

AN EXAMINATION OF THE EFFECTS OF MEDITERRANEAN IMPORTS ON CELTIC  
SOCIAL STRUCTURE THROUGH BURIAL ANALYSIS

By

Chad Joseph Heemstra

Submitted to the Faculty of

The Archaeological Studies Program  
Department of Sociology and Archaeology

In partial fulfillment of the requirements for the degree of  
Bachelor of Science

University of Wisconsin-La Crosse

2012

Copyright © 2012 by Chad Heemstra  
All rights reserved

# AN EXAMINATION OF THE EFFECTS OF MEDITERRANEAN IMPORTS ON CELTIC SOCIAL STRUCTURE THROUGH BURIAL ANALYSIS

Chad Joseph Heemstra, B.S.

University of Wisconsin-La Crosse, 2012

This paper provides a look at the effects of Mediterranean imports on Celtic society in the Middle Rhine-Moselle region through an investigation of burial analysis. These imports, known as prestige goods, were used by the Celtic elite to demonstrate their power and authority and can be readily identified in Celtic burial context. During the Late Hallstatt period, elite control of Mediterranean trade networks shifted, resulting in increased trade with this zone. This increase in trade is identified and is a possible cause of the development of a new Celtic culture known as the La Tène. By analyzing the burials that contain Mediterranean imports from the Late Hallstatt period to the La Tène A period, changes in the burial forms, location and size were identified that confirm this change in society. In addition it was found that elite graves that contained imports within the Late Hallstatt and La Tène A were significantly different, in terms of burial characteristics, than the elite graves which did not possess imports.

## **Acknowledgments**

I would first like to thank my family and friends for all of their encouragement throughout this project. A special thanks to my parents, Heather and Donald Heemstra, who have always supported me in all I do.

I would like to also thank Dr. David Anderson and Dr. Joseph Tiffany for all of the assistance they have provided over the past semester not only with this project, but for their help in my academic future. Thanks also goes out to my readers, Erin DuBois and Megan Kasten for having to put up with all my spelling mistakes. Further, I would like to thank Katie Wargolet whose support allowed me to accomplish this task to the best of my ability

## INTRODUCTION

Although some cultures may be termed isolationist in nature, all cultures have some form of contact with others. In many cases, this type of culture contact is economic in nature focusing on the trade of goods. The ancient Celts were no different, having developed numerous trade relations with the cultures neighboring them. Several of these cultures included the civilizations of the Mediterranean, such as the Greeks, Romans and Etruscans. This trade with the civilizations to the south of the Celtic zone gradually increased from the Late Hallstatt Period to the La Tène A period (500 - 250 B.C.). Throughout the investigations of the Celtic peoples, studies have focused on this Mediterranean trade (Bouloumie 1974; Frey 1969). These studies have primarily looked at the prestige items that were being traded, such as Mediterranean brooches and decorated pottery, and how the artistic qualities of these goods created a new Celtic art form. Investigations have also looked at how trade with the Mediterranean affected the Celtic social structure; namely, whether trade with Mediterranean groups was a cause for change in the social structure of the Celts. The general theory is that the rise of the Celtic elites in the La Tène A period was based on the control of the trade of these prestige goods, as was that of the previous Hallstatt civilization (Arnold and Gibson 1995). Several investigations along these lines have looked at the Mediterranean goods in the context of elite burials (Bouloumie 1974; Diepeveen 2001; Frey 1969). It is in these burials, that Celtic trade with the Mediterranean can be identified with relative ease due to their distinctive style. Celtic elites would show their power

by being buried with exotic items, including Mediterranean objects. The change of these objects over time can provide valuable information on the social structure of the Celtic people.

Studies by individuals such as Marian Diepeveen-Jansen (2001) have looked at the change in the social structure from the Late Hallstatt to the La Tène A period based on prestige goods in burials. Diepeveen-Jansen's study identifies the prestige goods in burials that defined the elite cultures within the Late Hallstatt and La Tène A societies. These include wagons/chariots, bronze ware, and weapons, some of which are Mediterranean in origin. In her research, Diepeveen-Jansen identifies changes in the social structure of the ancient Celts by looking at the changes in burial patterns of the elites.

The following investigation seeks to identify the patterns or relationships that might exist between the increase of Mediterranean goods in the La Tène A period burials and the size and location of the burials themselves. More specifically, this study focuses on the possible relationship between the fluctuations in Mediterranean goods in the La Tène A and changing burial practices (such as an increase in burial size, burial goods, and new burial locations) from the Late Hallstatt. These Celtic imports could also be a cause of differences among graves during both the Late Hallstatt and La Tène A, and is also explored in this study. Statistical analysis is used to analyze the data set that has been acquired. This study differs from the Diepeveen-Jansen study in that it looks at the effect of the Mediterranean trade goods on Celtic mortuary practice in greater detail, not just a general overview of Celtic prestige goods. If there is a correlation, then the changing burial patterns from the Late Hallstatt to the La Tène A will allow researchers to analyze the changes in the La Tène A social structure in this context.

A brief overview of the Hallstatt period will be provided in the next section, followed by a look at the transition to the La Tène A period and its defining characteristics. Then there will

be a discussion on how the elite control of trade goods affected both cultures and how this applies to the World Systems Model (Wallerstein 1974). Finally, a brief introduction to the different aspects of Mediterranean imports and Celtic burial practices, which are the focus of this research, will be explored.

## THE CELTIC ZONE

### Early Iron Age Europe

The Hallstatt Culture (Ha C-D periods) is the period from 750/700 to 500/400 B.C. (Kristiansen 1998). It has been identified with these dates due to its accordance with the material culture at the type site of Hallstatt. Before the Hallstatt, the Urnfield culture dominated Western Europe. The Early Iron Age Culture termed Hallstatt covers the area of Central Europe north and east of the Alps from Lyon and Paris in the west to Budapest in the east, and as far north as modern Germany (Figure 1).



Figure 1: Map Indicating the Hallstatt West and East Cultural Zones (Wells 1980:10)

There are two distinct parts of the Hallstatt cultural zone which are defined based upon artifact assemblages: there is the Eastern zone, which includes the area such as the Balkans and the Western zone. This study will focus on the Middle Rhine-Moselle Region which is part of the Western zone and indicated in Figure 2.

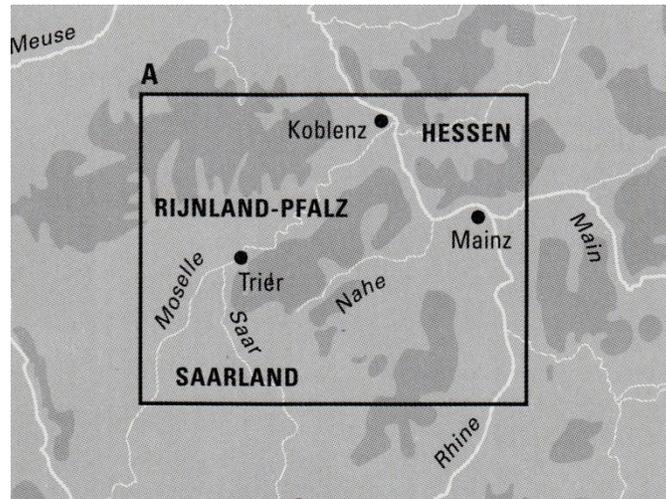


Figure 2: A Map of the Middle Rhine-Moselle region (Diepeveen-Jansen 2001:16)

### **Chronology of the Hallstatt**

The chronological scheme used in this paper in the study region was developed by Paul Reinecke (1911) at the beginning of the last century. This scheme divided the Hallstatt into four phases: which were designated by capital letters. The Hallstatt A and B period are now treated as parts of the lingering Urnfield tradition of the Bronze Age, while the C and D phases are thought of as the Early Iron Age. A further designation is used among the two last Iron Age phases, Hallstatt C is known as the Early Hallstatt while Hallstatt D is known as the Late Hallstatt. Figure 3 shows the Reinecke chronological system.

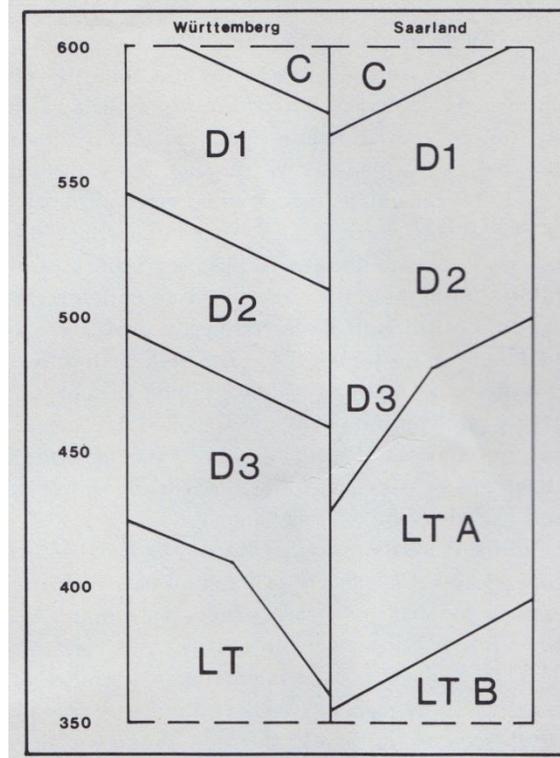


Figure 3: Reinecke Chronological system for the Western Hallstatt Zone (Wells 1980:11)

### The Royal Dynasties

One of the time periods that will be the focus of this research is the Hallstatt D period, which occurred from around the sixth to the early fifth century B.C. During this period, royal residences start to appear in the western Hallstatt zone due to the unequal control of prestige goods that will be explained in more depth in later sections (Cunliffe 1994). In return for prestige goods, the Hallstatt chiefs provided industrial products that were needed in the manufacturing centers of the Mediterranean: iron, silver, amber, gold and even slaves (Kristiansen 1998). Chiefs were able to take advantage of this exchange system and enrich themselves, breaking down the old order of the previous Hallstatt C culture (Kristiansen 1998). This new political structure encouraged exploitation and demanded increased tribute from vassals (Kristiansen 1998). The elite demonstrated their power and authority in "princely" burials, thereby distancing themselves from

traditional values, and from kin systems based on rank (Cunliffe 1994). The new social system was dominated by the top "princely" chiefs with other vassal chiefs surrounding them in order to provide new access to wealth. Urban centers began to develop in the areas north of the Alps, with an upper class of free, landowning citizens, and merchants and craft specialists (Kristiansen 1998).

### **Archaeological Material**

There are only a small number of Late Hallstatt period settlement sites known, of which only a few have been excavated. Because these few excavations were not intensive, this study focuses on the grave sites that have been uncovered in the area, of which hundreds of graves have been excavated. The Late Hallstatt graves from the Middle Rhine-Moselle region can be seen in Figure 4. In these graves the most abundant material is metal goods, including fibulae, arm rings and daggers.

### **Transition to the La Tène Period**

Around 450 B.C., changes were taking place in the Hallstatt society (Kristiansen 1998). Royal burials in the Hallstatt zone that defined the Hallstatt D period began to disappear along with the prestige goods in this context (Kristiansen 1998). A new style of burial appears in the northern fringe of the Hallstatt culture. These burials are identified as elite warrior/wagon burials, due to the presence of weapons, armor and wheeled chariots, and contain examples of a new art style, known as La Tène. This new style was a combination of Mediterranean ideas and a new original domestic design concept (Cunliffe 1994). The type site for this period is the La Tène site in modern day Switzerland. This site was excavated in the 1857 by Hansli Kopp, providing a

wealth of information on the new cultural period. It has been identified that the rich burials with foreign imports were indeed moving north and a new cultural identity had begun to form (Kristiansen 1998). Several individuals such as Ludwig Pauli (1984) and Bintliff (1984) have given scenarios for these occurrences.

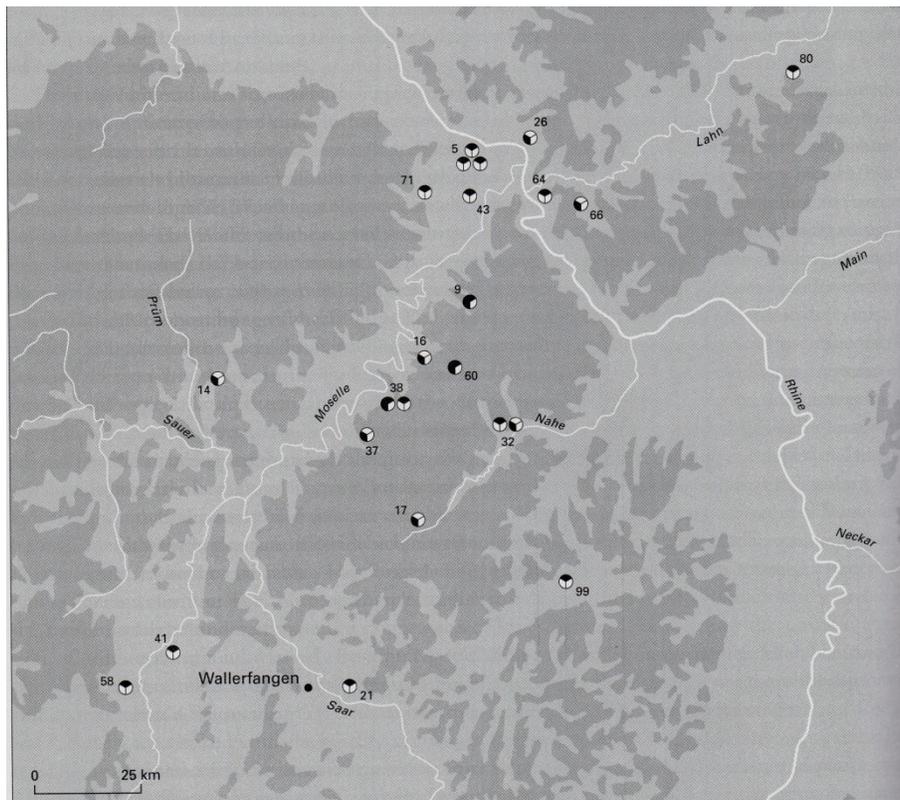


Figure 4: Late Hallstatt Graves in the Middle Rhine-Moselle Region (Diepeveen-Jansen 2001:92)

They believe that the lower classes revolted against exploitation by the royal elites. The warrior elite class used this disruption to take over the trade routes and created a new cultural zone. These Celtic elites can be considered a warrior society by examining the elite burials at this time period. These burials contain two- wheeled war chariots, weapons and prestige goods, which

originated in a historical tradition going back to the Early Hallstatt and to the Cimmerian/Scythian traditions of warfare (Kristiansen 1998). The Celtic elite shared many common traits that all warrior societies possess. First, their ideology was expansionist and second, the La Tène War leaders were chosen from among the elite based on their skill in actual warfare. This was different from the Hallstatt period in which leadership was passed down from father to son. The La Tène elite were the landowners who had the ability to be professional warriors full time, which was considered a noble and honored task, and can be identified due to the warrior grave goods (Kristiansen 1998). In order to keep this system going, war, plunder and conquests were necessary for its survival and for the Celts to expand. The evidence for this expansion can be seen in the Celtic migrations, in which they moved into Italy, the Balkans and over much of Europe. Another way to achieve plunder used by the Celtic warrior elite was to become mercenaries; the use of Celtic mercenaries has been recorded by Greek and Roman writers, such as Livy. Another theory proposed by Daphne Nash (1985), is that the long distance trade with the Greek city of Massalia declined at the end of the Hallstatt D period. This disrupted the flow of trade between the Celtic elites and the Greeks. The elite warrior societies were then able gain control of this trade due to their occupation as mercenaries in the Greek world. The warrior societies did not need centers of power to control the trade from the Mediterranean which led to the decline and abandonment of the hill forts as the center of royal power. This led to the downfall of the royal residences and the rise of a new cultural identity.

### **Chronology of the La Tène**

The chronological scheme for the La Tène Period used in this paper was again developed by Reineke (Figure 3) and is the basis for time systems in central Europe. It is difficult to identify

the change in time from the Late Hallstatt to the La Tène A. This is due to the fact that all archaeological periods defined on the basis of change in artifact style overlap (Wells 1980). It seems that there are two schools of thought on how the division between the two was defined. The first school believes that the La Tène A style was adopted quite rapidly all over west-central Europe, replacing the Late Hallstatt mode of ornamentation (Wells 1980). This can be supported in the archaeological record by the La Tène A material found in later soil layers than Late Hallstatt ones. The other school of thought is that the Late Hallstatt and La Tène A are more material cultural groupings than based on time periods. Proponents of this belief state that the Late Hallstatt material culture survived longer in some places and that some of the latest Hallstatt groups were contemporary with the La Tène A groups. This study will use the former school of thought due to the lack of evidence of the two cultures being contemporary in the Middle Rhine-Moselle region.

### The La Tène A

The La Tène A period is a period characterized by a more mobile warrior society, one that did not need heavily fortified settlements as in the past. The reason for this change to a more mobile society is thought to have been caused by pastoral warriors of the steppe. These steppe societies, like the Cimmerians, Scythians, Huns and Hungarians had a strong influence on Europe west of the Danube. These steppe peoples possessed a warrior society, which is evident from the conquest migrations that they took part in. The conquest migrations, along with the diffusion or takeover of new weapons and military strategies deeply affected Celtic society in the Late Hallstatt. With the expansion of the steppe societies, large scale changes in settlement, economy and social organization of the people west of the Danube occurred. These changes, and possibly

shifting trade routes with the Mediterranean, led to the collapse of the Late Hallstatt chiefdoms, and saw a new social and economic organization based on land ownership and mobile armies. This in turn meant that there was less need for fortified central places. Increased contact with the Mediterranean world was also evident from archaeological and historic sources (Diepeveen-Jansen 2001). Grave goods containing new Mediterranean influences, such as two wheeled chariots, occur. Ancient sources such as the Roman Historian Livy, discuss the contact with the Celts stating "The story runs that this race, allured by delicious fruits and especially the wine had crossed the Alps and possessed themselves lands that had before been tilled by the Etruscans" (Kristiansen 1998:330)

### **La Tène A Archaeological Evidence**

There are no settlement sites that have been excavated from the La Tène A period. Therefore it is from graves that this study will get its data. Graves from this period contain bronze jewelry, iron weapons, and ceramic vessels. Figure 5 shows the La Tène A graves in the Middle Rhine-Moselle region.

### **World Systems Model**

The World Systems Model has had the strongest influence on the development of theories in the archaeology of the Late Hallstatt and La Tène A periods (Diepeveen 2001). This model is based on the idea of a core and periphery zone. In the Early and Middle Iron Age a supra-regional system is assumed in which the core dominates and the periphery provides the raw materials (Diepeveen-Jansen 2001). Nash (1985) states:

The Mediterranean cities regarded temperate Europe as a boundless reservoir of raw materials, foodstuffs, and human labor, while in the eyes of its northern periphery the Mediterranean seemed to possess inexhaustible stores of wealth (Nash 1985).

This model helps to provide answers for the changing patterns in Western European Iron Age societies. In Western Europe during the Late Hallstatt, archaeologists focus on the concept of *Furstensitze* developed by Kimmig (1969), which is now universally supported. The term refers to hill forts with monumental tumuli with rich grave inventories in the immediate vicinity (Diepeveen-Jansen 2001).

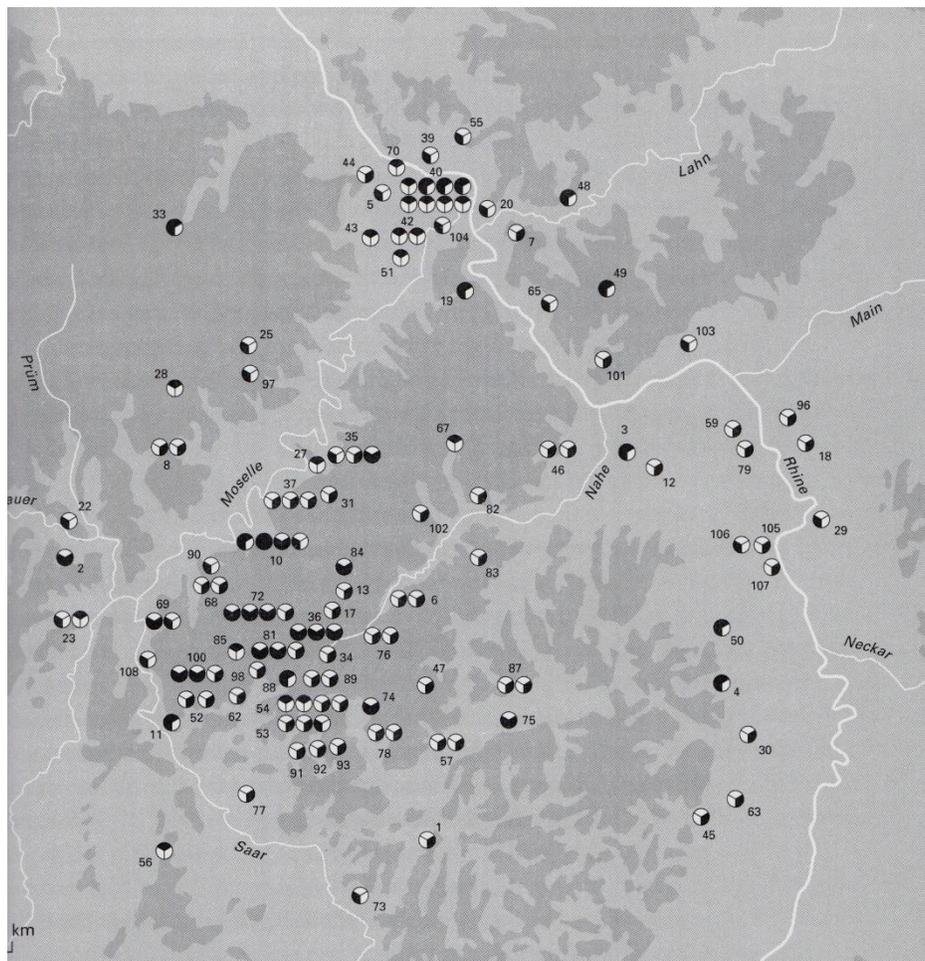


Figure 5: La Tène A Graves in the Middle Rhine-Moselle region (Diepeveen-Jansen 2001:97)

In this model economic activities are controlled by princes. During the Hallstatt time period, trade with the Mediterranean is believed to have given rise to these elites and developed a new society of increased social complexity (Cunliffe 1994). The foundation of the colony of Marseilles by the Phocaens in 600 B.C., the location of Hallstatt centers at strategic points of trade and Mediterranean imports in graves and forts help to confirm this (Diepeveen-Jansen 2001). The power of the Hallstatt elite was based upon the long distance trade with the Mediterranean, and more importantly, on the acquisition of elite imports. These imports, and therefore the elite power, were disturbed in the fifth century as was described above with the transition from the Late Hallstatt to the La Tène A period. Reorientation of trade routes through the Alps helped lead to a new culture north of the old Hallstatt centers of power, as can be seen in Figure 6. Due to the importance of both Mediterranean imports and Celtic burials to this study, both are overviewed in the next few paragraphs.

### **Mediterranean Imports**

Imports from the Mediterranean are easily identified in burial context. They are the clearest evidence for contact and interactions between the Early Iron Age inhabitants of central Europe and the people of the Mediterranean World (Wells 1980). The vast majority of the imports can be broken into two categories: Greek and Etruscan. The first category that will be discussed is the Greek Imports. The majority of and the easiest to date of the Greek imports are Attic pottery. Attic pottery is most frequently found in Late Hallstatt sites, followed by a substantial drop off once the La Tène period is reached. Other Greek imports include amphorae and bronze vessels. The Etruscan ware is the most prominent in the Middle Rhine-Moselle region. These imports are almost exclusively bronze vessels and can be categorized into schnabelkannen or beaked jugs,

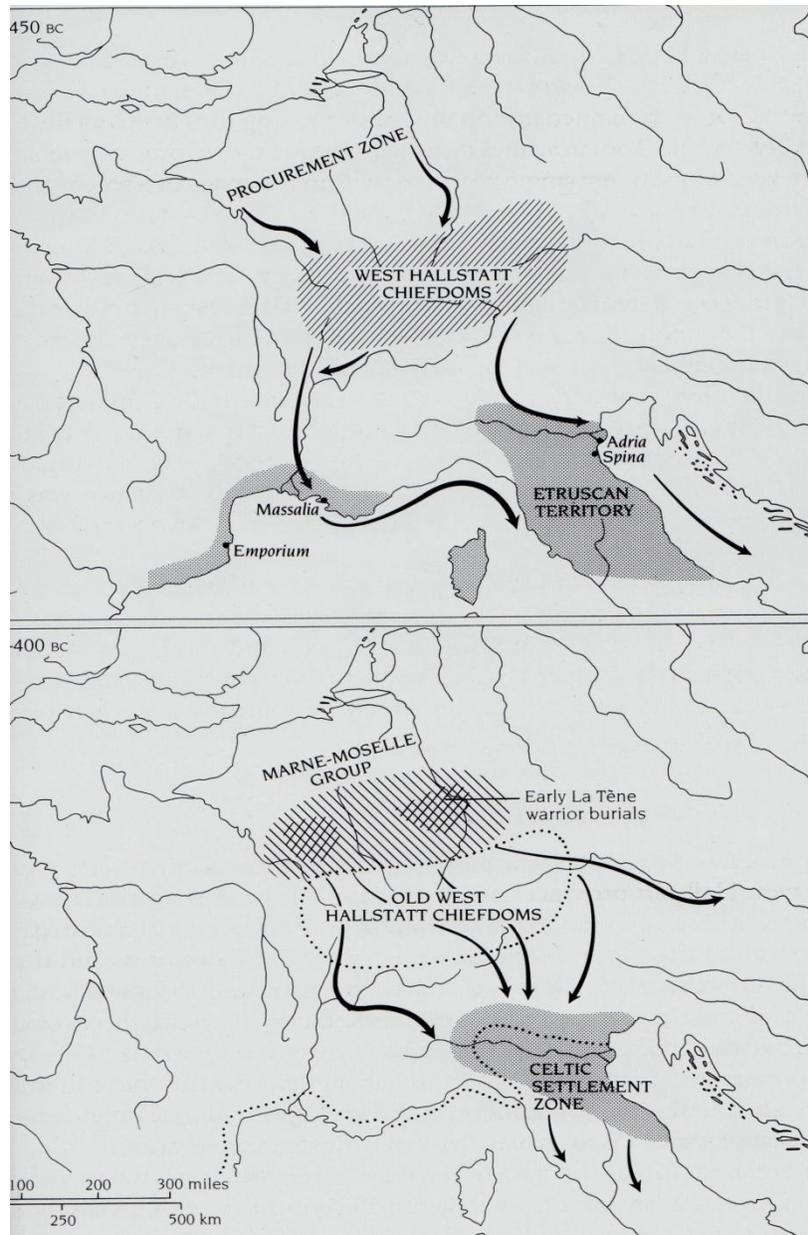


Figure 6: Reorientation of Trade routes from the Late Hallstatt (Top) to the La Tène A (Bottom) (Cunliffe 1994:359)

stamnoi, basins and other Etruscan bronze vessels (Figure 7). Because most identifiable imports are bronze and ceramic wares, these two types are the major focus of this research. All of the imported items have distinct qualities, such as artistic designs and styles, which allow them to be

classified as imports in the archaeological record. These imports include commodities associated with wine-drinking that were often placed in burials with elites. Examples of these wine drinking imports include Greek Black figured wares and Massaliot wine amphorae. Etruscan jugs and Greek Red Figured pottery are also readily identified in Celtic graves (Cunliffe 1984). The imports were used by the Celtic elite to show their power in a burial context and can provide a look at the social structure of a Celtic people.

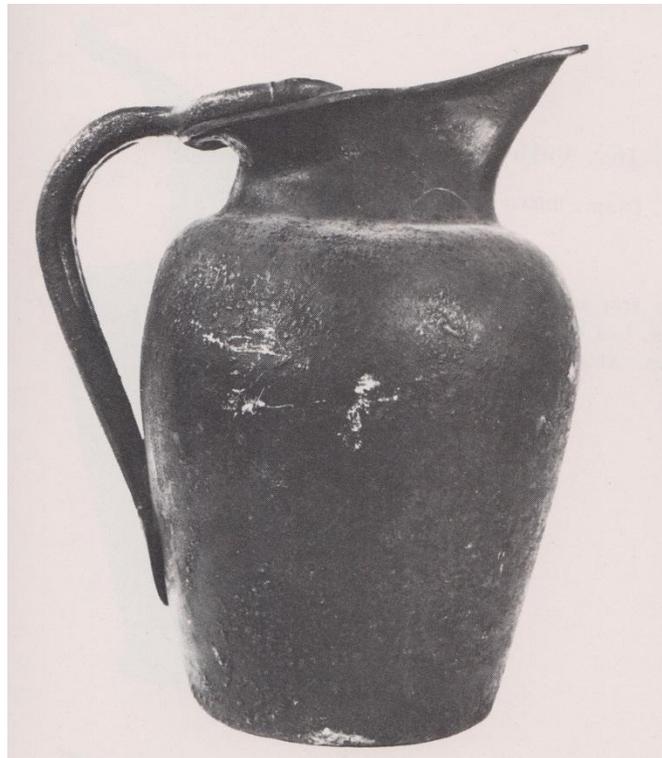


Figure 7: Etruscan bronze beaked jug (Bouloumie 1973:242)

### **Celtic Burials in the Rhine-Moselle region**

In the Middle Rhine-Moselle region, from the Late Hallstatt onwards, elite burials tend to be under a tumulus. A tumulus is a mound that was raised over the grave site that primarily made of

stone or soil, as seen in Figure 8. These tumuli vary in diameter, and the mound itself consists of either entirely soil or a stone core (Diepeveen-Jansen 2001). In the tumulus, burials can either be classified as inhumation or cremation, and may be accompanied by grave goods that include Mediterranean imports, along with other prestige goods. Elite graves from this time period also varying in location: some are located in a cemetery context, while others are isolated. A burial chamber may be used depending on the richness of the burial goods. In Celtic graves, it is typical for only one individual to be buried under the tumuli, although, during the late La Tène period secondary burials do arise (Diepeveen-Jansen 2001).



Figure 8: The Yeşilova Tumulus (<http://www.megalithic.co.uk/article.php?sid=22478>)

During the Late Hallstatt, the excavation of thousands of Celtic burials have allowed for a larger view of the entire period. It seems that the dominant form was inhumation, with a few cremations mixed in. The tumulus was built sometimes only earth, while other times stone and earth were mixed together depending on the availability of materials (Wells 1980).

The La Tène A Period burial practices were similar to the Late Hallstatt, the exact changes will be explored further in this study on the basis of Mediterranean imports. The deceased were placed under tumuli, with stone circles around them.

Since there is an absence of other Celtic archaeological contexts, including settlement surveys and non elite graves, many studies such as Diepeveen's (2001) have looked at the Celtic elite graves to understand Celtic social structure. It is in the elite grave context with its abundant information that social structure can be looked at by examining changes in the burial practices. It is these changes in the burial practices from the Hallstatt D period to the La Tène A period that will be the major focus of this study.

## **METHODOLOGY**

In order to look at the correlation between the Mediterranean imports and the changes in burial practices, we must look at several aspects of these two variables. The first is the frequency of the Mediterranean imports in the Middle-Rhine Mossele region during both the Hallstatt D and La Tène A period. Looking at the changes in frequency of Mediterranean imports will shed light on whether contact with Mediterranean societies increased, stayed the same or decreased. By using textual support, including data on the location of identified Mediterranean imports and historical records from several ancient sources, this research will identify if a changing frequency

of Mediterranean imports did occur from the Late Hallstatt D period to the La Tène A period. These imports are listed in Peter Scott Wells's 1980 dissertation entitled *Culture Contact and Culture Change* and Marian Diepeveen-Jansen's 2001 dissertation *People, Ideas and Goods*.

In connection with the identifying changes in the fluctuations in Mediterranean imports, an investigation on the changing burial practices will also occur. Looking for differences in burial practices, such as increased tumulus size, burial form (inhumation or cremation) and whether the burial was isolated or located within a cemetery will provide an insight into the changing social practices from the Late Hallstatt to the La Tène A period. The main evidence for the changes in burial practices is taken from Marian Diepeveen-Jansen's 2001 dissertation, *People, Ideas and Goods*, which provides a comprehensive list of the elite Celtic graves that have been found in the Middle Rhine-Moselle region. Statistical analysis will be used to determine if any correlation exists between the fluctuations in Mediterranean imports and changes in burial practices. It will allow for a look for how Mediterranean imports affected the Celtic social structure.

The categories that will be used in identifying the fluctuation of Mediterranean imports are Ceramic and Bronze vessels because of the easy identification of these products as Mediterranean imports. Other goods are omitted in this study due to the inability to clearly state if they were in fact from the Mediterranean.

## RESULTS

### **Mediterranean Imports on Record**

In both Peter Scott Wells 1980 dissertation entitled *Culture Contact and Culture Change* and Marian Diepeveen-Jansen's 2001 dissertation *People, Ideas and Goods*, the locations of Mediterranean imports in the Middle Rhine-Moselle region was recorded. Each author recorded both the site where the imports were located and the type of the import themselves. Peter Wells and Marian Diepeveen-Jansen placed the imports into category types that include Etruscan Bronze Vessels, Etruscan Basins, Schnabelkannen or beaked jugs (Figure 9), other Greek products, and Attic Pottery. In addition to this list of imports, Marian Diepeveen-Jansen also recorded information on the burials. This information on the burials includes the type of burial, location of the burial, the diameter of the tumulus, and the presence of a burial chamber. It is these two lists that I have used as my data set for analyzing the changes between the Late Hallstatt period and the La Tène A Period. These two data sets have allowed for the ability to compare the data with regards to the effect of Mediterranean imports on the burials and therefore on Celtic society itself. The majority of these sites were excavated by Alfred Haffner (1976) and Hans-Eckart Joachim (1968).

Since this study is focused on Mediterranean imports, information from both Peter Scott Wells and Marian Diepeveen-Jansen's doctoral thesis has been omitted in this study; for example, in both theses, data was provided that included sites that were outside of the Middle Rhine-Moselle zone. Other omitted items include data on grave goods that are not associated with the Mediterranean, such as locally made products.

After using both dissertations to assemble the data set on the Mediterranean imports from the Middle Rhine-Moselle region, forty-nine imports have been uncovered in burial context. Of

these forty-nine imports, eleven can be associated with the Late Hallstatt period and thirty-eight with the La Tène A Period.

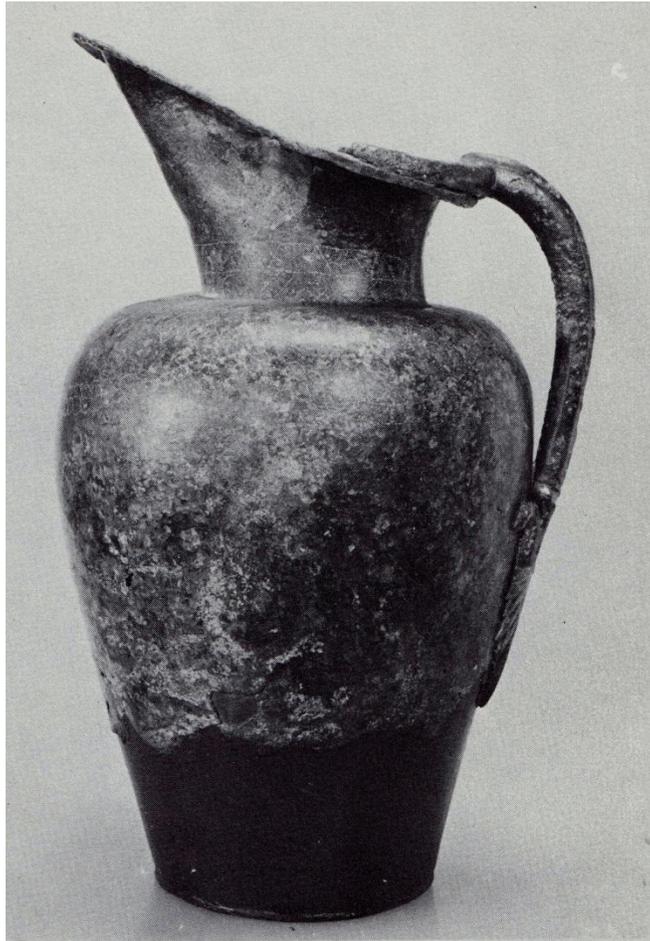


Figure 9: Bronze Schnabelkanne from Weiskirchen II (Wells, 1980:107)

For identification of the place of manufacture and for absolute dating of individual imports, this paper relies on classical archaeologists who specialize in the study of Mediterranean products. When investigating these imports by time period, it can be seen that seventy-eight percent of the imports in this study are found in graves that are associated with the La Tène A

Period. Twenty-Two percent of the recorded imports are identified with the Late Hallstatt period. The sites, with the associated time period and amount of imports are included in Appendix A.

Importation of Mediterranean goods did not start with the Late Hallstatt period, nor did it end with the closing of the La Tène A period. However, with that said it is not until 600 B.C. that there is enough archaeological evidence in the Middle Rhine-Moselle region to do substantial research on the Mediterranean imports. These imports are often a major way of dating Celtic grave sites, due to the bronze ware and pottery having been well dated by classical archaeologist's who specialize in them.

This study has uncovered that imports in the Late Hallstatt grave sites in the Middle Rhine-Moselle period was low, with only eleven (22%) being identified so far in burial context. In stark contrast to the low volume of Late Hallstatt Imports, the La Tène A sites possess almost four times as many in burials with 38 (78%). In Figure 10 It is clearly shown that the data set used indicates that the La Tène A Period possessed a higher amount of imports. A key part of this study, this increase in imports will be discussed later on.

### Mediterranean Imports by Time Period

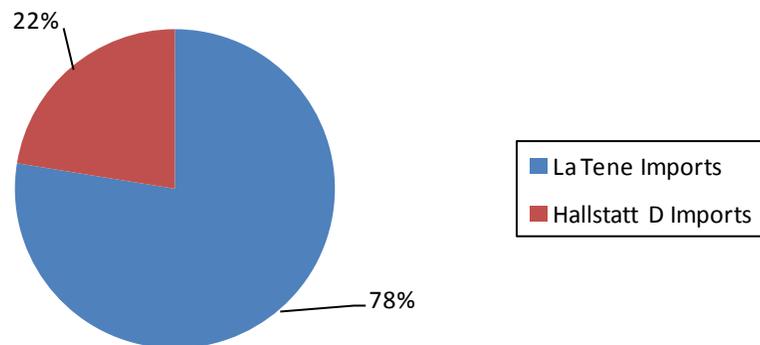


Figure 10: Percentage of Mediterranean imports by time period

The imports are found in burial context and it is these aspects of the burials that provide a look at Celtic on the society. By looking at the changes in the burial aspects over time it allows for an insight on changes that were occurring from the Late Hallstatt to the La Tène A. Figure 11 shows the change in burial style from the Late Hallstatt period sites to the La Tène A Period sites in the Middle Rhine-Moselle region. The Late Hallstatt Period sites surveyed consisted of four cremations (44%), four inhumations (44%) and one burial (11%) that did not have available information. The La Tène A Period sites contained six cremations (24%), fifteen inhumations (16%) and four (16%) that were not available. However, it is not reliable to just base conclusions on looking at the numbers provided above, it is necessary to analyze these numbers using statistical analysis to see if there was indeed a difference between the types of burials in the two time periods. In order to do this the Chi-square test was used and the results are as follows. The difference between the Late Hallstatt sites and the La Tène A sites with respect to proportions of burial forms is not very significant ( $\chi^2=1.306$ ,  $p > .50$ ,  $V = .196$ ). This means that there is a greater than 50% chance that the two time periods actually are not different but reflect differences do to the vagaries of sampling. According to these results, it seems likely that burial forms from the Late Hallstatt to the La Tène A did not change.

In order to investigate the effect of Mediterranean imports on Celtic society, it is also necessary to show the characteristics of burials that did not include imports. Nine randomly chosen sites for the Late Halstatt and Twenty-Five for the La Tène Period were chosen to compare and are shown in Figures 12 and 13 respectively.

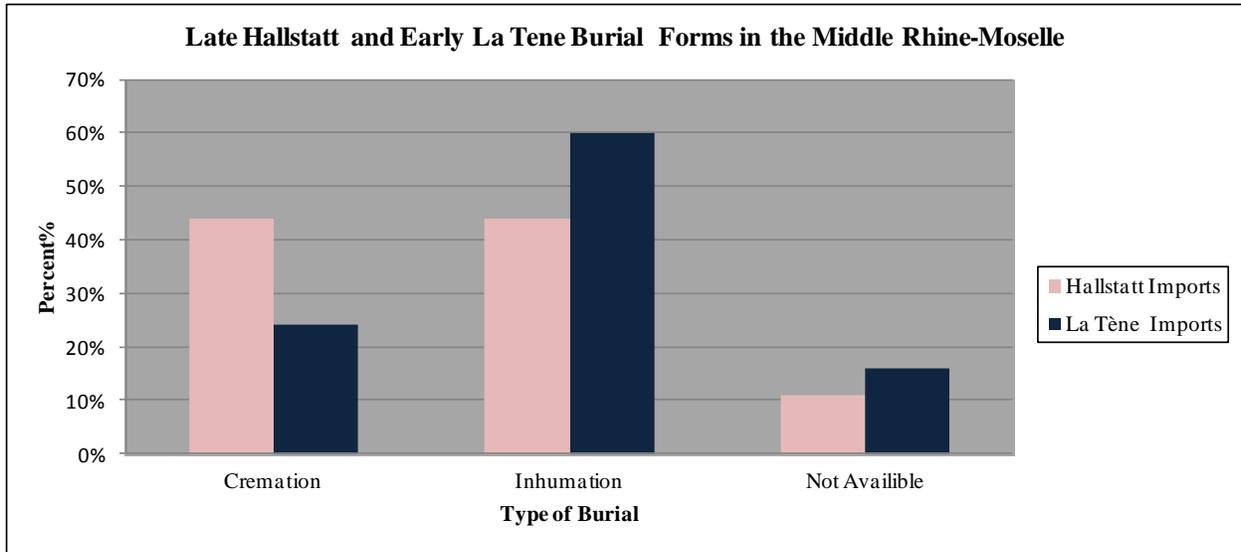


Figure 11: Percentage of Late Hallstatt and La Tène A burial forms that contains Imports compared with those that do not.

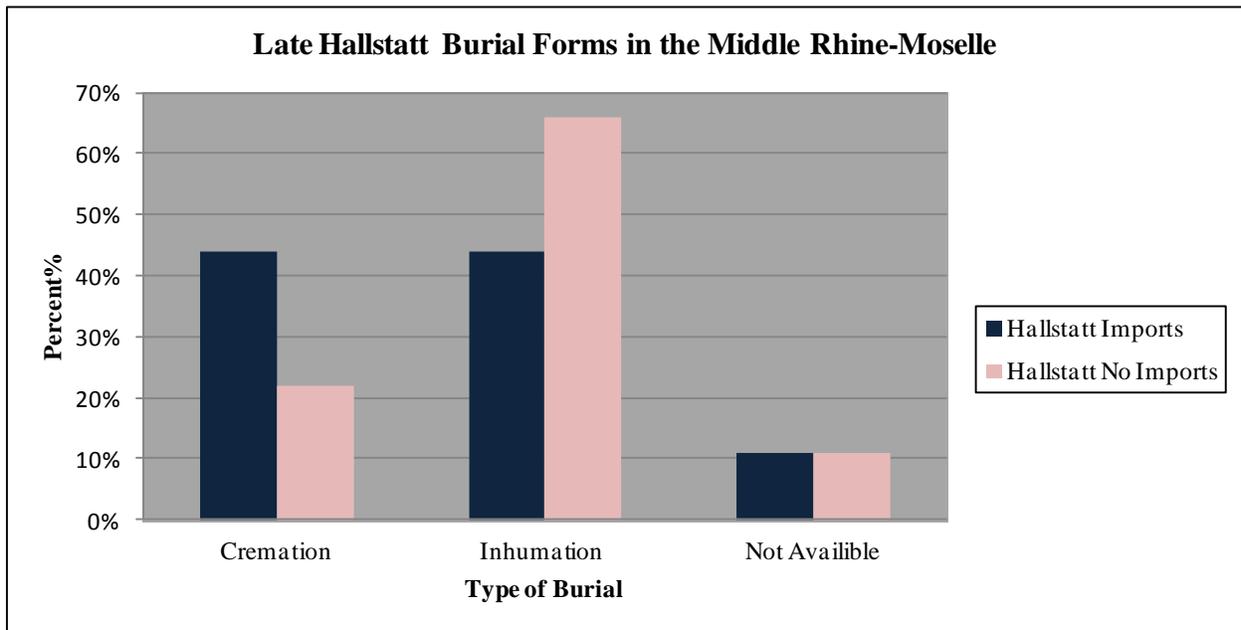


Figure 12: Percentage of Late Hallstatt burial forms in the Middle Rhine-Moselle Region

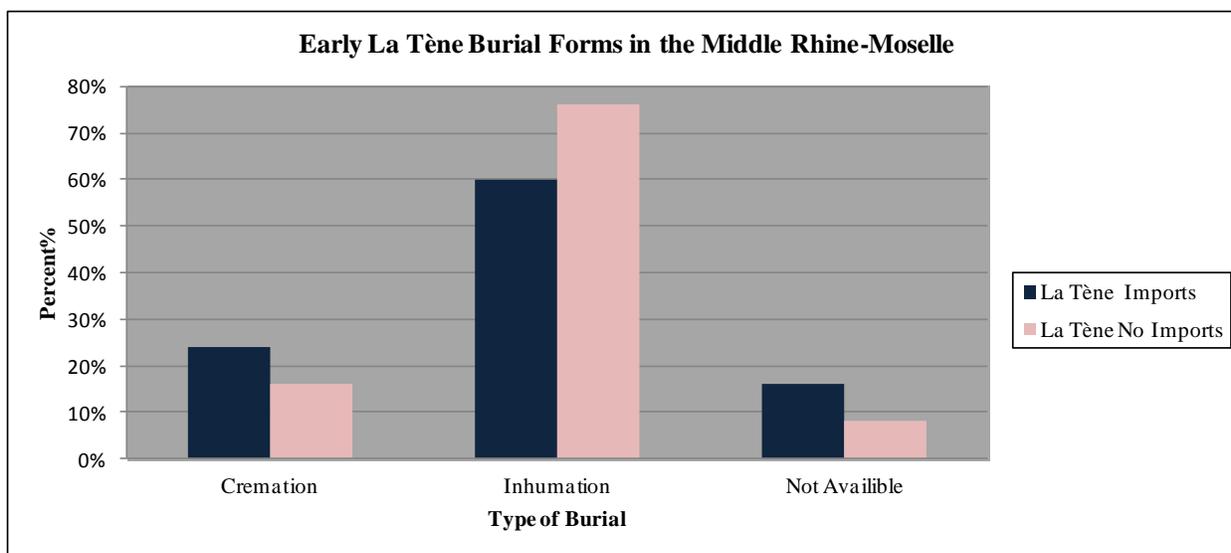


Figure 13: Percentage of La Tène A burial forms in the Middle Rhine-Mosell Region

During the Late Hallstatt time period, the nine randomly selected grave sites show two cremation burials (22%), six inhumation burials (66%) and one (11%) that did not have data available. In the La Tène A Period the twenty five randomly selected burials show similar percentages with four cremation burials (16%), nineteen inhumations (76%) and two (8%) not available. Data analysis has also been done on both the Late Hallstatt and La Tène A sites with imports and without, so this data was gathered to identify if the imports were causing changes in burial practice and therefore society. Using the Chi-square analysis it can be shown that the difference between the Late Hallstatt burials with imports and the burials without imports was not very significant ( $\chi^2 = 1.06$ ,  $.50 > p > .20$ ,  $V = .243$ ) in terms of burial type. This means that there is only a fifty to eighty percent chance that the differences observed between the two samples actually do reflect differences between the sites rather than just the vagaries of sampling. However, there is somewhere between a twenty to fifty percent risk that the proportions of burial forms do not really indicate any difference between the two time periods.

This shows that there is not much support for the notion of a difference in activities between the two samples. In terms of the La Tène A comparison, there is not much support for the notion of a difference in burial form between the sample with imports and the one without as shown by the statistical analysis ( $\chi^2 = 1.71$ ,  $.50 > p > .20$ ,  $V = .185$ ) which indicates a low significance.

The location of the grave site can also help people understand a society and how it functioned. Taking a look at the Late Hallstatt period graves with imports in the Middle Rhine-Moselle region two were isolated (22%), five (56%) were in a cemetery context and two (22%) had information that was not available. With the arrival of the La Tène A period it seems like a major increase in the number of isolated graves occurs with nineteen (76%), then two (8%) in cemetery context, and four (16%) with information not available. In order to compare the two time periods and gain support for this statement, statistics are needed and therefore the Chi square test was used again. The difference between the Late Hallstatt period and the La Tène A with respect to proportions of burial location has a very high significance ( $\chi^2 = 10.37$ ,  $.01 > p > .001$ ,  $V = .55$ ). This indicates that there is a difference between the two time periods in terms of burial location. Figure 14 and the statistical analysis suggests that there was a distinct change in burial location from the Late Hallstatt to the La Tène A in the Middle Rhine-Moselle region.

In order to look at how the imports have affected the society at the time period it is necessary to compare the burials with imports, with those that do not contain any. By doing this an understanding of how elite control of these imports affected society is uncovered. All nine (100%) of the Late Hallstatt sites without imports are located in an isolated context. The Chi-Square test was used to try to understand any correlation. In the Late Hallstatt Time period the difference between the Late Hallstatt period sites with imports and those without has a high significance ( $\chi^2 = 5.18$ ,  $.1 > p > .05$ ,  $V = .54$ ). The percentages of the burial location are seen in

Figure 15. The Chi-square test indicates that there is a confidence of around ninety percent that the two samples differ in burial location.

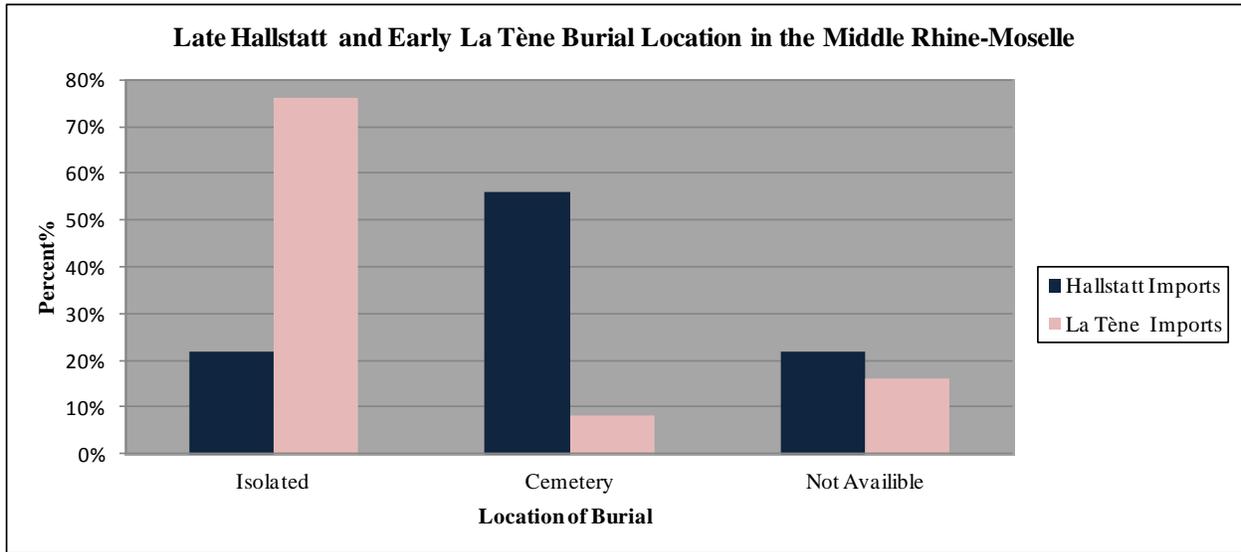


Figure 14: Percentage of Late Hallstatt and La Tène A burial locations in the Middle Rhine-Moselle

The La Tène A sites have eight (32%) located in an isolated context, ten (40%) in a cemetery context and seven (28%) with information not available. When looking at the comparison of the La Tène A sites for burial location shown in Figure 16, analysis shows very significant differences between the La Tène A burial locations that contain imports and those that do not ( $\chi^2 = 10.87$ ,  $.01 > p > .001$ ,  $V = .461$ ).

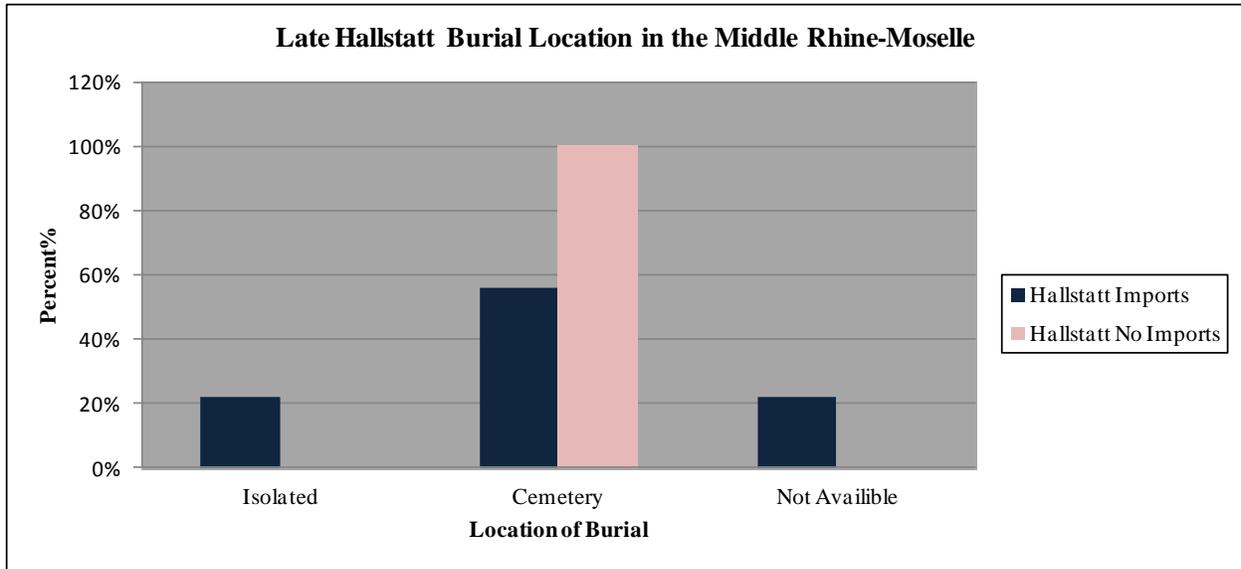


Figure 15: Percentage of Late Hallstatt Burial location in the Middle Rhine-Moselle

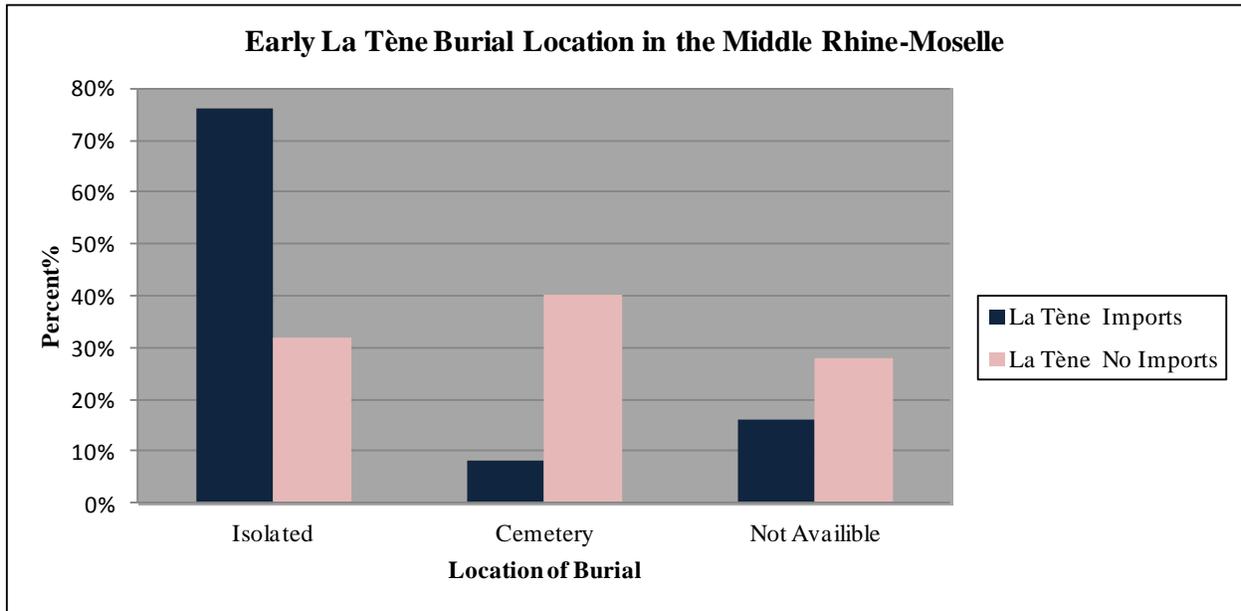


Figure 16: Percentage of La Tène A burial location in the Middle Rhine-Moselle

The presence of a burial chamber can also provide a look at a society and how the control of imports by elites can affect that society. In the Late Hallstatt period, the graves that contain

imports are almost even in whether they possess a burial chamber in the tumulus. Four (44%) of the burials contain a burial chamber while five (56%) do not. In the La Tène A period, a massive increase in the number of graves with burial chambers occurs. Twenty graves (80%) that were surveyed had burial chambers while five (20%) did not. Figures 17 identifies this. The Chi square test was used to compare the two time periods, and it was found that the difference between the Late Hallstatt with burial chambers and the La Tène A period with burial chambers (Figure 20) period is highly significant ( $\chi^2 = 4.07$ ,  $.05 > p > .02$ ,  $V = .35$ ) which indicates that there is a ninety-five to ninety-eight percent confidence that the two samples differ in whether the burial chamber was present or not.

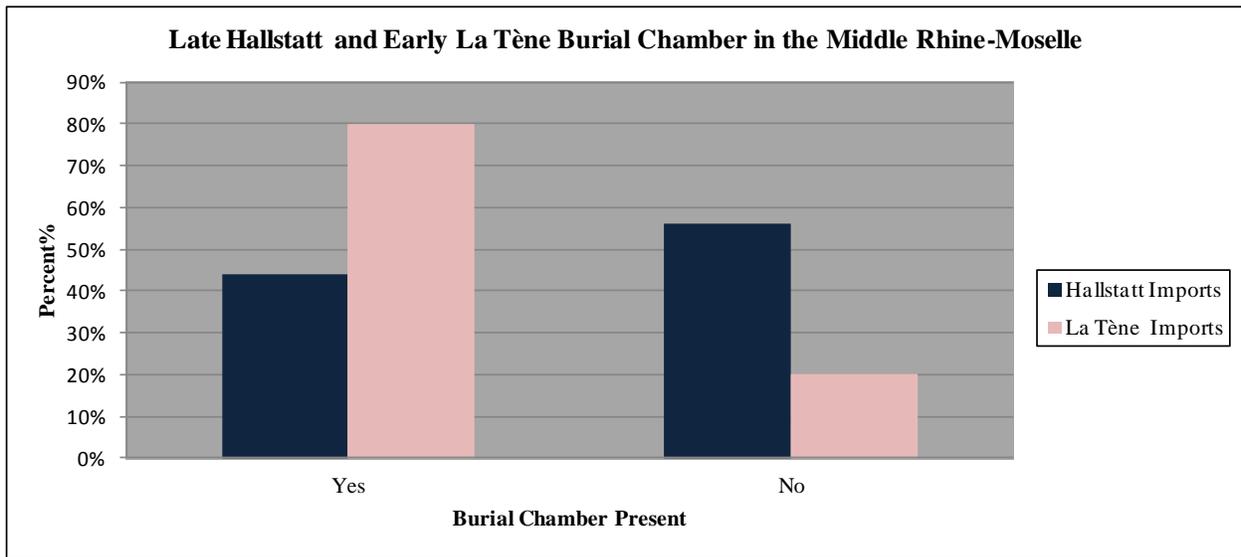


Figure 17: Percentage of Late Hallstatt and La Tène A burial chambers in the Middle Rhine-Moselle region

As in the previous comparisons, in order to study the effects of the Mediterranean imports on Celtic society it is necessary to look at how burials without Mediterranean Imports

were set up. Using nine randomly selected sites for the Late Hallstatt period that did not contain Mediterranean Imports, it is shown in Figure 18, that five (56%) of the graves contained a burial chamber and four (44%) did not. Statistical analysis shows that it is unlikely that there was any difference between the Late Hallstatt burials with imports and without imports in terms of the presence of a burial chamber during the Late Hallstatt period. The analysis shows there was an extremely low significance ( $\chi^2 = .024$ ,  $p > .5$   $V = .036$ ). The La Tène A period sites show nine (36%) of the graves surveyed, contained burial chambers while sixteen (54%) did not. Using statistical analysis it can be shown that the difference between the La Tène A sites with imports and the sites without has a very high significance ( $\chi^2 = 9.98$ ,  $.01 > p > .001$   $V = .45$ ) shown in Figure 19. The sites with imports can therefore be said to have almost a 99.9% confidence that the sites actually differ in proportions of burial chambers present.

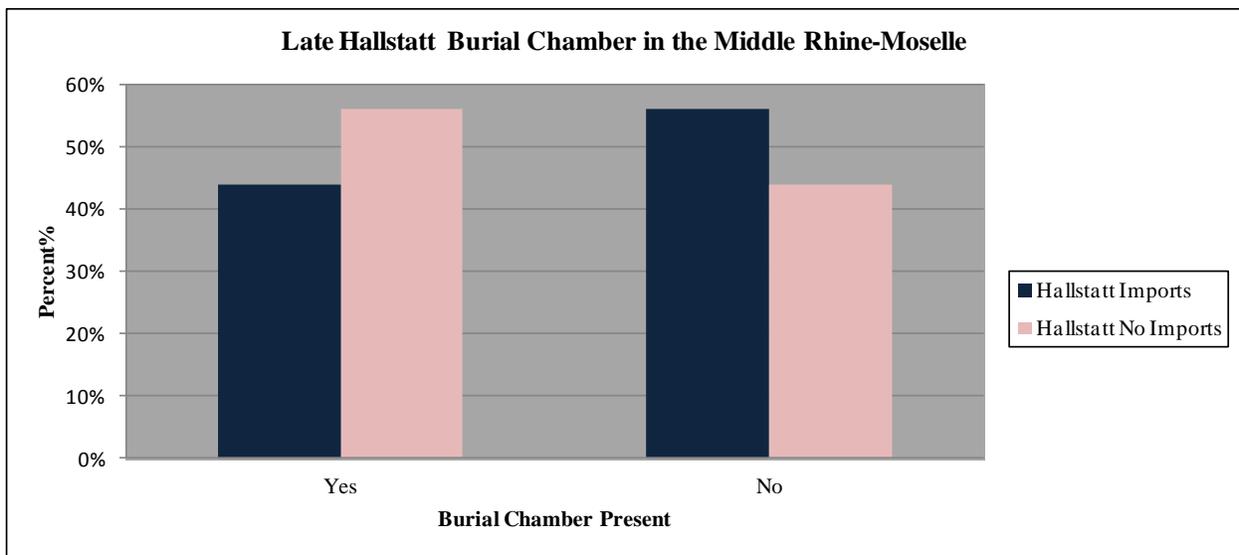


Figure 18: Percentage of Late Hallstatt burial chambers in the Middle Rhine-Moselle

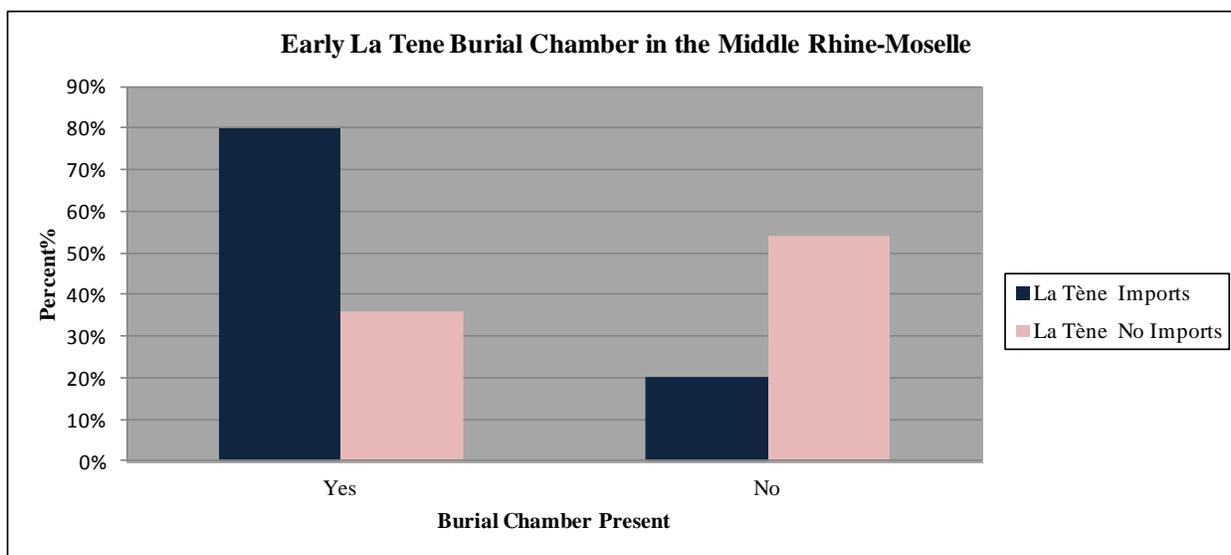


Figure 19: Percentage of La Tène A burial chambers in the Middle Rhine-Moselle

The final characteristic of burials that can be used to understand the relationship between imports and elite control is the size of the tombs themselves. In the Late Hallstatt period, the nine graves that contained imports had an average tumulus size of sixteen meters while during the La Tène A an increase in tumulus size can be shown due to an average of thirty one meters. With the graves without imports, the Late Hallstatt sites had an average tumulus size of about sixteen meters, while the La Tène A sites have a tumulus size of twenty one. The averages can be seen in Figure 20. The table clearly shows that the tumulus diameter increased in both La Tène period cases, but in order to tell if any of this information is significant, statistical analysis needs had to be done. The 15.54 meter difference in the mean tumulus diameter between the Late Hallstatt and the La Tène A sites with imports is very significant ( $t = 2.44, .01 > p > .005$ ). This indicates that the confidence in reporting a difference between the two periods is greater than 99%. In the case of the sites without imports the 4.18 meter difference in the mean tumulus diameter between the Late Hallstatt and La Tène A Sites without imports is ( $t = 1.28, p = .211$ ). This means that it

is fairly likely that the observed difference between Late Hallstatt and La Tène A tumulus diameters without imports is nothing more than the vagaries of sampling.

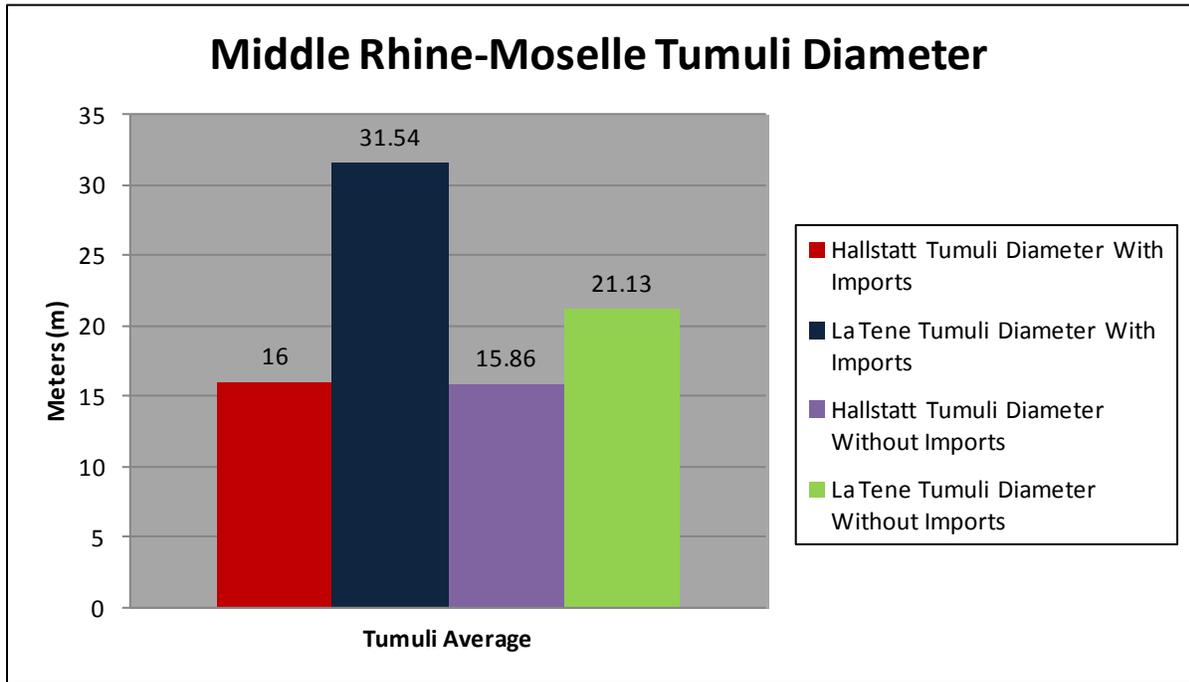


Figure 20: Average Tumuli Diameter in the Late Hallstatt and La Tène A

## DISCUSSION

Mediterranean imports were found all over the Celtic World from the Balkans to the region of this study, the Middle Rhine-Moselle region. In this region the number of imports in Celtic grave sites rose during the transition to the La Tène A period as can be seen in Figure 10. This indicates that the contact and trade with the Mediterranean rose and supports the main hypothesis of this study. In fact this statement is also supported by archaeological evidence that shows that as the Etruscans in Italy expanded their realm of influence and control, increased contact with the

central European plain occurs. The evidence for this can be seen in the early Etruscan presence in the Po Valley. This presence is indicated by cemetery finds at Bologna and Spina, which corresponds closely to that of the first Etruscan objects that appear in the La Tène A contexts on the Rhine (Wells 1980). Historical accounts also hint at the increasing interaction between West Central Europe and the Mediterranean world. The Ancient Roman historian Livy wrote of the migration of Celts into Northern Italy. Livy describes the immigration of Celts into Italy around 400 B.C., when they eventually sacked Rome in 396 B.C. Livy states that the reason for this migration is due to the allure of the wine and fruits of Italy (Kristiansen 1998). He notes that previous to this migration that the trade goods had been brought from Italy to central Europe, but now the Celts had moved into the region to procure more. This is historical evidence that the contacts and therefore trade with the Mediterranean increased.

Now that the increase of Mediterranean imports from the Late Hallstatt to the La Tène A in the Middle Rhine-Moselle region has been confirmed, a discussion on how these imports affected Celtic society can occur. With regards to the transition to the new time period, this study identified that there was not a significance difference between the burial forms, such as cremation and inhumation, with imports in the transition from the Late Hallstatt to the La Tène A. It seems likely that the Celtic elite in the La Tène period, who possessed these Imports, were continuing the same burial forms as in the past. Figure 21 shows an example of a cremation burial. The reason for this continuing tradition is unknown, but probably reflects a connection to the previous Urnfield culture which predominantly used cremation burials.

Looking at each time period, there is not enough evidence to support any difference between the Late Hallstatt period sites with imports compared with the Late Hallstatt sites without them, in terms of burial form. The same can also be said when looking at the differences

between the La Tène A sites with and without imports. This indicates that the elites, who were in control of the trade of Mediterranean imports, were not changing their burial practices from the individuals who were not buried with imports.



Figure 21: A Cremation Burial (<http://www.wessexarch.co.uk> 2008)

Burial location can also indicate changes in a society. The location of a burial can help identify how a society was structured. It can help identify whether it was a strict hierarchal system with a single top elite ruling over a large area or one that was less centrally controlled and consisted of many less powerful elites. This can be indicated by where the burial was located. If there was an increase in cemetery burial in many different locations, then it could be said that many more cemeteries were being constructed and that the communities were fracturing into smaller polities (Diepeveen-Jansen 2001). In the case of this study, analysis has shown that there was a shift to a more cemetery focused context in the La Tène A period by elites. This confirms

that the society of the time was indeed changing to one that was less centrally controlled by single individuals. The landscape of the La Tène A instead, as supported by this study, most likely consisted of a many ruling elite families who held sway over a more decentralized landscape.

When looking at both the burials with imports and those that do not contain any, it can be shown that in the Late Hallstatt the occurrence of Mediterranean imports did seem to have an effect on where the burials were located. Late Hallstatt graves without imports were only found in a cemetery context, while of the burials that did have imports, several were found in an isolated context or with other elites. An explanation of this could be that the elites who possessed imports in their grave sites were able to control the trade of these products or possessed the ability to acquire the imports in turn gaining rank and power. With this increased power, the elites with the ability to obtain Mediterranean imports were buried in areas that isolated themselves from those who did not possess the ability to acquire these products, re-affirming the status and power they had in life. In terms of the La Tène A elite it can be identified from this research that there was a significant difference between the La Tène A sites with imports and those without. The La Tène A period seems to follow a similar trend as the Late Hallstatt. The majority of the burials with imports in the La Tène tend to be isolated from those without imports. The ability to control the Mediterranean trade and gain access to luxury goods, which is an indicator of an elite status, is identified in the burial goods. This shows that the elite who had control and access to the goods were distancing themselves from the elite who did not in the La Tène.

The presence or absence of a burial chamber (Figure 22) could also indicate changes in society. In terms of the transition from the Late Hallstatt to the La Tène A, analysis indicated that

there was a significant difference between the two time periods with regards to having a burial chamber. The La Tène A period saw an increase in the number of tumuli with chambers from the Late Hallstatt. The Tumuli were the mounds that were built over the Celtic elite burials. An explanation of this could be that since contact with the Mediterranean was increasing as discussed above, there was a general increase in the amount of wealth circulating, which allowed for more elites who had the ability to build more complex graves. If this was the case, there should also be evidence for an increase in the size of the tumuli themselves, which was also confirmed in the results section. In the Late Hallstatt period, it was shown that there was likely no difference between the graves with imports and those without with regards to having a burial chamber. This could reflect a culture that was less concerned with funerary rites and instead was more concerned with displaying their power through the burials. With both the La Tène A Period sites that contain imports and those that do not, there is a likely difference between the sites that have burial chambers and those that do not. In other words, the graves of those possessing imports tend to have many more burial chambers than the ones that do not. This could be due to having many more elites who were able to take part in and control the Mediterranean trade. This trade brought them wealth and allowed them to construct more complex graves, including those with burial chambers, that were once only available for a very few individuals in the Late Hallstatt.

Finally the most noticeable distinction from the Late Hallstatt burials and those of the La Tène A is the average tumulus size. The tumulus was the structure that was raised over the grave site and is a very interesting reflection of how society was changing. By analyzing how the size of the tumuli changes, a picture develops as to how they evolved. As shown in the results section, the average tumulus size increases from the Late Hallstatt to the La Tène A in all cases.

This could indicate, as was explained above, that there was a rise of a wealthy aristocracy in the region who were able to produce bigger and more complex graves. In terms of whether this was caused by control of Mediterranean trade, the answer is that it very likely could have been.

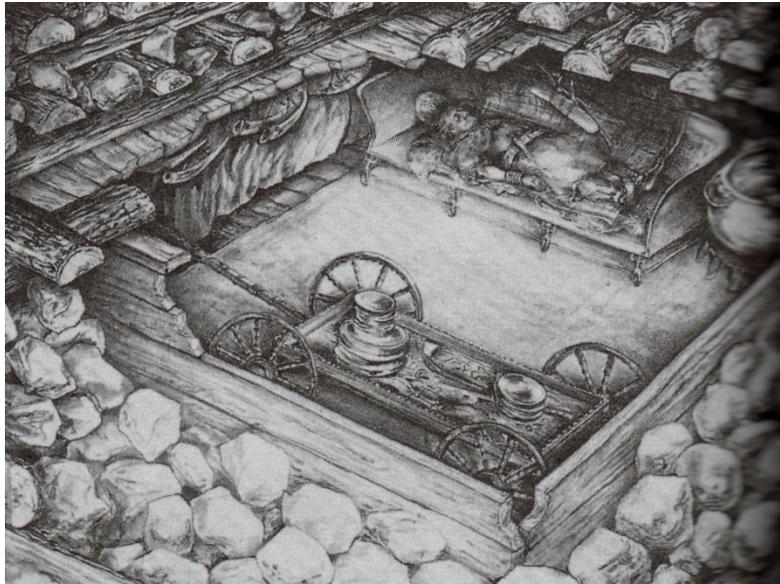


Figure 22: Late Hallstatt Burial Chamber (Kristiansen 1998:258)

By comparing the Late Hallstatt and La Tène A graves with imports using statistical analysis, I showed that there was a significant increase in the tumulus diameter. When these results were compared with the statistical analysis of the Late Hallstatt and La Tène A graves without imports, it can be shown that the graves without imports during the transition are not likely to have any significant differences. Therefore it is likely that imports could, barring any future discoveries or research, have affected society.

## CONCLUSIONS

What I have found, with regards to the effect of Mediterranean imports on Celtic society in the Middle Rhine-Moselle region is that there was an increase in the number of these imports in burials during the La Tène A period. This is most likely due to the fact that increased contact with the Mediterranean was occurring via new trade routes through the Swiss Alpine Passes. This is supported by ancient authors such as Livy who wrote about the Celtic expansion into the Mediterranean region. With this increase in contact and new trade routes with the Mediterranean identified, I used Chi Square analysis and found that the burial characteristics and therefore Celtic society had changed from the earlier period. This change was seen in the location of the burial, whether the burials had chamber and tumulus diameter in the Middle Rhine-Moselle region. Therefore based on my research I believe that an increase in Mediterranean imports was a factor in the transition from the Late Hallstatt period to the La Tène A period.

I also was looking at whether the elites who possessed Mediterranean imports had different burial characteristics than those that did not, to see how the control of these imports may have affected the Celtic society. What I found by analyzing data on burials with imports and those without is that there was a significant difference in both time periods. In the Late Hallstatt and the La Tène A period there was a difference in where the burial was located. The elites that were buried with imports tended to be buried in a more isolated context, which I believe was to distance themselves from the individuals who did not possess them. The burials without imports tended to be in a more cemetery context, which could indicate these elites did not have the power and authority to separate themselves from other elites.

I would like to make the following suggestions for avenues of future research. First, since this study only focuses on one region of the Celtic zone, if further research could be done on other areas of this zone our knowledge on how the Celts were affected by Mediterranean imports would be substantially improved. Additional research could also be done on the frequency of the types of imports, to see what the Celts were importing. This could help identify what the value the Celtic elite had on certain goods and could help us understand more of the Celtic culture. The only way we will be able to understand the Celts and the role that the Mediterranean played in their society will be to continue this research.

## APPENDIX A

### RAW DATA ON THE CELTIC BURIAL SITES WITH MEDITERRANEAN IMPORTS IN THE MIDDLE RHINE-MOSELLE REGION

<b>La Tène Sites</b>	<b>Grave Form</b>	<b>Grave Location</b>	<b>Tumulus Diameter</b>	<b>Burial chamber</b>
Altrier	Cremation	Isolated	45	No
Armsheim	Inhumation	Isolated	NA	Yes
Besseringen	Cremation	Isolated	NA	Yes
Dorth	Inhumation	Isolated	27	Yes
Durkheim	Inhumation	Isolated	NA	Yes
Ferschweiler	Cremation	Isolated	35	Yes
Hermeskeil	Inhumation	Isolated	NA	Yes
Hillesheim	Cremation	Cemetery	25	Yes
Hoppstadten	Inhumation	Isolated	30	Yes
Karlich	Inhumation	NA	NA	Yes
Marpingen	Inhumation	Isolated	NA	Yes
Oberwallmenach	Cremation	Isolated	34	Yes
Remmesweiler	Inhumation	Cemetery	16	Yes
Reinheim	Inhumation	Isolated	20	Yes
Rodenbach	Inhumation	Isolated	30	Yes
Schwarzenbach	Cremation	Isolated	NA	No
Schwarzenbach 2	Inhumation	Isolated	NA	No
Siesbach	Inhumation	NA	25	Yes
Theley	Inhumation	Isolated	NA	Yes
Thomm	NA	Isolated	NA	Yes
Weiskirchen 1	NA	Isolated	NA	Yes
Weiskirchen 2	NA	Isolated	NA	Yes
Wiesbaden	Inhumation	NA	NA	No
Worms-Herrnsheim	Inhumation	Isolated	NA	Yes
Zerf	NA	NA	NA	No
<b>Hallstatt Sites</b>	<b>Grave Form</b>	<b>Grave Location</b>	<b>Tumulus Diameter</b>	<b>Burial chamber</b>
Bell	Inhumation	Cemetery	22	Yes
Bitburg	Cremation	NA	NA	No
Briedel	Inhumation	Cemetery	15	Yes
Dienstweiler	Cremation	Cemetery	NA	No
Gladbach	Cremation	Cemetery	NA	No
Hennweiler 3	Cremation	Cemetery	NA	No
Hundheim 1	Inhumation	Isolated	13	Yes
Niederweiler	Inhumation	Isolated	14	Yes
Oberwies	NA	NA	NA	No

## APPENDIX B

### RAW DATA ON THE CELTIC BURIAL SITES WITHOUT MEDITERRANEAN IMPORTS IN THE MIDDLE RHINE-MOSELLE REGION

<b>La Tène Sites</b>	<b>Grave Form</b>	<b>Grave Location</b>	<b>Tumulus Diameter</b>	<b>Burial Chamber</b>
BUAMHOLDER A	Cremation	NA	NA	N
BESCHEID 9	Inhumation	Isolated	22	N
GILLENFELD	Inhumation	NA	40	N
GRANSDORF	Inhumation	Cemetery	24	Y
HEINZERATH-GONZERATH	Inhumation	Cemetery	13	N
HIRSTEIN	Inhumation	NA	NA	Y
HOCHSCHEID 1	Inhumation	Isolated	25	Y
HOCHSCHEID 2	Inhumation	Isolated	24	Y
HORATH 1	Inhumation	Cemetery	19	Y
HORATH 12	Inhumation	Cemetery	14	N
KOBERN 34	Inhumation	Isolated	25	Y
KOBERN 35A	Inhumation	Isolated	NA	N
LANGELONSHEIM A	Inhumation	Cemetery	NA	N
LANGELONSHEIM 1	Inhumation	Cemetery	NA	N
LANGENBACH	NA	NA	NA	N
LAUMERSHEIM	NA	NA	NA	N
MELSBACH	Cremation	NA	NA	N
NUNKIRCHEN	Inhumation	Cemetery	13	N
PELLINGEN 2	Inhumation	Isolated	28	Y
PLAIDT	Inhumation	NA	NA	N
RUCKWEILER 1	Inhumation	Cemetery	10	Y
RUCKWEILER 5.3	Inhumation	Cemetery	14	N
SULZBACHTAL 3	Inhumation	Isolated	16	N
WALLSCHEID	Cremation	Isolated	30	Y
WOLKEN	Cremation	Cemetery	NA	N
<b>Hallstatt Sites</b>	<b>Grave Form</b>	<b>Grave Location</b>	<b>Tumulus Diameter</b>	<b>Burial Chamber</b>
BASSENHEIM 47	Inhumation	Cemetery	13	Y
BASSENHEIM 50	Inhumation	Cemetery	15	Y
BRIEDEL	Inhumation	Cemetery	15	Y
ELM-SPRENGEN	Inhumation	Cemetery	20	N
HORATH 46	Inhumation	Cemetery	NA	N
KERLING-LES--SIERCK	Cremation	Cemetery	13	N
MONDELANGE	Inhumation	Cemetery	24	Y
SCHWALBACH	NA	Cemetery	20	Y
POLCH	Cremation	Cemetery	15	N

## BIBLIOGRAPHY

- Arnold Bettina and D. Blair Gibson  
1995 *Celtic Chieftdom, Celtic State*. Cambridge University Press, Cambridge.
- Bintliff, J.  
1984 "Iron Age studies in the context of social evolution from the Bronze Age through to historic times." In *European social evolution*, edited by J. Bintliff, pp. 157-225. University of Bradford Press, Bradford.
- Bouloumie, Bernard  
1973 *Les Oenochoes En Bronze Du Type "Schnabelkanne" En Italie*. Palais Farnese, Rome.
- Cunliffe, Barry  
1994 *The Oxford Illustrated Prehistory of Europe*. Oxford University Press, New York.
- Diepeveen-Jansen, Marian  
2001 *People, Ideas and Goods*. Translated by Christine Jefferis. Amsterdam University Press, Amsterdam.
- Frey, Otto-Herman  
1969 *Die Entstehung Der Situlenkunst*. Verlag Walter De Gruyter and Co, Berlin.
- Haffner, Alfred  
1976 *Die Westliche Hunsruck-Eifel-Kultur*. Verlag Walter De Gruyter and CO, Berlin.
- Kimmig, W.  
1969 *Zum Problem spathallstattischer Adelssitze*. Deutsche Akademie der Wissenschaften zu Berlin, Berlin.
- Kristiansen, Kristian  
1998 *Europe Before History*. Cambridge University Press, Cambridge.
- Joachim, Hans-Eckart  
1968 *Die Hunsruck-Eifel-Kultur Am Mitterlrhein*. Butzon and Bercker, Germany.

Megalithic Portal.com

- 2010 Image of the Yeşilova Tumulus,  
<http://www.megalithic.co.uk/article.php?sid=22478>, accessed April 10, 2012.

Nash, Daphne

- 1985 "Celtic territorial expansion and the Mediterranean world". In *Settlement and society. Aspects of West European Prehistory in the First Millennium B.C.*, edited by T.C. Champion and J.V.S Megaw, pp. 45-68. Leicester University Press.

Pauli, L.

- 1984 "Die westliche Spathallstattkultur. Aufstieg und Niedergang einer Randkultur der antiken Welt". In *Archaologie und Kulturgeschichte. Beiträge zur Erforschung von Sozialstrukturen und Randkulturen*, pp. 46-48. Saerbeck.

Wallerstein, J.

- 1974 *The Modern World-System*. Academic Press, New York

Wells, Peter S.

- 2001 *Beyond Celts, Germans and Scythians*. Duckworth, Michigan.
- 1980 *Culture Contact and Culture Change: Early Iron Age Central Europe and the Mediterranean World*. Cambridge University Press, Cambridge.

Wessex Archaeology.com

- 2008 Image of a Cremation Burial. Electronic Document,  
[www.wessexarch.co.uk/projects/kent/margate/exc.html](http://www.wessexarch.co.uk/projects/kent/margate/exc.html), accessed March 23, 2012.

