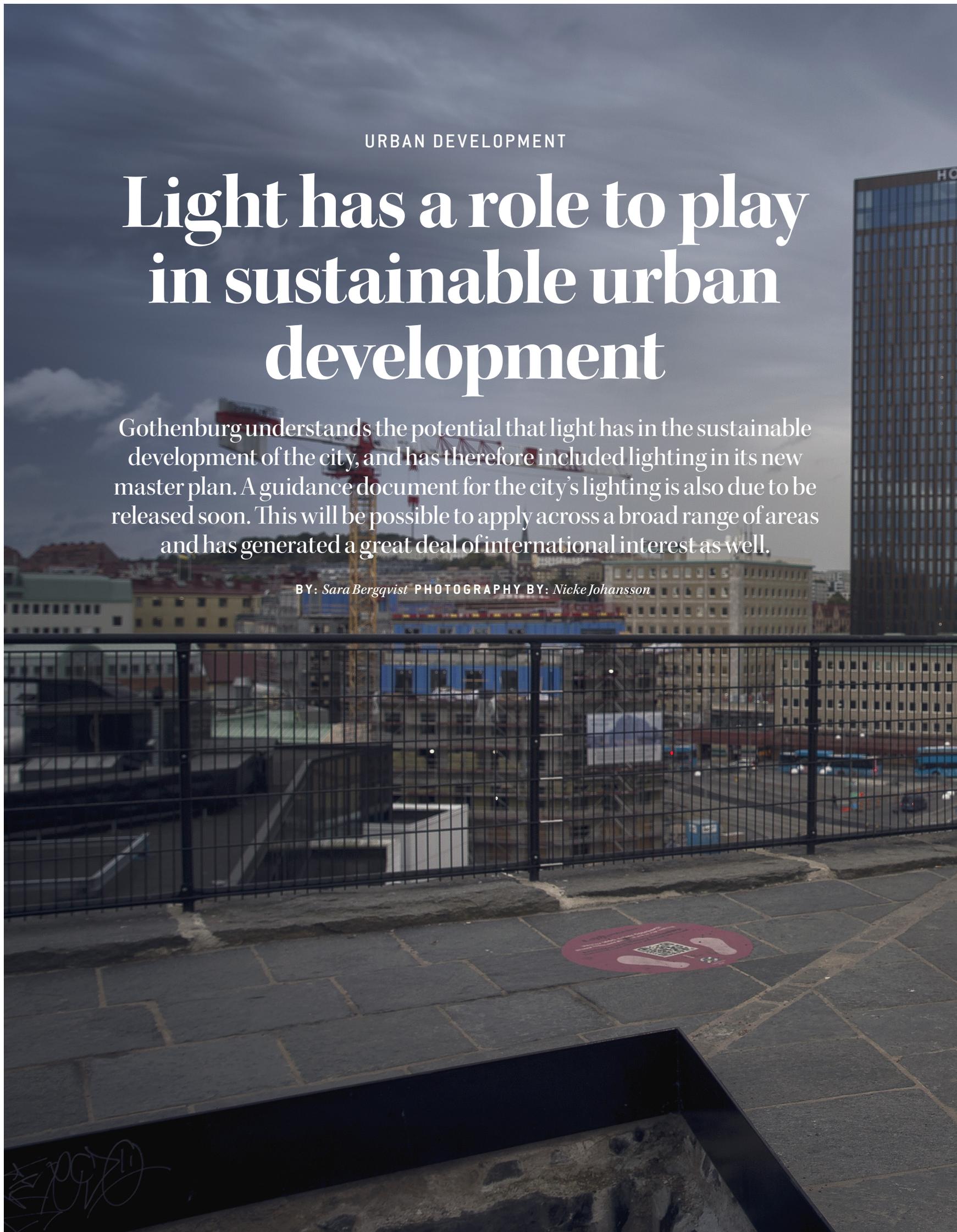


URBAN DEVELOPMENT

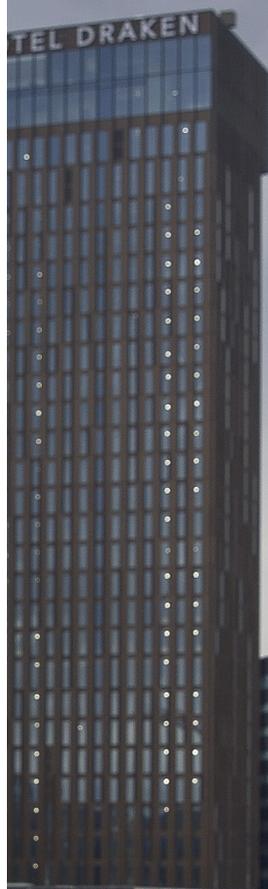
Light has a role to play in sustainable urban development

Gothenburg understands the potential that light has in the sustainable development of the city, and has therefore included lighting in its new master plan. A guidance document for the city's lighting is also due to be released soon. This will be possible to apply across a broad range of areas and has generated a great deal of international interest as well.

BY: *Sara Bergqvist* PHOTOGRAPHY BY: *Nicke Johansson*



Including lighting at an early stage of the city planning process is a powerful tool for promoting security and equality in the city, say Lars Ocklund and Christina Vildinge.



“Well-planned lighting can contribute to a vibrant night-time city in which people are able to live an active life during the hours of darkness. Lighting in Gothenburg must promote active living, safety and equality in the city, with light as a natural element contributing to the perception of the form, function and atmosphere of the urban space while also underlining the different characteristics of the city’s districts.”

From Master Plan for Gothenburg, adopted by the City Council on 19 May 2022

Cooperation as well as clear shared guidelines and goals are required in order to ensure that light is given a natural place throughout the process from planning to operation. These have been important touchstones for Lars Ocklund at the Traffic and Public Transport Authority, who is responsible for planning lighting in Gothenburg, and Christina Vildinge, doctoral student of design at HDK-Valand at the University of Gothenburg and studio coordinator of Landscape & Visualisation at White Arkitekter Göteborg, who have jointly paved the way for giving light a greater role in urban development.

“Because light diffuses without bounds, we need to cooperate about it. And it’s clear that lighting is an excellent feature to converge around for sustainable urban development. This is both because everyone has a relationship to it and because it has such a large impact on all dimensions of sustainability such as climate, energy, ecology, and also on social aspects such as identity, safety, and a democratic urban space accessible to all,” Lars Ocklund says.

He and Christina Vildinge expect to be able to release the new guidelines for the city’s lighting by the beginning of next year. They have been working on these guidelines for the past couple of years together with a project group made up of members from several of the city’s administrations, and in consultation with the business community and government agencies. The intended readership includes project coordinators, planning managers, planning architects, property owners, businesses, associations, consultants and users.

“We hope that the guidelines will be so good, and that interest in them will be so great, that anyone in any way involved with lighting in the city will be standing outside the door here, eagerly reaching for a copy of the first edition,” says Lars Ocklund with a big smile.

Lars Ocklund and Christina Vildinge expect to be able to release the new guidelines for the city’s lighting by the beginning of next year. They have been working on them for the past couple of years together with actors from the municipality, businesses and government agencies.

PART OF A RESEARCH PROJECT FOR SUSTAINABLE SPATIAL PLANNING

Production of the new guidelines is one of three parts of a bigger research project financed by Formas, the government’s research council for sustainable development, where collaboration is the common denominator.

“The research project is geared towards practicable outcomes, with a focus on developing methods and tools that convert research results into practice for sustainable spatial planning. In parallel, new research is generated,” Christina Vildinge explains.

The guidelines comprise a theoretical basis, connections to other policy instruments with implications for urban development in Gothenburg, methods and processes for collaboration, applicable check lists, and guidelines.

“Knowledge about lighting is important at every stage, and we’ve noticed that many of those involved with designing the built environment need additional support regarding the hours of darkness, which of course constitute a considerable part of the day – and of the year – in northern Europe. It’s important, therefore, that buyers within the administration possess an understanding of the conditions governing darkness – and that they in turn seek out both knowledge and the relevant skills,” Christina Vildinge points out.

A useful way of demonstrating approaches to lighting is to refer to examples of good practice. The guidelines were developed via the working group’s pilot projects, and the scope and variety of these was broad, both in terms of the type of project and their timing in the planning process.

“The research project has allowed for a more exploratory approach, in parallel with regular activities. Together we have been able to test new ideas and develop new working methods,” Christina Vildinge says.

“Lighting ought to be a part of urban planning just as the colours of building façades are.”

LIGHTING ISSUES HAVE A WHOLE NEW SIGNIFICANCE NOW

The pilot projects were for everything from lighting along Gothenburg’s main avenue, Kungssportsavenyn, the centrally located Brunnsparken, the historic area Slakthusområdet in Gamlestan and the new quay area Masthuggskajen, to the area around Frölunda Torg.

“The Masthuggskajen project has got to the point where property owners and the city authorities together have come up with a check list for building permits for lighting. But building permit issues concerning lighting are not altogether simple, which is why the guidelines will include a special section providing support. Cooperation with property owners is important, just as the city needs lighting competence when processing building permits,” Lars Ocklund explains.

One outcome of the research project that they are both very pleased about is that the City of Gothenburg has now included lighting as a part of the master plan, under the section on “Built living environments”.

“That means issues concerning lighting get a whole new significance. We can now refer to the fact that lighting is something the master plan says must be taken into consideration in urban development,” Lars Ocklund says.

The pilot projects especially showed the importance of including lighting early in planning – and this meant that the inclusion of lighting in the master plan became a particular ambition of the research project.

“Lighting ought to be a part of urban planning just as the colours of building façades are. Urban planning has always been based on what happens during the daylight hours, despite the fact that we have more hours of darkness during a large part of the year. There is nothing about lighting in the architecture policy regarding the city’s silhouette [skyline?], for example. The guidelines, however, build on the City of Gothenburg’s guideline for the city’s silhouette, tall buildings and structures. And that will be crucial in a growing city like Gothenburg,” Lars Ocklund points out.

The City of Gothenburg is a member of the LUCIA-association, an international network of cities on urban lighting that promotes sustainable, energy-efficient lighting.

“Collaboration on lighting works on many different



Lars Ocklund of the Traffic and Public Transport Authority, who is responsible for planning lighting in Gothenburg



Christina Vildinge, doctoral student of design at HDK-Valand at the University of Gothenburg and studio coordinator of Landscape & Visualisation at White Arkitekter Göteborg

levels. Lighting isn’t just a city or municipal issue – it has national and international significance,” Lars Ocklund points out.

The Formas project entitled The Role of Lighting in Sustainable Urban Development is also linked to an EU-financed Interreg* project called LUCIA Lighting the Baltic Sea Region.

“We recently went on study visits to Finland and Estonia. Both were instructive experience exchanges in which the project’s working group from the Traffic and Public Transport Authority, the City Planning Authority and the Parks and Landscape Administration met colleagues from other countries with similar challenges. There was a lot of interest in our guidelines there as well,” Lars Ocklund says.

The research project also includes studies of administrative collaboration and of Gothenburg’s several-year cooperation on lighting and art in underpasses for increased security and well-being.

“This allowed us to see how lighting can serve as a cohesive force across administrative boundaries, for example. We carried out around 30 interviews and made joint evaluations in the form of night-time walks together with citizens, social administrations and local actors in three of the underpasses,” Christina Vildinge says.

The study of lighting and security was carried out with the support of Bertil and Britt Svensson’s Foundation for Lighting Technology.

“I find it very positive that we as a municipality get an opportunity to come back and gather feedback in this way, and ask: How good was the outcome actually?,” Lars Ocklund adds.

What is the most important conclusion you can draw overall from the research project and your work on the new guidelines?

“That city lighting requires collaboration and that lighting is a good feature to converge around for sustainable urban development. One recommendation to come out of the project is that the night-time city and the hours of darkness have their own particular conditions that need to be addressed. It’s all about the right light in the right place at the right time,” Lars Ocklund sums up. ⚙️

* Interreg is a European interregional cooperation programme for improving cooperation across national borders. Its purpose is to encourage cities and regions in different member states to work together and learn from each other through joint programmes, projects and networks