The National Museum of Antiquities has lately acquired a glass jug (No. 1933-2484) of Roman date and of considerable interest (fig. 1). This vessel was found in 1857 near Turriff, Aberdeenshire, in circumstances which have already been described in these Proceedings, but without any concomitants which might afford the means of dating it precisely; I am informed that the occupied Roman site nearest to the place of discovery was the Roman camp at Glenmaileii. The jug stands 8\(\frac{3}{4}\) inches high and is of clear light-green metal. The body is short and conical (height 4\(\frac{1}{2}\) inches, base diameter 5\(\frac{1}{4}\) inches), and is decorated with spiral wrything executed during inflation with the aid of a mould, but not actually determined in the mould. The neck is tall, narrow, and cylindrical, with the orifice slightly everted to facilitate pouring, and the base slightly contracted by a nip of the tool. The handle was bent sharp over a tool during fabrication and makes an acute angle. It is flat and straplike in form, with a single line of raised "beading" running down the outer side from sticking-part to sticking-part, and terminates in three tines.

Fig. 1. Glass Jug of Roman date found near Turriff, Aberdeenshire.

2 Handles with a line of beading are moderately frequent in Britain.
which grip the body. The middle tine is drawn down to within about 2 inches of the base and is finished with a pincered fringe of six teeth.

In Britain the earliest stage of jug form in glass is represented by a coloured-blue jug in the Taylor collection (No. 464 PC) found and preserved at Colchester, a damaged piece but a lovely bit of blowing. Jugs of this kind commonly have a thin-blown body of baluster form—sometimes a very squat baluster—and a neck relatively wider than in the Turriff jug and its cousins. Jugs of the Taylor type are usually but not always undecorated, and they belong mainly to the middle of the first century A.D.—their date is well established. Two features in them require notice. The blowing is as nice a job as one could wish to see, but the shape is not a glass shape. If you are throwing a pot your tendency in drawing up the vessel from the wheel is to get the maximum volume in the upper "hemisphere." If you are blowing a glass your tendency is the opposite, to concentrate the maximum volume in the lower hemisphere. It is not always so, but such is the bias of the process. In the glasshouses which produced Taylor jugs, design was still conditioned by a potting conception of vessel form. Production policy was fixed by the routine Hellenism which sold well in the Italian market and in the northern provinces which had gone Roman. Inflation is so good that the jugs may be ascribed to Syrian firms who had established themselves in Italy and who showed a Semitic genius for anticipating demand. Not so the "Turriff" jugs. Here the inflation is less virtuous, but the vessel is a more natural glass shape. These things point to manufacturers who could give their gaffers a free hand, to a market where the snob appeal of Roman Italy was no longer necessary to sell the goods, to a date when the rage for going Roman was passing its zenith.

So much being evident in the jug itself, we may turn to its cousins. The family share the squat conical body, the tall neck, and the tall handle bent over at an acute angle. They fall into three main species: (1) with the body plain; (2) with the body ribbed vertically; (3) with the body wrythen spirally (as Turriff). The metal varies from a dirty sea-green to the rich golden-brown found in a related family of small globular handleless jars, often used as cinerary urns, but perhaps made for domestic purposes. The pincered fringe at the sticking-part is usual, but not universal; the longer and more elaborate the fringe is, the later the jug seems to be.

The inceptional type seems certainly to be represented by a jug at

1 The Campanian coast, Aquileia and Rome being the chief areas. The industry was also early in the Lower Rhone area.
A GLASS JUG OF ROMAN DATE FROM TURRIFF. 441

Cologne (W-R. Mus. No. 25474), illustrated in Denkmäler des röm. Köln, vol. i., 1928, pl. 14, and dated by Fremersdorf about A.D. 100. Here size and utility suggest the same trade model as the Taylor jug, but the principle of design is completely changed. The Turriff form begins to appear, but at Cologne (1) the body is plain; (2) the top of the handle is still a sweeping curve,\(^1\) and (3) there are as yet no tines and no pincered fringe at all. Turriff is later than this. An example with plain body, but otherwise near to Turriff, and on style certainly later than Cologne, was found in the Champ Bostombe, Walsbetz (near Landen), with a coin of Faustina (d. 141) in the same grave (Belgium, Bull. Comm. Roy. Art et Arch., iii., 1864, p. 317, pl. iii., fig. 22). This suggests middle or latter part of the second century. An example, with vertical ribs but slightly different in detail of shape, was found at Cologne, with coinage of Antoninus Pius (138-161) (Bonner Jährb., cxv., pl. xxiii., No. 31b, and p. 403). A coin of Vespasian accompanied the examples of the vertical-rib variety found at Avennes, near Waremme, Prov. of Liége (Bull. Instit. Arch. liégeois, xii., 1874, p. 218, and pl. vii., Nos. 6-7).

Two examples of the spirally wrythen group, which conform most closely to Turriff in form and in decoration, were found in separate graves of the Cimetière des Iliats, at Flavion, near Dinant. One of them (grave 22) was of the golden-brown metal and lacked evidence of a date a quo. The other (grave 200) was found with coins of Domitian (81-96) and Trajan (98-117) in the same grave. The cemetery was mainly of the second century, the dominant coinage being that of Domitian, Trajan, Hadrian (117-138), Antoninus Pius (138-161), and Marcus Aurelius (161-180) (Namur Soc. Arch. Ann., vii., 1861, pl. vii., No. 1, and grave groups, pp. 7 and 14).

Examples with two handles also occur, but not often. Morin-Jean figures such a jug at Mainz (La verrerie en Gaule, 1913, fig. 141) and, rightly I think, calls it late (i.e. third century). Turriff is obviously earlier than this. The well-known example from Bayford, Kent, with two tall handles, also I think later than Turriff, is figured by Dillon, Glass, 1907, pl. ix. (2), and is in the British Museum. Kisa, Das Glas im Alturzume, 1908, fig. 3225, illustrates a two-handled example with vertical ribs in the Wiesbaden Museum, but says nothing about it; both handles have the pincered fringe at the lower sticking-part.

Jugs of precisely the Turriff type are not very common in England. One with a plain body was found at Colchester and is in the British

\(^1\) One or two handles of this type have been found in Britain (e.g. Corinium Mus. No. 55 A, width 1$\frac{3}{4}$ inch, height now 2$\frac{1}{4}$ inches), but I do not recall an entire vessel.
Museum. One with spiral wrything and fringe, very near to Turriff, was found in Windsor Great Park in 1866, and is in the British Museum. A third British Museum example, from Bex Hill, Milton-next-Sittingbourne (Kent), has vertical ribs and an applied medallion with mask, the latter a survival into the second century of a well-known type of the late first century (Brit. Mus., R-B. Guide, fig. 123 f., and Arch. Cant., ix. 170); a Frontinus barillet, third century, found near an adjoining burial, suggests a late-second or early-third century date. An example from the Bartlow Hills (Essex) is figured in Archaeologia, xxv., 1834, pl. ii., fig. 1; there was a Hadrian coin in the next tomb. Part of another was found in the Litlington cemetery (Archaeologia, xxvi., 1836, pl. xlv., No. 8; earliest coinage that of Hadrian).

A family related to the jugs mentioned, but distinct from them, has a tall body like a dunce's cap and sometimes combines spiral wrything with vertical ribs on the body of the same vessel. Necks and handles resemble those of the Turriff family. A good example, with vertical ribs only, was found at Amiens (Froehner, Coll. Charvet, pl. xvi. 84), and is now in the Metropolitan Museum, New York. The vertical accent in these foolscap jugs is more marked than in the Turriff group and suggests that they belong mainly to the third century. There are two good examples in the Canterbury Museum, and traces are fairly frequent.

Placing Turriff in the series I should be inclined to date it middle or second half of the second century, since the fretfulness of the design is already well developed. There seems to be no evidence to show whether the jug was brought to Scotland before or after the Roman occupation ceased, but North British sites have provided so many evidences that Seine-Rhine glass was imported during the third century, that an example of this kind might well have come in the way of commerce and independently of the military occupation.

As for the place of manufacture, (1) Fremersdorf (loc. cit.) disowns the family as gallisches Erzeugnis. (2) Morin-Jean can produce no example of it from France, and in such museums as I have visited in the north of France I cannot recall one. (3) Examples occur repeatedly in the Liége-Namur area. (4) There is as yet no certain evidence that domestic and fancy glass of this kind was made in Britain. Hence I would be inclined to fix upon a glasshouse or a group of glasshouses in the Liége-Namur area; where, incidentally, there has been a glass industry since the sixteenth century and earlier, and materials are found conveniently.

The nature of the industry in later times throws much light on the
industry in the Roman Empire. The light is one of analogy, but not dangerous, if one bears in mind the differences in social and economic structure. With the capture of Damascus by Timur, and the decline of Damascus fashions among the European nobility, Murano began to dominate the European glass market about 1400. There were no Venetians in Britain until 1549, and there was no glass in the full sense British until about 1675. Nearly three centuries were necessary to learn this very peculiar job. During that period domestic and fancy glassmaking was a close, close-bred, migrant, international craft. In the ancient industry details of manipulation, the same gaffers' tricks, recur again and again in glasses found as far apart as Sidon, Cyprus, Egypt, Campania, Provence, the Seine-Rhine glassfield, and Britain. Such resemblances in the code of work point irresistibly to a dispersion of Syrian gaffers, a view which is supported both in literary sources and by epigraphic evidence. The Syrian racket in glass was certainly connected with the dispersion of the Jews—also a glassmaking people. One might regard it as part of a late commercial “revenge” for the Carthaginian failure to win the European market as a Semitic preserve. I would not like to suggest that the dispersion of gaffers under the Empire was always independent of local capital or of the ignorant native promoters whom we meet in Renaissance times. But as early as the fourth century we find a presage of noblesse verrière, privileges which imply the economic independence of the owner-gaffer. Only one branch of the ancient industry was completely Roman in character, the common “squares” which answer to the “bottles” branch of the National Federation. These plain and splendid vessels are design in industry, a refreshing change from the commercialised “genteel” of the Samian potters. They possess the same genius for utility as Roman roads and Roman lettering. Between their date and the American bottle-machine one finds no other bottle industry in which the normal trade models are squares and cylinders. But to the gaffer these common squares were a vitreous crime.

The Turriff jug is a gaffer's job and has nothing Roman about it. Semitic in antecedents, it belongs to a stage in the glass progress when demand for the goods has become demand for the industry. The sedentary shapes and soap-bubble values of pure Syrian have given place to verticality and unrest. This manufacturer was working not for “Roman” fashion but for Celtic taste. He belonged to the movement which created the linear aesthetic of Northern Provincial sculpture.

1 The reference throughout is to domestic and fancy.
2 Inferior and infrequent after second century.
In terms of glass he has done the same thing. The play of light in the metal, the wrything movement of the spiral line, the fretfulness of the sticking-part, are the beginning of a new sales appeal. There is no nonsense here about "sincerity" or "expression." Turriff values are the result of working in someone else's mood, one of those exchanges of taste which can only take place over a counter.