

HISTORICAL ANALYSIS OF PEWTER SPOONS RECOVERED FROM THE SUNKEN CITY
OF PORT ROYAL, JAMAICA

A Thesis

by

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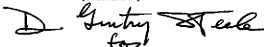
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ABSTRACT

Historical Analysis of Pewter Spoons Recovered from the Sunken City of
Port Royal, Jamaica. (December 1985)

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On June 7, 1692 the British merchant city of Port Royal, Jamaica was struck by a severe earthquake. The earthquake liquified the sand spit on which Port Royal was built, causing approximately three-quarters of the city to sink into the harbor. Houses, shops, markets and their contents were sealed by a layer of dead coral and silt until the twentieth century when archaeologists began to uncover the sunken city.

This thesis is concerned with the identification of the pewter spoons and spoon fragments recovered from Port Royal. Analysis of the collection has provided information on the type, date and origin of many of the spoons as well as facts about the inhabitants of Port Royal. This information and data from literature about pewter spoons, has been compiled to formulate a preliminary identification key for identifying and dating pewter spoons from other seventeenth and eighteenth century sites.

Pewter spoon manufacturing, including alloys used, construction of moulds and casting techniques is examined. A catalog of the Port Royal pewter spoon collection, with measurements, photographs, descriptions and parallels to spoons in other collections is provided.

DEDICATION

This thesis is dedicated to the staff of the TAMU Interlibrary Loan Service. Without their patience and willingness to dig out the most obscure reference this work could not have been completed.

ACKNOWLEDGMENTS

Although this type of work carries the name of only one author, that single person is usually supported by an entire pyramid of others who have offered encouragement, advice and (when necessary) prodding. I would like to acknowledge a few people who have acted as solid foundations for my pyramid.

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HISTORY OF PORT ROYAL

Port Royal, Jamaica is a quiet village located on the western end of the Palisadoes, a sand spit extending south from the capital city of Kingston and separating Kingston Harbor from the Caribbean Sea. Many of the inhabitants of Port Royal commute to work in Kingston by ferry or bus while others make a living fishing or running a variety of small shops in town.

Port Royal was not always as quiet as it is today. In the seventeenth century the town was known as "the store house or treasury of the West Indies" as well as "the wickedest city of the earth" (Mayes 1972:7). Although Port Royal was used by the Spanish to careen their ships in the early seventeenth century, the economic and strategic importance of the port was not fully recognized until the English invasion in 1655. After the small contingent of Spanish were ousted, the English immediately started building fortifications on the sand spit.

Once construction of the forts began, merchants and other civilians moved in to take advantage of the new shipping markets. The economic importance of Port Royal was enhanced even more by privateers who preyed upon the treasure laden Spanish ships enroute from South America to Spain between the years 1660 and 1671. Privateers were given letters of marque by the Crown, thus legalizing their pirating activities. In 1664, 22 ships were commissioned in Port Royal for privateering. Approximately half of these, the majority owned by English captains, worked out of Port Royal. The other ships,

American Antiquity used as a guide for format and style.

commanded by French and Dutch captains, were headquartered in remote parts of the Caribbean but were expected to return to Port Royal to trade their booty (Claypole 1972:119).

Privateering was by no means the only source of income for the inhabitants of Port Royal. This strategically located city served as the trade center of the Caribbean. Daily, ships from England, Ireland, North America and Africa brought cargoes of wine, linen, silks, ironwork, naval stores, fruit, beef, pork, salmon, cheese, butter, flour and slaves (Mayes 1972:6) and returned with sugar, cotton, indigo, ginger, logwood, fustick, pimento and lime-juice (Pawson and Bulsseret 1975:72). After the end of privateering in 1671, the Port Royal based fleet traded with the French settlements in Hispaniola and the Dutch trading stations in Curacao (Claypole 1972:119). This bustling trade caused one visitor to Port Royal to describe the city as "the store house or treasury of the West Indies" which was

always like a continual mart or fair, where all sorts of choice merchandises are daily imported, not only to furnish the island, but vast quantities are thence again transported to supply the Spaniards, Indians and other nations who in return exchange us bars and cakes of gold and wedges of silver...almost every house hath a rich cupboard of plate, which they carelessly expose, scarce shutting their doors in the night, being in no fear of thieves for want of receivers (Mayes 1972:7).

This ideal situation was irreparably shattered at approximately 11:30 in the morning on Wednesday, June 7, 1692. At that time a severe earthquake struck which liquified the sand, toppling buildings, swallowing people and causing large sections of the town to sink into the sea. The miraculous survival of one man, Lewis Gaidy, is

commemorated on his tombstone, which now rests in St. Peter's cemetery in Port Royal. "He was swallowed up in the Great Earth-quake in the Year 1692 & by the Providence of God was by another shock thrown into the Sea & Miraculously saved by swimming until a boat took him up. He Lived many Years after in great Reputation." Not many people were as lucky as Galdy. Two thousand people died in the earthquake itself and another 2000 were to die of injuries and disease in the following weeks (Pawson and Buissere 1975:121-122).

Port Royal never recovered its former glory as a trade capital after the earthquake. Approximately three-quarters of the city was now underwater, leaving only a relatively small area of 25 acres, completely surrounded by water, on which to rebuild. More disasters were to follow in the eighteenth century. In 1703 a fire swept through Port Royal destroying it to the extent that the master of a packet-boat would tersely note in his log, "Arr. Jamaica 29 (January 1703). Port Royal burnt, all but the Castle" (Pawson and Buissere 1975:123). Then in 1712, 1722, 1726, 1744 and 1780 hurricanes wracked the spit (Hamilton and Woodward 1984:41). The hurricane of 1722 destroyed forever the mercantile glory of "the wickedest city on earth."

Excavation of Port Royal

The recovery of goods from the houses, shops and public buildings that sank into the sea during the 1692 earthquake began almost immediately. Many of the structures lay in shallow water, enabling salvors to easily reach personal effects and merchandise. Other

buildings were deeper, some up to 50 feet. These depths did not impose undue hardships to the Port Royalers, some of whom were skilled divers experienced at working on shipwrecks (Pawson and Buisseret 1975:144). In short, the salvage of the sunken section of Port Royal by divers and others using grappling hooks or seine nets for dredging was fairly thorough (Mayes 1972:9).

Visits to the site continued sporadically over the ensuing years. In 1859, Mr. Jeremiah D. Murphy, a British Navy helmet diver, discovered the remains of Fort James. In 1954, Mr. and Mrs. Alexi Dupont found an arched doorway and a flight of steps in the vicinity of Fort James. Two years later, Mr. Edwin Link tested the areas of Fort James and the King's Wharf and produced a map of pre-1692 Port Royal which has been the basis of further research in the area. In 1960, Mr. Norman Scott explored the site of Fort Carlisle, recovering various artifacts of the period. During the late 1960s, Mr. Robert F. Marx excavated a large section of the underwater remains of the city while Mr. Philip Mayes concentrated on the excavation of Port Royal's seventeenth century church, St. Paul's, now located beneath the old Naval Yard, a church on land. Ten years after the Marx excavations, a Texas A&M University/Institute of Nautical Archaeology (TAMU/INA) field school, under the direction of Dr. D.L. Hamilton, continued the underwater excavations.

The most significant excavations of the underwater portion of old Port Royal have been conducted by Robert Marx and, later, Dr. Hamilton. Robert Marx, during his two years of work, uncovered numerous structures, including fish and meat markets, houses, taverns

and three shipwrecks, all within an area of two acres. An incredible amount of artifacts was recovered from the site, mostly found under fallen walls which served to hide them from the early salvors and to protect them over the years. Although not fully studied by Marx and never completely published, many of these artifacts were illustrated in a series of reports written for the Jamaican Government.

In 1981, TAMU/INA was invited to continue work on the sunken city of Port Royal. Over the past five years, three adjacent houses fronting on Lime Street have been discovered but work has concentrated on the excavation of a single building consisting of three sets of two rooms. Based on the masses of bone and leather scrap recovered, one set of rooms was apparently a butcher or leather processing shop. Another set appears to have been a tavern, complete with table and over 60 'onion' bottles used in the seventeenth century for liquor (D.L. Hamilton, personal communication 1985). The third set appears to be a vintner/pipe shop combination. Work on this building continued through the 1985 field season.

The careful excavation and analysis of the remains of seventeenth century Port Royal will add much to the existing knowledge of everyday life in an early British colony. Because of the catastrophic nature of the site, much of the late seventeenth century cultural material is well preserved. Therefore, the results from the Port Royal excavations will have a great effect on the study of other seventeenth century sites by providing closely dated comparative collections of a broad range of artifacts.

One example of such a comparative collection is the pewter

recovered from Port Royal. To date, this is the largest collection in the world of seventeenth century pewter recovered from a single excavation. Pewter porringers, tankards, chargers, spoons, syringes and even a sundial give evidence of a prosperous middle class (Hamilton 1984, D.L. Hamilton, personal communication 1985; Marx 1971). By closely examining one group of pewter utensils, the spoons, valuable insights about the people of Port Royal, their life styles and trade patterns can be revealed.

The pewter spoons used in this study were recovered from several excavations done in Port Royal beginning with the work of Robert Marx. Spoons recovered by Marx have one or more of three types of accession numbers: R. Mx D. 62, PR 451/3 or F 15 11 8. Spoons recovered from Government of Jamaica/National Trust excavations have numbers of the same style as many of Marx's, such as PR 451/3; therefore, the numbers do not distinguish these spoons from those recovered by Marx. All spoons found during the TAMU/INA excavations all have numbers of the form PR 82 103-5. These spoons, then, represent several years of archaeological endeavor in Port Royal. The following study is the first attempt to analyze and synthesize the information provided by the pewter spoons in order to make a statement about the social and cultural environment of Port Royal.

HISTORY OF THE PEWTER SPOON

The English word "spoon" is derived from the Anglo-Saxon spōn meaning a shaving or chip of wood (Homer 1975:1; Jackson 1890:116). Thus wood was probably the most common material used for making early spoons. Metal spoons for domestic use were introduced into England during the Roman conquest (first - fifth centuries A.D.); however, use of such spoons seems to have disappeared when the Roman legions were withdrawn. It was not until the thirteenth century that metal spoons, made of gold, silver or pewter, reappeared in England. According to Jackson (1890:120), gold spoons were used solely by the monarch, while silver could only be found in the homes of the very wealthy. Pewter spoons were also luxuries reserved for the rich during this period (Brett 1982:16).

The sixteenth century saw the rise of a prosperous middle class and with it the popularity of pewter. Pewter was cheaper than silver or gold but was a step above wooden spoons and treens (wooden platters) which the lower classes continued to use. Pewter did not tarnish, retained liquids well, was unbreakable, easily cleaned and could be recast when worn out.

The gradual dominance of pewter over utensils of bone, wood or horn occurred during the early sixteenth century. William Harrison, author of The Description of England first published in 1587, recounts interviewing old country people from his village about changes that had occurred since their youth. The old men recalled three things "to be marvelously altered in England within their sound remembrance" one

of which was the exchange of wooden platters for pewter and wooden spoons for silver or tin (pewter) (Harrison 1968:201). "For so common were all sorts of treen stuff in old time that a man should hardly find four pieces of pewter (of which one was peradventure a salt) in a good farmer's house." By the late sixteenth century a farmer was likely to have a garnish of pewter, three to four feather beds, coverlets, carpets, a silver salt, a bowl for wine "and a dozen of spoons to furnish up the suit (set)" (Harrison 1968:202).

The popularity of pewter quickly spread. By the second half of the sixteenth century pewter had ceased to be a privilege of the upper and middle class. Even the poorest households could boast a few pewter items (Hatcher and Barker 1974:102). Pewter or other wares did not completely replace wooden utensils for some time. As late as the mid-seventeenth century, pewter spoons were used by officers and important passengers on board ships, while wooden spoons were supplied for the crew (Needles Underwater Archaeology Group 1985:22-23).

Pewter was generally sold by the garnish which consisted of twelve platters, twelve dishes and twelve saucers (Harrison 1968:367). Although spoons were not included in a garnish, they also appear to have been sold by the dozen. As evidence of this, when John God, a pewterer, was accused in 1567 of making latten (brass) spoons, he "confessed he hath made but iij [3] dosen one dosen he hath solde to one at Algate And an other Stranger hath bought one other dosen And the third dosen the Goodman of the Castell in wood strete must have them" (Homer 1975:9).

Pewter spoons were considered personal objects and were carried

with the owner much as a favorite pipe would be (Peal 1969:20). A painting by Pieter Breugel the Elder, titled "The Peasant Dance," shows a village man dancing in the streets with a spoon stuck through a loop in his cap. The painting dates to about 1567 (Charleston 1968:107). When invited to dinner, guests were expected to bring their own cutlery, which was distinguishable by pattern or engraved design. Around 1660 this custom changed and it became popular to set the table with cutlery marked with the owner's crest or initials (Emery 1976:85). When not in use, spoons were displayed on open racks mounted to the wall. Examples of seventeenth and eighteenth century spoon racks can be seen in Homer (1975), Cotterell (1963) and Price (1908).

The bowls of early pewter spoons were shallow and fig shaped, curving upwards to the extent that they could not have held a full bowl of liquid. The spoon bowls were widest at the tip and narrowed to merge with the hexagonal stem. According to John Emery, author of European Spoons Before 1700 (1976), the angle of the stem to bowl corresponds to the shift from wooden bowls to pewter plates between the years 1450 and 1650. The earlier spoons had stems which were tilted to allow the user to eat from a bowl. As pewter plates became more common, the spoon handles straightened to the horizontal position (Emery 1976:5).

The shallow, wide bowls of early spoons were ideal for consumption of the soft or semi-liquid food which was part of the standard diet. This soft food was commonly known as 'spoon-meat.' Potage, a popular type of spoon-meat, consisted of "the licour in

which fleshe is sod In with puttyng to chopped herbes and Otmell and Saite" (Homer 1975:4; Hughes 1953:1728). Etiquette for eating with spoons was described by Hugh Rhodes in the Boke of Nurture written in 1577. Rhodes admonishes the reader to never fill his spoon bowl full when it is being lifted from the porringer to the mouth, never to leave the spoon in the porringer and to always lick the spoon clean when finished eating (Hughes 1953:1728).

Because of the popularity of pewter, the pewter industry rapidly expanded. Favored with natural deposits of high quality tin, lead and copper, English pewterers produced enough wares for domestic use and enormous quantities for export. According to Charles F. Montgomery, author of A History of American Pewter (1978:8), the value of English pewter imported into America in 1720 "began to exceed the combined totals of the value of silver objects, furniture, upholstery wares, including bedding, curtains, carpets, hangings, and upholstered furniture." To maintain the high quality of English pewter, every aspect of pewter manufacturing, from type of alloy used to method of finishing, was heavily regulated by the pewterer's guild.

MANUFACTURE

Alloys

"Whoever has occasion to judge tin in its whiteness from the testimony of his eyes alone would surely believe it to be purest silver" (Biringuccio 1966:59).

Tin was rare, expensive and highly prized long before Biringuccio wrote his treatise Pirotechnia in 1540. The earliest mines were probably located in the mountains of Chorasa and Transoxiana to the north and northeast of Mesopotamia (Haedeke 1970:165). These deposits were worked as early as the third millennium but were soon exhausted. From the classical period until the nineteenth century, tin deposits in Europe would provide the most tin for bronze and pewter manufacturing. The principal sources for tin were located in the Erzgebirge region of Bohemia and in Saxony, Cornwall, in Britain while some tin was mined in Spain.

Because of its expense and scarcity, tin was considered a semiprecious metal at least until the Cornish mines were exploited beginning about 500 B.C. (Hatcher and Barker 1974:6). Most tin ore went into the manufacturing of bronze, although some small objects of pure tin have survived from antiquity. Jewelry made from pure tin has been found in tombs in northern Persia dating to 2000 B.C. (Haedeke 1970:165).

Pure tin was not only expensive, but also difficult to work; it was extremely brittle and did not flow properly when used for casting. To overcome this problem other metals, especially lead, copper,

antimony and bismuth, were alloyed with tin to make Pewter. Pewter manufacturing occurred quite early as indicated by a pewter flask from Abydos, Egypt dated to ca. 1580-1350 B.C. (Hatcher and Barker 1974:Plate 1).

The most common pewter alloy was composed of lead and tin (Table 1). Lead and tin had an "almost equal and proportioned similarity of nature" (Biringuccio 1966:60) thus bonding well. Lead took away some of the brittleness inherent in tin and made it flow well, while tin gave the lead strength. The resulting alloy could be hammered or cast and was used for eating and storage vessels as well as many other objects for human use.

Although lead was the simplest and cheapest metal to be used in pewter alloys it had certain disadvantages. The harmful effects of lead on the human physiological system were recognized as early as the Roman period. By the Middle Ages directives concerning the amount of lead to be used in pewter were issued by local governments. The directives served a twofold purpose: first, to protect citizens from lead poisoning and, second, to prevent pewterworkers from making excessive profits by using too much cheap lead in place of tin (Haedeke 1970:167). The amount of lead allowed in the pewter alloy varied considerably according to country and time period.

By the mid-fourteenth century the craft of British pewterers was regulated by the Ordinances of the Pewterers' Company. The Ordinances of 1348 specify two grades of pewter which were then in use. The best quality pewter was known as plate metal or fine metal and was used for objects in which rigidity and hardness were necessary. Thus flatware

Date	Description	Sn	Cu	Pb	An	Bi	Zn
1348	British, Lay metal	83.58		16.41			
1350	British, Ordinance	87.50		12.50			
15th C.	British, Lay metal	81.15		18.84			
1589	British, Harrison	96.80	2.90			.29-.38	
16th C.	British, spoon anal.	97.00	1.42	1.65			
16th C.	British, spoon anal.	95.60	1.06	3.64			
16th C.	German, Ordinance	75.00		25.00			
16th C.	German, Ordinance	70.00		30.00			
1697	British, Houghton	97.00	2.90				few oz
17th C.	British, Trifle metal	83.00			17.00		
17th C.	British, Trifle metal	82.00			18.00		
17th C.	British, Fine pewter	81.15	18.84				
17th C.	British, Better pewter	88.42	4.21		7.36		
17th C.	British, metal anal.	95.00	1-1.5	1-3			
17th C.	French, Fine metal	95.23		4.77			
17th C.	French, Common pewter	90.90		9.10			
17th C.	French, <u>Claire-etoff</u>	66.66		33.34			
1752	British, Chambers	84.21	4.51	11.27			

Table 1. Percentage of metals used in pewter alloys.

or sadware such as chargers, platters and porringers were made of plate metal, an alloy of copper and tin, the copper being added to the tin "as much as of its own nature it will take" (Homer 1975:5). Lay pewter was an alloy of lead and tin, the proportions being 22 pounds of lead to 112 pounds of tin. Lay pewter, which was softer than plate metal, was used for holloware such as measures, pots and candlesticks in which the shape provided some strength (Homer 1975:5).

Although the Pewterers' Guild levied strict fines against pewterers making 'false metal' or an alloy not to the specified standard, the Guildhall records show that the accepted alloy was constantly changing. Two years after the 1348 Ordinances were written, there is record of a pewterer being brought before the Company Court and accused of making pewter which contained too much lead. John de Hiltone's vessels were seized when the Court decided that "the greater part of the metal of which the aforesaid poteis and saltcellars were made was lead; whereas to one hundredweight of 112 pounds of tin there ought to be added no more than 16 pounds of lead" (Hatcher and Barker 1974:147). Thus, within a two year period the acceptable amount of lead in pewter had dropped six pounds to the hundredweight.

During the late fifteenth century the craft was granted a charter to become a Guild. The Guild records of this time specify that lay metal was to be made of 26 pounds lead to 112 pounds of tin (Hatcher and Barker 1974:164, n.1), 10 pounds more lead than in 1350!

The accepted alloy for fine pewter also changed during this period. In the late sixteenth century William Harrison, author of The

Description of England, describes an alloy composed of 1000 pounds of tin, 30 pounds of kettle brass and three to four pounds of tinglass (bismuth). Harrison warns that too much bismuth would make the pewter brittle "so the more the brass be, the better is the pewter" (1968:367). During this period the term "brass" was used for any cupreous metal and, in this instance, is believed to refer to copper (Homer 1975:5). Approximately 100 years later, J. Houghton, editor of A Collection for the Improvement of Husbandry and Trade, recommends an alloy composed of 100 pounds of tin, three to six pounds of copper and a few ounces of zinc for fine pewter (Homer 1975:5).

During the sixteenth century another grade of pewter, known as trifle metal, was introduced (Hatcher and Barker 1974:164). Trifle metal was used for making spoons, shakers, buttons and other small cast articles (Laughlin 1969:3). Trifle metal was probably a soft, tin/lead alloy although later authors describe it as an alloy consisting of 83 parts tin to 17 parts antimony or 82 parts tin and 18 parts antimony (Price 1908:10; Laughlin 1969:3; Ulliyett 1973:31). Antimony, a hardening agent, was used in European pewter as early as the late fifteenth century but was not used in British pewter until the late seventeenth or early eighteenth century (Homer 1975:7) thus, early British trifle metal was probably not a tin/lead/antimony alloy.

English pewter had a reputation for being the finest pewter made. Biringuccio, complaining against the addition of lead used by Italian pewterers of the period, says, "the tin that comes from England, when worked as well as in cakes that show it to be pure, is much more beautiful and better in all works than is that made in Venice"

(1966:211). The English pewterers took full advantage of their excellent reputation in their battles against the importation of foreign pewter. In an edict to the governor against foreign competition they write "a Tun weight of Tin is used in every Tun of Pewter made in England, But in a Tun weight of Pewter made in fforeigne Nations there is used but fifteen hundred weight of tin at most" (Hedges 1964:85).

In general, the Continental pewter alloys were much more lead rich than their British counterparts. For example, sixteenth century German ordinances specify that hammered bowls were to be made of 'pure tin' (probably fine pewter), teapots, pitchers, and flasks were to be made with a 'tenth' and an alloy of three parts tin to one part lead was allowed for wares such as spoons, candlesticks and other trifles. The Leipzig Ordinance of 1538 also specifies the making of an alloy known as a 'seventh' which was to be composed of seven pounds of tin to three pounds of lead. The Ordinance further states that "It is not made here for the market but only on order" (Hintz 1921:139).

French pewter of the seventeenth century was also divided into three categories, all of which contained lead. Fine pewter contained no more than five parts lead to 100 parts tin, while common pewter contained 100 parts of tin to 10 parts lead and claire-etoffe was composed of 100 parts tin to 50 parts lead (Douroff n.d.:7). According to Douroff, author of Etains Francais des XVIIe et XVIIIe siecles, claire-etoffe was not used for eating vessels because of the quantity of lead it contained (n.d.:7).

In the late eighteenth century a new alloy was developed which

contained 90 parts tin and 10 parts antimony. This alloy, known as Britannia metal, was cheaper to make, stronger than other pewter alloys and could be used to imitate silver patterns more closely (Peal 1971:5). Britannia metal, with its good English-sounding, patriotic name was a final attempt to rescue the falling popularity of pewter. By the year 1710 the Guild records state that the trade is "now reduced to a verry deplorable condicion in this Kingdom and in fforeign parts" (Uilyett 1973:41). Much of the deplorable condition of the pewterers' craft was due to the widespread desire for china and pottery tableware.

Auguste Salmon, in his Art du potier d'etaïn, attributes the invention of Britannia metal to a pewterer in Paris and states that this particular alloy was not in use before the middle of the preceding century (approximately 1650) (1788:138). It is interesting to note that a French protestant refugee named James Taudin was causing some concern to the Pewterers' Company in London because of a special alloy or manufacturing process that he had introduced. Several times, Mr. Taudin was brought before the Court, but because of the quality of his work he was allowed to continue producing what was advertised as 'French Pewter', 'Hard Metal' or etaïn sonnant. Part of his secret may have been the introduction of antimony into his alloy (Hatcher and Barker 1974:225-228).

Spoons were made of lay metal (i.e. tin/lead alloy) until the mid-seventeenth century. On December 19, 1667 the Pewterers' Court, in an effort to upgrade the quality of spoons, announced that all spoonmakers were to use "plate mettles or as good" for their products.

Immediately following Christmas every spoonmaker was to alter his touch and make his spoons according to the new regulations (Price 1908:15). There must have been some resistance to using plate metal for spoons because two years later the order of December 1667 was rescinded. Spoonmakers were to receive "such mettles as the hollow-ware men & of noe other sort" (Price 1908:11). In other words, spoons were once again being made of lay metal. Eight years later, on December 13, 1677 the Court once again ordered that all "new-ffashioned spoones shall henceforward be made of good ffyne plate metal" (Price 1908:16). The "new-ffashioned spoones" mentioned here were probably trifid ends. By 1788, and probably earlier, spoons were also being made of Britannia metal (Salmon 1788:139).

Actual analysis of sixteenth and late seventeenth century pewter spoons using x-ray diffraction spectroscopy shows that the alloys consisted of tin, copper and lead with less than 1% each of bismuth, arsenic and zinc. The alloy used for a sixteenth century slip top spoon was made of 94.22% tin, 1.50% copper and 4.62% lead (Homer 1975:6). Unfortunately, there were no seventeenth century "new fashion" or trifid end spoons for comparison with the slip top.

Moulds

The moulds used for casting spoons were made of stone, clay, wood or bronze. Generally, the moulds of the craftsmen were made of the more expensive and durable bronze while the cruder moulds were used by itinerant pewterers who travelled from house to house, or to local fairs, recasting old pewter (Homer 1975:3).

The use of clay moulds for casting metal objects dates back to the Bronze Age (Tylecote 1962:110) and continued well into the modern era for casting simple objects. The monk Theophilus Presbyter, writing around A.D. 1100, described the casting of a cruet in a clay mould. First, a core was made out of clay. This core was coated with several thin layers of kneaded wax three to four mm thick. Details were then modelled into the wax layer. The wax layer was coated with more clay and fired in an oven (Mory 1972:26). The firing served two purposes: first, to melt the wax in order to form a recess into which the molten metal could be poured and second, to drive off any water in the clay to prevent steam from forming when the molten metal was poured into the mould (Tylecote 1962:109). After the wax had melted from the mould, molten metal was poured into the resulting recess and allowed to cool. When cool, the clay mould was broken and the object removed. The cruet was then finished on a lathe (Mory 1972:26).

Casting objects using the procedure described above, known as the cire perdue or lost wax method, was labor intensive and thus expensive. Carving wood or stone moulds was a far cheaper method for making simple objects such as spoons. These moulds were more durable than clay and could be used for multiple castings. Stone moulds were usually made of a fine grained material such as slate, ophite, sandstone (Haedeke 1970:167) or white tuff (Biringuccio 1966:374). The stone mould was made of two slabs, the front of the spoon carved on one half, the back of the spoon carved on the other. The two halves were then pegged together and molten pewter poured through a vent at the top. Haedeke, author of Metalwork, suggests that, during

the seventeenth century, professional cutters were responsible for making the moulds while the pewterers cast the metal objects (1970:184). A two part stone spoon mould dating to the seventeenth century can be seen in the Science and Art Museum in Dublin (Homer 1975:11).

The most expensive, but far preferable, material for moulds was bronze. Bronze moulds could be heated many times without deteriorating and, because they held their heat over a long period of time, could be used to cast a number of objects in quick succession (Kauffman 1970:26). Permanent bronze moulds were introduced during the Middle Bronze Age (Tylecote 1962:123); however, there is no indication that they were used to cast pewter before the fifteenth century in Britain. The Company's records list bronze plate moulds in their accounts of the fifteenth and sixteenth century. Pewter spoons were probably also cast in bronze moulds that early, although the first reference to spoon moulds is in the seventeenth century (Homer 1975:11). A Dutch spoon mould dated 1620 is illustrated in A.J.G. Verster's Old Tin (1928:19).

The construction of brass or bronze moulds is described in detail by Biringuccio in his Pirotechnia (1966:319-320). Although he refers to the making of a brass mould for casting iron cannonballs, it is assumed the same process would be used for making bronze moulds for casting pewter. First, a pattern was made of wood, clay or lead to exactly the dimensions of the finished product.

Bury half of this, or these, in a board of clay and, having greased them with oil or lard, make a mould over them of plaster of Paris, or of clay if you have no plaster, exactly as you wish it to be in iron or bronze.

Then make the other half opposite this. After having taken out the balls make little openings for the gates and vents and likewise four holes for pegging the parts together. At the back make a stud or a recess to provide a hold for the tongs. When they have been made exactly, cover them with ashes or grease them with oil, and mould them individually with moulding clay, each half by itself. Then make their carriages and when these have been made and baked, fill them with bronze or molten iron, as you prefer. Thus you will have moulds for casting balls which serve very well and in which one ball or three, five, seven, or more if you wish can be arranged to be cast at one time. Always remember to apply some wash ashes on the inside of the moulds when you cast.

Bronze moulds were probably made by special mould cutters or brass workers and rarely by the pewterer himself. Thomas Gregory, an American brass founder in the eighteenth century, offers various types of brass work for sale including candlesticks, shoe buckles and spoon moulds (Kauffman 1970:26). In the nineteenth century, Hederly and Riland, Bell and Brass Founders, Smiths, &c. advertise "all kinds of brass work in general, made and repaired." A special note at the end of their advertisement advises: "Pewterers' moulds made at the shortest notice" (Kauffman 1970:27).

Relief decoration was carved into brass moulds with a chisel (Haedeke 1970:168) usually by special medalists or engravers. Douroff (n.d.:7) suggests that this may explain why identical decorations can be found on objects known to have been made in different areas. A skilled medalist would travel the country working for many pewterers. Pewterers capable of carving their own moulds were probably quite rare, the great French master of relief work, Francois Briot, being an exception (Douroff n.d.:7).

The engraver or medalist would occasionally put his own monogram on the moulds (Haedeke 1970:184). Such action may explain the

mysterious crowned initials "TW" found on the backs of William and Mary portrait spoons. R.F. Michaelis, in his article "Royal Portrait Spoons in Pewter" (1950:172-173), illustrates three William and Mary spoons bearing this mark, two of which were made by David Heyrick who struck his touchmark in 1676. The stem of a similar royal portrait spoon found in Port Royal (PR 308/1) also bears the "TW" although the initials do not appear to be crowned as in Michaelis's examples. Although Michaelis suggests several possibilities for the mark he leaves it as "a Mystery Unexplained."

Casting

Spooncasting was a relatively simple operation, requiring a single mould as compared to the multiple moulds necessary to produce a tankard or porringer. Because of the simplicity of spoon manufacture, Homer conjectures that the few craftsmen listed in the Company's records as solely "spoonmakers" were limited to the production of spoons because of infirmity or old age (1975:10). H.J.L.J. Masse (1904:81) notes, "It was not a sign of cleverness if the workman had to be kept at spoon-making, though this branch of the trade was sometimes left open for a man whose eyesight had failed." Such was the case with a young apprentice in 1680 whose eyesight was discovered to be poor. Rather than expel him from the craft the Company allowed him to continue as a maker of spoons (Uilyett 1973:76). Spoonmaking was not limited to the old or blind however. Most pewterers produced spoons in some quantity.

Melting the pewter in an iron kettle over a forge fire was the

initial step in casting. The temperature of the metal was determined by thrusting a dry pine stick into the pot. The amount of charring indicated the optimum temperature for casting (Laughlin 1969:12). The metal was then poured into a mould which had been prepared ahead of time with a mixture of egg white and red ochre or simply coated with carbon applied by holding the mould over the flame of a candle (Kauffman 1970:30).

The first casting were made in a cold mould, the two halves held between the knees of one person while another poured the molten metal into the sprue hole at the top (Kauffman 1970:32, Salmon 1788:140). In a matter of minutes, the pewter solidified enough to be removed from the mould. The mould was quickly opened and the half which retained the spoon was plunged into a bucket of water. A tap on the edge of the mould then caused the spoon to drop out on the pewterer's knee from which it was put on the floor to finish cooling (Salmon 1788:140). Several spoons would be cast, the rejects being returned to the pot for remelting, before the mould reached the optimum temperature for perfect castings (Kauffman 1970:30). Because the pewter solidified enough for the spoon to be removed before the mould cooled, the proper mould temperature was easily maintained through many castings (Kauffman 1970:16). After the cast piece was removed from the mould, the fins, sprue and any imperfections were removed with a file (Salmon 1788:140) or by melting with a heated tool (Laughlin 1969:13).

After casting, the bowls of spoons were hammered to harden and compact the metal making them strong enough to withstand daily use

(Homer 1975:11; Hughes 1953:1728). As indicated by the numerous complaints against spoonmakers in the Company's records, this important step was often bypassed. In 1683, John Clarke, Thomas Waight and Joseph Higdon were brought before the Court and accused of "Makeing spoones without beating being only cast grated and burnished" (Homer 1975:11). Grating and burnishing spoons without hammering them saved time but left the spoons too soft. In 1686, a man named Burton was found at fault for using an "engine" or press to make his spoons. This process apparently required no hammering yet produced a product comparable to hammered spoons. Because Burton's spoons were well finished, the Company Court decided to let him sell them but not for less than six shillings per gross in the country and four shillings in town so as not to be unfair competition with the other pewterers (Masse 1904:81).

The third step was to grate or scrape the spoons. Two types of tools were required; one shaped like a lance for the handle and underside of the bowl and a round scraper for the inside of the bowl (Salmon 1788:140). Resting the spoon across his knee, the pewterer scraped the spoon using a circular motion. The strokes used while grating were short, closely spaced and shallow. Salmon notes that grating was necessary to remove le fer or the color that the surface of the metal takes as it is cooling. After grating, the spoons were often rubbed with pumice ground into powder. The pumice smoothed the ridges caused by uneven grating (Salmon 1788:141).

After grating, the spoons were burnished. Burnishing was a process in which tools with highly polished faces made of steel,

bloodstone or agate (Hatcher and Barker 1974:222) were lubricated in soapy water or stale beer and applied to the moistened surface of a spoon. The piece was burnished until it had acquired a bright appearance over the entire surface (Laughlin 1969:14). Salmon recommends burnishing with tripoli, a fine abrasive powder, mixed in olive oil. A small drop of tripoli was placed on the spoon and rubbed with successively finer rubbing cloths (Salmon 1788:141). To remove the oil from the spoon, a fine chalk was rubbed onto the spoon and removed with a piece of linen. For spoons with relief decoration on their handles, Salmon recommended rubbing with a crust of bread on which some of the soft bread remains. The bread would get into the angles of the decoration and absorb the oil. With a final polish to "bring out the life" of the spoon, it was ready to be sold.

Another method of manufacturing spoons was to produce a flat casting approximating the shape of the spoon with a round stem. The stem was hammered into an oval and then its final, hexagonal cross section. The bowl was beaten into shape over a hardwood form and a decorative knob soldered into a V-shaped notch cut into the end of the stem (Hughes 1953:1728). Homer (1975:12) however, does not feel that "pewter spoon bowls or even whole spoons were ever in England in early times shaped from blanks by hammering."

Decoration could be applied to spoons in several ways, either during casting, as in the relief decorated royal portrait spoons, or by engraving, wriggle work or pouncing. The flowing lines of engraved decoration were cut into the metal with a burin. Engraving was used to inscribe initials, names, the family coat-of-arms or homilies onto

the pewter (Verster 1958:55). Salmon reports a regulation introduced by the Merchant Pewterers of Paris in April of 1629 that required people to have their coat-of-arms or monograms engraved into the pewter. In this manner the pewterers hoped to prevent stolen pewter from being sold by domestics, children or others as scrap (Salmon 1788:143). Wriggle work was a form of design produced by rocking a cutting tool back and forth producing a wriggled line. This type of decoration was popular in England and France during the mid-seventeenth and early eighteenth centuries (Brett 1982:44; Douroff n.d.:7). According to Verster (1958:55), wriggle work was more common than engraving. Pounced designs were produced with a hammer and punches. Pouncing was frequently employed in Germany but, according to Douroff (n.d.:8), rarely used in France.

Summary

Simple pewter spoons were often cast by itinerant peddlers or tinkers who purchased old pewter, melted it down and recast it on the spot. By the seventeenth and eighteenth centuries however, the elaborate designs which became popular during the reign of William III were cast by established pewterers in their own workshops. Fancy work required good bronze moulds which were expensive to make and thus outside the realm of the travelling tinker.

The earliest pewter spoons were cast of lay metal, an alloy of tin and lead, but by 1677, spoons were required to be cast of "good ffyne plate metal," an alloy of tin and copper rather than lead. Spoons could be decorated either by relief casting, in which the

design was an inherent part of the mould, or by wriggle work, engraving or pouncing which was applied to the spoon after casting.

EVOLUTION OF SPOON STYLES

The hexagonal stems of early pewter spoons were finished with a decorative feature known as a knob (Figure 1). These knobs can be used to roughly date the period of manufacture of an early spoon. The earliest knobs, dating to the fifteenth century and remaining in fashion until the early seventeenth century, represented acorns, diamond points, lozenge points, images of the Blessed Mary (known as "Maidenheads" and commonly given as gifts at christenings (Hughes 1953:1728)), heads of women wearing horned head-dresses, and figures representing the Apostles. The Apostles set consisted of thirteen spoons, one for each Apostle and a master spoon representing Christ. These thirteen spoons were made in silver and latten as well as pewter (Michaelis 1971:58).

During the late fifteenth or early sixteenth century a cheaper, simpler spoon was developed which did not bear an ornamental knob. Instead, the end of the stem was cut off at an angle towards the front. This technique was called "slipping" after the horticultural practice of cutting a plant for grafting (Snodin 1982:25). The resulting style became known as "slipped tops" or "slipped in the stalks" (Figure 2A). The earliest reference to this style of spoon comes from the will of Thomas Rotherham, Archbishop of York, dated 1498 in which a dozen "slipped in lez stalkes" silver spoons are mentioned (Homer 1975:39).

Slipped top spoons remained popular from a short time before 1500 until the 1680s. Early slip tops have hexagonal stems which are

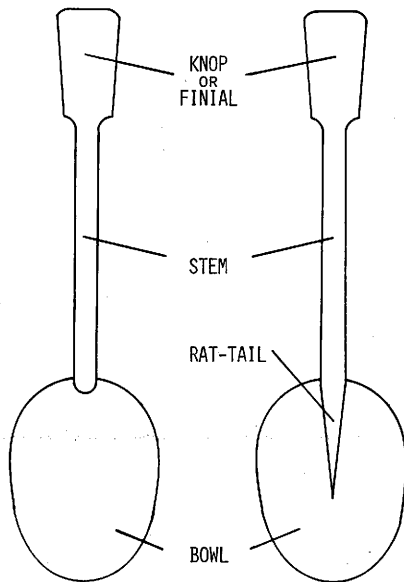


Figure 1. Parts of a spoon.

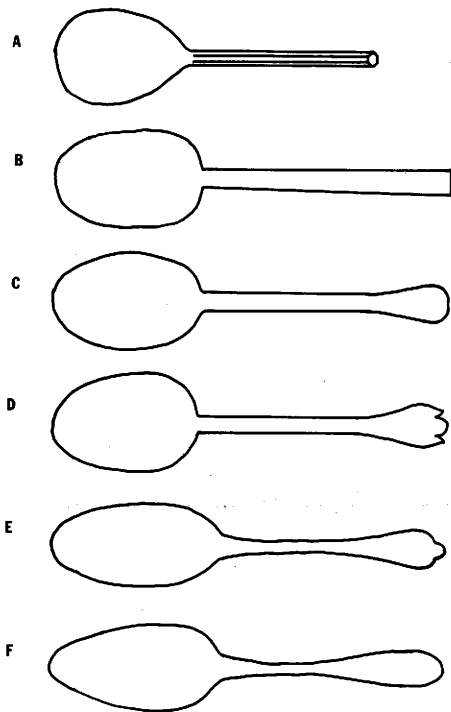


Figure 2. Spoon types: A. Slip Top, B. Puritan, C. Early Round End, D. Trifid End, E. Wavy End, F. Round End.

thicker than they are wide in cross section. However, towards the end of the sixteenth century or the beginning of the seventeenth, the stems became flatter and broader. The base of the stem extended into a short tongue, called a rat-tail, which helped to support the weight of the bowl (Homer 1975:39).

Another spoon popular in the sixteenth and seventeenth century was known as the "seal top." Seal top spoons had a fig-shaped bowl and slender stem which was usually hexagonal in cross section but by the late sixteenth century was rounded off (Snodin 1982:26). The stem terminated in a finial based on architectural columns or capitals with a flat disc on top. Snodin suggests that the various forms of seal tops on spoons can be used to roughly date the spoon.

The earliest hall-marked examples, dating from about 1525 (the earliest recorded) to the 1540's, are formed as short Perpendicular Gothic capitals; a number of lobes or gadroons spring from a collar to support a flat hexagonal top. From the mid-sixteenth century until almost the end of the century the chief type, often rather light in construction, consisted of a Renaissance capital (Snodin 1983:26).

Homer (1975:38) illustrates seven typical knops found on seal top spoons in latten, silver and pewter. Price (1908:36) comments that the flat disc on silver spoons was often engraved with the owner's initials although this was rare in pewter.

In the early seventeenth century a new style of spoon was introduced from France or possibly Scotland (Figure 2B). This spoon, which became known as the "puritan" because of its simplicity, had an egg-shaped bowl which was broader at the top than at the lower end and very shallow (Michaelis 1971:59). The stem was hammered flat so that it was no longer hexagonal in cross section but four sided. The end

of the stem did not terminate in a decorative knob but finished quite square. The junction between the stem and the back of the bowl was strengthened by a short V-shaped rat-tail. Another type of puritan, characterized by two or three slight nicks at the end of the stem, was probably also originally imported from France (Snodin 1982:28).

A variant of the puritan, later called an "early round end" (Figure 2C), was in fashion in the 1660s. These spoons had the same egg-shaped bowl and four sided, flat stem but the end of the stem was hammered flat with a rounded top rather than cut square like the puritan. The back of the bowl was strengthened by a short V-shaped rat-tail. Price (1908:47) mentions several early round ends which had four or five marks on the back of their stems and a maker's mark dated 1668 in the bowl.

From the simple puritan style developed the "split end" spoon (Figure 2D), also known as the "trifid" or "pied de biche." The top of the stem was hammered into a flat, circular disc in which two deep notches were cut. With continued hammering, these notches widened into V's (Michaelis 1971:59). Silver trifid end spoons first appear in the sales records in 1663 under the name 'French Spoons' and 'New Fashion Spoons' (Homer 1975:43). The style remained in fashion for a relatively short period, being produced until around the turn of the century.

Trifid end spoons were made in a number of variant forms, from the simple hammered examples described above to elaborate cast spoons. The stems of the cast spoons were often decorated with floral sprays, foliage, vase-and-heart designs or portraits of the reigning British

monarchs which were cast in relief on the front of the stem. Rat-tails were long and elaborate, sometimes also being encased in raised swirls of floral designs or geometric patterns.

Relief casting was not practiced in England before the reign of William III (1689-1702) although the practice was known on the Continent, particularly in Holland and France (Michaelis 1950:172). Port (1912:237) mentions a Dutch portrait spoon of William of Orange dated to ca. 1685. This spoon is of the trifid end type, being similar in all respects to the later trifid end spoons produced in Britain. In fact, Homer (1975:45) warns that during this period "pewter spoons of Dutch origin abound in almost identical styles to those made in England." The technique of relief casting is believed, therefore, to have been brought to England by foreign pewterers who accompanied William of Orange to England and were then absorbed into local communities (Michaelis 1958:44).

Possibly the most interesting of the relief cast spoons were those bearing the portrait of the royal monarchs. The earliest royal portrait spoons were made to honor the reign of William of Orange and his wife Mary, daughter of the deposed King James II, who were crowned as the only reigning joint monarchs of England on April 11, 1689. They ruled from 1689 until 1694 when Mary died of smallpox. It is assumed that any spoons bearing the portraits of both William and Mary were made between 1689 and 1694.

Later royal portrait spoons bear the likenesses of William III (ca. 1694-1702) alone, Queen Anne (ca. 1702), George III (ca. 1761) and Queen Charlotte. The last royal portrait spoons were caricature

spoons of the aged George III as 'farmer George' (Homer 1975:45). Royal portrait spoons were unique to pewter workers as no examples have been found in silver or latten (Michaelis 1950:173).

In the early 1690s another form of spoon variously known as a "shield end," "wavy end" or "dog-nose" spoon (Figure 2E), was introduced in silver and quickly copied in pewter. Before 1700, the stem of the wavy end spoon remained quite flat as in contemporary trifid end spoons but the end of the stem terminated in a smoothly waved line, rather than sharply notched as were trifid ends. By 1700, the base of the stem and the bowl also underwent a slight change. The bottom of the stem remained flat while the upper section was rounded. The bowl of the wavy end was much deeper and narrower than the preceding trifid style. The rat-tail also became longer and narrower and can be either plain or doubled in form (Snodin 1982:36). Some wavy end spoons have the end pulled forward, almost forming a hook and suggesting the name "ladle end."

Wavy end spoons remained in use until the mid-1700s when they were gradually superseded by the patterns featuring a rounded end (Figure 2F). The rounded end could be quite simple or more elaborate like the Hanoverian pattern spoons. Hanoverians were characterized by stems which were rounded at the top and had a ridge running down the center with pronounced hollows on either side. When laid flat, the end of the stem was slightly turned upwards. The rat-tails on early Hanoverians were long and simple although after about 1730 the rat-tails were replaced by various types of drops (Snodin 1982:38).

The above evolution of spoon types is primarily valid for spoons

produced in England. Many of the styles were made on the Continent some years before being introduced into England. For example, the puritan is believed to have been first made in France or Scotland, the trifid was introduced from France, whose spoonmakers had been influenced in turn by Italian trifid designs, and the wavy end spoon is known to have been made in Paris at least 20 years before British spoonmakers produced the style in 1700 (Emery 1976:84-85). On the other hand, the hexagonal stem which is not seen on British spoons after the mid-seventeenth century can be found on Dutch spoons until the late 1600s (Bernt 1970:Figures 1045, 1076). Unfortunately, literature concerning Continental pewter spoon styles is scarce. Therefore, information must be deduced from sources such as John Emery's European Spoons Before 1700 which deals primarily with silver spoons.

When identifying spoons it is important to keep in mind the similarity of styles produced contemporaneously in different countries. Without a maker's mark or other distinguishing feature, much caution must be used when identifying the nationality of a particular spoon. Dates are simpler to ascertain because of the rapid spread of new styles. The following identification key is based primarily on British spoons; however, the earliest date for a given style, whether of Continental or British origin, will be noted.

IDENTIFICATION

Identification Key

During the seventeenth and eighteenth centuries, spoon styles changed rapidly. For this reason, pewter spoons are particularly well suited for use in dating archaeological sites of that period. Changes are evident in five major areas of the spoon: the stem cross section, the bowl shape, the rat-tail, the finial and the touchmark. Because these changes are roughly correlated, it is not necessary to have a complete spoon for identification purposes.

Touchmarks, small maker's marks punched into the inside of the bowl or on the back of the stem, are the most reliable key to dating a pewter spoon. The Pewterers' Guild required each pewterer to use a unique touchmark on all of his or her work so as to be able to trace the product of the pewterer if it did not comply with the Guild's regulations. Thus, if the spoon exhibited poor workmanship, the alloy was not up to standard, or the pewter was not properly marked, the offending pewterer could be brought before the Guild Court or fined (Verster 1958:46).

Quality marks, small marks sometimes used in conjunction with a touchmark, can also be used to roughly date a spoon. Usually the quality mark will be a crowned "X" denoting fine quality "Hard Metal." In Britain, the "X" was used on pewter after 1690 (Jackson 1970:18) and continued as an indication of high quality until the nineteenth century. Pewterers in Germany and the American colonies also used the "X" to signify best quality pewter (Stara 1977:17-30). By the late seventeenth century the word "London," usually in conjunction with the

"X", was also stamped onto pewter. Although originally intended to certify that the pewter was from London, the practice soon spread to the provinces as well as to other countries by pewterers who wished to indicate that their pewter was as well made as that coming from London.

Many books concerning the identity of touchmarks and quality marks have been published since these marks are the most readily identifiable feature of pewterware. For identifying British touchmarks, H.H. Cotterell's Old Pewter: Its Makers and Marks (1963) and C.A. Peal's More Pewter Marks (1976) and Addenda to More Pewter Marks (1977) are invaluable. E. Hintze's Die Deutschen Zinngiesser Und Ihre Marken (1921) covers the Germanic nations while D. Stara's Pewter Marks of the World (1977) gives a selection of marks found worldwide. Because there is so much information published concerning touchmarks, only the most general guide concerning placement, shape and design will be given here.

Touchmarks used on spoons were originally punched into the bowl and were oriented such that they must be read with the spoon bowl facing away from the reader. About 1660 some pewterers began making two to three marks on the back of the stem and by 1680 spoonmakers had ceased putting marks in the bowl at all, shifting them to the back of the stem instead (Price 1908:43). Snodin (1976:29) suggests that the shift from the bowl to the stem may have occurred because of the development of the fancy rat-tail. Punching a touchmark on the interior of the bowl might harm the rat-tail on the back.

Touchmarks on Continental spoons are as varied as those on

British wares. However, there are several general rules that distinguish the two. The Rose and Crown is seen frequently on both British and Continental pewter but if the rose is filled with lines and the crown contains initials, the spoon is invariably of Continental origin (Peal 1971:4). Continental spoons can be identified if the maker's mark is repeated three times (Peal 1971:4) or if the mark is in relief, indicating that it was cut into the mould (Verster 1958:50).

If the spoon being identified does not have a touchmark (as many of them do not), the next step is to examine the stem. The finial of the spoon stem as well as the cross section near the bowl end exhibit characteristics useful for dating purposes.

The finial of a seventeenth or eighteenth century spoon will probably be one of the following types: a slip top, puritan, early round end, trifold end, wavy end or round end (Figure 3). Slip tops were produced from the end of the sixteenth century until about 1650 in Britain. The puritan was introduced from Scotland or France about 1630 and was popular until 1685. A variant of the puritan, known as an early round end, was made between 1660 and the early 1670s. Trifold ends came into fashion about 1663 and were made until about 1700 when they were gradually replaced by the wavy end. The wavy end spoon was popular for a relatively short time, being made from 1680 (in France) until around 1730. The later round ends became fashionable in the early 1700s and continued in some form until the modern era.

The cross section of the stem near the bowl can also be used to roughly date a spoon (Figure 3). A hexagonal stem is indicative of a

British spoon made before 1650 or a spoon of Continental origin. The Dutch were making pewter spoons with extremely round bowls and hexagonal stems until at least the mid-eighteenth century (Cowan et al. 1975:293). The flat, four sided stem was introduced with the puritan style about 1630 and was used on trifid ends and wavy ends produced before 1700. A spoon stem which is flat on the bottom and rounded across the top is indicative of a wavy end (post 1700) or round end spoon.

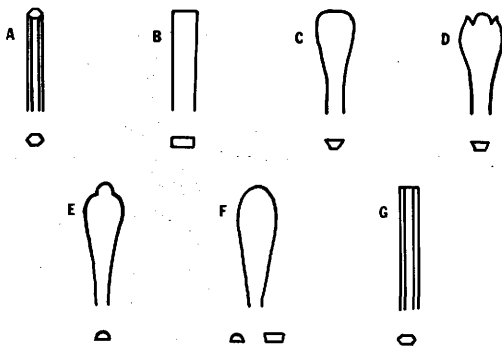


Figure 3. Spoon finials and stem cross sections: A. Slip Top, B. Puritan, C. Early Round End, D. Trifid, E. Wavy End, F. Round End, G. Continental.

The shape of the spoon bowl can be used with some degree of certainty to ascertain the type and date of a spoon (Figure 4). A fig shaped bowl was standard until the development of the puritan in about 1630. With the introduction of the puritan, the bowl changed into an egg shape, with the shoulders being broader than the tip. The bowls of trifold ends remain basically egg-shaped, but the tip is slightly broader than the puritans. A major evolution in bowl styles occurred with the wavy end spoons around 1690. The bowl is drawn out, becoming long and very narrow. This long, narrow style was retained with the development of the round end spoon but was gradually replaced by a wider bowl about 1730. A very round spoon bowl is indicative of a Continental, usually Dutch, style.

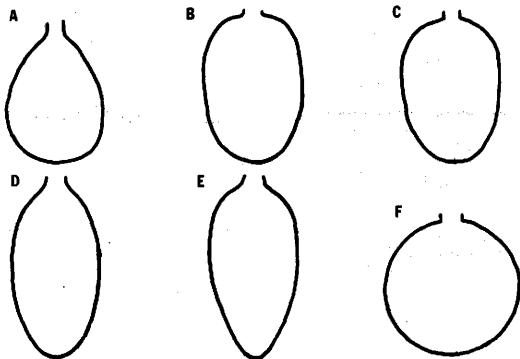


Figure 4. Spoon bowls: A. Slip Top, B. Puritan/Early Round End, C. Trifold, D. Wavy End, E. Round End, F. Continental (Dutch).

The rat-tail on the back of the spoon bowl can also be used for determining a general date (Figure 5). The earliest form of rat-tail was a short tongue on the backs of slip top spoons. This tongue first appeared in the beginning of the seventeenth century. Puritan and early round end spoons also exhibit a very short V-shaped rat-tail. Longer, plain rat-tails first appeared with the introduction of the trifold end in 1663. By 1670 the rat-tail was accentuated by hollows on either side. In the late seventeenth century trifold ends and early wavy ends exhibit elaborate cast designs, called lace backs, around the rat-tail. These elaborate designs may be connected with the Continental fashion of laying spoons with their bowls down when setting the table (Snodin 1982:31). After about 1700 the rat-tails were very long and were sometimes combined with a drop. After 1730 the rat-tail was gradually replaced by various types of drops.

Because of the rapid evolution of spoon styles in the seventeenth and early eighteenth centuries, spoons are ideal for dating archaeological sites. Due to the close correlation of stem and bowl changes, the complete spoon is not necessary to identify the type or approximate date of manufacture. Some caution must be exercised, however, when using the following identification key (Figure 6). The dates given here are based on when a style was most popular. An old style did not simply disappear when a new type was introduced. In Port Royal, for example, the excavation of a septic tank for the University Marine Lab in 1971 revealed several pewter spoon fragments and a piece of white saltglaze ceramic. The spoons were a mixture of wavy ends, lace back trifolds and round ends, all dating to

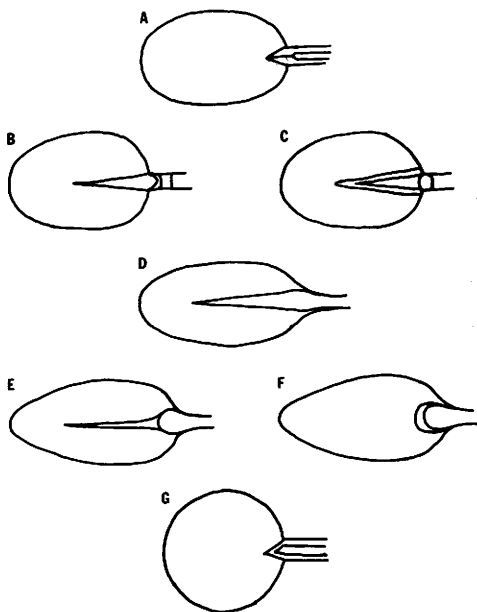


Figure 5. Rat-tails: A. Early Round End 1660-1690, B. Trifid End 1663-1690, C. Trifid End 1670-1700, D. Wavy End 1700-1730, E. Round End 1710-1730, F. Round End post-1730, G. Continental seventeenth century.

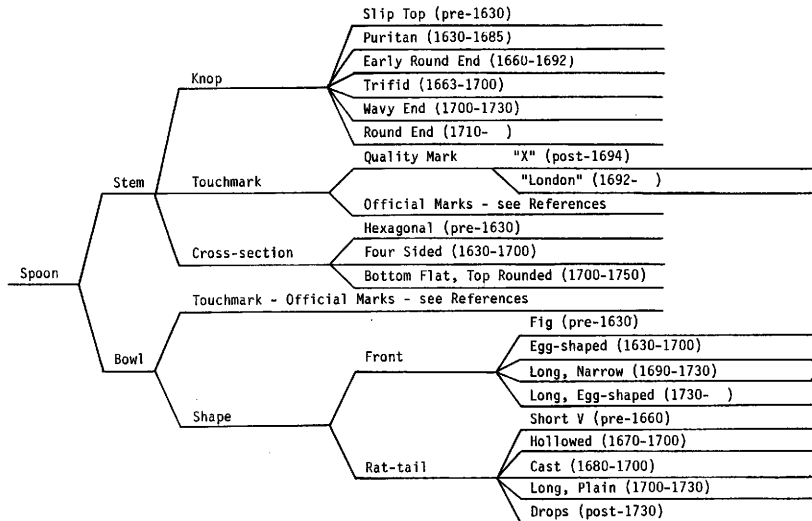


Figure 6. Identification key.

approximately 1700-1730. The saltglaze ceramic fragment, however, can be reliably dated to 1757-1763 due to the presence of the legend "King of Prussia" which was used only on commemorative plates of the period (Noel-Hume 1980:116-117). Thus, pewter spoons 30 to 50 years out of date were still in use in Port Royal. Used with the proper caution, however, an identification key can be an invaluable asset.

Analysis of Pewter Spoons from Port Royal

During the summer of 1983, the collection of pewter spoons and spoon fragments recovered from Marx's excavations in 1966-1968 and the Texas A&M/INA excavations in 1982-1983 was photographed and measured. The spoon fragments from the 1984 and 1985 excavations are not included in this analysis. A total of 103 spoons and spoon fragments were examined, the majority of them coming from the Marx excavations. Several of the spoons illustrated in Marx's Silver and Pewter Items Recovered From the Sunken City of Port Royal: May 1, 1966 - March 31, 1968 were not available for this study. These spoons include trifold ends, Figures 14, 17, 27, 26 and Continental styles, Figures 32 and PR 1/60. These spoons are referred to in the text of this thesis and are included in the spoon style percentages given below, but are not included in the catalog.

The spoons were measured at eight points: the length, width and depth of the bowl, the length of the stem, the width and thickness of the stem at the bowl end, the thickness at the finial end, and the length of the rat-tail (Figure 7). While the measurements have been helpful for general comparative purposes, more useful information has

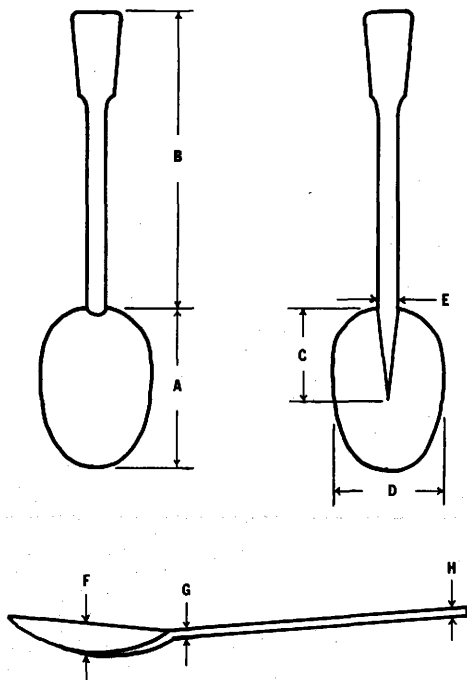


Figure 7. Measurement points: A. Length of bowl, B. Length of stem, C. Length of rat-tail, D. Width of bowl, E. Width of stem at base, F. Depth of bowl, G. Thickness of stem at base, H. Thickness at top.

been gained from noting the cross section of the stem, the shape of the bowl, the way in which the stem terminates and the type of rat-tail.

After documentation, the spoons were compared with spoons in existing collections to determine a probable date and style. Books which have been particularly useful for comparative purposes include Price, Old Base Metal Spoons, with Illustrations and Marks (1908), Homer, Five Centuries of Base Metal Spoons (1975), Snodin, English Silver Spoons (1982) and Emery, European Spoons Before 1700 (1976). Although the latter two books are primarily concerned with silver spoons, pewter styles are known to have closely followed those of silver. Since silver styles are better documented than their base metal cousins, references concerning silver spoons are useful for comparative purposes.

Trifid ends were the most common type of pewter spoon found at Port Royal, comprising 32.47% of the total. Other varieties found were early round ends (16.88%), wavy ends (12.99%), round ends (15.58%) and other types characteristic of Continental spoons (22.08%). Percentages were calculated by using the minimum number of spoons represented within a type. Eleven stem fragments, numbers PR 378/3, PR 378/2, PR 435/2, PR 451/5, PR 288/2, PR 435/3, PR 288/5, PR 288/1, PR 378/1, PR 279/1 and PR 314/1 were not identified because of their corroded or fragmentary state. These fragments were not included in the percentage calculation.

Trifid Ends. At least eleven varieties of trifid ends are distinguishable among the 34 spoons and spoon fragments of this type,

ranging from simple undecorated spoons to the elaborate cast spoons of the late seventeenth century. All of the trifold ends are characterized by their egg-shaped bowls, four sided stems, distinct rat-tail and cleft stems.

The most prevalent design is that of the William and Mary portrait spoons. Subtle distinctions in the trifold end and the placement of certain features in the cast design indicate that at least four different moulds were used to cast the seven spoons recovered. For example, spoon PR 82 103-5 and stem PR 82 103-16 may have been cast in the same mould. The lobes of the trifold end are similar and the size, placement and shape of two touchmarks stamped on the back of the stem are much the same. By contrast, spoon PR 82 101-10 does not have the lobes normally seen on a trifold end but is rounded with a 'knob' at the top. The spoon has no touchmarks.

Spoon stem PR 308/1, another William and Mary portrait spoon, is notable for the cast initials "TW" found on the lower back. Several pewter spoons in British collections also have the "TW" cast onto the back of the stem (Michaelis 1950:172). Initials carved into the mould may have been those of the mould engraver (see "Casting" above).

All of the William and Mary portrait spoons mentioned above have the same basic design, the busts of William and Mary facing each other, a crown centered above their portraits and the initials "WM" below. Trailing down the front of the stem below the portraits is a floral design. Slight variations can be found, such as the placement of initials below the crown rather than below the portraits. The rat-tail is well defined but plain.

Two William and Mary spoons exhibit an entirely different design. These spoons, R. Mx D. 18 and Marx (1971) Figure 26, have the profile of a single person enclosed in concentric circles, decorated with a wriggle work pattern in relief. Wriggle work enclosed by two lines continues down the front of the spoon. This wriggle work design is unusual in that it was applied to the mould rather than punched into the spoon after casting. The rat-tail is encased by a lyre design, with circles and diamonds. The stem of R. Mx D. 18 is flat on the bottom and rounded across the top in contrast to the four sided stems of the spoons mentioned above. Marx's Figure 26 was missing at the time of this study and the information pertaining to it is from a sketch reproduced in his book Silver and Pewter Items Recovered from the Sunken City of Port Royal (1971).

These spoons were probably made in the American colonies. Two bronze spoon moulds with the same design are illustrated in American Pewter in the Museum of Fine Arts, Boston (1974:96, Figure 337) and L.I. Laughlin's Pewter in America (1971:Plate LXXIX, 688). The mould illustrated in Laughlin's book bears the portrait of King William III while an almost identical mould, belonging to the same collector, is engraved with the portrait of Queen Mary. The moulds probably belonged to a Massachusetts pewterer around 1690-1705.

Another popular design cast in relief was that of a heart surrounded by a floral design (Cotterell 1963:Plate LXVII, Figure 23 and Figure 19; 1971:31, Figure 166). This decoration can be seen on three of the Port Royal trifid end spoons; R. Mx D. 19, R. Mx D. 33 and PR 451/3. Both R. Mx D. 19 and R. Mx D. 33 have a diamond shaped

touchmark in the bowl. While the touchmark on R. Mx D. 19 is indistinct, the touch on R. Mx D. 33 appears to be that of Christopher Thorne, a London pewterer who struck his touch in 1675 (Jackson 1970:99).

Two other spoons have interesting examples of relief casting on them. The first is a complete spoon illustrated in Marx (1971). A rearing lion is cast on the top of the stem under what appears to be a crown. The stem is four sided, with the top being broader than the bottom. The rat-tail is outlined in relief. The shape of the finial is similar to that of the American William and Mary portrait spoons, numbers R. Mx D. 18 and R. Mx D. 26. The second example of relief casting is on the back of spoon bowl PR 431/4. A medallion pattern is cast around the rat-tail. While lace back trifids (trifids with a floral pattern cast around the rat-tail) were relatively common during the late seventeenth and early eighteenth century, this medallion pattern is unusual and rare.

Touchmarks are not common on the trifid ends in the Port Royal collection. Of the 34 spoons, 23 of which are almost complete, only seven exhibit touchmarks. Unfortunately, only two of the touchmarks can be identified with any certainty. Two of the William and Mary portrait spoons, PR 82 103-16 and PR 82 103-5, have two rectangular marks stamped on the back of the stem in approximately the same position. Much of the original detail of the marks has been worn away. Another William and Mary portrait spoon, Marx (1971:Figure 14) has an illegible touchmark in the bowl. As mentioned above, spoon R. Mx D. 19 and R. Mx D. 33 have a diamond touchmark stamped in the bowl.

Trifid end PR 288/3 has a small diamond shaped mark with a four leaf clover (?) in the center on the back of the stem. Finally, Marx (1971) Figure 27 has the touchmark of Jaques Taudin, Sr. on the back of the stem near the top. Taudin was a London pewterer who struck his touch in 1657 and died in 1697 (Jackson 1970:98).

Owner's initials are also found on some trifid ends. Of the 18 spoons or spoon stems, seven are stamped or engraved with the owner's initials. The initials are neatly punched, usually on the back of the stem near the top. Spoon Marx (1971) Figure 17 is an exception to this. The letter "S" is engraved, rather than punched, on the front of the spoon and the letter "R" is engraved on the back. The triad "ICR" is found on the stem front of Marx (1971) Figure 27. When stamped in this manner, the initials were those of the couple to whom the spoon belonged. Thus "C" would be the first letter of the surname, while "I" and "R" would be the first letter of the husband and wife's Christian names. Other owner's initials which appear on trifid end spoons are: "ID" (PR 1/69), "ME" (PR 288/3), "EP" (PR 308/2), "IM" (Marx 1971:Figure 14), and "IP" (PR 308/1).

Early Round Ends. Early round end spoons were quite common in the Marx excavations although none have been recovered from the TAMU/INA excavations. Seven complete spoons, two stems and six bowls of this class were recovered. These spoons are characterized by their egg-shaped bowl, four sided stem and end of the stem which was hammered flat and rounded across the end. The stem extends onto the back of the bowl forming a short V-shaped rat-tail. One of the spoons, PR 286/2, has a V-shaped nick cut into the middle of the

rounded end. Five of the seven complete spoons have the owner's initials stamped on the back of the stem. None of the spoons or spoon bowls have a touchmark.

The spoon bowls were identified as early round ends by their distinct egg-shape and the extremely short rat-tail. The shoulders of all of the spoon bowls are flattened as in spoon PR 310/2. One bowl, PR 281/2, has a crude crosshatch design scratched into it.

Continental Spoons. Another interesting group of spoons has a circular touchmark bearing the initials "IL" to either side of an angel (?) device. This touchmark is found in the center of the bowl of five spoons: PR 312/1, PR 312/3, PR 312/4, PR 1/63, and PR 1/60. Another bowl, PR 285/5, probably also belongs to this class of spoon, although the area in which the touchmark should be is corroded away. All of the spoons have broad, round bowls, their stems are hexagonal in cross section and the rat-tails are outlined in relief, forming a double rat-tail. These features, along with the possible angel device in the touchmark suggest spoons of Dutch origin.

The pewterer I.L. made another style of spoon which was also found at Port Royal. The bowl is less rounded, being more egg-shaped in design. The stem is almost square in cross section, barely widening at the end. The front of the stem is decorated with a relief cast floral design. At least two spoons (PR 310/3 and Marx 1983:392-393) and three spoon stems (PR 308/3, PR 451/1, PR 288/4) of this type were recovered during the Marx excavations. Although the single complete spoon examined in this study does not bear a touchmark, a parallel spoon from Port Royal illustrated in Marx's

Shipwrecks in the Americas (1983) clearly depicts the "IL" touchmark in the center of the bowl.

Several other spoons have the characteristic rounded bowl and hexagonal stem of the Dutch spoons. Spoon C 13 II 8 has the crowned rose touchmark of Master IP, a pewterer from the Netherlands who worked during the late seventeenth century (Stara 1977:Figure 1278). Spoon PR 311/1 also has a touchmark in the bowl consisting of the letters "HP" in a rectangular stamp. This touch has not been identified. Marx (1971:Figure 32) illustrates one of two identical Dutch spoons with an unidentified touchmark in the bowl.

Another spoon of probable Continental origin is R. Mx D. 30. Although it has the typical rounded bowl and hexagonal stem of the Dutch spoons, the mark stamped in the bowl indicates that it may have been made in Germany. The mark, an "X" within a shield device, is similar to German touchmarks, particularly that of the township of Kirchheim unter Teck (Stara 1977:Figure 1245).

Wavy Ends. Eight wavy end spoons were recovered during the Marx excavations. All of the spoons and fragments have the long narrow bowls, half-round stem cross section and plain, broad rat-tails seen on post-1700 wavy ends. Two of the spoons, PR 286/1 and PR 1/73, have an "X" stamped on the back of the stem. This "X" was used as a quality mark after the year 1690. Stem PR 435/1 has the initials "DA" enclosed by a circle scratched into the back of the stem. On the front is the triad "D^MA." Stem PR 435/1 is also unusual since it retains the four sided stem of the trifid end. This spoon stem was recovered from a layer containing scatter from a French shipwreck

dating to 1722 (Marx 1968). The only other mark or decoration found on the wavy ends is a crude scratched design found on the back of spoon PR 1/75.

Round Ends. The final class of spoon found in Port Royal is the round end. These spoons retain the long, narrow bowl of the wavy ends and the half round stem, but the stem terminates in a smoothly rounded finial. The rat-tail is also substantially different than those found on the wavy ends. The long, thin rat-tail of the round end spoons extends from a drop or broad flat area that continues from the end of the stem (see PR 180, PR 282/1 or PR 432/2). Later round end spoons were made without rat-tails, the rat-tail being replaced by a drop. Examples of this development can also be found in the Port Royal collection (see PR 431/5 or 431/2).

Several variations of the round end spoon exist, from the simple rounded ends such as PR 180 to the double threaded pattern of PR 1/71 that was popular during the mid- to late eighteenth century. The most common style is the Hanoverian pattern characterized by a single rib running up the center front of the stem. Two of the Hanoverians (PR 282/1 and PR 432/2) have a dropped stem and rat-tail combination while another example, PR 431/5, has a double drop - foregoing the rat-tail completely.

Two interesting examples of later relief casting occur on the round end spoons. Stem PR 309/1 has an unusual cast design reminiscent of much later art nouveau designs. The back of the stem has a wriggle work pattern near the top of the stem. Dr. R.F. Homer (personal communication 1984) remarks that he has never seen a similar

spoon handle, but that on stylistic grounds it could not have been made before about 1710. Spoon bowl PR 431/2 has an ornate Rococo shell cast onto the back below the drop. According to Snodin (1982:41) the Rococo shell was used from about 1740 until 1780 on Hanoverian spoons.

Only two of the round end spoons have marks. Plain round end, PR 180, has a crowned "X" stamped on the back of the stem and possibly a row of letters below the "X." Unfortunately, these letters are illegible. A row of letters is also seen on the back of Hanoverian spoon PR 431/5. Only a few of the letters are legible, however the spoon appears to have been stamped "London," a common quality mark during the eighteenth century.

CONCLUSIONS

The final analysis of the Port Royal spoon collection must be undertaken on three levels: first, what the spoons can tell us about the archaeological site itself, second, how the spoons relate to the seventeenth century trade pattern and third, what the spoons indicate about the inhabitants of seventeenth century Port Royal.

According to Robert Marx (1971), all but three pewter items recovered during his work were found underneath fallen walls. During the TAMU/INA excavations, the fallen walls tended to preserve the cultural integrity of the rooms, thus artifacts recovered from beneath the walls dated to the period of the earthquake (Hamilton 1984:17). However, over 28% of the spoons examined in this study, all from Marx's excavations, appear to date to the eighteenth century. There are two possible explanations for this anomaly.

One possibility is that the eighteenth century spoons are intrusive. After the earthquake of 1692, the area in which the city sank became an anchorage for ships. Refuse from these ships was dumped overboard thus adding to the cultural debris. Another source of intrusive material may be ships which sank during the hurricanes of the eighteenth century. Marx (1968) encountered such scatter from a French shipwreck dating to 1722. In the nineteenth century, refuse from the Naval Hospital was rowed out and dumped over the site. These factors probably account for most of the later style spoons.

Another possibility is that some of the pewter spoon styles may have been introduced earlier than currently believed. For example,

the Hanoverian or ribbed stem round ends were made in England during the mid-eighteenth century. However, the same style of spoon is illustrated in a Dutch still life painted in the late seventeenth century by Pieter Gerritz van Roestraeten (Bernt 1970:Figure 969). Gerritz van Roestraeten passed away in 1698. Thus, some of the spoons attributed to the eighteenth century may, in fact, date to the late seventeenth century. Unfortunately, this question must remain unresolved since studies of Continental pewter spoons are extremely rare and the provenience of spoons recovered during Marx's excavations was not carefully recorded.

Over two-thirds of the seventeenth century spoons are typical English styles of the period. Many of these spoons may have been imported. The export of finished pewter products from England to the British colonies was jealously guarded by the Pewterers' Guild and the Lords of the Board of Trade. British colonists in the Americas and in the West Indies were allowed to purchase only British pewterware and the importation of unwrought pewter or tin was forbidden (Hatcher and Barker 1974:269). In addition, the Board of Trade granted members of the Pewterers' Guild the exclusive right to mix tin and other ingredients to form pewter alloy and laid an excise tax on unworked pewter but not on finished pewter products (Montgomery 1978:10). The success of these regulations and the popularity of pewter resulted in a tremendous export trade in pewterware. According to Charles F. Montgomery, author of A History of American Pewter, "Around 1720 the value of pewter imports from England began to exceed the combined totals of the value of silver objects, furniture, upholstery wares,

including bedding, curtains, carpets, hangings, and upholstered furniture" (1978:8). By 1760, over 300 tons of pewterware were shipped annually to America.

Because of the strict regulations against the importation of raw materials and unfinished pewterware, colonial pewterers were restricted to doing repair work and recasting old pewter (Montgomery 1978:10). The British were not the only suppliers of tin and lead however, and pewterers could have obtained raw materials from other sources. During the mid- to late seventeenth century, tin trading was a profitable source of income for the Dutch. In 1687, British pewterers tried to have the price of British tin lowered, arguing that if it weren't, the export trade of pewter would be taken over by the Dutch who procured their tin from the Indies (Hedges 1964:85).

At least two pewterers, John Luke and Simon Benning, worked in Port Royal prior to the earthquake (D.L. Hamilton, personal communication 1985). Only one spoon, Marx (1971) Figure 42, may be tentatively identified as that of Simon Benning. A round touchmark with the initials "SB" is stamped on the back of the spoon. Marx suggests that the touchmark belongs to Stephen Bridges, a London pewterer. However, Stephen Bridges was not given leave to strike his touch until 1696 (Jackson 1970:34). Thus, either the spoon is intrusive or the touchmark does not belong to Stephen Bridges. The touchmark believed to have been used by Simon Benning for plates and other large pieces is evident on a plate excavated in 1983 by TAMU/INA, a pineapple with the initials "SB" on either side. Unfortunately, the touchmark used by Benning for smaller flatware such

as this spoon is not presently known.

Although no single spoon can be definitely attributed to Simon Benning or John Luke, there are indications of a local pewterer. One such indication is the stamped initials which are found on many of the early round end and trifold end spoons. All of the letters are the same style and could have been made with the same punch set. Spoons were probably purchased from a local merchant and then taken to a pewterer to have the owner's initials stamped onto them. Or, if the spoons were locally made, the initials were stamped onto the spoon when it was purchased from the pewterer.

The early round end spoons may be one example of a locally produced spoon. Early round ends are abundant, comprising almost 17% of the total collection. All of these spoons are exactly alike except for alterations made after casting. Thus, while trifold ends may be the most common style of seventeenth century spoon, no single type of trifold end, e.g. William and Mary portrait spoons or plain trifolds, is as common as the early round end spoons in Port Royal. Early round ends also have the highest percentage of punched owner's initials. Five of the nine complete spoons or stems have the owner's initials stamped on the back of the stem. These initials, "D", "ME" (appears twice), "EW" and "T^GS", suggest that the spoons were not part of a set found within a single dwelling, but rather belonged to several different individuals. Finally, the early round end spoon was produced in England for a relatively short time, going out of style by about 1670. The abundance of this type of spoon within the 1692 excavation level and the rather crude workmanship involved suggest

that this type of spoon was made locally. Unfortunately, none of these spoons have a touchmark which would provide a clue to the spoonmaker's identity.

Interestingly, considering the restrictions on pewter trade mentioned above, almost one-third of the seventeenth century spoons are Continental in style. This fact speaks for the international character of Port Royal. As mentioned above, Port Royal merchants traded with the French and Dutch settlements in the West Indies. Mr. Lewis Galdy, who's miraculous survival of the 1692 earthquake is commemorated on his tombstone, was a French Huguenot who fled France after the Edict of Nantes was revoked by Louis XIV. Thus, to find European spoons in Port Royal would not be unusual.

Of the 17 Continental spoons recovered from the excavations, nine were made by the pewterer "IL". Again, we may have evidence of a local pewterer. The spoons made by "IL" are of two varieties, one with the typical hexagonal stem and round bowl of the Dutch spoons, and the other with a four sided, relief decorated stem and egg-shaped bowl. Only one of the three complete "IL" spoons has the owner's initials stamped on the stem. One of the spoon bowls also has the initials "VR" placed to either side of the touchmark in the center of the bowl.

During the seventeenth century, the letter "I" was read as either an "I" or our letter "J" (for example, both John Jones and Igor Issacs would use the initials "II" in their touchmarks). These "IL" spoons may, then, have been made by John Luke. Further archival research is necessary to trace the origins of John Luke. Perhaps he was a Dutch

pewterer who emigrated to Port Royal, taking his spoon moulds with him.

According to Marx (1971), many more pewter items were found within the area of his excavations than silver. This imbalance has proven true as well with the TAMU/INA excavations. Both sites were located along Lime Street, an area of fish and meat markets near the harbor front (Hamilton 1984). Marx (1971) concludes that the predominance of pewter probably indicates a middle class, rather than upper class, section of town.

Such a conclusion is difficult to assess since most of the buildings excavated appear to be shops or markets rather than residences; however, the shopkeeper's residence was commonly associated with the shop, often on an upper floor. The four William and Mary portrait spoons recovered during the 1982 TAMU/INA excavation were found in the southwest corner of the room which was probably a meat and/or leather processing shop (Hamilton 1984:21). It seems likely that a shop, market or tavern would utilize inexpensive pewter rather than silver much as all but the finest modern restaurants use stainless steel or plastic cutlery rather than silverware. The presence of pewter spoon, then, as opposed to silver, may be an unreliable indicator of economic class. In fact, Dr. Hamilton's research into property ownership and related matters indicates that the area of his excavation may well have been some of the prime property in the city of Port Royal at the time of the earthquake (personal communication, 1985).

When examining the Port Royal spoon collection as a whole, one

feature is strikingly evident. The style and decoration of the spoons which were in use in 1692, with the exception of the early round end spoons mentioned above, are what one would expect to find in Britain at the same time. The rapidity with which the spoon styles spread to Port Royal attests to the close relationship between Britain and her colonies.

A study of a single group of artifacts is like a piece to a larger puzzle. While the piece is necessary to the whole, only through combining the information presented here with similar studies of other artifacts, will the picture of seventeenth century Port Royal become clear.

CATALOG

The following catalog includes a description and, in some cases, a photograph of the spoon and spoon fragments which were examined in Port Royal. The only fragments not cataloged are the unidentified stems listed on page 46 of this thesis.

Each description is divided into at least six sections: the header, bowl and stem measurements, description and length of the rat-tail, identification of any marks present, a general description and any parallels found. The header includes the type of spoon, i.e. Early Round End, the approximate date of the spoon, the Port Royal accession number (occasionally followed by the figure number from Marx (1971)) and the figure number referring to the spoon photograph in the catalog. An accession number of the form PR 82 104-3 indicates a spoon recovered by TAMU/INA with the first two digits indicating the year of excavation. All other accession numbers are either from excavations conducted by either Robert Marx or the Government of Jamaica.

The dates of each spoon are approximate and are based on features such as rat-tail shape, bowl shape, finial etc. or, as with the William and Mary portrait spoons, on the style of decoration. The "Parallels" section notes similar spoons found in Port Royal or similar spoons from other collections.

Photographs of unusual spoons or spoons representative of a particular style are included. These photographs are not to scale so specific measurements should be taken from the catalog entry.

Early Round End	1660-1692	PR 310/2	Figure 8 A-B
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Bowl:

Depth: 13.85 mm
 Width: 44.60 mm
 Length: 67.35 mm

Stem:

Length: 106.50 mm
 Width a.b.: 8.55 mm
 Thickness a.b.: 4.80 mm
 Thickness a.t.: 2.30 mm

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Four sided stem, broader on top than bottom.

Parallels: See also PR 1/77, PR 286/2, R. Mx D. 31, PR 310/1, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uilyett (1973: facing 34).

Early Round End	1660-1692	PR 1/77 (Mx 25)	Figure 8 C-D
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Bowl:

Depth: 12.15 mm
 Width: 47.70 mm
 Length: 66.70 mm

Stem:

Length: 103.85 mm
 Width a.b.: 8.25 mm
 Thickness a.b.: 4.95 mm
 Thickness a.t.: 1.25 mm

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Stem four sided, broader on top than bottom. Initials "E W" stamped on back of stem.

Parallels: See also PR 310/1, PR 286/2, R. Mx D. 31, PR 310/2, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uilyett (1973: facing 34).

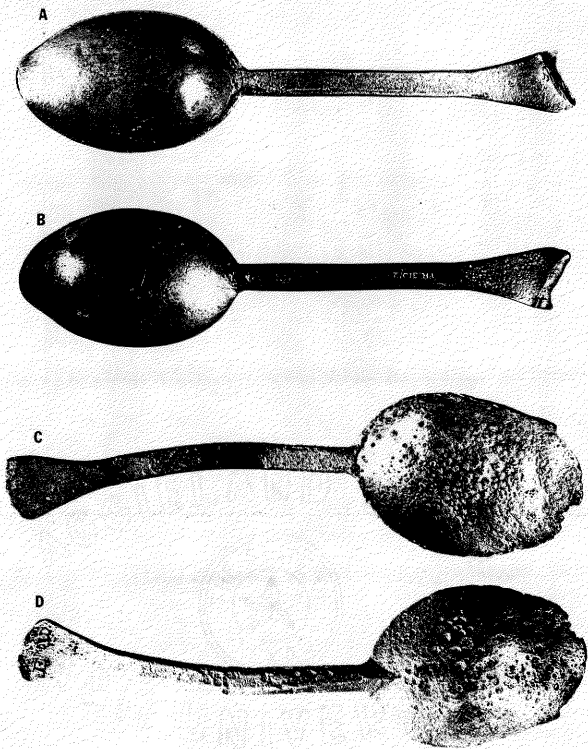


Figure 8. Early Round Ends. A-B. PR 310/2, C-D. PR 1/77.

Early Round End	1660-1692	PR 286/2	Figure 9 A-B
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Bowl:	Stem:	
Depth: 12.80 mm	Length: 105.55 mm	
Width: 46.05 mm	Width a.b.: 8.70 mm	
Length: 62.65 mm	Thickness a.b.: 5.50 mm	
	Thickness a.t.: 1.00 mm	

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Stem cleft at top. Four sided stem, broader on top than bottom. Initials "M E" stamped onto back of stem.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 310/2, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uliyett (1973: facing 34).

Early Round End	1660-1692	R. Mx D. 31	Figure 9 C-D
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Bowl:	Stem:	
Depth: 11.10 mm	Length: 109.25 mm	
Width: 45.05 mm	Width a.b.: 8.75 mm	
Length: 69.95 mm	Thickness a.b.: 4.30 mm	
	Thickness a.t.: 2.50 mm	

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Initials "TGS" stamped on back of stem. Stem four sided, top broader than bottom. Provenience: Square F4NW, 1968 Marx excavations.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 310/2, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uliyett (1973: facing 34).

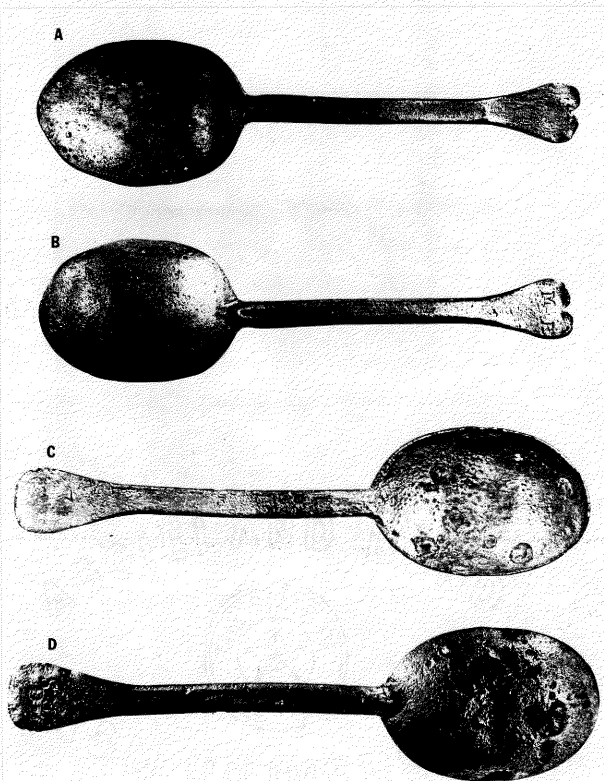


Figure 9. Early Round Ends. A-B. PR 286/2, C-D. R. Mx D. 31.

Early Round End	1660-1692	PR 310/1	Figure 10 A-B
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Bowl:		Stem:	
Depth: 11.00 mm		Length: 101.25 mm	
Width: 45.85 mm		Width a.b.: 8.95 mm	
Length: 65.50 mm		Thickness a.b.: 4.60 mm	
		Thickness a.t.: 2.50 mm	

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Stem four sided, broader on top than bottom. Part of letter stamped on back of stem near top. Possibly a "D" or "B".

Parallels: See also PR 310/2, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uilyett (1973: facing 34).

Early Round End	1660-1692	PR 1/51	Figure 10 C-D
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Bowl:		Stem:	
Depth: 11.00 mm		Length: 110.00 mm	
Width: 49.00 mm		Width a.b.: 9.00 mm	
Length: 66.00 mm		Width a.t.: 24.00 mm	

Rat-tail: None. "V" where stem joins bowl.

Description: No decoration. Stem four sided.

Parallels: See also PR 310/2, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28). Similar spoon illustrated in Uilyett (1973: facing 34).

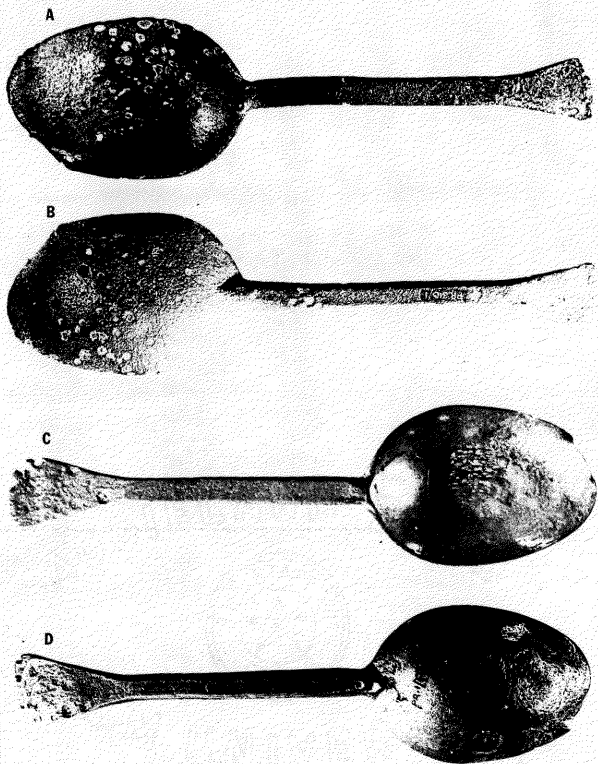


Figure 10. Early Round Ends. A-B. PR 310/1, C-D. PR 1/51.

Early Round End 1660-1692 PR 308/3 (Mx 39)

Stem:

Length: 111.05 mm
Width a.b.: 8.35 mm
Thickness a.b.: 4.85 mm
Thickness a.t.: 1.35 mm

Rat-tail: None.

Description: Spoon stem. No decoration. Initials "M E" stamped on the back of the stem. Stem four sided, wider at top than bottom.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28).

Early Round End 1660-1692 G 12 XII 7

Stem:

Length: 112.05 mm
Width a.b.: 9.00 mm
Thickness a.b.: 3.85 mm
Thickness a.t.: 1.10 mm

Rat-tail: None

Description: Spoon stem. Four sided, top broader than bottom. Final in poor condition. No marks or decoration.

Parallels: See PR 308/3.

Early Round End	1660-1692	PR 313/3	Figure 11 A-B
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Bowl:

Depth: 11.55 mm
 Width: 47.20 mm
 Length: 71.45 mm

Rat-tail: None.**Description:** Spoon bowl. Stem broken off at junction of stem and bowl. Shoulders of spoon slightly flattened.**Parallels:** See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28), PR 310/2, and bowls PR 434/1, PR 313/1, PR 281/2, PR 313/2, PR 281/1.

Early Round End	1660-1692	PR 313/2	Figure 11 C-D
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Bowl:

Depth: 10.80 mm
 Width: 45.15 mm
 Length: 70.65 mm

Rat-tail: None. "V" where stem joined bowl.**Description:** Spoon bowl. Tip corroded away. Shoulders flattened. No decoration.**Parallels:** See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28), PR 310/2, and bowls PR 434/1, PR 313/1, PR 313/3, PR 281/2, PR 281/1.



Figure 11. Early Round Ends. A-B. PR 313/3, C-D. PR 313/2.

Early Round End 1660-1692 PR 281/2

Bowl:

Depth: 13.30 mm
 Width: 44.00 mm
 Length: 72.60 mm

Rat-tail: None. "V" where stem joined bowl.

Description: Spoon bowl. Rough crosshatched design scratched into bowl.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28), PR 310/2, and bowls PR 434/1, PR 313/1, PR 313/3, PR 313/2, PR 281/1.

Early Round End 1660-1692 PR 281/1

Bowl:

Depth: N/A Flattened.
 Width: 49.40 mm
 Length: 74.60 mm

Rat-tail: None.

Description: Spoon bowl. Smashed. No marks or decoration.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28), PR 310/2, and bowls PR 434/1, PR 313/1, PR 313/3, PR 313/2, PR 281/2.

Early Round End 1660-1692 PR 431/5

Bowl:

Depth: 15.15 mm
Width: 42.35 mm
Length: 71.80 mm

Rat-tail: None. "V" where stem joins bowl.

Description: Spoon bowl. Egg-shaped, shoulders slightly flattened.

Parallels: See also PR 310/1, PR 1/77, R. Mx D. 31, PR 286/2, PR 308/3, Marx (1971:Figure 28), PR 310/2, and bowls PR 434/1, PR 313/1, PR 313/3, PR 313/2, PR 281/2.

Trifid End	1660-1692	PR 310/4 (Mx 50)	Figure 12 A-B
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Bowl:

Depth: 12.65 mm
 Width: 46.70 mm
 Length: 66.05 mm

Stem:

Length: 121.35 mm
 Width a.b.: 8.95 mm
 Thickness a.b.: 5.35 mm
 Thickness a.t.: 2.00 mm

Rat-tail: 33.65 mm long

Description: No decoration. Four sided stem. Trifid end appears to have been hammered flat and clipped rather than cast.

Parallels: N/A

Trifid End	1670-1692	R. Mx D. 51	Figure 12 C-D
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Bowl:

Depth: 10.60 mm
 Width: 41.05 mm
 Length: 62.08 mm

Stem:

Length: 124.15 mm
 Width a.b.: 7.85 mm
 Thickness a.t.: 2.75 mm
 Thickness a.b.: 4.40 mm

Rat-tail: 44.05 mm long

Description: Stem flat, four sided. No decoration evident. Wider on top than bottom.

Parallels: Similar to stem PR 398.

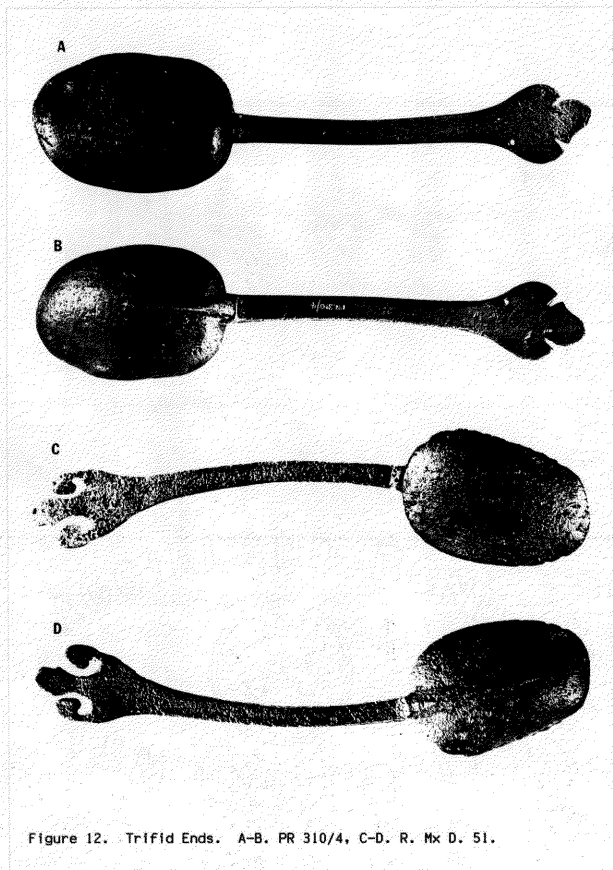


Figure 12. Trifid Ends. A-B. PR 310/4, C-D. R. Mx D. 51.

Trifid End	1670-1692	PR 398	Figure 13 A-B
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Stem:

Length: 119.85 mm
 Width a.b.: 8.45 mm
 Thickness a.b.: 3.90 mm
 Thickness a.t.: 2.05 mm

Description: Four sided spoon stem. Trifid end cast rather than cut.
 Top broader than bottom in cross section.

Parallels: Similar to R. Mx D. 51. See bowl PR 431/1 (Marx
 1971:Figure 57) and Homer (1975:43) for similar rat-tail.

Trifid End	1685-1692	PR 308/2 (Mx 37)	Figure 13 C
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Stem:

Length: 123.35 mm
 Width a.b.: 8.15 mm
 Thickness a.b.: 4.40 mm
 Thickness a.t.: 1.70 mm

Description: Flat, four sided stem, top wider than bottom. No
 decoration. Initials "E P" stamped on the back.

Parallels: Similar to 288/3 and PR 1/69. Shape of finial much like
 William and Mary trifid end PR 82 103-5.

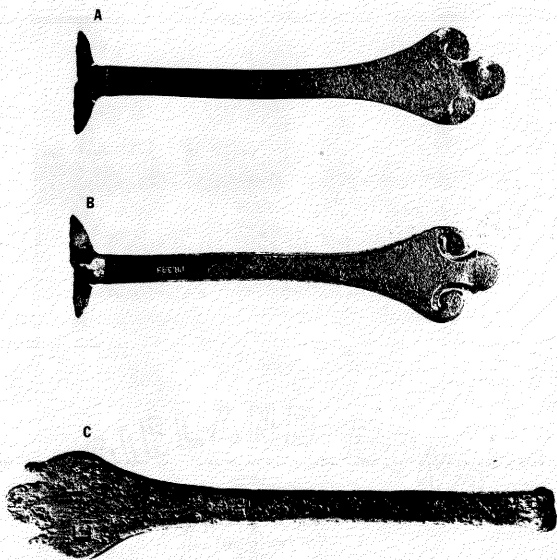


Figure 13. Trifold Ends. A-B. PR 398, C. PR 308/2.

 Trifid End 1685-1692 PR 288/3 (Mx 40)

Stem:

Length: 122.45 mm
 Width a.b.: 8.65 mm
 Thickness a.b.: 4.45 mm
 Thickness a.t.: 1.80 mm

Marks: Small diamond shaped touchmark with beaded outline located low on the back of the stem. Touchmark illegible.

Description: Flat, four sided stem, top wider than bottom. Initials "M E" stamped on the back of stem. No other decoration evident.

Parallels: Similar to PR 308/2 and PR 1/69. Shape of finial much like William and Mary portrait spoon PR 82 103-5.

 Trifid End 1685-1692 PR 1/69

Bowl:

Depth: 8.00 mm
 Width: 44.00 mm
 Length: 70.00 mm

Stem:

Length: 116.00 mm
 Width: 8.00 mm

Rat-tail: 41.00 mm long

Description: No decoration. Four sided stem. Initial "D" stamped on center back of stem.

Parallels: Similar to stems PR 288/3 and PR 308/2. Shape of finial much like William and Mary portrait spoon PR 82 103-5.

Trifid End 1689-1692 PR 82 103-5 Figure 14 A-B

Bowl:

Depth: 9.45 mm
 Width: 45.45 mm
 Length: 69.40 mm

Stem:

Length: 118.60 mm
 Width a.b.: 8.50 mm
 Thickness a.b.: 4.35 mm
 Thickness a.t.: 2.25 mm

Rat-tail: 37.40 mm long

Marks: Two faint touchmarks on back of stem near bowl. Illegible.

Description: William and Mary portrait spoon ca. 1689-1692. Relief cast portraits of King William III and Queen Mary with trailing floral design down front of stem. A crown is centered above the portraits with the initials "WM" below the portraits. Stem four sided, slightly wider on top than on bottom.

Parallels: Cotterell (1963:Plate LXVII, Figure 18), Homer (1975:45), Price (1908:Plate XIV, Figure 6), Michaelis (1950:172), Sutherland-Graeme (1947:106). See also PR 82 103-16.

Trifid End 1689-1692 PR 82 103-16

Stem:

Length: 118.35 mm
 Width a.b.: 8.45 mm
 Thickness a.b.: 4.40 mm
 Thickness a.t.: 2.00 mm

Description: William and Mary portrait spoon stem. Stem four sided, wider on top than on bottom. Possibly same maker as PR 82 103-4. Note similarity of size and placement of touchmarks, rat-tail and type of finial.

Parallels: Cotterell (1963:Plate LXVII, Figure 18), Homer (1975:45), Price (1908:Plate XIV, Figure 6), Michaelis (1950:172), Sutherland-Graeme (1947:106). See also PR 82 103-4.

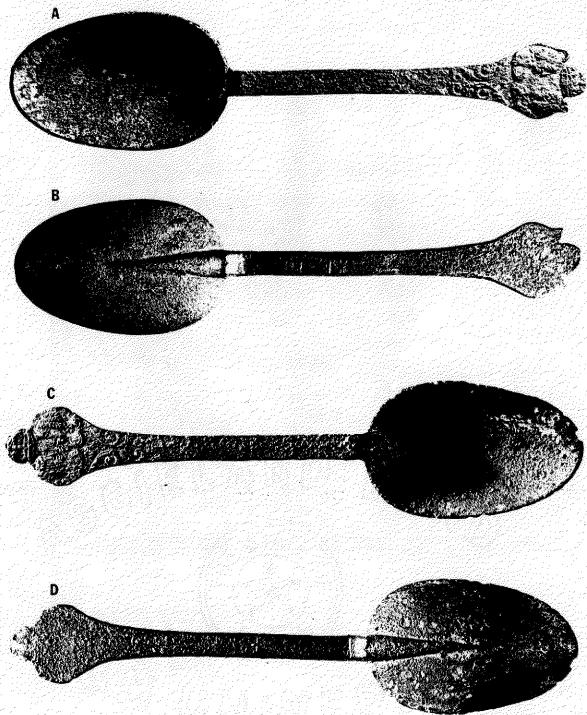


Figure 14. Trifid Ends. A-B. PR 82 103-5, C-D. PR 82 101-10.

Trifid End	1689-1692	PR 82 101-10	Figure 14 C-D
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Bowl:

Depth: N/A
 Width: 45.00 mm
 Length: 70.00 mm

Stem:

Length: 120.00 mm
 Width a.b.: 8.00 mm

Rat-tail: 40.0 mm long

Description: William and Mary portrait spoon. Stem four sided.

Parallels: Similar spoon without lobes illustrated in Homer (1975:45) dated ca. 1688. Spoon with initials below the portraits illustrated in de Navarro (n.d.:Plate XXIX, Figure 4) dated 1677. See also PR 82 184-15.

Trifid End	1689-1692	PR 82 184-15
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Stem:

Length: 120.00 mm
 Width a.b.: 8.00 mm

Description: William and Mary portrait spoon stem.

Parallels: Similar spoon without lobes illustrated in Homer (1975:45) dated ca. 1688. Spoon with initials below the portraits illustrated in de Navarro (n.d.:Plate XXIX, Figure 4) dated 1677. See also PR 82 101-10.

Trifid End 1689-1692 PR 308/1 Figure 15 A-B

Stem:

Length: 125.20 mm
 Width a.b.: 8.75 mm
 Thickness a.b.: 3.10 mm
 Thickness a.t.: 1.70 mm

Description: William and Mary portrait spoon stem. Flat, four sided stem. Initials "T W" cast low on back of stem. Owners initials "I T" stamped on back near top.

Parallels: Homer (1975:45). Initials "T W" in relief seen on at least three other William and Mary portrait spoons, two of which were cast by David Heyrick, a London pewterer, who struck his touchmark in 1676 (Michaelis 1950:172).

Trifid End 1689-1692 R. Mx D. 18 Figure 15 C-D

Bowl:

Depth: 13.30 mm
 Width: 42.85 mm
 Length: 62.80 mm

Stem:

Length: 120.00 mm
 Width a.b.: 6.85 mm
 Thickness a.b.: 6.90 mm
 Thickness a.t.: 3.85 mm

Rat-tail: 30.35 mm

Marks: Touchmark in bowl. Illegible.

Description: Mary portrait spoon. Portrait enclosed within a circle with zig-zag design borders. Letters "CxP" scratched onto the back of the stem. Stem is rounded across the top, flat on the bottom. Probably made in America.

Parallels: At least three spoon moulds of this type of portrait spoon found in U.S. collections. See Montgomery (1978:159), Boston Museum of Fine Arts (1974:96, Figure 337), Laughlin (1971:Plate LXXIX, Figure 688). See also Marx (1971:Figure 26).

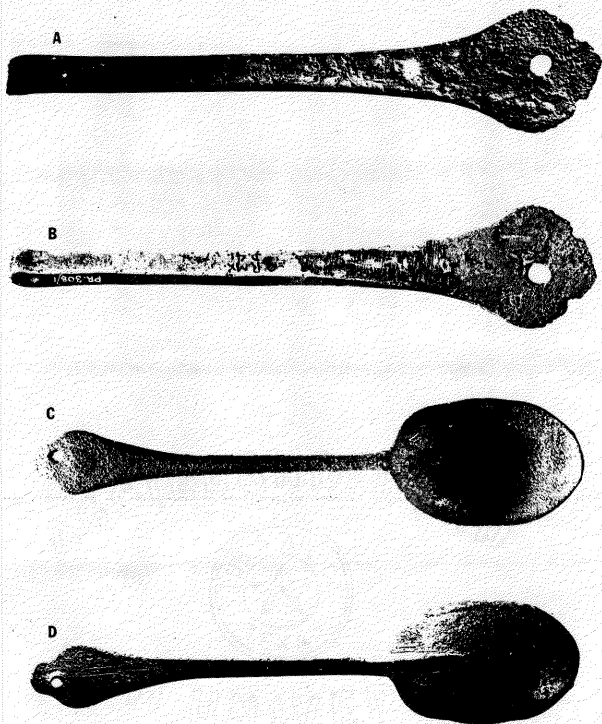


Figure 15. Trifid Ends. A-B. PR 308/1, C-D. R. Mx D. 18.

Trifid End 1675-1692 R. Mx. D. 33

Bowl:

Depth: 10.60 mm
 Width: 45.90 mm
 Length: N/A

Stem:

Length: 121.00 mm
 Width a.b.: 9.10 mm
 Thickness a.b.: 4.20 mm
 Thickness a.t.: 1.95 mm

Rat-tail: 36.65 mm long

Marks: Diamond shaped touchmark in bowl. Possibly that of Christopher Thorne, London 1675-1685 (Jackson 1970:99, Cotterell 1963:321, #4731A).

Description: Relief cast spoon bearing heart and floral design. Stem flat, four sided.

Parallels: Similar spoon found in Cotterell (1963:Plate LXVII, Figure 23). Design seen on small Chocolate spoon (Cotterell 1963:Plate LXVII, Figure 19) and on a spoon of Continental origin (Cotterell *et al.* 1972:31, Figure 166). See also PR 451/3 and R. Mx D. 19.

Trifid End 1675-1692 R. Mx D. 19 Figure 16 A-B

Bowl:

Depth: N/A Broken
 Width: 45.80 mm
 Length: N/A Broken

Stem:

Length: 118.20 mm
 Width a.b.: 8.10 mm
 Thickness a.b.: 4.35 mm
 Thickness a.t.: 2.15 mm

Rat-tail: 31.55 mm long

Marks: Possible touchmark in bowl. Illegible.

Description: Stem and partial bowl. Stem four sided. Relief cast heart, crown and floral pattern on front of stem. Rat-tail outlined in relief.

Parallels: Similar spoon found in Cotterell (1963:Plate LXVII, Figure 23). Design seen on small Chocolate spoon (Cotterell 1963:Plate LXVII, Figure 19) and on a spoon of Continental origin (Cotterell *et al.* 1972:31, Figure 166). See also PR 451/3 and R. Mx D. 33. Final slightly different than R. Mx D. 33. Trifid end of R. Mx D. 19 looks clipped out rather than cast.

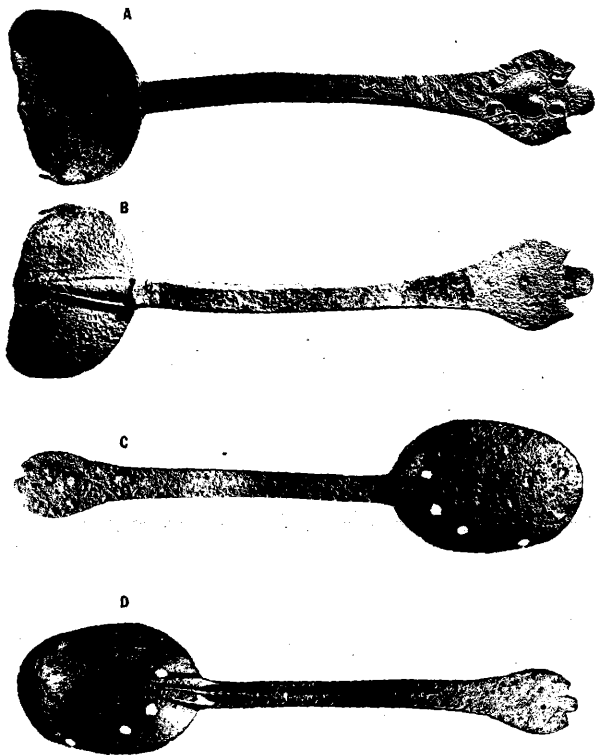


Figure 16. Trifold Ends. A-B. R. Mx D. 19, C-D. R. Mx D. 62.

 Trifid End 1675-1692 PR 451/3

Stem:

Length: 64.85 mm remaining
 Width a.b.: 8.70 mm
 Thickness a.b.: 3.25 mm
 Thickness a.t.: 1.80 mm

Description: Partial spoon stem bearing relief cast heart and floral design. Flat, four sided stem.

Parallels: Cotterell (1963:Plate LXVII, Figure 23). See also R. Mx D. 33 and R. Mx D. 19.

 Trifid End 1670-1692 R. Mx D. 62 Figure 16 C-D

Bowl:

Depth: 11.65 mm
 Width: 45.55 mm
 Length: 63.50 mm

Stem:

Length: 130.55 mm
 Width a.b.: 8.90 mm
 Thickness a.b.: 2.80 mm
 Thickness a.t.: 1.85 mm

Rat-tail: 25.90 mm long

Description: Very faint design in relief on front of spoon. Trifid end looks clipped out rather than cast. Stem four sided, broader on top than bottom. Unusual rat-tail. Center ridge extends into back of spoon stem.

Parallels: N/A

Trifid End	1680-1692	PR 431/4 (Mx 45)	Figure 17 A
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Bowl:

Depth: 10.05 mm
 Width: 40.90 mm
 Length: 56.40 mm

Rat-tail: 26.1 mm

Description: Spoon bowl with medallion design cast in relief around the rat-tail.

Parallels: N/A

Trifid End	1670-1692	No Number 2	Figure 17 B-C
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Bowl:

Depth: 10.60 mm
 Width: 47.55 mm
 Length: 65.05 mm

Stem:

Length: 25.65 mm remaining
 Width: 9.60 mm
 Thickness .b.: 4.70 mm

Rat-tail: 29.75 mm long

Description: Spoon bowl with partial stem. Bowl egg-shaped. Stem four sided. Rat-tail outlined in relief.

Parallels: N/A

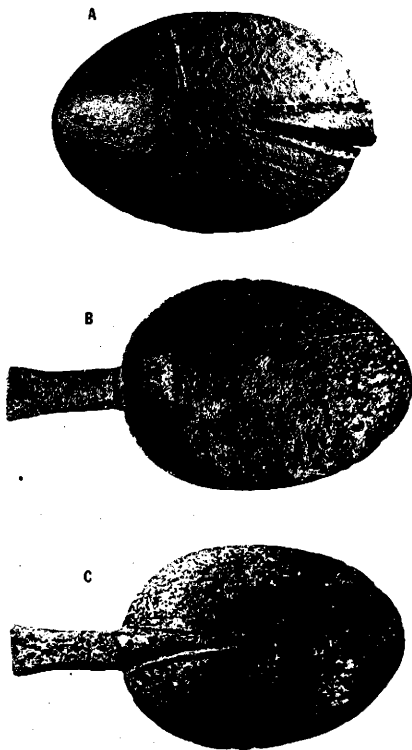


Figure 17. Trifid Ends. A. PR 431/4, B-C. No Number 2.

Trifid End 1664-1692 PR 82 104-3

Bowl:

Depth: N/A
Width: 43.00 mm
Length: 73.00 mm

Rat-tail: 41.00 mm long

Description: Encrusted spoon bowl. Plain rat-tail.

Parallels: N/A

Trifid End 1664-1692 PR 83 423-16

Bowl:

Depth: N/A
Width: 45.00 mm
Length: 70.00 mm

Stem:

Length: 65.00 mm remaining
Width: 10.00 mm

Rat-tail: N/A

Description: Encrusted spoon bowl and partial stem. No decoration evident. Plain, well defined rat-tail. Bowl egg-shaped.

Parallels: N/A

Trifid End	1664-1692	F 15 II 8
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Bowl:

Depth: 10.20 mm
Width: 44.30 mm
Length: N/A Broken

Rat-tail: 36.10 mm long

Description: Corroded spoon bowl with plain rat-tail. Probably
from trifid end spoon.

Parallels: N/A

Trifid End	1670-1692	PR 285/1
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Bowl:

Depth: 10.05 mm
Width: 47.25 mm
Length: 63.85 mm

Rat-tail: 33.15 mm long

Marks: Possibly shield shaped touchmark in bowl. Only outline
remains.

Description: Spoon bowl. Rat-tail thin, with hollow and ridge to each
side.

Parallels: Rat-tail and bowl shape similar to R. Mx D. 62.

Continental ca. 1692 PR 312/1 Figure 18 A-B

Bowl:

Depth: N/A Flattened.

Width: 50.45 mm

Length: 55.50 mm

Rat-tail: 16.60 mm long

Marks: Round touchmark in bowl. Beaded outline, initials "I L" with an angel (?) in center.

Description: Round bowl, stem broken off. Rat-tail outlined in relief.

Parallels: See also Marx (1971:PR 1/60), PR 312/3, PR 312/4, PR 1/63.

Continental ca. 1692 R. Mx D. 34

Bowl:

Depth: 12.40 mm

Width: 51.45 mm

Stem:

Length: 31.25 mm remaining

Width a.b.: 7.70 mm

Thickness a.b.: 7.55 mm

Rat-tail: 18.80 mm long

Marks: Touchmark in bowl. Initials "I L" with angel (?) between. Enclosed in a beaded circle.

Description: Spoon bowl and partial stem. Bowl round, stem hexagonal. Initials "V R" stamped in bowl underneath touchmark.

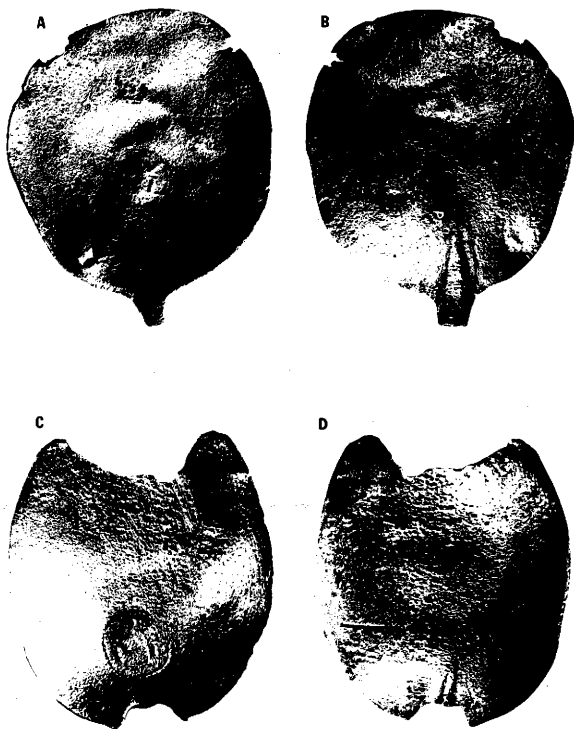


Figure 18. Continental. A-B. PR 312/1, C-D. PR 312/3.

Continental	ca. 1692	PR 312/4
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Bowl:

Depth: N/A Flattened.
 Width: 53.30 mm
 Length: 61.85 mm

Rat-tail: 11.85 mm long

Marks: Round touchmark in bowl. Beaded outline, initials "I L" with an angel (?) in center.

Description: Round bowl, stem broken off. Plain, short rat-tail.

Parallels: See PR 312/3, PR 312/1, PR 1/63, Marx (1971:PR 1/60).

Continental	ca. 1692	PR 312/3	Figure 18 C-D
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Bowl:

Depth: 10.95 mm
 Width: 46.65 mm
 Length: N/A Tip broken.

Rat-tail: 10.05 mm Originally longer. Stem broken out.

Marks: Round touchmark in bowl. Beaded outline, initials "I L" with an angel (?) in center.

Description: Round bowl. Stem broken off. Rat-tail outlined in relief.

Parallels: See PR 312/1, PR 312/4, PR 1/63, Marx (1971:PR 1/60).

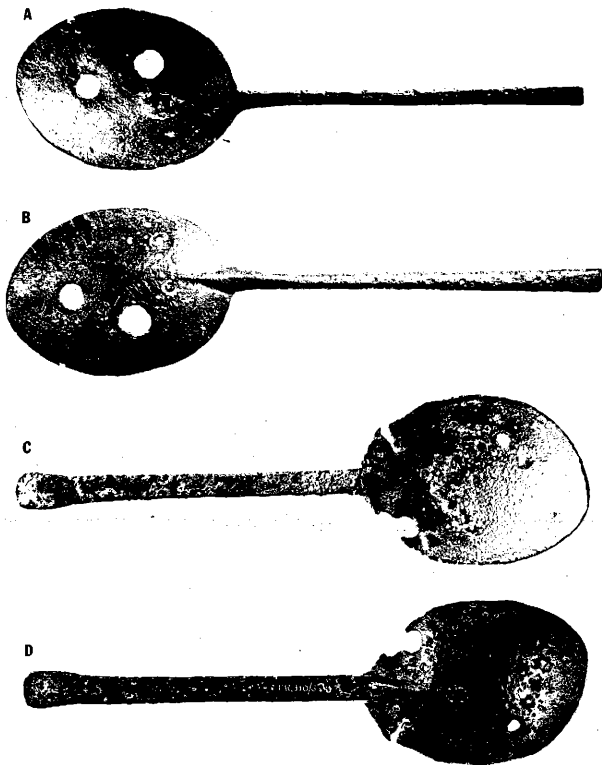


Figure 19. Continental. A-B. PR 1/63, C-D. PR 310/3.

Continental ca. 1692 PR 310/3 (Mx 21) Figure 19 C-D

Bowl:

Depth: 12.35 mm
 Width: 49.25 mm
 Length: 66.15 mm

Stem:

Length: 101.30 mm
 Width a.b.: 7.85 mm
 Thickness a.b.: 5.00 mm
 Thickness a.t.: 2.45 mm

Rat-tail: 18.05 mm long

Description: Egg-shaped bowl. Short, plain rat-tail. Stem four sided, almost square in cross section. Front of stem decorated with relief cast floral pattern.

Parallels: Similar spoon from Port Royal with "I L" touchmark illustrated in Marx (1983:392-393). See also spoon stems PR 451/1 and PR 308/3. Homer (personal communication, 1984) suggests that the spoon is of Dutch or French origin.

Continental ca. 1692 PR 451/1

Stem:

Length: 93.75 remaining
 Width a.b.: 7.70 mm
 Thickness a.b.: 4.95 mm
 Thickness a.t.: 2.25 mm

Description: Spoon stem. Four sided, flattened at top of stem. Floral design in relief on front of stem.

Parallels: PR 310/3, PR 309/3 and Marx (1983:392-393).

Continental ca. 1692 PR 309/3

Stem:

Length: 104.60 mm
Width a.b.: 6.50 mm
Thickness a.b.: 4.65 mm
Thickness a.t.: 3.10 mm

Description: Spoon stem. Four sided, flattened at top of stem.
Floral pattern in relief on front of stem.

Parallels: PR 310/3, Marx (1983:392-393), PR 451/1.

Continental ca. 1692 PR 288/4

Stem:

Length: 95.00 mm remaining
Width a.b.: 5.85 mm
Thickness a.b.: 3.80 mm

Description: Spoon stem. Four sided, bottom slightly broader than top.
No decoration or marks.

Parallels: Stem shape similar to PR 310/3, PR 451/1 and PR 309/3
although this stem does not have the relief decoration.

Continental ca. 1692 D 8 II 8

Bowl:

Depth: 11.35 mm
 Width: 48.10 mm
 Length: 64.30 mm

Rat-tail: 20.10 mm long

Description: Spoon bowl. Egg-shaped. Short, plain rat-tail.

Parallels: Bowl shape and rat-tail similar to PR 310/3. See also PR 285/3.

Continental ca. 1692 PR 285/3

Bowl:

Depth: 12.55 mm
 Width: 47.45 mm
 Length: 66.60 mm

Rat-tail: 16.10 mm long

Description: Spoon bowl. Egg-shaped. Short, plain rat-tail.

Parallels: Bowl shape and rat-tail similar to PR 310/3. See also D 8 II 8.

Continental ca. 1692 PR 312/2 (Mx 43)

Bowl:

Depth: 15.65 mm
 Width: 53.80 mm
 Length: 62.65 mm

Rat-tail: 20.80 mm long

Marks: Beaded circle with crown across top. Letters "K^I L^K" with possible shield between the letters "KK."

Description: Round spoon bowl. Short plain rat-tail

Parallels: N/A

Continental	ca. 1692	R. Mx D. 30	Figure 20 A-B
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Bowl:

Depth: 13.05 mm
 Width: 52.13 mm
 Length: 66.50 mm

Stem:

Length: 110.50 mm
 Width a.b.: 7.30 mm
 Thickness a.b.: 6.35 mm
 Thickness a.t.: 5.80 mm

Rat-tail: 5.80 mm long

Marks: "X" stamped in shield shaped touchmark.

Description: Rounded spoon bowl with flattened shoulders. Touchmark stamped in bowl. Handle and bowl separated. Handle numbered "F 9 II 8." Handle six sided, slipped front and back at top.

Parallels: Touchmark similar to German touchmarks (Stara 1977:Figure 1245).

Continental	1658-1692	G 12 I 8	Figure 21 A-B
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Bowl:

Depth: N/A Flattened
 Width: 48.00 mm
 Length: 67.75 mm

Stem:

Length: 43.20 mm remaining
 Width a.b.: 7.80 mm
 Thickness a.b.: 7.8 mm

Rat-tail: 30.00 mm long

Marks: Diamond shaped touchmark in bowl near stem. Has initials "R W" with fleur-de-lis or crown above. Similar to French touchmark illustrated in Boucaud (1948) although touchmark in Boucaud is enclosed in a beaded circle rather than a diamond.

Description: Spoon bowl and partial stem. Egg-shaped bowl, hexagonal stem. Rat-tail plain. No decoration.

Parallels: N/A

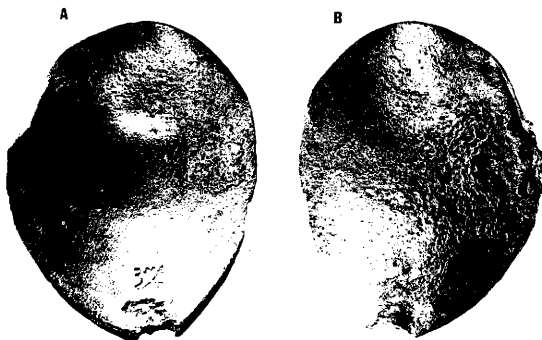


Figure 20. Continental. A-B. R. Mx D. 30.

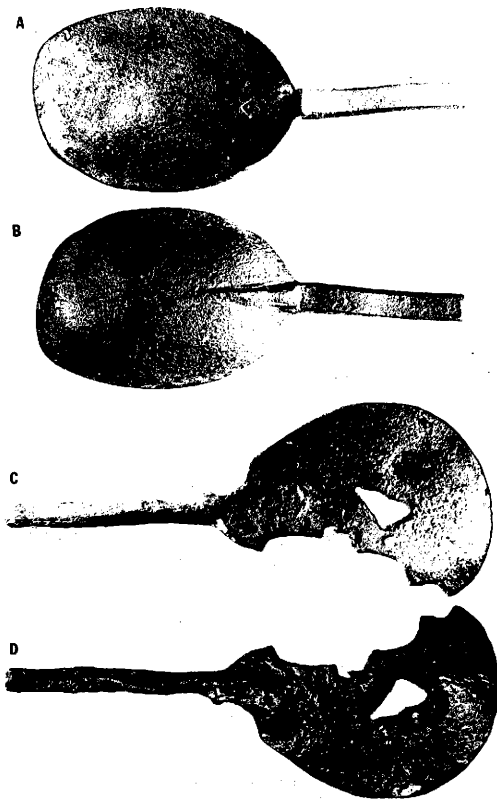


Figure 21. Continental. A-B. G 12 I 8, C-D. C 13 II 8.

Continental	ca. 1692	C 13 II 8	Figure 21 C-D
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Bowl:		Stem:	
Depth: 9.75 mm		Length: 53.15 mm remaining	
Width: N/A		Width a.b.: 6.00 mm	
Length: 65.35 mm		Thickness a.b.: 5.45 mm	

Rat-tail: 17.25 mm long

Marks: Crowned Rose touchmark in bowl. Probably that of Master IP of Netherlands. Dates to the end of the seventeenth century (Stara 1977:Figure 1278).

Description: Partial spoon bowl and stem. Bowl fig-shaped with partial hexagonal stem.

Parallels: Similar to Marx (1971:Figure 32).

Continental	ca. 1692	PR 311/1 (Mx 36)	Figure 22 A-B
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Bowl:		Stem:	
Depth: 12.05 mm		Length: 66.95 mm remaining	
Width: 54.80 mm		Width a.b.: 6.40 mm	
Length: 60.10 mm		Thickness a.b.: 6.10 mm	

Rat-tail: 14.55 mm long

Marks: Rectangular touchmark in bowl near stem. Initials "H".

Description: Fig shaped bowl. Hexagonal stem. No decoration.

Parallels: N/A

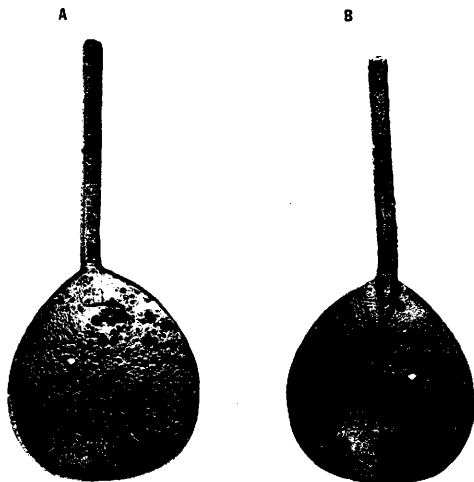


Figure 22. Continental. A-B. PR 311/1.

Continental ca. 1692 G 9 11 8

Stem:

Length: 116.85 mm
Width a.b.: 6.80 mm
Thickness a.b.: 5.70 mm
Thickness a.t.: 7.20 mm

Description: Hexagonal stem. Stump ended on top.

Parallels: Stem similar to R. Mx D. 30.

Continental ca. 1692 PR 309/4

Stem:

Length: 100.25 mm
Width a.b.: 6.70 mm
Thickness a.b.: 5.30 mm
Thickness a.t.: 3.70 mm

Description: Hexagonal stem.

Parallels: N/A

Wavy End	1700-1730	PR 286/1 (Mx 48)	Figure 23 A-B
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Bowl:

Depth: 11.90 mm
 Width: 38.30 mm
 Length: 70.20 mm

Stem:

Length: 121.45 mm
 Width a.b.: 5.15 mm
 Thickness a.b.: 5.70 mm
 Thickness a.t.: 1.55 mm

Rat-tail: 51.80 mm long

Marks: "X" stamped on back near top of stem.

Description: No decoration. Long, narrow bowl. Stem flat on bottom, rounded across the top.

Parallels: Cotterell (1963:Plate LXVII, Figure 25).

Wavy End	1700-1730	PR 423/3	Figure 23 C-D
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Bowl:

Depth: 11.75 mm
 Width: 40.05 mm
 Length: 76.00 mm

Stem:

Length: 125.90 mm
 Width a.b.: 6.35 mm
 Thickness a.b.: 5.55 mm
 Thickness a.t.: 1.35 mm

Rat-tail: 52.40 mm long

Description: Top of finial is corroded although part of the "ladle end" remains. Bowl is long, narrow. Stem flat on bottom and rounded across the top.

Parallels: Cotterell (1963:Plate LXVII, Figure 25). See also PR 286/1.

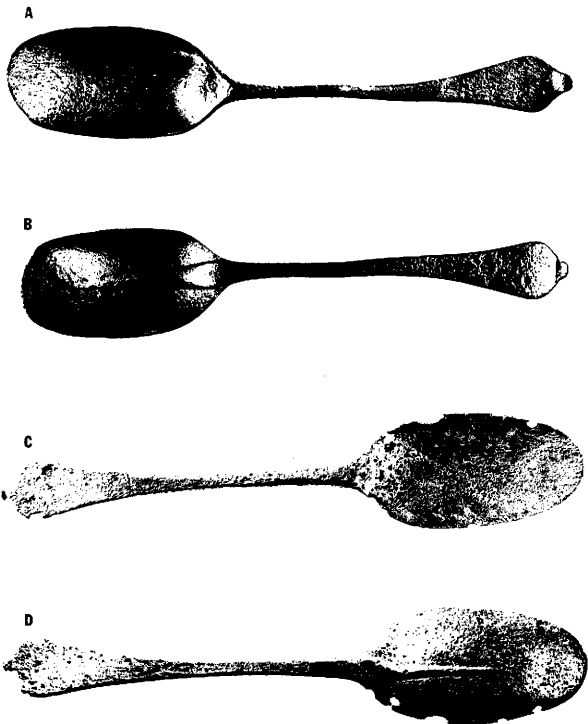


Figure 23. Wavy Ends. A-B. PR 286/1, C-D. PR 423/3.

Wavy End	1700-1730	PR 1/75 (Mx 44)	Figure 24 A-B
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Bowl:	Depth: N/A Flattened.	Stem:	Length: N/A
	Width: 45.75 mm		Width a.b.: 6.00 mm
	Length: 79.85 mm		Thickness a.b.: 5.30 mm
			Thickness a.t.: 1.85 mm

Rat-tail: 33.65 mm long

Description: Flattened and twisted wavy end spoon. Bowl long, narrow. Stem flat on bottom and rounded across the top. Owner's initials or marks scratched onto back of stem near top.

Parallels: See PR 286/1.

Wavy End	1700-1730	PR 1/73
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Bowl:	Depth: 9.75 mm	Stem:	Length: 84.25 mm remaining
	Width: 44.20 mm		Width a.b.: 9.90 mm
	Length: 75.65 mm		Thickness a.b.: 5.40 mm

Rat-tail: 46.75 mm long

Marks: "X" stamped on back of stem.

Description: Spoon bowl and partial stem. Bowl elongated, narrow. Stem flat on bottom, rounded across the top.

Parallels: Note similarity of rat-tail and overall bowl and stem shape with spoon PR 286/1.

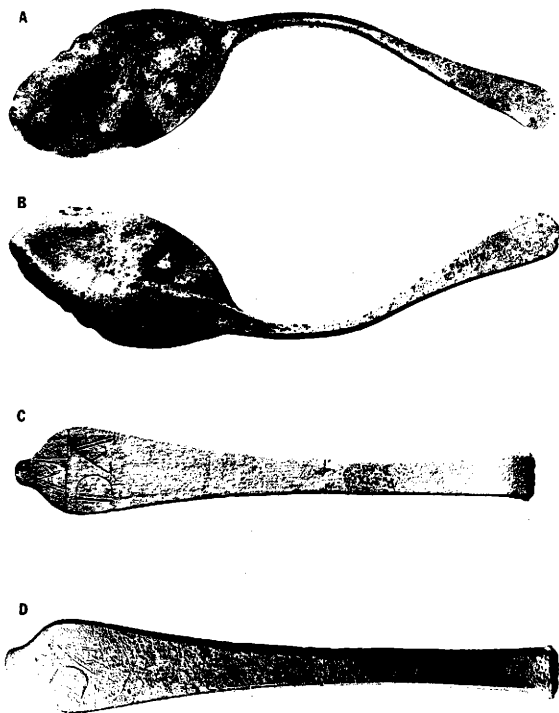


Figure 24. Wavy Ends. A-B. PR 1/75, C-D. PR 435/1.

Wavy End 1700-1730 PR 311/3

Bowl:

Depth: 11.70 mm
 Width: 40.70 mm
 Length: 73.40 mm

Stem:

Length: 56.75 mm remaining
 Width a.b.: 5.60 mm
 Thickness a.b.: 5.95 mm

Rat-tail: 52.55 mm long

Description: Spoon bowl with partial stem. Bowl long, narrow. Stem flat on bottom, rounded across the top. Long, plain rat-tail.

Parallels: Note similarity of rat-tail and overall bowl and stem shape with spoon PR 286/1.

Wavy End 1722 PR 435/1 (Mx 61) Figure 24 C-D

Stem:

Length: 125.55 mm
 Width a.b.: 9.10 mm
 Thickness a.b.: 4.60 mm
 Thickness a.t.: 1.60 mm

Description: Spoon stem. Initials "D A" enclosed by a circle scratched on the back top of the stem. On the front the initials "D M A" scratched. Possibly another "M" drawn below the "D A". Stem four sided, top narrower than bottom. Probably from French shipwreck.

Parallels: N/A

Wavy End 1700-1730 PR 451/4

Stem:

Length: 128.85 mm
 Width a.b.: 5.80 mm
 Thickness a.b.: 5.10 mm
 Thickness a.t.: 1.45 mm

Description: Spoon stem. Bottom flat, rounded across the top.

Parallels: PR 286/1

Wavy End 1700-1750 PR 313/6

Bowl:

Depth: 13.20 mm
Width: 41.90 mm
Length: 70.10 mm

Rat-tail: 47.65 mm long

Description: Spoon bowl. Long, narrow bowl indicates wavy end type, however spoon may have been a trifid end. Rat-tail is not as flat and narrow as most wavy end spoons.

Wavy or Round End 1700-1750 PR 451/2

Stem:

Length: 70.75 mm remaining
Width: 5.95 mm
Thickness: 5.70 mm

Description: Part of a spoon stem. Stem flat on bottom, rounded across the top.

Parallels: PR 286/1

Wavy or Round End 1700-1750 PR 314/1

Stem:

Length: 56.75 mm remaining
Width: 6.55 mm
Thickness: 6.00 mm

Description: Part of a spoon stem. Stem flat on bottom, rounded across the top.

Parallels: N/A

Wavy or Round End ca. 1730 PR 432/4 Figure 25 A-B

Bowl:

Depth: 12.15 mm
 Width: 39.40 mm
 Length: 75.95 mm

Stem:

Length: 103.60 mm
 Thickness a.b.: 5.30 mm
 Thickness a.t.: 1.15 mm

Rat-tail: 56.15 mm long

Description: Long, narrow bowl. Stem flat on bottom, rounded across top. Rat-tail long and plain. Although spoon bowl and stem are similar to wavy end spoons, finial is thin and square rather than rounded like wavy ends. Perhaps transitional style between wavy ends and round ends.

Parallels: See also stem PR 279/2.

Wavy or Round End ca. 1730 PR 279/2

Stem:

Length: 54.60 mm remaining
 Width a.b.: 6.80 mm
 Thickness a.t.: 1.00 mm

Description: Very small, thin stem fragment. Has flat, rounded top. Stem four sided.

Parallels: Similar to spoon PR 432/4.

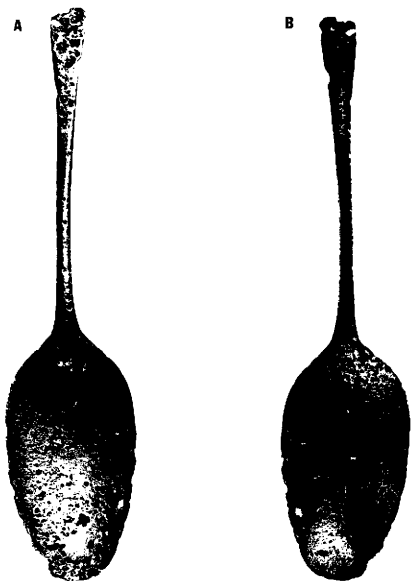


Figure 25. Wavy or Round End. A-B. PR 432/4.

Round End	1700-1750	PR 1/74 (Mx 22)	Figure 26 A-B
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Bowl:

Depth: 10.70 mm
 Width: 40.75 mm
 Length: 71.15 mm

Stem:

Length: 113.60 mm
 Width a.b.: 7.05 mm
 Thickness a.b.: 7.15 mm
 Thickness a.t.: 2.45 mm

Rat-tail: 26.10 mm long

Description: Stem flattened on the bottom, rounded across the top. Bowl long and narrow. Initials "B I" scratched onto the back of the stem. No decoration.

Parallels: N/A

Round End	1700-1730	PR 180 (Mx 46)	Figure 26 C-D
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Bowl:

Depth: 10.60 mm
 Width: 39.30 mm
 Length: 74.90 mm

Stem:

Length: 125.90 mm
 Width a.b.: 5.20 mm
 Thickness a.b.: 4.85 mm

Rat-tail: 46.7 mm long

Marks: Crowned "X" stamped on back of stem. Other letters or words stamped in rectangular cartouche below the X.

Description: Plain round end. No decoration. Bowl long, narrow. Stem flat on bottom, rounded across the top. Rat-tail not well defined. Appears to extend from a drop.

Parallels: N/A

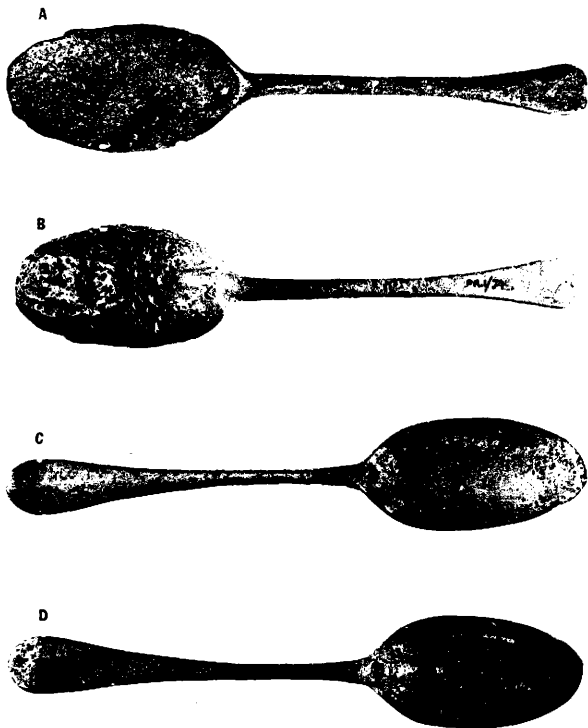


Figure 26. Round Ends. A-B. PR 1/74, C-D. PR 180.

Round End ca. 1730 PR 432/2 (Mx 49)

Bowl:

Depth: 10.15 mm
 Width: 38.95 mm
 Length: 72.60 mm

Stem:

Length: 120.70 mm
 Width a.b.: 6.30 mm
 Thickness a.b.: 4.90 mm
 Thickness a.t.: 1.20 mm

Rat-tail: Length with dropped stem - 49.45 mm
 Length without dropped stem - 39.45 mm

Description: Ribbed stem round end. Single rib runs from bowl up center of stem to end of finial. Stem flat on bottom, rounded across the top.

Parallels: Price (1908:Plate XIV, Figure 1) and Cotterell et al. (1972:31, Figure 165). Both spoons dated to the early eighteenth century. See also PR 282/1.

Round End ca. 1730 PR 282/1 (Mx 58) Figure 27 A-B

Bowl:

Depth: 12.00 mm
 Width: 40.55 mm
 Length: 78.10 mm

Stem:

Length: 123.50 mm
 Width a.b.: 4.90 mm
 Thickness a.b.: 5.70 mm
 Thickness a.t.: 1.10 mm

Rat-tail: 49.55 mm long

Description: Ribbed stem round end. Single rib running up center of spoon stem. Stem flat on bottom, faceted across top. Bowl long, narrow. Rat-tail extends from drop.

Parallels: Price (1908:Plate XIV, Figure 1) and Cotterell et al. (1972:31, Figure 165). Price example has slightly different rib but the shape and rat-tail of the spoon are similar. See also PR 432/2.

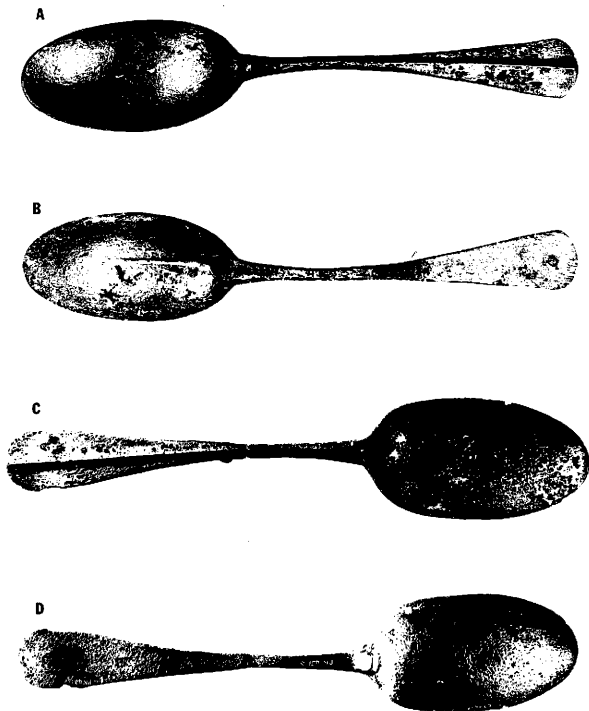


Figure 27. Round Ends. A-B. PR 282/1, C-D. PR 431/5.

Round End	1730-1770	PR 314/2
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Stem:

Length: 75.60 mm remaining
Width a.b.: 6.80 mm
Thickness a.b.: 4.20 mm
Thickness a.t.: 1.65 mm

Description: Partial stem. Ribbed stem round end. Single rib running up center of stem front.

Parallels: See also PR 432/2, PR 282/1, G 15 II 8 and PR 431/5.

Round End	1730-1770	G 15 II 8
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Stem:

Length: 80.70 mm remaining
Width a.b.: 5.85 mm
Thickness a.b.: 4.15 mm
Thickness a.t.: 1.40 mm

Description: Partial stem. Ribbed end round end. Flat on bottom, rounded across the top with single rib running up center front.

Parallels: See also PR 432/2, PR 282/1, PR 431/5 and PR 314/2.

 Round End ca. 1750 PR 1/72 (Mx 54)

Bowl:		Stem:	
Depth: 10.30 mm		Length: 112.30 mm	
Width: 39.55 mm		Thickness a.b.: 4.55 mm	
Length: 74.95 mm		Thickness a.t.: 1.10 mm	

Rat-tail: 28.85 mm long

Description: Plain fiddle end. Bowl long, narrow.

Parallels: Similar spoon illustrated in Port (1919:195, Figure 36).
 Spoon described as a "curious type of French spoon."
 Dated to the first half of the eighteenth century.

 Round End ca. 1750 PR 507 Figure 28 A-B

Bowl:		Stem:	
Depth: 11.50 mm		Length: 117.90 mm	
Width: 38.80 mm		Width a.b.: 7.40 mm	
Length: 76.70 mm		Thickness a.b.: 3.60 mm	
		Thickness a.t.: 1.20 mm	

Rat-tail: Length to drop - 22.20 mm
 Length to shoulder - 24.50 mm

Description: Plain fiddle end. Four sided stem, broader on bottom than on top. Long, narrow bowl.

Parallels: Similar silver spoon (although back is completely different) illustrated in Snodin (1982:Plate 27, Number 7). Silver spoon dated to 1845.

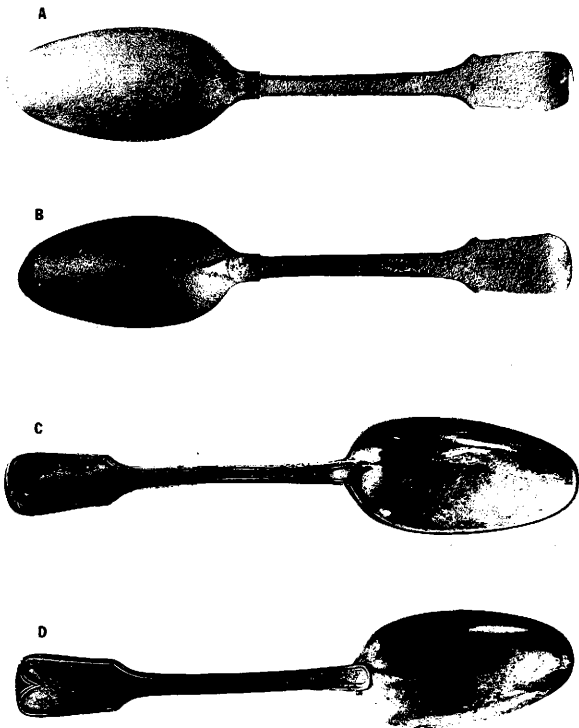


Figure 28. Round Ends. A-B. PR 507, C-D. PR 1/71.

Round End	1750-1790	PR 1/71 (Mx 56)	Figure 28 C-D
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Bowl:

Depth: 11.75 mm
 Width: 40.04 mm
 Length: 76.10 mm

Stem:

Length: 117.75 mm
 Width a.b.: 7.35 mm
 Thickness a.b.: 5.70 mm
 Thickness a.t.: 3.05 mm

Rat-tail: 32.65 mm long to shoulder.

Description: Fiddle end spoon with double threaded pattern. Stem flat on top and bottom. Bowl long, narrow. Vestigial rat-tail extends from dropped stem.

Parallels: A. Salmon (1788:Plate XXVIII and XXIX) illustrates this pattern and the moulds for making it.

Round End	ca. 1750	PR 285/2
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Bowl:

Depth: 10.45 mm
 Width: 41.40 mm
 Length: 80.20 mm

Rat-tail: None. Has double drop.

Description: Spoon bowl. Long, narrow bowl. Double dropped stem. No decoration.

Parallels: Bowl and double drop similar to PR 431/5.

Round End	ca. 1730	PR 313/5
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Bowl:

Depth: 13.30 mm
 Width: 42.35 mm
 Length: 74.85 mm

Rat-tail: None

Description: Very corroded spoon bowl. Long and narrow. No evidence of rat-tail.

Parallels: N/A

Round End	1740-1780	PR 431/2	Figure 29 A
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Bowl:

Depth: 11.70 mm
 Width: 41.00 mm
 Length: 81.40 mm

Rat-tail: None. Double drop with Rococo shell pattern.

Description: Long, narrow bowl. Double drop on back surrounded by Rococo shell pattern.

Parallels: Shell on back of bowl similar to silver spoon in Snodin (1982:40, Plate 27), dated to 1750. See also Price (1908:Plate XV, Figure 7).

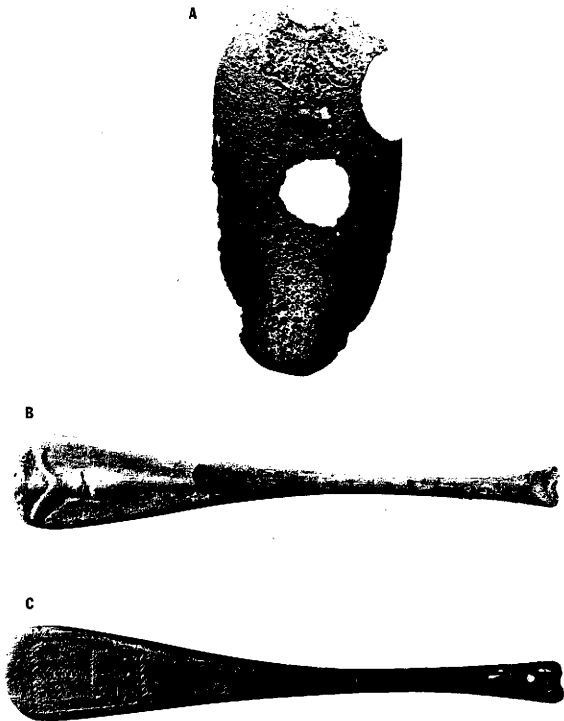


Figure 29. Round Ends. A. PR 431/2, B-C. PR 309/1.

Rounded End	ca. 1710	PR 309/1 (Mx 38)	Figure 29 B-C
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Stem:

Length: 120.00 mm
Width a.b.: 8.25 mm
Thickness a.t.: 6.75 mm
Thickness a.b.: 2.60 mm

Description: Heavy round end spoon stem with unusual design cast in relief on the front. Similar design on the back of wriggle work.

Parallels: N/A

REFERENCES CITED

- Bernt, Walter
1970 The Netherlandish Painters of the Seventeenth Century, vols. I-III. Phaidon, New York.
- Biringuccio, Vannoccio
1966 The Pirotechnia of Vannoccio Biringuccio. Translated by Cyril Stanley Smith and M.T. Gnudi. Reprinted. M.I.T., Cambridge, Mass. First edition published in 1540.
- Boston Museum of Fine Arts
1974 American Pewter in the Museum of Fine Arts Boston. Museum of Fine Arts, Boston.
- Boucard, Charles
1948 L'Age d'Or de l'Orfeverrie d'etain Francaise. Art et Industrie. XIII:493-497.
- Brett, Vanessa
1982 Phaidon Guide to Pewter. Prentice-Hall, Englewood Cliffs.
- Charleston, Robert J. (editor)
1968 World Ceramics. Paul Hamlyn, London.
- Claypole, William A.
1972 The Merchants of Port Royal 1655-1700. Ph.D. dissertation, University of the West Indies, Jamaica.
- Cotterell, Howard Herschel
1963 Old Pewter; Its Makers and Marks. Charles E. Tuttle, Rutland, Vermont.
- Cotterell, H.H., A. Riff and R.M. Vetter
1972 National Types of Old Pewter. Weathervane Books, New York.
- Cowan, Rex, Zelide Cowan, and Peter Marsden
1975 The Dutch East Indiaman Hollandia wrecked on the Isles of Scilly in 1743. The International Journal of Nautical Archaeology and Underwater Exploration 4:2:267-300.
- Douroff, B.A.
n.d. Etains Francais des XVIIe et XVIIIe siecles. Charles Massin, Paris.
- Emery, John
1976 European Spoons Before 1700. John Donald, Edinburgh.
- Haedeke, Hanns-Ulrich
1970 Metalwork. Universe Books, London.

- Hamilton, D.L.
 1984 Preliminary report on the archaeological investigations of the submerged remains of Port Royal, Jamaica 1981-1982. The International Journal of Nautical Archaeology and Underwater Exploration 13.1:11-25.
 1985 Personal communication.
- Hamilton, D.L. and R. Woodward
 1984 A Sunken 17th-Century City:Port Royal Jamaica. Archaeology 37.1:38-45.
- Harrison, William
 1968 The Description of England. Reprinted. Cornell University, Ithaca. Originally published, 1587. Edited by Georges Edelen.
- Hatcher, John and T.C. Barker
 1974 A History of British Pewter. Longman Group, London.
- Hedges, Ernest S.
 1964 Tin in Social and Economic History. Edward Arnold, London.
- Hintz, Erwin
 1921 Die-Deutschen Zinngiesser und Ihre Marken, vol. I-IV. Karl W. Hiersemann, Leipzig.
- Homer, Ronald F.
 1975 Five Centuries of Base Metal Spoons. Privately published by author.
 1984 Personal communication.
- Hughes, G. Bernard
 1953 Old Pewter Spoons. Country Life CXIV(2967):1728-1729.
- Jackson, C.J.
 1890 The Spoon and its history; its form, material, and development, more particularly in England. Archaeologia 53:107-146.
- Jackson, Radway
 1970 English Pewter Touchmarks. W. Foulsham, London.
- Kauffman, Henry J.
 1970 The American Pewterer. Thomas Nelson, Camden.
- Laughlin, Ledlie Irwin
 1969 Pewter in America, vol. I-II. Barre, Barre.
 1971 Pewter in America, vol. III. Barre, Barre.
- Marx, Robert F.
 1968 Excavation of the Sunken City of Port Royal January 1967 - March 1968: A Preliminary Report. Jamaica National Trust Commission, Kingston.

- 1971 Silver and Pewter Items Recovered From the Sunken City of Port Royal: May 1, 1966 - March 31, 1968. Caribbean Research Institute, College of the Virgin Islands, St. Thomas, U.S. Virgin Islands.
- 1983 Shipwrecks in the Americas. Reprinted. Bonanza Books, New York. Originally published 1975, Shipwrecks of the Western Hemisphere, 1492-1825. D. McKay, New York.
- Masse, H.J.L.J.
1904 Pewter Plate. George Bell and Sons, London.
- Mayes, Phillip
1972 Port Royal Jamaica. Excavations 1969-70. Jamaica National Trust Commission, Kingston.
- Michaëlis, Ronald F.
1950 Royal Portrait Spoons in Pewter. Apollo June:172-173.
1958 Royal Portraits and Pewter Porringers. American and British Pewter. Main Street/Universe Books, New York.
1971 Antique Pewter of the British Isles. Dover, New York.
- Montgomery, Charles F.
1978 A History of American Pewter. E.P. Dutton, New York.
- Mory, Ludwig
1972 Schones Zinn. Bruckmann, Munich.
- Navarro, Antonio de
n.d. Causeries on English Pewter. Charles Scribner's Sons, New York.
- Needles Underwater Archaeology Group
1985 The wreck of the Dutch East Indiaman Campen on the Needles rocks, Isle of Wight, 1627 - Part I. Edited by Richard Larn. The International Journal of Nautical Archaeology and Underwater Exploration 14.1:1-31.
- Noel Hume, Ivor
1980 Artifacts of Colonial America. Alfred A. Knopf, New York.
- Pawson, Michael and David Buisseret
1975 Port Royal, Jamaica. Clarendon, Oxford.
- Peal, Christopher A.
1969 An English Pewter Collection. American and British Pewter. Main Street/Universe Books, New York.
1971 British Pewter and Britannia Metal. Peebles, New York.
1976 More Pewter Marks. Mrs. S. Peal, Norwich, Norfolk.
1977 Addenda to More Pewter Marks. Norwich Print Brokers, Norwich.

- Port, Charles J.G.
1912 Some Continental Base Metal Spoons. Connoisseur.
December:235-240.
1919 Some Continental Base Metal Spoons, Part II. Connoisseur.
April:191-197.
- Price, F.G. Hilton
1908 Old Base Metal Spoons, With Illustrations and Marks. B.T.
Batsford, London.
- Salmon, Auguste
1788 Art du potier d'etain. Academie Royale des Sciences, Paris.
- Snodin, Michael
1982 English Silver Spoons. Charles Letts, London.
- Stara, D.
1977 Pewter Marks of the World. Hamlyn, London.
- Sutherland-Graeme, A.V.
1947 Pewter Spoons. Connoisseur. December:105-108.
- Tylecote, R.F.
1962 Metallurgy in Archaeology. Edward Arnold, London.
- Uilyett, Kenneth
1973 Pewter: A Guide for Collectors. Frederick Muller, London.
- Verster, A.J.G.
1928 Oud Tin. Boosten & Stols, Maastricht.
1958 Old European Pewter. Thames and Hudson, London.

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