The Nature of Beam Advertising

This sign class consists of advertisements projected or beamed onto a variety of surfaces or into the sky by means of high intensity light sources such as laser light or searchlights. It may also include projected light sources of lesser intensity such as full motion digital video and large format film and slide projections. Architectural lighting and the illumination of enterprises, which may include coloured lights, may also be seen as a form of advertising. Through illumination the attention is drawn to such an enterprise in the same manner as painting a building in bright and often contrasting colours attracts attention. This principle is also true of filling stations which are illuminated very brightly at night and which stand out from the surrounding environment.

Laser projections may consist of static script and images/logos (gobos) or fully-animated commercials with moving, spinning gobos. Laser beams, both horizontal and vertical, static or moving, can also be used to attract attention to the actual message.

The effect of beam advertising may be optimised by blending the various options in this class into a light ‘show’ – for instance motion picture mediums, such as film and digital video, may be combined with laser beams, static and animated laser graphics and sound. Buildings lit up by colourful architectural lighting may even serve as projection surface.

Beamed advertisements may be projected from a fixed unit remotely controlled from a central computer to whom a number of similar projection units may be networked in order to allow for the joined control and monitoring of all these projection units. Apart from such more permanent projection units, temporary stationary installations may also be an option as well as mobile units in the form of open vans from which advertisements are projected. Apart from pre-entered text and graphics via computer software control freehand graphics may also be created on the spot while laser displays are underway.

The Impact & Potential of Beam Advertising

This sign class may give rise to serious light pollution which may interfere with people’s enjoyment of the night skies and with astronomical observations while it may also influence human health and the ecology.

Laser advertising can be seen as a high-impact promotion medium. It can be projected over long distances onto almost any surface of almost any size. Several
high-rise buildings at a time, existing billboards (at night time retractable projection screens are automatically unrolled in front of fixed billboard contents) or even mountains and the clouds overhead may be used for this purpose. Structures of cultural importance, such as the Sydney Opera House and the great pyramids of Giza, that were previously inaccessible to outdoor advertising can now be painted with laser messages. In many cases such advertisements can be seen from miles away.

As part of Cape Towns Millennium Celebrations a clock was projected onto Table Mountain ticking off the minutes to the new millennium on the eve of 31 December 1999. This image could be seen from 2,5 kilometres away. In 2003 a Swiss digital media artist, Johannes Gees, wanted to implement the Helloworld Project by using Table Mountain as a giant outdoor screen for projecting cellphone and Internet messages from people all over the world. Since Table Mountain forms part of the Cape Peninsula National Park this scheme was turned down by South African National Parks and Gees had to settle for Morro Dois Irmãos in Rio de Janeiro. During the UN World Summit on the Information Society (WSIS), which lasted from 10-12 December 2003, thousands of laser light messages were flashed not only onto Morro Dois Irmãos, but also onto the north façade of the UN Secretariat Building in New York, the Air-India Building in Mumbai and onto a 140-metre water fountain, the Jet d’Eau, in Geneve. The projection surface on Morro Dois Irmãos spanned an area of 500 X 60 metres with each letter 60 metre tall by 60 metre wide making it visible from 2,5 km away. The Helloworld Project was hailed as a unique opportunity for society to participate directly in WSIS and as a visual demonstration of mankind’s right to freedom of expression. It was seen as representing a new era of artistic creation, which can be described as new media art and which will play a key role in the information society of today and tomorrow.

Horizontal and especially vertical laser beams, which are used for drawing attention to laser advertising messages, are visible from miles away and will definitely have a major impact on the aesthetic environment while also contributing to light pollution. Such laser beams may even be used to attract attention to or ‘advertise’ localities such as towns and cities. This is the case with the proposed Southampton Laser Gateway in the UK which will consist of four green laser beams projected into the night skies in order to create a monumental landmark for everyone approaching the city by sea, air, road or rail. These laser beams will be visible from distances of up to 25 km, will contribute to light pollution and will have a definite impact on Southampton’s hinterland which includes the New Forest National Park. In contrast to laser shows or events which normally only last one or two nights projects such as Southampton Laser Gateway must be seen as permanent features and will therefore result in permanent impacts which may actually destroy the tranquillity and solitude of nearby natural areas. Imagine such schemes being implemented at localities such as Phalaborwa or any other place on the border of the Kruger National Park with laser beams changing the appearance of night skies, spoiling the experience of tourists on game drives and being visible from campsites on wilderness trails. Smaller game reserves such as Pilanesberg in Northwest Province may be even
more susceptible to such schemes. Such possibilities may not be too farfetched – a large billboard structure has already been erected right at Punda Maria entrance gate of the Kruger National Park which may be a forerunner to higher-impact mediums such as beam advertising.

By integrating sound into a beam advertising mix this sign class may also contribute to sound pollution.

Although beamed advertisements do have an enormous potential for impacting on the environment it can also be seen as a potential medium for artistic expression. By projecting images onto smoke or water screens amazing illusions may be created of such images floating through the air. Water screens are created artificially as canvasses for a variety of projected media such as laser graphics and digital video projections. Such screens may vary in size from 5 to 30 metre in height and 10m to 60 m in width. In the same way as a firework display can be seen as attractive, open air laser shows which may include promotions and advertisements may also be seen as attractive. However, one must differentiate between laser shows associated with specific events lasting only one or two nights and beam advertising displayed over prolonged periods.

Beam advertisements may also contribute to the charm of nightlife and entertainment districts by adding colour and excitement and may even be used to bring life to run-down city centres.

When existing buildings and other structures are used as projection surfaces beamed advertisements may benefit the visual environment by not requiring any high-impacting advertising structures as may be the case with many other types of outdoor advertising. However, it is questionable whether this benefit will offset all the negative impacts that can be attributed to beam advertising.

From an outdoor advertising point of view laser and other beamed advertising messages have an advantage over fixed advertising displays since it can be easily changed by simply changing the projected image instead of having to replace an advertisement by scaling a billboard structure.

**Possible Solutions**

Since the impacts of this sign class may be enormous it needs the serious consideration of sufficient control measures which may include the following:

- The display periods granted for beam advertising should be of limited duration in comparison to other outdoor advertising classes such as the various billboard types. One may also consider limiting beam advertising to certain times of the year, month, week or night. Due to the nature of laser shows these shows should
be limited to one or two consecutive nights and to a limited number of shows per year.

- Beam advertising should be limited to specific urban areas of minimum control and to specific projection surfaces within such areas where it may make a positive contribution to the visual environment instead of a negative contribution. Due to the limited availability of venues such as sport stadiums needed for laser shows such shows may have to be allowed within urban areas of partial control.

- The visibility of beam advertisements and laser shows outside the above-mentioned areas should be limited to the absolute minimum. Beam advertisements displayed over longer periods of time shall therefore be limited to the horizontal projection thereof while the projection of laser source light or other high-intensity light sources above the horizontal should be limited to events lasting one or two nights.

- The SEA procedure should be considered for determining the exact sites and projection surfaces for beam advertising. This procedure should also be implemented for identifying specific venues for laser shows.

- The possible impact of beam advertising on traffic safety should be approached with care. This might mean that animated laser images and motion picture mediums such as video and film might have to be limited to pedestrian environments, exhibitions and events.

- It may not be advisable to allow mobile projection units due to the difficulty of controlling such units.

Laser text and images with full laser show during the African Cup of Nations.
Illuminating buildings may also be seen as a form of advertising since it focuses the attention on specific enterprises.

Laser text and images (top & left) with projected full-motion video (above right).

http://www.laseronics-me.com
http://www.altterrain.com
Sydney Opera House - Structures of cultural importance that were previously inaccessible to outdoor advertising can now be painted with laser messages. Notice the laser beams that direct the eye towards the image (below).

*Helloworld* – Laser messages projected onto Air-India Building, Mumbai (above, right); Morro Dois Irmãos, Rio de Janeiro (above, left); UN Secretariat Building (below left) and Jet d’Eau, Geneve (above, middle).
Artistic expression – Creating amazing illusions of figures floating through the air by projecting images onto water screens. Notice the vertical laser beams that attract attention to the figures in the third image from the top.

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Outdoor art projected onto screens (above). Laser images beamed onto buildings (below).

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Laser beams and projected advertising messages on a large scale.

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