The Golden Rock

Seventeenth- and eighteenth-century metal buckles from

Oranje Bay, St. Eustatius

Bachelor Thesis by Ruud Stelten

Universiteit Leiden

Faculty of Archaeology

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Cover: Drawing by A. Nelson depicting St. Eustatius as it appeared in 1774.
Source: www.secar.org
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1. Introduction

St. Eustatius, also known as Statia, is a Caribbean island that is part of the Netherlands Antilles. It is located on the inner crescent of the Leeward Islands at 17°30’N 62°58’W and measures 8 x 4 kilometers at its widest points (see Figure 1), with a total area of 21 km². The geography of the island comprises several types of landscape. The southern part consists of a 600-meter high dormant stratovolcano called the Quill (an English corruption of the Dutch word Kuil, which refers to the crater). It began forming 50,000 years ago, with its last eruption dating to 1600 B.P. It is almost entirely composed of varied pyroclastic deposits. The northern part consists of a cluster of five coalesced older volcanoes built of lava flows and Pelean domes and their pyroclastic aprons of block and ash deposits. These are less than one million years old.¹ The highest of these hills is Boven Hill, reaching a height of 289 meters. Between these hills and the Quill is a plain on which most of the habitation is located.

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¹ http://www.caribbeancalderas.com/statia/geology.htm
The island has a tropical climate. The average daytime temperature is about 27 °C, while nighttime temperature averages 23 °C. There is a light constant northeast trade wind and the weather is mostly dry and sunny. Rainfall occurs in showers of medium duration during the months of April, June and September. Hurricanes occur occasionally from June to November.

Christopher Columbus was the first European who laid eyes on this island in 1493. He couldn’t have expected it would play a major role in world history 300 years later. During several occupations by the Dutch, English and French in the seventeenth and eighteenth centuries it became one of the greatest transit harbours of its time. Merchants from all over the world mixed in a peaceful international emporium for free trade not to be found anywhere else in the Caribbean.² Towards the end of the eighteenth century, at the height of its prosperity, it supplied the rebelling colonies that would later form the United States of America with sufficient gunpowder and ammunition to fight the English successfully. This caused Great Britain to take over the island in 1781 and again during the Napoleonic Wars. After these events its glory days were over.

The island has the greatest concentration of archaeological sites in the New World. There are an estimated 200 sites on land and 200 shipwrecks in the waters surrounding the island. Moreover, a huge amount of artifacts is scattered across the sea floor. During December 1990 and January 1991 underwater archaeological test excavations were performed by the AAINA (the Institute of Archaeology and Anthropology of the Netherlands Antilles) in the area of the newly planned Multi Purpose Terminal in Oranje Bay (see Figure 2). Forty sites were studied by digging holes in the mostly sandy bottom with the use of an airlift (see

² www.secar.org
A lot of objects, including 316 metal artifacts, were recovered and stored on the island. The storage and conservation conditions proved to be far from ideal. Nothing has been done with these artifacts ever since.

The initial subject of this thesis was to take a closer look at the metal objects recovered during this expedition. All the metal artifacts were catalogued, but since the collection was so varied (consisting of a wide range of artifacts such as cannonballs, knives, chisels, keys, locks, spoons, buckles and furniture handles) it was decided to focus on just the buckles instead. This collection, which is described in the appendix, comprises 55 seventeenth- and eighteenth-century buckles which vary considerably in size, form and decoration. Except for two (a knee buckle and a spectacle buckle), all of them are shoe buckles. This thesis has several goals. First, to identify and date the buckles. Second, to compare this collection with the collection of Colonial Williamsburg, to see to what extent the typology of that collection is applicable to the Statian collection. Williamsburg was the thriving capital of Virginia from 1699 to 1780. It was the political, cultural and educational center of what was then the largest, most populous and most influential North American colony. Just like St. Eustatius in the same period it was a place that drew people from all over the world. This makes the buckle collection from Williamsburg ideal to compare the Statian collection to. Furthermore, the Williamsburg collection comprises buckles found on various sites throughout the city. Just like the Statian collection it is not limited to one particular site. The third goal is to draw certain conclusions from these identifications and comparison. Last, to take a closer look at the storage and conservation conditions to which they have been subjected. Before all this can be done, a frame of reference has to be created in which the buckles can be placed. This is achieved by describing the history of St. Eustatius and the history of shoe and knee buckles. The data obtained from this investigation can give insights into the prosperity of the islands’ inhabitants and the amount of trade on the island during certain periods.

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3 Nagelkerken 2000:6
The title of this thesis, ‘The Golden Rock’, refers not so much to the island itself as to the artificial entrepreneurial environment created by the people who worked and lived on it. The ultimate aim in archaeology is not the studying of artifacts, but the studying of the people who made, used and discarded them. Artifacts are not a goal in themselves, but a means which can help to say something about past peoples’ lives. With this in mind, the main goal of this thesis is not to describe the buckles, but to use all the information that can be obtained from them in order to gain new insights into life on the island.
2. History of St. Eustatius

The historical description of the island is limited to the seventeenth and eighteenth centuries, the time when St. Eustatius became increasingly important and reached its greatest prosperity. All the examined objects date to this period.

The seventeenth century

In 1568 the people of the Seventeen Provinces started a revolt (known as the Dutch Revolt) against Philip II, the king of the Spanish empire to which they were subjected. The main reason for this revolt was the persecution of Protestants by the Spaniards during the Protestant Reformation. The revolt resulted in the Eighty Years’ War, started by William the Silent to liberate the Calvinist Dutch from the Catholic Spaniards. In 1581 the northern provinces signed the Union of Utrecht and the Act of Abjuration, which can be seen as a Dutch declaration of independence. The provinces which declared themselves independent of Spain called themselves the Republic of the Seven United Provinces. Due to the war that was going on between this newly formed republic and Spain, they could no longer trade with Spain and its dominions (which also included Portugal). Until this time the Dutch had distributed goods imported from the overseas colonies of Spain and Portugal. One of the main commodities they imported from Portugal was salt. The prosperous Dutch herring industry required large quantities of this commodity to conserve the herring. The Dutch merchants now had to build up an independent trade and search for salt elsewhere. Due to the former trade with Spain and Portugal they were well acquainted with the riches of the West Indies and South America where Spain and Portugal had a number of colonies. Moreover the Dutch had a large number of sailors, capable ship-owners and sufficient capital. Partly due to these events, in 1621 the Dutch Republic founded the First Dutch West India Company (WIC), a trading company set up to increase trade with the West Indies and South America and to establish settlements there to be used as permanent trading posts. This was, however, not its main goal, since the WIC was an explicit instrument of war against Spain. This was to be, at all times, its main objective. The aim of the Dutch was not so much the occupation and colonization of the many easily available islands, as the gathering of information concerning the movements of the
Spanish treasure fleets. This information was used to capture the cargoes of Spanish ships, such as the famous silver fleet seized by Admiral Piet Heyn in 1628. The Dutch merchants started an illicit trade with the Spanish colonies. As early as 1629 the Dutch had begun obtaining salt regularly on Tortuga. Salt was also obtained from the lagoon of Punta de Araya in Venezuela, St. Martin, Anguilla, the Curacao islands and the coastal area around the Uribe River in Venezuela. This aroused Great Britain’s jealousy since they were conducting illegal activities in the area as well, despite the monopoly position of Spain.

In the 1630’s the Dutch began to colonize various Caribbean islands. St. Maarten was colonized in 1631, Curacao in 1634, Aruba, Bonaire and St. Eustatius in 1636 and Saba around 1640. In December 1635 the Zeeland merchant Jan Snouck and his partners received permission to establish a colony on St. Croix. They fitted out a ship, appointed Peter van Corselles as leader of the future colony and sent him with sufficient men to the West Indies. On arrival the island appeared not to live up to expectations so they concentrated on the nearby St. Eustatius. This island was occupied by the Dutch in the spring of 1636. The expedition found the island uninhabited. The Amerindians who had lived there had probably died out or moved to other islands. The English were the first Europeans to settle on St. Eustatius in 1625, but they moved soon after, probably due to unsuccessful agriculture. Van Corselles and his men found the ruins of a deserted bastion on the island, on which they built Fort Oranje. This bastion was built in 1629 by the French who were sailing around and

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4 Goslinga 1979:21
5 Attema 1976:15
6 Alofs et al. 1997:76
withdrew to Statia fearing an attack from the Spanish.\textsuperscript{7} The Dutch strengthened this fort with some cannon.\textsuperscript{8} In 1636 the new population of St. Eustatius consisted of 40-50 people. These were mainly Zeelanders, Flemings and Walloons. They set up tobacco, sugar cane and cotton plantations and called the island ‘Nieuw Zeelandt’. As the plantations increased, so did the number of imported black and red slaves. Figure 5 shows slaves working on a sugar plantation. Because of the international trade several European merchants settled on the island as well, although the emphasis in this century lay on agriculture. In 1665 the population had grown to 330 white people and 840 Negroes and Indians. The yields from the plantations were exported to Zeeland.\textsuperscript{9} It was probably not until the beginning of the eighteenth century that urban development started to take place. It is very likely that in the seventeenth century habitation consisted of scattered farms around the fort.\textsuperscript{10} There were also a few warehouses built indicating small-scale trade. This caused Great Britain to be envious, particularly as a royal patent of 1627 declared Great Britain the owner of St. Eustatius. Despite these irritations these first few decades were very peaceful.

In 1663 peace was disrupted when the Englishman Robert Holmes sacked the island. The English occupied St. Eustatius in 1665 during the Second Anglo-Dutch War after an attack led by Edward Morgan. In 1667 St. Eustatius was given back to the Dutch after the Treaty of Breda.\textsuperscript{11} In 1672, during the Third Anglo-Dutch War, the island was under English control again, but a year later the Dutch took over the island. At the Treaty of Westminster in 1674 it was returned officially to the Netherlands, but the English were afraid it would fall into French hands, so they held on to it. This was agreeable to the Heren XIX, the board of the West India Company, since they didn’t have to spend any money on the defense of the island.\textsuperscript{12} In 1679 it was taken back into Dutch hands. In the same year though, the French attacked the island and destroyed the whole settlement. A year later a joint English/Dutch attack placed the island in Dutch hands again. At this time the West India Company thought St. Eustatius would be very suitable as a transit harbour for slaves. In 1682, after having been owned by various patrons (representatives of the Zeeland Chamber, who had a large capital at their disposal and were responsible for law and order and the appointment of a commander),

\textsuperscript{7} Personal correspondence with R. Grant Gilmore III (e-mail 21-4-2009)
\textsuperscript{8} Goslinga 1979:79
\textsuperscript{9} Attema 1976:16
\textsuperscript{10} Purmer 2003
\textsuperscript{11} Attema 1976:18
\textsuperscript{12} Attema 1976:18
the island became completely the property of the Second Dutch West India Company. The Zeeland merchants who had owned the island gave it to the Second WIC since the constant disruption to planting and trading activities by pirates and privateers proved too difficult for them. In 1689 St. Eustatius was captured by the French. By 1697 the Dutch found themselves again in possession of the island, after the English recaptured the island for them. The poor state of the islands defense, including cannons that wouldn’t fire or would even explode, was one of the main reasons why it was often given over without any significant opposition during the last four decades of the seventeenth century. Moreover, the inhabitants over time lost the will to resist, since the Dutch Republic most of the time didn’t supply them with sufficient ammunition. The multiple changes of power and an economic recession led to great poverty on the island at the end of the seventeenth century.

*The eighteenth century*

In the 1630’s the Dutch conquered parts of Brazil and Guinea. From this time on they improved their position as slave traders. In the period 1660/1670 Curacao developed into an important slave depot for the West Indies. After 1730 everyone was allowed to export slaves from the Dutch West African coast, but they had to pay tribute to the WIC to do so. The WIC lost a lot of money to smugglers who didn’t pay and could offer the slaves for a cheaper price. On St. Eustatius these smugglers sold a lot of slaves, since the WIC failed to supply slaves time and time again. By 1725 the Dutch shipped 2,000 to 3,000 slaves per year to the island. The slave trade reached its peak in the early 1770’s. Towards the end of the eighteenth century people started to protest against this trade. The slave trade in the Dutch colonies was ended in 1814, but it wasn’t until 1863 that the Dutch abolished slavery. The conditions were likely less difficult for slaves on the island compared with those in other places. On St. Eustatius they could earn money with which they could purchase their freedom. These so called ‘free blacks’ would sometimes have a few slaves of their own.

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13 Goslinga 1979:81
14 Purmer 2003
15 Gilmore 2004:279
16 Goslinga 1979:109
17 Gilmore in Havis & MacDonald 2006:78
When Isaac Lamont accepted the post of commander in 1701, he found the forts in a sad state. He asked the Heren X of the WIC for building materials and craftsmen to strengthen the forts, but his needs were never met. In 1709 French filibusters captured St. Eustatius. They soon took off with a large booty, after which Lamont resumed possession of the island. By this time there were four forts on the island: Oranje, Dolin, Tommelendijk and a new fort between Tommelendijk and Oranje. Nearly 30 years later, during the command of Isaac Faesch, the forts were still in a poor state. In 1737 the taxes were raised to finance the repairs and the WIC sent 30,000 bricks for the renovation of the forts. The walls were strengthened and the platforms for the cannon were rebuilt, but despite from that everything remained much as before. In 1748 the citizens voluntarily raised a sum of money for the building of some new coastal forts. Two new forts were built: Hollandia and Zeelandia. The Heren X supplied the forts with cannon, but they forgot to send the cannonballs. Fort Oranje (Figures 6 and 7) was renovated as well, but by 1755 its condition had again deteriorated. The attitude of the WIC was one of the reasons why the fortifications time and time again fell into negligence. Everything had to be done as cheaply as possible.

As for the residential and commercial areas on the island, these were enlarged in the eighteenth century despite various setbacks and difficulties like lazy workers, conflicts about landownership and devastating hurricanes in 1772 and 1780. The bay area was extended by reclaiming land from the sea and the upper town by newly built houses on a stretch of land called the ‘Compagniesavane’, a plantation above the village. Besides the residential houses new warehouses, trade offices and a new weighing house were built. The warehouses were two stories high and stretched for two kilometers along the bay. They were sometimes so full.

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18 Attema 1976:24
that the doors could no longer be used. An account from the Scottish lady Janet Schaw dating to 1775 shows the lower town to have been a continuous market displaying goods of different types and qualities sold by people from all over the world. After 1750, over 3,500 ships a year from Europe, Africa and the Americas landed here earning the island's nickname ‘The Golden Rock’. Almost 20,000 merchants, slaves, sailors and plantation owners were crowded on this small island. In the 1770’s imports exceeded the capacity of the island’s warehouses and sugar and cotton were piled up high in the open air. This was the time at which St. Eustatius reached its greatest prosperity. Figure 8 shows the busy port in this period.

Figure 8. St. Eustatius as it appeared in 1774, drawn by A. Nelson (Saba in the background).

St. Eustatius was surrounded by colonies of various European countries. These colonies were dependent on supplies from their mother countries according to the monopoly system, which were not always sufficient or on time. Every colonial power tried to monopolize the trade with its colonies in order to keep the prices high. Since it was a Dutch custom to favour free trade and the Republic was in a neutral position in many European wars, St. Eustatius was made into a free port which was in an excellent position to ship not only slaves but also other illegal supplies such as sugar, tobacco, gunpowder and weapons to these colonies. The latter two were shipped in great numbers to the English colonies in North America in exchange for commodities such as sugar and tobacco. This trade reached its peak during the American War of Independence. The outbreak of this war in 1774 brought as many

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19 Attema 1976:38
20 www.secar.org
21 Klooster 1998:96
22 Alofs et al. 1997:77
as twenty North American ships at a time crowding into the small bay at St. Eustatius to buy supplies needed by the rebels. Furthermore, St. Eustatius had an ideal location on the busy sea-lanes between the Greater and Lesser Antilles, and the harbour was ideally situated on the leeward side of the island. In this way the island became one of the greatest transit harbours of its time. Despite the attempts to control the illegal activities by the Dutch government under pressure from Great Britain, the illegal trade continued to flourish.

On 16th November 1776 Johannes de Graaff, the commander of the island, fired a return salute to the Andrew Doria, an armed North American brigantine flying the colour of the rebelling thirteen colonies. Although the Statians probably didn’t intend it to be regarded in this way (they probably just wanted to profit as much as possible from this war), the act was interpreted by the English as clear recognition of the rebellious colonies by St. Eustatius. This led to increased conflict with Great Britain - which declared war on the Republic in December 1780 - and the capturing of the island by Admiral George Bridges Rodney in February 1781 (Figure 9). He arrived on St. Eustatius with 3000 men. The odds were clearly against the Dutch garrison of 50 men. Nevertheless, a few shots were fired for honor’s sake before the island surrendered. Rodney kept the Dutch flag flying from Fort Oranje for a month in order to seize the cargoes of unsuspecting ships arriving on the island. The warehouses were sealed and all shops had to remain closed. The largest booty captured anywhere during the Colonial Period was the result: a fleet loaded with goods worth over

Figure 9. Drawing by an anonymous person depicting the English fleet in the harbour of St. Eustatius.

23 Goslinga 1985:149
£5,000,000 was sent to Great Britain. The intended destruction of the island, which Rodney called ‘a nest of vipers which preyed upon the vitals of Great Britain’, did not take place. Towards the end of 1781 the French took over the island causing an economic decline by regulating trade to the strangulation point. France and the United Provinces, at this time, were allies against England. St. Eustatius returned to Dutch control in 1783. In 1784, after the actual change of government had taken place, St. Eustatius again became a free harbour and trade recovered, causing the economy to flourish once more. However, it would never exceed the prosperity of the decades before. There came an abrupt end to this prosperity when the French captured the island in 1795. In 1801 the English seized St. Eustatius again, but a year later Dutch rule was reinstated with the peace of Amiens. In 1810 St. Eustatius surrendered to the English. In 1814 Great Britain agreed to return the six Caribbean islands to the Dutch. In 1816 the actual change occurred, causing the Dutch flag to reappear in the West Indies, but by then Statia had lost its economic significance.

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24 www.secar.org
25 Attema 1976:40
26 Gilmore in Havisir & MacDonald 2006:77
3. History of shoe and knee buckles

The earliest shoe buckles date to the beginning of the latter half of the seventeenth century. The first ones were purely functional and not much to look at. They sometimes formed the center of a lace bow and were set high up on the shoe. They were shaped like a bean and sometimes made of silver or bronze.\textsuperscript{27} Twenty-five years after their first appearance this type faded out of fashion. From the late seventeenth until the end of the eighteenth century shoe buckles came to be regarded as articles of high fashion. They weren’t purely decorative though, since their functional purpose still was to ensure that the shoe remained firmly on the foot.\textsuperscript{28} Knee and breech buckles became popular in the 1720’s, when tight fitting breeches that were buckled below the knee became fashionable. Matching sets of knee and shoe buckles were especially popular.

![Figure 10. The anatomy of a two piece buckle.](image)

With the exception of one (a spectacle buckle; no. 38 in the appendix), which was cast in one piece, all the buckles in the St. Eustatius collection are two piece buckles which came into widespread use after 1680. During the eighteenth century they largely replaced one piece buckles on personal dress. Two piece buckles have drilled sides of the frame in which the pin was set. The pin carried the moving parts (the tongue and chape, also referred to as the

\textsuperscript{27} Mould 1980:125
\textsuperscript{28} Mould 1980:124
backpiece) by which the buckle was attached to the straps. In use the buckle was fitted to the
under latchet by the chape. The over latchet was pulled through the buckle frame to the
required tension and secured in place by the tongue. The chape and tongue could be rotated
independently of each other around the pin. The backpiece was made separately from the
buckle frame and attached to the frame in the last stages of manufacture. Figure 11 gives an
idea of how they were worn.

Figure 11. Painting depicting shoe and knee buckles, painted by Cornelis Troost in 1736.

The two piece shoe buckles can be divided into two categories: those dating to the
period 1660-1720 and those dating to the period 1720-1800. In both periods they were
regarded as highly fashionable jewellery. A person’s status could be judged by a swift glance
at his or her feet. There were even buckles for specific occasions, such as the mourning
buckle which was worn when attending a funeral.

The buckles dating to the first period (1660-1720), known in England as Jacobean
shoe buckles, are usually relatively small (less than 45 mm long) and have asymmetrical, sub-
annular, trapezoidal or rectangular frames. Concave sides are typical for the latter half of this
period (no. 55 in the appendix). The decoration predominantly consists of moulded
extensions, knobs and surface ornaments like shell and flower motifs. The buckles in this

\footnote{Whitehead 2003:96}
period were attached to latchets which ran high across the instep. The frames were accompanied by stud, anchor and cooking pot shaped chapes with a single tongue (see Figure 16). After 1700 these types of frames were slowly replaced by rectangular and sub-rectangular ones, known in England as Georgian shoe buckles. By the 1720’s shoe buckles were, except for the very poor, in use amongst all social classes. They were worn by men, women and children.

Figure 12. A cast copper alloy shoe buckle (1690-1720).

Figure 13. A cast copper alloy shoe buckle (1720-1800).

The shoe buckles dating to the second period (1720-1800) are usually larger than the ones from the period before, averaging a length of 65 mm by the 1760’s and reaching lengths up to 100 mm or more towards the end of the century. This was the result of a new fashion trend which was started by the French ambassador to England, the Comte d’Artois (later king Charles X), who in 1777 introduced large and highly curved shoe buckles (no. 2 in the appendix). In the latter half of the eighteenth century annular and shuttle-shaped frames became popular, although the vast majority had rectangular or sub-rectangular frames. Moulded ornaments and engraving were the most common forms of decoration in this period, with a vast array of decorative elements such as rosettes, openwork, grooves, rope patterns and twisted ribbons. With the increase in size the buckles were fastened further down the instep. The backpiece consisted of loop chapes with two spikes and a pitchfork double tongue.

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30 Whitehead 2003:96
Towards the end of the century more complex fixing arrangements such as a double loop and a spring-loaded chape were introduced (see Figure 16).\textsuperscript{31}

The buckles were cast in moulds after which they were finished by hand tooling. This resulted in standardization of forms, but as the Statian collection will show, the variation in decorative features reflecting the skill and style of the individual craftsmen in virtually endless. From the mid-eighteenth century onwards however, buckle makers developed increasingly elaborate casting techniques in which the decoration was made as part of the buckle.\textsuperscript{32} The center of the buckle industry was Birmingham. Due to the invention of a stamping machine that enabled buckles to be pressed from prepared dies, Birmingham produced 2.5 million pairs of buckles per year in the late eighteenth century. There were around 30,000 people working in the English buckle trade at this time.\textsuperscript{33}

![Figure 14. A cast silver alloy shoe buckle set with paste stones (1720-1800).](image)

Most buckles were made of non-ferrous metals, copper alloy being the most common. Buckles made of silver alloy, lead alloy, iron alloy and steel are found to a lesser extent, while golden ones are very rare. To improve their appearance or to provide a form of weather proofing, most buckles were given some form of surface treatment such as tinning, silver-plating or gold-plating. The most prestigious and expensive buckles were those set with paste stones (see Figure 14). Gimmicks used by buckle manufacturers to differentiate their buckles from competitors included wooden, glass and ceramic buckles, although these were not

\textsuperscript{31} Whitehead 2003:104  
\textsuperscript{32} White 2005:40  
\textsuperscript{33} Mould 1980:124
common buckle materials.\textsuperscript{34} Depending on the material and decoration, the prices of shoe buckles ranged from cheap to very expensive (up to £ 3,000).

The Artois style buckle heralded the end of a fashion which had lasted for well over a century. In the 1790’s long trousers began to replace breeches and tights, causing shoe buckles to fall from fashion. After 1800 they were mainly used on uniforms and courtly dress and were purely decorative, being referred to not as a buckle but as a trimming. From this time onwards shoes were fastened with laces.

\textsuperscript{34} White 2005:35
4. Typology and dating criteria of shoe and knee buckles

From the history of the buckles it becomes clear that there are many varieties, types and styles of shoe buckles. The ones in this collection are dated according to their size, decoration, form and distinctive features such as the type of pin terminal and the types of tongue and chape. As mentioned in the previous chapter, shoe buckles from different periods often have different decorative elements and forms of the frame. The size can be a very useful dating criteria, since a general increase in size can be observed throughout the period in which they were used. Analysis of the size and form of the frame is one of the main ways in which the function of the buckle can be discerned. Shoe buckle frames, for example, are often curved to fit against the instep.

As mentioned, the type of pin terminal is a further indication of the age of a shoe buckle. There are two main types (see Figure 15). The first type, which is found throughout the eighteenth century, has a lobe of metal that extends over the entire width of the frame, with the hole drilled through the lobe. The second type, which is found in the late eighteenth century, has a thin metal flange that extends only from the outer edge of the frame. The pin terminal is also useful in discerning the function of the buckle, since the orientation of the pinholes correlates with different types of buckles. For example, shoe buckles have holes on the long axis, while knee buckles have holes on the short axis.  

![Figure 15. The two types of pin terminals and the placement on the shoe buckle.](image)

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35 White 2005:33
The type of backpiece can be very helpful in dating a particular buckle. Figure 16 shows the different types of backpieces used on two piece buckles. Numbers I-IV were used between c. 1660 and 1720. Numbers V and VI became in use as early as the 1690’s, and lasted until c. 1720, after which they were replaced by numbers VII-IX. These were most common during the eighteenth century until c. 1770. Number X was manufactured during the last third of the eighteenth century. Numbers XI and XII can be dated to the last three decades of the eighteenth century.36

Since clothing buckles on eighteenth century American sites are for the most part identical regardless of the European countries these sites belonged to, no precise origin or place of manufacture of the buckles can be given.37 The reason for this is that foreign or

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36 Whitehead 2003:97, 103, 104
37 Deagan 2002:183
international trends in fashion were often incorporated in domestic production. Furthermore,
people from different European nations traded fashion items amongst each other, and on St.
Eustatius every buckle had to be imported. A maker’s mark can provide information on the
origin of the buckles, but since the buckles from the Statian collection never received the
proper conservation treatment (see chapter 6) these marks could not be discerned.

The nomenclature of the different parts (see figure 10) is the one used in a 1973 article
by Merry W. Abbitt (see bibliography). The Statian buckles are also compared to the
collection of Williamsburg, Virginia (USA). That buckle collection comprises buckles found
on various sites in Williamsburg and is described in the aforementioned article. The typology
used by Abbitt will be used here for comparison. It falls into seven basic types, which are
subdivided into eleven styles.

Type I
This group includes plain brass and high copper alloy frames with flat or convex faces and
right-angle corners. The sides, top and bottom edges are straight. They measure between 38
and 48 mm from top to bottom, and between 44 and 89 mm from side to side.

Type I-A
These buckles resemble type I, except that they are made entirely of iron.

Type II
All decorated brass and high copper alloy frames with right-angle corners are included in this
group. The decorations range from simple notching and grooving to elaborately moulded and
chased geometric and foliate designs. Most have straight edges. They measure between 33
and 51 mm from top to bottom, and between 41 and 83 mm from side to side.

Type III
These brass buckle frames have plain convex or flat faces and rounded corners. Although
most of the buckles in this group have straight, or nearly straight, top and bottom edges and
convex sides, two specimens studied have concave sides and top and bottom edges. From top
to bottom they measure between 37 and 51 mm, and from side to side between 47 and 70 mm.
Type III-A
These buckles differ from type III only in that they are made of iron alloy.

Type IV
Included in this category are all decorated buckle frames with rounded corners. Most are of brass, some are high copper alloy, and some are silver- or tin-plated. They range from rectangular to oval in shape; and as in type II, the decorations range from simple notching and grooving to elaborate relief foliate and geometric designs. Design elements cause many of these buckles to be irregular in outline. They measure between 35 and 52 mm from top to bottom, and between 51 and 76 mm from side to side.

Type IV-A
This buckle frame is comparable to type IV, except that it is made of silver. The backpiece is made of steel.

Type V
All openwork brass and high copper alloy frames are included in this category. They are square, rectangular or oval in shape. Except for a few of the late eighteenth century, most are elaborately moulded and chased. One is silver-plated. Due to the design most of the frames are irregular. From top to bottom they measure between 41 and 67 mm, and from side to side between 51 and 102 mm.

Type V-A
Only one buckle of this type was studied. It differs from type V in that it is entirely made of iron alloy.

Type VI
The two buckle frames studied for this category are political or commemorative buckles. Both are made of copper alloy, one with openwork decoration and traces of silver plating.

Type VII
These are paste buckles. The pastes, solid set in brass, are all badly worn, but there is evidence of faceting.
5. The Statian buckles

Now that the buckles’ context and dating criteria have been examined certain conclusions about the Station collection can be drawn. One aspect of these artifacts that has not received any attention yet, is the ways in which they ended up on the bottom of the Caribbean Sea. This has to do with the location of the anchorage (in Oranje Bay, on the leeward side of the island). The anchorage was located quite a distance from the shore (about 800 meters) in order to enable the ships at anchor to unfurl sails and maneuver safely in case of an attack or a sudden change in the weather, without running the risk of wrecking in the shallow waters. Between the shore and the anchorage many small vessels helped to unload and supply the large ships (see Figure 17). One of the possible reasons that the buckles ended up in the water could have been the occasional capsizing of these small boats. People and the goods they were transporting (such as buckles) would end up in the water. During these events people could have lost a shoe with the buckle attached to it. This situation applies especially to the Artois buckles, since these were, due to their form, not very firmly attached to the shoe. It could also be that people discarded their shoe buckles deliberately because they were broken. This seems highly unlikely in the case of the more precious silver buckles of course. It goes without saying that, due to the differences in styles, sizes and ages, the buckles didn’t fall into the water at the same time as a single load.

Figure 17. Drawing by S. Weuijster depicting ships in the harbour of St. Eustatius in 1763.

38 Nagelkerken 1985
The typology to which the Statian buckles are compared appears not to apply very well to this collection. A lot of Statian buckles don’t fit entirely into a particular typological category, either because they are too large (10 out of 54) and/or because the material of which they are made differs (24 out of 54). Only 25 buckles from the Statian collection fit perfectly in the typology of the Williamsburg collection. Hence it can be concluded that the Williamsburg typology is too limited to be applied successfully to buckle collections from other areas, at least to the Statian collection. For it to become a universally applicable typology for two piece buckles, the certain types should be extended by including more metal alloys and by enlarging the size criteria. In this way every two piece buckle can be typified.

By looking at this collection one could argue that shoe buckles weren’t in frequent use before the 1720’s, but became popular afterwards, especially in the late eighteenth century. This is somewhat misleading, because the population numbers have to be taken into account as well. While slaves in Surinam weren’t allowed to wear shoes, slaves on Curaçao were allowed to do so, and it is very likely that due to the favourable economic climate Statian slaves wore shoes as well. Figure 18 shows the age distribution of the buckles, while Figure 19 shows the population numbers on the island. If the two graphs are compared, a much more

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39 Personal correspondence with R. Grant Gilmore III (e-mail 21-4-2009)
A nuanced picture emerges. Most buckles are dated to the period 1761-1800, but this is also the time at which the island was most crowded with people. The more people there are on the island in a certain period, the more buckles one would expect to find from that period. The increase in population numbers is thus reflected in the age distribution of the buckles.

![Figure 20. Average product trade of St. Eustatius (in guilders), based on sugar, coffee, tobacco, indigo and cocoa shipments.](image)

![Figure 21. The relative occurrence of the metal alloys of which the buckles are made.](image)

If the age distribution of the buckles is compared with the product trade of St. Eustatius (see Figure 20) a similar picture emerges. The growing trade and the sudden decline after Rodney captured the island are also represented in the age distribution of the buckles. As commerce increased, so did the number of people living on the island. There is one discrepancy however: although there is a large population growth in the last two decades of the eighteenth century, this isn’t reflected in the average product trade which experiences a dramatic decline. In the buckle distribution only a small decline is visible. Thus it can be argued that the age distribution of the buckles is a result of two combining factors: the number of people living on the island and the value of the product trade.

Buckles can be loosely separated in terms of quality, and it is thus possible to use buckles as an index of class and status. The material of which a buckle was made reflected a person’s social position. In the period covered in this thesis almost everyone wore shoe buckles of varying materials and with varying amounts of decoration. To generalize, buckles made of the most expensive materials and with the most elaborate decoration were worn by wealthy people, while the least expensive and plainest buckles were worn by the poor. One must keep in mind though that the presence of a fancy buckle is not representative of the
presence of a wealthy person, just as the presence of a cheap buckle doesn’t necessarily imply the presence of someone of poor economic means. There is, however, a high probability that a fancy buckle belonged to a wealthy person and a cheap buckle belonged to someone who was poor. Figure 21 shows that there is a relatively large amount of silver alloy shoe buckles in the collection, while copper alloy is the most common material a shoe buckle was made of. Not only are a lot of silver buckles elaborately decorated (having three or more decorative elements), also 10 out of 34 buckles made of cheaper alloys have elaborate decorations (for example no. 24 in the appendix). This means that there are 34 out of 54 buckles (63%) which were relatively expensive.

Figure 22. The age distribution of the buckles, correlated with the materials they are made of (absolute numbers).

It can be argued, then, that the relatively high percentage of expensive buckles is the result of a relatively high percentage of wealthy people visiting, working or living on the island. Since trade played a greater role in island life over time, and people towards the end of the 1770’s were making more money than ever before, they could obtain more expensive buckles. This is illustrated by Figure 22, which shows that silver alloy buckles were most common in the years leading up to, and in the period when the Statian economy reached its zenith. In this way the buckles themselves reflect the growing prosperity and turbulent history of St. Eustatius.
6. Storage and conservation

In this chapter a brief description is given about how the buckles should ideally have been stored and conserved. From January 1991 until January 2009 they were stored in one of the rooms of the Madame Theatre, a building used in the twentieth century as a theatre and community building in the center of Oranjestad. The storage conditions were far from ideal. All the artifacts were put into deteriorating cardboard boxes from the time they were recovered from the sea. In March 2008 they were transferred to sturdy plastic tubs. Children have since climbed all over the new storage boxes causing some of them to collapse. (see Figure 23). SECAR (the St. Eustatius Center for Archaeological Research) hopes that a new storage facility can be built soon. The buckles were not put into plastic find bags and didn’t have artifact numbers or additional information tagged on them. There are no indications that the buckles ever received any conservation treatment.

After the buckles had been examined and investigated, they were put into durable, translucent, high density 3 mm extruded polypropylene boxes. Between every buckle a piece of paper foil was put, so that they couldn’t touch each other. They were all tagged with an artifact number and a digital catalogue has been set up. A single site number, SE551, has been
created for them, since the exact location where each buckle was found (as mentioned in the introduction, there were 40 sites where holes were drilled) is unknown. They are stored in the SECAR building on the island. Due to the relatively stable climate on the island, the buckles haven’t deteriorated as much as they would have in less stable environments. Basically the same methods of storage and conservation apply to the different metals of which the buckles are made.

Generally speaking, concretion (encrustation) removal for oceanic artifacts depends on the robustness of the object. For solid heavy objects, a few hammer blows to the surface will suffice to remove the majority of the concretion. Ocean formed concretion tends to fall away completely. Finer cleaning can be done using power tools such as an air- or electric scribe. Dental picks, dental brushes and bristle brushes complement the air scribe as do frequent rinses under running non-chlorinated fresh water. If the oceanic concretion is allowed to dry during storage, it will absorb carbon from the atmosphere and become very hard. If there is a carbonized layer on the artifact it will adhere strongly to the concretion. After all this has been done, the object can receive a final cleaning with glass bead blasting in a blasting cabinet. Usually aluminum silica beads are used in this procedure, since these beads will break on impact with an artifact, absorbing much of the energy of the blasting.

All metal artifacts, concreted or not, should be wrapped in aluminum foil and placed in a basic solution directly after recovery. The foil should be tight but also allow the solution to get between it and the artifact. The solution should consist of fresh water (rainwater, deionized water or distilled water, but no tap water!) with a base such as sodium carbonate added to it. Adding a citric acid instead of a base works better on copper and silver objects. The artifacts will only be stabilized if there is at least 5% of the base present in the solution. This situation is called a galvanic wrap. The aluminum foil has a lower corrosion potential than the metal of which the artifact is made, therefore it can be used as an anode to reduce the metal artifact. The solution is called an electrolyte and permits the aluminum to donate electrons to the iron. Results should appear within a few days, but the time frame is variable. The results of the procedure include the disappearance of rust, a more defined surface, the loss of any small amount of adhering carbonate and a darkening of the surface of the artifact in the case of iron.

After this procedure the artifact has to undergo a thorough rinse and scrub using soft nylon bristle toothbrushes and a paste of water and sodium bicarbonate. This should be done

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40 Rodgers 2004:88
41 Rodgers 2004:86
with rubber gloves or utensils to prevent salt contamination from fingertips. After this it has to be soaked in distilled water.

The next phase is dehydration. This is achieved by placing the artifact into three successive baths of alcohol or acetone, a method called solvent drying. Each bath should last at least one hour. This method applies to cast iron, silver, copper, gold, tin, lead and pewter. Composite artifacts or those with plating, guilding or any other coating should also be solvent dried. Wrought iron objects should be dehydrated in an oven, which can also be done with objects made of tin. The oven has to be preheated to 177 °C. After removing the artifact from the distilled water it has to be placed in the oven for 24 to 48 hours. Generally, the rougher the texture the longer the dehydration period.\textsuperscript{42}

The final phase for all metal objects is the application of a protectant in order to prevent moisture from re-entering the object and promoting corrosion. This coating should be applied immediately after the dehydration process and consists of microcrystalline wax for copper, iron and tin. Gold, silver, lead and pewter can be coated with shellac. The wax has to be heated to a temperature between 99 and 104 °C after which the artifacts have to be dipped in it for about two hours.\textsuperscript{43} The shellac coating can easily be applied with a paint brush. At times it may not be necessary to apply a protectant. Gold will seldom need protection from humidity and silver protectant application depends on its use after conservation. In these cases the artifacts should be stored in dessicant chambers or in a storeroom with a relative humidity of 40% or less and with temperature differences of no more than a few degrees. If they will be subject to uncontrolled environments, gold and silver objects may need a surface coating.\textsuperscript{44}

Judging by the state of the buckles at the time of this investigation, none of these procedures were ever applied to them. The concretion, which is present on a lot of buckles, has become rock hard. If the previously outlined storage and conservation techniques had been applied to these objects, it would have been possible to obtain much more information (such as maker’s marks) from them. This example shows that it is important to treat recovered objects in the best possible way, in order to maximize the results (the amount of information obtained from them) and to keep them from deteriorating. In this way they can be preserved for future generations to admire and to study.

\textsuperscript{42} Rodgers 2004:94
\textsuperscript{43} Rodgers 2004:119
\textsuperscript{44} Rodgers 2004:134
7. Conclusions

It has become clear that St. Eustatius experienced a turbulent history in the seventeenth and eighteenth centuries. Multiple changes of power among the Dutch, French and English had a large impact on the islands’ inhabitants and economy. During the relatively long and peaceful Dutch occupation in the eighteenth century Statia became an important player in world economy. Merchants from all over the world came to this free port to make money. Towards the end of the eighteenth century Statia had to pay the price: the English Admiral Rodney took over the island after an order from his superiors in Great Britain to put an end to the trade of weapons and ammunition between St. Eustatius and the rebelling English colonies in North America. After a short revival the island lost its significance in the early nineteenth century.

Buckles in general have a long history, being introduced by the Romans and used throughout the Middle Ages and Post-Medieval times. Two piece buckles however were only in use for a short period, from roughly 1660-1800. The most common two piece buckle was the shoe buckle. It is this type of buckle that is mainly found in Oranje Bay (only one exception can be found in the currently investigated collection). They can be distinguished from other buckles in that they consist of two pieces, namely the frame and the backpiece, which were made separately and attached to each other in the last stages of manufacture.

A similar buckle collection to the Statian one can be found in Williamsburg, Virginia. A typology has been created for this collection. This typology is not very well suited for the Statian collection. For it to become a universally applicable typology for two piece buckles, the different categories have to be extended so that every buckle falls into a particular typological category.

The two piece buckles started out as purely functional objects, but over the course of a few decades they came to be regarded as highly fashionable jewellery. There were countless varieties in styles, forms and decorations and the materials they were made of ranged from cheap alloys such as pewter to expensive materials such as silver alloy, paste stones and even gold. These buckles can thus be seen as an indication of wealth. The majority of buckles in the Statian collection are relatively expensive. Furthermore, the age distribution of the buckles correlates with the population numbers and the amount of trade on St. Eustatius. They can thus be seen as indicators of the economic ups and downs of what can be considered as one of the most intriguing islands in the Caribbean.
Abstract

The Caribbean island St. Eustatius is an archaeologist’s dream. It has the greatest concentration of archaeological sites in the New World. There are an estimated 200 sites on land and 200 shipwrecks in the waters surrounding the island. One of the reasons for this is that the island played a major role in world history in the late eighteenth century. The sovereignty of the United States was first recognized here on November 16, 1776. People from all over the world came to St. Eustatius to make money by trading. As a result, one can find artifacts these people left behind on almost every square meter, on land and under water. One of these types of artifacts are buckles, objects that were regarded as articles of high fashion in the seventeenth and eighteenth centuries. In this thesis a collection of 55 buckles, that was found in Oranje Bay in the early 1990’s, are investigated. To present a complete picture, their historical context is examined as well. As will be shown, the buckles can be regarded as indicators of the ups and downs of the islands economy and the people who participated in it.

Het Caribische eiland St. Eustatius is de droom van elke archeoloog. Het heeft de grootste concentratie archeologische vindplaatsen in de Nieuwe Wereld. Er bevinden zich naar schatting 200 vindplaatsen op het land en 200 scheepswrakken in de wateren rondom het eiland. Eén van de redenen hiervoor is dat het eiland een grote rol speelde in de wereldgeschiedenis aan het einde van de achttiende eeuw. De onafhankelijkheid van de Verenigde Staten werd hier voor het eerst erkend op 16 november 1776. Mensen van over de hele wereld kwamen naar St. Eustatius om geld te verdienen in de handel. Als gevolg hiervan kan men artefacten die deze mensen hebben achtergelaten aantreffen op bijna elke vierkante meter, op het land en onder water. Eén van deze types artefacten zijn gespen, objecten die in de zeventiende en achttiende eeuw werden beschouwd als zeer modieuze artikelen. In deze scriptie wordt een collectie van 55 gespen, die in de vroege jaren '90 in Oranjebaai werd gevonden, onderzocht. Om een compleet beeld te schetsen wordt ook naar hun historische context gekeken. Het zal blijken dat de gespen beschouwd kunnen worden als indicatoren van de ups en downs van de economie van het eiland en de mensen die hieraan deelnamen.
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Appendix

This appendix contains the catalogue of the Statian buckles. The photos were taken in the SECAR (Sint Eustatius Center for Archaeological Research) building on the island using an Olympus μ1010 digital camera at a resolution of 10 megapixels. The drawings of the frames were made on graph paper by hand after which they were scanned and digitalized by tracing them with a WACOM Bamboo One digital pencil. The drawings of the tongues and chapes were copied from the book Buckles: 1250-1800 by Ross Whitehead (see bibliography). Since the purpose of the drawings is to illustrate the decoration, the undecorated and encrusted buckles are not drawn.
1) A cast silver alloy shoe buckle dating to the period 1769-1800. It has a rectangular frame decorated with two raised ridges on the inside and framed by raised dots. The frame is drilled to accommodate a separate pin. Ferrous oxide around the holes in the back suggests that the pin was made of iron alloy. Measurements: 87 x 51 mm.

It is a type II buckle, although the material differs and it is slightly larger from side to side.
2) A cast lead alloy shoe buckle dating to the period 1777-1800. It has a rectangular frame decorated with an oval openwork pattern between two interlaced ribbons and raised dots. The frame is drilled to accommodate a separate pin. Ferrous oxide around the holes in the back suggests that the pin was made of iron alloy. Measurements: 101 x 67 mm. It is a type V buckle, although the material differs.
3) A cast lead alloy shoe buckle dating to the period 1760-1800. It has a rectangular frame which is bent on one side and has a spiral pattern decoration framed by raised ridges. The frame is drilled to accommodate a separate pin. Measurements: 73 x 52 mm.

It is a type II buckle, although the material differs.
4) A cast lead alloy shoe buckle dating to the period 1760-1800. It has an incomplete bent rectangular frame decorated with a rope pattern on the inside and two rows of raised dots on the outside. The frame is drilled to accommodate a separate pin. Measurements: 50 x 50 mm. It is a type II buckle, although the material differs.
5) A cast copper alloy shoe buckle dating to the period 1760-1800. It has an incomplete bent rectangular frame decorated with three raised ridges in the center framed by incisions. The frame is drilled to accommodate a separate pin. Measurements: 107 x 45 mm.
It is a type II buckle.
6) A cast lead alloy shoe buckle dating to the period 1777-1800. It has a partly encrusted rectangular frame decorated with raised and incised ridges intermittent with oval decorations. The frame is drilled to accommodate a separate pin. Ferrous oxide around the holes in the back suggests that the pin was made of iron alloy. Measurements: 82 x 57 mm.

It is a type II buckle, although the material differs and it is slightly larger from top to bottom.
7) A cast silver alloy shoe buckle dating to the period 1777-1800. It has a rectangular frame which is broken on one side and which is decorated with half-circle patterns on the sides centered by incised ridges. The frame is drilled to accommodate a separate pin. Measurements: 86 x 54 mm.
It is a type II buckle, although the material differs and it is slightly larger from side to side and from top to bottom.
8) A cast copper alloy shoe buckle dating to the period 1760-1800. It has an undecorated rectangular frame. The frame is drilled to accommodate a separate pin. Measurements: 86 x 45 mm.

It is a type I buckle.
9) A cast silver alloy shoe buckle dating to the period 1720-1800. It has a rectangular frame which is decorated with a nail head pattern framed by incisions. The frame is drilled to accommodate a separate pin. Measurements: 53 x 48 mm.
It is a type II buckle, although the material differs.
10) A cast lead alloy shoe buckle dating to the period 1777-1800. It has a rectangular frame which is broken into three pieces and decorated with a twisted ribbon effect and a rope pattern on the interior and exterior rim. The frame is drilled to accommodate a separate pin. Measurements: 101 x 54 mm.

It is a type II buckle, although the material differs and it is slightly larger from top to bottom. The size from side to side is not the original length, since it has lost its curvature. The twisted ribbon decoration which creates the distinctive outer corners doesn’t occur in any of the different styles.
11) A cast silver alloy shoe buckle dating to the second half of the eighteenth century. It has a rectangular frame which is decorated with linear grooves along the length and semi-circular openwork along the width. The frame is drilled to accommodate a separate pin. Measurements: 61 x 42 mm.

It is a type II buckle, although the material differs.
12) A cast silver alloy shoe buckle dating to the period 1720-1800. It has an oval frame which is decorated with moulded rosettes alternating with linear rope patterns. The frame is drilled to accommodate a separate pin. Measurements: 64 x 51 mm.

It is a type IV-A buckle.
13) A gold-plated cast silver alloy shoe buckle dating to the period 1720-1800. It has a rectangular frame with concave sides decorated with an inner incised ridge and a swirled pattern. The frame has a wavy outer edge and is drilled to accommodate a separate pin. Measurements: 53 x 48 mm.
It is a type II buckle, although the material differs.
14) A cast lead alloy shoe buckle dating to the period 1760-1800. It has a rectangular frame which is broken on one side and decorated with raised ridges and circular ornamentation on each corner and above the pin terminals. The frame is drilled to accommodate a separate pin. It has the same decoration as no. 16. Measurements: 83 x 52 mm.
It is a type II buckle, although the material differs.
15) A cast copper alloy shoe buckle dating to the period 1720-1800. It has a rectangular frame decorated with wavy outer and inner edges, inside of which is a raised rope pattern decoration. The appearance of the frame is indicative of possible silver-plating. The frame is drilled to accommodate a separate pin. Measurements: 64 x 47 mm.

It is a type II buckle.
16) A cast silver alloy shoe buckle dating to the period 1777-1800. It has a rectangular frame which is broken into two pieces. It is decorated with raised ridges with dots in between and round (possibly floral) motifs on the corners and above the pin terminals. The frame is drilled to accommodate a separate pin. It has the same decoration as no. 14. Measurements: 108 x 49 mm.

It is a type II buckle, although the material differs. The size from side to side is not the original length, since it has lost its curvature.
17) A cast silver alloy shoe buckle dating to the last quarter of the eighteenth century. It has a rectangular frame with rounded corners of which only one partially encrusted half has survived. It is decorated with openwork on the sides and near the pin terminals. The frame is drilled to accommodate a separate pin. Measurements: 60 x 72 mm.

It is a type V buckle, although the material differs and it is larger from top to bottom.
18) A cast copper alloy shoe buckle dating to the period 1760-1800. It has a partially encrusted rectangular frame decorated with a raised ridge, which has linear incisions on it. The appearance of the frame is indicative of possible silver-plating. The iron alloy pin and double-spiked loop chape are fully encrusted. Measurements: 72 x 50 mm.
It is a type II buckle.
19) A cast lead alloy shoe buckle dating to the period 1760-1800. It has a largely encrusted rectangular frame. Due to the encrustation, the decoration is almost invisible except for raised dots on the outer edge. A possible linear pattern is discernable. The iron alloy pin and double-spiked loop chape are fully encrusted. Measurements: 72 x 52 mm.

It is a type II buckle, although the material differs.
20) A cast copper alloy shoe buckle dating to the period 1760-1800. It has a heavily encrusted rectangular frame. Due to the encrustation the decoration is invisible, but a possible linear pattern is discernable. The appearance of the frame is indicative of possible silver-plating. The iron alloy pin and double-spiked loop chape are fully encrusted. Measurements: 72 x 45 mm. It is a type II buckle.
21) A cast copper alloy shoe buckle dating to the period 1750-1775. It has an undecorated semi-rectangular frame which is broken on one side. The frame is drilled to accommodate a separate pin. Measurements: 60 x 49 mm.

It is a type III buckle.
22) A cast copper alloy shoe buckle dating to the period 1760-1800. It has an undecorated semi-rectangular frame with rounded ends. The pin is made of copper alloy as well. Measurements: 80 x 57 mm.
It is a type III buckle, although it is significantly larger from top to bottom and from side to side.
23) A cast copper alloy shoe buckle dating to the period 1660-1720. It has an incomplete trapezoidal frame decorated with a raised interior ridge and a swirled pattern on the outside. It has a lobed knob on the outer edge of the loop. The appearance of the frame is indicative of possible gold-plating. The frame is drilled to accommodate a separate pin. Measurements: 62 x 51 mm.
It is a type IV buckle.
24) A cast copper alloy shoe buckle dating to the period 1720-1800. It has an openwork frame, which is shuttle shaped with a partly wavy outer edge. The decoration comprises two interlaced ribbons incised with a linear pattern. The appearance of the frame is indicative of possible tinning. The frame is drilled to accommodate a separate pin. Measurements: 62 x 51 mm.

It is a type V buckle.
25) A cast copper alloy shoe buckle dating to the period 1720-1800. It has a sub-rectangular frame with rounded corners and a moulded curvilinear line around the outer edge. The frame was either tinned or silver-plated. It has a cast copper alloy pitchfork double tongue that is partly encrusted. Measurements: 62 x 50 mm.

It is a type III buckle.
26) A cast silver alloy shoe buckle dating to the period 1720-1770. It has an incomplete sub-rectangular frame with rounded corners decorated with moulded rosettes alternated by raised ridges. Bigger ornaments are situated at the middle of each side. It has a cast copper alloy loop chape and pitchfork double tongue. Measurements: 64 x 55 mm.
It is a type IV-A buckle, although it is slightly larger from top to bottom.
27) A cast copper alloy loop chape with one spike and a pitchfork double tongue dating to the early eighteenth century (around 1720). Measurements: 61 x 51 mm. It probably belonged to a frame with convex sides. It can be dated very precisely, because it is a transitory type between the left backpiece (which has a terminus ante quem of 1720) and the right backpiece (which has a terminus post quem of 1720).
28) A cast silver alloy shoe buckle dating to the period 1720-1770. It has a sub-rectangular frame with rounded corners decorated with moulded rosettes alternated by raised ridges. Bigger ornaments are situated at the middle of each side. It has a cast copper alloy double-spiked loop chape and pitchfork double tongue. Measurements: 65 x 52 mm.
It is a type IV-A buckle.
29) A cast lead alloy knee buckle dating to the period 1720-1800. It has a partly encrusted rectangular frame decorated with raised ridges with dots in between and round (possibly floral) motifs on the corners. The iron alloy anchor chape and two tongues are fully encrusted. Measurements: 35 x 38 mm.

It is a type II buckle, although it is not a shoe buckle and the material differs.
30) A cast lead alloy shoe buckle dating to the period 1777-1800. It has a partly encrusted rectangular frame decorated with a rope pattern. The iron alloy double tongue and double-spiked chape are fully encrusted. Measurements: 90 x 61 mm.
It is a type II buckle, although the material differs and it is significantly larger from top to bottom and from side to side.
31) A wrought iron alloy shoe buckle dating to the period 1750-1800. It has a rectangular frame and a double tongue which are totally encrusted. Measurements: 54 x 49 mm. It is a type I-A buckle.
32) A cast lead alloy shoe buckle dating to the period 1720-1800. It has a highly encrusted oval frame. The iron alloy double-spiked loop chape is fully encrusted as well. Measurements: 65 x 62 mm.
It is a type III buckle, although the material differs.
33) A wrought iron alloy shoe buckle dating to the period 1760-1800. It has a rectangular frame with pin and possibly a chape which are all totally encrusted. Measurements: 85 x 68 mm.
It is a type I-A buckle.
34) A wrought iron alloy shoe buckle dating to the period 1777-1800. It has a sub-rectangular frame with rounded corners. The frame, pin, tongue and chape are totally encrusted. Measurements: 83 x 67 mm.
It is a type I-A buckle, although it is difficult to see if it has any decorative elements.
35) A cast copper alloy shoe buckle dating to the period 1720-1770. It has a partially encrusted undecorated rectangular frame. The iron alloy double-spiked loop chape and pitchfork double tongue are totally encrusted. Measurements: 62 x 53 mm.
It is a type I buckle.
36) A cast lead alloy shoe buckle dating to the period 1720-1800. It has a highly encrusted shuttle shaped frame decorated with a raised linear pattern and raised dots on the inner edge. Due to the encrustation it is hard to discern the exact decorative elements. The iron alloy double-spiked loop chape is totally encrusted. Measurements: 76 x 48 mm.
It is a type IV buckle, although the material differs.
37) A cast copper alloy shoe buckle dating to the period 1720-1770. It has a partly encrusted oval frame decorated with openwork. The iron alloy double-spiked loop chape is totally encrusted. Measurements: 60 x 67 mm.
It is a type V buckle.
38) A wrought iron alloy double loop oval buckle dating to the period 1500-1650. It has a totally encrusted frame and strap bar. It has lobed knobs on either end of the strap bar. This type of buckle is referred to as a spectacle buckle. Measurements: 51 x 52 mm.
It is a type III-A buckle.
39) A cast copper alloy silver-plated shoe buckle dating to the period 1777-1800. It has an incomplete sub-rectangular frame with rounded corners decorated with rectangular openwork slots alternated by floral motifs and flanked by linear grooves on the outer edge (Artois style). The frame is drilled to accommodate a separate pin. Measurements: 33 x 48 mm. It is a type V buckle.
40) A cast silver alloy shoe buckle dating to the period 1750-1790. It has an incomplete rectangular frame decorated with an incised ridge on the outer edge and a multi-lobed knob on the outer edge of the loop. The frame is drilled to accommodate a separate pin. Measurements: 46 x 38 mm.
It is a type II buckle, although the material differs.
41) A cast silver alloy shoe buckle dating to the period 1720-1800. It has an incomplete sub-rectangular frame with rounded corners and concave sides decorated with moulded rosettes above the pin terminals. The frame is drilled to accommodate a separate pin. Measurements: 36 x 53 mm.
It is a type IV-A buckle.
42) A cast silver alloy shoe buckle dating to the period 1720-1800. It has an incomplete rectangular frame that comprises two interlaced ribbons on the short side. The whole frame has openwork decoration with floral motifs in between. The frame is drilled to accommodate a separate pin. Measurements: 32 x 42 mm.

It is a type V buckle, although the material differs.
43) A cast silver alloy shoe buckle dating to the period 1720-1800. It has a partly encrusted oval frame with concave sides decorated with rosettes, raised dots and openwork. Due to the encrustation it is hard to discern the exact decorative elements. It has lobed knobs on the pin terminals and a wavy outer edge. The iron alloy double-spiked loop chape is totally encrusted. Measurements: 55 x 57 mm.
It is a type V buckle, although the material differs.
44) A cast copper alloy gold-plated shoe buckle dating to the period 1720-1800. It has an undecorated rectangular frame with concave sides. The frame is drilled to accommodate a separate pin. Measurements: 48 x 46 mm.

It is a type I buckle.
45) A cast silver alloy shoe buckle dating to the period 1720-1800. It has an incomplete sub-rectangular frame with rounded corners decorated with linear incisions and spirals. The frame is drilled to accommodate a separate pin. Measurements: 53 x 47 mm.

It is a type IV-A buckle.
46) A cast copper alloy shoe buckle dating to the period 1720-1800. It has an incomplete and undecorated sub-rectangular frame with rounded corners and concave sides. The frame is drilled to accommodate a separate pin. Measurements: 62 x 50 mm.

It is a type III buckle.
47) A cast lead alloy shoe buckle dating to the period 1720-1800. It has a bent frame decorated with raised dots surrounded by incisions and a wavy edge. The frame is drilled to accommodate a separate pin. Measurements: 76 x 21 mm.

It is a type IV buckle, although the material differs.
48) A cast silver alloy shoe buckle dating to the period 1720-1800. It has a sub-rectangular frame with rounded corners and slightly concave sides decorated with linear zigzag patterns and dots. The frame is drilled to accommodate a separate pin. Measurements: 60 x 45 mm. It is a type IV-A buckle.
49) A cast silver alloy shoe buckle dating to the period 1720-1770. It has a partly encrusted oval frame with possible floral decorations and openwork. Knobs are found on the outer edges of the ends and sides. Due to the encrustation it is hard to discern the exact decorative elements. The iron alloy double-spiked loop chape is totally encrusted. Measurements: 63 x 60 mm.

It is a type V buckle, although the material differs.
50) A cast silver alloy shoe buckle dating to the period 1777-1800. It has an incomplete rectangular frame with rounded outer corners. The decoration comprises rosettes between two interlaced ribbons framed by raised rectangles. The frame is drilled to accommodate a separate pin. Measurements: 65 x 71 mm.

It is a type IV-A buckle, although it is significantly larger from top to bottom.
51) A cast copper alloy shoe buckle dating to the period 1720-1800. It has a rectangular frame decorated with incisions on the inner and outer edges centered by a raised ridge. The frame is drilled to accommodate a separate pin. Measurements: 65 x 44 mm.

It is a type II buckle.
52) A cast silver alloy shoe buckle dating to the period 1720-1800. It has a rectangular frame decorated with a swirled pattern and linear incisions. It has a wavy outer and inner edge and spiked knobs on the external corners of the frame. The frame is drilled to accommodate a separate pin. Measurements: 55 x 49 mm.
It is a type II buckle, although the material differs.
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