3.2: Utility and Value of Materials

The earliest drawings, paintings, vessels, and sculptures were made with whatever the artists could find and turn to their use for creating images and objects; such readily-available material includes mud, clay, twigs, straw, minerals, and plants that they could use directly or with slight alteration, such as grinding and mixing minerals with water to apply to cave walls. (Figure 3.3) Experimentation was surely part of the process and, just as surely, much of it is lost to us now, although we have some examples of works, materials, and tools to give us insight into the artistic processes and material choices.

For example, in works such as this earthenware, or baked clay, vessel, the artist had explored sufficiently to discover that mixing a certain type of earth in certain proportions with water would yield a flexible substance. The resulting clay
could be **handbuilt**, generally by wrapping and smoothing coils, into a vessel shaped with a conical bottom that would sit nicely in a coal fire for heating its contents. (Figure 3.4) A twig or string might be used to incise marks in the surface, not only to decorate it, but also to make it easier to hold onto than if it were completely smooth. Dating to c. 3,500 BCE, pots such as this from the late Neolithic era in Korea are known as Jeulmun pottery, meaning “comb-patterned.” The clay could be found in different colors, textures, density, potential for adherence, etc. It could be manipulated by hand to make containers to store, transport, cook, or serve all sorts of goods.

The invention of the potter’s wheel allowed artists to “throw” the clay on a rotating platform the artist operated by hand or powered with a kicking motion. When and where the potter’s wheel first appeared is much debated, but it was widely used in Mesopotamia, Egypt, and Southeast Asia before 3,000 BCE. Using a potter’s wheel allowed the artist to turn vessels with thinner walls, a greater variety of and more uniform shapes and sizes, and a larger array of painted and incised decorative elements for additional aesthetic appeal. They could, as well, make molds for serial production of commonly used types of pots.

By the time of the Ming Dynasty in China (1368-1644), vases such as this from the Xuande period (1426-1435) painted in imperial (cobalt) blue and white display both the technical innovations and the remarkable degree of refinement achieved. (Figure 3.5) The development of such

![Figure 3.5 | A Ming dynasty Xuande mark and period (1426-1435) imperial blue and white vase. Author: User "Meliere"
Source: Wikimedia Commons License: CC BY-SA 4.0](https://human.libretexts.org/Bookshelves/Art/Book%3A_Introduction_to_Art_-_Design_Context_and_Meaning_(Schantz_et_al…) Updated: Tue, 27 Oct 2020 16:31:13 GMT Powered by 2)
mineral resources as kaolin and petuntse allowed ceramicists to create porcelain, one of the most refined and hardest types of pottery, which became known as “china” because of the origins of the materials and processes; chinaware was soon emulated the world over for its beauty and utility as tableware and décor. Traders from Portugal returned from China with chinaware (porcelain vessels) in the sixteenth century. The semi-translucent material, elegant shapes, and glass-like, intricately decorated surfaces of the pots were unlike anything produced in Europe at that time. The demand for such wares quickly spread throughout Europe, and ceramicists on that continent spent the next two centuries trying to unlock the secret of how to create such smooth, white, and hard pottery. Ehrenfried Walther von Tschirnhaus and Johann Friedrich Böttger, both employed for that purpose by Augustus II the Strong, Elector of Saxony (today Germany) and King of Poland (r. 1694-1733), are credited with producing the first European porcelain in 1708. It would become known as Meissen ware because it was produced at the factory set up in the town by Augustus II for that purpose to safeguard the formula and maintain his exclusive control over the creation and sale of European porcelain. (Figure 3.6)

The monopoly held by Augustus II was short-lived, however, as the secret was sold and a competing factory opened in

Figure 3.6 | Teapot. Artist: Königliche Porzellan Manufaktur Author: Walters Art Museum Source: Wikimedia Commons License: CC BY-SA 3.0

Figure 3.7 | Pitcher. Artist: American Porcelain Manufacturing Company Source: Met Museum License: OASC

Figure 3.8 | Egyptian tomb wall painting. Author: British Library Source: Wikimedia Commons License: CC0 1.0
Vienna, Austria, by 1717. From there, variations of the formula and the production of porcelain spread throughout Europe as demand increased from the privilege of royalty, to the rich and titled, and eventually to all who could afford the status-giving ware. For example, this nineteenth-century commemorative pitcher made by the American Porcelain Manufacturing Company would have been presented to specially mark an occasion. (Figure 3.7) Although it is a distant relative of Chinese imperial porcelain ware and the royal courts of Europe, the techniques and materials used in its creation were still associated with tradition,

wealth, and high social standing, elevating the cultural value of this mass-produced vessel to the level of a keepsake or even a family heirloom. Objects such as this are valued beyond their monetary worth or utilitarian purposes, both due to the tactile and aesthetic qualities that come from the physical substance and techniques used and to historical and social associations they hold.

Similarly, drawing and painting, apparently first confined to the rock walls of nature, were areas of exploration for artists who later applied color to the built walls of architecture, and then to portable objects of various types. Ceramic ware was decorated with images from nature, pictorial and narrative motifs, and messages of myth, power, and even everyday life. The same is true of tomb walls of Egypt (Figure 3.8), palace walls in ancient Iraq, (Ashurnasirpal II with Attendants and Soldier: www.museumsyndicate.com/item.php?item=36470) and Greek vessels used for practical or ritual purposes (Figure 3.9).
Eventually such vessels, as well as books and other objects, bore written information and pictorial explications of textual content: illustrations. Early textual works were often inscribed on stone tablets to ensure their durability or on relatively fragile materials like papyrus that required laborious preparation to make it suitable for conveying information. In either case, the materials used added to the work’s significance. By the time of the development of the codex (probably in the Roman era), or manuscript with bound pages, the most common form of modern physical books, the choice material was animal skin, as seen in manuscripts throughout Late Antiquity and the Middle Ages, roughly the beginning of the fourth to the fifteenth centuries, in the Western and the Middle Eastern regions of the world. (Figures 3.10 and 3.11) Sheepskin, or parchment, the most commonly used support for written works, was obtained by laborious preparation of the pelts, through scraping and buffing the surface to make it suitable for use.
by scribes and illustrators who added the words and pictures. The most refined book arts were often presented on vellum, or calfskin, prized for its smoother and finer surface. When used for especially important works or those made for royal purposes, it was often dyed purple or dark blue, with script applied in gold or silver ink and illustrations that included areas of gold or silver. (see Figure 3.2) These lustrous images were known as illuminations, that is, given light. The viewer would at once recognize the special and distinctive treatment implied by the use of such precious materials and know that the patron had paid well for an elegant and important book.