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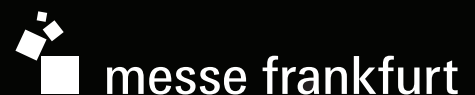
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# Contents

Vol. VI • No. 6 || November - December 2011

Robe's MMX Spot Makes  
Impact in Israel  
- **Louise Stickland**  
64

Jands Vista v2 Lights Up Adele  
for 2011 International Tour  
- **Jands Vista**  
66

Lighting the riverside museum  
- **Zaha Hadid Architects**  
68

Bespoke Anolis Solution for NIDA  
- **Louise Stickland**  
70

W Hotel Chile  
- **Paulina Sir**  
72

Beyond The Infinity  
- **Serge Salat**  
74

Energy conservation  
opportunities in Street Lighting  
System by incorporating  
Microcontrollers  
- **B S Srikanthan & Amruth R T**  
76

## Departments

Publisher's Note..... 02  
Editorial..... 06  
Newslines..... 08  
Event..... 82  
Company Profile..... 82  
Latest for You..... 86  
Product Profile..... 85  
Index to Advertisers..... 87  
Lighting Facts..... 88

Martin Luminaires Shed  
Light on Lights in  
Alingsås 2011  
- **Martin Professional**



Global Vipassana Pagoda  
A monument of gratitude  
and selfless service  
- **Dr Amardeep M Dugar**

Judicious Use of Energy in  
Residence  
- **P S Shah**



The art of Conservational  
Lighting  
- **Zumtobel's Lighting Solution**

Evaluation of SSL Products  
& Systems and LED  
Lighting Suppliers  
- **Anil Valia**



# Global Vipassana Pagoda

A monument of gratitude  
and selfless service

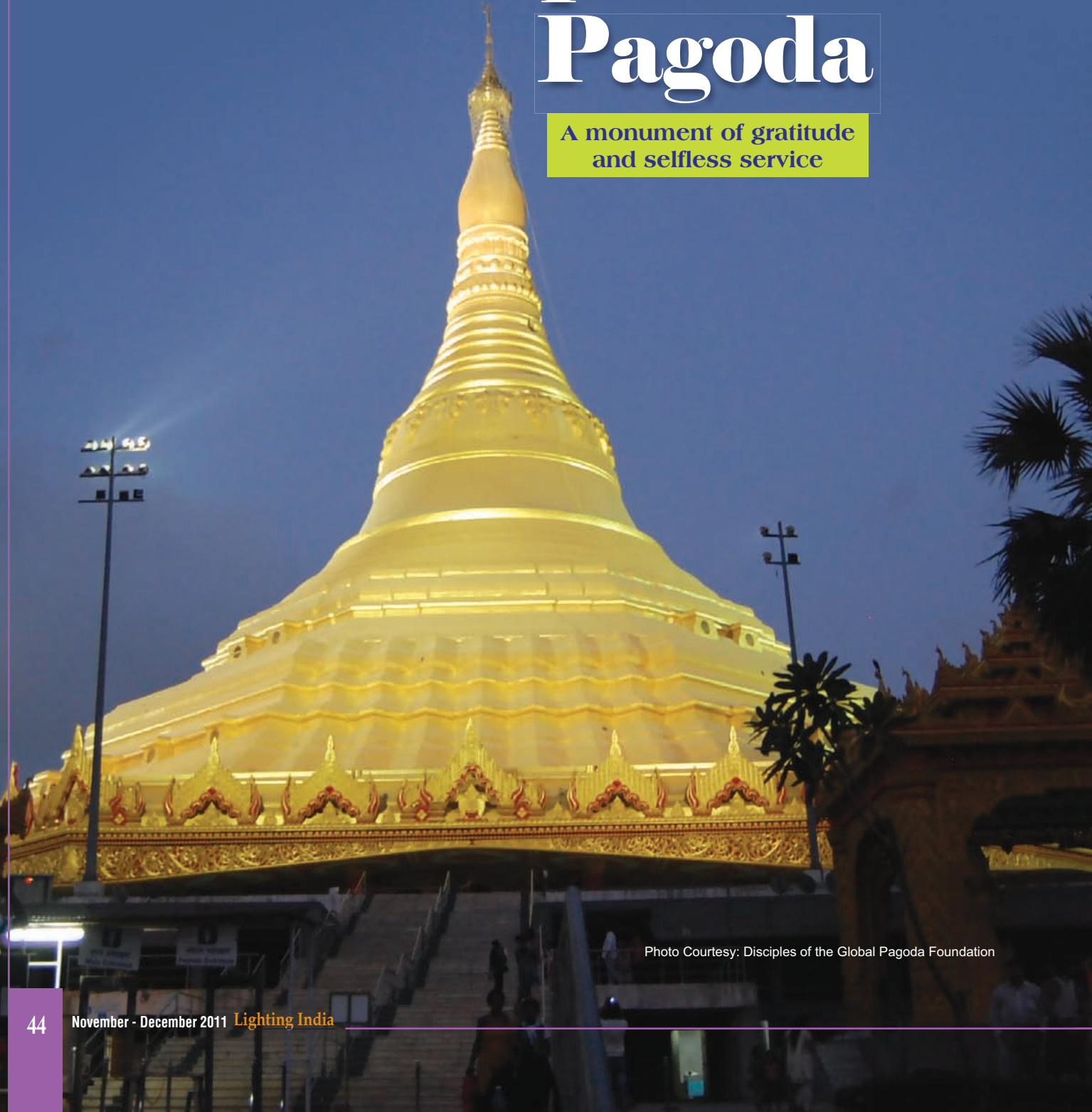


Photo Courtesy: Disciples of the Global Pagoda Foundation



Culture and communication are innately related: individuals express themselves through languages, while civilizations express themselves through architecture. The Global Vipassana Pagoda complex in Mumbai/India is on such example of inter-cultural expression – gratitude and selfless service. Gautama Buddha held two qualities that are rare among humans: Katannuta (gratitude) and Pubbakarita (selfless service). Dedicated to Buddha for his universal teachings of Dhamma, the complex aims to educate people about his life and teachings, and provide a place for practicing Vipassana meditation. Modelled on the lines of the Shwe Dagon Pagoda in Yangon/Myanmar, this Indian version is also an expression of gratitude to Myanmar, the country that preserved Vipassana, the practical essence of the Buddha's teachings. It is a notable monument that was inaugurated by the President of India on 8 February 2009. Built on the Essel Plateau – a peninsula between Gorai

creek and the Arabian Sea – the lighting had to highlight the traditional Burmese design of the 96.12 m-tall pagoda.

This world's largest stone dome consists of three sub-domes sitting atop each other and serves as a meditation hall seating over 8000 people. The external and internal diameters of the domes are 97.46m and 85.15m respectively. Its spire is covered in real gold and topped with a special ornamental umbrella, while the rest of the pagoda is covered in gold paint. Besides the main pagoda, two small 20m-high pagodas have been constructed and one of them contains individual cells for meditators to practice Vipassana. It contains a basement structure for service facilities, parking area and rest rooms. It also houses an Art Gallery depicting the life and teaching of Gautama Buddha that is expected to draw one hundred thousand visitors annually. The spiritual leader of Vipassana meditation, Acharya Goenkaji's most fervent Dhamma wish was to build a monument that will act as a bridge between different communities, different sects,

Photo Courtesy: Disciples of the Global Pagoda Foundation



different countries and different races to make the world a more harmonious and peaceful place. In the fourteen years since October 1997, when the first foundation stone of the pagoda was laid, the construction work progressed without interruption, supported selflessly by devotees from around the world.

Initially, it was contemplated using R.C.C. and mild steel as building materials. However, as the project aim was to build a structure that would last a thousand years, it was decided to combine ancient Indian building principles with latest construction technologies. Since such a unique structure does not exist anywhere else in the world, the project team did not have any prior knowledge of construction as reference. When Acharya Goenkaji first expressed his desire for a dome without any pillars to avoid inconvenience to the meditators, several doubts arose about the feasibility of such a structure. The high cost was another impeding factor. However, the Late Chandubhai Trivedi, a Sompura Consultant, demonstrated the idea of an inter-locking system of stones using bars of soap that were cut with grooves. Each stone in the pagoda has grooves cut both in horizontal and vertical direction, and is so designed that it interlocks in both directions. The entire stone construction using this inter-locking principle is done using lime mortar to ensue longevity and strength of the structure. Approximately 2.5 million tons of stone has been used, which were carted from quarries in Rajasthan. It took a total of 3.87 million man-days to complete this unique monument.

The lighting design for the main pagoda had two clearly

defined goals in the terms of the exterior and interior. The exterior and facade lighting had to radiate the true essence of the Buddha's teachings. As the pagoda is visible from the main city of Mumbai via the Worli sea-link, it also had the potential of being a beacon in the nightscape both literally and figuratively. Therefore for the exterior lighting, the three sub-domes of the pagoda were divided into three lighting zones. These three zones were lit in the following manner: lower dome – 400W HST projectors; middle dome – 1000W HIT projectors; and the upper dome along with the spire and

umbrella – 2000W HIT projectors. All these projectors are mounted on ten masts that are distributed evenly around the pagoda. A large crystal adorns the pinnacle, which had to represent the seven colours of the Buddha. This crystal was lit from the base using an approximately 46m-long fibre-optic cable, which had a power-supply placed at the base of the upper dome.

The interior of the dome and the centre-locking keystone weighing 10 tons, which enshrines the Buddha's genuine bone relics, had to be lit unobtrusively without causing any discomfort glare for the meditators. The 29m-high interior dome including the central-locking stone was lit using asymmetric 400W HIT projectors that are mounted on the basing of the dome. The luminaires were mounted and focussed to only highlight the textural quality of the dome made of Jodhpur stone. Therefore the meditators are provided with the glare-free diffused light emanating from the light bouncing-off the surface of the dome. ■

Photo Courtesy: Disciples of the Global Pagoda Foundation

**Dr Amardeep M Dugar**, MIES, MSLL, PLDA, is Founding Director of Lighting Research & Design, a firm that specialises in applied research and design consultancy. He received a BArch from GGSIP University New Delhi, MA (Architectural Lighting), University of Wismar/Germany and PhD (Architectural Lighting) from Victoria University of Wellington, New Zealand. He is a practicing lighting designer and a contributor to several international publications in architectural lighting and related fields. He has presented papers at several international conferences and won international awards in lighting. His experience as an educator includes positions of Doctoral committee member at the Centre for Research, Anna University, Chennai, guest lecturer for the masters' course in architectural lighting at University of Wismar, and several other architecture and design schools. His research projects include usability and end-user experience lighting control interfaces; application of lighting for visual and non-visual needs, office lighting, etc.



**Dr Amardeep  
M Dugar**