

## ***Crafts, professions of excellence***

### **STONECUTTING AND SCULPTURE**

#### **Related professional – Serge Moret** **Workshop: Serge Moret – tailleur de pierre**

Stone has played an important role in French history. The use of stone in construction dates back to prehistoric times, with the creation of megalithic structures such as dolmens and menhirs. In ancient times, the Gauls built stone fortifications and temples, while the Romans constructed impressive stone structures such as amphitheatres, aqueducts, and temples throughout France.

During the Middle Ages, the use of stone in construction became even more widespread, with the construction of numerous cathedrals, churches, and castles. These stone buildings not only served as places of worship or residences for the nobility but also acted as symbols of the power and wealth of their patrons.

The Renaissance period saw the continued use of stone in the construction of grand palaces and public buildings, such as the Louvre in Paris. Stone was also used extensively in the construction of the magnificent gardens of Versailles, which remain one of the most important landmarks in French history.

One of the most famous examples of French stone architecture is the cathedral of Notre-Dame de Paris, which was built between the 12th and 14th centuries. The cathedral's iconic facade, with its intricate stone carvings and delicate rose window, is a masterpiece of Gothic architecture and has become a symbol of Paris itself.



In the modern era, France has continued to utilize stone in its architecture, with many significant public buildings and monuments constructed using stone. For example, the Arc de Triomphe in Paris is constructed of stone and remains an important symbol of French culture and history.

Even today, French architects continue to use stone as a prominent feature in their designs. Many modern buildings in France incorporate stone facades or accents, reflecting the enduring influence of this ancient building material on French

architecture.



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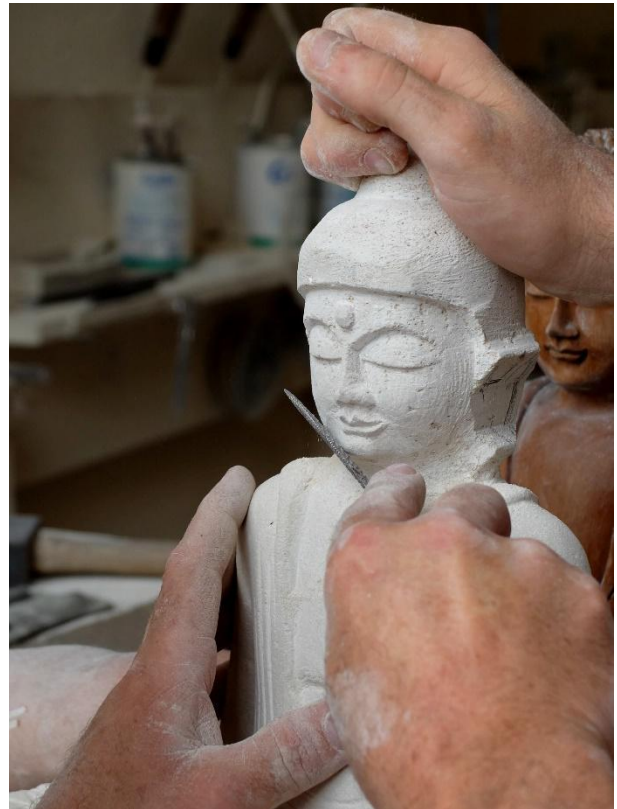
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## What are the skills and expertise of professionals in this profession?

Working as a stonecutter requires a combination of technical skills, creativity, and physical fitness. Some of the key skills include:

- **Technical expertise:** Working with stone requires a range of technical skills, including cutting, carving, polishing, and finishing. A skilled stone worker should be able to use a variety of tools, such as chisels, hammers, grinders, and saws, to shape and refine the stone. They also need to have knowledge of stone properties. Different types of stone have different properties, such as hardness, density, and texture, which can affect how they are cut and shaped. A skilled stone worker should have knowledge of these properties to select the appropriate tools and techniques for each project.
- **Design skills and creativity:** Stonecutting also involves a high degree of creativity and design skills. Stonecutters must be able to conceptualize and create three-dimensional forms from a solid block of stone. Working with stone often requires a high level of precision and attention to detail.
- **Safety awareness:** Working with stone can be hazardous, with risks of injuries from falling stone, dust, and flying debris. A skilled stonecutter should be aware of safety protocols and take appropriate precautions to protect themselves and others on the job site.
- **Physical fitness:** Stone is a heavy and dense material, so working with it requires physical fitness and strength. Stone masons and sculptors often need to lift, carry, and manipulate large blocks of stone, as well as work in awkward positions for extended periods of time.



*(Photo: Serge Moret)*

## Which materials are used in this craft? Are they local materials?

France has a long history of using stone in construction and architecture, and many different types of stone have been used over the centuries. Some of the most commonly used stones in French architecture and construction include:

- **Limestone:** Limestone is a sedimentary rock that is widely available in France and has been used in construction since ancient times. It is often used for building facades,



columns, and ornamental details. Many of the most important French monuments and landmarks are made of limestone, such as the Arc de Triomphe or the Notre-Dame de Paris. One of the oldest surviving examples of limestone structures is the Pont du Gard, a Roman aqueduct located in southern France.

- **Marble:** Marble is a softer stone that is often used for decorative accents and sculptures. It was particularly popular during the Renaissance period in France. The Opéra Garnier located in Paris has a facade made of marble and features marble columns, stairs, and decorative details. The Palace of Versailles, located just outside of Paris, features many rooms with marble flooring and decorative marble elements.

*(Photo: Serge Moret)*

- **Sandstone:** Sandstone is a sedimentary rock that is also widely available in France. It is often used for building facades, ornamental details, and paving. The Notre-Dame Cathedral's exterior features some decorative elements and sculptures made of sandstone.

- **Granite:** Granite is a hard, durable stone that is often used for building and construction projects, particularly in the Brittany region of France. Mont Saint-Michel, a fortified island monastery located in Normandy, is primarily made of granite.

Other types of stone that have been used in French architecture and construction include slate, basalt, and sandstone. The specific type of stone used depends on the location of the building, the architectural style, and the availability of the stone in the region.



## What are the specific tools used in this craft?

There are many different tools used for working with stone, each designed to serve a specific purpose. Some of the most common tools used for stonecutting and stonemasonry are:

- **Chisels:** Chisels are a type of hand tool used to cut and shape stone. They come in many different shapes and sizes, including tooth chisels, point chisels, and flat chisels.
- **Hammers:** Hammers are used to strike the chisels and break off pieces of stone. Stonemasons use many different types of hammers, including sledgehammers, mallets, and club hammers. Sledgehammers are heavy hammers that are used to break off large chunks of stone or to drive chisels and other tools into the stone. They are typically used for rough shaping and cutting, and are an essential tool for many types of stonemasonry work.
- **Saws:** Saws are used to cut stone into specific shapes and sizes. Hand saws and power saws are both used in stonemasonry, depending on the type of stone being cut and the desired outcome.
- **Grinders and polishers:** Grinders and polishers are used to smooth and refine the surface of the stone. These tools use diamond-coated blades and abrasives to remove rough edges and create a polished finish.
- **Drills:** Drills are used to make holes in the stone, either for decorative purposes or to prepare the stone for installation.
- **Pneumatic tools:** Pneumatic tools use compressed air to power tools such as hammers and chisels. These tools can make the stonemasonry process faster and easier, especially for larger projects, and can also reduce the physical strain on the stonemason's body. They are also useful for smoothing and polishing stone surfaces, as well as for making precise cuts and shapes. On the other hand, pneumatic tools can be expensive and require special equipment, such as an air compressor, to operate.



*(Photo: Serge Moret)*



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## What markets are related to this profession?

**Construction industry:** Stonemasons and stonecutters are often employed in the construction industry to create building facades, columns, arches, and other architectural features. Stone is a popular material for many types of buildings due to its durability, strength, and aesthetic appeal.

**Historical monuments:** Stonecutting is extremely relevant for historical monuments, as many of these structures were built using traditional stonecutting and masonry techniques. Historical monuments, such as cathedrals, castles, and statues, often require restoration and repair work over time due to natural weathering, environmental damage, or human intervention. Stone masons with expertise in traditional techniques are often employed for restoration and repair work, as these techniques are necessary to maintain the historical integrity and aesthetic of the monument.

Additionally, the use of traditional stone masonry techniques can help to preserve the authenticity and historical value of a monument. For example, using traditional hand tools and techniques can help to match the original appearance and texture of the stone used in the original construction, whereas modern tools and techniques may produce a different effect that could detract from the historical value of the monument.

**Art and sculpture:** Stone is a popular material for sculptors. Stonecutting is a fundamental skill for sculptors working with stone, as it allows them to cut and shape the stone to create the desired form and texture for the sculpture. Stonecutters may be employed by sculptors to prepare stone blocks or slabs for use in sculptures, as they have the expertise to cut and shape stone efficiently and precisely.



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## Where to learn this profession in France?

France has several renowned schools and institutions where young people can learn stonecutting and related trades. They include:

- *Compagnons du Devoir*. A French organization that offers apprenticeships and training in traditional crafts, including stonecutting. They have several locations throughout France, and their training programs are highly respected.
- *Lycée des Métiers de la Pierre*: This vocational school, located in Saint-Jean-de-la-Ruelle, offers a range of stonecutting and masonry programs, including a CAP in stonecutting and a BTS in heritage restoration.
- *École Nationale Supérieure d'Architecture de Versailles*: This architecture school offers a program in "architectural, historical, and cultural heritage," which includes coursework in stonecutting and masonry.
- *Centre Européen de Formation en Restauration de Monuments*: This training center, located in Provence, offers courses in heritage restoration, including stonecutting and masonry. *École Boulle* in Paris: a prestigious institution that offers courses in jewellery making, including a three-year program in jewellery design and metalwork.



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