

A spiral visualization for the Hrafnkel data set

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1 Introduction

We are Tamara Drucks, Moritz Leidinger and Giulio Pace from TU Wien and we present our submission for the graph drawing creative competition for the Hrafnkel dataset.

2 Design choices

To represent the graph in a more readable way we made some changes to the dataset:

- In our representation, every character is a line (character line) that passes through the nodes that represent actions (action nodes), in a metro map fashion.
- For each character, except one-time occurrences, we added an origin and an end node: therefore each character is a collection of edges that connect multiple action nodes forming a path that starts at the origin node and ends at the end node.

Characters are grouped and colored with respect to the families they belong to:

- Every family has a general color that helps to distinguish what group they come from.
- Hrafnkel's family is blue because it was the color that was worn when killing people in the Icelandic tradition.
- The divine characters are golden.
- Sam's family is red, as most blood is spilled there.
- The family of Thorgeir and Thorkel is green, as the latter was described to have worn green in the saga.
- Every character has a specific shade of their family color assigned to her/him.

This way the more common characters are the primary colors to improve the readability of the graph.

The graph is superimposed onto a map of Iceland to give a geographical localization to the events. We also wanted to give the graph the feeling of an old map. The family trees are roughly located in the area of Iceland they reside in. This is further underlined by a shading of the areas with the respective family color.

The character lines are organized in a spiral that represents the cyclic structure of the story. The action nodes are organized in the order they appear in the story (with the exception of hostility lethal“ towards the King of Greeks, which we could not find in any translation of the saga). We also separated the actual actions from the family actions (marriage, descent, sibling) that describe the relationships between characters, which are instead shown in the family trees. The ultimate goal is to display the story as a timeline that gives a chronological direction to the actions as well as a geographical one. The latter was obviously not always possible and is rather coarse, but we feel the graph succeeds in conveying this idea.

3 How to read the graph

The spiral starts from the north-east and unfolds through the map of Iceland to end close to the center of the island. Every action is represented by an icon in a circle (The icons were made by Freepik, photo3idea_studio, Pixel Perfect, Becris, itim2101, Smashicons from the website www.flaticon.com). The color of the circular outline around the icon represents the person performing the action to the other character that is connected to the node. More information about how to read the action nodes and the meaning of each icon can be found in the legend on the bottom left corner of the poster. The line thicknesses of a characters line represents the importance of the character, measured in the number of actions they take part in. Additionally, characters that perform only one action do not have their own character line but appear only as a small line branching from the action they perform.

One section of the dataset is devoted to a series of characters (kings) that were children of one another and was used to give a time reference to the readers of the saga. In this case we decided to use the text itself in the south east corner instead of creating a family tree for them. In our opinion this is a very nice start for the story and including it helps to give a general feeling of the story to the reader.

Finally, some characters in the dataset never perform any actions; it was a conscious design decision to exlude them from our representation, as they do not provide any additional information.