

The Expanded Metal Company

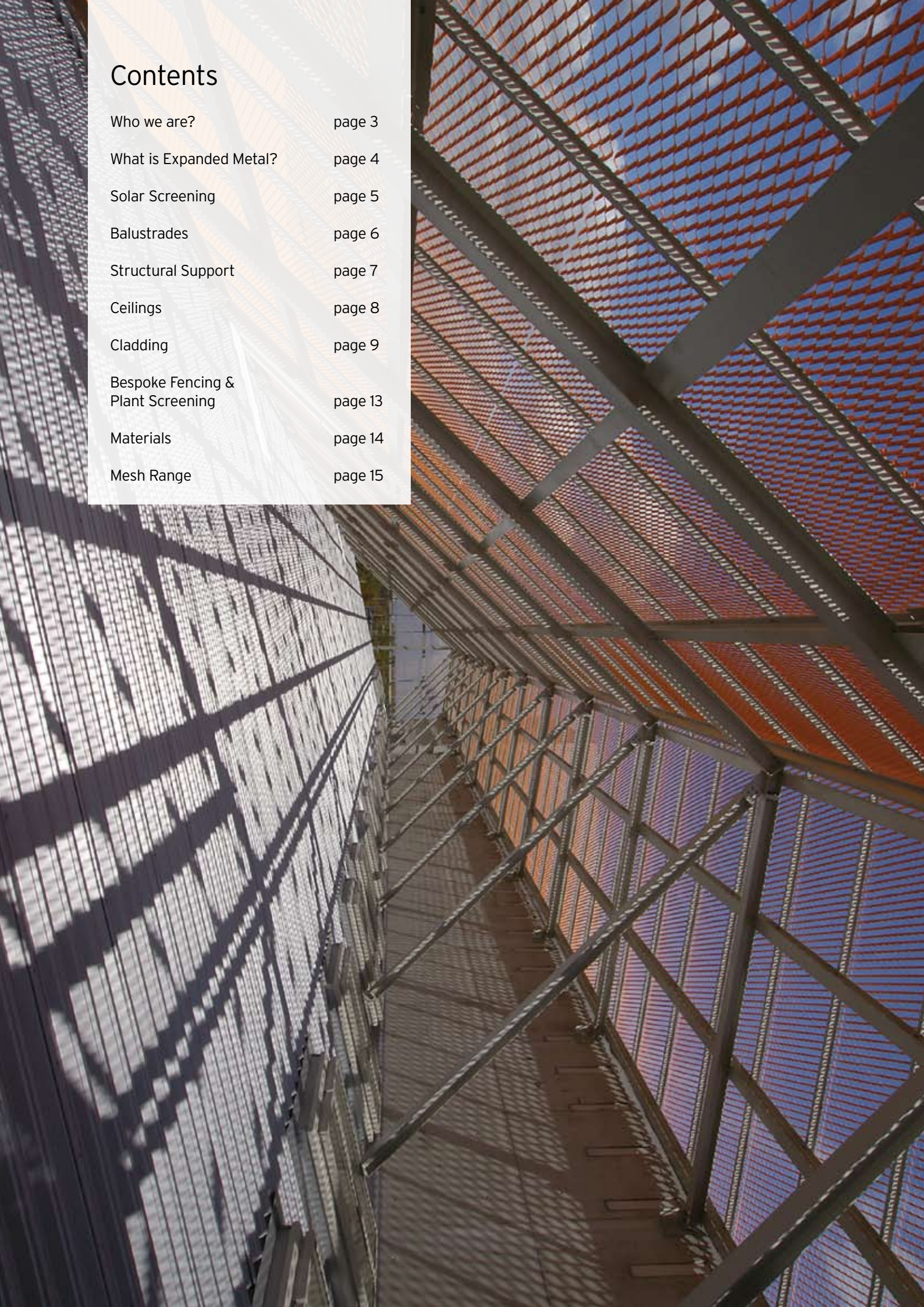
# Architectural Concepts Guide

FEATURING  eyetech BY JAMES & TAYLOR

**n55**Plus

# Contents

Who we are?	page 3
What is Expanded Metal?	page 4
Solar Screening	page 5
Balustrades	page 6
Structural Support	page 7
Ceilings	page 8
Cladding	page 9
Bespoke Fencing & Plant Screening	page 13
Materials	page 14
Mesh Range	page 15



# Who we are...

As the pioneer of expanded metal mesh production, established for over 120 years, The Expanded Metal Company enjoys unrivalled expertise and understanding of expanded metal production techniques, capabilities and applications.

We are constantly pushing boundaries and developing new patterns, products and applications to increase awareness and raise the profile of expanded metal throughout industries by improving existing products and opening new markets up to the benefits of expanded metal mesh.

Our strengths stem from a committed, skilled and knowledgeable workforce coupled with world class machinery, providing us with unsurpassed engineering and technical support. New products and markets are driven by our dedicated sales and marketing teams. The Expanded Metal Company is a major force in new market and product development.



# What is Expanded Metal?

The process for expanding metal was first patented in Hartlepool, UK in the 1880's and despite the amount of time which has elapsed since then, the process remains true to the original idea. Most types of metal, including precious and specially produced metals, can be expanded. Other materials, such as some plastics or any other ductile material can also be expanded. The process is simple but incredibly effective...

> Sheets or coils of metal are fed into the expanding machine. A little metal can create a lot of mesh.



> Each machine is fitted with a unique "knife", dedicated to a particular pattern.



> The machines are then programmed or manually controlled to ensure the metal is expanded to the exact specification.

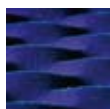
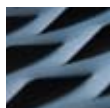


> Using the unique shearing and stretching process means very little waste is created.

The metal is sheared and then stretched in a single process creating the apertures and therefore expanding the metal. The mesh is then either cut into sheets or wound onto coils ready for shipping or further processing.

# Solar Screening

As global warming continues to prove it is here to stay, so the resultant air conditioning units put additional demands on electricity suppliers, who in turn, exacerbate global warming! It is a vicious circle which needs to stop and expanded metal offers an excellent solution to the problem, by reducing solar gain through blocking the sun's rays as it moves through the day.



Des Moines Library, USA. Encapsulated expanded metal within glass to achieve this stunning Day/Night effect.



# Balustrades

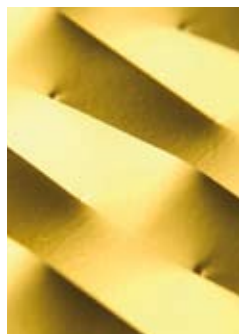
Expanded metal has been used in a number of different balustrade applications. The variety of meshes, materials and finishes available will enable you to create your own bespoke design.



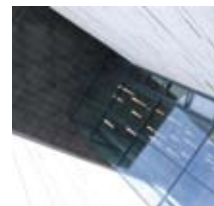
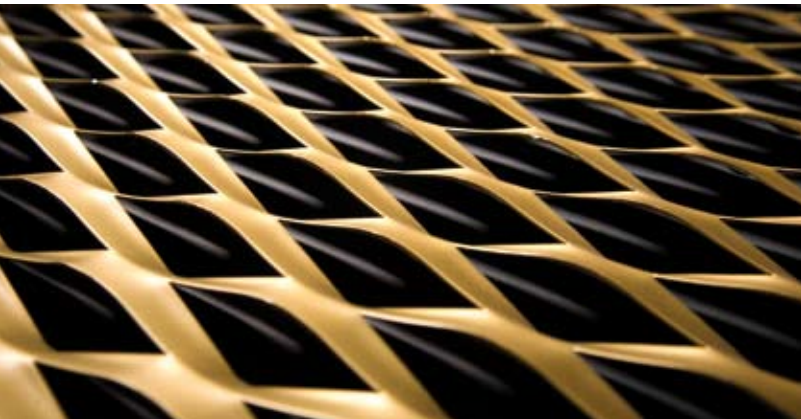
# Structural Support



Traditionally, expanded metal mesh has been used to act as a support and a key for plaster and render. Progressing these applications one stage further, The Expanded Metal Company has developed the material to act in a supporting role on much larger projects. Expanded metal can be curved on both elevation and plan to create a shaped and sculptured structure or add strength and support.



# Ceilings



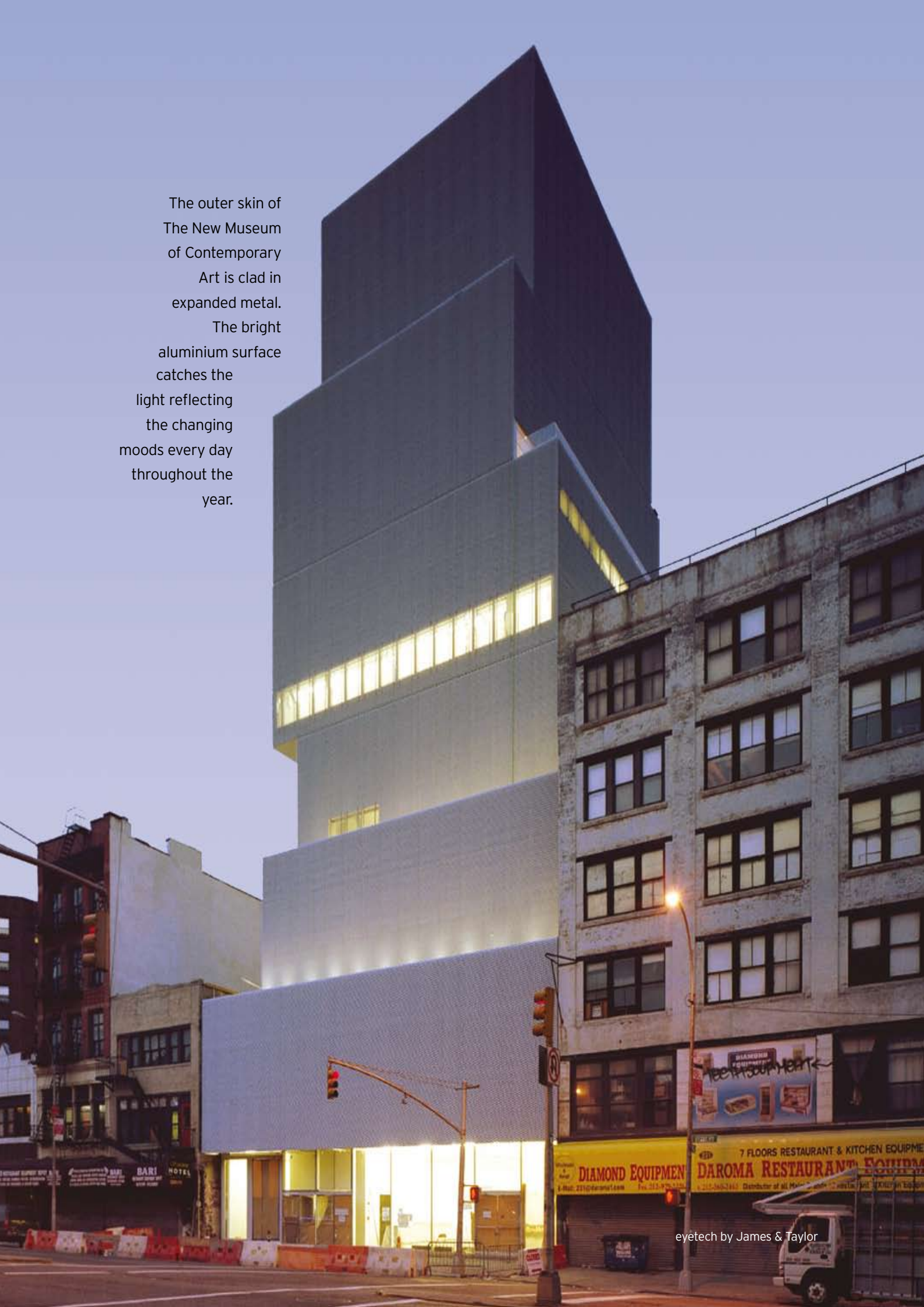
The structure of expanded metal aids the disruption of sound waves, deadening noise and reducing echo. This practical feature of the material, in conjunction with its already proven architectural features make it perfect for decorative ceiling tiles. The open area of the mesh allows sprinkler systems to work effectively whilst hiding the unsightly sprinklers.

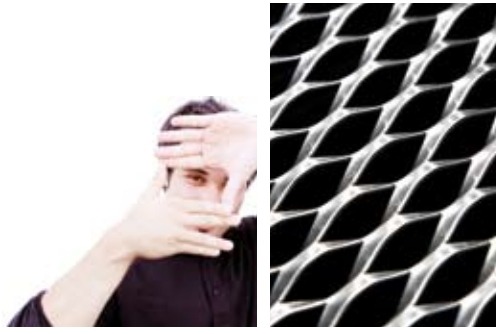
# Cladding

Expanded metal is an ideal material for external cladding; it can turn the ugliest of buildings into a work of art. Expanded metal cladding has become particularly popular over recent years and can be seen on buildings such as, The New Museum of Contemporary Art, New York, The Young Vic Theatre, London and the Stephen Lawrence Centre, London.



The outer skin of  
The New Museum  
of Contemporary  
Art is clad in  
expanded metal.  
The bright  
aluminium surface  
catches the  
light reflecting  
the changing  
moods every day  
throughout the  
year.

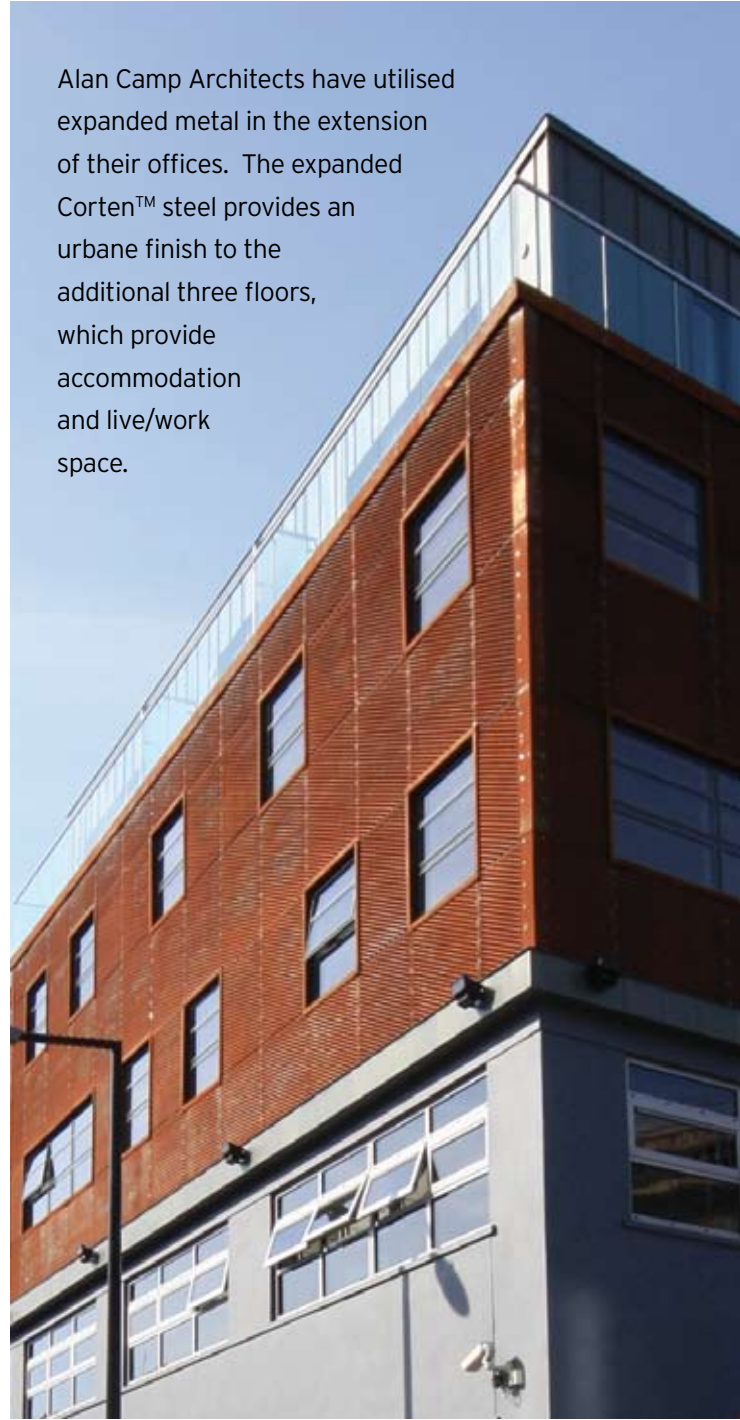




Alan Camp Architects have utilised expanded metal in the extension of their offices. The expanded Corten™ steel provides an urbane finish to the additional three floors, which provide accommodation and live/work space.



Loughborough Car Park  
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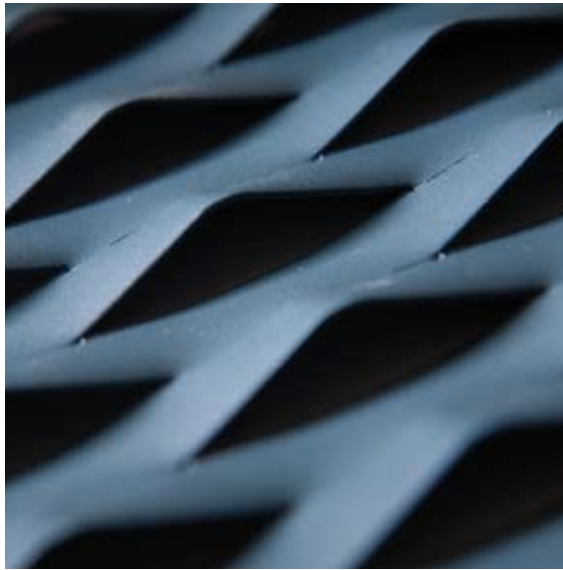
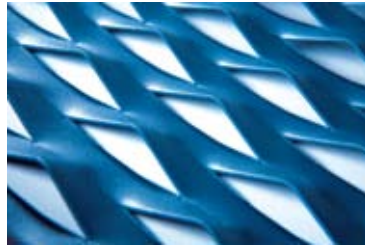


Stonebridge Park  
eyetech by James & Taylor





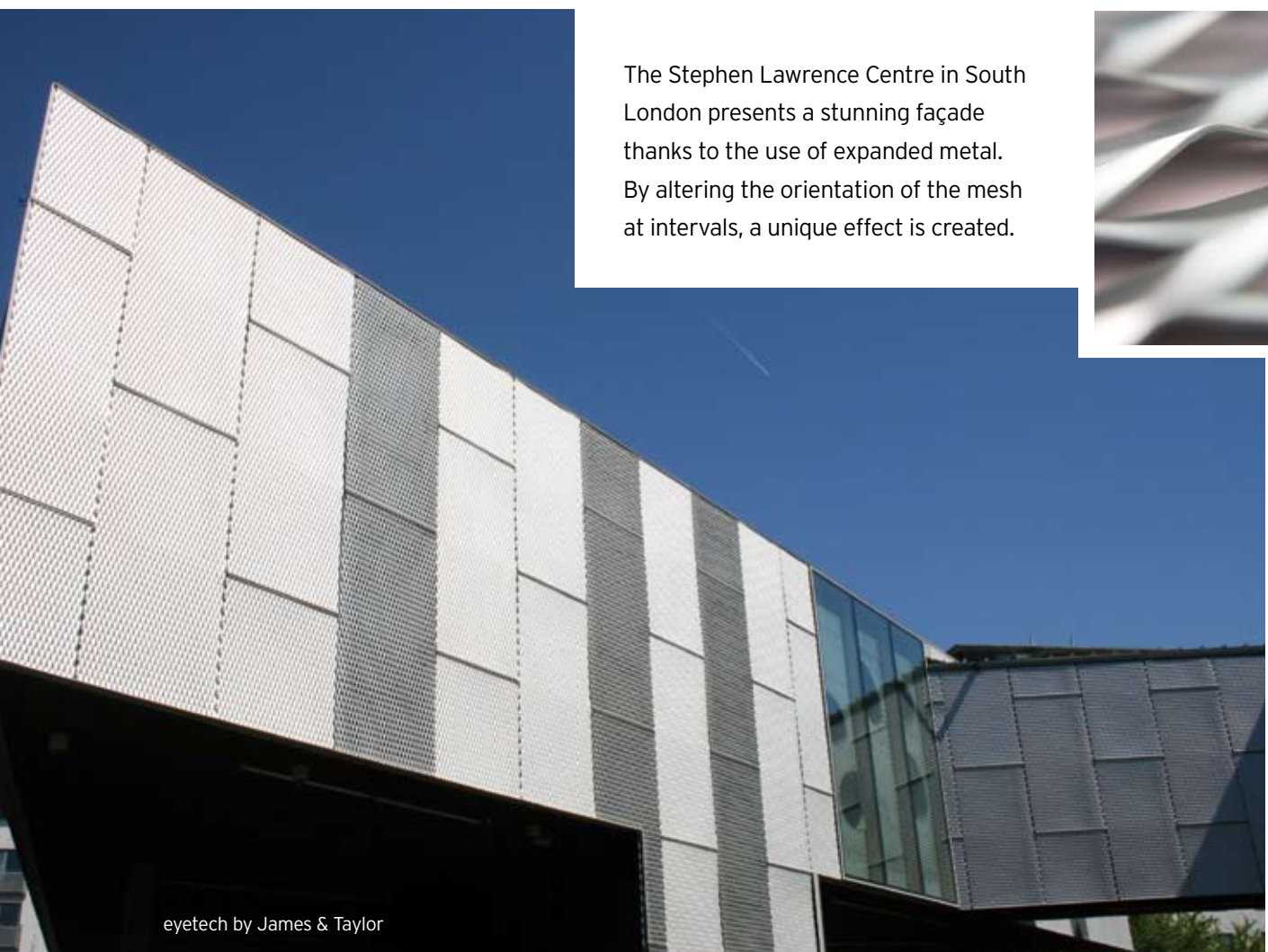
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Milton Keynes Hospital

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The Stephen Lawrence Centre in South London presents a stunning façade thanks to the use of expanded metal. By altering the orientation of the mesh at intervals, a unique effect is created.

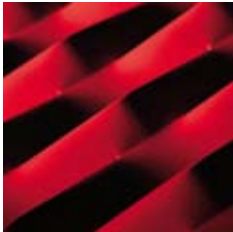


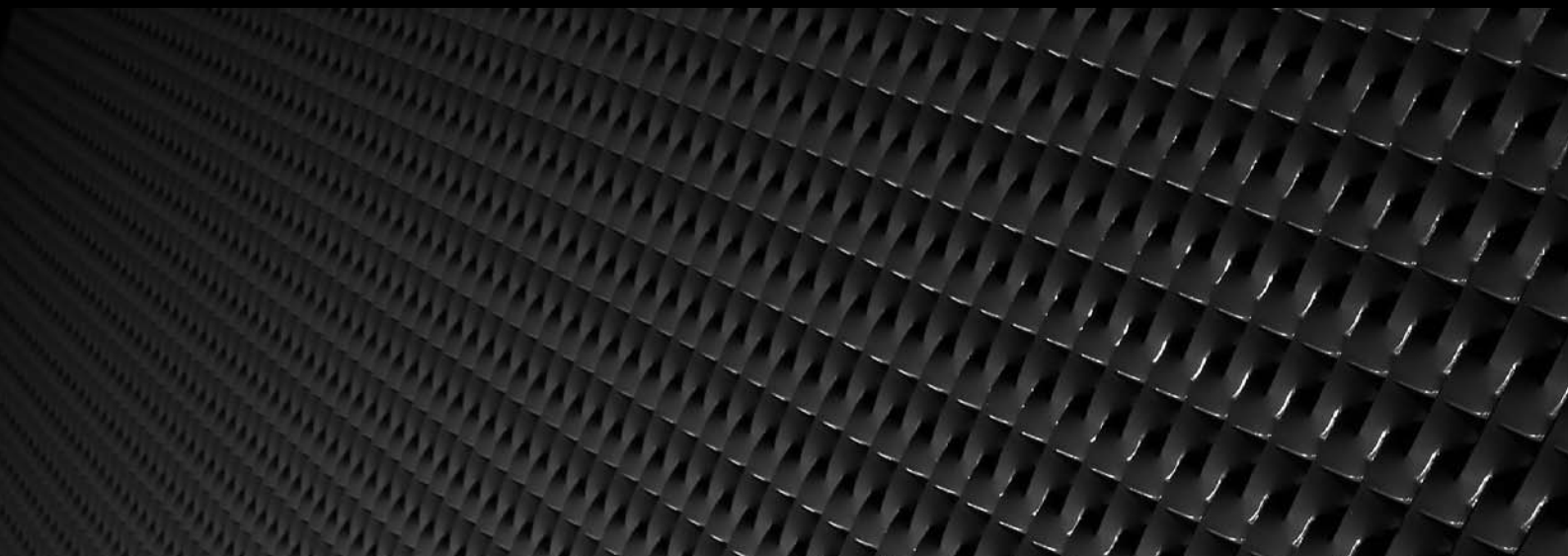
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# Bespoke Fencing

## & Plant Screening

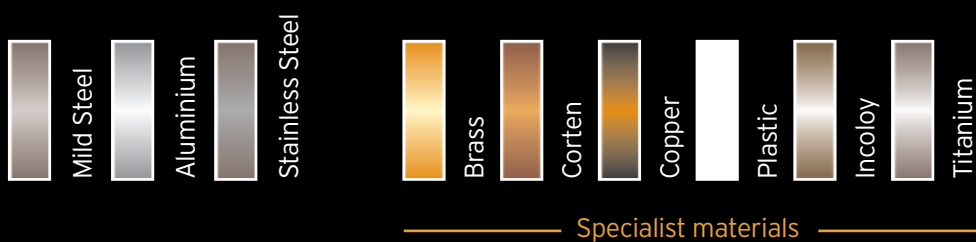
Lightweight but strong expanded metal is an obvious choice for fencing and plant screening. Simply altering the orientation of the mesh can create unique effects and determine the level of visibility or privacy.





# Materials

Most malleable materials can be expanded with mild steel, aluminium and stainless steel being the most common. However, more fashionable, precious metals such as brass, copper, gold and even platinum or titanium can all be turned into expanded metal mesh. Each of these materials has its own 'special' characteristics; aluminium gives lightweight longevity, steel brings strength and copper ages beautifully, maturing to a stunning verdigris.



# Mesh Range

Inspired by some of the finest new architecture appearing across the world, these meshes sit at the forefront of modern design. Soft curves and unusual apertures combine to present mesh that can blend seamlessly into its surroundings or make a bold architectural statement.



	LW	Sw	Width (Strand)	Thickness (Strand)
Slit mesh	Various available			
Bilbao	115	48	20	1.6-5
Bilbao 2	44	12	5	1.5
Pisa	114.3	15	2.9	3
Crescent	115	9.5	3	1.5
Tirol	50	16	3	1.5
Malaga	60.96	25.4	9	3
110	110	52	20	2
Barcelona	30.48	16.93	4.6	1.5



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