CHAPTER ONE

Introduction

Archaeology is the study of past populations through the material culture discovered by excavation. By confronting the material and the technological responses to daily life in the past we discover contrasts between our current lifestyle and that of our predecessors. All forms of footwear are primarily a protection for the human foot against the environment and only secondarily an element of fashion. During each historical period, the production of footwear relied on the technological capacities and abilities to create suitable materials. Development and changes in the use of materials and corresponding technological changes provided new solutions and in turn affect people's habits and fashions. A recent example is less than sixty years ago rubber overshoes or galoshes were necessary for protecting leather soled footwear from rain, snow and mud. The introduction of synthetic material soles replaced nearly all leather-soled footwear and thus rubber overshoes became obsolete along with the societal conventions or 'the fashion' of wearing galoshes. The role of climatic change is perhaps revealed more clearly by the occurrence of sandals and overshoes in the archaeological record than by shoes.

Leather shoes comprise most of the footwear found in European archaeological excavations. All use one form or another of the primary cutting patterns (PCP), independent of the historical period in which they were made.¹ The primary cutting patterns provide a strategy for controlling the extensibility of leather or skin in order to make a shoe that retains its shape during use. The 'trade name' or named style methodology, established initially for Roman leather shoes, is combined with the primary cutting patterns, represented by letter codes, and provides a classification and chronological framework for European archaeologically recovered leather shoes from all archaeological periods.² Occurring less often among recovered archaeological leather and wood finds are sandals, pattens and mules, which do not use primary cutting patterns. However, the named style methodology can be adapted to include these diverse types of footwear.

As a type of footwear only partially covering the foot, sandals, pattens and mules have a limited use of the extensibility of leather and primary cutting patterns. Although archaeologically recovered leather sandal and patten straps use simple cutting patterns, these are invariably aligned with the length along the strong direction of the leather. The relatively stable configuration of uppers for sandals, pattens and mules contrasts with the diversity of sole materials and constructions. In addition to soles made of leather, wood, cork and vegetable fibres were also employed. The named style methodology letter codes have been adapted to indicate the type of footwear (S-sandal, P-patten, MU-mules) followed by the first letter of the material used for the sole (L-leather, W-wood, C-cork). An additional footwear type is Roman bath slippers, identified by 'BS' followed by the sole material (L, W, C). Roman clogs with a leather upper strap and a wood sole are classified here as pattens (PW).

This volume presents two opposite type of footwear found in European archaeology: sandals and overshoes. Sandals are a sort of open footwear suitable for keeping the feet cool in Mediterranean or sub-tropical climates, protecting the foot's sole while the minimal upper allows a maximum of aeration. During the Roman period, sandals were widely used for both cultural and climatic reasons. Sandals are suited to southern European and North African hot weather. The fashion of wearing sandals followed the expansion of the Roman Empire into Northern Europe. By the mid

¹ Volken 2014, 53-76

² Van Driel-Murray 2001a, 342; Volken 2014.



Figure 1. Reconstructions of women's Roman sandals from the 1st to 4th century CE. Named styles from left to right; Saône-SL, Woerden-SL, De Meern-SL variation with a ring toe strap, Noctua-SL, Lepidina-SL, Vindonissa-SL and Mogontia-SL. (Shoe Museum collection, Lausanne CH)

to late 1st century CE strap sandals for women and instep fastening sandals with a back section for men were being worn at the far reaches of the Empire in Northern England, albeit with socks. (Figs. 1, 2) Sandals with leather soles were most likely worn in the home, as well as leather covered cork slippers; those with wood soles and hobnailed leather soles were probably worn mostly out of doors. Wood soled clogs, similar to sandals, also served for out of doors wear, providing an economical type of footwear. The political, economic and climatic changes during the 4th and 5th centuries brought an influx of new fashions including mules, while sandals and hobnailed shoes fell into disuse. Sandals, as an open form of footwear worn on either bare or stockinged feet, did not return to European fashion until the early 20th century, the exception being religious orders in the late Middle Ages.



Figure 2. Reconstructions of men's sandals from the 1st to 4th century CE. Named styles from left to right: Hollriede-SL, Servon-SL, Dalton-Sl and Bardon-SL. (Shoe Museum collection, Lausanne CH)



Figure 3. Reconstructions of women's Roman wood and leather soled sandals from the 1st to 2nd century CE. Named styles; Avenches-SW (above left), Severine-SL (below left), Vindonissa-SW (above right), Vindonissa-SL (below right). (Shoe Museum collection, Lausanne CH)

The second type of footwear presented are overshoes such as pattens and mules. The 1st century marching boot, the *Caliga*, is technically a type of overshoe, worn with wool socks or *socci*, a type of lightweight leather shoe.³ That it could also have been worn with bare feet is perhaps part of the reason it was considered to be a shoe; the poor survival of the lighter types of footwear in archaeological contexts and modern observer bias may also be part of why it has been classed as a shoe from its first appearance in archaeological excavations. Roman clogs are technically a type of patten, lacking a toe thong so they could be worn with lightweight leather shoes or textile foot wrappings.

The custom of wearing an overshoe for protecting leather shoes has not been attested among the archaeological footwear finds from the 5th to 12th centuries. Pattens with wood or leather covered cork soles add a layer of insulation to a shod foot, providing warmth in temperate to sub polar climates while protecting the leather shoe soles from contact with wet, cold and hard ground. Wood pattens with a stilt at the front and a second one at the back were intended for wear in thick mud or ploughed fields. Pattens for indoor wear had leather covered cork mid soles. Wood sole and leather covered cork pattens were employed up until the beginning of the 16th century. The invention of welted and stitched down shoe constructions with multiple layers of sole leather replaced the use of wood pattens for outdoor wear, while leather covered cork pattens were supplanted by mules with leather covered cork soles for indoor wear.

In the following chapters, archaeologically recovered sandals, bath slippers, clogs, pattens and mules are presented in style and chronology diagrams and in a catalogue with description, chronological period and list of published examples plus those from online and archaeological collections. Terminology and descriptions for the parts of sandals, pattens and mules are included in the chapters about the footwear type. Technical information about sole/upper constructions and sole shape typologies are provided for each type of footwear.

Roman sandals are presented in Chapter two. The sandal types are divided into groups based on the configuration of the uppers, such as slip-on straps or bands, plus those with fastenings, including back tying types. The sandal upper types are identified as named styles and can occur on both leather and wood soles. (Fig. 3) Typologies for the sole shapes and construction techniques are presented, providing chronological parameters. Men's sandals with a back section and instep fastening include those with an separate sole or a carbatina type sandal, which has an integral sole.

Bath slippers, mules and clogs/pattens from the Roman period are presented in Chapter three. (Fig. 4) The uppers for bath slippers have been assigned named styles common to leather covered cork, leather and wood soles. The sole/upper constructions for bath slippers are leather covered cork soles and wood sole; mules employ similar constructions. Clogs used as pattens lack a toe strap and have wood soles.



Figure 4. Reconstructions of women's Roman bath slippers, named styles from left to right; Agrippina-BSC, Dalheim-BSW and Lein-BSW. (Shoe Museum collection, Lausanne CH)

Chapter four presents named styles of medieval pattens with wood, leather and leather covered cork soles. (Fig. 5) The majority of patten uppers are slip-on types, categorised by shape and the length from the toe to the instep area. The straps are either in two parts fastened at the centre by a buckle or a pin, or a single leather band. Flexible soled pattens, either of leather or hinged wood, have back straps plus toe straps. Decoration techniques and motifs are shown independently of the named styles. The sandals for the Franciscan Order are included in this chapter. Although pattens fall out of fashion after the beginning of the 16th century, some modern period examples are included.

Late medieval and modern period mules and footwear imitating or resembling mules plus chopines are presented in Chapter five. Leather covered cork mules took over the function of pattens in the 16th century. (Fig. 6) By the 17th century and with the invention of the heeled shoe, the fashion for wearing mules over light slippers was transformed into a mock galosh applied to heeled shoes with unusual constructions such as the 'slack' heel and the 'slap' heel. Textile covered mules became popular for both men and women. Chopines, a type of platform soled overshoe, are presented but have not been given style names.

Chapter six provides examples of the techniques used to make reconstructions of sandals, pattens and mules. Reconstructions of archaeological footwear are a research tool, providing answers for technical questions while permitting physical tests not possible with the archaeological material. Once a reconstruction has been made, insights about function, construction and original appearance become possible, adding to a complete understanding of the archaeological object. Of the 28 shoes reconstructed for this book, 13 were selected to show the basic construction techniques for Roman sandals, medieval pattens and 16th century mules. The aim of presenting the reconstructions is to aid the identification of archaeologically recovered footwear.

Even if leather objects recovered from waterlogged sites are complete, the vegetable fibres (linen or hemp) used for the stitching that held the components together often have disintegrated, leaving only the stitch holes in the leather. The stitch holes provide information about how the leather components were assembled. The Goubitz notation system allows an accurate documentation of stitch types, being both a schematic tool and a technique for precisely recording each stitch hole. Understanding how the stitches were made greatly improves the quality of documentation. Seeing how the components were assembled provides a complete view of the object, necessary for identifying how the loose components found in archaeology once fit together to make a complete object.

Reconstructions can also clarify the construction used for making a complex yet incomplete object- the Roman bath slippers are an example of such a case. Roman bath slippers have components made from materials that do not survive in waterlogged archaeological sites, thus only through



Figure 5. Reconstructions of mediaeval pattens with wood, leather and leather covered cork soles from the late 14th to the 15th century. Named styles from left to right; Riverside-PW, Trig Lane-PWH, Beverley-PWH, Namur-PC and Honbeek-PC. (Shoe Museum collection, Lausanne CH)

a reconstruction can the traces visible on the vegetable tanned leather elements be understood. (See Chapter 6. 6) Fastening methods can be identified through the use of reconstructions. The Roman period Bardon-SL named style sandal has an instep fastening with two pairs of lace holes at the end of each tab. Simple observation of the archaeological material does not provide the possibility of understanding how the fastening worked. Once the reconstruction was made, it became clear how this paired lace hole fastening functioned.

The impetus for this volume was to present the footwear types that were not included in the 2014 Archaeological Footwear, Development of shoe patterns and styles from Prehistory till the 1600's, which contained only shoes that were made with the primary cutting patterns. The methodology, presentation and research approach remains the same but applied and adapted to footwear types that do not rely on the primary cutting patterns. The additional chapter in this volume about making reconstructions is intended to aid in the identification of archeological leather components and fragments.



Figure 6. Reconstructions of late 15th century to mid 16th century mules with leather covered cork soles, named styles Oudeschans-MUC, Zaltbommel-MUC, Bodenplatz-MUC. (Shoe Museum collection, Lausanne CH)