

Analyzing the geography of the Salem Witch Trials: Studying the distribution of people and places involved in this 17th century witch hysteria

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Introduction

In the small community of Salem Village, located in the Massachusetts Bay Colony, the harsh realities of rural Puritan life, economic hardship, disease outbreak as well as internal suspicion most likely played a large part in fueling the Salem Witch Trials starting in the spring of 1692.

The hysteria began after a group of girls living in Salem Village, Massachusetts (Figure 1) claimed to be possessed by the devil. During the next few months, the geographical area of the witch hunt and the list of those accused grew and spread to the neighboring counties of Suffolk, Essex, and Middlesex.

During the spring of 1692 to 1693, over 160 men, women, and children were accused of witchcraft: 20 of them being convicted and executed at Gallows Hill in Salem Town.

The purpose of this research project is to analyze the geographical elements associated with the Salem Witch Trials throughout the Massachusetts Bay Colony during the years 1692-1693. Through this research, my aim was to better understand where this mysterious hysteria spread and was most concentrated, and how many people were affected by it.

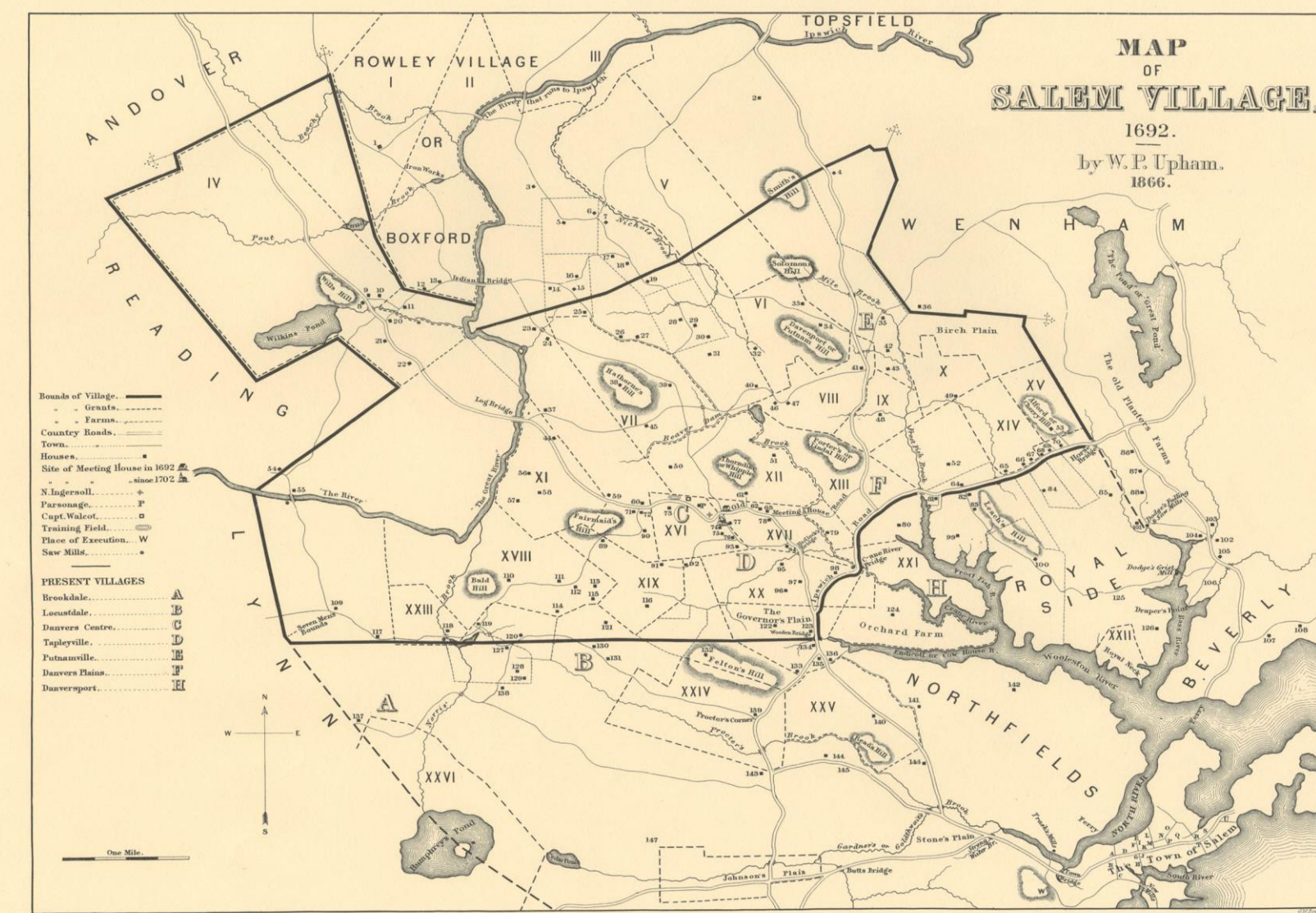


Figure 1: Map depicting Salem Village and surrounding area in 1692 (Source: W.P. Upham)



Figure 2: Image depicting a witch hung for witchcraft, September 1692 (Source: A Pictorial History of the United States, 1845)

Data and Methods

First, I gathered the data to use for my database. For my first layer, I obtained a dataset from Richard B Latner's "Salem Witchcraft Database" containing data on each person accused, their place of residence, when they were accused. For my second layer, I obtained modern addresses of important locations associated with the Trials from the "Salem Witch Museum" website.

I mapped each town where there were witchcraft accusations, and the number of people accused from each town. I converted the data listed above into a points layer, using GIS software. I mapped these onto a historical state layer of Massachusetts and Maine which I obtained from the Atlas of Historical County Boundaries (Atlas of Historical County Boundaries, 2012). This was made into a proportional symbols map (Figure 3), as well as a stacked bar chart (Figure 5) to illustrate the towns with the most accusations.

I created the 2nd layer in my database by locating important aspects of the Salem witchcraft geography on a modern map. I plotted important locations such as houses of witches accused in the trials, jails, courthouses, examination sites, grave sites, and execution spots across the towns affected by the trials.

I digitized these locations as points in GIS software, using modern addresses of these locations as reference. The attributes I collected for each important location were: "Name", "Location", "Importance" and "Type". This was made into a categorical map (Figure 4), showing each important location "type" as a different color, to better illustrate the spatial distribution of the trials.

Proportional Symbols Map of Witchcraft Accusations per Town in the Massachusetts Bay Colony during the Salem Witch Trials, 1692-1693

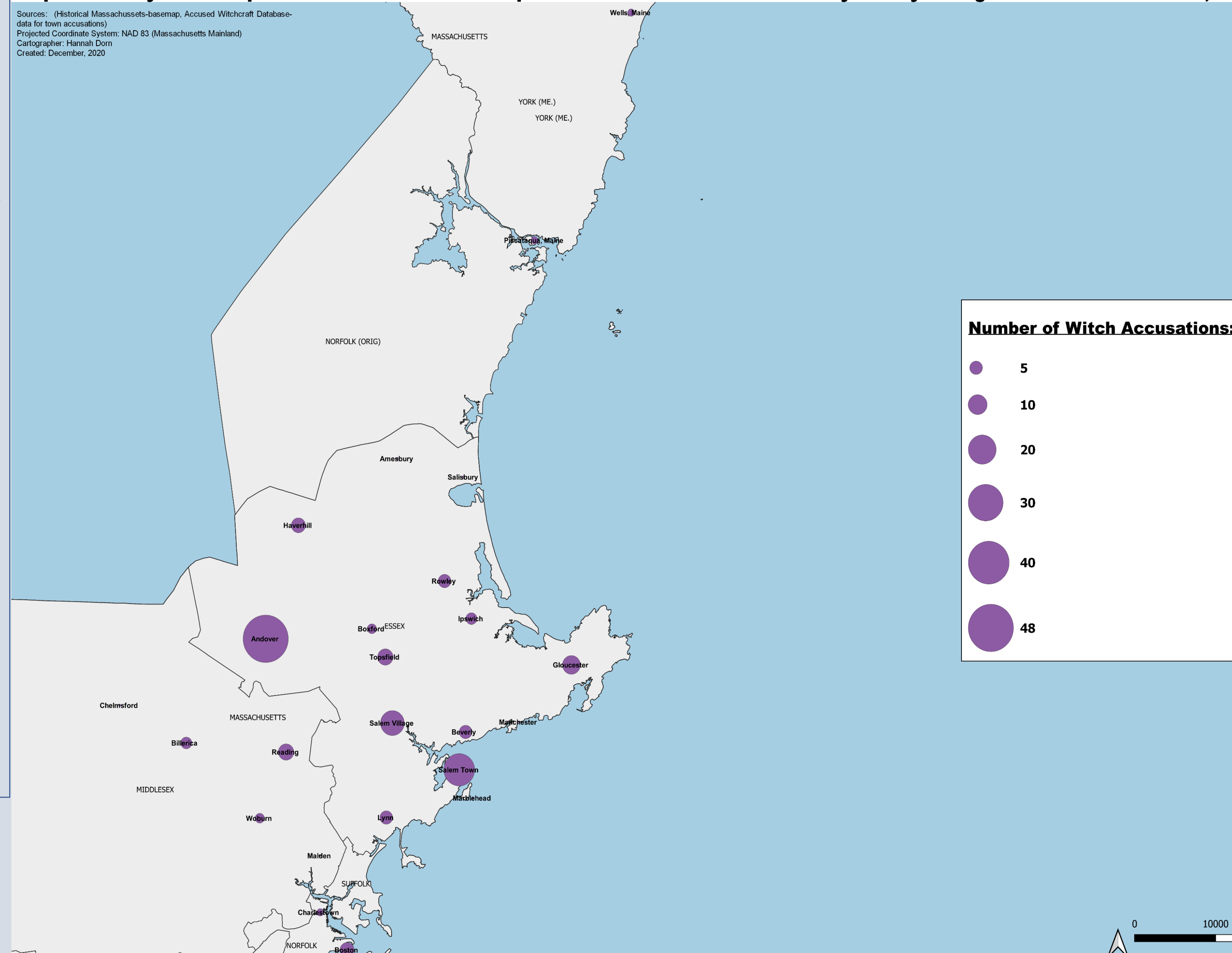


Figure 3: Proportional Symbols Map of Witchcraft Accusations per Massachusetts Bay Colony Town, 1692-1693

Categorical Map of Important Locations from the Salem Witch Trials in Massachusetts, by Location Type

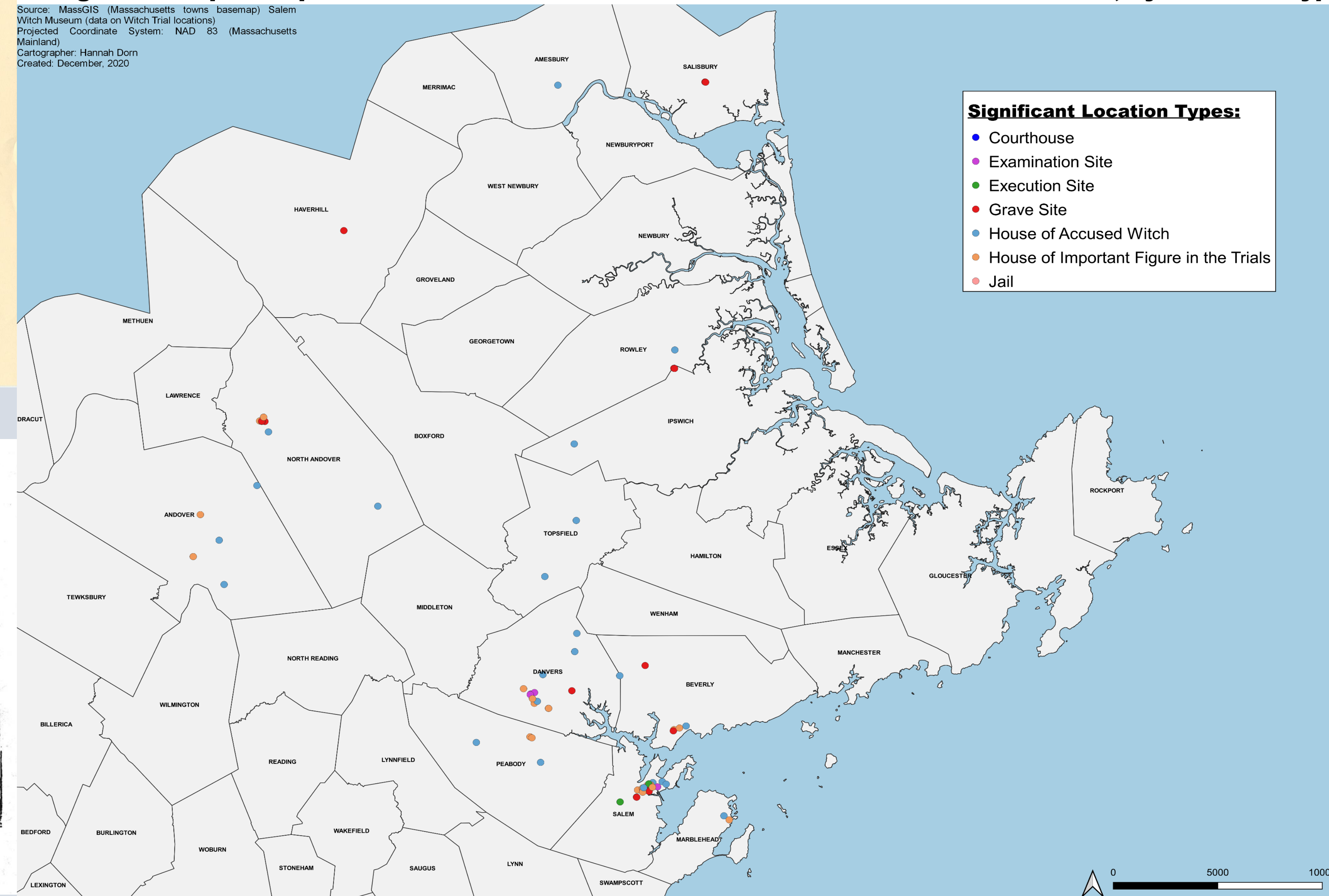


Figure 4: Categorical Map of Important Locations in the Salem Witch Trials by Location Type

Stacked Bar Chart of Witchcraft Accusations by Month in Massachusetts Bay Colony towns, 1692-1693

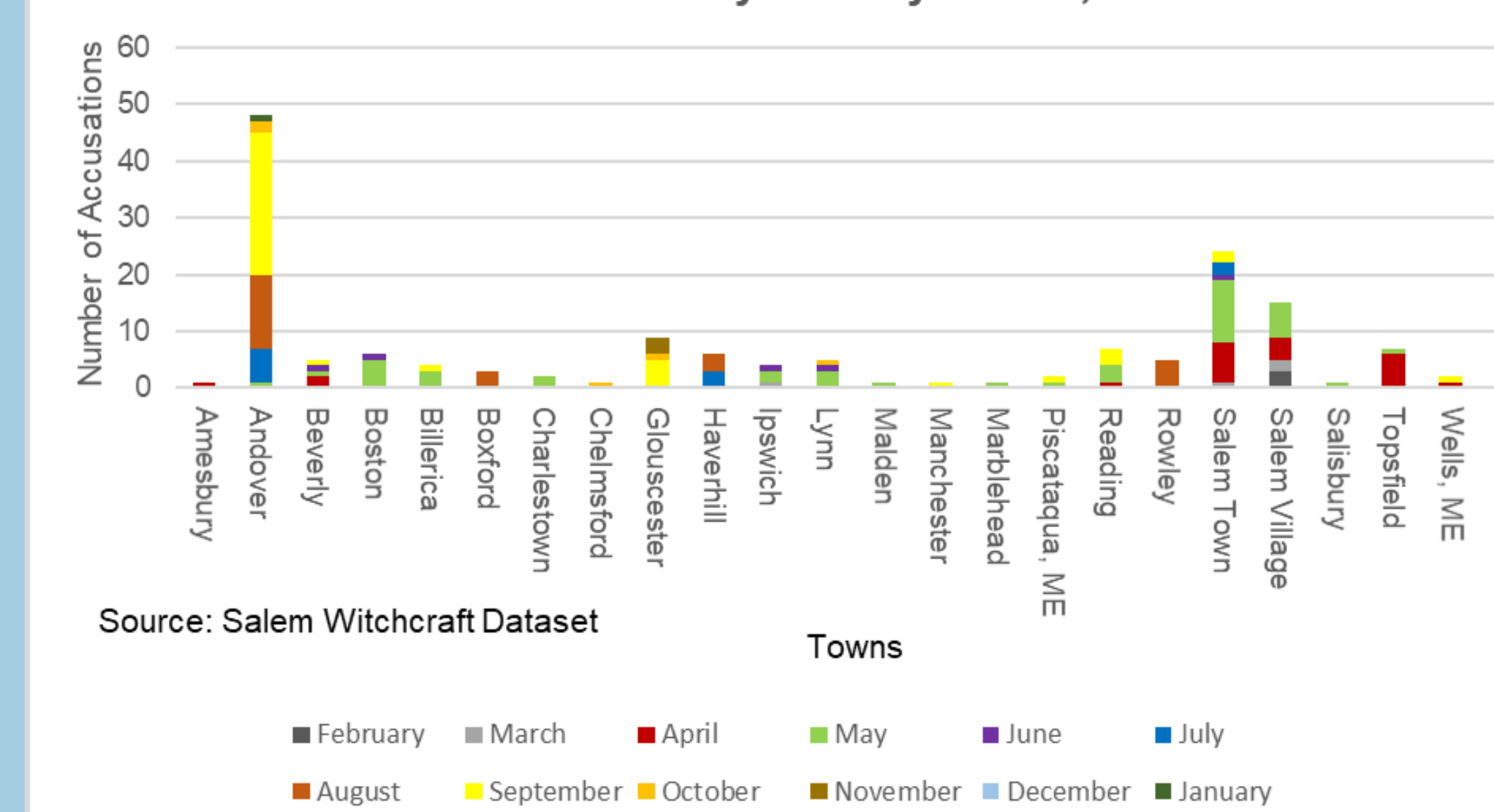


Figure 5: Stacked Bar Chart of Accusations per town by month (Salem Witchcraft Dataset)

Results

Looking at the results in Figures 3 and 5, Andover had the most witchcraft accusations, at 48, while Salem Town is next at 25 and Salem Village is third at 15 accusations.

These patterns are broken down by month in Figure 5, where Salem Village and Town had the most accusations in April and May, while Andover had the most accusations in July, August and September. Across all the towns, May and September were the month that experienced the highest volume of accusations.

The hysteria of accusations spread far from the original epicenter of Salem Village, but most did not exceed accusation counts over 10 (Figure 3). The clustering of accusations around Salem Village, Marblehead, Topsfield, and Salem Town illustrates how accusations most likely started in Salem Village in February, rapidly spreading to the surrounding area, gradually going north.

This pattern can also be seen in Figure 4, where the highest volume of important locations from the trials are in the 3-town radius of Salem, Danvers (former Salem Village), Beverly, and Peabody (formerly part of Salem Village).

The mapped values which were the most geographically widespread across affected towns are "House of Accused Witch", "House of Important Figures in the Trials", and "Grave Site", while the variables that are the least geographically widespread are "Courthouse", "Examination Site", "Execution Site" and "Jail".

Discussion and Conclusion

Analyzing these results, I got a better sense of the geographical extent of the accusations and the trials, from 1692-1693. The centralized pattern of important locations in Salem Town (Figure 4) might be attributed to the fact that other towns, like Andover, brought their accused and arrested witches to Salem Town to be examined, await trial, imprisonment, or execution.

Figures 3 and 4 allow me to conclude that those towns outside the epicenter of Salem Village and Town did not experience the hysteria on the same level or during the same period as those in the "epicenter".

While I can observe that the area surrounding Salem seems to be the most affected, the theory that only towns directly surrounding Salem were hit hardest, or that towns with high accusation numbers would have been hotspots for many important locations is false.

This is clear in Andover, which had the highest number of accusations, but is outside the immediate epicenter of hysteria. The only definite explanation I can come to this is that Andover experienced a later wave of accusations than Salem, which hit them harder, as displayed in Figure 5.

While this research helped me to better understand and visualize the geography of the Salem Witch Trials, it also reinforced how many details of the phenomenon are unfortunately unknown and unanswerable.

Works Cited

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