

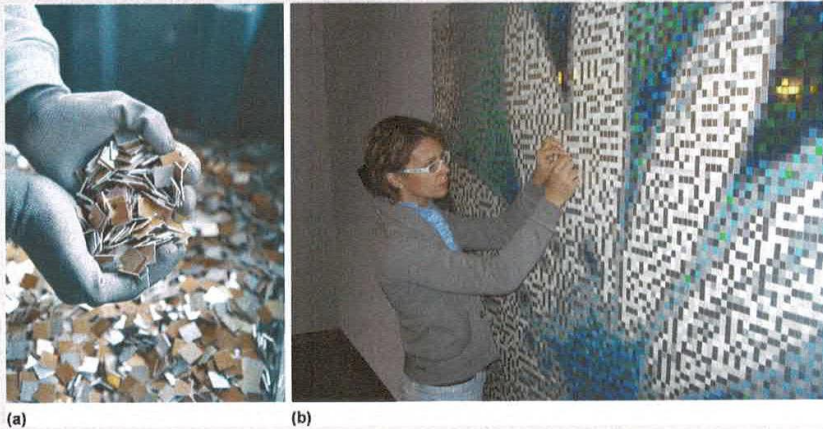
The second example of unique aluminum art comes from Italy and represents the intersection of art and architecture in modern interior design. **Irial, Inc.**, an Italian company, produces a large array of mosaics as fine art and building panels (Ref 17.13). The “Art and Architecture” sidebar gives a brief description of the company’s inception and innovative approach.

### Aluminum, Art, and Architecture

The story of **Irial, Inc.** illustrates a new business built on a deep understanding of customer needs, aluminum’s attributes, and how to bring the two together. **Iris Tiberio**, an ingot metallurgist in Alcoa’s Italian rolling facility, had always admired the beautiful shapes and textures produced after molten aluminum solidified. She combined a scientific curiosity and an artistic mind to develop an art business using aluminum sheet as tiles to create mosaics. Most of her art images exceed a square meter, requiring more than 10,000 pieces (10 by 10 mm) of sheet. The pieces are hand-arranged, assembled by an artist, and bonded to a durable flexible backing; finished art works are lightweight and transportable by simply rolling them up.

In 2013, Iris left Alcoa to focus full time on her art business, which has since grown in several directions:

- Classic and made-to-order mosaic art works
- Kitchen and bathroom decorative backsplashes, cabinetry, and household items
- Custom wall coverings for stores, bars, restaurants, offices, and cruise ships



Aluminum tiles (a) prior to assembly. (b) Iris Tiberio adjusts tiles on a large flower mosaic

The art pieces take advantage of the many finishing and surface-treatment options described in this book; the contrast is derived from different colors and roughness (smooth versus rough, polished versus matte). All her mosaics are produced from 100% scrap metals purchased from dealers, and her favorite subjects are landscapes, cityscapes, flowers, and movie stars. Creating beauty from recycled content and postconsumer metal is the motivation.

The standard kitchen and bathroom items are all produced from 5xxx sheet tiles, and products such as picture frames can be found in IKEA catalogs. Using standard coiled sheet stock as opposed to scrap material is important because these items must be consistent in production.

The custom wall coverings result in uniquely beautiful **storefronts** and have been used to showcase high-fashion merchandise for companies such as **Prada** and **Versace**. In addition to their beauty, these

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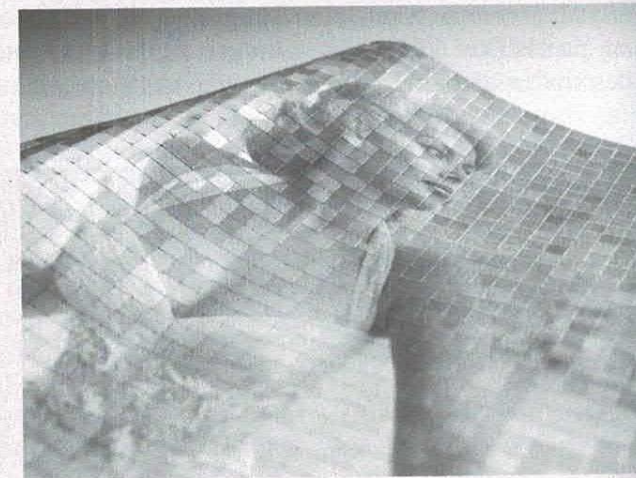
Robert E. Sanders – Graeme J. Marshall  
Aluminum – Technology, Industry, and Applications  
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### Aluminum, Art, and Architecture (continued)

products provide several practical advantages for the end customer. They are lightweight and easy to fabricate remotely and transport for installation. Because no masonry work is needed, they can be installed easily and quickly on preexisting walls, which is important since store displays can change seasonally. There is a similar need for changeable wall coverings on **cruise ships**, where common areas need to be renovated or replaced every few years.

According to Iris, research played an important role during the early growth of her business and remains critical to meeting future challenges. Extensive experiments were done to develop consistent practices for chemical, paint, and mechanical surface treatments. Efficient cutting methods for producing the small tiles and adhesives for reliable bonding of the mosaics had to be adopted or developed when necessary.

More recent challenges have been met to eliminate chemical waste and organic emissions. For example, the use of anodizing was discontinued to eliminate the handling and disposal of acidic solutions. New painting systems that rely on ultraviolet curing have eliminated the need for organic solvents. And the backing material for the mosaics, previously a plastic mesh, has been replaced with an aluminum foil. Research has continued to develop distinctive new textures and surfaces for use on consumer products such as coffee makers.



Artistic image of young Sophia Loren showing how the assembled mosaic can be folded prior to installation