The Cartographic Visualization of Processes and Changes:
Case study of changes over the years in the city of Vienna

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Cities undergo significant development, and even the smallest alteration can have a substantial effect on space and people. These changes and impacts are rarely apparent as they occur, but instead manifest over extended periods. Ultimately, the question arises as to how we should depict and depict this particular transformation. As this study aims to exemplify a concept, Vienna will be used as an example. This is an important aspect of the study. The focus lies on the processes and changes in cartography and how to represent them visually.

FIG. 3. An approach by using different visualization elements to represent change visually.
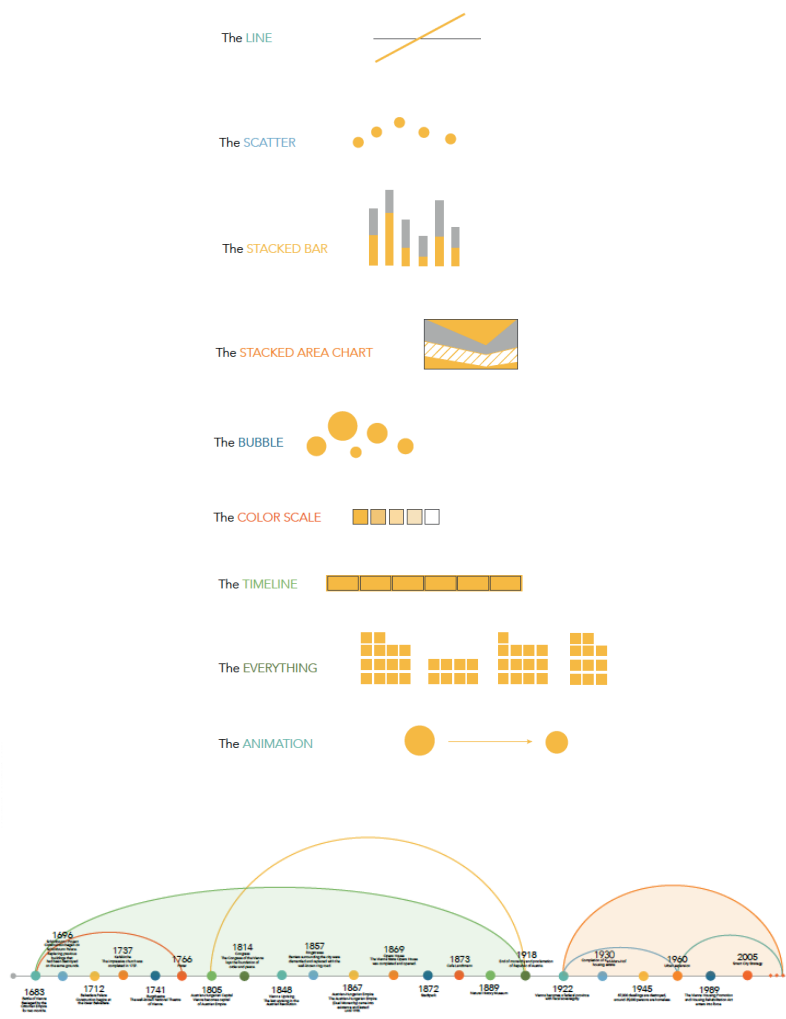
FIG. 4. Timetable with specific changes and ways to visualise change

MOTIVATION STATEMENT

For this specific study, the urban transformation and historical changes over time were used as a better way to work with the city of Vienna. For other cities, the results may be different depending on how the researcher wants to visualize the maps. For example, if the existing data is much larger and collected in different ways, the historical part and urban transformations might not be the best way to visualize it.

The maps might work better by expressing change and process through percentages or a larger number of graphs. It is also very important to mention that experimenting and seeing what works best for the data should be kept in consideration, as it is very important.

METHODOLOGY

In this study, a systematic literature review is chosen as the primary research method. This approach allows a closer examination to the different ways in which information is presented on maps in the field of cartography.

The next part of the research focuses on a fundamental aspect: how to represent processes and change on maps. This specifically brings focus on how to visually represent things that change over time.
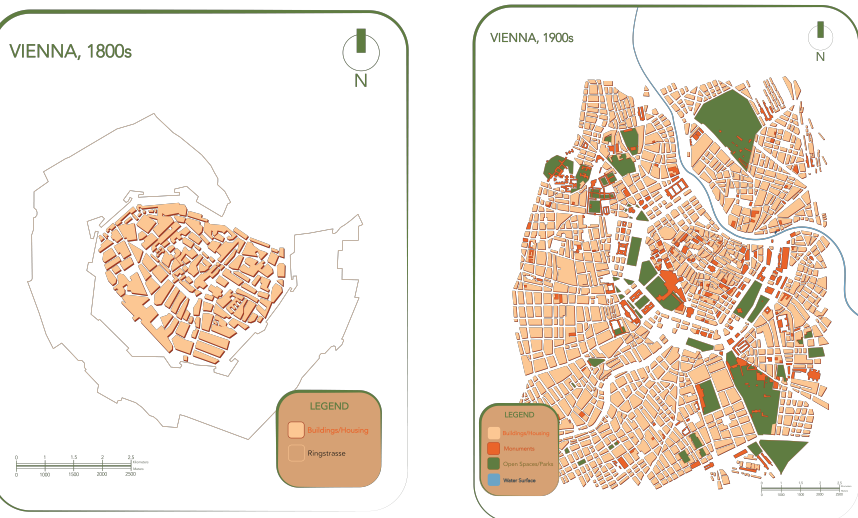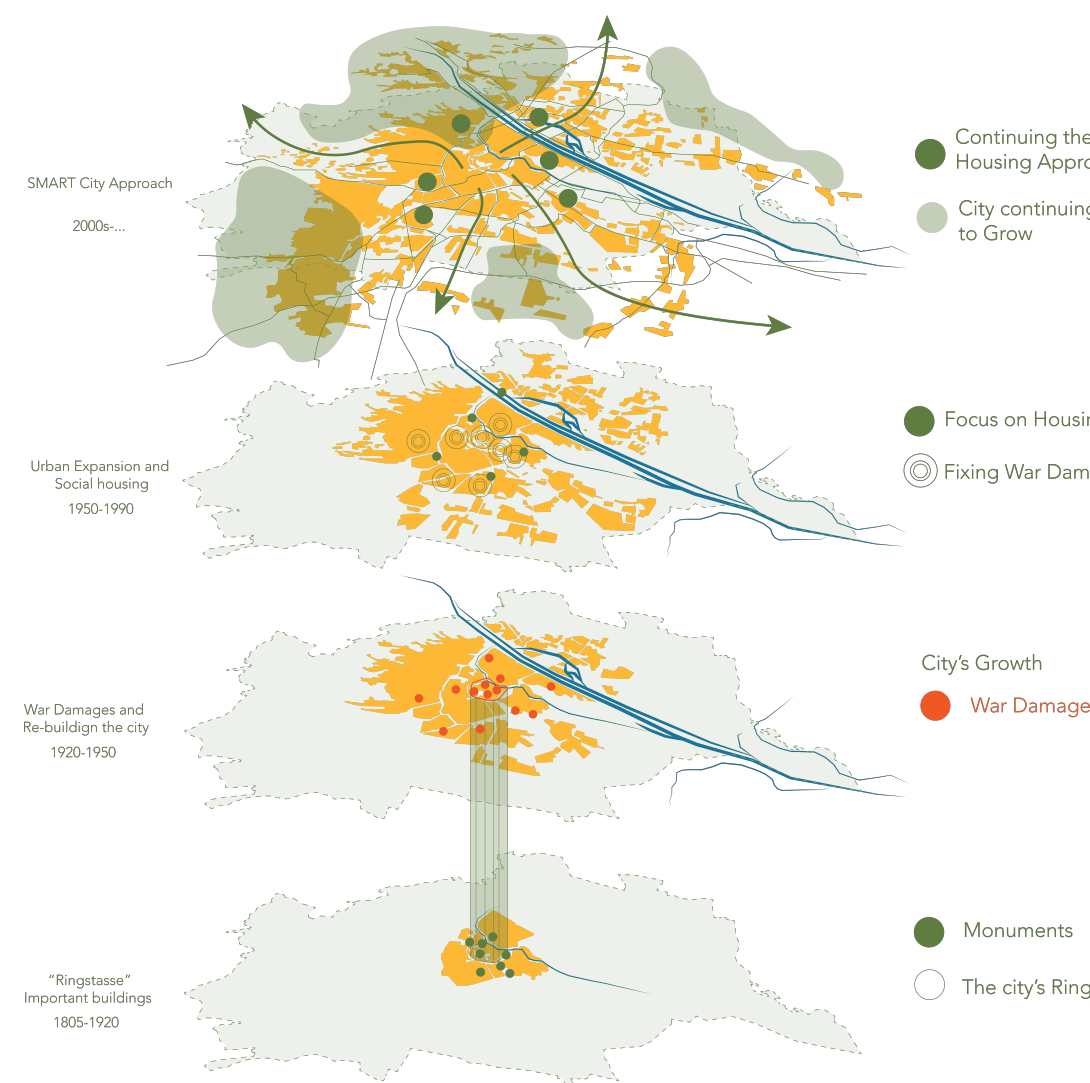

FIG. 1. abd FIG. 2 Maps of Vienna

LITERATURE REVIEW

Change is constantly happening all the time and in general the overall idea of change in the academic practice is not indeed that fragmented. All of the disciplines and practices that seem to exist have an only partial of different kind of reviews for this matter. The general understanding about change management, and the resistance to change are complicated by the specifics of the context. At the same time, both fundamental change and the capacity adaptation are required to address those specific changes that are seen as threats or issues.

A process can take time in virtue of there being an activity or an event involved, and when we speak about a process being interrupted, we might refer to the activity not culminating in the episode. The things which" undergo" processes are the elements of the first point, "a thing or an object".

RESULTS

Throughout this research, innovative approaches to representing change and process in urban environments, with a particular focus on Vienna have been explored. This research has highlighted the significant potential of integrating change and process visualisation into cartography, offering new perspectives for understanding dynamic urban landscapes. The maps have demonstrated different techniques for representing these complex phenomena, shedding light to the complicated aspects of change and process.

However, it is important to recognise that the visualization of change and process remains a diverse and evolving field, ready for further exploration. While significant progress has been made in understanding process and associated change, it is clear that there is still much to explore and discover. Researchers in the field are encouraged to build on this study, expanding its scope and delving deeper into areas that are in need of additional exploration. This study is therefore an invitation to further research, encouraging collaboration and the pursuit of a fuller understanding of the subject.

CONCLUSIONS

This research has explored innovative approaches to representing change and process in urban environments, with a focus on Vienna. It has demonstrated the potential of integrating change and process visualization into cartography, shedding light on the complexities of these phenomena. However, it acknowledges that the field of visualizing change and process remains diverse and ever-evolving, inviting further research and collaboration across disciplines. In essence, the study has met its objectives by enhancing our understanding of process and change in urban contexts and refining cartographic representation approaches. It emphasizes that maps are dynamic narratives of urban evolution, capturing the essence of cities across time. This research serves as an invitation for future scholars to contribute to the evolving landscape of urban visualization and cartography.

References

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