

Understanding resident's perception of urban green spaces using mental mapping

- A case study of the Flaten landscape in Stockholm -

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MOTIVATION

The increasing densification in cities worldwide has led to the loss of urban green spaces, thus increasing and diversifying the pressure on the remaining green infrastructure. Now, a resilient flow of crucial benefits and ecosystem services from the remaining green spaces, as well as a sustainable landscape planning and management procedure, adjusted to the local resident's needs and preferences, needs to be secured.

How people perceive and value green spaces highly influences to what extent they use these green spaces and hence have access to their potential benefits.

New ways to better understand the resident's perception of green spaces are needed to be able to create a more sustainable urban green infrastructure.

STUDY AREA & METHOD

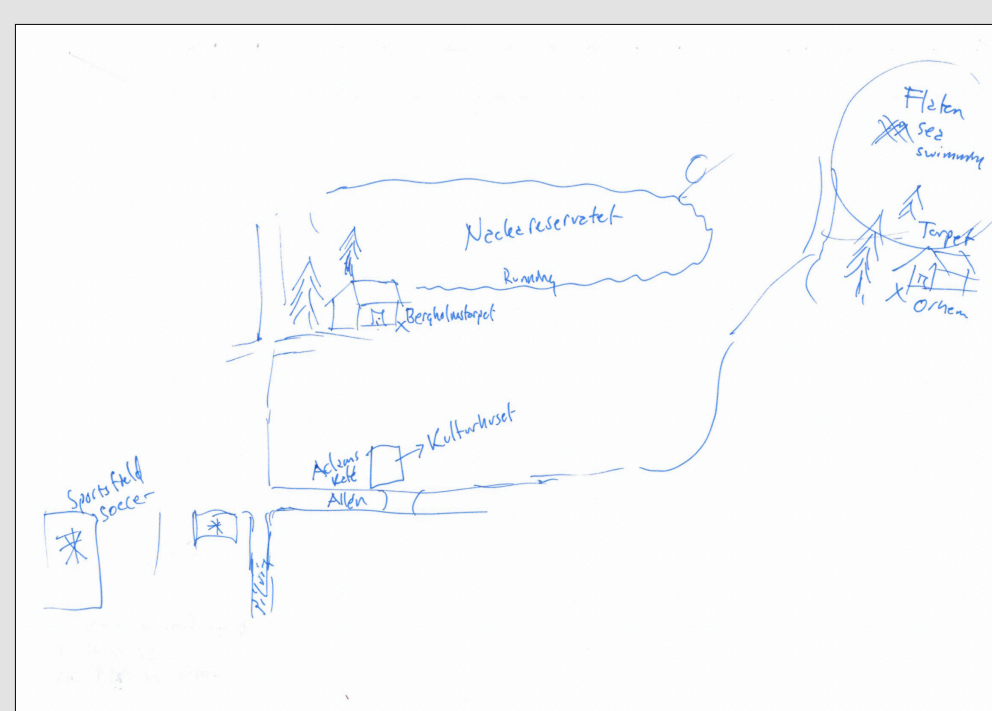
In summer 2018 about 90 residents in the two city districts *Sköndal* and *Skarpnäcks gård* surrounding the Flaten nature reserve in the south of Stockholm participated in this study.

The mental mapping method:

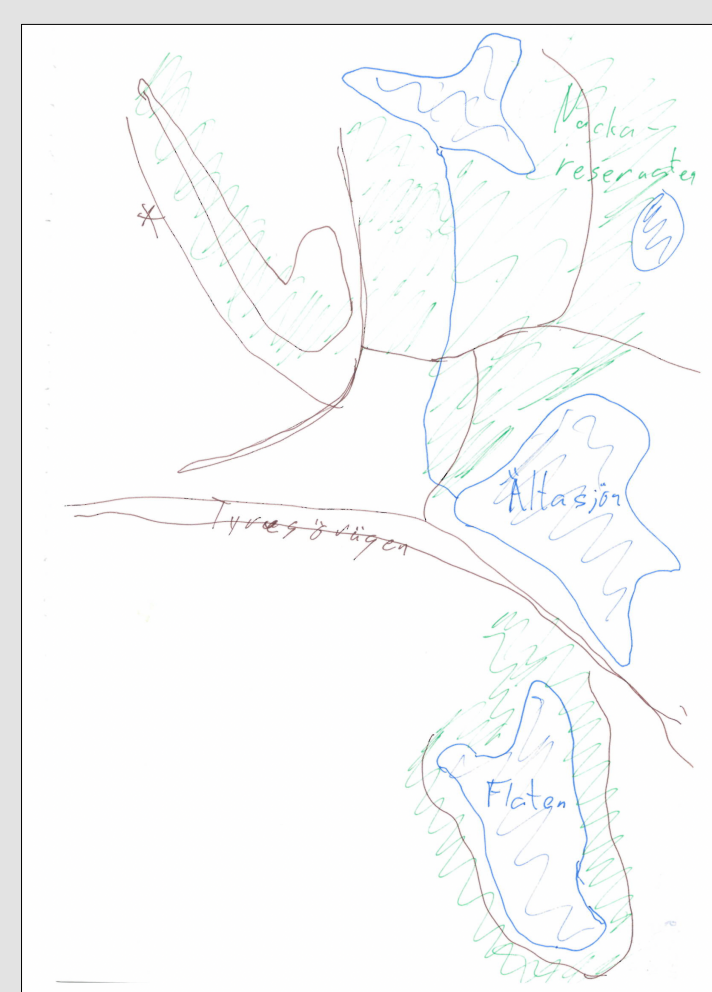
- Participants sketched a map of outdoor green places they use for recreational purposes, within/close to their neighborhood.
- Additional, explanatory interview questions pointed out: values, perceived benefits & barriers to green spaces

How can the mental mapping method contribute to understanding resident's perception of urban green spaces?

RESULTS

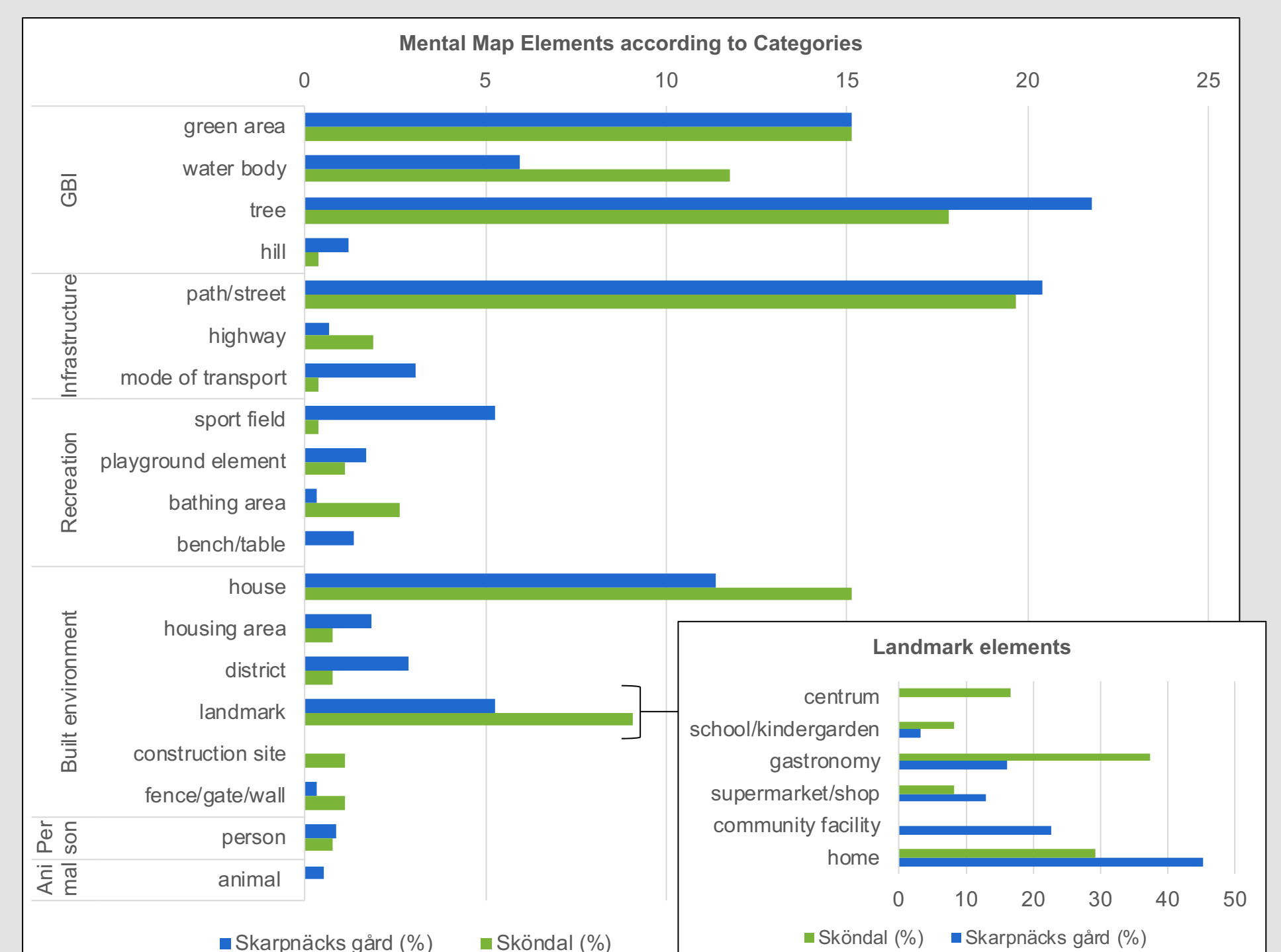
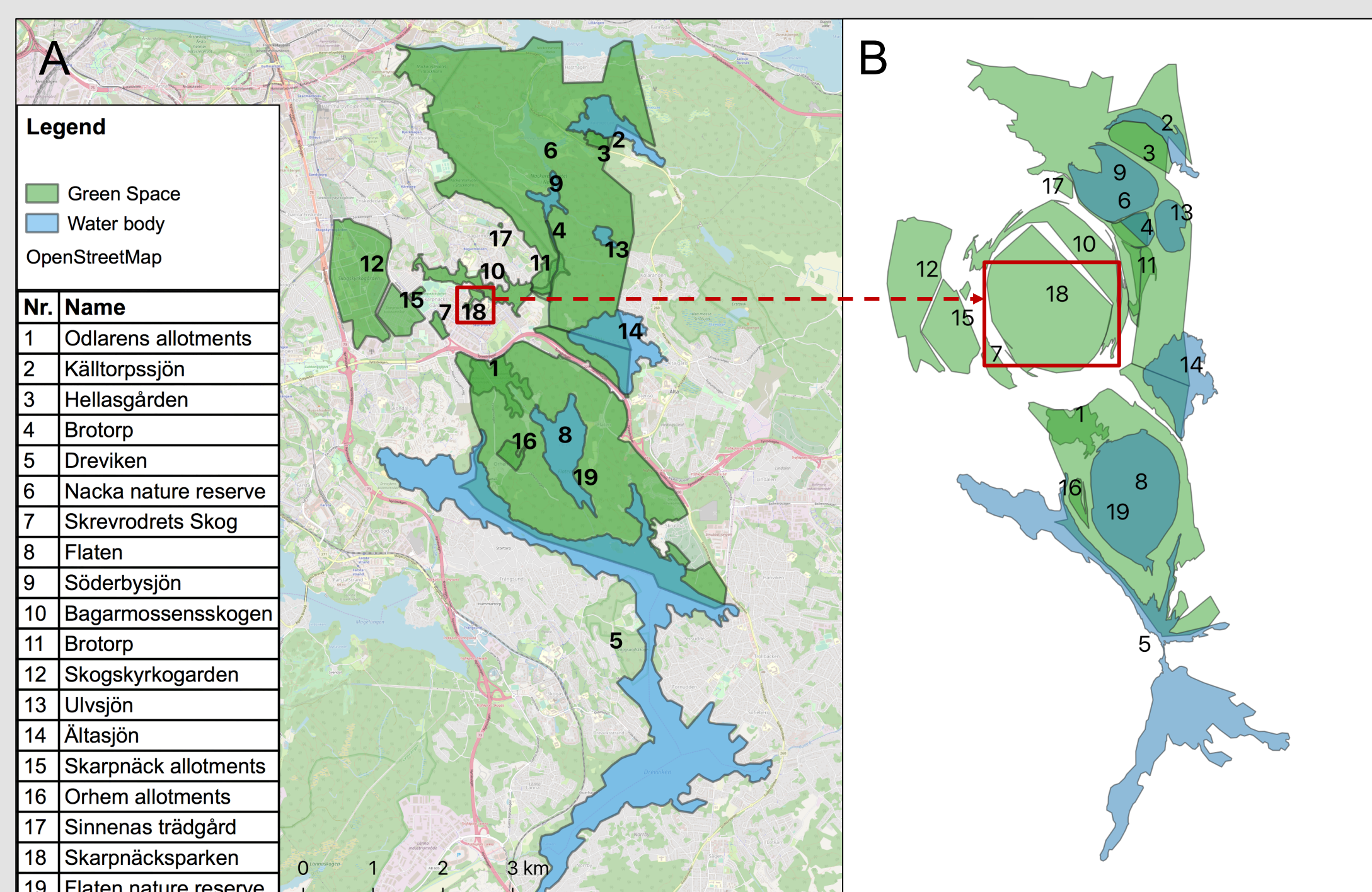


Hand-drawn mental maps from participants in Skarpnäcks gård

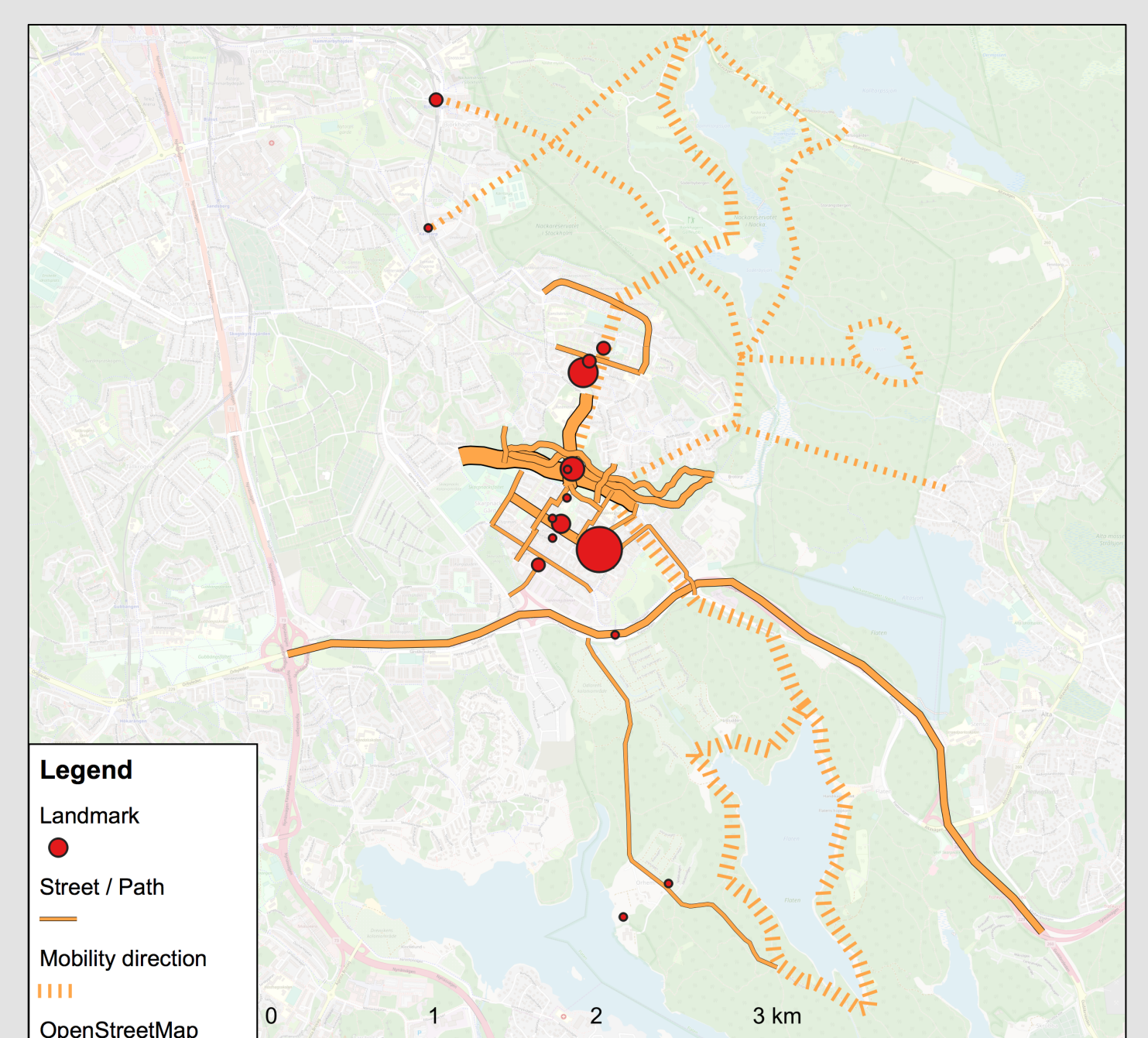


All elements drawn in mental maps can be categorized and compared, showing the collective image of an area.

- A: All green spaces & water bodies included in mental maps in Skarpnäcks gård
 B: Distorted size of green spaces & water bodies according to their frequency in the mental maps show the element's perceived importance



Landmarks and infrastructure elements from mental maps show the resident's movement patterns, spatial orientation and perception of distances.



CONCLUSION

- Mental maps contribute to a comprehensive understanding of resident's spatial perceptions, orientations, preferences, pointing out important landscape elements.
- Spatial hot-spots can be detected and addressed more efficiently through place-specific planning decisions, preventing potential land use conflicts.
- People express different, sometimes even subconscious knowledge through visual rather than verbal means, which can be accessed through mental mapping.
- In combination, additional interview questions were proved to add useful information explaining why or why not certain landscape elements are valued and preferred by residents.