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## Wood planks finish (charred and natural)

Note: This article is intended to be general in relation to wood and not specific to a particular species. It is important to note that cedar, Cayaki’s species of choice, is recognized for being particularly more durable than other local species due to its tannins and its very composition, as well as for its exceptional natural resistance to insects and decay.


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### 1. How does wood age outside?

Exterior wood coverings are mainly exposed to climatic constraints (temperature, humidity, etc.) and to UV rays from the sun as well as the nature of rainwater (acidic near industrial centers, salty near the sea, etc.).

- Rain, frost, and humidity in general tend to rot the wood over time. However, these phenomena also have an impact on the very finish of the wood by washing out or even wearing out more quickly the most exposed parts.
- Changes in temperature cause the wood to work (expand and contract depending on the amplitude of the temperature variations) which can lead to breakage (cracking, splitting).
- Exposure to the sun and sea spray will influence the color and appearance of the cladding leading after several years of exposure to different finishes for a same product depending on its orientation with regard to the sun and/or the prevailing winds. In fact, the more wood is exposed to UV rays from the sun and sea spray, the more its color will change over time. The patina of the cladding will turn brown in the case of prolonged exposure to the sun in an arid region (the wood oxidizes under the effects of UV rays and develops rich colors sometimes tending towards gold), or turn gray if the covering is exposed to bad weather and sun.

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## 2. The impact of colors and roughness on wood aging

The color of the wood has a relatively significant impact on its aging, especially when installed outside.

### **Dark finish of the cladding**

The darker the finish of the wood, the more it will absorb the sun's rays (as opposed to the white color which reflects these same rays). This absorption results in a faster aging of the wood's color; the finish can begin to gray at the veins and knots after one to a few years depending on the exposure of the cladding to the sun and the elements. Subsequently, the aging of the finish stabilizes and continues to gray more slowly and evenly over time.

Many customers love and seek out this natural aging as it gives their cladding a certain life, with the color slowly changing over time. It can also be an ecological choice to let a cladding evolve towards its natural patina.

If you want to restore your cladding to its original color, all you need to do is apply a coat of the original oil (no stripping required since we apply environmentally friendly penetrating oils and not surface paint).


Note: The knots and veins being harder than the rest of the wood, they absorb a little less oil, which explains why they age and therefore fade to gray before the rest of the cladding.

### **Bright finish of the cladding**

Lighter colors also eventually turn gray due to the sun, but more slowly than dark colors. However, it is the knots and veins that are the first to fade due to their hardness and therefore their limited absorption of the protective oil (see picture of the Yellowknife finish below).

The gray colors are those whose evolution over time shows the least, especially when we have already applied an aging agent (Cape Cod, Saint-Germain). This agent releases the tannins from the wood prematurely and ensures that the finish of the cladding changes only very slightly during the years, giving it a very good stability over time.

Some customers precisely choose products with a gray finish and an aging agent in order to never maintain their cladding and let them evolve slowly towards their natural patina, while others refresh their cladding according to their tastes by simply applying a new coat of the original oil (no stripping required).

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### Finish roughness

Our charred wood being brushed (except Crocodile and Yakisugi) it has a relatively smooth finish whose pores have slightly shrunk under the effect of carbonization. The finish of the Cedart product family by comparison is rougher and its pores, which remain wide open, absorb more finishing oil during its application. For this reason, products from the Cedart family age more slowly over time than those that have been charred.

Finally, the charred but unbrushed products (Crocodile and Yakisugi) have a black charred finish that has been sealed with a protective coating (and a layer of a flame retardant in the case of the Yakisugi). The carbonized layer offers the wood an excellent protection against the sun's UV rays in addition to protecting it further from any attack by insects. The surface of this layer is however fragile and can become brittle again following a physical shock or abrasion. Well sealed, the charred wood finish can last for many years but will also inevitably fade to gray over time depending on its exposure to the sun and the elements.

### 3. Images of wood aging



Detail of a Yellowknife cladding having aged over time (hard knots and veins are the first to be affected by UV rays and to fade to grey).



Black finish (without maintenance) that turned gray over time (5 years).

Each plank being unique, it can evolve in a slightly different way from the others.

Note: this picture fails to do justice to the cladding, as it has truly aged gracefully and is beautiful in real.



Gray finish having aged evenly for 10 years.

The gray color and the application of an aging agent to the wood give this cladding's finish a very good stability over time.





Gray appearance of cladding due to sea spray.

Note: The product in this image is not ours.



Business facade with charred wood in Ise (Mie Prefecture, Japan).  
Some planks seem to have been burnt less (manually!) than others and have lost their charred layer to the elements.

Note: The product in this image is not ours.

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#### 4. How does wood age inside?

Interior wood coverings are affected by the same constraints (temperature, humidity, exposure to light) as exterior coverings. However, due to the protection provided by the building (walls, curtains, heating, etc.), the aging of wood is slower than outdoors, but it is still normal and therefore inevitable. Indeed, the substances responsible for the coloring of the wood are altered mainly by light, but also by heat and simple aging, which inevitably leads to a slight variation in the color of the interior covering.

To testify to this aging effect, on a hardwood floor that has been installed for some time, lift a carpet or move a piece of furniture exposed to the sun for a good part of the day to witness the difference in the color of the wood between the hidden parts and those exposed.

#### 5. How to avoid these signs of wood aging?


##### **Protection of the wood**

There are various ways to deal with the finish of a wood plank. You can leave it as is, without protection, or apply a layer of opaque paint, or cover it with a protective penetrating oil.

Most species need protection from the sun and bad weather in order to shield the wood from decay. Certain species such as cedar have through their very composition a natural protection against decay, but are all the same affected by the UV rays of the sun and the environmental factors (sea spray, humidity) which ultimately cause them to change color and appearance.

Paint finishes are certainly effective in protecting wood, but they are also the most complicated to maintain and the less natural. Indeed, paint leaves a very pigmented layer on the surface of the wood which protects it from the UV rays of the sun but at the same time hides its knots and veins and therefore everything that makes the wood's charm. In addition, the maintenance of a painted plank requires, before re-applying a new layer of paint, the stripping of the previous one, which is a tedious and often quite polluting operation.

In the case of Cayaki's charred products, we understand that the finish, whether burnt black (Crocodile or Yakisugi), brushed black (Jaguar), red (Ushuaia), blue (Santorini), or any other color letting you admire the gorgeous wood pattern, is what you are looking for and enjoying. So we have developed the best recipe for your needs and tastes. Our penetrating oils are not only natural, but also they protect the wood with their anti-UV agents while letting appear, in the case of brushed products, a magnificent pattern mixing knots and veins blackened by the carbonization. So you get the best of both worlds. In addition, the maintenance of our products, if you choose to do so, is simple and does not require any stripping!

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However, it is important to understand that environmental factors and UV rays from the sun (hence mother nature) will eventually do their job over time, and you can either let the wood grain acquire its natural patina in an environmentally friendly way (maintenance free), or oil the finish according to your tastes. To keep the initial finish, we recommend not to exceed 5 years for Cayaki’s charred products and 8 years for the Cedart family (3 years for the Natural Sealed finish) before applying a new coat of oil. Each project being unique and everyone having their own tastes, it is up to you to maintain and how often, or to let your cladding age beautifully toward its natural ecological patina.

In the case of charred wood whose knots and veins have faded over time (mainly when installed outside), there is no way to compensate for this aging except in the case of a black finish such as Jaguar or Black Clay, where applying a new coat of the original oil will restore the cladding to its original appearance.

**Protection of the wall section on which the wood covering is installed**

The height of your wall and the depth of the cornice affect the evolution of its cladding finish. In fact, the higher the wall and the shallower the cornice, the quicker the part of the wall exposed to the sun and the elements will age. The patina will then turn more towards brown on the part of the wall that is most exposed to the sun and towards gray on the part facing more humidity. Thus, an exposed short wall without cornice will see its wood covering age more quickly but more uniformly.

**6. Conclusion**

Depending on the climatic conditions (wind, rain, temperature, humidity, etc.), the environment (near the sea or a large industrial city, etc.) and the exposure to UV rays from the sun, all wood age differently. However, by focusing mainly on cedar, Cayaki offers you a particularly resistant species widely used in construction and recognized for its endurance in the face of bad weather and its exceptional natural resistance to insects and decay.

In addition, Cayaki offers you natural and ecological products that can meet all your projects and all tastes: from Crocodile (charred and sealed) to Cape Cod (charred, brushed and oiled) through fabulous colors (yellow, red, blue ,...) which highlight the knots and grain of the wood, without forgetting the Cedart line. All these products have been designed and manufactured with your satisfaction as a goal. The hardest part will be for you to decide if you will let your wood cladding age beautifully and acquire its natural patina over time, or if you prefer to oil it occasionally to keep its original color. Either way, we hope you will enjoy the extraordinary natural richness of wood and hope to see you again with your next project.