

Unpacking Recipes and Communicating Experience: The *Ervarenissen* of Simon Eikelenberg (1663-1738) and the Art of Painting

Thijs Hagendijk*
Utrecht University
t.hagendijk@uu.nl

Abstract

This article argues that in the early modern period, epistemic genres were transformed to suit new purposes. Modelled on the experimental essay form used by proponents of the New Sciences, the Dutch polymath and painter Simon Eikelenberg (1663-1738) wrote down *ervarenissen* to document how painting materials such as varnishes were prepared. Recipes have been identified as the ubiquitous vehicles for written know-how in the early modern period, yet authors continuously searched for new ways to unpack the ineffable dimensions of know-how in text. This article explores the *ervarenissen* as an alternative communicative strategy. Eikelenberg appropriated the experimental essay to create expressive instructions. He emphasized the specificity and idiosyncrasy of an act of making, tried to establish a sympathetic relationship with his readers, and showed how vulnerability, failure and improvisation belong to the workshop.

Keywords

Epistemic genre – recipes – know-how – experimental essay – communicative strategy – experience – Simon Eikelenberg

Introduction

How do you effectively communicate know-how in a text? This question troubles not only today’s writers of technical manuals and cookbooks, but can in fact be argued to be an age-old question. While the early modern period saw a great increase in artisanal handbooks, manuals and recipes, the authors of these texts often warned that know-how was easier shown than written down. The complexity of writing down know-how pushed writers to experiment with style and to devise alternative communicative strategies.

One of these strategies is found in the work of Dutch polymath and painter Simon Eikelenberg (1663-1738). Eikelenberg was a diligent collector of artisanal recipes, but whenever he wrote down know-how himself, he steered away from recipes and adopted another literary format instead, which he called *ervarenissen*. The central question in this article is what these *ervarenissen* were and how they differed

* Department of History and Art History, Utrecht University, Drift 6, 3512 BS Utrecht, The Netherlands.

from recipes as a communicative strategy. In order to answer this question, I will follow Eikelenberg through a particular event in which the two textual formats converge.

On 30 September 1707, Simon Eikelenberg stood in his workshop in Alkmaar, a Dutch provincial town, stirring a hot batch of freshly prepared varnish. We know this because he troubled himself with meticulously writing down his experiences of making this varnish. He called his experiences *ervarenissen* and entered them as such in his notes. Meanwhile, he worked from a specific recipe previously described by Samuel van Hoogstraten (1627-1678). One of Rembrandt’s most celebrated pupils, Van Hoogstraten was a Dutch painter and theorist known for his *Introduction to the Academy of Painting, or the Visible World* (1678), which provided the instructions for this varnish preparation on this late September day. “Our varnish of turpentine, turpentine oil and crushed mastic, melted, serves our works well enough.”¹

Eikelenberg gathered the ingredients mentioned in the recipe and started to make the varnish. The ensuing *ervarenissen* vividly describe his procedure and the outcome. He had to guess the amounts of Van Hoogstraten’s ingredients and apparently had trouble arriving at a satisfying result, because the varnish curdled and was initially too thin.

There we have two different texts: a recipe and an *ervarenis*, which nevertheless serve a similar interest. One is rule-like, only providing succinct directions to secure a certain outcome. The other narrates an event and reveals the intricacies of a process. One is short, only fifteen words long. The other is long and runs over three folio pages. Despite their differences, both texts are part of a comprehensive manuscript Eikelenberg began compiling around the turn of the eighteenth century (see fig. 1). The manuscript revolved around contemporary painting practices, even though Eikelenberg did not eschew branching out into ‘chymistry,’ natural history, philosophy and optics.² Amidst all the recipes he gathered, the excerpts he took, and the notes that were passed on by fellow painters, Eikelenberg’s *ervarenissen* stand out. Within the manuscript they are generally distinguishable by a specified date, the first-person voice and the use of the past tense. They reflect Eikelenberg’s experiences as a painter and provide a glimpse into his own practice. Eikelenberg himself thought the *ervarenissen* deserved special attention as he drew up a special category for them in the index, something he did not do for the other contents of the manuscript, which he indexed thematically rather than according to format (see fig. 2).

¹ Simon Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, Collectie Aanwinsten, Regionaal Archief Alkmaar, [“Notes concerning painting,” MS 390, Acquisitions Collection, Regional Archive Alkmaar], fol. 677: “Onzen vernis van terpentijn, terpentijnoly en gestooten mastix, gesmolten, is dienstig genoeg tot onze werken.” Samuel van Hoogstraten, *Inleyding tot de hooge schoole der schilderkonst: anders de zichbaere werelt* (Rotterdam, 1678), 223. All translations are the author’s except where otherwise noted.

² I use the term ‘chymistry’ in accordance with William R. Newman & Lawrence M. Principe, “Alchemy vs. Chemistry. The Etymological Origins of a Historiographical Mistake,” *Early Science and Medicine*, 3 (1998), 32-65.

Even though recipes have been identified as the ubiquitous vehicles for written know-how in the early-modern period, I argue that the *ervarenissen* represent an ongoing search for new ways to unpack the ineffable dimensions of know-how in text. The *ervarenissen* not only embody this struggle for effective communication, they also place it in a broader context by showing how Eikelenberg responded to changing notions of experience during the seventeenth century and to new methods of communication used by proponents of the new sciences by means of the experimental essay. I argue that Eikelenberg appropriated the experimental essay as a literary form that allowed him to describe the intricacies of the processes involved in making, that would otherwise be lost in a recipe format. Particularly, the *ervarenissen* appeal to the practitioner's vulnerability during the making processes and try to put readers in the right frame of mind, both of which can be understood as strategies to create what Richard Sennett has called "expressive instructions."³

Before I continue, there are two issues that need some attention. The first is that Eikelenberg's notes on the art of painting were never published. Nor is there any evidence of eighteenth-century readers engaging with his notes, which makes it impossible to say anything certain about their reception. What can be said however, is that Eikelenberg intended his notes to be published. Throughout his notes, three different prefaces can be found, one of which promised that Eikelenberg's descriptions would be "comprehensible and of service to all sorts of readers."⁴ In another preface, Eikelenberg explicitly addressed his readers with respect to the 'lessons' he provided in his notes: "thou reader, if you have had the patience to properly study my lessons, you will already have sufficiently experienced how necessary it is to know the nature of the composition of materials and paints."⁵ Moreover, Eikelenberg compiled an exhaustive index and drew up a provisional title, which promised an "accurate description of the origin or making, preparation and general use of paint materials, oils, mix-fluids and varnishes."⁶ In brief, there is ample reason to assume that Eikelenberg wrote for others and did not plan on keeping the notes to himself.

The second issue is the question of what readership Eikelenberg envisioned for his notes, as this is not something the notes address. Still, his close involvement with the local "College for the Lovers of the Art of Painting" suggests at the very least that his readership would be found in such circles. Eikelenberg drew up the

³ Richard Sennett, *The Craftsman* (London, 2009), 179-193.

⁴ Simon Eikelenberg, "Aantekeningen betreffende schilderen," MS 391, Collectie Aanwinsten, Regionaal Archief Alkmaar, fols. 3-4: "De beschrijving zal volgens 't opschrift naukeurig zijn, de taal zuiver duits de stijl en redenering klaar en gemakkelijk, beknopt of wijtloopiger na vereisch der zaken: en 't werk doorgaans geschikt en voorgedragen even of den schrijver maar alleen beoogt had aan allerlei lezers verstaanbaar en dienstig te zijn."

⁵ Eikelenberg, "Aantekeningen betreffende schilderen," MS 392, Collectie Aanwinsten, Regionaal Archief Alkmaar, fol. 32. "[H]ebt gij leser 't gedult gehad mijner lessen te doorsien na behoren, zoo hebt gij reets genoeg bevonden hoe nodig het is dat men den aart in 't zamenstel der stoffen en versfels kenne."

⁶ Simon Eikelenberg, "Aantekeningen betreffende schilderen," MS 391, fol. 1, "Naukeurige beschrijving van de oorsprong of making, bereiding en 't algemeen gebruik der verfstoffen, olijen, mengvogten en vernissen."

statutes of this college, occasionally taught its members, and actively inquired after a similar institute in Leiden, to learn how the Alkmaar college could be improved.⁷

Why the manuscript was never printed is unknown. Still, the mere fact that Eikelenberg experimented with style signifies a critical development in early modern practices of writing down know-how. Likewise, his repeated mentions of potential readers indicates that the *ervarenissen* can and should be taken seriously as a communicative strategy.

1. Simon Eikelenberg and his Notes on the Art of Painting

To really understand what the *ervarenissen* are about, it is essential to get an overview of Eikelenberg's life and the contents of his notes – which reveal that Eikelenberg was a man of many interests. As I will argue, the *ervarenissen* are the result of the intersection of these interests.

In 1663, Simon Eikelenberg was born in Alkmaar, a Dutch town near Amsterdam, where he lived until his death in 1738.⁸ He ran a brush-shop, an occupation he inherited from his father, but it kept him from doing the things he really wanted to do in life. Painting was one of those things: “I painted diligently, but I had to watch the shop two days a week and could not paint then [...]. So great was my desire for this work [...] that it saddened me that time was passing by so quickly.”⁹ He picked up painting somewhere around the turn of the century and tells of how he had lessons from the Amsterdam painter Nicolaas de Vree (1645-1702), who taught him “about the preparation and use of oil paints.”¹⁰ Eikelenberg typically painted landscapes and improved over the years (see fig. 3). In 1699, he sold his brush-shop, dabbled a while in the flower business and eventually tried to live entirely off his art.¹¹ He succeeded for a few years, entered the painters' guild and was able to get by, but in 1704 he hit rock-bottom. Unable to secure an income, he found

⁷ Simon Eikelenberg, “Ontwerp volgens 't welke men een Collegie van de Liefhebbers der Schilderkonst soude konnen formeren,” and “Wetten en Ordonnantys aengaende 't Coleegie der liefhebbers van de loffelijke schilderkonst, tot Alkmaer vastgesteld op den November 1700,” MS 396, Collectie Aanwinsten, Regionaal Archief Alkmaar. Simon Eikelenberg, “Aantekeningen betreffende het leven van Simon Eikelenberg,” MS 557, Collectie Aanwinsten, Regionaal Archief Alkmaar, fol. [46]. Arthur van Schendel, “Een briefwisseling over de Leidse schildersacademie en over schilderijenhandel,” *Leids Jaarboekje*, 47 (1955), 133-146. For the history of art lovers, see: “The Varied Role of the Amateur in Early Modern Europe,” special issue, *Nuncius* 31.3 (2016), 485-675.

⁸ Arthur van Schendel, “Simon Eikelenberg's Experiments on the Preparation of Varnishes,” *Studies in Conservation*, 3 (1958), 125-131. Truusje Goedings, “De ‘vrijerijboeken’ en ‘pareltjes’ van Simon Eikelenberg (1663-1738). I. Iets over de erotische belangstelling van een 17^{de}-eeuwer.” *De Boekenwereld*, 2 (1985-1986), 47-57. Truusje Goedings, “Deurslepe vryers en beminlyke meysjes”. De ‘vrijerijboeken’ en ‘pareltjes’ van Simon Eikelenberg (1663-1738), II.” *De Boekenwereld*, 2 (1985-1986), 80-92.

⁹ Simon Eikelenberg, “Aantekeningen betreffende het leven van Simon Eikelenberg,” MS 557, fol. [37]: “[I]k schilderde wel naarstig maar 2 dagen in de week moest ik op de winkel passen en kon dan niet schilderen. [...] Zoo groot was mijn lust tot dit werk, [...] dat ik verdrietig was dat de tijd zoo ras voortschoot.”

¹⁰ Ibid., fol. [40]: “[W]egens het prepareeren bereijden en gebruyken der olijverf.”

¹¹ Simon Eikelenberg, “Aantekeningen betreffende de financiële toestand van Simon Eikelenberg,” MS 558, Collectie Aanwinsten, Regionaal Archief Alkmaar, fols. [10-11].

there was no honor in art: “Art is delightful, because it adds joy to our lives. But how much more delightful are Life and Honor? Esteem languishes, yes, and dies, when life can no longer be supported.”¹² Around that time an offer came from his home town to take him on as a public servant. He could make a living again while carrying on painting.

Eikelenberg left behind an abundance of rich and relatively unexplored materials, such as correspondence, autobiographical sketches, genealogical records, financial records, poems, moral notes, historical notes and survey records on his home town of Alkmaar.¹³ Altogether, these materials provide a comprehensive overview of his life, and situate him at the crossroads of arts, commerce and science.¹⁴ While he had only enjoyed a primary education, he worked his way up through disciplined self-study, rigorous reading and correspondence with knowledgeable people. He learned Latin and French, made mathematical exercises and wrote poems for various occasions. He developed a keen interest in history and was the first to debunk a prevailing legend about a mythical town called Vroone, earning him a lasting reputation amongst Dutch historians.¹⁵ He read books on natural and experimental philosophy – Descartes’ *Principia* was a great source of inspiration – and acquainted himself with key works in natural history, botany and theology. He read about experimental medicine and kept up with the latest fashions in chymistry.¹⁶ For example, he fondly agreed with the French chemist Nicolas Lémery (1645-1715) in his belittling attitude towards alchemy as “an art without art.”¹⁷ Finally, he read theoretical art treatises and delved through stacks of practical texts and recipes, such as books of secrets.

Not only did Eikelenberg read, he was also a diligent compiler of notes. Significant parts of these notes were later reworked into thoroughly researched books, such as the aforementioned history of the mythical town Vroone (1716), or a posthumously published history of Alkmaar (1739).¹⁸ Our main focus here, however, is Eikelenberg’s notes on the art of painting, which comprise five separate manuscripts currently held by the Alkmaar Municipal Archives, and running to more than a thousand folios of written material. The five manuscripts are likely the result of a nineteenth-century disintegration of what was once a single bound collection of

¹² Correspondence from Simon Eikelenberg to [unidentified], 23 April 1704, “Brieven van en aan Simon Eikelenberg,” MS 556, Collectie Aanwinsten, Regionaal Archief Alkmaar. “[D]e konst is beminlijk, om dat ze ons leven vermaak geeft. maar hoeveel beminnelijker is nog ’t Leven en d’ Eer? De Agting kwijnt, ja sterft, zo dra ’t leven zijn onderhoud mist.”

¹³ Manuscripts of Simon Eikelenberg, MS 12-28, 376, 390-396, 439, 556-558, Collectie Aanwinsten, Regionaal Archief Alkmaar.

¹⁴ Harold J. Cook, *Matters of Exchange. Commerce, Medicine, and Science in the Dutch Golden Age* (New Haven, CT, 2008); Dániel Margócsy, *Commercial Visions. Science, Trade and Visual Culture in the Dutch Golden Age* (Chicago, IL, 2014).

¹⁵ Simon Eikelenberg, *Gedaante en Gesteldheid van Westvriesland Voor den Jaare MCCC. En teffens Den Ondergang van het Dorp Vroone [...]* (Alkmaar, 1716).

¹⁶ Stephanus Blankaart, *De Kartesiaanse Academie [...]* (Amsterdam, 1683); Nicolaus Lemery, *Het Philosophische Laboratorium Of der Chymisten Stook-huis [...]* (Amsterdam, 1683); Carel Lancilot, *De Brandende Salamander [...]* (Amsterdam, 1680).

¹⁷ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 141 [83]. “De alchimia is een konst sonder konst, welker begin is liegen, het midden werken en het eynd bedelen (Lemmerij).”

¹⁸ Simon Eikelenberg, *Alkmaar en zyne geschiedenissen* (Alkmaar, 1739).

notes; the original numbering is occasionally shuffled and the index cross-references to notes that are scattered over multiple manuscripts.¹⁹ Judging by the dates in the manuscript, Eikelenberg began compiling his notes in the late 1680s; it became a rather serious pursuit around 1700, and faded again towards the 1730s. Most of the material was written by Eikelenberg in Dutch vernacular, with the exception of a few notes written by different hands, which he incorporated into the manuscripts as well. Occasionally, he included figures “to make everything even more comprehensible.”²⁰ Some notes were cut and glued to other folio pages, suggesting that he occasionally edited his notes too.

Eikelenberg’s notes reflect the diversity of his bookshelf, but it would be wrong to see them as a collection of loose interests. On the contrary, he had different fields of interest and tried to harmonize them to establish a comprehensive picture of the art of painting, with his notes “generally accompanied by the necessary reasonings in accordance with contemporary philosophy and many experiences.”²¹ On the whole, his notes can be roughly divided in two categories: those that reflect on the art of painting, mostly from a philosophical and historical stance, and those that deal with the practice of the art of painting.

Eikelenberg’s interest in color theory, optics and perspective helped him to navigate what he called the “theory of this art” – a phrase he presumably borrowed from Van Hoogstraten.²² He documented for instance how he produced an “optical painting,” which “showed long and misshapen figures, from which no one could infer what it was, when it was hanging on the wall, but when it was laid on a table and watched through a peephole [...] one saw the castle of Egmont raising itself vertically with its towers from the panel’s plane.”²³ When he co-founded a local art academy in 1698, he expressed his ambition to speak about art like “mathematicians do when they speak of an issue: they first define it.”²⁴ He sometimes resorted to geometrical drawings, for instance to prove “why the luster and paints of bodies fade

¹⁹ The Alkmaar archivist Cornelis W. Bruinvis (1829-1922) might have reorganized Eikelenberg’s manuscripts.

²⁰ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 391, fol. 5. “En om alles nog te beter te doen begrijpen.”

²¹ Ibid., fol. 1. “Naukeurige beschrijving van de oorsprong of making, bereiding en ’t algemeen gebruik der verfstoffen, olijen, mengvogten en vernissen [...] Doorgaans voorzien met noodige redeneringen volgens de hedendaagze wijsbegeerte en vererleijde ondervindingen.”

²² Eikelenberg, “Aantekeningen betreffende het leven,” MS 557, fol. [39]. “[T]heori dezer konst.” See also: Thijs Weststeijn, *The Visible World: Samuel van Hoogstraten’s Art Theory and the Legitimation of Painting in the Dutch Golden Age* (Amsterdam, 2008). Jan Blanc, “Van Hoogstraten’s Theory of Theory of Art,” in Thijs Weststeijn, ed., *The Universal Art of Samuel Van Hoogstraten (1627-1678): Painter, Writer, and Courtier* (Amsterdam, 2013), 35-51.

²³ Eikelenberg, “Aantekeningen betreffende het leven,” MS 557, fol. [39]: “[E]en optisch gezigt-kundig schilderij [...]. Het verbeelde lange en zeer wanschape figuren, daar men niet wist wat af te maken, als ’t aan de wand hing, maar op een tafel leggende en door een zeker gaatje [...] zag men het kasteel van Egmont, heffende zig lootregt met zijn torens uit het vlak van ’t panneel.”

²⁴ Ibid., fol. [27]: “De wiskonstenaars als zij van een saak sullen spreken, maken eerst een bepaling. Wij moeten dit ook doen, etc. anders zullen wij niet behoorlyk weten wat de konst is.” Eikelenberg, “Ontwerp volgens ’t welke men een Collegie van de Liefhebbers der Schilderkonst soude kunnen formeren,” MS 396.

in the distance.”²⁵ Eikelenberg also valued contemporary chymistry as a way to gain deeper insights into his craft. He quoted Nicolas Lémery, Carlo Lancilotti, Athanasius Kircher and the Dutch experimental physicians Steven Blankaart and Cornelis Bontekoe, and was well informed about contemporary theories, such as that concerning the interaction between acids and alkalis, which came into fashion at the time.²⁶ He also borrowed from chymical reasoning to explain the behavior of the painter’s materials. For instance, he analyzed the problematic discoloration of indigo in terms of potential and harmful volatile parts which, he theorized, could possibly be separated from the dyestuff as a preventative measure.²⁷

Natural history, botany and travel accounts were also unmistakable parts of his painting notes. The reason was as pragmatic as it was simple. For things involving the art of painting that Eikelenberg could not explain from his own expertise, he had to rely on other sources:

Concerning the origin and the making of things of which one can have no personal experience, such as foreign gums and paint materials – these matters will be diligently investigated and followed only by reliable messages.²⁸

Eikelenberg, for example, scrutinized Dodonaeus’s herbal *Cruydt-Boeck* (1554) for information on dye-plants, inks and colors ranging from blue, yellow and red to black.²⁹ Merchants were another source of information. One of them claimed, for example, that the best indigo comes from Guatemala and not Jamaica.³⁰ Native preparations of painter’s materials were closely studied by Eikelenberg as well. He copied excerpts from natural history books and travel accounts from authors like Jean-Baptiste Tavernier, Johannes de Laet, Nicolas Sanson, José de Acosta and Jean de Thévenot, and quoted them on how, for example, the Indians harvested cochénille, or on the preparation of indigo in the Indies.³¹ It seems that local know-how from overseas not only satisfied his curiosity, but that it helped him determine how to process the materials in his own practice.

Even though contemporaneous philosophy and natural history are present throughout the manuscript, most of Eikelenberg’s notes deal primarily with practical issues. Most of these notes concern recipes and instructions for preparing artist’s materials, such as pigments, dyes, varnishes and oils. Some of these recipes were

²⁵ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 391, fol. 31. “De reden waarom de glansen en verfen der lichamen in ’t verschiet verflauwen.”

²⁶ Evan Ragland, “Chymistry and Taste in the Seventeenth Century: Franciscus Dele Boë Sylvius as a Chymical Physician Between Galenism and Cartesianism,” *Ambix*, 59 (2012), 1-21.

²⁷ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 784.

²⁸ *Ibid.*, MS 391, fol. 5: “Omtrent den oorsprong en de making der dingen daar af men zelf geen ondervinding kan hebben, als daar zijn de buitenlantze gommen en verfstoffen, zal men een naarstige navorzing en alleen geloofwaardige berigten gevolgt zien.”

²⁹ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 705. The pages mentioned by Eikelenberg correspond to editions of Dodonaeus’s *Cruydt-Boeck* published in 1618 (Leiden) and 1644 (Antwerp).

³⁰ *Ibid.*, fol. 788.

³¹ *Ibid.*, fols. 686, 813.

shared by colleagues and friends, but most were copied from books of secrets, such as Dutch editions of Alessio Piemontese’s *De’ Secreti* (1555), or other published compilations of practical instructions like Simon Witgeest’s *Toover-boek* (1698). A few recipes came from Dutch translations of Athanasius Kircher’s *Mundus subterraneus* (1665) or chymical textbooks from the aforementioned authors Lémery and Lancilotti. Roughly 80 percent of Eikelenberg’s notes can be traced back to other sources, with possibly higher percentages for recipes.

The *ervarenissen*, however, are an important exception to Eikelenberg’s anthological efforts. As lengthy accounts of his experiences, they also disclose his workshop practices and reveal how he tried to make sense of recipes, how he dealt with whimsical materials, and how he worked through new procedures. In general, there are about thirty different *ervarenissen* that describe a variety of painting materials and their preparation, including varnishes, linseed oil, and pigments like verdigris, smalt, massicot, indigo, and minium (see table 1). At times, Eikelenberg devoted multiple *ervarenissen* to one material, as he did for the varnishes. With seven in total, the varnish *ervarenissen* constitute a comprehensive and cross-referenced group of connected texts. As the most detailed of Eikelenberg’s *ervarenissen*, they provide the focal point for this article. An English translation of the varnish *ervarenissen* was published by Arthur van Schendel in the 1950s, and serves as valuable resource in support of this article.³²

2. The Recipe and the *Ervarenis*

To understand Eikelenberg’s writing practices, it helps to have a good sense of his reading practices. One of the *ervarenissen* records in great detail how Eikelenberg read and unpacked Van Hoogstraten’s varnish recipe. Years went by between the recipe’s initial appearance in the notes and Eikelenberg’s retrieval and commentary upon it (see fig. 4). Its first occurrence in the manuscript (fol. 677) is located near two notes that were jotted down in 1700 and 1704.³³ This is widely separated from the *ervarenis* (fol. 825) by which the recipe is revisited in the notes. The recipe itself is a paraphrase. It contains no instructions, but merely lists the ingredients (*turpentine, turpentine oil, mastic*), and contains only two participial adjectives that are suggestive of a process (*crushed, melted*).³⁴ That said, the recipe appealed sufficiently to Eikelenberg for him to finally attempt to put it into practice in September 1707 (see fig. 5). The attempt was not without problems. Before he even began, Eikelenberg was challenged by Van Hoogstraten’s instructions.

³² Van Schendel, “Simon Eikelenberg’s Experiments.”

³³ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fols. 673, 696.

³⁴ Turpentine is a balsam obtained from the pine tree. Turpentine oil is the distillation product of this turpentine balsam. Mastic is a resin obtained from the mastic tree. See also: Maartje Stols-Witlox, “Final Varnishes for Oil Paintings in Holland, 1600-1900. Evidence in Written Sources,” *Zeitschrift für Kunsttechnologie und Konservierung*, 15 (2001), 241-284.

Before, page 677, I spoke of a varnish from the visible world of S. Hoogstraten, of which Hoogstraten mentions the substances but not their quantities or preparation. I prepared it as follows.

I took	2 lot or 1 ounce Mastica at	0:6:0
	8 lots or 4 ounces Strasbourg turpentine at	0:3:8
	32 lots or 1 pound turpentine oil at	0:3:0
together	42 lots or 21 ounces	
	to which should be added for the fire etc.	
	necessary for the preparation	0:1:8

	-	
	together	0:14:0 ³⁵

Eikelenberg filled in the blanks of Van Hoogstraten’s recipe, but it is unclear on what precisely he based his quantities. The manuscript contains nothing to indicate these numbers, apart from other varnish recipes that only roughly maintain similar ratios for the ingredients (turpentine oil > turpentine balsam > resin). It is likely that Eikelenberg made an educated guess, based on the experience he gained while working on two other varnishes earlier that year.³⁶ The passage also shows that Eikelenberg took the recipe’s financial implications seriously. He tried to determine its costs from the outset, including materials, expenses for the fire and his wage. A few years later, when the ingredients “were a bit more expensive,” Eikelenberg took care to update his calculations, scribbling a “nota” in the margins that indicated that the preparation costs were now “a stiver for a lot.”³⁷ Similar calculations were made for other recipes, while scattered throughout the manuscript additional references to the availability and costs of painter’s materials can be found. After establishing quantities and costs, Eikelenberg continued:

Having slightly broken the Mastic, I put it in a glazed stone pan. This pan I placed on or in another pan filled with white dune sand and this sandpan on

³⁵ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 825: “Vernis van Hoogstraten *Ervarenis* 1707 den 30 sept. Hiervoor bladzijde 677 heb ik uit het sigtbare wereld van S. Hoogstraten gesproken van een vernis daar dezelve Hoogstraten wel de mengstoffen af noemt maar niet der zelve hoeveelheid of berijding beschrijft. Ik heb die aldus berijd.

Ik nam	2 loot of 1 ons Mastica a	0:6:0
	8 loot of 4 onsen straatsburger therebintijn a	0:3:8
	32 loot of 1 pont terbintijn olij	0:3:0
Samen	42 Loot of 21 onsen	
	Waarbij moet komen voor ’t vuur enz. tot de berijding nodig	0:1:8

	Samen	0:14:0”

³⁶ *Ibid.*, fols. 800, 821.

³⁷ *Ibid.*, fol. 828: “Nota. Maar den 23 September 1711 dese selve vernis makende, en de mengstoffen wat dierder zijnde, bevont dat de kosten met maakloon daarbij ’t loot een stuijver.”

a stove with fire, in such a way that any flame that might have come from the coals could not have reached the upper pan with Mastic.³⁸

Flowing from Van Hoogstraten’s concise qualification *melted*, Eikelenberg established a rigorous procedure to heat his substances, including precautionary measures to nip potential fire hazards in the bud. He had been using similar procedures previously, when working on other varnishes, and his notes clarified the importance of his precautions. In an earlier *ervarenis*, Eikelenberg recalled that when he once worked “near the fire, something splashed out of the pan into the fire, the flame of which immediately set fire to the vapor that came from the mixture, after which everything caught fire and spoiled.”³⁹ With the risks fresh in his mind, Eikelenberg introduced an additional safety measure and decided to keep the turpentine oil, the most volatile substance, as far away from the fire as possible.

The Mastic was covered with a stone lid and after about half an hour the Mastic had melted. While it was melting I had taken care to heat the turpentine so as to have it thin and easy-flowing. Then I added the warm turpentine to the melted Mastic and, stirring these well, I melted them thoroughly together, whereupon I took the hot sandpan with the Mastic or mixture far away enough from the fire and poured the turpentine oil upon it and dealt with it next as is told on page 822 like I also did with the copal varnish.⁴⁰

At this point, the *ervarenis* shows itself to be part of a greater web of experience and know-how that Eikelenberg had started to weave around his notes. Not only did the *ervarenis* respond to Van Hoogstraten’s recipe and draw upon similar earlier experiences, Eikelenberg brought in another *ervarenis* to substitute for part of its protocol. Specifically, he referred to the work he had done on a varnish of gum

³⁸ Ibid., fol. 825. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 129-130. I changed Schendel’s translation “brazier” into “stove” and kept the original capitalization. “Deze Mastic een weinig gebroken hebbende deed ik in een verglaasde stene pan, de pan op of in een andere pan met wit duijnzand en deze zandpan op een komfoor met vuur. in zulken voegen dat de vlam die van de kolen mogt gekomen hebben niet in de bovenste pan met Mastic soude hebben kunnen slaan.”

³⁹ Ibid., fol. 824: “[H]et is mij gebeurt dat ik de vermenging bij ’t vuur doende ietwes uijt de pan in ’t vuur spatte waarvan de vlam terstont vattende in de waasem die van ’t mengsel uijtging alles in de brand stak en bederf.”

⁴⁰ Ibid., 825-826. Translation based on Van Schendel, “Simon Eikelenberg’s Experiments,” 130. I changed Schendel’s translation “cover” into “lid,” kept the original capitalization and revised his translation of the last sentence. “De Mastic was toegedekt met een stene deksel en na verloop van omtrent een half uur was de Mastic gesmolten. Terwijl zij smolt had ik bezorgt dat de therbintijn warm wierd opdat ze dun zoude zijn en alzoo uitgestort kunnen worden. Doe deed ik de warme therbintijn bij de gesmolten Mastic en deze wel door malkander roerende ter degen te samen smelten waarna ik de pan met heet zand zoo als er de Mastic of dit mengsel nog op stond ver genoeg van ’t vuur bragt en er de terbintijn olij bij goot en er voorst mee handelde omtrent even eens bladzijde 822 word verteld als ik met de vernis van Copal heb gedaan.”

copal on April 29th of that year. There too, he had to mix in the highly flammable turpentine oil and described how he first took the mixture from the fire and out of the sand bath. He then poured in the turpentine oil with one hand while swiftly stirring with the other. At that point, Eikelenberg observed how “the coldness of the poured oil firstly caused the gum to coagulate and to stick somewhat firmly to the ladle.”⁴¹ He solved the problem by placing the pan back on the warm sand while he kept on stirring. The benefit of this approach was likely something he wanted to bring to Van Hoogstraten’s recipe too.

When I added the oil to the melted ingredients I noticed that the half-prepared varnish appeared to curdle. This I believe was due to the coldness of the oil solidifying part of the mastic; while also the oil mixed better with the turpentine. I was still more convinced of this when I saw that in the bottle, in which I had put the varnish when cold, a whitish sediment had formed on the bottom and increased slowly. For this reason I believe that it would be wiser to add the oil to the melted mixture by small amounts and the second half of it not before the first has become rightly heated and mixed with the turpentine and Mastic.⁴²

In the hands of Eikelenberg, Van Hoogstraten’s casual reference to *melted*, became a rather complicated affair. The mixture did not behave as Eikelenberg expected, and he started thinking about improvements. Indeed, two years later Eikelenberg made another attempt at Van Hoogstraten’s varnish, which he recorded in a different ink. “On May 28, 1709, I made this varnish in that way, putting the oil and the Mastic at the same time on the hot sand. I also heated the turpentine separately on the sand and made it become fluid and added it later.”⁴³ Even though the solution differed from his initial plan, the rationale remained the same as he tried to overcome the troubling cold of the turpentine oil. In 1707 however, he had to work with the concoction he had already created and he continued by trying its consistency first: “When the varnish was cold I found that it was rather thin and that it did not cover well.”⁴⁴

⁴¹ Ibid., fol. 822: “De koude van de ingegoten olij veroorzaakte ten eersten een stolling der gom die enigsins stijfagtig om de spatel daar ik ze met roerde bleef hangen.”

⁴² Ibid., fols. 826. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 130. I kept the original capitalization. “Ik heb gesien doe ik de olij bij de gesmolten stoffen had gegoten dat half gemaakte vernis zig als geschift vertoonde, ’t welck zoo ik agt kwam door dat de koude van de olij een gedeelte van de mastic deed stollen en zij zig ook veel liever met de therbintijn wilde verenigen ’t welck ik te meer geloofde doe ik zag dat in de fles daar ik de vernis in gedaan had doe ze koud was zig als een wit agtig poeder op de bodem zette en allengs meerder meerder. Waarom ik meen dat het beter zoude zijn de terbinthijn olij bij ’t gesmoltene te doen bij een weijnig teffens en het tweede gedeelte niet voordat het eerste verwarmt en met de terbintijn en Mastic vermengd.”

⁴³ Ibid., fols. 826-827. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 130. “Ik heb den 28^e mej 1709 deze vernis alsoo gemaakt, stellende de olij en de Mastic te gelijk op’t hete zant, ook deed ik de terpentijn a part op zand heet of dun worden en deed er die naderhand bij.”

⁴⁴ Ibid., fol. 827. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 130. “Doe de vernis koud was bevond ik ze wat dun en datze niet genoeg dekte.”

Description of failure is part of the *ervarenis* too. The varnish did not have the particular properties Eikelenberg was looking for. But rather than discarding the varnish, he embarked on a journey of improvement and adjustment.

Therefore I put it again in the pan on the hot sand and let it become slightly too hot to keep my finger in. I made it evaporate and become thicker, but I did not omit to stir often and I noticed that the white powder sediment gradually mixed itself with the rest. When the whole mixture had lost about ¼ of the weight of the components before the melting, I poured it into another pan, stirring steadily until all was cold. Then I put it again in the bottle and found that it was a good varnish, though not as good as the varnish of gum Copal which surpasses all others, but yet better than if sandarac is added, as I have described on p. 802, and very clear and shiny.⁴⁵

Working with what he had, Eikelenberg tried to improve the varnish by this process of heating and thickening. Yet even though he seemed to have arrived at a satisfactory result, his journey of improvement was hardly finished. Eikelenberg would return many times to Van Hoogstraten's recipe, finding new ways for further improvement. For example, it occurred to him later that it would be better to reduce the initial quantity of turpentine oil by a fourth to avoid squandering it in another arduous evaporation exercise.⁴⁶

Reading the *ervarenissen* about varnishes reveals the situatedness of Eikelenberg's practices. They disclose the meshwork of materials, recipes and experiences, and show how all these different histories intersected in the local environment of his workshop.⁴⁷ Unpacking Van Hoogstraten's recipe took place in this unique environment. The sand for the sand bath came from the dunes, which were in close proximity to his home town, Alkmaar. Eikelenberg fueled his furnace with coals and used flasks for his varnishes that weighed "8 ½ lot without the cork."⁴⁸ Moreover, his workshop was furnished with new glazed stone pans, stone lids, flat bottom pans, cauldrons, cloths he used for straining, a balance, a mortar, a

⁴⁵ Ibid., fol. 827. Translation from Van Schendel, "Simon Eikelenberg's Experiments," 130. I kept the original capitalization. "Derhalven ik zette die weer in de pan op 't heete zand totdat ze een weijnig te heet was om er de vinger in te houden. Latende die uitwasemen en bijgevolg dikker worden. Maar ik versuijmdede ondertusschen niet dikwijls te roeren en bemerkte dat het geschifte witte poeder zig allengs met de andere stoffen vermengde. Dat nu het geheele mengsel omtrent ¼ verloren had van de swaarte die de stoffen tesamen voor de smelting hadden, doe goot ik over in een andere pan het zelve gestadig omroerende tot dat het gantschelijk koud was. Waarna ik 't weder in de fles deed en bevond dat het een goede vernis was. Hoewel niet zoo goed als die van gom Copal die alle anderen overtreft, maar evenwel beter als dan wanneer men er sandarac bij deed van welcken ik bladz. 802 heb geschreven en zeer klaar en blinkende."

⁴⁶ Ibid., fol. 828.

⁴⁷ I borrowed the term "meshwork" from Tim Ingold, who advocates an ecological approach to the act of making. See Tim Ingold, *Being Alive. Essays on Movement, Knowledge and Description* (London, 2011).

⁴⁸ Simon Eikelenberg, "Aantekeningen betreffende schilderen," MS 390, fol. 820: "De vernisfles weegt ledig behalven 't kurk 8 ½ loot."

fine sieve, spatulas, paintings for testing, and last but not least, pen, paper and ink to write down his *ervarenissen*. Yet, when another varnish recipe specifically called for a Cologne pot, Eikelenberg resorted to a glass flask, which highlights the finite possibilities of his inventory.⁴⁹ Moreover, the *ervarenissen* occasionally show how Eikelenberg depended on his environment for recipes, good practices and materials, which were not always of superior quality. For example, he obtained an elaborate recipe for a sandarac-based varnish from his former teacher Nicolaas de Vree. When he put it to the test, someone else told him to powder the gums before using them, which he initially forgot to do.⁵⁰ In yet another *ervarenis*, he recalled how he received two ounces of gum copal, which he found “very bad, crumbly, opaque, contaminated with filth,” and yet, he did not discard the gum, but tried to make the most of it.⁵¹

It is in the specificity of this environment that Eikelenberg’s own practices and standards were shaped, which he further organized through the *ervarenissen*. Initially improvised procedures gradually turned into standard practice through repetition. For example, built around earlier experiences, the *ervarenis* on Van Hoogstraten’s varnish soon became protocol itself, soliciting references like “I dealt with it as I had done with the varnish of Van Hoogstraten as described on page 827.”⁵² Moreover, in judging the quality of his varnishes, Eikelenberg barely referred to standards other than those that emerged within the confines of his workshop. As such, Van Hoogstraten’s varnish was worse than the copal varnishes, but better than those containing sandarac, which were all described in separate *ervarenissen*. A recipe for a Chinese varnish can be found crossed out on its folio page, accompanied by a short nota relating it to one of the copal *ervarenissen*: “found it no good, but see 821 etc.”⁵³

The *ervarenissen* demonstrate clearly how a recipe, upon execution, and much in contrast with its generalized and rule-like character, is adapted to a very specific environment. To make Van Hoogstraten’s varnish recipe operational, it had to be introduced into this intricate meshwork of materials, texts, experiences and people that intersect at the locality of Eikelenberg’s workshop. A recipe cannot be imposed onto reality; it needs to become part of it instead.

3. Unpacking Recipes

It remains difficult to pin down what exactly a recipe is, and in Eikelenberg’s case, it is true that the term was not even mentioned in his work. Yet, the recipe as such carries significant and distinguishable features that sets it apart from other texts. Not only can these features be found in Eikelenberg’s notes, a better understanding of them helps to see how this literary format differs in function and style from the

⁴⁹ Ibid., fols. 800-801.

⁵⁰ Ibid., fol. 800.

⁵¹ Ibid., fol. 829: “[Z]eer slegt, bros, ondoorschijnig met vuyjl vermengdt.”

⁵² Ibid., fol. 822. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 129. “[I]k deed [...] daar mede als ik bladzijde 827 van de vernis van hoogstraten had gedaan.”

⁵³ Ibid., fol. 721: “[N]iet goet bevonden; maar zie 821 enz.”

ervarenissen. During the early modern period, the recipe was one of the main vehicles for technical know-how.⁵⁴ What immediately stands out when compared with other literary formats, is that the recipe calls for action. With a stated purpose and listed ingredients, the recipe promises the reader that something can be done and lays down the manner in which to proceed. These are the features that generally distinguish recipes from other texts. Texts that do not exhibit all of these features, but nevertheless sought a similar effect, have previously been called recipe paraphrases.⁵⁵ Van Hoogstraten’s recipe is such a paraphrase: even though it lacks a proper imperative, it nevertheless called Eikelenberg into action.

Recent historiography has dissected the recipe further. As William Eamon wrote in his seminal work on early modern books of secrets, the recipe should be distinguished from other ways of conveying know-how. Technical processes could also be narrated in a descriptive-historical style, as was done for example in Renaissance texts like Biringuccio’s *Pirotechnia* (1540) or Agricola’s *De re metallica* (1556). Unlike historical descriptions, the recipe does not describe technical processes as past events, but instead provides rules to follow. Recipes can thus be thought of as “formulas for making,” or “sets of short matter-of-fact instructions.”⁵⁶

Nevertheless, to define recipes in terms of *rules*, *formulas*, and *instructions*, can be a deceptively simple portrayal of the dynamics in which they were embedded. Rules, as iron-cast and rigid as they appear to the modern mind, often leave wiggle-room and space for interpretation. Indeed, even to arrive at these rules from practice was perceived to be quite problematic by early modern authors.⁵⁷ Know-how can be difficult to put into words, involving much that is tacit, gestural or embodied in the nature of making practices.⁵⁸ To write down a recipe implies the inevitable loss of those things that resist articulation. In competition with hands-on instruction, recipes can therefore appear to be suboptimal vehicles for know-how. Yet, it is precisely by surpassing the specificity of the workshop that recipes were able to impart know-how.⁵⁹ The depersonalized and generalized character of recipes allowed them to travel across social, cultural, and linguistic barriers, but this came at a price: the

⁵⁴ William Eamon, *Science and the Secrets of Nature. Books of Secrets in Medieval and Early Modern Culture* (Princeton, NJ, 1994). Elaine Leong and Alisha Rankin, eds., *Secrets and Knowledge in Medicine and Science, 1500-1800* (Farnham, 2011).

⁵⁵ Martti Mäkinen, “Efficacy Phrases in Early Modern English Medical Recipes,” in *Medical Writing in Early Modern English*, eds. Irma Taavitsainen and Päivi Pahta (Cambridge, 2011), 158-179.

⁵⁶ Eamon, *Science and the Secrets*, 9, 131. Elaine Leong and Alisha Rankin, “Introduction: Secrets and Knowledge,” in Leong and Rankin, eds., *Secrets and Knowledge*, 8. See also: William Eamon, “How to Read a Book of Secrets,” in *ibid.*, 23-46, 30.

⁵⁷ Eamon, *Science and the Secrets of Nature*, 9. See also: Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago, IL, 2004), 80-82. Pamela H. Smith and the Making and Knowing Project, “Historians in the Laboratory: Reconstruction of Renaissance Art and Technology in the Making and Knowing Project,” *Art History*, 39 (2016), 210-233. Thijs Hagendijk, “Learning a Craft from Books: Historical Re-enactment of Functional Reading in Gold- and Silversmithing,” *Nuncius* 33 (2018), 198-235.

⁵⁸ Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (London, 1962). For further references and a discussion of tacit, gestural and embodied knowledge in the context of written know-how, see Hagendijk, “Learning a Craft from Books,” 203-205.

⁵⁹ Sven Dupré, “Doing It Wrong: The Translation of Artisanal Knowledge and the Codification of Error,” in Matteo Valleriani, ed., *The Structures of Practical Knowledge* (Cham, 2017), 167-188.

burden was on the reader to make the recipe operational.⁶⁰

Plenty of recipe collections have survived that document, in the margins or between the lines, the experiences of readers who navigated the ambiguities, difficulties and errors contained, thereby adapting the recipes to their own needs and practices.⁶¹ Two lines of argument have been developed in recent historiography to explain why readers had to make their recipes work. Firstly, Elaine Leong has called attention to the so-called “thinness” of recipes. Their flexibility or ambiguity allowed them to fit different frames and be mapped onto “different systems of explanation.”⁶² The fact that recipes could harbor multiple readings was not directly problematic – it also helps to explain their longevity – but their very thinness might have led readers astray too. The chemist Robert Boyle (1627-1691), for example, was afraid that the established recipe style would allow for too much miscommunication. Chances were that the recipe, due to its peculiar style, was not able to keep its message under control. When he published a collection of medicinal recipes, he freely admitted that he frequently altered the “Style of the Formulary’s of Receipts,” because he was “more concern’d that the Meaning should be close kept to, than the Style rectify’d.”⁶³ This goes directly against the notion that recipes, as rule-like as they are, constrained the realm of possibilities for the reader.⁶⁴

Secondly, recipes not only left wriggle-room with respect to the action they called for; sometimes they had to be actively altered in order to work. For example, translating recipes from one language to another, or from one workshop to another, often invited error with respect to locally specific terms, materials and practices. As Sven Dupré argues, the identification of these errors and their codification in recipes became common practice in the seventeenth century.⁶⁵ Eikelenberg too was aware of the potential for written know-how to produce error. Considering why contemporaneous art treatises, such as Gerard ter Brugghen’s *Verlichtery kunst-boeck* (1616), did so little to describe the “the making of paints,” he blamed the overall quality of the available written material. No wonder authors like Ter Brugghen shied away from practicalities,

⁶⁰ Jack Goody, *The Domestication of the Savage Mind* (Cambridge, 1978), 136.

⁶¹ Sara Pennell, “Perfecting Practice? Women, Manuscript Recipes and Knowledge in Early Modern England,” in *Early Modern Women’s Manuscript Writing. Selected Papers from the Trinity/Trent Colloquium*, eds. Jonathan Gibson and Victoria E. Burke (Aldershot, 2004), 237-258. Elaine Leong, “Collecting Knowledge for the Family: Recipes, Gender and Practical Knowledge in the Early Modern English Household,” *Centaurus*, 55 (2013), 81-103. Valentina Pugliano, “Pharmacy, Testing, and the Language of Truth in Renaissance Italy,” in Elaine Leong and Alisha Rankin, eds., *Testing Drugs and Trying Cures*, special issue, *Bulletin of the History of Medicine*, 91.2 (2017), 233-273.

⁶² Elaine Leong, “Brewing Ale and Boiling Water in 1651,” in Valleriani, *The Structures of Practical Knowledge*, 55-75.

⁶³ Robert Boyle, *The Works of Robert Boyle*, vol. 10, eds. Michael Hunter and Edward B. Davis (London, 2000), 176-177. Michelle DiMeo, “Communicating Medical Recipes. Robert Boyle’s Genre and Rhetorical Strategies for Print,” in Howard Marchitello and Evelyn Tribble, eds., *The Palgrave Handbook of Early Modern Literature and Science* (London, 2017), 209-228.

⁶⁴ Goody, *The Domestication of the Savage Mind*, 141.

⁶⁵ Dupré, “Doing It Wrong,” 167-188.

because the descriptions of which they had to avail themselves, were so full of errors and yokes of alchemists, that the lover would become an alchemist rather than an illuminator would he have followed them.⁶⁶

In brief, reading a recipe and subsequently putting it into practice was not as straightforward as one might expect. Pamela Smith reminds us, therefore, that recipes, besides delivering know-how, also promoted trial-and-error by the reader. Early modern recipe collections, either published or written, often presented a variety of alternative recipes for one end-product, which positively encouraged experimentation and comparison of procedures.⁶⁷ A recipe never readily transmitted what it promised. Instead, the written word needed to be brought back to life by infusing it with one’s own experience. A recipe had to be made operational.

Eikelenberg was an avid collector of recipes and his attitude towards them is clear in one of his prefaces in which he gave the following “Warning to the reader”:

Reader, the notes you find in this book have been gathered over the years by me, my pen and those of others, and concern many great and sure things with respect to all kinds of paints. Yet, they are unrefined and I have not tried them all. Yes, there are many from it [the manuscript] that I have not yet found the time to make [...] and they are merely put together so that I can avail myself of them at a later time.⁶⁸

This passage reveals Eikelenberg’s recipe collection as a temporary repository to store and collect know-how. It reflects the transitional state of the manuscript and illustrates its open character with notes and recipes moving in and out of his collection. Eikelenberg’s manuscript thus carries none of the definitive and fixed properties that were sometimes claimed by authors of other recipe collections, most famously by those of books of secrets.⁶⁹ More importantly however, the provisional nature of the manuscript spills over to the recipes themselves. Eikelenberg did not regard recipes as formalized knowledge, or polished textual renditions of established

⁶⁶ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 392, fol. 32: “[O]m dat de beschrijvingen waarse zig daar van mosten bedienen zoo vol dolingen en grollen der stofscheiders [in the margin: ‘alchimisten’] waren dat de liefhebber eer een stofscheider dan een verligter zou worden indien hij hen gevolgt had.”

⁶⁷ Pamela H. Smith, “Why Write a Book? From Lived Experience to the Written Word in Early Modern Europe,” *Bulletin of the German Historical Institute*, 47 (2010), 25-50.

⁶⁸ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 3: “Waarschuwing aan de lezer. Lezer, de aantekeningen die gij in dit boek vind zijn sederd verscheijde jaren door mij, zoo door mijn pen als die van anderen bijeenvergaderd, en behelzen wel vele goede en zekere dingen ten opzigt van allerley slag van verfzels, maar zijn onbeschaaft en niet alle van mij beproeft. Ja, ook vele, die ik nog geen tijt heb gehad daar uit te doen, [...] en zij zijn slegs bijeen gesteld op-dat ik mij daar naderhand af zou kunnen bedeene.”

⁶⁹ Eamon, “How to Read,” 23-46.

practices, but rather as source material that could be mined for know-how, the value of which could not be judged with certainty by only glancing over its words. Recipes needed to be tested, or *beproeft*, to establish their usefulness. This attitude extended also to the recipes he retrieved from his former educator Nicolaas de Vree, showing that Eikelenberg did not exempt those recipes for which credibility had already been established.⁷⁰ Recipes, he seems to have suggested, could never be taken at face-value, regardless of where they came from.

4. Communicating Experience

Whereas recipes are characterized by their thinness, Eikelenberg’s *ervarenissen*, by contrast, provide a dense and detailed overview of his experiences with respect to a variety of materials, recipes and procedures tried in his workshop. This section is concerned with the *ervarenis* as such, and how Eikelenberg came to use this specific literary format in his notes. Addressing this question is complicated, because contemporaneous thinking on experience was in flux; the associated terminology had not fully crystallized and its epistemological validity was yet not well established. Learned discourse offered two Latin terms for experience, *experimentum* and *experientia*, and both were occasionally translated as *ervarenis* in Dutch.⁷¹ At the same time, *ervarenis* was interchangeably connected to other Dutch terms like *bevinding* and *ondervinding* – echoed in the English noun ‘finding’ – which carries a similar meaning. To make things even more complicated, these vernacular terms were part of ordinary and everyday discourse and could hardly be singled out as philosophical talk.

The unsettled nature of experience and its susceptibility to different interpretations are evident in Eikelenberg’s notes. Apart from the *ervarenissen*, Eikelenberg used an extensive repertoire of experiential statements that followed recipes or that were simply scribbled between the lines. In that sense, his notes fit a larger historiographical picture. Adding practical annotations to a text was common practice in the early modern period. Over the past decade, scholars have identified several annotation practices and found traces of experiences in different practical texts, ranging from those concerned with domestic cooking, through pharmacy and medicine, to the arts.⁷² Eikelenberg too added simple remarks to recipes, saying “I

⁷⁰ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fol. 3. Leong and Pennell, “Recipe Collections,” 133-152.

⁷¹ ‘Experientia’ was translated as ‘ervarenis’ in Renatus Descartes, *Brieven. Derde Deel. Neffens een nette Verhandeling van het Licht*, trans. J. H. Glasemaaker (Amsterdam, 1684), 225. ‘Experimentum’ was translated as ‘ervarenis’ in Athanasius Kircher, *d’Onder-Aardse Weereld* [...] (Amsterdam, 1682). Compare with Athanasius Kircher, *Mundus subterraneus* [...] (Amsterdam, 1665).

⁷² Elaine Leong, *Recipes and Everyday Knowledge. Medicine, Science, and the Household in Early Modern England* (Chicago, IL, 2018). Wendy Wall, *Recipes for Thought. Knowledge and Taste in the Early Modern English Kitchen* (Philadelphia, PA, 2016), 209-250. Sara Pennell and Michelle DiMeo, eds., *Reading and Writing Recipe Books, 1500-1800* (Manchester, 2013). Elaine Leong and Alisha Rankin, “Testing Drugs and Trying Cures. Experiment and Medicine in Medieval and Early Modern Europe,” in Leong and Rankin, eds., *Testing Drugs and Trying Cures*, 157-182; Pugliano, “Pharmacy, Testing”; Elaine Leong and Sara Pennell, “Recipe Collections and the Currency of Medicinal Knowledge in the Early Modern

made this thus,” or “as I experienced myself.” On other occasions he signaled his experimental findings more clearly, for instance: “nota, I have found the grinding with vinegar to be very good,” or, “nota: the one below is not good for paintings.” Another experiential qualifier was the occasional “probatum,” asserting that Eikelenberg had tried the recipe in question.⁷³ To a certain extent, the *ervarenissen* are in line with these experiential statements. Both convey specific validations, directions, improvements or revisions that flowed from the enactment of recipes or tried procedures and practices. But there are differences too. Firstly, Eikelenberg’s experiential statements are rather succinct compared to the elaborate *ervarenissen*. Secondly, the *ervarenissen* display a fixed literary format contrary to the more varying style of his experiential statements. Finally, the *ervarenissen* do not always depend on existing recipes. Whereas some might be read as extensive annotations, for example on Van Hoogstraten’s varnish recipe, others stand on their own and appear to have had no basis in recipes at all, such as two *ervarenissen* on gum copal. Unlike the experiential statements, the *ervarenissen* should therefore be seen as full-blown reports that were worth communicating in their own right. But what motivated Eikelenberg to write his *ervarenissen*?

Besides Eikelenberg’s notes, there are two contemporaneous examples of designated use of the term *ervarenis*. One of them concerns a Dutch translation of Athanasius Kircher’s *Mundus subterraneus* [*d’Onder-aardse weerd*], 1682. This book, chiefly dealing with the Earth’s geology but with a broader scope, announced on its frontispiece that it was a “first-time translation from Latin, and embellished with many *ervarenissen* and copper plates.”⁷⁴ Eikelenberg was well aware of this source and copied several excerpts from the Dutch translation. *Ervarenis* in this case was a translation of the Latin *experimentum*. Upon close inspection, there is little resemblance between Kircher’s *ervarenissen* and those of Eikelenberg. The *ervarenissen* in Kircher’s book look like recipes, complete with imperatives, stated purposes and listed ingredients. Moreover, Kircher’s *ervarenissen* were primarily intended to help the reader conduct a certain experiment, not produce an end-product.⁷⁵ This approach to recipes is consistent with what Peter Dear and William Eamon noticed with respect to the Royal Society; to communicate experimental findings, the Fellows of the Royal Society regularly used a “recipe-like format” – i.e., a set of instructions that enabled readers to replicate an experiment on their own.⁷⁶ In addition, the term *experimentum*, and by extension Kircher’s *ervarenis*, was historically associated with medical and

‘Medical Marketplace’,” in Mark Jenner and Patrick Wallis, eds., *Medicine and the Market in England and its Colonies c. 1450–c. 1850* (London, 2007), 133-152. Mäkinen, “Efficacy Phrases.”

⁷³ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fols. 22, 455 (alternative numbering), 651, 662, 663, 705, 708, 713, 720, 724, 727, 736, 748, 769, 811, 835. “[H]eb ik aldus gemaakt” (727); “zoo ik zelf heb bevonden” (835); “Nota het wrijven met azijn heb ik zelf zeer goed bevonden” (748); “nota: deze onderste is niet goet tot schilderij” (713).

⁷⁴ Kircher, *d’Onder-Aardse Weerd*, frontispiece. “Nu eerst uit het Latijn vertaalt, en met veel *Ervarenissen* en Koperen Platen verciert.”

⁷⁵ Tina Asmussen, *Scientia Kircheriana. Die Fabrikation von Wissen bei Athanasius Kircher* (Affalterbach, 2016), 117.

⁷⁶ Peter Dear, “Totius in Verba. Rhetoric and Authority in the Early Royal Society,” *Isis* 76 (1985), 144-161. Eamon, “How to Read,” 41.

alchemical recipes.⁷⁷ Yet, even though Kircher’s *ervarenissen* deviate significantly from Eikelenberg’s *ervarenissen*, they illustrate an important point nonetheless; terms like *experiment(um)*, *experientia*, and *ervarenis* did not warrant a specific literary style during the seventeenth century and could find their way into both prescriptive and descriptive texts.

More akin to Eikelenberg’s use of *ervarenissen* is how they were employed by the Dutch experimental physician Anthonius de Heide (1646-1690/1696).⁷⁸ Chances were that Eikelenberg was familiar with De Heide’s books – he cited experimental physicians from the same circle, like Cornelis Bontekoe and Steven Blankaart – even though he never made explicit references to De Heide himself. For De Heide, *ervarenissen* had a clear epistemological goal: “the Art of Medicine and Surgery is to build, [...] not by decorating it with uncertain presumptions, but by the performance of many *ervarenissen*.”⁷⁹ De Heide practiced what he preached, for example when he clarified various uncertainties regarding “callus,” a healing tissue formed at the site of bone fractures; various *ervarenissen* helped him to study how and from what material this callus grew. One of them is recounted as follows: “In the year 1674, I smashed a bone of a dog into pieces, and left it without bandages.” Eighteen days later he killed the dog, and, having repeated the experiment on another dog and some frogs, he was ready to admit that callus presumably originates from blood.⁸⁰ Gruesome details aside, the literary format is reminiscent of Eikelenberg’s *ervarenissen*. It contains a specified date, is written in the past tense and features a first person voice.

The story of De Heide’s *ervarenissen* is one which seamlessly fits with the greater narrative of the rise of the New Sciences over the course of the seventeenth century. Eikelenberg’s *ervarenissen* too should be understood against this background. His correspondence contains a specific mention of *ervarenissen* that leads to the heart of the New Sciences. In 1691, the young Eikelenberg wrote a letter to a friend who was studying at Leiden University. After some pleasantries, he got down to the business of what motivated him to write the letter:

When you were here the other day, you recounted that one of your Professors forced the mercury, if I am not mistaken, to climb to a height of

⁷⁷ Katharine Park, “Observation in the Margins, 500-1500,” in Lorraine Daston and Elizabeth Lunbeck, eds., *Histories of Scientific Observations* (Chicago, IL, 2011), 16-44; Gianna Pomata, “The Recipe and the Case. Epistemic Genres and the Dynamics of Cognitive Practices,” in Kaspar von Greyerz, Silvia Flubacher and Philipp Senn, eds., *Wissenschaftsgeschichte und Geschichte des Wissen im Dialog – Connecting Science and Knowledge* (Göttingen, 2013), 131-154.

⁷⁸ Huib J. Zuidervaar, “Het in 1658 opgerichte ‘Theatrum Anatomicum’ te Middelburg. Een medisch-wetenschappelijk & cultureel convergentiepunt in een vroege stedelijke context,” *Archief. Mededelingen van het Koninklijk Zeeuwsch Genootschap der Wetenschappen*, (2009), 73-140.

⁷⁹ Antonius de Heyde, “Voor-reden. Aan de Oeffenaars der Heel-Konst,” in Cornelis vande Voorde, *Nieuw Lichtende Fakkel der Chirurgie Of hedendaagze Heel-Konst [...]* (Amsterdam, 1680), [4-9], [5]: “[T]ot op-bouwing der Genees-en Heel-Konst [...] niet met onwisse onderstellingen te versieren, maar door het doen van veelerlei ervarenissen.” See also Antonius de Heide, *Ontleding des Mossels* (Amsterdam, 1684).

⁸⁰ Antonius de Heyde, in Vande Voorde, *Nieuw Lichtende Fakkel der Chirurgie*, 570: “In het Jaar 1674. heb ik een Hond sijn been in stukken geslagen, en sonder eenigh Verband laten blijven.”

30 inches in an airpump. [...] If you get the chance, I sincerely hope you will let me know more about the tube or glass, the amount of mercury and the way he proceeded, as well as the other *Ervarenissen* you might obtain concerning mercury.⁸¹

Without doubt, Eikelenberg was referring to a replication of one of Boyle’s airpump experiments.⁸² Leiden University was in possession of a replica of this pump and the then professor of physics, Burchardus de Volder (1643-1709), had established a rigorous curriculum in experimental philosophy. De Volder’s pedagogy revolved largely around the demonstration of experiments, many of which were taken from Boyle’s *New Experiments Physico-Mechanical Touching the Spring of the Air and its Effects* (1660).⁸³ With his reference to the airpump, Eikelenberg not only appears to have been fully up-to-speed with developments in the ‘New Philosophy,’ his letter also draws an explicit connection between *ervarenissen* and what Boyle called “experiments.” For Boyle, and more generally for the Royal Society, experiments were historically unique events and in order to gain epistemological weight, they had to be communicated and shared. For experiments which were notoriously difficult to replicate, vivid accounts were written that allowed others to *virtually witness* what happened instead.⁸⁴ The resulting literary format – i.e., the experimental essay – described experiments as discrete events linked to a particular time and place, was a conscientious recounting of the facts, reserved a central role for the observer, and used a first person and active voice.⁸⁵ All of these features are found in Eikelenberg’s *ervarenissen*, but there is a difference too.

Since Peter Dear’s seminal work on the seventeenth-century advancement of experience in the mathematical sciences, the notion of experience has sparked new scholarly interest. As Dear showed, thinking about experience evolved from a largely Aristotelian notion, understood as cumulative experience or the collective memory of

⁸¹ Correspondence from Simon Eikelenberg to Cornelis Hildernis, 4 October 1691, “Brieven van en aan Simon Eikelenberg,” MS 556: “Doe gij lest hier waart, hebt gij mij verhaald dat een uwer Professooren de merkurius door een lugtpomp, zoo ik Mij Nooit bedrieg, tot de hoogte van 30 duijmen, wist te doen opklimmen [...] van de buijs of ’t glas en de hoeveelheid der Mercurius met welke dat geschiede, nog ook op welk een wijs hij te werk ging dit alles zou ik gaarne willen, dat gij mij bij gelegendheid eens doe weten, beneffens d’andere *Ervarenissen* die gij van de kwik moogt krijgen.”

⁸² Anne C. van Helden, “The Age of the Air-pump,” *Tractrix*, 3 (1991), 149-172. Tammy Nyden, “De Volder’s Cartesian Physics and Experimental Pedagogy,” in Mihnea Dobre and Tammy Nyden, eds., *Cartesian Empiricisms* (Dordrecht, 2013), 227-249.

⁸³ Tammy Nyden, “Living Force at Leiden. De Volders, ’s Gravensande, and the Reception of Newtonianism,” in Zvi Biener and Eric Schliesser, eds., *Newton and Empiricism* (Oxford, 2014), 207-222.

⁸⁴ Steven Shapin and Simon Shaffer, *Leviathan and the Air-pump. Hobbes, Boyle, and the Experimental Life* (Princeton, NJ, 1985).

⁸⁵ Dear, “Totius in Verba,” 152-153. The origins of this literary format can be traced back to contemporary French fictional prose, see: Lawrence M. Principe, “Virtuous Romance and Romantic Virtuoso. The Shaping of Robert Boyle’s Literary Style,” *Journal of the History of Ideas* 56 (1995), 377-397.

universal regularities, towards experiments as highly specific and historical events.⁸⁶ Meanwhile, similar developments have been mapped for the history of medicine, alchemy and chemistry, tracing the roots of a similar appreciation of experience, trials and experimentation as ways to know and investigate nature.⁸⁷ At the same time however, experience has largely been understood and analyzed as an epistemic category, and it is precisely in this respect that Eikelenberg is different. Producing varnishes was not so much an epistemic operation. So, what was communicated through the *ervarenissen*?

By employing the literary format of the experimental essay, Eikelenberg emphasized the highly specific and eventful character of his *ervarenissen*. Contrary to what Dear, Shapin and Schaffer have argued with respect to the origins of experimental methodology, the literary format of the *ervarenissen* was not meant to warrant authority, nor was its purpose to turn the experience of an individual into the experience of many. Instead, the *ervarenis* became an end in itself; a way to communicate the very situatedness and specificity of each and every act of making. The *ervarenissen* showed something that recipes, the ubiquitous vehicles of written know-how, could never show; their specificity stands at odds with the recipe's generalized character and reveals intricacies of making that would otherwise never speak through text. This amounts to a peculiar trade-off. Whereas adherents to the New Philosophy were striving to turn the individual experience into the experience of many, Eikelenberg turned this around; he juxtaposed recipes, which were intrinsically reproducible and potentially the experience of many, with *ervarenissen*, and illustrated how each and every act of making is ultimately individual, unique and idiosyncratic, anchored within the confines of the workshop and the experience of the maker.

5. Expressive Instructions

When it comes to written instructions, style matters. By writing *ervarenissen* instead of recipes, Eikelenberg sought an alternative literary format to communicate know-how, and this touches on an issue that has recently been brought to light by Richard Sennett in *The Craftsman*. Given the difficulty with which know-how and all its tacit dimensions can be put into words, it is important to question how “to make written instructions communicate.”⁸⁸ Following Sennett's suggestion, Eikelenberg's *ervarenissen* can be read as a communicative strategy, or as Sennett puts it, an attempt to “create expressive instructions.”

Sennett argues that there are a number of ways to create expressive

⁸⁶ Peter Dear, *Discipline & Experience. The Mathematical Way in the Scientific Revolution* (Chicago, IL, 1995). Dear, “Totius in Verba.”

⁸⁷ Evan R. Ragland, “‘Making Trials’ in Sixteenth- and Early Seventeenth-Century European Academic Medicine,” *Isis*, 108 (2017), 503-528. Leong and Rankin, eds., *Testing Drugs and Trying Cures*; William R. Newman, *Atoms and Alchemy* (Chicago, IL, 2006); Gianna Pomata, “Observation Rising: Birth of an Epistemic Genre, 1500-1650,” in Daston and Lunbeck, eds., *Histories of Scientific Observations*, 45-80.

⁸⁸ Sennett, *The Craftsman*, 179.

instructions and presents a variety of “imaginative tools,” such as metaphors, similes, narratives, loose analogies, sympathetic illustrations and adverbial color that culinary authors employ to effectively communicate with their readers.⁸⁹ Even though know-how remains difficult to put into words, imaginative tools help significantly to bring its tacit dimensions to the surface and to evoke a feeling for them in the readers. Yet, as powerful as these tools are, exacting language can be restricting. While some recipes offer instruction in exactly what to do, they can be paralyzing in their precision, while sterile language causes them to remain largely ineffective.⁹⁰ By contrast, Henry Perowne, the brilliant neurosurgeon in Ian McEwan’s novel *Saturday*, prefers a lack of expressed exactitude: “From recipes he draws only the broadest principles. The cookery writers he admires speak of ‘handfuls’ and ‘a sprinkling,’ of ‘chucking in’ this or that. They list alternative ingredients and encourage experimentation.”⁹¹ In conclusion, it matters how instructions are written down. They can be appreciated differently from reader to reader, but one thing is clear: to achieve effective communication, it is worth experimenting with style.

The literary format of the *ervarenissen* displays characteristics that Sennett identifies as expressive instructions. Firstly, the *ervarenissen* can be read as sympathetic illustrations. Sennett argues that sympathetic illustrations draw attention to the interaction between practitioner and material, rather than focussing on material transformation alone. They do not employ an authoritative tone, but anticipate the insecurity an inexperienced practitioner might feel when encountering the material for the first time.⁹² Likewise, the personal style of the *ervarenissen* allows readers to imagine themselves in Eikelenberg’s position and to see through his eyes. They show how Eikelenberg navigated his way through the procedure and responded to unanticipated contingencies. They portray him in a vulnerable position. His *ervarenissen* recount how he scorched his gum copal because he “became aware of it too late”; how he subsequently “decided to add oil to prevent everything from going to waste”; how he initially “forgot to powder the gums”; how he “feared” his varnish would congeal like it did the previous time.⁹³ Readers can sympathize with this vulnerability. Eikelenberg’s mistakes are likely the mistakes that any first-timer would encounter. Yet, by writing them down, Eikelenberg helped his readers to avoid them. More generally, the *ervarenissen* prepared readers not to be daunted by failure. Instead they demonstrated how people can improvise their way out of failure, revisit procedures and continually refine them.

Secondly, the *ervarenissen* can be read as scene narratives. The scene narrative embeds know-how in time and place, and contextualizes it from beginning to end. As Sennett puts it: “‘where’ sets the stage for ‘how’.” By describing the conditions of

⁸⁹ Ibid., 179-193.

⁹⁰ Ibid., 182-184

⁹¹ Ian McEwan, *Saturday* (London, 2016), 177.

⁹² Sennett, *The Craftsman*, 186.

⁹³ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fols. 800, 821, 822, 823: “[I]k versuymt had de gommen te poederen” (800); “t welk ik te laat gewaar wierd” (821); “Om nu voor te komen dat niet alles verloren ging besloot ik de olij daar in te doen” (821-822); “en vreesende datse ’t enemaal zoude schiften” (823).

recipes, procedures, and materials, the scene narrative puts readers in the right frame of mind. It omits detailed and precise instructions, but once the scene is sketched and the orienting landmarks are in place, readers have enough information to figure out its moral on their own, much like a parable.⁹⁴ Similarly, Tim Ingold advocates for stories and *telling* as a modality to convey know-how.⁹⁵ Drawing on his experience as an anthropologist in the field, Ingold noticed that stories played an important role in the education of novices when they learnt how to hunt like their predecessors. Telling stories is an “education of attention” – through stories, novices learn to attend to their environment and to respond to subtle cues. Much in contrast with articulation or specification – i.e., what Sennett calls dead denotation – stories guide novices in discovering know-how on their own.

Not surprisingly, *telling* is precisely what Eikelenberg did in the *ervarenissen*: “like is told [on] page 822,” or “like was told [on page] 821 in the first *ervarenis*.”⁹⁶ And here too, the ‘how’ is embedded in the ‘where’. Specified with a date and staged in Alkmaar, Eikelenberg took his readers on a journey in his *ervarenissen*. In the case of Van Hoogstraten’s varnish, Eikelenberg set the stage by touching on his first encounter with the recipe: “Before, page 677, I spoke of a varnish from the visible world of S. Hoogstraten.” We are provided with an orienting problem: “Hoogstraten mentions the substances but not their quantities”.⁹⁷ Eikelenberg also presented a financial perspective: “on Sept. 23, 1711, the ingredients were somewhat more expensive and I found the cost to be 1 penny the lot, manufacture included.”⁹⁸ He introduced the reader to a jumble of continuously attracting and retracting materials, shifting viscosities and the phase transitions that took place in the earthenware pot: “When I added the oil [...] I noticed that the half-prepared varnish appeared to curdle. This I believe was due to the coldness of the oil solidifying part of the mastic; while also the oil mixed better with the turpentine.” He put the varnish in a glass bottle, looked at it anew and made further observations: “I saw that in the bottle, in which I had put the varnish when cold, a whitish sediment had formed.” He considered the varnish in connection to other varnishes: “not as good as the varnish of gum copal [...] but better than if sandarac is added.” He framed it in terms of spillage: using less turpentine oil yields a varnish that “would cost less.”⁹⁹ And he framed it in terms of fire hazards, emphasizing how he prevented “any flame” from reaching the “pan with mastic”. Central to the *ervarenis* however, are the continuous transformations of the varnish. It is this storyline that ties together all the different material outlooks. Meanwhile, Eikelenberg stayed away from imperatives. Not standing opposite but next to the reader, he points things out, allowing the reader to

⁹⁴ Sennett, *The Craftsman*, 187-189.

⁹⁵ Tim Ingold, *Making. Anthropology, Archaeology, Art and Architecture* (London, 2013), 109-111.

⁹⁶ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fols. 826, 830. “[E]ven eens bladzijde 822 word verteld” (826); “even eens als 821 in de eerste *ervarenis* is vertelt” (830).

⁹⁷ Unless stated otherwise, the quotes in this paragraph were previously introduced in Section 3.

⁹⁸ Eikelenberg, “Aantekeningen betreffende schilderen,” MS 390, fols. 828. Translation from Van Schendel, “Simon Eikelenberg’s Experiments,” 130. I changed Schendel’s translation “loot” into “lot.” “[D]en 23 September 1711 [...] de mengstoffen wat dierder zijnde, bevont dat de kosten met maakloon daarbij ’t loot een stuijver.”

⁹⁹ Ibid., fol. 828: “[E]n nog minder kosten.”

see the things he sees. The story follows a path and tags the reader along, indicating alternative paths and drawing attention to holes, pitfalls, shortcuts, steep slopes and viewpoints. Gradually, an extensive ecology unfolds in the *ervarenis*, enabling readers to enter and experience foreign territory.

Conclusion

Communicative strategies like the *ervarenissen* underlie the history of written know-how. By writing *ervarenissen* to communicate know-how, Eikelenberg chose a literary format that significantly differed from recipes. Whereas a recipe strived to emancipate know-how from the locality of the workshop, Eikelenberg sought to bring it back in. To this end, he appropriated the experimental essay form used by proponents of the New Sciences, which seemed particularly suited to reflecting the local meshwork of materials, experiences and workshop practices that constituted an act of making. By showing the specificity and idiosyncrasy of the act of making, he tried to establish a sympathetic relationship with his readers, to put them in the right frame of mind, and to show that failure and improvisation belong in the workshop.

Eikelenberg's efforts show how the authors of practical texts kept searching for new strategies to cope with the difficulties of articulating their know-how. Doing so, they often steered away from recipes as the default literary format. This can also be seen in the popular contemporaneous *Guidebook for Gold- and Silversmiths* published in 1721. Written in the first-person voice, the book utilizes recipes merely as quick fixes for non-essential know-how.¹⁰⁰ Moreover, communicative strategies did not develop in isolation, but were frequently modelled after learned textual formats. Authors resorted to ‘epistemic genres’ such as *observationes* to communicate and organize artisanal experience.¹⁰¹ An example of this has recently been elucidated by Sven Dupré, who identified these *observationes* in English and German translations of the first published book on glassmaking by Antoni Neri (1576-1614).¹⁰² Eikelenberg too, turned to an epistemic genre, yet his appropriation of the experimental essay was not aimed at communicating new knowledge, but to show how to get something done. When it comes to written instructions, style matters.

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¹⁰⁰ Hagendijk, “Learning a Craft from Books”; Willem van Laer, *Weg-nyzer Voor Aankoomende Goud en Zilvermeden. Verhandelende veele wetenschappen, die Konst on raakende, zeer nut voor alle Jonge Goud en Zilvermeden* (Amsterdam, 1721).

¹⁰¹ Gianna Pomata, “Sharing Cases. The *Observationes* in Early Modern Medicine,” *Early Science and Medicine*, 15 (2010), 193-236. Pomata, “The Recipe and the Case.”

¹⁰² Dupré, “Doing It Wrong,” 177-179.

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