

# Introduction: Conserving Active Matter and the Art Historian's Craft

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## Abstract

*This short essay introduces the Bard Graduate Center working group on historical approaches to active matter. The so-called ontological and agentive turns in the humanities have encouraged rethinking the framework of dealing with agency and ontology in historical perspective. The essays in the section offer various ways to deal with historical objects and materials as they manifested themselves in different historical instances and explore the implications of such moments in history for studying the past.*

Around mid-March 2020, the world came to a halt. The COVID-19 pandemic paralyzed the economy, forcing much of the populace to quarantine at home, able to continue to work only with the aid of digital platforms. One immediate effect of the closure was the shortage of fresh produce combined with the plentitude of free time in lockdown.<sup>1</sup> The combination of the two made people start baking at home, preparing bread as a form of returning to the “basics.”<sup>2</sup>

One type of bread that became immensely popular was sourdough, in which the fermentation of the dough was achieved through naturally occurring lactobacilli and yeast. The lactic acid produced by the lactobacilli gives the bread a slightly sour taste and longer shelf life. Sourdough is made using a starter (or leaven): a mix of living bacteria, colonies of microorganisms, and naturally occurring enzymes. A small portion of the starter is taken in order to bake each fresh batch of bread. Starters are living organisms, brought to life in various ways, fed

on a regular basis, and at the right moment, put to work as leavening agents in the making of bread. Some old strains have been thriving for hundreds of years. Bakers can become attached, celebrating their starters' birthdays and even naming them.<sup>3</sup>

Maybe the starter is not the same kind of active matter as a pinecone. The yeast, after all, was always alive in ways that the dead cellulose cells of a pinecone are not. On the other hand, this is not activation through a collaborative process of discussion, conservation, and curation. But sourdough bread is the introduction that millions of people have just received to what we could call the "active matter spectrum." Beyond that, active matter as seen through sourdough starter takes us directly to the frontier of the human and nonhuman.<sup>4</sup>

In many instances we, art historians and conservators both, think that looking for the ur-moment of the entity, the moment when it was created, provides clues to the nature of the living matter and thus the key to any subsequent campaign to conserve it. Let us look, for example, at the world and the ur-moment of its creation. In one of the frontispieces of a *Bible moralisée* (Vienna, Österreichische Nationalbibliothek, MS 1179; fig. 1) made, most likely, for the education of King Louis VIII of France (1187–1226), Christ holds the world on his lap in the moment of creation. The compass in his right hand indicates that he is measuring the shapes that will constitute the world, both human and nonhuman, from unformed matter. The inscription on the top of the page reads, *hic orbis figulus disponit singulus solus* (Here, the potter of the universe arranges each separate [element]).

The four Aristotelian elements, earth, wind, fire, and water, are presented as painted forms that resemble marble, undulating within the circle that makes up the world. The elements never become one, and so they seem to be always moving and changing position, constantly pushing against one another, making a world that is itself active matter.<sup>5</sup>

Christ is here named a *figulus*—a potter. The potter, who creates shapes and useful forms out of clay or earth, becomes a metaphor for God the Creator. Adam, after all, was created by God from the "dust of the ground" and was enlivened by God breathing the breath of life through his nostrils. Since 200 CE God has been referred to as the potter of Adam, and Jewish and Muslim legends tell of the boy Jesus who enlivened clay birds by breathing the breath of life through their beaks.<sup>6</sup> The material that makes the clay alive is the creator's breath, and it is the invisible thing that is the hardest to discern. Unless the living entity—the world, Adam, or Christ's birds—tells of the breath of life that animated it during that ur-moment, knowledge of its creation

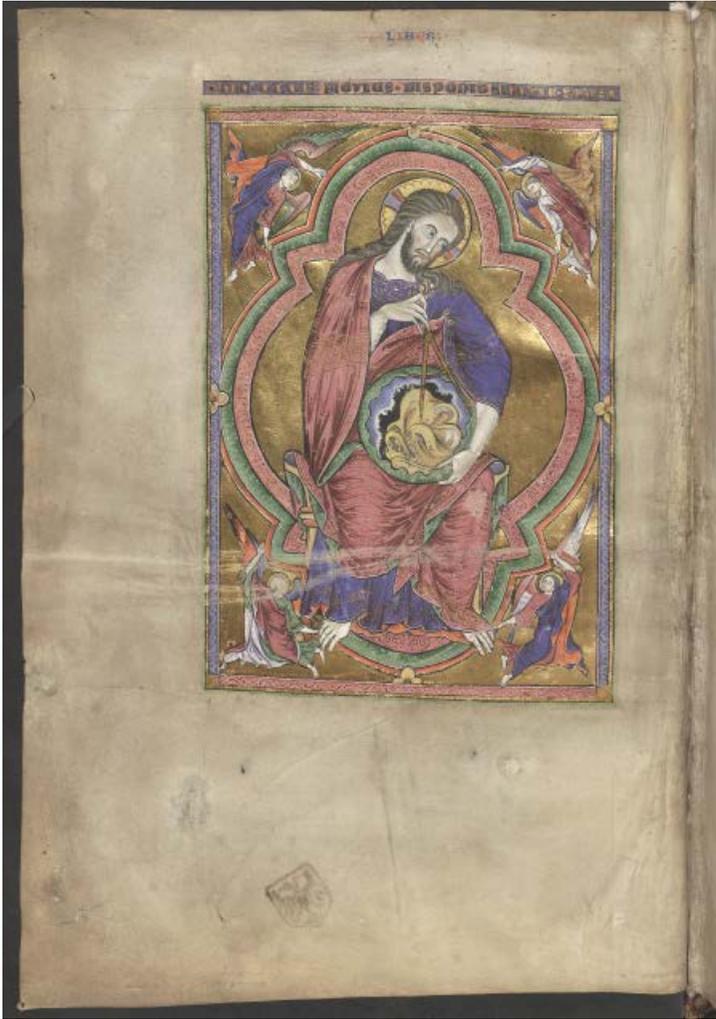


Fig. 1. Austrian National Library, Cod. 1179, “Bible moralisee.”  
ANL/Vienna Cod. 1179, fol.1v.

is impossible. A telling moment in the book of Isaiah describes the folly of denying the creator: “as if the clay should meditate against the potter, and the work would say to its maker, ‘you did not make me.’”<sup>7</sup> The verse indicates that if the clay entity does not speak up, so to speak, no one can know what gave it life. From the ur-moment of creation, the nonhuman entity has a life of its own, eager, so to speak, to cut itself loose from its creator.

In the context of the image of Christ creating the world, we must think of knowledge paradigms, paradigm shifts, and their potential influence on the interpretation of active matter, both for historical figures and for ourselves. In the image of Christ as potter, the border of the mandorla surrounding Christ is adorned with Arabicizing markings that appear like Arabic script but denote nothing; this inclusion may give further clues as to the reception of ideas surrounding active matter.<sup>8</sup> While early theories regarding creation in Western Europe were chiefly Platonic and relied heavily on the *Timaeus*, by the thirteenth century, a surge of translations from Arabic introduced new Aristotelian concepts found in texts such as *De anima* and *De animalibus*, challenging the understanding of the boundaries between humans and nonhumans and changing the understanding of what could be defined as active matter.<sup>9</sup> The four elements, those painted in the Vienna frontispiece, not only were thought to represent an ur-moment of creation but, through Aristotelian science, were linked closely to the bodily humors—the chemical system that governed the human system. Therefore, the four elements, which took part in the story of creation of the world, became a living entity that affects humanity on a daily basis. Intellectual paradigm shifts brought about by the embrace of Aristotelian science influenced thirteenth-century makers and illuminators and how they understood notions of living matter, particularly the four elements.<sup>10</sup> The frontispiece image is generated through the conflation of biblical and scientific traditions, responding to the new translation of knowledge from Greek and Arabic into Latin; its active potency resides in the textual sources that generated the pictorial representation.<sup>11</sup>

Potential alterities play a central role when thinking of conceptualizations of active matter and its conservation. While the ur-moment of creation suggested in the Vienna manuscript envisioned a configuration of its core values through the importation of new theories on the formation of matter, in that same period travelers began narrating ethnographic information regarding the activity of things in other Indigenous cultures. In fact, Louis IX, the son of Louis VIII, for whom the frontispiece was made, had sent such a traveler to the easternmost part of the known world. William of Rubruck, a Flemish Franciscan monk, was sent by the king on a mission to convert the Tatars to Christianity.<sup>12</sup> He wrote a report of his journey that includes lengthy descriptions of the local customs of the Tatars and Mongols, including the practice of making deities out of felt:

Over the master's head there is always an effigy like a doll or statuette, made of felt, which they call the master's brother, and a similar one over the mistress's head, which they call the mistress's brother, [both] fastened to the wall. Higher up between these two is a small thin one, which is the guardian, as it were, of the whole dwelling. The mistress of the house places on her right, in a prominent position at the foot of the couch, a goat's skin stuffed with wool or some other material, and near it a tiny statuette facing her attendants and her women. Close to the entrance on the women's side is yet another effigy with a cow's udder for the women who milk the cows, since milking the cows is one of the women's tasks: on the other side of the entrance, facing the men, is a second statuette with a mare's udder, for the men who milk the mares.<sup>13</sup>

Here, William describes the worship of guardian spirits associated with material images crafted out of an associated substance. Felt is a material made by saturating pieces of animal hair in hot water in order to create a fabric, a time-consuming process in which the material, so to speak, “grows” from the mechanical agitation of animal hair in water. This process, while not biological, is facilitated by the alkaline environment that is incidentally produced during the cleaning and processing of animal hair by suint (the sweat of the animal) fermentation. Felt is thus associated with biological processes in its making, albeit indirectly as compared to the case of the bread starter: it does not continue to grow and requires no maintenance. Animated Mongol fetishes remain ritual objects in Mongolia to this very day. A set of felt deities from early twentieth-century Mongolia now in the National Museum in Copenhagen appear consistent with William's account (fig. 2), as they had similar ritual function to the deities in the description.<sup>14</sup> Removed from their ritual context, the question becomes to what extent the textual description and the material artifacts are identifiable with each other, even though they are separated by more than eight hundred years. To what extent do the qualities described in medieval words correlate to the actual felt objects in the museum today? Is there a ritual consistency that manages to link the textual entity to the material one? To what extent is the “active” quality of the object preserved in the museum case, where it now lacks all ritual maintenance? What can we say about objects that are stripped of their functionality, that have lost their active nature, and that belong to cultures that may not even exist any longer? How can we extract meaning regarding the nature of active matter in

bygone cultures from their texts describing the nature and function of such active entities? Our dissonance here lies in the gaps between past and present, knowing and believing, object and word, self and alterity.

The contributions in the following section all relate to the three main examples I discuss here. Spike Bucklow's essay deals with the rood screen, which, like our bread starter, involves material that grows and develops through environmental means. André Laks's and Guido Giglioni's contributions contemplate the basic questions underlying the illustration of Christ the Creator in the Vienna frontispiece. What are the historical developments, and what underlies these developments regarding our understanding of living matter? For Giglioni, the answer lies in histories of oppositions—living versus dead and human versus nonhuman. For Laks, the answer lies in how, in the end, we can talk of active matter in Presocratic thought. The difference between “living” for Giglioni and “active” for Laks is crucial and becomes a central theme in Lee Palmer Wandel's essay: the Eucharist wafer becomes active through rituals of consecration and prayer, but it becomes living, so to speak, during the Mass, when the holy wafer becomes the actual liv-



Fig. 2. Felt deities from Inner Mongolia, early twentieth century. Felt, leather, and animal hair. National Museum of Denmark, Copenhagen. Photo: Katrine Vintov.

ing body of Christ. Similar issues surrounding the Mongolian felt deities are crucial in the discourse regarding the nature of the Eucharist: how material artifacts can possess divine attributes and how these animated qualities are treated in internal and cross-cultural discourse over time.

Making a bread starter, representing the creation of the world, and discovering the material deities of another culture are all encounters with alterities in which the subject needs to place some faith in the activity and even animation of the entity in its own context, even if that world is far removed. We may owe it to contemporary materials scientists and contemporary artists to have refocused attention on the activity of matter. But once we start to pay attention to the category of activity, we find that it opens onto avenues that connect the work of conservators, anthropologists, philosophers, and historians, insofar as all of them are engaged in the project of understanding. Historians might argue that their remit extends from the moment in which matter becomes active through to all the later moments of activity—another way of saying “biography of the object.” My argument here, and perhaps this is me speaking specifically as an art historian, is that the ur-moment is crucial to understanding subsequent relations between humans, their active materials, and their desire to conserve whatever form of activity those materials are assumed to possess. Mechanisms for generation and maintenance are found in theories of creation and of the magical efficacy of manmade objects. The challenge for the historian is to make sense of endless complexities of cultural circumstance, communal intentionality, and ritualistic consecration that unfold from that originating moment, without denying artistic license—or the ability of actors to make new meaning at any moment. The essays in this volume, each in its own way, grapple with the different ways in which active nonhuman entities are generated, harnessed, and preserved.

#### NOTES

1. For more, see the essays in *Gastronomica* 20, no. 3 (2020).
2. Ocklenburg, “Distractibaking.”
3. A bible for those who really want to dig into the details is Gobbetti and Gänzle, *Handbook on Sourdough*.
4. On living and the organic, and their close relations, see, from a growing body of literature, Bennett, *Vibrant Matter*, 1–38; De Landa, *Thousand Years*, 11–103. See also Cohen, *Animal, Vegetable, Mineral*; Weinryb, “Beyond Representation”; Baader and Weinryb, “Images at Work.”

5. On the frontispiece and its inscription, see Lowden, *Making of the Bibles Moralisées*, 87–88.
6. On concepts regarding the animation of objects and their relations to God’s creation of Adam, see Cole, *Cellini and the Principles*, 43–78; Guérin, “Saisir le sens”; Panofsky, “Neoplatonic Movement”; Weinryb, *Bronze Object*, 33–54.
7. Isaiah 29:16 (Douay–Rheims Bible).
8. On arabicizing script, see Nagel, “Twenty-Five Notes.”
9. On the Timaeus and attitudes toward active matter, see Weinryb, “Living Matter.”
10. Green, “De genecia”; Lawn, *Prose Salernitan Questions*; Baader and Keil, *Medizin im mittelalterlichen Abendland*; Hunt, *Anglo-Norman Medicine*; Green, *Trotula*; Delogu and Peduto, *Salerno nel XII secolo*; Jones, “Image, Word, and Medicine”; Jacquart and Paravicini Bagliani, *Scuola Medica Salernitana*; Arikha, *Passions and Tempers*. For an overview of these issues, see David C. Lindberg, *Beginnings of Western Science*, 321–56.
11. On the translation movement in the Middle Ages, see Alverny, “Translations and Translators”; Burnett, *Introduction of Arabic Learning*; Burnett, “Coherence.” See also Lindberg, *Beginnings of Western Science*, 321–56.
12. For William of Rubruck and his travels, see Jackson, *Mission of Friar William*, 1–56.
13. *Ibid.*, 75.
14. Braae and Haslund-Christensen, *Among Herders*, 159.

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