

# Painture: The Temporal and Emotional Labor of Stale Bread in the French Studio

---

Catherine Girard

St. Francis Xavier University, Nova Scotia, Canada

*This article examines the temporal and emotional labor accomplished by stale bread in the French studio. A repository of the passage of time, which renders fresh bread stale in a matter of days, stale bread was emblematic of the domestic “oeconomy” of the early modern period. With the ability to sustain human life through periods of food scarcity, stale bread also constituted the “zero degree” of subsistence. Using artists’ manuals published in France during the late seventeenth and eighteenth centuries, this paper catalogues and analyzes the operations stale bread performed in the early modern French studio, where it found its way as a multivalent material capable of reversing time. By looking at the rhetoric that formed around stale bread’s ability to reverse mistakes and erase traces of material processes, this article reflects on the reassurance and emotional relief that it provided.*

---

This article looks at how practical manuals published in France in the late seventeenth and eighteenth centuries described the usages of stale bread as an artist’s tool and the meanings the material carried as it was diverted to the workshops of a variety of practitioners—painters, embroiderers, miniaturists, architects, etc.—needing to remove unwanted marks or grime from their work. The common conversion of bread into an erasing and cleaning tool in the early modern period contrasts with its treatment in the current global context, where about 10 percent of bread goes to waste before it even reaches customers.<sup>1</sup> Today, 17 percent of the food made available for human consumption is discarded, an amount that some researchers suspect could be as high as 50 percent, and bread is one of the most wasted of all foods. In response to this global food-wasting crisis, a growing body of research in food science is dedicated to examining how to reintroduce stale bread into food production. For example, a team of researchers studying the reuse of bread waste flour (BWF) made from stale *bolillo*, a traditional Mexican white bread loaf, has found that BWF can be incorporated into freshly baked goods without altering their quality if kept within

a 20 g per 100 g of flour ratio.<sup>2</sup> To study how BWF may reenter the global food chain, the authors of this study claim, is to carry out a “morally obligated field for research” toward “sustainability and a circular economy.”<sup>3</sup>

The discarding of stale bread at the root of this moral imperative is a modern phenomenon brought about by the mass production of bread that started in the mid-nineteenth century. Bread waste increased exponentially after production was automated in the 1920s, notably with the introduction of mechanized mixers and kneading machines, followed by the popularization of sliced bread.<sup>4</sup> Compounded by the spread of variations on French bread through colonialism, the bread waste accompanying mass production propagated globally.<sup>5</sup>

Before its production was industrialized, the bread commonly consumed in France was considered desirable even in a stale state, which it reached in a matter of days. Stale bread was lauded in medical treatises for its health benefits, which were said to include aiding digestion, while its ability to sustain the body through periods of illness, poverty, punishment, and tutelage linked it to the regimen of the sick, the poor, soldiers, prisoners, children, and . . . struggling artists. In France, usages of stale bread in the artist’s studio were emblematic of a broader culture of repurposing materials within the domestic “oeconomy” of the early modern household.<sup>6</sup> However, the ubiquity and multivalence of stale bread tended to put it in the blind spot of practical artists’ manuals, particularly those with aesthetic aspirations. Interest in more prosaic guides—manuals delivering studio secrets previously guarded by guilds—grew after the founding of the Académie royale de peinture et de sculpture (Royal Academy of Painting and Sculpture) in 1648.

Drawing from a corpus of artists’ manuals published in France and conserved, for the most part, at the Bibliothèque nationale de France, this article catalogues the roles that stale bread played in the French studio and analyzes the rhetoric attached to them as it gained public visibility in those publications.<sup>7</sup> The corpus centers on a 1684 manual of studio secrets by amateur artist and theoretician Roger de Piles (1635–1709) and on a cluster of others issued in the mid-eighteenth century. What transpires from these sources is a consistent and narrow emphasis on the erasing and cleaning functions that stale bread fulfilled across media. Operations such as correcting a mistake, erasing an underdrawing, and cleaning the surface of a work of other unwanted marks made use of stale bread’s ability to absorb certain traces of the material process, effectively reversing time. Many authors further articulated, as I will point out, how this temporal labor allowed stale bread to perform an emotional labor by reassuring makers, beginners in particular, that it would reverse the mistakes that mar preparatory works and the grime produced during the early—and often messier—stages of production.

The emotional and temporal labor that the practical manuals in this corpus ascribed to stale bread in the French studio was connected, I argue, to the cultural status of bread in France. Bread was the dietary equivalent of the “neutral” and “colorless” mode of writing described by Roland Barthes; it functioned as the “zero degree” of subsistence, that in which “we can easily discern a negative

momentum, and an inability to maintain it within time's flow."<sup>8</sup> Stale bread entered the realm of the studio as a substance charged with connotations of survival in times of crisis. The concept of the zero degree, which Barthes developed in response to a mode of writing that emerged around Albert Camus in the 1940s (ironically, as the production of bread was becoming largely mechanized), thus offers a productive framework for elucidating the functions of stale bread in the moments of a work's making that were not meant to be exposed. By absorbing the taint of the material process, stale bread was made to reduce art making to "a sort of negative mood in which the social or mythical characters of a language are abolished in favor of a neutral and inert state of form."<sup>9</sup> Stale bread worked to produce this "neutral and inert state of form" in the studios of miniaturists, pastelists, painters, and embroiderers. In what follows, I first look at a corpus of French primary sources in the fields of gardening, cooking, medicine, and education to expound on the functions and connotations of stale bread they highlight. I then offer a typology of mentions of stale bread in key practical artists' manuals published in France from the late seventeenth to the eighteenth centuries before turning, toward the end, to the question of bread's temporality.

## **The Multivalence of Stale Bread**

Stale bread was a ubiquitous food staple of early modern France. In a volume of the *Encyclopédie méthodique*, published in 1791, Jacques Peuchet (1758–1830) related that because the French considered bread an indispensable food, they fixated on it in times of privation: "Accustomed to considering this substance [bread] as the basis of their diet, the people do not believe it can be replaced by any other food."<sup>10</sup> Deemed "the most essential" of all provisions, bread was the first topic discussed in the cooking section of a 1765 domestic oeconomy book written for the *bonne fermière* (farmer's wife).<sup>11</sup> The author advised readers never to exhaust their reserves of stale bread—bread "neither too old nor too fresh"—because bread when stale was "most beneficial."<sup>12</sup> Not all bread was consumed fresh, in other words. Although most authors did not seem to recommend consuming bread that was over seven or eight days old, anecdotes about the remarkable longevity of stale bread were sometimes relayed. For example, the author of the "Art of the Baker" entry in the *Descriptions des arts et métiers* (1767) reported keeping a loaf of stale bread for years: "Well-made bread does not spoil or grow mold while aging, it merely dries and becomes lighter. I kept for two years a half-pound, round white loaf, which after this time was merely dry and tasteless and weighed only six ounces."<sup>13</sup> Reports such as this bolstered stale bread's prime position in the French diet.

Stale bread was generally positively associated with the aging process of live foodstuffs, like wine. Antoine Furetière's French dictionary, a contentious project published posthumously in 1690, four years before the long-awaited 1694 edition of the French Academy's own dictionary, first defined "bread" (under *pain*) as "the main food source of man" and "stale" (under *rassis*) as "rested, purified. Fresh bread contrasts with stale bread, which has had time to rest, to harden."<sup>14</sup> Bread never went bad when given *time to rest*. Concerns about

microbiological spoilage do not appear in the early modern literature on stale bread, semantically imbued with bread's patina, unlike in today's scientific literature, where the spoiling of bread is treated as a major problem.<sup>15</sup> That bread can become waste is a modern idea contingent on its existing in linear time.

Rather than being transformed into a subsidiary product, stale bread, widely available, was promoted as a universal remedy. It was lauded in medical treatises for its health benefits, particularly in aiding digestion during an illness. French agronomist Pons Augustin Alletz (1703–1785), for example, reported that patients with dysentery benefited from *panade*, a soup made with crumbled stale bread.<sup>16</sup> Medical usages of stale bread extended to cataplasms (poultices) applied externally to reduce the inflammation of leg ulcers or to fight gangrene.<sup>17</sup> In his manual on rural economy, another French agronomist, Louis Liger (1658–1717), attested to the practice of giving stale bread to ailing animals by prescribing it for horses refusing to eat because of buccal lesions.<sup>18</sup> A few decades later, a book of recipes for treating equine illnesses advised substituting stale bread for oats to reinvigorate a depleted horse.<sup>19</sup>

Belief in the ability of stale bread to sustain the body in periods of illness and food scarcity or deprivation was built into French carceral laws. Article 25 of section 13 of the criminal code introduced in 1670, and which remained in force until the Revolution, stipulated that prisoners be given only bread and water.<sup>20</sup> A commentary published in 1767 on the original code specified that the bread should be stale from the previous day's bake and distributed by the bakers themselves every other day.<sup>21</sup> It should be noted that the benefits of stale bread were mostly associated in the literature with some form of distress and were not always said to surpass those of fresh bread. Under normal circumstances, the author of *Les éclairs du sentiment* (1798) argued, stale bread's lack of moisture could irritate the stomach.<sup>22</sup>

The medical benefits of stale bread's "neutral" and "colorless" mode also appeared in the growing literature on children's education in eighteenth-century France, where it was promoted as a source of gentle nourishment. In his essay *Les enfans élevés dans l'ordre de la nature* (*Children Raised According to Nature*), published in 1774, Jean-Louis de Fourcroy (1717–1799) advised mothers to spread honey on stale bread to coax a fussy eater into accepting food.<sup>23</sup> Caroline-Stéphanie-Félicité, Madame de Genlis (1746–1830), who theorized children's education, integrated stale bread into her educational praxis. In early childhood, she argued, "milk bread rolls are not healthy, the best kind of bread is homemade, and stale bread is the healthiest. Fresh bread should never be eaten."<sup>24</sup> A daily routine recorded in Revolutionary France attests to the popularity of stale bread for the proper raising of young schoolchildren. It was the sole food served to them at breakfast, where they would dip it in *orangeade*, a mixture of water, sugar, and orange juice, which they would drink afterward.<sup>25</sup>

As the degree zero of subsistence, stale bread was closely associated with the image of the struggling artist, a connection that appeared in a genre painting by Étienne Jeaurat (1699–1789). In a street scene he exhibited at the Salon of 1755 with two other paintings, one depicting a painter's studio, Jeaurat showed

an artist abjectly moving out of a neighborhood he could no longer afford to live in.<sup>26</sup> Wearing a tricorne and with a paint-dotted palette still in his hand, he rides with his meager possessions—an easel, some picture frames, a sword—in a small wagon pushed and pulled by a handful of people, including children, with a frail-looking dog trailing below. Now lost, like many of the *petits sujets* that Jeurat painted, the original 33-by-43-inch composition is known through a print engraved by Claude Augustin Duflos (1700–1786) in 1756–57 (fig. 1).

The departing painter dejectedly turns his head in the direction of two angry merchants: a wine seller (like Jeurat’s own father), giving him an earful while pointing an accusatory finger, and a woman baker, seen from the back, her hands planted angrily at her waist and two long bread loaves nestled under one arm.<sup>27</sup> Seated behind the artist is a woman of similar age, likely his wife, who responds to their reprimands by extending her two empty hands. In a preparatory drawing that seems to have been made from life, Jeurat had already distilled the resolute stance of the woman baker and developed the fullness of the loaf that, with carefully placed marks of white chalk, gains volume as it protrudes from under her arm and from the flatness of the sheet of paper (fig. 2). The destitution of the artist forced out of his neighborhood is telescoped in this group of two mirroring couples. Jeurat attests to the man’s ruin by evoking his inability, over some time, to afford wine, which, though usually drunk watered down, “gladdens the heart,” and bread, the lowest common denominator of subsistence.<sup>28</sup>



**Fig. 1**  
Claude Augustin Duflos, engraver, after Étienne Jeurat, *Déménagement d'un peintre*, 1756–57. Etching and engraving, 13 7/8 × 16 1/2 inches (35.4 × 41.8 cm). The Trustees of the British Museum, London (1895,078.4). © The Trustees of the British Museum. CC BY-NC-SA 4.0.

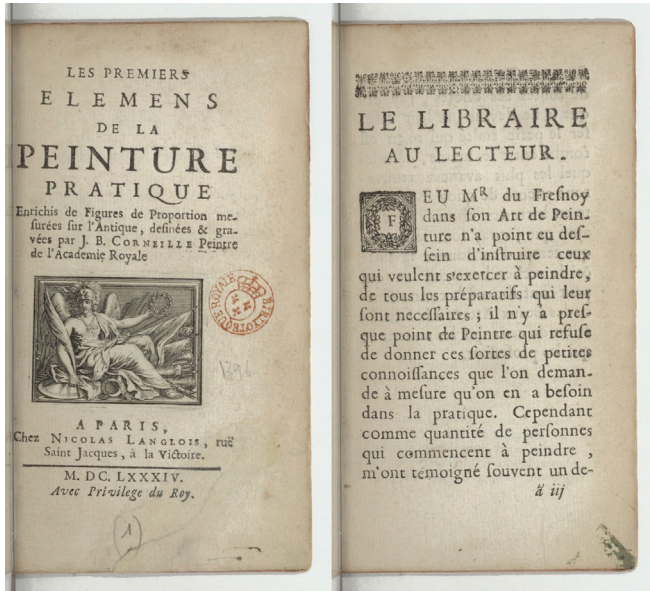
**Fig. 2**  
Étienne Jeaurat,  
*Study of Two Women*,  
ca. 1755. Black chalk,  
heightened with white,  
on gray paper, 8 7/16 ×  
13 3/8 inches (21.5 × 34  
cm). The Metropolitan  
Museum of Art, New  
York, Purchase,  
Bequest of Helen Hay  
Whitney, by exchange,  
1995 (1995.185). © The  
Metropolitan Museum  
of Art.



## Artists' Manuals

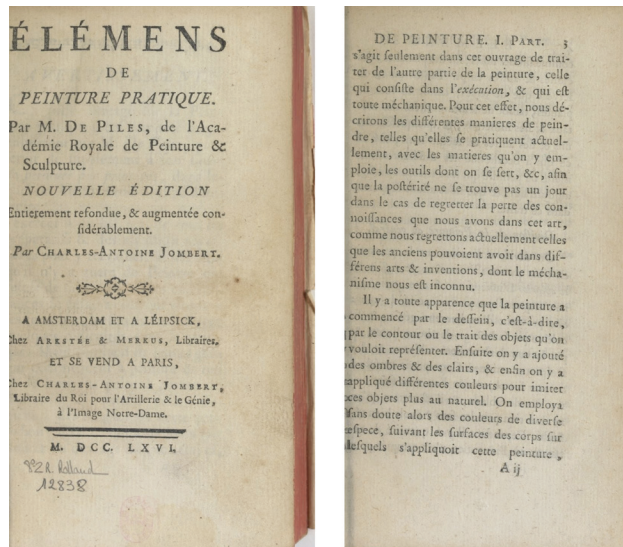
The discursive emergence of stale bread in artists' manuals published in France during the early modern period revolves around the work of a publisher active between 1735 and 1784, Charles-Antoine Jombert (1712–1784). An inheritor of the Jombert publishing dynasty, he developed an interest in art, attending sales and assembling a collection that comprised, when he sold it in 1776, paintings, sculptures, and works on paper, including nearly five hundred drawings by seventeenth- and eighteenth-century French artists. Excluded from the sale were over two thousand works on paper by prominent French engraver Charles-Nicolas Cochin (1715–1790), which Jombert kept until his death.<sup>29</sup> He was involved in art as a publisher as well, flooding the Parisian market with original texts, re-editions, and expansions of manuals in which he also had a hand. This body of texts contributed to popularizing and demystifying studio practices, developing a vision charted by De Piles in his *Elemens de la peinture pratique* (*Elements of Practical Painting*; fig. 3). In that short text, published in Paris in 1684, de Piles, who is better known today for his theoretical writings, advocated for a more liberal dissemination of what he called the *petites connoissances* (practical know-how) that artists acquired and developed and that they would share among themselves: “Almost no painter refuses to impart the kinds of useful tips that artists ask for when they need them.”<sup>30</sup>

De Piles claimed to have created his 1684 manual in response to many artists' expressed desire for greater access to this practical knowledge.<sup>31</sup> His answer took the form of a modest 96-page octavo printed with large type and generous margins. A manual replete with studio secrets—the kind of publication De Piles envisioned in 1684—would appear in a significant way in France only in the mid-eighteenth century. As Ann Massing pointed out in her contribution



**Fig. 3**  
Frontispiece and opening page of preface in Roger de Piles, *Les premiers elemens de la peinture pratique* (Paris: Nicolas Langlois, 1684).  
© Source gallica.bnf.fr/ Bibliothèque nationale de France.

**Fig. 4**  
Frontispiece and page 3 in Roger de Piles and Charles-Antoine Jombert, *Éléments de peinture pratique: Par M. De Piles, de l'Académie Royale de Peinture & Sculpture*, new and expanded edition (Amsterdam: Charles-Antoine Jombert, 1766).  
© Source gallica.bnf.fr/ Bibliothèque nationale de France.



to the 1995 conference “Historical Painting Techniques, Materials, and Studio Practice,” it took time for the genre to develop: prior to the creation of the Royal Academy of Painting and Sculpture, guilds were the primary artists’ organizations, and guilds encouraged a culture of secrecy around their members’ practices.<sup>32</sup>

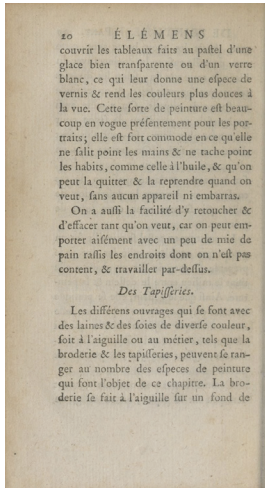
Jombert subsumed the content of De Piles’s *Elemens de la peinture pratique* under an edition that he himself revised, expanded, and published in 1766 (fig. 4). In the first pages of the body text, Jombert wrote that the goal of the publication was to instruct readers in the “execution” of painting as a “mechanical”

practice.<sup>33</sup> This augmented re-edition of De Piles's original text marked a turning point in making the material reality of the artist's studio public by bringing studio secrets into discursive existence. In her survey of artists' manuals published in France between 1600 and 1800, Massing considered Jombert's edition "the most important and informative collection of recipes on French painting technique of the seventeenth and early eighteenth centuries."<sup>34</sup>

One point to clarify, however, is that most of Jombert's 1766 edition was not from De Piles's 1684 text; Jombert added about 250 pages to De Piles's 96. Moreover, Jombert did not simply add to De Piles's text; he replaced it. This intervention was substantive and strategic, so much so that I believe it qualifies as a Derridian supplement, a concept Jacques Derrida developed around a 1762 text by Jean-Jacques Rousseau (1712–1778) to account for the "strange unity" of experience and theory wherein writing, by replacing practice, ascribes to it an emptiness, a lack.<sup>35</sup> By cleverly displacing De Piles within what had originally been De Piles's own text, Jombert was taking his place as the authority on the nascent writing genre of studio practices. He himself thought of the 1684 text as a supplement to De Piles's earlier and more famous 1667 *Cours de peinture par principes* (*The Principles of Painting*), structured, as the later work was, on a series of embedded texts that articulated the discursive emergence of praxis: "This small book [*Elemens de la peinture pratique*] about the practice of painting was originally composed by Mr. de Piles to serve as a supplement to his *Cours de peinture par principes* in which he neglected to instruct those who want to practice this fine art on all the preparations and tools required to work at it."<sup>36</sup> Jombert's expansion of De Piles's text thus *supplements* it, both adding to and replacing it. By ascribing a lack to it, Jombert also paradoxically affirms the beginnings of the ascendancy of writing over praxis as the dominant mode of relaying knowledge—discourse supplanting the material transmission of the processes it describes.

De Piles's original *Elemens de la peinture pratique* contained two mentions of bread. One referred to a technique for transferring a drawing onto vellum using silverpoint, which could be erased, if changes were needed, with a piece of bread.<sup>37</sup> Jombert repeated this passage nearly verbatim in his re-edition, but he specified the use of stale bread, a detail De Piles had omitted.<sup>38</sup> The definition of *mie de pain* (the crumb of the loaf) in a practical manual of architectural drawing by Claude-Mathieu Delagardette (1762–1805) suggests that references to *mie de pain* as an erasing tool would imply stale bread: "*MIE de pain*; serves to clean, by gently rubbing a piece on the drawing; it must be of stale bread, otherwise it makes the paper greasy."<sup>39</sup> In his only other mention of bread, De Piles reassured beginners by emphasizing that bread could help them undo mistakes. He encouraged them to work with pencil at first because "it can be erased whenever you want by gently rubbing it with bread crumbs: in this manner you may easily correct and change your work."<sup>40</sup> Jombert lifted this passage into the second, 1755, edition of his own manual, *Nouvelle méthode pour apprendre le dessin sans maître* (*New Method for Learning to Draw without an Instructor*), a 156-page expansion of the original 37-page text of the same title he had published in 1740.<sup>41</sup>

The emotional benefits associated with using stale bread in the margins of the studio were expanded upon in Jombert's 1766 re-edition of De Piles's 1684 text.

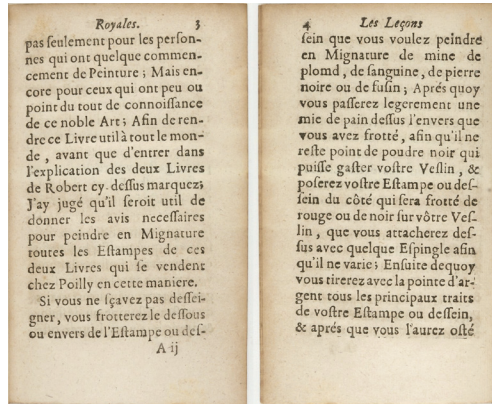


**Fig. 5**  
 Page 20 in Roger de Piles and Charles-Antoine Jombert, *Éléments de peinture pratique: Par M. De Piles, de l'Académie Royale de Peinture & Sculpture*, new and expanded edition (Amsterdam: Charles-Antoine Jombert, 1766).  
 © Source gallica.bnf.fr/ Bibliothèque nationale de France.

Jombert increased from two to ten the number of passages that discuss bread as an eraser used to clean unwanted marks from works and tools, effectively reversing time.<sup>42</sup> Among the various operations of erasure that surface in Jombert's *exposé* on studio secrets, those carried out by pastelists were said to alleviate the distress caused by dissatisfaction with preliminary work: "[Pastel] can be easily retouched and erased, and as many times as you wish, because you can effortlessly remove with a little bit of stale bread the places *about which you are not happy*, and then work over them" (fig. 5).<sup>43</sup> Everywhere one looked in the French studio as its confines were made visible discursively, stale bread was discreetly circulating, neutralizing mistakes, reassuring anxious beginners, and averting the panic triggered by a wrong mark.

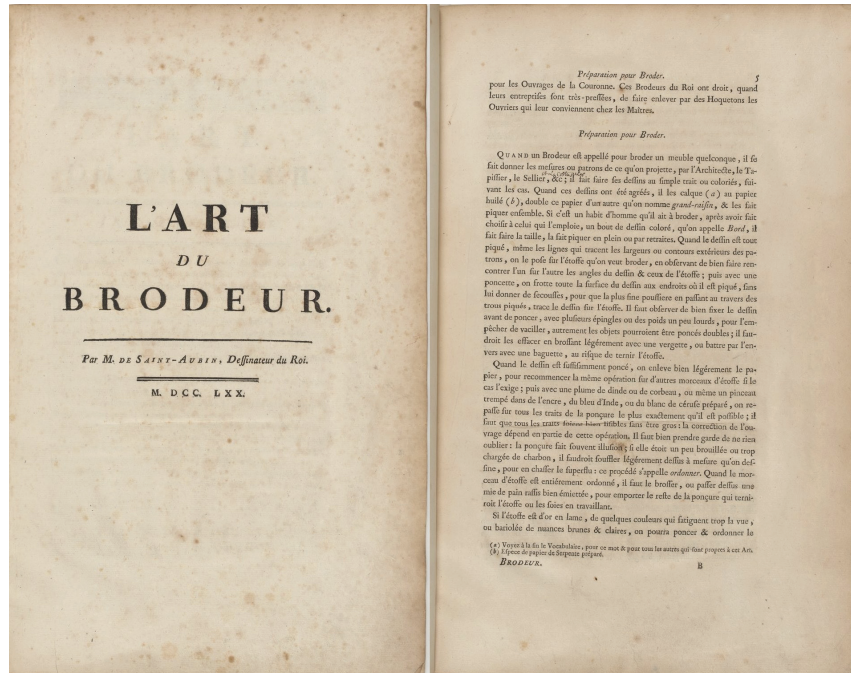
The second function that stale bread performed as an artist's tool was to remove underdrawing and clean dirty surfaces and tools as part of the regular artistic process. A 1743 drawing manual by Nicolas Buchotte (1673–1757) that Jombert published in an expanded edition in 1754 provides a definition of the verb "*dégrasser*," literally, *to de-grime*: "To degrime a drawing is, after having drawn the lines in pencil and India ink or carmine, rubbing it with stale bread to remove the traces of pencil."<sup>44</sup> Delagardette reprised Buchotte's definition in his architectural drawing manual mentioned above, simplifying it by stating that to degrime a drawing was to remove any superfluous pencil lines with stale bread.<sup>45</sup>

Other degriming usages of stale bread included the removal of residues left during the processes of tracing and pouncing. Amateurs and artisans who used these methods were thus comforted in the knowledge that the transfer process would not leave its mark on the surface and betray their reliance on it. In a 1686 drawing manual published in Paris and created specifically for the production of miniature paintings of flowers and birds, Catherine Perrot (b. 1620) highlighted two such usages, seemingly expanding on De Piles's first mention of bread, further linking bread to the emotional support of beginners while



**Fig. 6**  
Pages 3 and 4 in  
Catherine Perrot, *Les  
leçons royales ou la  
maniere de peindre en  
miniature les fleurs  
& les oyseaux, par  
l'explication des livres  
de fleurs & d'oyseaux  
de feu Nicolas Robert  
fleuriste* (Paris:  
J. B. Nego, 1686). ©  
Source gallica.bnf.fr/  
Bibliothèque nationale  
de France.

**Fig. 7**  
Frontispiece and page  
5 in Charles-Germain  
de Saint-Aubin, *L'art  
du brodeur* (Paris: L.-F.  
Delatour, 1770).  
© Source gallica.bnf.fr/  
Bibliothèque nationale  
de France.



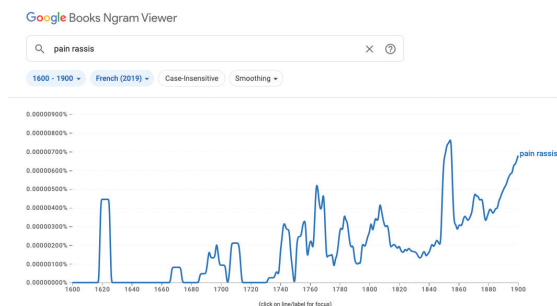
emphasizing its ability to prevent the spoiling of the surface. “If you do not know how to draw, you will rub the underside or reverse of the print or drawing that you want to paint in miniature in graphite, red chalk, black chalk, or charcoal, after which you will lightly pass a piece of bread over the reverse side that you have rubbed, so that there is no black powder left which could spoil your vellum” (fig. 6).<sup>46</sup> In *L'art du brodeur* (*The Art of the Embroiderer*), Charles-Germain de Saint-Aubin (1721–1786), who was a close friend of Jombert, explained how stale bread was used after the “ordering” of an embroidery, a reference to the process by which a design is transferred to cloth by means of a pouncing stencil: “When the piece of fabric is entirely ordered, it must be brushed, or rubbed with finely crumbled stale bread, to remove the rest of the pounce that would tarnish the fabric or silks while working” (fig. 7).<sup>47</sup>

The degreasing properties of stale bread were also effective in the cleaning of tools used to crush pigments, a chore that, by the second half of the eighteenth century, was mostly done by color merchants like Jean-Félix Watin (b. 1728). In the revised edition of his influential manual for painters, gilders, and varnishers, published in Paris in 1773, Watin explained how he kept bread that was no longer fresh but not too stale, either—a state he referred to as “passably tender”—to clean the grinding stone and disc (*molette*) when oil had been added during the grinding process.<sup>48</sup> This cleaning operation, which Watin insisted had to be done before the oily colored residue dried on the tools, involved rubbing breadcrumbs on the affected surfaces until the crumbs became “tiny rolls” and no trace of color remained.<sup>49</sup>

## Reversing Time

The erasing functions of stale bread in the artist’s studio echoed the circular existence of bread itself. It was well known that stale bread could be refreshed numerous times, albeit for a shorter period every time. Liger marveled at the ability of stale bread to regain some of its “goodness” after being reheated in the oven; it had to be “eaten promptly,” however, otherwise it would worsen.<sup>50</sup> The author of the manual for the good *fermière*, cited earlier, cautioned that stale bread, once revived, would become “worse than before” if it were not eaten right away, a warning that had been published in 1662, nearly a century earlier, in a gardening book issued in Paris.<sup>51</sup> Bread’s chemistry enabled it to return to prior states of freshness and staleness. Bread time-traveled, but with each return voyage, time accelerated.

A diagram generated by Google Ngram Viewer, while it does not take into account all the manuals reviewed here, provides a rough visualization of the frequency with which the term “*pain rassis*” occurs in documents digitized by Google Books (fig. 8).<sup>52</sup> The diagram captures the impact of De Piles’s 1684 manual and of Jombert’s publications, which propelled the discursive emergence of stale bread. While some of the upticks reflect the publication of various dictionaries, the appreciable spike in the 1850s signals a boost in attention to the chemistry of stale bread, and more specifically to the science behind its capacity to be rejuvenated. This wave of interest in the reversibility of bread’s aging process began on January 1, 1852, when French chemist Jean-Baptiste



**Fig. 8** Relative frequency of occurrence of the term *pain rassis* found in Google Books, 1600–1900. Chart generated by Google Ngram Viewer, <https://books.google.com/ngrams>.

Boussingault (1802–1887) published the results of his experiments on the molecular transformation of bread as it cycles between staleness and freshness.<sup>53</sup> Boussingault’s article prompted a slew of publications in France, Britain, and North America on the chemistry of bread and its powers of transmutation and was a touchstone in its field for many years.<sup>54</sup> In his 1875 *Report on Vienna Bread*, written after the Vienna International Exhibition of 1873, American scientist Eben Norton Horsford (1818–1893) revisited Boussingault’s experiment, reminding readers that Boussingault had been able to put a single loaf of bread through this renewal process forty times.<sup>55</sup>

Using stale bread to turn back the clock in the French studio echoed the widespread practice, which still exists today, of using bread, fresh and stale, to clean paintings sullied by the effects of time.<sup>56</sup> In 1625, for instance, Simone Laghi used bread, sometimes moistened, to restore Michelangelo’s frescoes in the Sistine Chapel, as reported by Gianluigi Colalucci while he was leading the 1980–94 restoration.<sup>57</sup> French art historian Émile Bayard (1868–1937) recollected in 1921 that at the end of the nineteenth century, the restorers of the Paris Opera had cleaned the painted ceilings with unmoistened stale bread, safely degreasing the images without removing what he called the “patina of time”: “Let’s not forget that if the true patina of time holds, some grime, which should not be mistaken for artifice, can be removed with a light cleaning. . . . It is . . . possible to clean (*décrasser*) a painting with stale bread without the use of water, a process used to clean the paintings on the ceiling of the Opéra de Paris about thirty years ago, and without risk.”<sup>58</sup>

## **Tirelessly Active**

To be clear, stale bread was never essential to the artistic processes with which it was associated, for its erasing and cleaning functions could be and were performed by other materials. In 1766 Jombert noted that either stale bread or a white cloth could be used for erasing in a preparatory sketch: “This sketch is made . . . with a piece of light charcoal . . . that can easily be erased by gentle rubbing with a white, dry cloth, or with stale bread.”<sup>59</sup> What artists’ manuals suggest, however, is that stale bread was an overdetermined choice for this task. It was deployed as an art tool during the early stages of the pictorial process—to undo mistakes about which artists were “not happy,” as Jombert put it—and, years afterward, in the later life of a painting, to remove accumulated grime. Stale bread provided emotional support through its reassuring presence alongside the creative magma and anxiety that arose at the beginning of a work, when the painting’s coming into being was still uncertain and, after much time had elapsed, when viewers contemplated the prospect of that same work’s decay.

While bread generally bookended the lifetime of an artwork, the use of stale bread as an erasing and degreasing tool remained mostly invisible until its discursive emergence in French artists’ manuals. For instance, stale bread was not among the tools typically represented in pictures of the artist’s studio: Jeurat did not include it in the 1755 depiction of the painter’s studio that he exhibited together with his painting of the destitute artist thrown into the

streets, previously discussed.<sup>60</sup> What the discursive emergence of stale bread did was to make visible the prosaic aspect of the creative process. Similarly, the added function that stale bread acquired when it joined the ranks of art tools and materials was rarely addressed. It came into focus, however, in a passage of an 1885 novel by Roger Ballu (1852–1908) about Jacques Damery, a fictitious painter born in 1857 (and not the real seventeenth-century printmaker whose name he shares): “Throughout the day, he nibbled distractedly on the stale bread that was intended to erase black chalk from paper.”<sup>61</sup> This moment of conflating the uses of stale bread attests to the ubiquitous presence of the substance as an ordinary drawing tool after being diverted from its nourishing function. Ballu, who had been promoted to the position of *inspecteur général des beaux-arts* (fine arts commissioner) for the French government in 1883, was familiar with the inner workings of artists’ studios.<sup>62</sup> He may even have witnessed artists absorbed in making preparatory drawings grab a piece of stale bread and bring it to their mouths instead of to unwanted marks in their sketches. In this act of absent-minded consumption, the artist imagined by Ballu slid stale bread along its ontological spectrum, prompting it to oscillate between its identity as food and as chalk eraser.

At the beginning of this essay, I proposed considering the operations that stale bread performed in France during the early modern period as the zero degree of subsistence, following Barthes’s notion. But, as Ryan Bishop and Sunil Manghani point out in their book *Zero Degree Seeing* (2019), “Zero degree writing for Barthes was always an impossibility.”<sup>63</sup> In the same book, artist Victor Burgin examines the generative function of the notion of neutrality in Barthes’s thinking about writing: “In, albeit paradoxically, ‘opposing oppositions’ the neutral is never quiescent, it is tirelessly active.”<sup>64</sup> The labor bread performed in the French studio expanded to its global circulation as a staple of French universalism, activating the “neutrality” of bread as the zero degree of subsistence in colonial and settler colonial contexts, in the form of Mexican bollilo bread, Indigenous bannock bread, Vietnamese *bánh mì*, etc. Thus, I return to the usages of stale bread in artist’s studio, concerned with what it is that stale bread accomplishes, with how it is “tirelessly active.” One of the critical elements here, of course, is the capacity of bread to replace everything else. Stale bread entered the studio endowed with an extended life and added function that could effectively reverse time, providing reassurance to artists as they worked. It was chosen as a gentle eraser of mistakes, as an antidote to the destructive impulses of frustration triggered by a wrong line or a stain. What this functionality makes clear is that French bread is, indeed, “tirelessly active,” and its global proliferation demands that we examine what lives in the shadows, beyond the confines of the visible, as bread degrades the world.

■

---

Catherine Girard

Catherine Girard is assistant professor of art history at St. Francis Xavier University, Canada. She specializes in eighteenth-century visual and material cultures with a focus

on French art, hunting practices, natural history, the body, and contact between settlers and Indigenous peoples in the North Atlantic world.

For their valuable feedback and expertise, I thank Francesca Borgo and Ruth Ezra; the “Wastework” conference participants; Tori Champion and Sharon Gregory; and the anonymous reader of an earlier draft of this article.

- 1 United Nations Environment Programme, *Food Waste Index Report 2021* (Nairobi: United Nations Environment Programme Publications, 2021), 8; J. Lundqvist, C. de Fraiture, and D. Molden, *Saving Water: From Field to Fork, SIWI Policy Brief* (Stockholm: Stockholm International Water Institute, 2008), 35; Alan Dymchenko, Milan Geršl, and Tomáš Gregor, “Trends in Bread Waste Utilisation,” *Trends in Food Science & Technology* 132 (2023): 93–102; Vinod Kumar et al., “Bread Waste—A Potential Feedstock for Sustainable Circular Biorefineries,” *Bioresource Technology* 369, article 128449 (February 2023); Waste and Resources Action Programme, *Food Surplus and Waste in the UK—Key Facts* (Banbury: Wrap, 2022), 15, <https://wrap.org.uk/resources/report/food-surplus-and-waste-uk-key-facts>.
- 2 Ángeles García-Hernández et al., “Stale Bread Waste Recycling as Ingredient for Fresh Oven-Baked White Bread: Effects on Dough Viscoelasticity, Bread Molecular Organization, Texture, and Starch Digestibility,” *Journal of the Science of Food and Agriculture* 103, no. 8 (June 2023): 4182, <https://doi.org/10.1002/jsfa.12442>.
- 3 García-Hernández et al., “Stale Bread Waste Recycling,” 4175.
- 4 For a summary of the mechanization of bread production in France, see Nicholas Tošaj, “Empire of Wheat: Bread, Wheat and Staple Carbohydrates in the French Colonial Empire, 1887–1939” (PhD diss., University of Toronto, 2020), 113–19; on the introduction of the first automatically produced sliced bread, in the United States, in 1928, see Aaron Bobrow-Strain, *White Bread: A Social History of the Store-Bought Loaf* (Boston: Beacon, 2012), 56–77.
- 5 On the dissemination of French bread through colonialism, see Tošaj, “Empire of Wheat.”
- 6 On the early modern concept of domestic “oeconomy,” see Simon Werrett, *Thrifty Science: Making the Most of Materials in the History of Experiment* (Chicago: University of Chicago Press, 2019), 17–20.
- 7 Most sources were consulted through Gallica. Some allowed for text recognition, while others did not. This corpus excludes satirical (and ungrounded) mentions of bread as the support of cheese painting in a text some readers may have in mind, as they are separate from the erasing functions here under study. Jean André Rouquet, *L’art nouveau de la peinture en fromage, ou en ramequin, inventée pour suivre le louable projet de trouver graduellement des façons de peindre inférieures à celles qui existent* (Paris: A. Marolles, 1755).
- 8 Roland Barthes, *Writing Degree Zero*, with a preface by Susan Sontag, trans. Annette Lavers and Colin Smith (New York: Hill & Wang, 1968), 5, and see also 76–77.
- 9 Barthes, *Writing Degree Zero*, 77.
- 10 Unless otherwise noted, translations from the French are by the author. “Le peuple accoutumé à faire la base de sa nourriture de cette substance, ne croit point pouvoir remplacer [le pain] par aucun autre aliment.” Jacques Peuchet, *Encyclopédie méthodique: Jurisprudence*, vol. 10 (Paris: Panckoucke, 1791), 30.
- 11 Louis Rose, *La Bonne fermière, ou Eléments économiques, utiles aux jeunes personnes destinées à cet état* (Lille: J. B. Henry, 1765), 60; see also Nicolas de Bonnefons, *Les délices de la campagne: Suite du Jardinier français, où est enseigné à préparer pour l’usage de la vie tout ce qui croist sur la Terre, & dans les eaux*, 3rd ed. (Paris: Anthonie Cellier, 1662), 1.
- 12 “. . . afin que le pain ne soit jamais trop vieux ni trop nouveau; car le pain rassis est le plus profitant au maître; c’est pourquoi la Fermière attentive n’attendra jamais qu’elle soit au bout de sa provision, pour se mettre en devoir d’en refaire une nouvelle.” Rose, *La Bonne fermière*, 68–69.
- 13 “Du pain bien fait ne se gate pas, il ne se moisit point en vieillissant, il ne fait que sécher & diminuer de pesanteur. J’ai gardé deux ans, un pain blanc d’une demi-livre & rond, qui après ce temps n’étoit que sec & sans gout, ne pesant plus que dix onces.” M. Malouin, *Description et détails des arts du meunier, du vermicelier et du boulenger; Avec une histoire abrégée de la boulangerie, & un dictionnaire de ces arts* (1767), 266. See also Anicet Caufapé, *Traité de la nature, des préparations et de l’usage des alimens les plus usitez, et de quelques remèdes qu’on prend ordinairement par précaution ou par volupté* (Toulouse: G. Louis Colomiez, 1686), 50; and Louis Liger, *La nouvelle maison rustique, ou Économie Générale de tous les biens de campagne*, vol. 1 (Paris: C. Prudhomme, 1721), 476.
- 14 “Pain. s.m. Masse de pâte cuite qui sert de principale nourriture à l’home.” “Rassis, isc. adj. Qui est repose, épuré. On oppose le pain tendre au pain rassis, qui a eu le loisir de se reposer, de se durcir.” Antoine Furetière, *Dictionnaire universel contenant généralement tous les mots français tant vieux que modernes et les termes de toutes les sciences et des arts*, vol. 2 (La Haye: Arnout & Reinier Leers, 1690), n.p.
- 15 García-Hernández et al., “Stale Bread Waste Recycling,” 4175.
- 16 Pons Augustin Alletz, *L’Agronome: Dictionnaire portatif du cultivateur*, 2nd ed., vol. 1 (Paris: Nyon, 1764), 366.
- 17 Michel Underwood and Joseph Elfe, *Traité sur les ulcers des jambes* (Paris: Théophile Barrois, 1744), 91–94; Joseph Lieutaud, *Précis de la matière médicale*, vol. 2 (Paris: P. Fr. Didot, 1770), 172.

- 18 Liger, *La nouvelle maison rustique*, 198.
- 19 Harpur (first name unknown), *Recettes pour les maladies des chevaux recueillies des plus habiles ecuyers, & des maréchaux les plus experts d'Italie* (Lausanne: Marc Chapuis, 1761), 33–34.
- 20 Louis XIV, *Ordonnance de Louis XIV: Roy de France et de Navarre; Donnée à Saint Germain en Laye au mois d'aoust 1670; Pour les matières criminelles* (Paris: Chez les associez choisis par ordre de sa Majesté pour l'impression de ses Nouvelles ordonnances, 1670), 76.
- 21 François Serpillon, *Code criminel, ou Commentaire sur l'ordonnance de 1670*, vol. 2 (Lyon: Frères Périssé, 1767), 617.
- 22 Vanière (fils d'Ignace), *Les Éclairs du sentiment, ou Pensées de Vanière, fils d'Ignace, un des petits-neveux de l'auteur du "Prædium rusticum"* (Rouen: P. Periaux, 1798), 256.
- 23 Jean-Louis de Fourcroy, *Les enfans élevés dans l'ordre de la nature; Ou Abrégé de l'histoire naturelle des enfans du premier age; A l'usage des peres & meres de famille* (Paris: Freres Estienne, 1774), 258.
- 24 Madame de Genlis, *Nouvelle méthode d'enseignement pour la première enfance* (Paris: Maradan, 1801), 324.
- 25 This detail was recorded on April 18, 1791 (AGRB, Fonds Vendôme-Nemours 139), and is reproduced in Dominique Julia, "Princes et élèves: Les études des princes d'Orléans sous l'autorité de Madame de Genlis (1782–1792)," in "Pour une histoire renouvelée des élèves (XVIIe–XXe siècles), vol. 2," ed. Jean-François Condette and Véronique Castagnet-Lars, special issue, *Histoire de l'éducation* 159 (2019): 95.
- 26 *Explication des peintures, sculptures et autres ouvrages de Messieurs de l'Académie royale* (Paris: Collombat, 1755), 11.
- 27 Biographical information about Jeaurat is relayed in Denys, "Le déménagement du peintre," *La semaine des familles*, no. 38 (December 20, 1879): 594.
- 28 "Le vin rejouit le coeur de l'homme." Furetière, *Dictionnaire universel*, n.p.
- 29 Greta Kaucher, *Les Jombert: Une famille de libraires parisiens dans l'Europe des Lumières (1680–1824)* (Genève: Droz, 2015), 427–44.
- 30 "Il n'y a presque point de Peintre qui refuse de donner ces sortes de *petites connoissances* que l'on demande à mesure qu'on en a besoin dans la pratique." Roger de Piles, *Les premiers elemens de la peinture pratique* (Paris: Nicolas Langlois, 1684), under "Le libraire au lecteur"; emphasis mine.
- 31 De Piles, *Les premiers elemens*, under "Le libraire au lecteur."
- 32 Ann Massing, "From Books of Secrets to Encyclopedias: Painting Techniques in France between 1600 and 1800," in *Historical Painting Techniques, Materials, and Studio Practice: Preprints of a Symposium, University of Leiden, the Netherlands, 26–29 June 1995*, ed. Arie Wallert, Erma Hermens, and Marja Peek (Marina Del Rey, CA: Getty Conservation Institute, 1995), 20–29.
- 33 "Il s'agit seulement dans cet ouvrage de traiter de l'autre partie de la peinture, celle qui consiste dans l'exécution, & qui est toute mécanique." Roger de Piles and Charles-Antoine Jombert, *Éléments de peinture pratique: Par M. De Piles, de l'Académie Royale de Peinture & Sculpture*, new and augmented edition (Amsterdam: Charles-Antoine Jombert, 1766), 3; italics in the original text.
- 34 Massing, "From Books of Secrets to Encyclopedias," 22. A typo in Massing's text mistakenly dates Jombert's 1766 new edition of de Piles's text to 1776.
- 35 Jacques Derrida, *Of Grammatology*, corrected edition, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1997), 144–45.
- 36 "Ce petit ouvrage sur la Peinture pratique a été composé originairement par M. De Piles, pour servir de supplément à son *Cours de peinture par principes*, dans lequel cet Auteur avoit négligé d'instruire les personne qui veulent s'exercer à ce bel art, de tous les préparatifs & des ustensiles nécessaires pour y travailler." De Piles and Jombert, *Éléments de peinture pratique*, n.p.
- 37 De Piles, *Elemens de peinture pratique*, 88–89.
- 38 De Piles and Jombert, *Elemens de peinture pratique*, 259.
- 39 "MIE de pain; elle sert à décrasser, en en passant légèrement un morceau sur le dessin; il faut qu'elle soit de pain rassis, autrement elle graisse le papier." Claude-Mathieu Delagardette, *Nouvelles règles pour la pratique du dessin et du lavis de l'architecture civile et militaire* (Paris: Barrois, 1803), 178.
- 40 "Le Crayon est plus facile à manier & plus propre à finir, & par consequent plus convenable à ceux qui commencent; il a cela de commode, qu'il s'efface quand on veut en le frottant legerement avec un peu de mie de pain: de cette façon l'on peut facilement corriger ou changer son ouvrage." De Piles, *Elemens de peinture pratique*, 9.
- 41 Charles-Antoine Jombert, *Méthode pour apprendre le dessein* (Paris: Charles-Antoine Jombert, 1755), 56.
- 42 De Piles and Jombert, *Elemens de peinture pratique*, 20, 39, 40–41, 67–68, 142, 176, 218, 237, 259, 336.
- 43 "On a aussi la facilité d'y retoucher & d'effacer tant qu'on veut, car on peut emporter aisément avec un peu de mie de pain rassis les endroits dont on n'est pas content, & travailler par-dessus." De Piles and Jombert, *Elemens de peinture pratique*, 20; emphasis mine.
- 44 "Décrasser un Dessein, c'est après en avoir mis les lignes au crayon & à l'encre de la Chine ou au carmin, passer une mie de pain rassis, pour en ôter les traits du crayon." Nicolas Buchotte, *Les règles du dessein, et du lavis* (Paris: Charles-Antoine Jombert, 1754), 39.

- 45 “DÉCRASSER un dessin, après en avoir mis les lignes au crayon et à l’encre; c’est passer une mie de pain rassis pour en ôter les traits de crayon superflus. (Voyez *Mie de pain.*)” Delagardette, *Nouvelles règles pour la pratique du dessin*, 169.
- 46 “Si vous ne savez pas dessiner, vous froterez le dessous ou envers de l’Estampe ou de dessin que vous voulez peindre en Miniature de mine de plomb, de sanguine, de pierre noire ou de fusin; après quoi vous passerez légèrement une mie de pain dessus l’envers que vous avez frotté, afin qu’il ne reste point de poudre noir qui puisse gâster votre Vélin.” Catherine Perrot, *Les leçons royales ou la manière de peindre en miniature les fleurs & les oyseaux, par l’explication des livres de fleurs & d’oyseaux de feu Nicolas Robert fleuriste* (Paris: J. B. Nego, 1686), 3–4. This translation is based on the work of Tori Champion, who has recently completed a translation of the first edition of Perrot’s treatise. I am grateful to her for sharing this unpublished work with me.
- 47 “Quand le morceau d’étoffe est entièrement ordonné, il faut le brosser, ou passer dessus une mie de pain rassis bien émietlée, pour emporter le reste de la ponçure qui terniroit l’étoffe ou les soies en travaillant.” Charles-Germain de Saint-Aubin, *L’art du brodeur* (Paris: L.-F. Delatour, 1770), 5.
- 48 “. . . passez dessus une mie de pain médiocrement tendre . . .” Jean-Félix Watin, *L’art du peintre, doreur, vernisseur* (Paris: Grangé, 1773), 62.
- 49 “. . . ce qu’on répète plusieurs fois avec de nouvelles mies de pain, en appuyant assez fort avec la molette jusqu’à ce que le pain devienne en petits rouleaux, & ne soit plus teinte de couleur.” Watin, *L’art du peintre*, 62.
- 50 “Tout pain rassis étant remis au Four, regagne un peu de la bonté qu’il a perdu depuis qu’il a été cuit; & pouvû qu’il soit mangé promptement, après qu’il aura été repassé au Four, il semblera qu’il soit nouveau; mais si on le gradoit longtemps, il seroit encore moindre qu’il n’étoit auparavant.” Liger, *La nouvelle maison rustique*, 81.
- 51 Rose, *La Bonne fermière*, 76; Bonnefons, *Les delices de la campagne*, 16.
- 52 For a discussion of the Google Books Ngram Viewer as an online interface for generating a “linguistic corpus,” see Daniel Rosenberg, “Data before the Fact,” in *“Raw Data” is an Oxymoron*, ed. Lisa Gitelman (Cambridge, MA: MIT Press, 2013), 23–27.
- 53 Jean-Baptiste Boussignault, “Expériences ayant pour but de déterminer la cause de la transformation du pain tendre en pain rassis,” *Annales de chimie et de physique* 3, no. 36 (January 1, 1852): 490–94.
- 54 See, for example, William Allen Miller, *Elements of Chemistry: Theoretical and Practical* (London: John W. Parker and Son, 1857), 116; and Eliza Cook, “How Every Working Man May Save Twenty Shillings a Year,” *Eliza Cook’s Journal* 6, no. 152 (March 27, 1852): 351.
- 55 Eben Norton Horsford, *Report on Vienna Bread* (Washington, DC: Government Printing Office, 1875), 95.
- 56 Italian restorers, for instance, bake their own supplies of fresh bread to clean surfaces. I am grateful to the restorer who shared information with me at the “Wastework” conference, which was held at the Bibliotheca Hertziana–Max-Planck-Institut für Kunstgeschichte, Rome, March 15–17, 2023.
- 57 Gianluigi Colalucci, “The Frescoes of Michelangelo on the Vault of the Sistine Chapel: Original Technique and Conservation,” in *The Conservation of Wall Paintings: Proceedings of a Symposium Organized by the Courtauld Institute of Art and the Getty Conservation Institute, London, July 13–16, 1987*, ed. Sharon Cather (Marina del Rey, CA: Getty Conservation Institute, 1991), 71; Colalucci, “Michelangelo’s Colours Rediscovered,” in *The Sistine Chapel: The Art, the History, and the Restorations*, ed. Carlo Pietrangeli (New York: Harmony, 1986), 262.
- 58 “N’oublions pas, d’ailleurs, que si la véritable patine du temps *tient*, certain encrassement, qu’il ne faut pas prendre pour de l’artifice, ne résiste pas à un léger essuyage. . . . On pourra . . . dégrasser un tableau à sec, avec de la mie de pain rassis, procédé employé pour nettoyer les peintures du plafond de l’Opéra de Paris, il y a une trentaine d’années, et sans risque.” Émile Bayard, *L’art de reconnaître les tableaux anciens, les écoles et les styles de peinture* (Paris: R. Roger et F. Chernoviz, 1921), 284.
- 59 “Cette esquisse se fait . . . avec du charbon de bois léger . . . qu’on peut effacer facilement en le frottant légèrement avec un linge blanc & sec, ou avec de la mie de pain rassis.” De Piles and Jombert, *Éléments de peinture pratique*, 40.
- 60 Étienne Jeurat, *Interior of the Artist’s Studio*, 1755. Oil on canvas, 46 1/8 × 40 inches (117.2 × 101.6 cm). Ferens Art Gallery (KINCM: 2005.5079), Hull, UK.
- 61 “Au cours de la journée, il grignottait, comme par distraction, le pain rassis destiné à effacer le crayon noir sur le papier.” Roger Ballu, *Une vie d’artiste: Étude de moeurs contemporaines* (Paris: Ludovic Baschet, 1885), 71.
- 62 André Berthelot et al., *La grande encyclopédie: Inventaire raisonné des sciences, des lettres et des arts par une Société de savants et de gens de lettres*, vol. 5 (Paris: H. Lamirault, 1885), 166.
- 63 Ryan Bishop and Sunil Manghani, eds., *Seeing Degree Zero: Barthes/Burgin and Political Aesthetics* (Edinburgh: Edinburgh University Press, 2019), 190.
- 64 Victor Burgin and Sunil Manghani, “Reading Barthes, Again,” in Bishop and Manghani, *Seeing Degree Zero*, 37.