



Gallery Guide

AGE OF ALCHEMY



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***The Search for the Alchemical Formula*, 1858**

Charles Meer Webb, English

Oil on canvas

Gift of Fisher Scientific International

Many of the artworks in this gallery were painted during the 1600s and 1700s, when alchemy was enjoying a golden age. But this picture was painted a century later, and models a very different attitude towards alchemical work. By the 1800s, modern chemistry had begun to take shape, and many chemists were eager to leave old ideas behind. Notice that this alchemist is alone, rather than leading a busy workshop. His equipment is broken and his furniture is tattered and dusty. Notice the skull at right—the alchemist's own gaze should lead you to it. It's as if he is contemplating his mortality, and the end of an unsuccessful quest.



***An Alchemist and his Assistant*, 1600s**

Hendrick Heerschop, Dutch

Oil on canvas

Gift of Roy Eddleman

This painting provides quite a contrast to the previous one. Instead of a shabby, solitary alchemist, we see a prosperous figure whose office is filled with tools of the trade, fine velvet cloth, and large (and expensive) illustrated books. Warm light from an open window makes the scene feel inviting and comfortable. The alchemist glances up from his writing, quill in hand, as his assistant carries in a small vessel. On the floor beside a mortar and pestle and a blue-and-white apothecary's jar, you can see an open page in one of his books. There are two illustrations inside: one botanical, the other anatomical. This suggests the alchemist's wide-ranging knowledge of medicine and his command over nature.



***The Bald-Headed Alchemist*, 1600s**
After David Teniers II, Flemish School
Oil on panel
Gift of Fisher Scientific International

This humble but busy workshop shows an alchemist at work before a furnace. He is stirring the contents of his crucible while reading a small book: he may be following a recipe, or glancing at his own notebook to remember an important detail. His young apprentice stands by, attentively looking for guidance, and in the background are two other assistants, working at a lab bench. On the left is a small dog (sometimes a symbol of loyalty or diligence) lying near a large earthenware pot and several broken pot shards. These clay vessels may have broken from thermal shock when they were heated or cooled too quickly. They remind us that alchemical processes can be messy and difficult.



***Rijcke-Armoede (Rich Poverty)*, 1632**

Adriaen van de Venne, Dutch

Oil on panel

Gift of Fisher Scientific International

Adriaen van de Venne's paintings were prized by his wealthy, aristocratic patrons for many reasons, but one of the most important was his playful wit and humor. This painting, "Rich Poverty" is an ironic joke at the alchemist's expense. Although the alchemist works with gold in his crucible, in an effort to transform matter and gain riches, his actions only impoverish his family. Wealthy in imagination, but not in coin, this alchemist plays himself for a fool. Van de Venne's use of *brunaille*, a type of monochromatic painting that only uses tones of brown and sepia, was also part of the joke. Brunaille color palettes were typically used for somber, serious subjects—not this kind of sarcastic, tongue-in-cheek mockery.



Art and Science (Pair), Late 1600s

After Gerard Thomas, Flemish

Formerly attributed to Balthasar van de Bossche

Oil on canvas, mounted on board

Gift of Fisher Scientific International

These two paintings were designed to act as *pendants*, or a matching conceptual pair. They remind us that the "arts" and "sciences" were not always considered separate. Although painting and laboratory work seem quite different to us today, art and experimental chemistry were once seen as two different but interlinked ways of investigating the natural world. Chemistry could teach us how metals and other matter worked, but art could help us understand our place in nature. Notice that many pieces of the equipment that appears in each scene—especially the large celestial globes, patterned with star signs, at center—remain the same in each workshop.



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***The Alchemist*, 1600s**

Mattheus van Helmont, Flemish

Oil on canvas

Gift of Fisher Scientific International

Both alchemists and artists were interested in understanding the human body—how it worked, how it moved, how it sickened or weakened, and how it could be healed. Painters studied anatomy, sometimes by using models like the *écorché* figure pictured here, which demonstrated the placement of muscle groups under the skin. Alchemists studied products of the body, even waste products. The flask in this alchemist's hand likely contains urine, which was examined to diagnose disease (much like it is today). Everywhere we look in this scene, we see material evidence of the pairing of art and alchemy: drawings and prints rest beside glassware, globes and skulls sit next to books and jars.



The Alchemist's Studio, Late 1600s
Attributed to Gerard Thomas, Flemish
Oil on canvas
Gift of Spectrum, Inc.

Many of the globes that are pictured in alchemical paintings don't represent maps of the earth. Instead, they show star charts. These are celestial globes, used in astronomy and astrology. Why would an alchemist need to check the stars? Horoscopes and forecasts determined from celestial maps were believed to be useful when planning any major events—including starting a particularly difficult or dangerous chemical experiment. Celestial charts were also used to help diagnose sick patients and find any potential source for mental and physical illnesses. This bustling workshop shows evidence of both medicinal and *metallurgical* practices (work with metals).



***An Alchemist in his Studio*, 1670**

Thomas Wijck, Dutch

Oil on panel

Gift of Spectrum, Inc.

This thoughtful and intimate painting almost looks like a portrait. However, it is unlikely that the artist intended to show a representation of a specific person, rather than a general type. Wijck's alchemist is a robust man in middle age, with a neatly-trimmed beard and a fur-lined robe. His workroom is cluttered but filled with large books, apothecary's jars, and fine glassware for distillation. There are many signs that this alchemist is serious, prosperous, and respectable. Look for the broken wax seals—in bright red—on the letter at right. Letters indicate communication and exchange: perhaps this alchemist is part of a network of experimenters sharing their secrets and new theories.



***Alchemist with Monkey*, 1600s-1700s**

In the manner of David Teniers II, Flemish
Oil on canvas, mounted on board
Gift of Fisher Scientific International

The labors of this white-bearded alchemist are being closely watched by the monkey perched on the window above. Both alchemists and artists were sometimes called "apes of nature," a teasing nickname that comes from their attempts to mimic nature (either by picturing it, or by trying to copy its processes). Monkeys were known to be highly intelligent and to imitate the behaviors they observed, which is why they sometimes appear in paintings of alchemists' laboratories—and also in paintings of artists' studios.



An Alchemist's Workshop with Children Playing,

Late 1600s

Richard Brakenburgh, Dutch

Oil on canvas

Gift of Spectrum, Inc.

Have you ever heard (or said) the phrase, "do as I say, not as I do?" This alchemist's wife probably wishes that her children had. Her family has been impoverished by attempts at making gold or finding a universal medicine: you can see children playing in an empty cupboard that should be filled with food. Just below his mother's outstretched hand, one boy even mimics his father with a miniature "experiment" over a copper brazier. The mother's gesture pleads for her husband to provide a better example. Brakenburgh likely intended this work to carry a moral message, as he also includes Christian symbolism in the form of a crucifix (at upper right) and a painting of the Holy Family, hung on the rear wall.



***The Alchemist in His Study with a Woman
Making Lace*, 1660**

Thomas Wijck, Dutch

Oil on panel

Gift of Fisher Scientific International

In the 1600s, solitude was considered necessary for creative work. It was important to have peace and quiet and prevent interruption. But *too* much solitude was believed dangerous. It could lead to gloom, paranoia, or *melancholy*—a deep sadness or depressed introspection. This emotional condition was thought to be especially threatening for poets, philosophers, artists... and alchemists. In Wijck's scene, however, it isn't the alchemist who appears to be lost in introspection, but his wife. She is shown paused in her work, over a common type of lap desk used to make lace. Her chin rests in her hands, a classic gesture of the melancholic thinker.



***The Alchemist and Family*, 1660**

Thomas Wijck, Dutch

Oil on panel

Courtesy of Spectrum, Inc.

Alchemists have a reputation for being hermits, but in reality, many had families or managed large workshops. The German alchemist and physician Andreas Libavius, in his 1607 book *Alchymia Triumphans* (Alchemy Triumphant), encouraged alchemists not to isolate themselves, but to enjoy the richness of family and social life. "By means of an honorable family," he wrote, alchemy could be seen as a respectable art. Here, kitchen and laboratory merge: a distillation apparatus sits on the hearth at left, as the alchemist's wife cuts vegetables to feed her children. A stuffed iguana hangs overhead, a common trope in alchemical scenes that demonstrates knowledge of nature; but it is accompanied also by a taxidermy turtle, an animal which symbolized the safety and comfort of home.



***The Alchemist and His Wife*, 1928**

Jacques Hammerer, Belgian

Copy after 17th century original by David Ryckaert III, Flemish
Oil on canvas

Gift of Fisher Scientific International

This couple sits between a furnace and a table covered in jars and tools. The man, holding a crucible and tongs, turns to watch his partner point out a passage in her book. His active pose and her authoritative gesture suggest that they are experts working side-by-side. Laboratories and workshops were often collaborative spaces. Curiously, this painting is a modern copy of a seventeenth-century original. You may notice that the varnish looks yellowed, as if it's darkened over centuries—but of course, it hasn't had time. The artist may have intentionally sped up the discoloration process or mixed pigments into the varnish to give it the look of a historical object.



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***Early Italian Pharmacy (Pair)*, 1600s**

Anonymous, Italian School

Oil on canvas, mounted on board

Gift of Fisher Scientific International

Margaret Cavendish, a seventeenth-century English duchess and natural philosopher, once wrote that Nature itself is a “good housewife” who worked tirelessly. She believed that women were diligent and adaptive, and thus suited for the demands of chemistry. In these panoramic paintings, we see women engaged in chemical work at every stage of the process: from sorting sacks of herbs and vegetables (ready to be distilled into tonics), to tending fires and vessels, to mixing or measuring. Though both images include a bearded man sitting before shelves of bottles—likely the shop’s master apothecary, as apothecary guilds did not admit women—they also demonstrate women’s knowledge and skill.



The Alchemist, Late 1600s

Balthus van den Bossche, Flemish

Oil on canvas

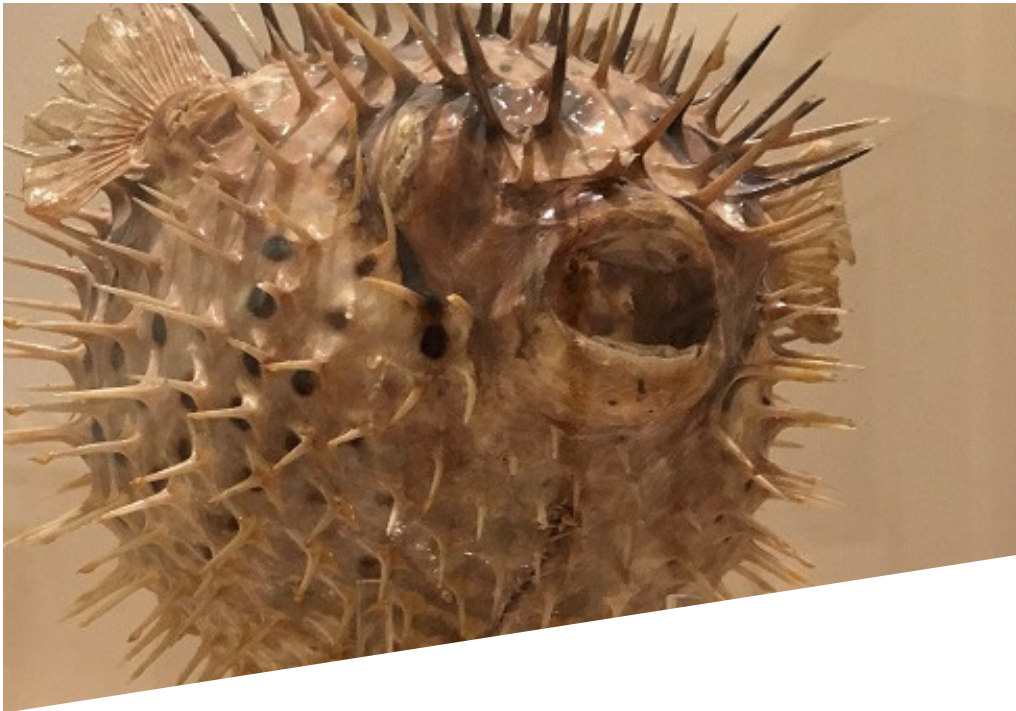
Gift of Fisher Scientific International

The clutter of objects at the front of this painting might suggest that the alchemist needs to pick up a broom, but it also shows the wide range of materials and tools that were used in making medicines. At right, a portable metal furnace is surrounded by charcoal, which was used as a heat source, but also sometimes as an ingredient. At center there are glass *alembics*, vessels with long thin necks, used to distill herbs and plants into tonics or essential oils. The earthenware apothecary jars shown around the workroom have tight cloth lids: these were usually tied with string and sometimes sealed with wax to help prevent cures from spoiling. The alchemist shown here is probably performing a diagnosis by *urinology*.



The Iatrochemist, Late 1700s
Marie-Marc Bilcoq, French
Oil on canvas
Gift of Roy Eddleman

Painted a century later, this second scene of an *iatrochemist* (a chemist specializing in chemical medicine) demonstrates changes in attitudes towards alchemy. Note that the celestial globe—once used to help diagnose illness using astrology—is gone. Gone, too, is the bustling workshop full of assistants. We see a single, solitary alchemist offering a glass to a young woman, while the child at her side peers curiously at clay and copper vessels on the floor. Unlike many paintings created during the 1600s, this picture does not focus on the technology of the laboratory or show figures at work. Instead, it offers a quietly nostalgic scene, as if the era of alchemy represented a "simpler" time.



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wall case

Flask, Gift of Herbert T. Pratt

Jar, Gift of Katharine Payne in memory of John H. Payne

Apothecary Jar

Porcupine Fish, Gift of Fisher Scientific International

What's this porcupine fish doing here? Good question. In this gallery you'll see many examples of alchemist's workshops with a dried animal specimen hanging from the ceiling. These are usually reptiles, most commonly iguanas, though in some cases it's a fish or "pufferfish" like this one. A taxidermy specimen in a workshop can mean a few different things: one, it's a way for alchemists to display their knowledge of nature and biology. Two, iguanas and similar animals were imported to Europe from the Americas, so it shows the alchemist is up-to-date on new information coming from every corner of the globe. Three, iguanas were sometimes called "dragons," and dragons were important symbols in alchemical allegories and riddles.



***The Village Chemist*, 1760**

Justus Juncker, German

Oil on canvas

Gift of Fisher Scientific International

Individuals who specialized in making medicines and other necessary goods were sometimes referred to as *apothecaries* rather than alchemists. Apothecaries acted much like modern pharmacists, dispensing drugs and remedies. They were typically important and respected members of their communities. This picture shows an apothecary-chemist with a waiting customer at his side. Beyond the curtain at right, we see his assistants hard at work in the laboratory. The luxurious imported carpet across his desk, and his fine furnishings, are intended to demonstrate wealth and taste. Yet the skull on the shelf at left is also a warning against *vanitas* or vanity, a reminder of the human mortality we all share.



***An Alchemist at Work*, 1600s**
Mattheus van Helmont, Flemish
Oil on canvas
Gift of Roy Eddleman

Alchemy was a fascinating and economically important art, but not everyone shared an excitement for it. Alchemists didn't belong to *guilds*, local membership organizations that set quality standards. There were also no university degrees for alchemists. So many people wondered whether they were expert masters, or fakes and frauds. Pictures like this one offer a kind of ambiguity: this alchemist's shop is busy and filled with assistants, but the puzzled way he stares into his book doesn't fill the viewer with much confidence. His long-necked glass *alembic* (a distillation vessel) shown at left would have been an expensive piece of equipment, yet his workshop is filled with broken pottery and straw. What kind of alchemist are we really looking at—the false or the true?



***The Alchemist*, 1937**

Newell Convers (N.C.) Wyeth, American
Oil on canvas, mounted on board
Gift of anonymous donor

N.C. Wyeth is most famous for his work as an illustrator for books and magazines. His paintings were reproduced in the pages of classic adventure stories, like *Treasure Island* and *Robin Hood*. Here, Wyeth has turned the alchemist into a wizard-like figure who would be more at home with King Arthur and Merlin than with a laboratory. Although it's obvious that Wyeth studied older images of alchemy for inspiration—you can compare the accuracy of his glass distilling vessels to other, earlier paintings in this gallery—the fanciful costume of the young man at center, and the radiant castle in the clouds seen through the open window, gives this painting an unusually dreamlike charm.



***Alchemist with Scale*, 1800s**

Johannes Weiland, Dutch

Oil on canvas, mounted on board

Gift of Fisher Scientific International

Scales and balances were vital tools of the workshop, as many processes require exact ratios of materials. But this poses a few problems for aspiring alchemists. First, the problem of sources: many recipes or instructions written between 1500-1750 did not include specific measurements. Authors of chemistry texts (as well as cookbooks) assumed that their readers would have the hands-on experience and skill to determine amounts on their own. Second, the problem of standardization. Modern laboratories use the metric system for measurements, but metric was only adopted around 1799 and did not become common for several more decades. Other traditional measuring systems still circulated. It seems this alchemist has his work cut out for him.



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wall
case

Balance, Gift of Linda Panzarella

Many paintings from the 1600s and 1700s that show scales and balances, such as Johannes Vermeer's *Woman with a Balance*, have a strong religious undertone related to moral judgment and the weighing of sin. But by the 1800s, scales more commonly appear in representations of the precision and processes of science and business. Weights and measurements were necessary for the chemist mixing a batch of medicines, but also for the merchant or banker calculating rates of exchange. This portable scale comes in a case with a set of precisely-formed weights that make the task of determining quantities much easier. It even attaches to the case so that its user can work with both hands free.



***The Alchemist*, 1800s**

Francois-Marius Granet, French

Oil on canvas

Gift of Roy Eddleman

This picture was painted well after the establishment of chemistry as a formal university discipline, yet it looks backwards to an earlier time. The atmosphere is peaceful and meditative, as if the work for the alchemist was similar to the contemplation of a monk in retreat or a scholar engaged in deep study. The large window illuminates the room with warm daylight, reflecting against the glassware sparsely placed on upper shelves. At right, a long-necked *alembic* distills into a receiver placed in a water bath on the floor. For students of "new" chemistry in the mid-1800s, this image might have evoked wonder or nostalgia for the discoveries of a bygone era.



Interior of an Apothecary's Shop, 1600s

Gian Domenico Valentino, Italian

Oil on canvas

Gift of Spectrum, Inc.

The development of *distillation*, a process that reduces substances to their liquid essence with heat and time, was considered one of the most important inventions of the early modern era (between about 1500-1700). The earliest uses for distillation were medicinal: even certain spirits or liquors which are consumed today for their taste, were first created and used as agents for healing or soothing the body. The walls of this well-stocked shop are lined with blue ceramic vessels likely containing medicines, purgatives, and natural oils and herbs. A small portable furnace heats a pan at left. Fruits and vegetables spill out on the floor alongside pans and basins, ready to be distilled into organic medicinal tonics.



Alchemist Filling Wet Drug Jars, 1600s-1700s
Anonymous, Dutch School in Italy
Oil on canvas
Gift of Fisher Scientific International

There's a reason we sometimes think of salads as "summer" foods: lettuce and leafy greens were once believed to have a powerful cooling effect on the body. Lettuces were prescribed for people suffering from fevers, but also for those who experienced insomnia, since it was believed that excess internal heat kept you from falling asleep. In this apothecary's workshop a man pours distilled liquid from a jar into blue earthenware vessels. His piled-up materials and tools make for a fascinating still-life subject, and the artist of this painting was clearly eager to show off their talent for rendering different types of surfaces. Look at the way each different texture of copper, clay, glaze, straw, wood, and leaves has been carefully and distinctly painted.



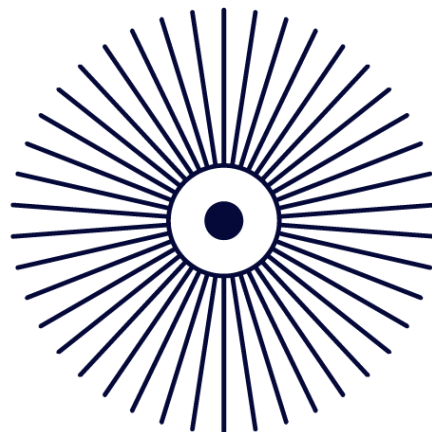
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wall case

Barrel, Gift of Herbert T. Pratt
Apothecary Jars, Chemists' Club
Mortar and Pestle, Gift of Herbert T. Pratt
Mortar and Pestle, Gift of Marshall Strahl

The objects in this case are examples of the kind of objects used by apothecaries in their everyday work: mortars and pestles for grinding up herbs and salts, jars for storing finished medicines, and barrels for transporting raw materials. Certain objects have a bit more flair than others, such as this brass mortar with two eagles' heads as handles. The signature style of this mortar suggests it would have been prominently displayed on a shop counter, instead of being hidden away in a workroom.

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