

# The Design Opportunity

## Expressive Technology

Ombrae™ is a patent-pending, computer based image processing system that allows for any digital source image - such as a photograph, text, or a computer graphic design - to be embedded directly into any material substrate at any scale. This cost effective surface treatment uses conventional material and manufacturing technologies. The image is not a transfer, or material composite like a hologram, but is made from physical 3-dimensional pixels or optical tiles™. The optical tile pixel creates just the right amount of light and shadow at just the right places on the surface of the material. The image IS the material. There are no lenses, laminate layers, printed dyes or inks.

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Images are created by casting and/or machining into glass, resin, plastics, stone and cast stone, concrete, metal, leather, vinyl, rubber, composites, fabrics and more for uses in architectural settings, industrial and product design, and a myriad of commercial applications. The Ombrae™ system allows designers to consider an unlimited range of opportunity. A designer's imagination is the only limitation of the Ombrae™ system.

## Adaptive & Interactive

Unlike other imaging systems used in design applications, the Ombrae™ system has unique morphic and visually dynamic effects which capture attention and engage the viewer. An Ombrae™ image is never just a static surface, but morphs with changing lighting conditions and angles of view. Ombrae™ surfaces are highly responsive to changes in environmental light and changes in viewer position. It stimulates and encourages viewer interaction, creating a truly unique surface characterized by a dynamic web of shifting relationships between surface and image, light and shadow, viewer and space. Colors change and the image never seems the same as it will appear to shift, moving with the viewer as they move. There are unlimited combinations of material, color, and transparency that allow designers a palette of choices and a wide range of solutions for any design problem, inside or out, at any scale and in any material.

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## High Concept - Lower Cost

With Ombrae, design professionals can redefine the nature of the tools and materials at the heart of their work, bringing infinite new possibility to even the simplest of projects. While the technology is unique and proprietary, the manufacturing processes are tried and true.

## Technical solutions – Beyond the aesthetic

Sound attenuation, non-slip treading, sun shading, and thermal insulation are just some of the technical considerations that designers can address while creating uniquely aesthetic solutions for architecture, interior design, landscape design, retail/commercial design and much more.

## A Branding Toolkit for Design Professionals

A key feature of the Ombrae system is the ability to “brand” surfaces across different materials so that the design space has a theme and a style all its own – unique to the customer and the environment. Ombrae technology is very effective in settings where designers want to “send a message” or “transmit a theme” in the very surfaces of the space itself. These themes or messages can be carried throughout the space, interior to exterior, walls to ceilings to floors to counter tops, packaging and display, down to the very carpet and the furniture. This ability to carry a design across multiple materials is a highly sought but often unattainable design feature that Ombrae is able to provide. Our exclusive services examine a given application in terms of lighting conditions and viewing perspectives to ensure each installation is a perfect fit.



"Any sufficiently advanced technology is indistinguishable from magic"  
- Arthur C Clarke -

## Ombrae™ and Sculptural Imaging with optical tiles

...seeing what you see ...

Like all digital processes, Ombrae uses pixels to form images. A pixel is a digital dot or point of light that through computer control generates a representation of the original source or input signal – the picture.

What makes Ombrae similar but different is the pixel. Ombrae creates the digital image using the pixilation principle, but does so by using a 3D pixel, what we call an Optical Tile™. This is unique, because the 3D pixel is a real object having length, breadth, and height. This means that when viewing an Ombrae image the viewer is really seeing the digital image as an object - actually thousands of objects - that are responding to the real influences of the time and place that it occupies... the light that is falling on the surface, and how and where the viewer is seeing it.

Said another way, the reproduced image looks 3D and seems even holographic because the pixels used to create the image are 3D. Each pixel is an individual object responding to its location in the image, the light falling on it, and the angle the viewer sees it from. When viewed collectively all of the pixels are creating the original image but under the influence of its location. Every viewer is actually seeing a slightly different image than any one else. The dynamic quality of an Ombrae image is a result of all of this. Through image processing using computers and modern methods of CNC machining (Computer Numerical Control – digital machining) Ombrae creates a 3D photograph or Photoglyph™. The viewer moves, the light moves ... the image changes.

\*Ombrae – Latin derivative; many shadows

