

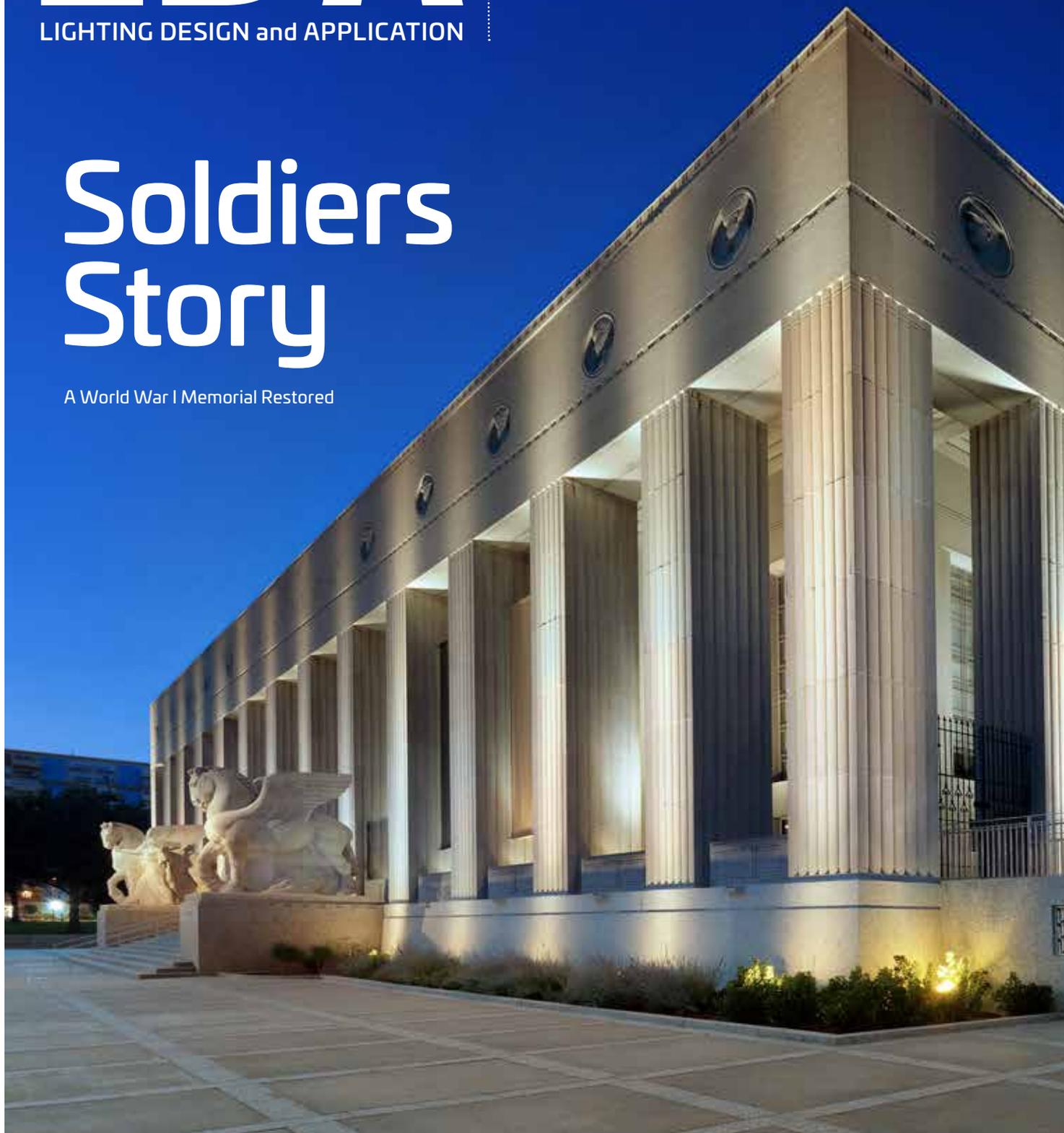
LD+A

LIGHTING DESIGN and APPLICATION

Industrial Chic Market
'Citizen Experts' Know Best
UV-C Lessons Learned

Soldiers Story

A World War I Memorial Restored



In Baltimore, a project kickoff event featuring residents armed with flashlights called attention to the importance of outdoor lighting.



LIGHT + JUSTICE IN ACTION

Some shining examples of community-based design and a blueprint for the future

While our society steadily recovers from the COVID-19 pandemic, we are still coming to grips with the social inequities that have been exposed and amplified during this social justice awakening. As we focus on improving our countries' infrastructure, lighting professionals have an opportunity to advocate, design and provide high-quality, good lighting to under-served, vulnerable communities that need it the most.

Since publishing Part 1 of this article in the September 2021 issue of *LD+A*, we have continued to explore the history and consequences of bad, unjust lighting that is so commonly imposed on

**By
Edward
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marginalized communities, especially outdoor lighting in the public realm. Research has confirmed what we already know: marginalized Black and Brown communities experience more over-lighting and it has negative consequences for people's physical and mental health, their communities and the environment. As lighting professionals, we know that light has power. We also know that most people take their outdoor lighting for granted, and they don't realize that the ubiquitous illumination that makes society function at night is designed.

There is systematic inequity to how lighting is designed and implemented. As previously observed, the majority of our profession's time, talent and technology is for the benefit of affluent clients with well-funded projects. Based on the premise that everyone deserves good lighting, there are abundant opportunities for the lighting industry to actively correct this social and environmental inequity.

"Systems of oppression, injustices, and inequities are designed. Therefore, they can be redesigned."

Antionette D. Carroll, MA
President and CEO (Founder)
Creative Reaction Lab
She/Her/Hers

IES Members and readers of this magazine are uniquely aware of the wisdom of investing in good lighting. This is reflected in the new IES LP-2-20, *Designing Quality Lighting for People in Outdoor Environments*, which emphasizes visual reassurance as a key goal over the security of property or the suppression of crime. We know that good lighting benefits urban revitalization, public health and safety, energy conservation, environmental balance, job creation and economic performance.

But we must go beyond these recommended practices to engage the very communities impacted by the lighting we design. We need to rebalance the lighting design process and rethink the lighting designer's role. In the book *Design Justice*, Sasha Costanza-Chock says, "We see the role of designer as facilitator rather than an expert...They may not be the only 'expert' at the table." The Design Justice Network is an organization that uses these principles to reimagine the design processes, centering people who are normally marginalized by design using collaborative, creative practices to address the deepest challenges these communities face. But too often,

lighting designers are excluded from the initial planning process and end up prescribing solutions that are unfortunately disengaged from the specific concerns of stakeholders.

Yet there are shining examples of lighting designers working with communities to design outdoor lighting. NightSeeing is a program run by lighting designer Leni Schwendinger that opens people's eyes to an existing nighttime light environment including understanding lighting systems and their effect. Schwendinger is also part of International Nighttime Design Initiative (NTD), a consortium of 30 interdisciplinary academics and professionals who are applying vision, skills and know-how to develop a holistic design practice to urban lighting design.

Another example is the Community Friendly Lighting Program designed and led by Bob Parks. It is a street lighting design process that starts with public outreach and engagement. Parks strongly recommends mock-ups in the community to demonstrate how new lighting technology can reduce glare, improve color rendition, minimize sky glow and increase visual comfort while engaging the community in creative lighting solutions.

Community-based design engagement works. In 2014, the London School of Economics and the Social Light Movement brought together 25 lighting designers, architects, planners and social scientists for a week-long workshop with the 1,200 residents of the Whitecross Housing Estate in London. The aim was to explore how social research can help designers understand those outdoor social spaces and the needs of Whitecross residents, in order to improve the nighttime quality of the estate. Before this interaction, residents thought of their bad lighting as unchangeable as the asphalt on the driveway or the bricks on the building. But the Social Light Movement encouraged the residents to manipulate and play with lighting, so that they could convey their lighting preferences and show the design team a new lighting approach, based on a common understanding of the joyful possibilities of better lighting.

The Chicago Smart Lighting Program was featured in the IES Street and Roadway Lighting Conference held in 2020, as well as the June 2021 issue of *LD+A*. A four-year partnership between the City of Chicago and NORESO resulted in the conversion of about 300,000 HID street and sidewalk luminaires to LED luminaires, which meet IES

recommended practices. While it improves lighting quality, preserves the night sky, saves energy and reduces maintenance, the most remarkable part is how this program addressed social justice. NORESO partnered with local electrical shops and contractors to dismantle, refurbish and reinstall salvageable luminaires as well as to install new equipment. By intent, those shops and contractors were predominately Black-owned businesses. In turn, they recruited, hired and trained many formerly incarcerated workers to meet the staffing demands of this enormous project. The Chicago Smart Lighting Program started in the historically neglected neighborhoods of South and West Chicago before finishing in the wealthier suburbs.

An extraordinary example of community-centered lighting design is taking place in Baltimore, where the non-profit group Neighborhood Design Center and the lighting design firm Flux Studios led by Glenn Shrum have undertaken a district wide relighting program called Signal North Station. This is a facilitated collaboration with the diverse Station North community to redesign their outdoor lighting such that it expresses their values and hopes for their neighborhood while addressing their concerns. A National Endowment for the Arts grant and matching funds from the Central Baltimore Partnership supported the development of a public space lighting plan that included a process of focused listening, research, urban analysis and practical community tools. These tools included two lighting guides: "A Guide to Noticing Light in the Neighborhood" and "A Guide to Navigating Lighting at Night." Called "Zines," these were distributed in neighborhood free news kiosks, and they provide accessible information about noticing the qualities of light and navigating the city's lighting infrastructure. More importantly, they provide the language for the community to understand and communicate their lighting worries and desires.

Through active community listening this plan became a collaboration of neighbors, local artists, designers and nonprofits all advocating for better quality street lighting. Shrum says, "The community listening process provided insight on how Station North residents and visitors think about lighting in the district, and how their hopes and concerns for future lighting interventions align and differ from what we generally think of as good lighting design. Our approach to Signal Station North has also diverged from our usual practice in how we have emphasized education as a design outcome."

He goes on to recount a significant turning point in the project, “The most profound experience was when we kicked off the Signal North Station project, we invited the community to participate in ‘Flash!’ an interactive neighborhood lighting event. Forty volunteers from the neighborhood armed only with flashlights paraded around Station North at night, illuminating various sites along the way, followed by a marching band accompanying this joyful lighting intervention.” Though this starts out as a plan, it is a plan done in collaboration with the community that will allow the residents to enjoy the nighttime and their unique place in the city.

As these examples show, in order to revive poorly lighted marginalized communities, we must be able to engage openly and productively with community members, listening to their lighting concerns and identifying opportunities for positive outcomes, helping them reclaim the night. We must adjust our typical posture as “lighting expert” to be a more open “lighting facilitator.” We cannot simply impose ourselves as “The Lighting Authority.” Although we have specialized knowledge and experience, the people who need better lighting have their own perspectives, experiences and concerns about illumination quantity and quality. As “citizen experts,” they have a better understanding of the historical and cultural context of their neighborhood. While they can benefit from our technical knowledge, we must approach public realm lighting opportunities with an open mind and a willingness to collaborate with stakeholders in order to truly understand their concerns and develop lighting solutions that are embraced by the community and elevate placemaking.

This is not just wishful thinking. We can individually and collectively leverage our knowledge and influence to generate new business and expand the public appreciation for quality lighting, while measurably improving the visual environment for poorly lighted communities. Here are six steps that we as an industry can take to address the inequity in outdoor lighting in our communities:

1 | Ensure your current projects cause no environmental or social harm.

Check your exterior lighting specifications and photometric calculations to prevent light pollution or trespass. For design firms, this can start with a quick but empathetic review of current projects to anticipate glare, intensity or color

objections from neighbors. Potential problems can become opportunities to inform owners and clients about the urgency of responsible and equitable lighting systems as an investment in community relations. This evaluation needs to be part of a standard quality assurance process for manufacturers, especially those that assist designers, utilities, municipalities and others with outdoor lighting layouts, calculations and luminaire selections. The objective is to avoid inadvertently delivering unjust lighting that is bad for humans or nature.

2 | Seek projects that benefit underserved communities and decline projects that adversely impact those communities.

The Chicago Smart Lighting Program and the Baltimore Signal Station Street North project are replicable, scalable and highly applicable as the U.S. undertakes massive infrastructure improvement projects. Lighting designers, specifiers, manufacturers and energy service companies have the expertise to offer communities that do not typically have access to our services. However, the need for good lighting is abundant, opening opportunities for rewarding work, job creation and public engagement. In addition, good lighting is a crucial investment in neighborhood revitalization. Similarly, increased awareness of lighting justice will help identify if a project causes collateral destructive environmental or social impacts on a neighboring community.

3 | Support lighting design awards for projects that promote social equity and demonstrate positive impact in underserved communities.

A powerful way to encourage the awareness and adoption of equitable lighting would be to celebrate it with accolades and recognition. The IES and the IALD give annual awards to the best new lighting projects in the world. There could be a special category for projects that achieved superlative results for a marginalized community, distressed facility, or otherwise socially or environmentally challenged stakeholders. Over time, this could become part of the whole consideration of a lighting project’s worthiness: does it improve environmental and/or social justice? This worked for sustainable lighting design. In the early 2000s, the new IALD and IES sustainability committees lobbied successfully for new sustainable lighting design awards. Within ten years, these separate award categories were

integrated into the overall award criteria, requiring every entry to describe its energy and environmental benefits.

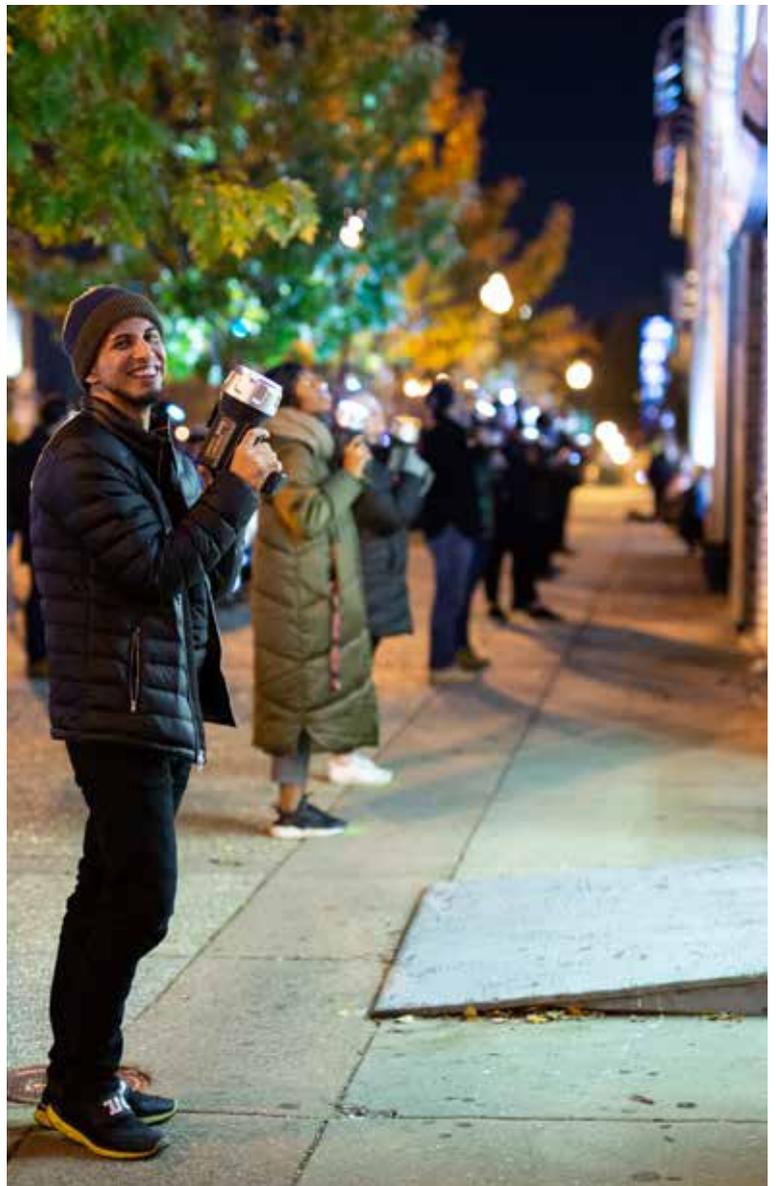
4 Advocate for social equity issues to be addressed in upcoming IES Design Guidelines and Recommended

Practices. In addition to its DEIR Committee, the IES Sustainability Committee is in the process of fully updating the LP-10-20 guidelines to include social and environmental equity in the recommended practice of sustainable lighting design and manufacturing. This expansion of the definition of sustainable lighting resulted from the advocacy of several committee members. As other IES documents come up for review and revision, there is the opportunity to consider the impact of those guidelines on historically underserved or poorly lighted communities.

Other lighting organizations are also focusing on equity. The DesignLights Consortium is using its webinar series to explore lighting equity issues. In 2020, the International Dark-Sky Association added social equity to its vision and values stating: “It matters because responsible lighting and access to the night and its star-filled sky is a human right. Around the world, light pollution is destroying ancient traditions and knowledge systems. Overlighting in areas where communities of color are concentrated poses a significant threat.”

5 Advise your municipal planning and engineering departments and your local electric utility regarding outdoor lighting quality standards and light pollution/trespass mitigation measures.

It will also be necessary for us to continually inform public officials, utilities, planners and developers that quality lighting is essential and that we have the knowledge and experience to provide it. And we need to educate and demonstrate that more lighting does not make safer environments. Nor should energy efficiency or reduced maintenance be the only motivation for improving outdoor lighting. Creating nighttime places that promote positive community engagement should also be a goal. The real influence (and funding) for street lighting improvements is held at a higher level. Our influence needs to be exerted at the policy and planning level to gain the full appreciation for the necessity of quality lighting for everyone.



Forty volunteers joined the “Flash!” march.

6 Lobby state and federal officials to invest in better lighting for all.

Local, state and federal officials make the decision whether to invest in quality lighting. They need to be made aware of the availability of lighting professionals who can advise them in those decisions, especially now that new federal infrastructure funding is available. The public policy outreach teams for the International Association of Lighting Designers and the Illuminating Engineering Society can provide guidance for individual members who are motivated to contact these officials to advocate for our profession and for better lighting for all. If we believe that everyone is worthy of good lighting, then we need to deliberately prioritize and advocate for the investment in lighting

improvements and revitalization for underserved, poorly illuminated communities. This will prove its value and worth by providing a more equitable visual environment for all. ©

THE AUTHORS | Edward Bartholomew, IALD, Member IES, is the principal of Bartholomew Lighting, a Black-owned design consultancy based in Cambridge, MA. He has over 30 years of experience designing sustainable, inspiring and award-winning architectural lighting systems. Bartholomew is an invited speaker on lighting technology, energy efficiency strategies and social justice at regional, national and international conferences, including co-presenting a seminal talk “Light + Justice” with Mark Loeffler at LightFair 2021. In addition, he co-teaches graduate lighting classes at Morgan State University, and at the Rhode Island School of Design. In his practice and advocacy, Bartholomew promotes Light Justice.

Mark Loeffler, IALD, Member IES, LEED Fellow, retired from active consulting at the end of 2021. Based in Connecticut, he has dedicated more than 45 years to designing joyful, invigorating, healthful and sustainable

lighting for notable academic, healthcare, research, corporate, institutional and recreational buildings in the U.S. and around the world. During his career, Loeffler has written, taught and lectured widely, which he plans to continue, especially in his advocacy for lighting’s role in social and environmental justice.

To Learn More

These websites offer more information on community-based design and documents related to the pursuit of equitable lighting.

www.creativereactionlab.com

<https://mitpress.mit.edu/books/design-justice>

<https://designjustice.org/>

<https://www.nightseeing.net/>

<https://nighttimedesign.org/>

<https://volt.org/cfl/>

https://lightcollective.net/light/ing/social_light_workshop_sclessin

<https://lightfollowsbehaviour.com/portfolio/whitecross-workshop/>

<https://www.designlights.org/news-events/events/webinar-bridging-the-inequality-gap/>

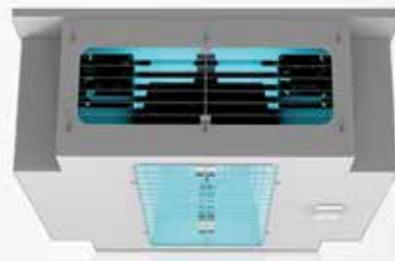
<https://www.darksky.org/toward-an-equitable-dark-sky-movement/>

<https://www.iald.org/Advocacy/Advocacy>

<https://www.ies.org/about-outreach/>



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