

1. What is the difference between carving and modelling in terms of materials, tools and the techniques used?

Carving and modelling are two primary methods of creating sculpture, fundamentally differing in their approach.

Carving	Modelling
Subtractive Process: This involves systematically removing or cutting away material from a larger block to reveal the final form. The sculptor starts with more material than needed and takes it away.	Additive Process: This involves building up the form by adding material bit by bit. The sculptor starts with nothing and gradually adds material to create the desired shape.
Hard Materials: Typically involves hard, resistant materials that hold their shape, such as wood, stone (marble, granite), plaster, and ivory.	Plastic/Malleable Materials: Uses soft, pliable materials that can be easily shaped, such as clay, wax, plaster, and papier-mâché.
Cutting & Abrasive Tools: Requires tools designed to cut, chip, and abrade hard surfaces. Examples include chisels, gouges, mallets, files, rasps, and sandpaper.	Shaping & Smoothing Tools: Uses tools for shaping soft materials, along with the artist's hands. Examples include modelling tools (wire, wood, plastic), spatulas, calipers, and wire loop tools.

2. (a) Mention five areas in sculpture where lettering is done.

1. Monuments and Memorials
2. Tombstones and Gravestones
3. Architectural Plaques and Foundation Stones
4. Trophies and Awards
5. Signage and Public Art Installations

(b) Briefly describe how the lettering is done in two of the areas you have mentioned.

- **i. Tombstones:** Lettering on tombstones is typically done through **incised carving**. The process begins with the design being drawn or stenciled onto the polished stone surface (e.g., marble or granite). The sculptor then uses a hammer and various chisels (such as a V-shaped parting tool) to carefully carve out the letters, cutting into the stone. The depth and precision of the cuts create shadows that make the lettering legible.
- **ii. Architectural Plaques:** For metal plaques (e.g., bronze), lettering is most often created through **casting**. The letters are first formed in a positive model made of wax or clay. A mold is then created around this model. The model is removed, and molten bronze is poured into the mold's cavity. Once cooled, the plaque is removed, revealing the raised, permanent lettering as part of the cast metal surface. The surface is then finished and polished.

3. Discuss five factors to be considered when establishing a sculpture workshop.

1. **Location and Accessibility:** The workshop should be located in an area that is easily accessible for the delivery of heavy raw materials (like stone or logs) and the transportation of finished artworks. Proximity to suppliers and potential clients or galleries is also advantageous.
2. **Space and Layout:** The workshop must have adequate space to accommodate large-scale works, machinery, and separate areas for different processes (e.g., a dusty carving area, a clean finishing area, storage for materials and finished pieces). A logical layout enhances workflow and safety.

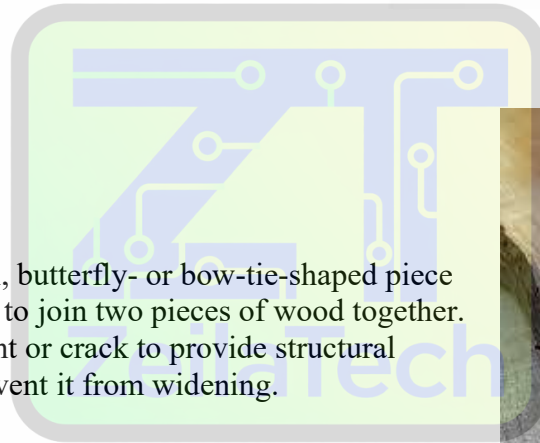
3. **Safety and Ventilation:** Sculpture involves hazardous processes. The workshop must have excellent ventilation to remove dust from carving and toxic fumes from welding or casting. Good lighting, fire safety equipment (extinguishers), and first aid supplies are essential.
4. **Availability of Utilities:** A reliable supply of electricity is crucial to power tools and machinery. Access to water is also necessary for processes like clay work, casting, and cleaning.
5. **Tools and Equipment:** The initial cost and plan for acquiring essential tools and equipment must be considered. This includes hand tools (chisels, mallets), power tools (grinders, sanders), and potentially heavy machinery (hoists, kilns, welding equipment), depending on the sculptor's primary medium.

4. With illustration write on the following:

- **(a) Parting tool:** A carving tool with a V-shaped cutting edge. It is used for creating sharp, incised lines, defining edges, and clearing out corners in wood and stone carving.



- **(b) Butterfly:** A small, butterfly- or bow-tie-shaped piece of wood or metal used to join two pieces of wood together. It is inlaid across a joint or crack to provide structural reinforcement and prevent it from widening.

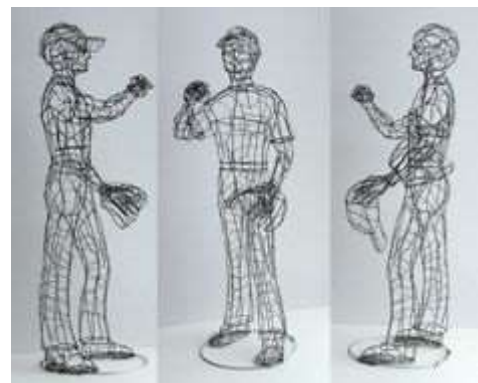


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- **(c) Rasp:** A type of coarse file with individually raised, pointed teeth. It is used for aggressively shaping and removing material from wood, stone, or plaster in the early stages of carving.



- **(d) Armature:** An internal framework or skeleton, typically made of metal wire or rods. It is used in modelling to provide structural support for pliable materials like clay or wax, preventing the sculpture from collapsing under its own weight.



- **(e) Frog:** A device, often a heavy metal base with sharp upright pins, used in floral arrangements to hold flower stems in place. In a broader sense, it can refer to any device used to hold a workpiece steady on a bench.



5. (a) What is relief sculpture?

Relief sculpture is a type of sculpture in which the sculpted forms are attached to a solid background of the same material. The forms are not free-standing but project from a flat surface, creating an image with three-dimensional depth.

(b) Describe the types of relief that can be done in sculpture.

1. **Bas-Relief (Low Relief):** In this type, the sculpted forms project only slightly from the background surface. The overall depth is shallow, and the figures are not deeply undercut. Coins and medals are common examples of bas-relief.
2. **Alto-Relievo (High Relief):** Here, the sculpted forms project significantly from the background, often by more than half their natural depth. Some parts of the figures may be completely detached from the background (undercut), creating strong shadows and a more dramatic, three-dimensional effect.
3. **Sunken Relief (Intaglio):** This type is the reverse of other reliefs. Instead of projecting from the background, the image is carved into the surface, so the outlines are the deepest parts. The figures themselves do not rise above the flat surface. This technique was widely used in ancient Egyptian art.

6. Discuss five vocations available in sculpture to a senior high school graduate.

1. **Studio Artist:** A graduate can work as an independent artist, creating original sculptures for sale through galleries, commissions, or direct sales. This requires strong artistic vision, discipline, and entrepreneurial skills.
2. **Prop and Model Maker:** The film, television, and theatre industries require skilled sculptors to create props, special effects models, masks, and detailed sets. This is a creative field that combines artistic skill with technical problem-solving.
3. **Architectural Carver/Restorer:** There are opportunities in carving decorative elements for buildings (e.g., capitals, friezes) or in the restoration of historical stone and wood carvings on heritage buildings.
4. **Mould Maker/Caster:** Many industries, from fine art foundries to manufacturing, need skilled individuals to create moulds and cast objects in various materials like bronze, resin, or plaster.
5. **Art Teacher or Workshop Assistant:** A graduate can pursue further education to become an art teacher or work as an assistant in a community art center or a professional sculptor's studio, helping with fabrication and teaching basic skills to others.