicus date from the 1st and 2nd centuries. Late Roman burials are rich in glass, one just wonders what happened to broken vases in the town. Perhaps more broken glass was bought for remelting in this period?

5 Fremersdorf, Denkmâler vi, pl. 149, 150–153.
6 e.g. Isings, Roman Glass, forms 190, 191, 196.
7 Holwerda, Lc. p. g. Montis-Jean, p. 166 ff. (figm. 131), fig. 219, especially, one of six found at Poitiers. One half of a mould found in Belgium: R. Chambon, L'Histoire de la Verrerie en Belgique, Brussels 1955, title plate. Isings, o.c. form 91b and Fremersdorf, Denkmâler vi, pl. 149–155 for late examples.
10 Isings, Roman Glass, forms 177.
11 Fremersdorf, Denkmâler vi, pl. 110–112.
12 A gold scent bottle may be one of these heirlooms: Holwerda, Lc. p. 6, Katalog Rîmer am Rhein, Cologne 1967, no. 165. Dated to the 1st century A.D.
13 Van Hommerich, Gids, p. 28 cites a report of the Leyden museum from 1898, mentioning the discovery of an oven with vitreous scale thought to be a glass-oven. As similar scale also occurs metal working new investigations only may prove the existence of glass working at Heerlen.

Among glass from other proveniences vessels from a Nieuwenhagen grave may be mentioned, datable to the 2nd century A.D. Unguentaria from Italy (Paestum and site unknown) and Marseille of types made all over the Roman Empire, were given to the Museum. Of one vase, said to have been found near Roermond, the provenience is rather doubtful. It may be a dealer's story to its previous owner. This, as well as a dylecythos, was made in the East.
Catalogue

A. IRON AGE

1. Inv. no. 1854 (fig. 15)
   Found at Heerlen, acquired from Leufkens collection, 1964.
   D. ± 8 cm., H. 1.3 cm.
   Fragment of dark blue glass armring.
   Dulling.
   Type: Haevernck 9c, dated to La Tène C.

2. Inv. no. 1869 (fig. 15)
   Found at Heerlen, Valkenburgerweg, site Snapper, excavations in 1964.
   Extant length: 2.7 cm., Thickness: 4.5 mm.
   Ref.: Gielin, Het Land van Heerl (fig. 28).
   Pale bluish tinge, few pinprick bubbles. Everted and rounded rim.

B. ROMAN PERIOD

I. Unguentaria

3. Inv. no. 628 (fig. 15)
   Found in Southern cemetery at Bekker-veldplein, Heerlen.
   H. 6.7-6.8 cm., d. 3.05 cm.
   Ref.: De Maasgouw 1933, p. 84.
   Yellowish green, with a few large and yellow patches of higher body. Comparable examples:

4. Inv. no. 629 (fig. 15)
   Found in Italy, gift of H. Eyck.
   H. 7.3 cm., d. 2.2 cm.
   Pale bluish tinge, few pinprick bubbles. Everted and rounded rim.

5. Inv. no. 621 (fig. 15)
   Found at Paestum, gift of H. Eyck in 1957.
   H. 7.2 cm., d. 3.7 cm.
   Bluish green tinge. Everted and rounded rim.

6. Inv. no. 1815 (fig. 15)
   Found at Heerlen, acquired from J. Van Rijn collection in 1961.
   H. 9.69-9.07 cm., d. 3.65 cm.
   Yellowish green, with a few bubbles. Everted and rounded rim. Neck 1/3 of total height, constriction at base. Slightly concave bottom. Iridescence, white weathering, dulling, and yellow patches.

7. Inv. no. 1871 (fig. 15)
   Found at Heerlen, acquired from collection J. van Rijn.
   H. 7 cm., d. 3.9 cm.
   Yellowish to colourless, rim irregular, folded outward and inward. Slightly concave bottom. Small crack, dulling, with white and yellow patches of weathering.

8. Inv. no. Bl. 23 (fig. 15)
   Found at Valkenburgerweg, South side, between Rijnweg and Geitenbeeks; on loan from 'Catacombenstichting,' since 1952.
   H. 8.68-8.73 cm., d. 2.98 cm.

9. Inv. no. 1818 (fig. 15)
   Found in town-centre Heerlen. Acquired from coll. Dr. A. Wildershooven, Heerlen.
   H. 10.7 cm., d. 3.4 cm.
   Bluish green tinge, numerous large and spiky bubbles, at one side numerous round bubbles. Everted and rounded rim. Neck more than 1/3 of total height, constriction at base. Slightly concave bottom. Fragment of rim missing. Some metallic weathering.

10. Inv. no. 626 (fig. 15)
    Found at Marseille, gift of H. Eyck.
    H. 12.7-12.8 cm., d. 3.5 cm.
    Bluish green, with some very large spiky bubbles and some round bubbles. Rounded rim, neck more than 1/3 of total height with constriction at base. Slightly concave bottom. Part of rim missing. Some iridescence, dulling and white weathering.

Type comparable to above, nos. 8 and 9 and especially to: La Calade (Béard, Gallia 1961, p. 115, pl. VIII, gr. 7, posterior to Antoninus Pius; gr. 12, p. 123, pl. XIII, Claudian-Neronian; gr. 13, p. 123, pl. XIV, posterior to Domitian; gr. 19, pp. 153 f. pl. XVIII, 18); Frize (Faidit-Feytmans, Et. Nam. 1952, p. 74, nr. 1) Flavian; Somabithchy (Bíoczi, Arch. Ét. 1961, fig. 11, p. 235, gr. XXXIII, 1) Flavian; Ampurias (Almagro, Ampurias, pl. n. 19, fig. 110, Torres gr. 1, possibly 1st century; Nofre gr. 2, p. 201, fig. 173, posterior to Hadrian; Bonjour gr. XXX, p. 259, fig. 255, posterior to Domitian); Tooges (Van derhoeven, Rom. Glasez. nos. 21 and 24) not datable with certainty.
11. Inv. no. 620 (fig. 15)
Found in Coriovallumstraat at Heerlen, gift of L. Oostwegel.
H. 10.6-10.7 cm., d. 3.5 cm.
Bluish with few bubbles. Rounded rim, neck of total height, with constriction at base. Slightly dulled.
Type: Morin-Jean 23, Isings, o.c. 28b, similar to above nos. 7 and 8.

12. Inv. no. 623 (fig. 15)
Found in West-side of Coriovallumstraat, Heeren, site Honigmann.
H. (extant): 3.6 cm., d. 3.7 cm.
Bluish green with some bubbles. Lower part of unguentarium. Concave bottom with pontil mark. Dulling.
Type: Morin-Jean 23, Isings, o.c. 28.

13. Inv. no. 622 (fig. 15)
H. 7.4 cm., d. 2.4 cm.
Greenish tinge, numerous bubbles of different sizes. Rim folded outward and inward. Pointed 'kick'. Slightly dulled.
Type: variation of Morin Jean 24, Isings, o.c. 82 b(2) also related to 82 b(1). Cf. also examples mentioned above, p. 9, no. 8, dating from end I-II.

14. Inv. no. Bl. 24 (fig. 15)
Found at Valkenburgerweg, South side, between Pijnsweg and Geleenbeek. On loan from 'Catacombenstichting' since 1962.
H. 9.1 cm., d. 2.7 cm.
Bluish green, with some spikes and numerous round bubbles. Everted rim, folded inward. Slightly concave bottom with pontil-mark.
Type Morin-Jean 24, Isings, o.c. 82 b(2) related to 82 b(1), similar to no. above 13.

15. Inv. no. 627 (fig. 15)
Found in West-cemetery at Valkenburgerweg, Heerlen, site Koster gift of Mrs. J. Koster, 1948.
H. 13.6 cm., d. 5.2 cm.
Bluish, with some oval and round bubbles. Rim folded outward and inward. Slightly concave bottom with pontil mark. Cracked neck, half of rim missing. Iridescence, at inside white weathering.
Type Morin, Jean 24, Isings, o.c. 82 b(2). Also comparable: Chavagnac (Gallia 1937, p. 287, fig. 36) II; Apt (Dunoulin, Gallia 1954, p. 89, fig. 4, with base marking. Posterior to Trajan; p. 100 fig. 21, gr. 21, probably end 1-II; p. 102, fig. 22b, gr. 28, probably II).

16. Inv. no. 1872 (fig. 15)
Provenance unknown, acquired from collection J. van Rijn.
H. 10.4 cm.-10.75 cm., d. rim: 3.1 and 4.6 cm.
Yellowish green, with some large bubbles. Rim folded inward, so-called Dylochron. Flattened bottom. Coll handles trailed undulating along side, there must have been a connecting handle originally. Part of one side and of one handle missing. Patches of white weathering. According to Koster the type is typical for the region between Sidon and Antioch (Z.B.K. '92', p. 134). With handle: Kim 9 and also EI-Jish (Neuburg, Antikes Glas, fig. 62 = Q-D.A.P. vlnr. 1959, pl. XXXI, 4th-5th century A.D., this has trails at front and back also); Harden (Iraq '957, p. 156): typical for 4th and 5th centuries ('type fossil').

17. Inv. no. 1863 (fig. 15)
Found in town-centre Heerlen.
D. at base: 2.5 cm.
Bluish green-greenish, with numerous bubbles. Part of lower side and bottom. Dulling.
Type Morin-Jean 24, Isings, o.c. 82 b(2), mainly from II and III.

18. Inv. no. 1865
Found in town-centre Heerlen.
D. base: 3.5 cm.
Bluish green-greenish, with few bubbles. Slightly concave bottom. Fragment of lower side and bottom. Dulling.
Type Isings, o.c. 28b, dating from early II.

19. Inv. no. 1763 (fig. 15)
Found at Heerlen.
D. at rim: 2 cm.
Bluish green, with vertical most green streaks. Rim folded outward and inward. Two fragments of rim and neck. Possibly type Isings 82 b(2), dating mainly from II-III.

20. Inv. no. 1785
Found in town-centre Heerlen.
Bluish green. Part of lower side. Dulling, some iridescence.
Possibly type Isings, o.c. 8, from the 1st century.

21. Inv. no. 1810
Found at Valkenburgerweg, site Sappers, Heerlen, excavation in 1964.
Golden green, almost no impurities. Type possibly Isings, o.c. 6, from first half of 1st century.

22. Inv. no. 1886
Found at North side of West half Coriovallumstraat, Heerlen, excavation in 1964.
D. neck: 0.9-1 cm.

23. Inv. no. 397
Found at swimming pool's site, Valkenburgerweg, Heerlen, excavation in 1967.
D. rim: 3.5 cm.
Ref.: Eussen, Het Land van Herle 17, 1967, p. 82.

II. Flasks

24. Inv. no. 631 (fig. 15)
Found in East cemetery Heerlen, gravel pit Simons, in 1919.
H. 10.5-10.6 cm., d. 5.9 cm.
Green, with streaks and numerous bubbles. Rim folded inward. Pontil mark on flat bottom. Dulled, white and yellow patches of weathering and metallic weathering at one side.
Type: Morin-Jean 39, Isings, o.c. 101, dating from III-V, mainly fourth century. For this cemetery cf. above, p. 48.

25. Inv. no. 632 (fig. 15)
Found in East cemetery Heerlen, gravel pit Simons in 1919.
H. 13.5-13.4 cm., d. 8 cm.
Bright green with numerous small bubbles and some large ones. Everted rim, folded outward and inward. Pointed 'kick'. Dulled, yellow and white patches on inside.
Type Morin-Jean 39, Isings, o.c. 101, similar to above no. 24.

26. Inv. no. 1819 (fig. 15 and pl. 5)
Provenance unknown, acquired from collection J. van Rijn.
H. 26.9 cm., d. 2.7-5.6 cm.
Pale greenish, impurities no more visible. Rounded rim and funnel mouth. Beaded body, concave base. White and yellow weathering. A very similar flask, with only one con-
striction of body, instead of two, is thought to be of near Eastern provenience (Liège museum, coll. Baar '344. Cat. Trois Mill. no. 93); two similar flasks known among glass from Cyprus (Vesborg, S.C.E. iv, 3, p. 165, fig. 50, 26; Césnola, Atlas iii, pl. xv, 1); also related is a flask found near Nablus, Palestine, in the British Museum; unfortunately none of them is datable. There exists, however, a Western variety of the type, for which dating is possible. Instead of a concave bottom these have a cut-out base ring and a bulbous 'kick'. One comes from Pompeii, it has a decoration of horizontal wheel cut lines (Overbeck, Pompeii, fig. 250, p. 45). At Naples Museum no. 11621), Richborough (Richborough iv, pl. xxix, 366) Flavian; Caerleon (no. 60, before 3rd century) Flavian; Caerleon (no. 60, before 3rd century) Flavian; Colchester (nr. 549, 28) no exact dating possible. Also: Tipasa (Lancel Ill, p. 30), found in town-centre of Heerlen. Acquired from Deens collection, in 1964. H. 7.7 cm.-8.4 cm. d. 4.65 cm. Ref. : Peters, De Maagdew 1929, p. 25. Van Hommertich, Gids, p. 52 f.

Bluish green with few bubbles. Funnel neck and rounded rim. Concave bottom Spiral coil around neck and body. Six coil handles, undulating along neck. Part of rim and of 3 handles missing. Milky weathering. Form and decoration recall Eastern Roman examples, although no exact parallel can be mentioned (cf. for similar handles: above, no. 16 and parallels, and Kat. Kunstgewerbe­museum Kula no. 33). The general outline is also similar to near Eastern flasks (e.g. Neuburg, Antikes Glas, figs. 60 and 61 from Elfish, with wider neck and mouth). This flask is probably from near Eastern provenience as well (this is also Dr. Harden's opinion, letter of 22-8-1968). It does not seem very probable that a flask would have got there without having been damaged more than it is. So probably the provenience mentioned is no more than a story told to the former owner of the flask.


III. Aryballoi

33. Inv. no. 529 (fig. 16) Found in West cemetery at Valken­burgerweg, Heerlen, site Koster. Gift of Mrs. J. Koster, 1948. H. 5.35-5.48 cm., d. 5.85 cm. Ref.: Van Doorselaer, Rep. ii, p. 320 (1). Bluish green, with numerous bubbles. Broad rim folded outward and inward. Handles starting on shoulder, against neck and rim and folded back around cylindrical object. Metallic, white weathering and dulling. Black streak within rim may be due to weathering or to impurity of the glass (cf. a black streak on a bowl from Vervoz barrow, Liège museum). Type Morin-Jean 33, Isings, o.c. 51. Cf. also examples mentioned with no. 26 (above, p. 13 and 14) this rim-type is common from the first century onwards.

34. Inv. no. 574 (fig. 16) Found at Heerlen, cross-roads Bekker­weg-Kruisstraat-Nobelstraat in 1898 (so-called glass-oven). Gift of the Max Roosen-Lemmens family. H. 5.32-5.47 cm., d. 4.85 cm. Ref.: Peters, De Maagdew 1929, p. 25. Bluish with numerous bubbles, some in horizontal direction. Rim folded outward and inward, handles starting on shoulders, along neck and folded back.
around cylindrical object, a thin trail is laid back over the handle. Concave bottom. Milky weathering and dulling, some white patches.

Type Morin-Jean 33, Isings, o.c. 61. Also comparable: Tongres (Vanderhoeven, Rom. Glasverz. no. 84, 207 datable by context); Apt (Dumoulin, Gallia 1964, p. 100, fig. 225, gr. 28) probably ii; Cologne, St. Severin 99; Fecarnp (Rouen Ill; (fig. 16) UIB; Laurenzberg gr. 5 (B.J. 1963, p. 545, fig. 88,5) mid ii; Rückingen (O.R.I. Lief. 30, pl. v, 11, nr. 8, 91) end 2-early iii.

35. Inv. no. Bl. 21 (fig. 16) Found at Valkenburgweg, South side, between Pijsweg and Geleenbeek, on loan from ‘Catacombenstichting’, since 1962. H. 4.8 cm., d. 2.9 cm. Ref.: Van Doorselaer, Rep. H, p. 320, (1). Bluish to greyish green, with numerous small bubbles. Rim folded outward and inward, handles similar to those of no. 34. Pontil mark on flat bottom. Iridescent and milky weathering.

Type Morin-Jean 33, Isings, o.c. 61, similar to the former number but less carelessly executed.

36. Inv. no. Bl. 22 (fig. 16) Found at Valkenburgweg, South side, between Pijsweg and Geleenbeek, on loan from ‘Catacombenstichting’, since 1962. H. 5.8 cm., d. 5.7 cm. Bluish green to greenish, handles bright green. Few bubbles. Broad rim folded outward and inward. Handles similar to those of both former numbers. Deep pointed ‘kick’ and pontil mark. Milky weathering and patches of iridescence on inside.

Type Morin-Jean 33, Isings, o.c. 61. Rim type in use from 18 onwards (similar to rims of square bottles, Charlesworth, J.Gl.St. 1966, type 18).

37. Inv. no. 1817 (fig. 16 and pl. 5) Found in town-centre Heerlen, acquired from collection Dr. A. Widdershoven, Heerlen. H. 5.65-5.7 cm., d. 5.2-5.7 cm. Bluish green with a few bubbles. Broad rim, folded outward and inward. Handles start as broad trail on shoulder, along neck and mouth and are folded back. Coil base ring with slanting tooling impressions. Pontil mark. Dulled. On inside white patches of weathering, brown rings on base ring. Variety of Morin-Jean 33 and Isings, o.c. 61. From the 2nd century onwards only small ones: Fecarnp (Rouen Ill-IV; (fig. 16) UIB; Laurenzberg gr. 5 (B.J. 1963, p. 534, fig. 88,5) mid ii; Rückingen (O.R.I. Lief. 30, pl. v, 11, nr. 8, 91) end 2-early iii.


39. Inv. no. 1772 Found in town-centre Heerlen. Bluish green with numerous bubbles. Thick fragment of side (T. 0.6 cm.), probably from oil flask of type similar to former numbers.

40. Inv. no. 1830. Found at Heerlen, acquired from Leukens collection, in 1964. D. ca. 5.9 cm. Bluish green with numerous bubbles. Thick fragment of side. Probably of similar type to former numbers.

41. Inv. no. 1886 Found at site of swimming pool, Valkenburgerweg, Heerlen, excavation in 1967. D. ca. 6 cm. Ref.: Eussen, Het Land van Herle 1967, p. 82. Bluish green with large bubbles and some small fragments. Side of thick glass. (T. 0.6-0.7 cm), Dulled. Probably from oilflask like the former numbers.

42. Inv. no. 1906 (fig. 16) Found at site of swimming pool, Heerken, Valkenburgerweg, excavation in 1957. D. at rim: 2.5 cm. Ref.: Eussen, Het Land van Herle 1967, p. 82. Bluish green-greenish, with few bubbles. Rim folded outward and inward, handles starting on shoulder, along neck and rim, folded back somewhat angularly. Part of rim, with neck and part of shoulder, one handle and part of another. Dulling. Type Morin-Jean 33, Isings, o.c. 61, careless shape like the one mentioned above, no. 34.

43. Inv. no. 625 (fig. 16) Found in Coriovallumstraat-West, to West of Kruisstraat, site Honigmann. H. 6.3-6.6 cm., d. 8.2-8.3 cm. Bright green with numerous streaks and bubbles. Knocked-off rim, somewhat smoothed at edge. Slightly concave bottom. Three fragments of rim missing. Some dulling.

Type: deep bowl Morin-Jean 70, Isings, o.c. 96, datable to 3rd and 4th centuries.

44. Inv. no. 634 (fig. 16) Found in Coriovallumstraat-West, to West of Kruisstraat, site Honigmann. H. 6.9-6.5 cm., d. 7.6 cm. Bright green, with numerous bubbles. Rounded rim, concave bottom with pontil mark. Almost no weathering.

Type Morin-Jean 70, Isings, o.c. 96 in late variety because of rounded rim. This rim-type first occurs on the variety with nipt ribs (R. Pirling, Kreftel-Gelgel, p. 100, nr. 189), later on plain bowls also (e.g. Sammlung Bremen nr. 47, from Kreftel-Gelgel, dated to the 5th century) or on bowls with coloured blobs (e.g. Nenquin, Furbooz, 23, pp. 44,5, mid 4th century). The deep bowl continues as the Dark Ages ‘Kugelbecher’ (Böhner, Die früh. Alte. T. tert. pp. 231 f., especially period III) (A.D. 525-600). The Heerlen bowl probably dates from late IV or early V.

45. Inv. no. 635 (fig. 16) Found in East cemetery Heerlen, gravel pit Simons, in 1913. H. 5.9 cm-5.4 cm., d. 8-8.3 cm. Ref.: Van Doorselaer, Rep. H, p. 321 (23) Greenish, impurities no more visible. Knocked-off rim, somewhat smoothed at edge. Broken and nipped, rim damaged, cracked. Iridescence, dulling with white and yellow weathering.

Type: Morin-Jean 70, Isings, o.c. 96, dating from 3rd and 4th centuries. For this site cf. above, p. 48.
46. Inv. no. Bl. 19 (fig. 16)
Found at Valkenburgerweg, South side, between Pijnsweg and Geleenbeek; on loan from 'Catacombenstichting,' since 1962.
D. 8-6.2 cm., d. 7.9 cm.
Ref.: Van Doortslager, Rep. n, p. 320 (1).

47. Inv. no. 1873 (fig. 16)
Found in town-centre Heerlen, acquired from collection Dr. A. Widdershoven.
H. 9.8-10 cm., d. 8.8 cm.
Type: Morin-Jean 105, Isings, o.c. 106c, from late 4th to early v.

48. Inv. no. 1812 (fig. 17)
Found in town-centre Heerlen, excavated in 1964.
D. at rim: ca. 9 cm.
Purple, almost no impurities. Rim knocked-off and ground. Two horizontal wheel-cut lines below rim. Fragment of rim and side. Dulling.
Type Morin-Jean 71, Isings, o.c. 12, occurring in coloured glass as well as in 'bluish green' (e.g. Fremersdorf, Denkmaller, n, pl. 46 and iv, plli. 45-47) 1st century.

49. Inv. no. 1787 (fig. 17)
Found in town-centre Heerlen.
D. 7 cm.
Probably type Isings, o.c. 85a, from 1st-2nd centuries.

50. Inv. no. 1901
D. at rim: ca. 6 cm.
Almost colourless, very few impurities. Rounded rim, turned inwards. Fragment of rim and side. Almost no weath­ering. Probably form Isings, o.c. 85b, from 3rd and 4th centuries.

51. Inv. no. 3246
Found at corner Coriovallumstraat-Kruisstraat, site Kolenburg, excavation in 1966.
D. at rim: ca. 8 cm.
Bluish green-greenish with few bubbles. Fragment of rim, folded outward, somewhat dulled. May be variety of form Isings, o.c. 41, datable to 1st century.

52. Inv. no. 3248
Found at corner Coriovallumstraat-Kruisstraat, Heerlen, site Kolenburg, excavation in 1966.
D. 8 cm.

53. Inv. no. 3249
Found at corner Coriovallumstraat-Kruisstraat, Heerlen, site Kolenburg, excavation in 1966.
D. at rim: 7 cm.

54. Inv. no. 3252 (fig. 17)
Found at cross-roads Coriovallumstraat-Kruisstraat, Heerlen, site Kolenburg, excavation in 1966.
D. at rim: ca. 8 cm.
Apparently black (dark green?), impurities no more visible. Everted and rounded rim. Dulling and white weath­ering. Fragment of rim and side. Probably a carchesium, Isings, o.c. form 93b and B.A. Besch. 1964, p. 176, no. 7, dating from the Flavian period to the early 3rd century. It may have a stemmed foot or a base ring. To datable examples may be added: Carleinon no. 45, A.D. 140-150 (I am grateful to G. C. Boon for information and permission to use this).

55. Inv. no. 2277 (fig. 17)
Found at Uilestraat, Heerlen, site of swimming pool, excavation in 1967.
D. of base: 4.4 cm.
Bluish green tinge, with a few bubbles. Fragments of base of a circus cup, blown into a mould.
Morin-Jean 8g. Harden, Conoisseur 1949, pp. 104 ff., Gamulodunum p. 299 and Archaeology xi, 1956, pp. 3ff. Western group of mould blown cups, from 1st century A.D.

56. Inv. no. 1813 (fig. 17)
Found in town-centre Heerlen.
D. ca. 6 cm.
Bright green tinge, with numerous bubbles. Fragment of side with small nipt ribs. Dulled.
Form Isings, o.c. 96b. Also: Pirling, Krefeld-Gellep, no. 189, from the 4th century.

57. Inv. no. 3742
Found at Heerlen.
D. of base: 5 cm.
Almost colourless, with a few bubbles. Fragments of side and high cut-out base ring. Dulling. Possibly Morin-Jean form 110, Isings, o.c. 109b, from the 4th century.

58. Inv. no. 5885 (fig. 17)
Found at site of swimming pool, Valkenburgerweg, Heerlen, excavation in 1967.
D. at rim: ± 8 cm.
Ref.: Eussen, Het Land van Herle 1967, p. 82.
Bluish green tinge, with numerous bub­bles. Fragment of rounded rim. Dulling. Uncertain form, probably similar to Morin-Jean 70, Isings, o.c. 56 in its late variety, dating from late 4th-early v.

59. Inv. no. 5899 (fig. 17)
Found at Heerlen, Valkenburgerweg, site of swimming pool, excavation in 1967.
D. near base: 3 cm.
Ref.: Eussen, Het Land van Herle 1967, p. 82.
Bluish, blown into a mould. Part of lower side. Dulling. Variety of form Isings, o.c. 31, with a decoration in metopes. May belong to the group of glass vessels influenced by the Syrian-Roman workshops (cf. Berger, Glaser Vindonissa, p. 49 ff.) from the 1st century A.D.

60. Inv. no. 6237 (fig. 19)
Found in Uilestraat, Heerlen, excavation in 1967.
D. at rim: ± 16 cm.
Bluish green tinge. Fragment of rim, folded outward, downward, upward and outward. Dulling. May have been a large one-handled
cup of form Morin-Jean 93, Isings o.c. 37, from the 1st century.

61. Inv. no. 6392 (fig. 17)
Found in Uilestraat, Heerlen, excavation in 1967.
D. at rim: ± 7 cm.
Ref.: Gielen, Het Land van Herle '967, p. 115.
Bluish green, with numerous bubbles. Fragment of rounded rim. Dulling.

62. Inv. no. 6349 (fig. 17)
Found at site of Roman Bath, Heerlen. Fragment of side of yellowish green pillar-moulded bowl. Almost no bubbles or weathering.
Morin-Jean 68, Isings, o.c. 3, 1st century.

63. Inv. no. 616 (fig. 18)

64. Inv. no. 1851
Found at Heerlen, acquired from Leufkens collection, 1964.
D. at rim: 12 cm. Rim fragment of bowl, marbled, blue and white. Dulled. May have been bowl of form Isings 1, or perhaps a pillar-moulded bowl 3a, 1st century.

65. Inv. no. 1814
Found at site of Roman Bath, Heerlen. Fragment of side of yellowish green pillar-moulded bowl. Almost no bubbles or weathering.
Morin-Jean 68, Isings, o.c. 3, 1st century.

66. Inv. no. 1823
Morin-Jean 68, Isings, o.c. 3, 1st century.

67. Inv. no. 1950
Found at corner Coriovallumstraat-Kruisstraat, site Aldenhof, in 1965. Fragment of lower side of amber coloured pillar-moulded bowl. Almost no bubbles or weathering.
Morin-Jean 68, Isings, o.c. 3, 1st century.

68. Inv. no. 347 (fig. 18)
Found at Coriovallumstraat, Heerlen. D. at rim: ± 18.5 cm. Fragment of rim and side of bluish green-greenish pillar-moulded bowl, with a few bubbles. Tooling mark near one of the ribs. Dulling mainly on inside.
Morin-Jean 68, Isings, o.c. 3, 1st century.

69-70. Inv. nos. 348 and 350 (fig. 18)
Found at South corner Kap. Berixstraat-Nobelstraat, Heerlen.

71-78. Inv. nos. 1774, 1775, 1778, 1789, 1790, 1799, 1800, 1804 (fig. 18)

79-80-83. Inv. nos. 1827, 1835, 1856, 1853 (fig. 18)
Found at Heerlen, acquired from Leufkens collection, in 1964.

Pillar-moulded bowls: Morin-Jean 68, Isings, o.c. 3, 1st century.

84. Inv. no. 1845

85-89. Inv. nos. 1860, 1861, 1862, 1864, 1865 (fig. 18)

Pillar-moulded bowls Morin-Jean 68, Isings, o.c. 3, 1st century.

90. Inv. no. 1880 (fig. 18)


6243: fragment of rim. Bluish green to greenish, with a few bubbles. 6348: fragment of side. Bluish green to greenish.

Pillar-moulded bowls, Morin-Jean 68, Ipsings, o.c. 3. 1st century.

136. Inv. no. 1954 (fig. 17 and pl. 5) Found during digging operations at Nieuwenhagen, in 1964. Acquired from municipality of Nieuwenhagen. H. 3.6 cm., d. 9.8 cm. Ref.: Van Hommertich, Het Land van Herle 1964, p. 83, no. 18.

Colourless with greenish tinge. Mould preserved and polished all over. Moulded rim with overhang at the tip. Cylindrical base ring. Comparable to rim-types of shallow bowls in coloured as well as in colourless glass, the coloured bowls dating from the 1st century, the colourless from the 2nd century onwards (cf. Harden, Karanis, Class 18 1, pp. 49-50, dated on p. 96 as to fabric; Harden, Camulodunum, pp. 50 ff.; Ipsings, o.c. form 5 coloured bowls; Charlesworth, A. Ael. 1959, pp. 85 f. and Transactions Cumberland and Westmoreland Ant. and Arch. Soc. 1960, pp. 34 f.; Berger, Göster Vindonissa, p. 25, nos. 30-32, coloured bowls; Clairmont, Glass Vessels, no. 90, pp. 18 f. and Barag’s review of it in I.E.J. 17, 1967, p. 197; Alarcó, Vidros romanos Casemira, p. 76. It is commonly agreed that most of these bowls have come from an Ear Eastern workshop (Alexandria?). The type also occurs with wheel-cut facets on the overhang and sometimes on the bowl itself (Cave of Letters, together with plain bowls: Yadin, The finds, pp. 106 ff., from A.D. 135-155; to parallels mentioned from Richborough, and, with different rim type, from Girona College, Cambridge, may
The fragments of bowls nos. 136 ff. above mentioned.


Alarcao, Conimbriga VII, p. 21, pl. II, nr. 32.

143. Inv. no. 1777 (fig. 77) Found in town-centre Heerlen. D. at rim: = 14 cm. Almost colourless, with bluish green tinge. Few bubbles. Fragment of rim, folded outwards and downwards. Dulling and some iridescence. Possibly from llsings, O.C. 42 (viz. Apt). It may have been also a fragment of a lid.

144. Inv. no. 1807 Found at Heerlen. D. = 19 cm. Bluish green, numerous bubbles. Rim folded outward horizontally and back under the underside, ending against the neck. Rim fragment. Dulling. Possibly this was a large bowl, it may have been a variety of form llsings o.c. 44, similar to fragments abovementioned.

145. Inv. no. 1832 (fig. 19) Found at Heerlen. D. at rim: = 18 cm. Bluish green-greenish. Numerous bubbles. Rim folded outward and downwards. Fragment of rim. Dulling. Probably imitation of terra sigillata Drag. 29, similar to above, Maastricht, nr. 54, p. 20. Flavian period. Cf. also: Caerleon no. 8, one of them found in association with coin of Hadrian and much Hadrianic pottery (I am very thankful to mr. G. C. Boon for his information and permission to use it).
149. Inv. no. 6533 (fig. 19)
Found at Uilestraat, Heerlen, excavation in 1967.
D. 10 cm.
Ref.: Gielen, Het Land van Herle 1967, p. 115
Amber coloured, no impurities. Rim folded outward and downward.

150. Inv. no. 1920 (fig. 19)
Found in town-centre Heerlen.
D. 10 cm.
Almost colourless, with greenish tinge. Fragment of rim, folded outward and downward. Fire polished.

151. Inv. no. 6228 (fig. 19)
Found at Uilestraat, Heerlen, excavation in 1957.
D. of side: ± 6 cm.
Ref.: Gielen, Het Land van Herle 1957, p. 115
Amber coloured, with marivered opaque white trails and small vertical ribs. Fragment of side.
Morin-Jean 69, Isings, o.c. 17. Von Pfeffer and Haevernick, Saalb. Jb. xvin, 1958, pp. 57 ff. ('zarte Rippen­schale'), dating from Tiberian to Neronian period, mainly from Claudian times.

152. Inv. no. 6249 (fig. 19)
Found at Uilestraat, Heerlen, excavation in 1967.
D. ± 5 cm.
Ref.: Gielen, Het Land van Herle 1967, p. 115
Emerald green. Fragment of rim, folded outward and downward. Dulling.
Morin-Jean 84, Isings, o.c. 44, from 12.1.

153. Inv. no. 6390 (fig. 19)
Found at Uilestraat, Heerlen, excavation in 1967.
D. ± 17 cm.
Ref.: Gielen, Het Land van Herle 1967, p. 115
Bluish green. Fragment of rim, folded outward and downward. Dulling. Uncertain type of bowl, may have been a lid as well.

VI. Jugs and bottles
A. SQUARE BOTTLES

154. Inv. no. 527 (fig. 20)
Found in West cemetery Heerlen, at Valkenburgweg, site Koster. Gift of Mrs. J. Koster.
H. 10.10-10.1 cm, base: 4.6 x 4.8 cm.
Ref.: Van Doorne, Rep. II, p. 320 (l)
Greenish, with a few bubbles, some of them in one long streak together. Broad rim folded out and inward, slightly mushroom-shaped. Concave bottom with pontil mark. Base marking: one circle and ccc (double), dating from Tiberian to Neronian period, mainly from Claudian times.

155. Inv. no. 1890 (fig. 20)
Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth, J.Gl.S. type 14/b occurring both early and later.

156. Inv. no. 1888 (fig. 20)
H. 14.6 cm, base: 7.04 x 6.95 cm.
Ref.: Van Hommerich, Het Land van Herle 1964, p. 61, no. 15
Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth, J.Gl.St. type la. No parallels known to me for base marking. The grave dates from the 2nd century A.D.

157. Inv. no. 1822 (fig. 20)
Found at Nieuwenhagen, during digging operations in 1964, acquired from municipality of Nieuwenhagen, 1964.
H. 14.2 cm, base: 7.2 x 7.2 cm.
Ref.: Van Hommerich, Het Land van Herle 1964, p. 61, no. 17

158. Inv. no. 1891 (fig. 20)
Found at Nieuwenhagen, during digging operations in 1964, acquired from municipality of Nieuwenhagen, 1964.
H. 14.4 cm, base: 6.5 x 6.5 cm.
Ref.: Van Hommerich, Het Land van Herle 1964, p. 61, no. 16
Morin-Jean 14, Isings, o.c. 50a. Rim: Charlesworth 1b. Base marking is an ordinary one (Fremersdorf, K.Jb. 1965/66, p. 31, n. 12). Cf. also: Riepert (Vanderhoeven, Rom. Glasverz. nos. 66-70, high bottle) Hadrianic or later; Tongres (ibid.), no date; Amiens (in musee de Picardie); not datable. The grave dates from the 2nd century.

159. Inv. no. 1892 (fig. 20)
Found at Nieuwenhagen, during digging operations in 1964, acquired from municipality of Nieuwenhagen, 1964.
H. 14.2 cm, base: 7.2 x 7.2 cm.
Ref.: Van Hommerich, Het Land van Herle 1964, p. 61, no. 17

160. Inv. no. 1889 (fig. 21)
Found at Nieuwenhagen, during digging operations in 1964, acquired from municipality of Nieuwenhagen, 1964.
H. 23.3 cm, base: 6.73 x 6.73 cm.


Morin-Jean 14, Isings, o.c. 50. Similar to former numbers.

176-177. Inv. no. 1896, 1899 (fig. 20)
Found at Valkenburgerweg Heerlen, site Stappers, excavation in 1964.
Base of 1896: 4.6 x 4.6 cm.

Morin-Jean 14, Isings, o.c. 50. Similar to former numbers.

178. Inv. nos. 1953
Found at Heerlen, corner Coriovulsumstraat-Kruisstraat, excavation in 1965.
Ref.: Gielen, Het Land van Herle 1966, p. 64, no. 3.


Morin-Jean 14, Isings, o.c. 50. Similar to former numbers.

191. Inv. no. 6386
Found at Uijlestraat, Heerlen, excavation in 1957.


Morin-Jean 14, Isings, o.c. 50. Similar to former numbers.

192. Inv. no. 6350

Fragment of side and shoulder. Dark green, with numerous bubbles. Dulling. Morin-Jean 14, Isings, o.c. 50. Intentionally coloured glass, probably dating from second half of 1st century.

B. HEXAGONAL BOTTLES

193. Inv. no. 617 (fig. 21)
Found at South corner Kap. Berixstraat-Nobelstraat, Heerlen.

Ref.: Gielen, Het Land van Herle 1957, p. 82.


Morin-Jean 14, Isings, o.c. 50. Similar to former numbers.

82
type of bottle Isings, o.c. form 156, which has a folded rim as well as one with a spiral coil (as illustrated).

199-200. Inv. nos. 1795, 2276
Found at Heerlen, 1795 in town centre.
D. 1795: ± 20 cm.
Isings, o.c. 51, probably from m-n.

201-203. Inv. nos. 5439, 5879, 5952
Found at Valkenburgweg, site of swimming pool, Heerlen, excavation in 1967.
Rif.: Eussen, Het Land van Heerle 1967, p. 82.
D. of 5879: ± 14 cm., D. of 5922: ± 22 cm
Isings, o.c. 51, from m-n.

D. CYLINDRICAL BOTTLES

198. Inv. no. 619 (fig. 21)
Found in East cemetery Heerlen, gravel pit Simons, sarcophagus III.
H. 14.3–14.5 cm., d. 9 cm.
Van Hommerich, Gids, p. 54.

195-196. Inv. nos. 1833, 1848
Found at Heerlen, acquired from collection Leufkens, in 1964.
Morin-Jean 17 and examples mentioned above, nr. 194.

197. Inv. no. 2823 (2 and 3)
Found at corner Coriovalliumstraat-Kruisstraat, site Kolenum, excavation in 1966.
Two fragments of side and corner. Bluish green, with a few bubbles.
Morin-Jean 17 and examples mentioned above, nr. 194.

194. Inv. no. 1828 (fig. 21)
Found at Nieuwenhagen, during digs in operations in 1964, acquired from municipality of Nieuwenhagen in 1964.
One side: 8 cm.
Rif.: Van Hommerich, Het Land van Herle 1966, p. 63, no. 73.
Fragments of sides, neck, shoulder and bottom. Bluish green, with numerous bubbles of different sizes. Base marking: 6 concentric circles.
Morin-Jean 17, Isings, o.c. p. 64.

204-205. Inv. nos. 6332 and 6333.
Found in Ullestraat, Heerlen, excavation in 1967.
Fragments of bottom and lower side. Dark green. Probably both from same bottle.
Isings, o.c. 51, coloured intentionally, probably second half of 1st century.

D. CONICAL JUGS

206. Inv. no. 225 (fig. 21)
Found at Heerlen.
Isings o.c. 55 or 56, dating from Flavian period to early 2nd century.

207. Inv. no. 530 (fig. 21)
Found in West cemetery Heerlen, at Valkenburgerweg, site Koster. Gift of Mrs. J. Koster, 1948.
H. of handle: 12.8 cm.

208. Inv. no. 4512 (fig. 22)
Found in cremation burial at Voskuilenweg, Heerlen, in 1967.
H. (extant) 11.2 cm., d. of rim: 3.6 cm., of base: 15 cm.
Rif.: Gielen, Het Land van Heerle 1967, p. 37, and fig.
Yellowish green. Constriction at base of neck, rim folded outward and inward. From lower neck onwards on body thin ribs made by optical blowing. Upper part, without handle, and part of bottom.
Variety of Morin Jean 58, Isings, o.c. 55a. Cf. also jug from Mesch, cat. Maastricht, above, p. 35, no. 114. Dates from end 1 into the 2nd century.

209. Inv. no. 5897 (fig. 21)
Found at Valkenburgerweg, site of swimming pool, Heerlen, excavation in 1967.
Rif.: Eussen, Het Land van Heerle 1967, p. 82.
Yellowish green. Fragment of handle ending in nicked spur. Probably from a jug similar to former numbers.
E. HANDLED JARS OF MILK-JUG-SHAPE

210. Inv. no. 260 (fig. 22)
Found at cross-roads Kruisstraat-West and Deken Nicolayestraat, Heerlen.
D. at rim: 5 cm.
Greekyh green with numerous small bubbles. Everted rim, tip folded inward. Coil handle. Dulled with white patches. 
Rather careless variety of the handled jar (fig. 1788, rif. no. 17, and 59). The jar probably dates from id-n.

211. Inv. no. 575 (fig. 22)
Found at cross-roads Bekkerweg-Kruisstraat-Nobelstraat, Heerlen.
Gift of Max Roosen-Lemmens family. H. 6.6 cm. D. 6.35 cm.
May be either square bottle or cylindrical bottle. Morin-Jean 14 or 8, Isings, o.c. 50 or 51. Intentionally coloured, possibly ir.

F. FRAGMENTS OF JUGS

212. Inv. no. 3845 (fig. 22)
Found at corner Borinvalumstraat-Kruisstraat, site Kolenburg, excavation in 1966.
D. at rim: 7 cm.
Bluish green, with numerous bubbles. Everted rim, tip folded inward. 

213. Inv. no. 208 (fig. 20)
Found at Valkenburgsweg, opposite to swimming pool, Heerlen.
D. at rim: 5 cm.
Bright green, few bubbles. Rim folded outward and inward, slightly mushroom-shaped. Rim, neck, beginning of shoulder and upper fragment of handle. Some dulling. 
May be either square bottle or cylindrical bottle. Morin-Jean 14 or 8, Isings, o.c. 50 or 51. Intentionally coloured, possibly ir.

214. Inv. no. 1809
Found at Heerlen. 
Fragment of upper part of handle. Bluish green-greengreen, Dulling. Uncertain type of bottle, probably square or cylindrical.

215. Inv. no. 1892
Found at Heerlen, acquired from Leufkens collection, in 1964.
Handle: W. 2.5 cm.
Two-ribbed handle. Bluish green. Uncertain type of jug or bottle, might have been square, cylindrical or bulbous.

216. Inv. no. 1898 (fig. 21)
Found in Roman Bath, Heerlen. Gift from Bergenveld Ltd.
D. 4.6-4.7 cm.
Bluish green-greengreen, a few bubbles. Rim folded outward and inward. Dulling. Fragment of rim. Probably square bottle or cylindrical bottle, similar to former.

217. Inv. no. 1847
Found at Heerlen, acquired from Leufkens collection, in 1964. 
Fragment of handle. Bluish green-greengreen, Dulled. 
Probable from multi-ribbed handle, from square bottle or cylindrical bottle.

218. Inv. no. 6247
Found in Uilestraat, Heerlen, excavation in 1967.
D. at rim: 5 cm.
Fragment of rim. Bluish green, Broad rim, folded outward and inward. Numerous small cracks. 
Probably square or cylindrical bottle.

219. Inv. no. 6361
D. at rim: 6 cm.
Bluish green with numerous bubbles. Fragment of rim and neck, rim folded outward and inward and pressed. 
Dulled. Probably from a large bottle, either square (or hexagonal), or cylindrical.

220. Inv. no. 618
Found at Heerlen, South corner Kap. Berixstraat-Nobelstraat.
Fragment of neck and handle. Bluish green. 
Dulling. Might have been conical jug.

221. Inv. no. 1794 (fig. 22)
Found in town-centre Heerlen.
D. at rim: 2.5 cm.
Bluish green, numerous bubbles. Fragment of rim and neck. Everted rim, tip folded inward. Slightly dullled. Uncertain type. Might have been Morin-Jean 45, Isings, o.c. 14 dating from the 1St century.

222. Inv. no. 1788 (fig. 24)
Found at Valkenburgsweg, Heerlen, site Stappers. Excavation in 1964.
D. at rim: ± 2.5 cm.
Ref.: Van Hommerich, Het Land van Herle 1964, p. 70. 

223. Inv. no. 1784
Found in town-centre Heerlen. W. 2.8 cm.
Fragment of upper part of handle. 
Bluish green. Uncertain type.

224. Inv. no. 1802
Found at Valkenburgsweg, Heerlen, site Stappers. Excavation in 1964.
Fragment of upper part of handle. 
Bluish green. Uncertain type.

225. Inv. no. 1855 (fig. 22)
Found at Heerlen, acquired from Leufkens collection, 1964.
D. at rim: ± 6 cm.
Dark blue. Upper part of handle and of mouth, near rim. Rim was probably everted. Three-ribbed handle. White patches of weathering. 
Uncertain type, may have been Isings, o.c. 53, or perhaps an amphorisk.

226. Inv. no. 1867
Found at Kap. Berixstraat, Heerlen. 
Bluish green-greengreen, Fragment of neck and beginning of shoulder. 
Fire damaged. Uncertain type.

227. Inv. no. 3245
Found at corner Borinvalumstraat-Kruisstraat, site Kolenburg, excavation in 1966. 
Ref.: Gielen, Het Land van Herle 1966, p. 64.
Bluish green-greenish. Fragment of coil handle. Uncertain type, probably 1st century.

VII. Jars

234. Inv. no. 1834 (fig. 23)
Found at Valkenburgsweg, Heerlen, site of swimming pool, excavation in 1967.
D. at rim: 3.5-5.5 cm.
Ref.: Eussen, Het Land van Herle 1967, p. 82.
Bluish green-greenish, a few streaks and bubbles. Evverted rim pinched to a trefoil shape, tip folded inward. Form Iings, o.c. 56 or 88. Rather carelessly shaped, so possibly not earlier than 2nd century.

235-237. Inv. nos. 5867, 5873, 5876 (fig. 27)
Found at Valkenburgsweg, Heerlen, site of swimming pool, excavation in 1967.
D. at rim of 5873: 3.5-4.3 cm.
Ref.: Eussen, Het Land van Herle 1967, p. 82.

238. Inv. no. 5905, 5901
Found at Valkenburgsweg, Heerlen, site of swimming pool, excavation in 1967.
Ref.: Eussen, Het Land van Herle 1967, p. 82.

239. Inv. no. 3735
Found at corner Coriovalumstraat-Kruisstraat, site Kolenburg, excavation 1966.
Bluish green. Very small fragment of rim, folded outward and downward. Dulling.

240. Inv. no. 5911
Found at Valkenburgsweg, Heerlen, site of swimming pool, excavation in 1967.
D. of side: ± 13 cm.
Ref.: Eussen, Het Land van Herle 1967, p. 82.
Bluish green. Fragment of lower side. Possibly from bulbous jar, similar to former numbers.

VIII. Small ointment jars

241. Inv. no. 5920 (fig. 28)
Found at Heerlen, gift from M. Souren.
H. 4.85-5.05 cm, D. (greatest) 4.4 cm.
Bluish green-greenish with a few bubbles, one of them very large. Rim folded outward and inward horizontally. Flat bottom; traces of pontil mark. Part of rim missing. Iridescence and white weathering.
Form Iings, o.c. 58, dating mainly from 1st century into 2nd century, but some may be later.

242. Inv. no. 1826 (fig. 19)
Found in town-centre Heerlen.
D. of base: ± 5 cm.
Similar base types known from bulbous jars, to examples may be added: Xanten (Petrikovits, B.J. 1959, p. 126, note 85, fig. 16,5 dating shortly after A.D. 190); Ligney (Vanderhoeven, Verres romains, no. 103).

243. Inv. no. 2898 (fig. 19)
Found at Heerlen.
D. at rim ± 10 cm.
Bluish green-greenish with some bubbles. Fragment of rim, folded outward and downward twice. Dulling. Type similar to above, no. 235 f.

246. Inv. no. 624 (fig. 19)
Found at Kruisstraat-West, Heerlen, H. 2.7 cm.-2.8 cm., d. (greatest): 6.5 cm.

247. Inv. no. 242
Found at Heerlen, Dekem Nikolaye-straat, South side.
D. ± 5 cm.
Bluish green with a few bubbles. Pontil mark. Fragment of bottom. Uncertain shape, ir-

248-249. Inv. nos. 1762, 1770 (fig. 19)
Found at town-centre Heerlen and at Heerlen without find spot.
D. base 1762: ± 4.5 cm.; d. base 1770: 6 cm.

250. Inv. no. 1771
Found at Valkenburgerweg, site of swimming pool, excavation in 1967.
Ref.: Eussen, Het Land van Heerle 1967, p. 82.

251. Inv. no. 1780
Found at Heerlen, construction of Euterpelaan, in 1964.

252. Inv. no. 1821 (fig. 21)
Found at Heerlen, site of Roman Bath.
D. at rim: ± 7 cm.
Almost colourless, with yellowish tinge. White layer of weathering. Fragment of moulded rim. Uncertain type, fabric similar to that of Nieuwenhagen bowls (above no. 136 f.). Rim type comparable to fragment in Tullie House museum (Charlesworth, Transactions Cumberland and Westmoreland Ant. and Arch. Soc. fig. 4, p. 37). It may have been a flask or a jug, datable to 2nd or 3rd centuries.

253. Inv. no. 1840
Found at Heerlen, acquired from Leufkens collection, 1964.
D. of neck: 6 cm.

254. Inv. no. 1858 (fig. 22)
Found in town-centre Heerlen.
D. of base: 2.2-3 cm.
Greenish tinge, with numerous bubbles. Lower side with horizontal wheel-cut line. Thick glass, base ring made by means of bulbous tool. Dulling. Uncertain type, probably bowl or beaker. Shape of base seems similar to a fragment from Orsia (Morloci, Studi Misc. 15, fig. 203, p. 74, Fr. f. t) from the late Roman period, the base of which may however be less sharply indented than the Heerlen piece.

255. Inv. no. 1868 (fig. 22)
Ref.: Van Dooreselaer, Rep. II, p. 321 (iv),
Bluish green with numerous bubbles. Cut out base ring. Base only preserved.

IX. Miscellaneous

244. Inv. no. 693 (fig. 22)
Found in East cemetery Heerlen, gravel pit Simons, in 1919.
H. 8.25-8.35 cm., d. (greatest) 4 cm.
Ref.: Van Dooreselaer, Rep. II, p. 321 (iv)
Form Morin-Jean II, Isings, o.c. variety of 190, from 4th century.

245. Inv. no. 619 (fig. 22)
Found at Heerlen.
D. 3.8 cm., d. (greatest) 3.6 cm.
Purple. Mould blown. Fragment of lower side with base. Coil base partly fused with bottom. Pontil mark. Streaky colouring. The fabric is late, the form may have been similar to e.g. Fremersdorf, Denkmaler vi, pl. 147, or to Cat. Glasm from the Ancient World 258 (the former an ointment bottle, the latter a flask of Eastern provenience).

249. Inv. no. 807 (fig. 22)
Found at Kruisstraat-West, Heerlen, H. 2.7 cm.-2.8 cm., d. (greatest): 6.5 cm.

256. Inv. no. Bl. 71
Found at Valkenburgerweg, West side, between Pijsaweg and Geleenbeek at Heerlen, in a cup. On loan from 'Catacombenstichting'.
Ref.: Van Dooreselaer, Rep. II, p. 320 (i)
Fragment of side. Greenish tinge. Horizontal wheel-cut line. White weathering and dulling. May have been a bottle or possibly a cup similar to above, no. 48 (= Isings, o.c. 12)

257. Inv. no. 2896 (fig. 22)
Found at Heerlen.
D. base: 4.7-4.8 cm.
Uncertain shape, may have been a bowl.

258. Inv. no. 2823
Found at corner Coriovallumstraat-Kruisstraat, Heerlen, site Kolenburg, excavation in 1966.
D. ± 4 cm.
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<td>266.</td>
<td>No. 5885</td>
<td>Found at Valkenburgerweg, Heerlen, site of swimming pool, excavation in 1967.</td>
<td>Dulling. Fragment of rim, folded outward and downward. Dulling. UNCERTAIN type, may have been a bowl or a lid.</td>
</tr>
</tbody>
</table>

Bluish green with a few bubbles. Fragment of rim and neck. Rim folded outward and inward. Dulling. UNCERTAIN shape, may have been flask or jug. 1st-2nd century.
The opinion that window glass has been used for decoration of a building is supported by the discovery of fragments at several sites. These fragments may have been windows or other architectural elements, and their presence suggests that window glass was an important part of Roman building materials in the area.

The fragments were found at various locations, including the site of the Roman bath and other structures. They were recovered during excavation and were studied for their shape, color, and other characteristics. The fragments were found to be in various states of preservation, ranging from well-preserved to badly damaged.

There are several types of window glass identified, including blue, greenish yellow, and a variety of other colors. These fragments are significant because they provide evidence of the use of window glass in Roman buildings, offering insight into the materials and techniques used in Roman architecture.

Window glass, as with other types of glass, was made by blowing the molten glass into a mold. The mold was then removed, and the glass was allowed to cool and harden. This process allowed for the creation of a variety of shapes and sizes, including window glass.

The fragments found in the excavation included both complete and broken pieces. Some fragments were found in the ground, while others were found in the walls or floors of the buildings. This suggests that window glass was used not only in windows but also in other parts of the buildings, such as doorframes or other architectural features.

Overall, the discovery of these window glass fragments provides valuable information about the materials used in Roman buildings and offers insight into the construction techniques and design of these structures.
300. Inv. no. 297 (fig. 24)
Found at Kruisstraat-East, Heerlen, site of Roman Bath.
T. 0.3-0.6 cm.

301-303. Inv. nos. 176, 1805, 1806 (fig. 24)
Found in town-centre Heerlen.
T. of 1769: 0.5-0.6 cm.; of 1805: 0.35-0.55 cm.; of 1806: 0.35-0.55 cm. 1769: bluish green. Possibly fragment of window glass, may have been square bottle as slightly matt surface might be due to weathering. Dulled.-1805: bluish green. Fragment of rim. Tooling marks. White weathering.-1806: bluish green. Tooling marks. White weathering. Mortar on one side, so probably from wall decoration.

304-305. Inv. nos. 1849, 1853 (fig. 24)
Found at Heerlen, acquired from Leufkens collection in 1964.
T. 1849: 0.5-0.55 cm.; 1853: 0.6 cm. 1849: bluish green with some bubbles. Fragment of rim. Dulled.-1853: green and yellowish green. One of them fragment of rim, green. Dulled. The others probably not window glass but fragments of square bottles.

306-312. Inv. nos. 1802, 1803, 1804, 1805, 1806, 1807, 1808 (fig. 24)
Found at digging site on West side of Roman Bath, Heerlen, in 1935.
T. 0.15-0.5 cm. 1902: bluish green. Numerous bubbles. Three fragments, two fitting, the other might have come from square bottle as well. Dulled.-1903: bluish green-greennish. Two fragments. Dulled and white weathering.-1904: bluish green-greennish, some bubbles. One fragment very much thicker at rim than in the middle. Two fragments of rim. Dulled.-1905: bluish green, with numerous bubbles. Dulled.-1906: bluish green. Cracked fragment.-1907: bluish green with numerous bubbles. Dulled.-1908: Two fragments. Dulled. Might also have been square bottle.

313. Inv. no. 1913 (fig. 24)
Found at Kruisstraat-East, Heerlen, site of Roman Bath.
T. 0.35-0.6 cm. Bluish green-greennish. Few bubbles. Tooling marks near rim of one fragment. Two fragments of rim. Tooling marks. Dulled and iridescence.

314-318. Inv. nos. 1914, 1915, 1916, 1917, 1918 (fig. 24)
Found at site of Roman Bath, Heerlen.

319-324. Inv. nos. 2275, 2280, 2281, 2282, 2283, 2284 (fig. 24)
Found at Heerlen.

325. Inv. no. 297
Found at Heerlen, site of Roman Bath.
T. 0.3-0.4 cm. Bluish green. Dulled, iridescence.

326. Inv. no. 289 (fig. 24)
Found in room of L-shaped natatio, Roman Bath, Heerlen, gift from Bergerode Ltd.
T. 0.3-0.5 cm. Bluish green. Fragment of rim. Dulled and iridescence.

327-329. Inv. nos. 2891, 2892, 2893
Found at corner Coriovalliumstraat-Kruisstraat, site Kolenburg, excavation in 1966.
T. 0.3-0.5 cm. 2891: bluish green. Dulled.-2892: bluish green. Dulled and iridescence.-2893: bluish green with a few bubbles. Fragment of rim. Dulled.

330. Inv. no. 3910
Found at Valkenburgerweg, site of swimming pool, Heerlen, excavation in 1967.
T. 0.3 cm. Ref.: Eussen, Het Land van Herle 1967, p. 82.
Bluish green. Dulled and white weathering. Might also have been square bottle.

XIII. Molten fragments

331. Fragments of molten glass do not necessarily point to the existence of a glass house, unless other finds prove this. They may be found in cremation burials or on *ustrina*, as well as in layers of burning. From the town centre of Heerlen came fragments 1789, 1808, 1811, 1911 and 1912. Fragment 1895 was found at a building site on the Valkenburgerweg and was acquired by gift from Ir. A. J. Hermans. Nos. 1824 and 1826 have been found on the site of the Roman Bath.
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Morin-Jean, RA. 1909: M. Renault, Note sur une


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