

**ZAHNER®**

# SOLANNUM STEEL™

WEATHERING STEEL, PREWEATHERED



# SOLANUM STEEL™

What's in a color.

Zahner's approach to selecting the right metal for a project begins with the philosophy that form must follow function. Solanum Steel's primary function is to outperform traditional weathering steel by using a multi-stage preweathering process that accelerates the base steel alloy to that of a weathering steel that has been exposed to the elements for years.

Zahner's chemistry-based weathering process results in a stabilized patina, meaning that water and other elements won't further corrode the surface. This also reduces any bleeding or rust spots on adjacent surfaces. The metal's colors may be magnificent, but they are the **result of putting the material's function first**. The deep garnet reds and burnt umber tones are simply an added benefit, serving as an indicator that the material is its most durable state.

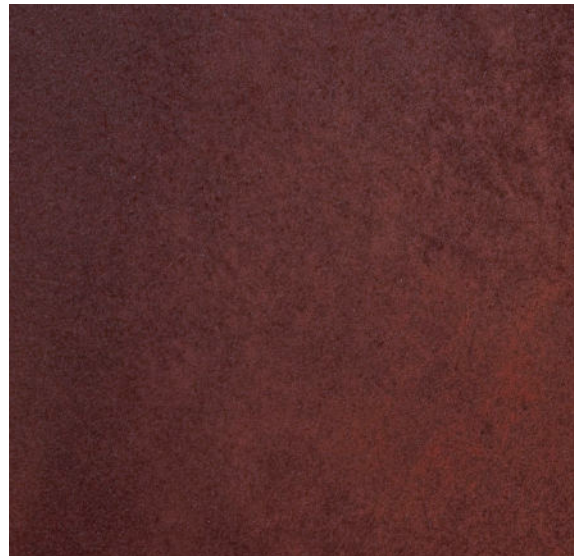


# The science of **steel.**

It begins at the source.

If you don't influence the base metal suppliers system, they will treat the material like basic steel: it will be heavily oiled, scratched, and scarred. These contaminants will show themselves in the final product as streaks, rings, and discolorations in the finished surface.

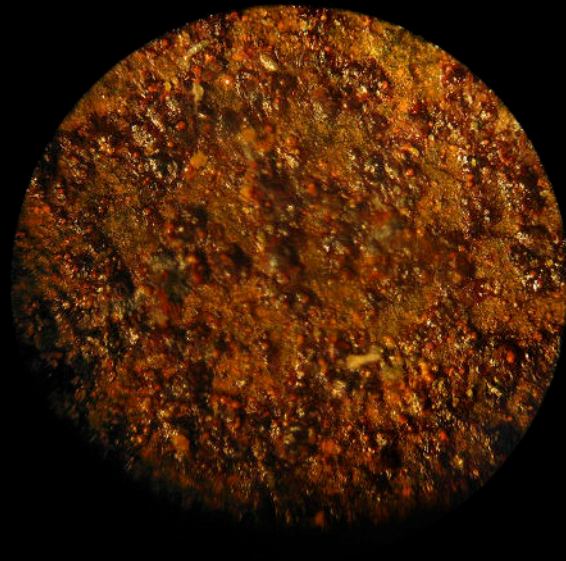
Zahner works with the mill source to ensure that the raw steel ingot is derived from specific alloying components, and that the base raw material is cast to exacting specifications. Next a rolling mill that understands the finesse required when working with bare weathering steel. They are careful to avoid scratching.





#### **COR-TEN**

Patina is flaky, light in tone, and contains loose particulate.



#### **SOLANUM**

Patina is darker in tone and is in its stable state.

Zahner then inspects each and every plate surface. Each surface is cleaned and prepared to eliminate oxides, greases, and oils. If this step is not carefully followed the finish will not hold up.

Once properly prepared, we force the surface to an initial ferric oxide. This finish is slightly orange in color and is characterized by a crusty texture.

An **orange** patina is not a permanent patina. A finish with yellow and orange will rub off, it will continue to darken, bleed, and stain adjoining surfaces.

In other words, **orange is soluble.**

Zahner patina engineers grow this orange-colored oxide to a point, and then remove most of it from the surface. The surface is then exposed to a proprietary solution and specific atmospheric conditions to develop a hydrated oxide form of ferrous oxide or ferrous hydroxide. At this stage, it is **insoluble.**

We cultivate the growth of the hydrated oxide form until it reaches a certain point. Then we arrest it with another proprietary solution that inhibits and slows oxidation to a standstill. The material is in its final stage of development.

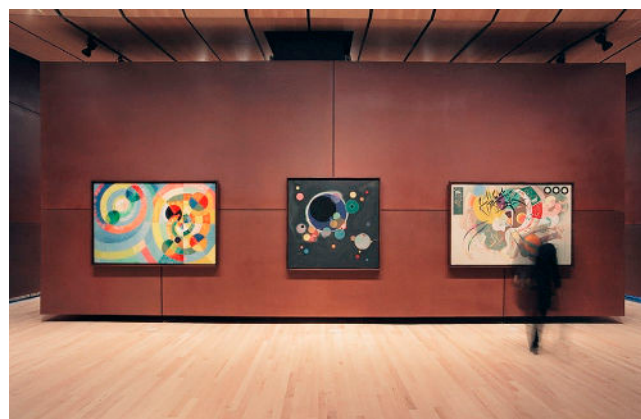
This is **Solanum Steel™**

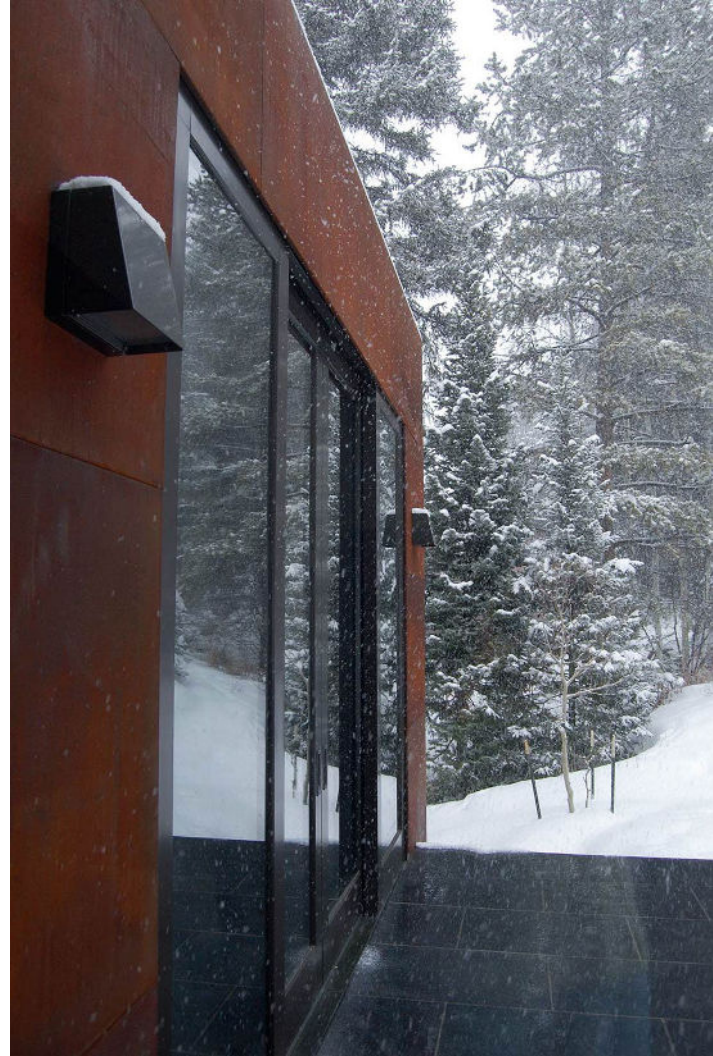
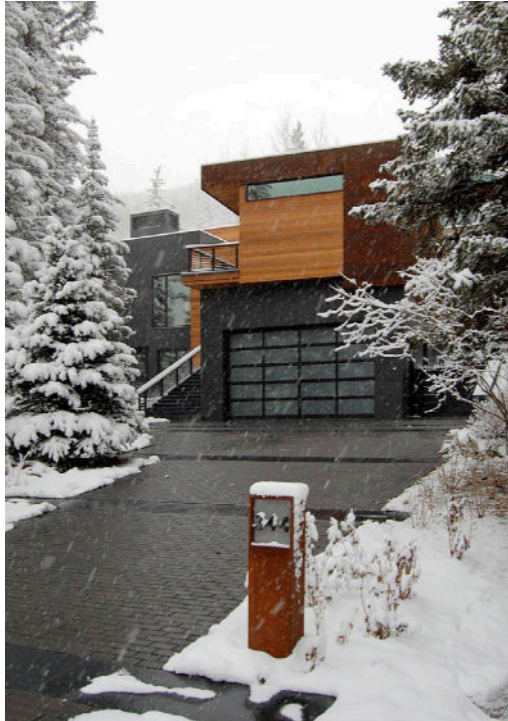


Guggenheim Hermitage Museum, OMA  
Las Vegas, Nevada

## A material worthy of **the Classics.**

The Guggenheim Hermitage Museum was designed by Rem Koolhaas and Joshua Prince-Ramus of OMA as a center for Impressionist Art. vZahner developed a preweathered patina on steel for the walls of the 5,000 SF Guggenheim Hermitage Museum, known today as Solanum Steel™. Many areas of the gallery were clad in this material, and served as a unique tone to back the acclaimed artworks of the nineteenth century.





Private Residence, James Dayton Architects  
Vail, Colorado

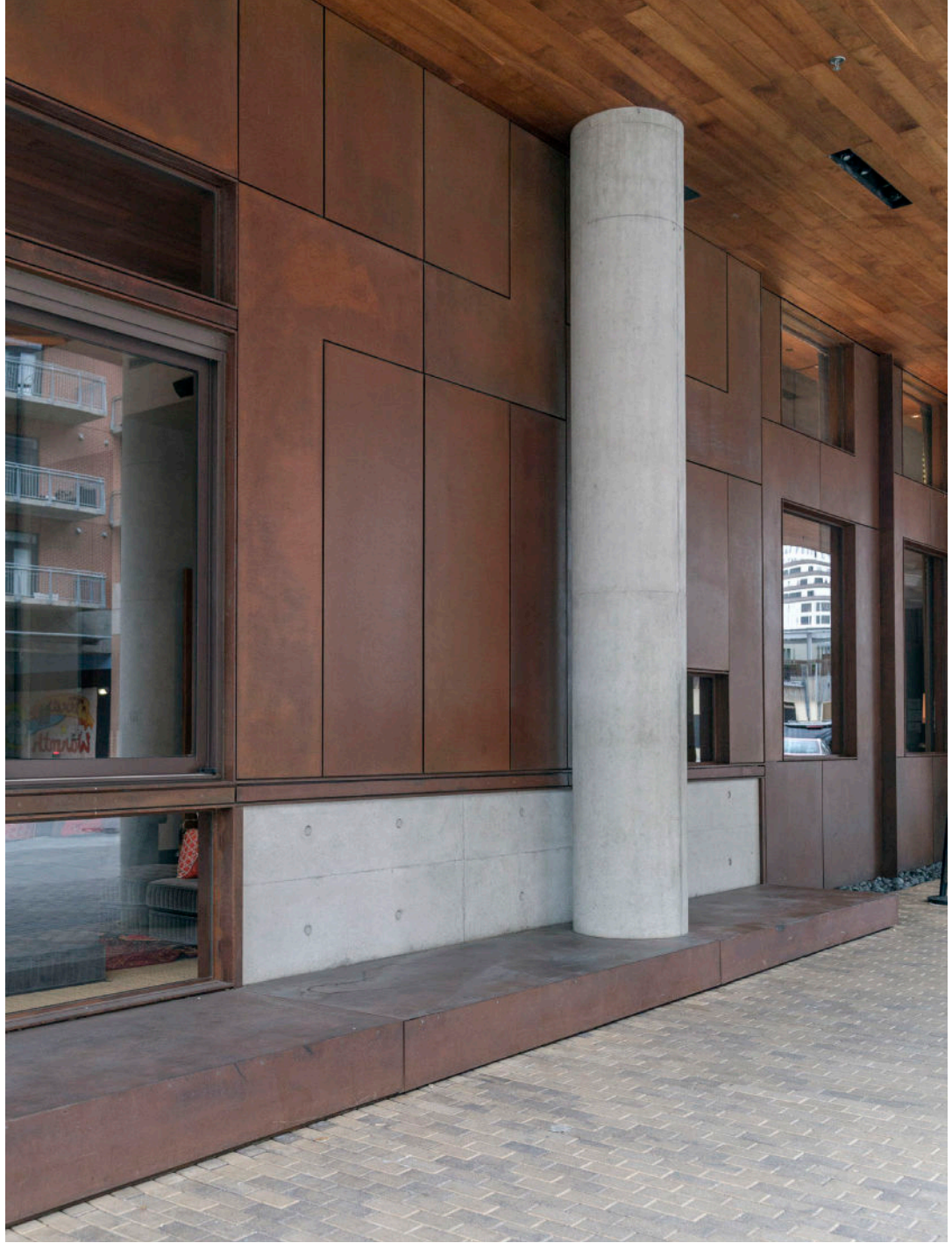
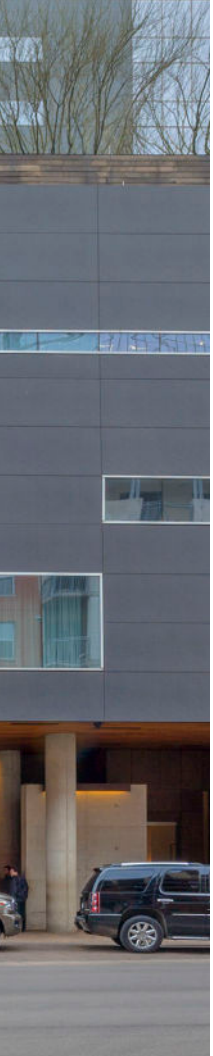
The Dayton Residence is a private mountain home conceived by the architects at James Dayton Design in Minneapolis. Completed in 2009, the project began as a renovation of an existing 70's ski lodge and expanded into a new construction. Zahner developed details and provided Solanum Steel™, Zahner's exclusive darkened weathering steel panel system. The variegated material provides improved performance over standard installations of weathering Cor-ten steel. Left untreated, raw Cor-ten will stain adjacent surfaces.



W Hotel at Block 21, designed by Andersson Wise. Austin, Texas.

**The Solanum Steel surface was used on the W Hotel at Block 21 in Austin, Texas.** The design features custom fins, fenestration systems and facade panels created using prewathered Solanum Steel™ panels. Two years after installation, there is no visible rusting from any of the Solanum Steel surfaces.





W Hotel at Block 21, designed by Andersson Wise. Austin, Texas.

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