**INTRODUCTION:**

Our project is centred around historical data from The Survey of Scottish Witchcraft database, created by Dr. Julian Goodare, Ms Lauren Martin, Dr. Joyce Miller and Dr. Louise Yeoman in 2003.

**PROJECT SPECIFICATIONS:**

We decided to create a booklet containing a series of visualizations telling the stories of Scots accused of witchcraft, making it easier for the viewers to imagine and interpret these findings of great significance in Scottish history.

The initial database is Microsoft Access format, containing 40 different tables, which we then converted to CSV files. The data presents a breadth of information related to more than 3000 Accused Witches dating back to 16th Century Scotland (1563-1736). Each person accused of witchcraft is associated to a Case, which describes the investigation process and how each witch was trialled, ritual objects found, meeting places they were seen at, torture type used, and other information that was found to be relevant to each individual Case. These were all sorted and put into individual tables based on categories. For the creation of this database, evidence was gathered from the witches’ confessions, neighbour’s testimonies, and investigator’s speculations. All of these have contributed towards the creation of different interpretations that depict possible scenarios for the fate of each individual witch accused.

Our focus is Ritual Objects and how they were used by the Witches, in relationship with the Religious Motifs, Meeting Place and Demonic Pact Type.

**FINDINGS:**

Via our analysis using Python, we found that 83.5% of the over 3000 Accused Witches have almost no information other than their name and sex, residence: there are only 222 Cases that include information related to the Accused Witches’ relationships with Ritual objects, 80 Witches that have Religious Motifs included in their cases, 356 that have a Demonic Pact Type attributed to them and 230 with information on the Meeting Place.

The results of our analysis indicated that a total of 128 unique Ritual Objects and 17 Religious Motifs that can be associated to any of the Cases. The most common Ritual Objects used are Water (60), Wax/clay images (47), Stones (33), Hair (26). There are also a series of 61 distinct Ritual Objects, which have only been used once in the whole dataset: mole’s feet, wine, wort, almond, flask of water, etc.

In contrast, there are 8 distinct Religious Motifs from amongst the total of 17 available ones: Sign of the cross, Angels, Six, Holy water, Baptising animals, Bible, Baptism Imagery, Flask of Water. Looking at the relationships between Ritual Objects and Religious Motifs, there is a total of 53 common Cases. They contain interesting findings: the Religious Motif “Baptising animals” is associated with animalistic Ritual Objects that make a lot of sense as a group: “snake skin”, “corpse”, “toad”, “urine”, “cat” and together they construct the unique Case C/EGD/110.

Moreover, cases containing the Religious Motif “Holy well” have relationships with Ritual Objects that are also very relevant, such as : Water, Stones, Herb. Also, Case C/EGD/160 containing the unique Ritual Object “Flask of Water” is correctly associated with a motif with the same name.

Moreover, some ritual objects are used with some unique demonic pacts. Since the network in the booklet shows some cross-points of curves, that means there are several ritual objects that have the same frequency of use with the demonic pacts. ‘Anti-baptism’ has the highest frequency of use (215) and the ‘Possession’ has the lowest (1), being a unique type of Demonic Pact.

To continue, there are 62 unique Meeting places. The ones with the most relationships are House, Yard, Hilltop, Moor, while the rare ones are Meal market, Foot of Hill, Waterside, only used once in the whole dataset. As seen in the network visualisation, the ritual objects are quite relevant for the meeting places they are associated to. For example, House is linked to ritual objects such as bread, egg, water.

Looking at the overall age distribution, by far, the most common age of the accused witches’ is 50 years old. It seems that witches had varied ages, the youngest was a 14 years old female, while the oldest was 100. After our conversation with Dr. Julian Goodare, we were made aware that children under 14 cannot be accused of Witchcraft and that ages 9, 10 and 12 must be a mistake in the dataset. With this in mind, we excluded them from our analysis. Interestingly, 14 was the legal age of marriage in 16th century Scotland, therefore, from this age up, it was acceptable to accuse one of witchcraft.

When it comes to the Marital Status Distribution, from the over 3000 accused witches, around 2500 of them have an unknown marital status. There are around 580 who were married, about 150 who were widowed and approximately 10 who were single. The ones who have been identified with “Irregular union” marital status are very few, under 10.

Our booklet illustrates some significant relationships resulted from the overall perspective of the data, looking at the most common vs. the most unusual findings and also describing a series of 10 peculiar Cases: The booklet visualisations unfold with the case where a witch was found to have used 13 ritual objects, the most ever recorded. In one of the nine other stories, we portray the unique ritual object “Mole’s feet” and the unusual religious motif “Eschatology”, commonly associated with death and destruction, showing how these were used for their individual Case. Other stories chosen show the individual religious motif “Sign of the cross” and the uncommon ritual object and religious motif “Flask of water”.

**CONCLUSIONS:**

The illustrations in this booklet are hand-drawn by our group member Jingyin Liang and are inspired by the only contemporary illustration of Scottish Witchcraft, from the “Newes from Scotland” pamphlet, published in 1591. The drawings represent our group’s reflections and interpretations of the findings resulted from this rich historical dataset.

The cover summarizes the content of the booklet, showing the most recurrent findings of our analysis. On the right of the cover, there is a representation of The Witches’ Well, Edinburgh, fountain created in memory of the Scots who were burned at the stake between 15th and 18th century.

Our booklet illustrates some significant relationships resulted from the overall perspective of the analysis of The Survey Of Scottish Witchcraft. There are many other valuable information available in this dataset that could potentially be explored further, such as the Devil’s apparition in connection to witches‘ confessions, the meeting place in connection with the weather modification, and others that we would have been interested in exploring have we had the time. Although, we hope that this piece of research will be informative for researchers, students, Historians and Witchcraft enthusiasts.