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Revitalisation of Mosterhamn

Spatial strategies for improving an old coastal village in Western Norway

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ABSTRACT

This short paper/poster presents how space syntax is used in a strategic planning proposal for improving Mosterhamn, a small traditional port village at the western coast of Norway. Mosterhamn has a high cultural-historical value in Norway. However, the port activities and the population are declining. The place is characterized by a scattered settlement. The aim is to propose a revitalization plan of the place with a holistic approach. A local survey and interactive workshops with local stakeholders were conducted with purpose to identify shortcomings and improvement potentials. In addition, various spatial analyses of Mosterhamn were conducted for identifying to what extend the wishes from the stakeholders are related to the spatial structure of the built environment.

The solution was to involve the locals in the planning process. Based on their inputs, we propose a strategic plan with six different zones, based on the degree of spatial integration of the road network and the location of important attractors. Each zone has separate challenges. The second main measure was to identify the need to give the public access to the coastline with a continuous walkway that challenges the current established property boundaries. Space syntax was used to analyse how the different zones could be linked together, identify missing links and how the zones could be connected to the new promenade towards the coast.

KEYWORDS

Strategic planning, space syntax, coastal village, participation, walkability



1 INTRODUCTION

Mosterhamn has a long and important cultural and historical value on national level due to the location of probably Norway's oldest church. Moreover, in this church the introduction of the Christian law from 1024 was constituted. The place also has rich traditions as an active port city. However, port activities and the population are declining. This calls for new perspectives for the future development of Mosterhamn, which is given in conjunction with the planned national anniversary in 2024. This set the foundation for future development in the municipal's planning activities the coming period.

Mosterhamn has been for centuries an important trade and harbour on the coastal route between Bergen and Stavanger cities in Western Norway. Fishing has been and is still a main source of income at Mosterhamn. At 2001 the ferries disappeared from Mosterhamn, because of the new road connections to the mainland. The island Moster is one of the sub-centres south-east in Bømlo municipality where it is just under 1400 inhabitants living on the island. The seafront at Mosterhamn is approximate 1.4 km long.

In the early 20th century, the buildings in Mosterhamn consisted mainly of detached houses and a boathouse. The outer parts of the area, consisting of detached houses, roads and ferry quays, were not connected to the centre in the past. The harbour was at that time a place with several activities with fishing and trading boats. The industry was a dominant feature of the landscape with clearly visible quarries along the coastline. From the middle to the end of the 20th century Mosterhamn transformed as it appears today, with a mix of detached houses and boathouse used as holiday homes.

The purpose of the study is to illustrate how to achieve a comprehensive and thorough development of Mosterhamn, with an emphasis on creating attractiveness for both residents and visitors. In addition, participation of various stakeholders was used to study how involvement from residents early on can be a positive asset to the planning process. Furthermore, we present measures to promote public health with a special focus on creating a walkable friendly local environment. At present, the settlement consists of single-family houses. The current development trend is further sprawl of single-family houses into the nature with high degree of private car dependency.

By combining findings from the literature, earlier research, and applying a set of methods and objectives, the final solutions make the physical foundation and set the strategies for future development. In order to ensure early involvement in the process, surveys and meetings with the municipality of Bømlo and the local interest group, Moster Grendautvalg, have been conducted. The feedback from these meeting, along with our analysis, have identified challenges and opportunities for future planning and development of the area. The aim of this short paper is to show how space syntax makes the foundation for how and where to improve Mosterhamn.



2 THE CURRENT SITUATION AND WISHES FROM STAKEHOLDERS

A survey and an interactive workshop of local stakeholders was conducted. Extensive information has been obtained from the workshops, analyses, field registrations and surveys information about how the area works today and the population's wishes for the area. As it turns out, there is a wish to increase walkability, to provide more activities and services, upgrade the existing centre and its public spaces, and to improve accessibility to various attractions. These findings set the basis for the planning proposal for Mosterhamn. It is not only important to implement new services and provide activities. The pathway connections between various services, meeting places, tourist attractions and leisure activities must also be improved to enhance walkability. The attractiveness of the area depends on how it is experienced as a place to visit, to stay and to live in, both for residents and visitors. As the different target groups have different needs, the focus is on finding solutions that meet the wishes of all of them.

In addition, we conducted various spatial analyses of Mosterhamn. The aim is to make a spatial diagnosis of the current situation, and to check how they are in line with the results from the survey and the workshop. Space Syntax is applied to measure the degree of inter-accessibility of the current road network (Hillier 1999). Due to the small size of the area, the global axial integration has only been used in the analysis. Figure 1 (left) shows a global integration analysis of Mosterhamn. The small village centre has the highest integrated roads, but the road profiles are based on vehicle transport. There are almost no pavements in the area. According to the theory of the natural movement economic process (Hillier et al 1993) it is possible to predict the potential for future economic activities in the area (van Nes and Yamu 2020). Figure 1 (right) shows the results of from the space syntax analyses for our planning proposal.

It is also possible to conduct a wide range of other spatial analyses for making a spatial diagnosis of an urban area (van Nes and Yamu 2021). Due to that our study area consists of free-standing low rise point buildings and it is monofunctional, only a street profile analysis (van Eldijk et al 2014) is applied for making a spatial diagnosis of the area. Here we made our own categories, where we distinguished between four different street functions: streets only for pedestrians, balanced streets, vehicle dominated roads and vehicle only roads. Figure 2 (right) shows a street profile analysis of Mosterhamn. As can be seen from the analyses, the following street profiles are identified: vehicle only roads, roads with sidewalks on one side, and roads with separate pedestrian and bicycle paths on both sides. The area lacks a balanced street use, containing pavements on both sides. Therefore, one important strategy is to provide more pedestrian friendly roads or streets in the area for a better adapted use of the road network within the planning area.

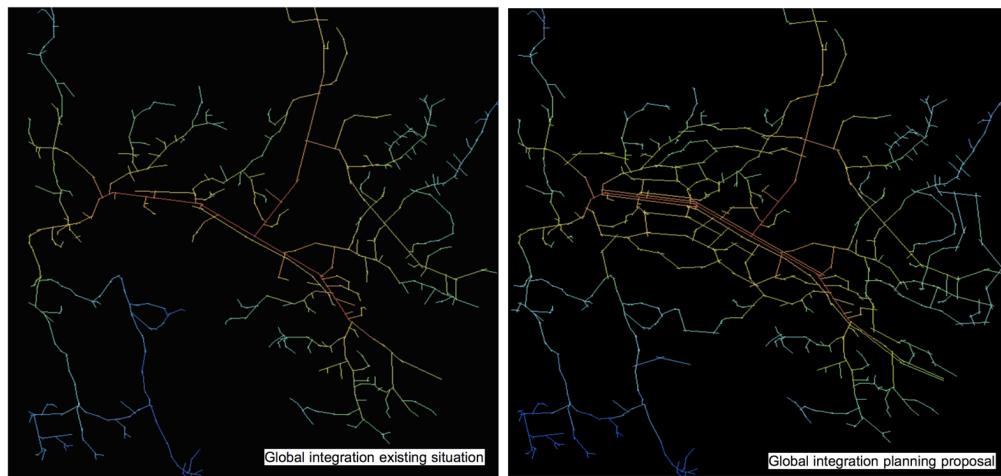


Figure 1: Space Syntax analyses of Mosterhamn current situation (left) and planning proposal (right)

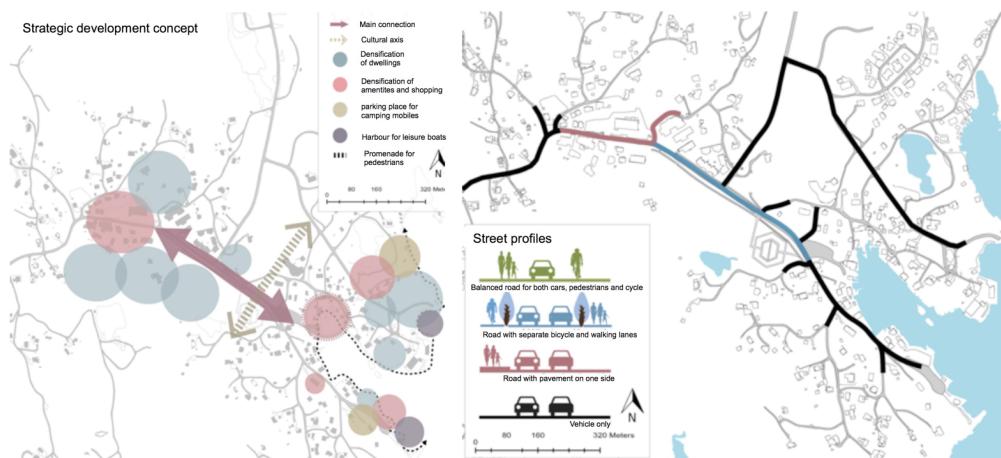


Figure 2: Strategic action plan (left) and street profiles analyses (right) of Mosterhamn

3 THE STRATEGIC PLAN FOR MOSTERHAMN

Based on the degree of spatial integration from the space syntax analysis, a strategic development plan concept is proposed in figure 2 (left). It shows the overall development potential for future land use. Six selected areas will need upgrade in terms of densification, improvement of street profiles and placement of new functions. Moreover, there is a need to improve a promenade along the harbour and the coast for creating opportunities for walking, recreation and social meeting places. Figure 3 shows all these strategies.

Opportunities for trade and services will be centralized around the current local centre. In addition, it will be desirable to establish services in Mosterhamn. New activities will be located

around Gruva, located north in the planning area where existing ball games in the form of volleyball and football take place. The possibility for future housing development can be expanded in already existing residential area on the south and north side of the main road in the centre. The aim of the extension is to connect the two relatively separated areas Nærcenteret (the local shopping centre) and Mosterhamn (the harbour area) for providing a village centre feeling. The road profile of the road between these two areas will be changed towards a balanced main street. In addition, already planned new housing development on Dalaneset fits well within this planning proposal.

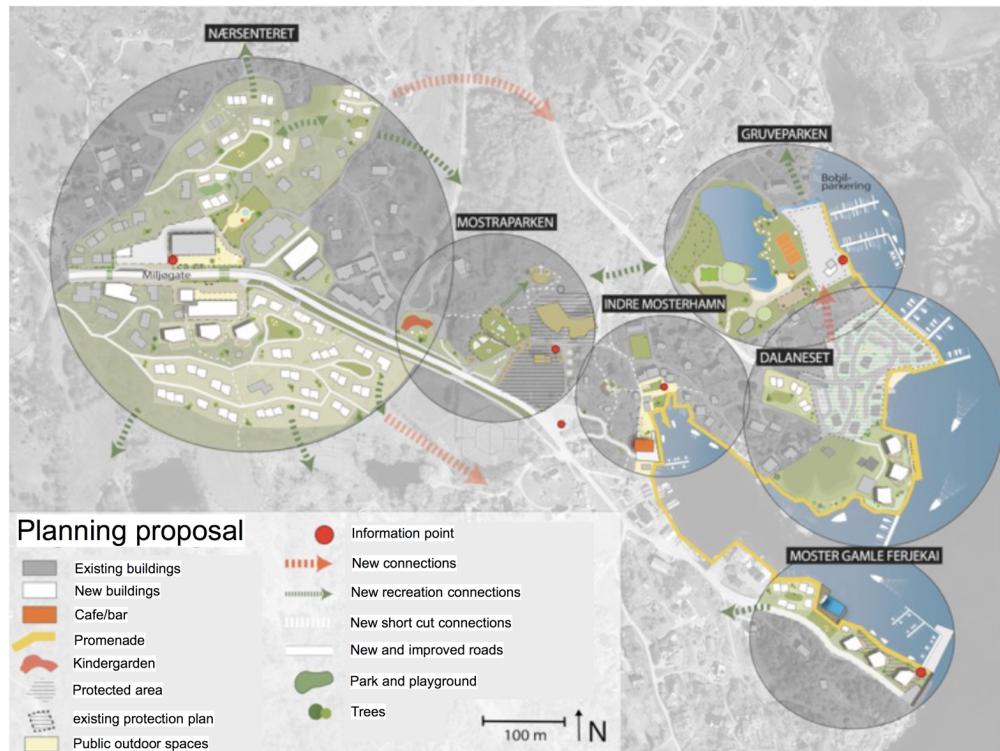


Figure 3: Planning proposal of Mosterhamn

The proposed new continuous promenade from Moster's old ferry quay to Gruveparken links all areas to each other. This promenade has the same design along the entire stretch and enables access for all users. The information boards located along the promenade and in the planning area in general gives information about the area's various attractions and walking routes.

The local centre's role at Moster can be strengthened through densification along the improved main street with an improved accessibility for pedestrians and cyclists. The new main street will have a street profile that facilitate social activities such as sitting and standing, at the same time as it will give the centre an aesthetic boost. The centre park is a public recreation area important



to the local community. Its accessibility is improved in the planning proposal. The centre's location with a short distance to homes, services and retirement homes will get greater accessibility in the new plan than the current situation. We hope that the centre will serve a wider user group than today. A higher density of buildings in the local centre entails more homes close to and within this centre. Facilitating high diversity in land use and building density within a short metrical radius provides a compact future centre on Moster with short walking distances to services, shops, public transport stops and large variation of the types of dwellings.

4 CONCLUSIONS

The final solution is a combination of six different sub-areas, each with different planning strategies. All these sub-areas are linked with an integrated street network, supported by the space syntax analysis. Together all these strategies provide a picture of future developments on an overall scale. The solution emphasizes to increase attractiveness and includes a comprehensive and flexible plan for short- and long-term solutions for Mosterhamn.

To include local stakeholders to participate in the first phase of the planning process has proven a positive tool. The feedback from the local stakeholders have provided a planning solution for understanding different social aspects and the relationship between them. Possibilities for enhancing public health can thus be promoted through improvement of the existing walking connections and establishment of new recreational areas and meeting places. It is thus possible to facilitate increased use of the public spaces, walkability and accessibility through improving the built environment. This process has also revealed how important participation of users are, and to discuss new planning actions and proposed solutions to promote public health and create attractive and vital places in a local community. In this way the residents get ownership to the proposed planning strategy, in which makes implementation easy for the coming years.

REFERENCES

- Arnstein, S.R. (1967) A ladder of citizen participation. *Journal of the American Institute of planners*, Vol. 35 (4), p. 216-224.
- Berge, G., Haug, E., Marshall, L. (2012) Nasjonal gåstrategi. Strategi for å fremme gange som transportform og hverdagsaktivitet. Rapport nr.87. Oslo: Vegdirektoratet.
- van Eldijk, J., Andersson, L., Pettersson, P. & Koch, D. (2014) Trygghetsutredning Noltorp. Göteborg: Rambøll.
- Hillier, B. (1999) 'The Need for Domain Theories', *Environment and Planning B: Planning and Design*, 26(2), pp. 163–167. doi: 10.1068/b2602ed.
- Hillier, B.; Penn, A.; Hanson, J.; Grajewski, T.; Xu, J. (1993) Natural movement: Or, configuration and attraction in urban pedestrian movement. *Environmental and Planning B*, 20, 29–66.
- Van Nes, A. & Yamu, C. (2020) Exploring challenges in space syntax theory building: The use of positivist and hermeneutic explanatory models. *Sustainability* 2020, 12, 1–21
- Van Nes, A. & Yamu, C. (2021) *Introduction to Space Syntax in Urban Studies*; Springer Nature: Berlin/Heidelberg, Germany, 2021.