

University of Montreal

Imagining America.
Quebec through the optical views of German engravers Habermann and Leizelt

by Marjolaine Poirier

Department of Art History and Film Studies Faculty of Arts and
Sciences

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This thesis entitled:
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Presented by:
Marjolaine Poirier

was evaluated by a jury composed of the following individuals:

Suzanne Paquet, chair-rapporteur
Louise Vigneault, research director Olivier
Asselin, jury member

Abstract

Published in the Collection des Prospects during the American War of Independence, the optical views *View of the Capital Square in Lower Quebec City*, *View of Upper Quebec City*, *View of the Lower Town of Quebec towards the St. Lawrence River*, *View of Rue des Recolets in Quebec*, and *View of Quebec*, engraved by the Germans Franz Xaver Habermann (1721–1796) and Balthasar Frederich Leizelt (1755–1812), bear little resemblance to the actual layout of the city of Quebec they depict. The concealment of the documentary paradigm in these images is the main focus of this thesis. It allows us to emphasise the formal constraints arising from the optical reading device used, as well as the cultural models concerning the perception of the American urban territory that prevailed during the creation and reception of the five optical views under study. The analysis of the fictional vision of the landscape will also provide clues about the ideological orientations and the imaginary of the place, perceived as a distant elsewhere, by a political entity that did not exercise direct control over the colony established on the banks of the St. Lawrence River.

Keywords: Optical views, urban landscape, Quebec City, German engraving, visual culture in the 18th century

Abstract

Published during the American Revolution in the Collection des prospects, the perspective views *Vuë de la Place capitale dans la Ville basse a Quebec*, *View of the Upper Town of Quebec*, *View of the Lower Town of Quebec towards the St. Lawrence River*, *View of Recolets Street in Quebec*, and *View of Quebec* were etched by German engravers Franz Xaver Habermann (1721–1796) and Balthasar Frederich Leizelt (1755–1812). The main goal of this thesis is to show how these five images were perceived as authentic even if the urban scenery they depict is not topographically accurate. This allows us to highlight the formal constraints stemming from the optical instruments as well as the cultural models prevailing within the dominant perception of the American urban territory at the time of their creation and reception. Analysing the fictionality of the German engravings also yields clues into the ideological orientations and the collective discourse about Quebec, perceived as a far-away land, by a political ensemble which was not exerting direct domination on the colony founded on the shores of the Saint Lawrence River.

Keywords: Perspective views; urban landscape; Quebec (city); German engravings and etchings; Visual Culture of the Eighteenth Century

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One must travel to rub and sharpen one's brain against that of others.
Montaigne
Essays, 1580

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Introduction

At the Séminaire de Québec, the first decade of the 20th century was marked by a redeployment of the art collections. Much to the annoyance of the clergy, the sound of hammers was added to the usual noises of schoolchildren and prayers as the supports used to hang the works were fixed to the walls of the rooms and corridors. Gathered thematically in the priests' reading room (figure 1) in 1908, the so-called Canadian engravings were catalogued for the first time around 1909 in a handwritten inventory². The collection is eclectic, does not take into account the provenance of the artists, and includes other types of media besides engravings: oil paintings, maps, and photographs. The subjects are also disparate: Laurentian landscapes, battles, a caricature, and portraits of religious figures, English kings, and prominent figures in North American history. Among the 149 catalogued works, five prints³ were created by artisans whose sovereigns did not rule over the colony. More broadly, these five images are among the very rare views of Quebec City or Montreal painted, drawn or engraved by artists belonging to a political entity other than France or England in the 17th and 18th centuries. They were produced in the workshops of two engravers who never made the crossing to America: Franz Xaver Habermann (1721-1796) and Balthasar Frederic Leizelt, also known as Leizel (1755-1812). Living in Augsburg, an autonomous city of the Holy Roman Empire, Habermann and Leizelt had different careers.

¹ The exasperation felt by the priests during the work is mentioned in several entries in the Seminary Journal in 1903 and 1904 (Archives of the Museums of Civilisation of Quebec, Quebec Seminary Collection).

² Archives of the Museums of Quebec Civilisation, Quebec Seminary Collection, Manuscript 15.

³ Several hypotheses can be put forward concerning the provenance of these prints. We believe that the most likely scenario is that they were purchased by the Seminary during the sale of the collection of the painter Joseph Légaré by his widow. The catalogues (Archives des Musées de la civilisation du Québec, *Catalogue of the Quebec Gallery of Paintings, Engravings, etc.* (1852), Quebec City: E.R. Fréchette, seminary 842; Archives des Musées de la civilisation du Québec, *Catalogue de la magnifique galerie de peintures de feu l'Honorable Joseph Légaré*, seminary 12, no. 42) confirm that this collection included optical views. This is the only trace of this medium in the Seminary's archives prior to 1909. This acquisition would explain their presence during the refurbishment. In addition, the format of at least one of the engravings corresponds to Légaré's habit of cutting some of the engravings to fit them into his albums. This is *Quebeck* (Musées de la civilisation du Québec, inventory no.: 1993.15352). It is also possible that the optical views were purchased for one or more cabinets of curiosities: that of the Seminary or those belonging personally to priests.

Habermann (1721–1796) was born in Habelschewerd⁴ and trained as a sculptor. After a formative trip to Italy, he settled in Augsburg around 1746, where he obtained the right to practise sculpture following his marriage to Maria Catharina Wörle⁵. However, economic constraints seem to have forced him to turn to engraving from the mid-18th century onwards. He is best known for his ornamental prints, which served as models for goldsmiths, stuccoers and fresco painters. His ornamental plates were first published by Martin Engelbrecht (1684-1756) and Johann Georg Hertel (1700-1775). Habermann eventually took over their publication. A Catholic, he was a professor of architectural drawing and perspective at the official academy of the city^{of} Augsburg from 1780 (Bushart 1989: 343). Between 1770 and 1780, he designed views of cities. He created four of the prints mentioned above: *View of the Main Square in the Lower Town of Quebec* (figure 2), *View of the Upper Town of Quebec with the Square leading to Cavalier du Moulin* (figure 3), *View of the Lower Town of Quebec towards the St. Lawrence River* (figure 4) and *View of Rue des Recolets in the Upper Town of Quebec* (figure 5)⁷.

We owe the fifth etching, *Quebeck* (figure 6), to his young colleague Leizelt. Leizelt's achievements and career indicate that he probably trained as an engraver. He signed engravings for a wide variety of uses: cityscapes, book frontispieces, animal illustrations for natural science treatises, and musical annotations. He left few traces outside of the various publishers with whom he worked: Georg Balthasar Probst, Martin Engelbrecht, and Johann Daniel Herz von Herzberg

⁴ A town belonging to the territory of Bohemia at the beginning of the 18th century, it was part of the Holy Roman Empire. It is now part of Poland and is called Bystrzyca Kłodzka.

⁵ Only citizens belonging to the guild could obtain the right to practise (Sgarra 1977: 66). In this context, Habermann's marriage enabled him to obtain the title of burgher and practise his trade. Information about Habermann's birth, apprenticeship, marriage and travels is taken from Ebba Krull's book (1977). We were unable to find the dates of birth and death of Maria Catharina Wörle. Her name therefore appears without these dates, as is the case for other individuals for whom we did not have this information.

⁶ The name of this academy is *Reichsstädtische Kunstakademie*, which literally translates as "academy of the imperial city". We will return to the differences between the two academies in Chapter One, in the section entitled *The Impact of Origins: Augsburg and the Imperial Academy of Liberal Arts*.

⁷ The engravings have several titles. To simplify the text, we have chosen to use the titles written at the bottom of the images in the Latin language most commonly spoken in Quebec. Thus, we indicate the title in French for prints in German and French. We mention the title in German for engravings whose titles are in German and Latin.

(1723-1792). Both working for Herzberg from 1775 onwards, Habermann and Leizelt followed established practices. Most of their prints, especially those by Leizelt, are interpretations of already known images of the places depicted. This is not the case with their optical views of America, which were created or adapted from existing sources that had no direct connection to the built landscape of the New World. Their views of American cities therefore reflect a conception of the built landscape of Quebec based on models whose sources are indirect.

Another aspect distinguishes their views of the city. The five German engravings are unique in terms of the medium to which they belong. Printed by the Imperial Academy of Liberal Arts, they are virtually the only optical views representing Quebec City⁸. Called *perspective views* in English, *guckkastenbilder* or *guckkastenblatt* in German, or *vedute ottiche* in Italian⁹, optical views are a two-part medium. They require the insertion of an engraving into an optical instrument. These non-standardised handcrafted devices for viewing prints come in various forms: the zograscope, also known as a diagonal optical box, the dioptric box, and the catoptric box¹⁰. Optical views allow viewers to immerse themselves in a space that is perceived as illusionistic, representing places near and far. They were designed to completely occupy the viewer's field of vision and to give an effect of depth that did not rely solely on geometric or atmospheric perspective. Initially intended for the wealthy classes, they were disseminated among the working classes by showmen at fairs, in public squares and in the streets.

The five views of Quebec City belong to a series, the *Collection des prospects*, which includes representations of ancient, biblical and contemporary urban landscapes as well as

⁸Two other engravings could be optical views of Quebec City: *Perspective view of the city of Quebec, the capital of Canada*, engraved by John Hinton in 1761 for *the Universal Magazine* (City of Montreal Archives Section, inventory number: CA M001 BM007-2 D09-P011), and *A Perspective View of Quebec Drawn on the Spot*, engraved for the *Royal Magazine* (Musées de la civilisation du Québec, inventory number: 1993.15827).

⁹ Regardless of the language, these terms are rarely used in 18th-century texts. They became more common during the first half of the 19th century. *Guckkastenblatt* is a variation that is used more frequently in Austria.

¹⁰ We use the categories created by Pierre Levie for his book on showmen (2006).

of significant events in the news¹¹. According to collector Wolfgang Seitz, this series comprises around 500 representations (1998: 70-73). The director of the Academy who oversaw the creation of the series, Johann Daniel Herz von Herzberg, included non-European cities: the series includes prints depicting the Middle East, Asia and America. Designed by a dozen different engravers¹² and possibly including remodelled used plates¹³, the series forms a coherent whole. In the manner of a historical and geographical atlas, it seeks to represent the world as perceived by Europeans on the continent in the 18th century. Comprising some twenty-five engravings, the American corpus includes, in addition to Quebec City, the cities of Boston, Salem, New York and Philadelphia, as well as land and naval battles. It was created between 1775 and 1790 (Seitz 1998: 70-73), during a period when optical views were very popular with the public.

At the time when Habermann and Leizelt's images were printed, optical views were considered tools linked to exploration through experimentation in natural philosophy (Guyot 2002: 153-155) or as visual games highlighting the dematerialisation of representation and its relationship with its referent (Emerson 1768: iv-vi). Authors tend to highlight one of the two components of optical views: the observation instruments or the engravings. This approach to the medium, focusing mainly on one of its constituent variables, continues in recent texts. This is the case with analyses from the field of film archaeology. Stemming from a discipline in which mechanisms play a predominant role, their approach focuses on the use of devices at fairs and in urban squares. For Belgian director Pierre Levie (2006) and film studies researchers Laurent Mannoni (1994: 88-95) and Gian Piero

¹¹ These mainly involve battles, shipwrecks, natural disasters and fires.

¹² The inventories we have compiled allow us to identify, in addition to Habermann and Leizelt, Johann Baptist Konrad Bergmüller (1724-1785), Goffried Eichler, Johann Thomas Hauer (1748-1820), Christian Gottlieb Langwagen (1753-1805), Johann Christoph Nabholz (1752-1797), Gottfried Pinz (1697-1772), Gottlieb Friedrich Riedel (1724-1784), Philipp Balthasar Sigmund Setlezky (1695-1771), Jacob Wangner (1703-1781) and Johann Sigrist Benedikt Winkler (1727?-1797).

¹³ This hypothesis would explain the presence of prints depicting Augsburg, as their creation is attributed to Karl Remshard, who died in 1730, prior to the founding of the Academy. These prints also feature a German title in Fraktur script, and their layout differs from that of the other engravings in the Prospectus Collection. Fraktur, or *Frakturschrift*, is a form of Gothic script that was still in common use in the Holy Roman Empire in the 18th century.

Brunetta (1992) argues that optical boxes and the zograscope were part of the development of pre-cinematic tools. It is in light of the rise of this chain that the three authors attempt to develop a typology of optical instruments and popular shows offered by showmen. Levie approaches optical views through showmen as migratory vectors of a visual spectacle. Like Brunetta, he devotes several pages of his book to the iconography of the showman. Like Mannoni, his analysis emphasises the dissemination of optical views in the public space of the Enlightenment, to the detriment of private uses.

Mannoni considers that optical views, like other Western inventions of the same period, belong to the field of research into machines capable of allowing viewers to experience narratives composed of moving images or projected representations. In a chapter of his book *Le grand art de la lumière et de l'ombre : archéologie du cinéma* (*The Great Art of Light and Shadow: Archaeology of Cinema*), he identifies magic lanterns and optical views as means by which the entire population "[...] will have access to the miracles of poetry and science that arise from optical instruments" (1994: 81). Linking the popularity of optical views to the democratisation of certain forms of knowledge, he is particularly interested in the mobility of engravings in some of the devices in use. Without overlooking the diversity of mechanisms and situations in which viewers are placed, his analysis emphasises the functioning of the instruments. While Mannoni superficially mentions certain characteristics of flying prints, their role is secondary.

This interest in the reception of optical views continues in the book *Peepshows: a Visual History* by collector Richard Balzer (1998). Emphasising the evolution of certain devices, whose function is to create closed worlds made accessible to the viewer's eye through an opening, Balzer explains the egocentric relationship of the viewer, in public space, with representations inaccessible to other passers-by, as well as the magical aspect of the emergence of optical views. Using a parallel approach, in line with the development of media archaeology theories, Erkki Huhtamo (2007) examines their contexts of consumption in both domestic spaces and public places. In *The Book of Imaginary Media: Excavating the Dream of the Ultimate Communication Medium*, his interest in optical views is articulated within the framework of a study of devices designed to

produce a form of voyeurism. Huhtamo attempts to understand the cultural logic behind the periodic resurgence of machines designed to satisfy a scopophilia for the hidden, both in Europe and Asia. For him, while the desire to see what is concealed is common, it is particularly developed when social or ideological conditions impose control over behaviour. Despite its interest, Huhtamo's analysis makes little use of engravings. The representations discussed are mainly of an erotic nature. Conversely, several researchers have focused on prints, giving a peripheral role to the instruments used to read them.

This is the case for art historian Claudine Deltour-Levie in the exhibition catalogue *La Belgique en vues d'optique : XVIII^e-XIX^e siècles* (2006) and historian C. J. Kaldenbach in his article *Perspective Views* (1985). While Kaldenbach's text is essentially factual, Deltour-Levie's book stands out for its focus on the accuracy of the built landscape in European optical views, especially those of Belgium. The information provided by the art historian shows that several publishers produced accurate optical views when it came to representations of the European landscape. The level of detail allows the images to be dated according to changes made to the buildings. Her study includes many engravings from the *Collection des Prospects*. Deltour-Levie notes that many of the prints in this series bear little resemblance to the topographical reality. Print specialist Donald H. Cresswell (1985: 41-62) provides some answers that help us understand the methods used by German engravers in creating these imagined places. He identified some of the visual sources used for the American images in the Augsburg series, including the work that inspired Leizelt's *View of Philadelphia*. The German print incorporates elements from *View of the Royal Dock-Yard at Deptford* engraved by William Woollett (1735-1785) after a painting by the English marine painter Richard Paton (1717-1791) (Cresswell 1985: 58-59).

Continuing in the same vein, architectural historian Christopher Pierce (2007: 10) asserts that another etching by Woollett, *The Fishery* (1768), was Leizelt's prototype for the optical view *Arrival of Prince William Henry in New York*. Pierce's article, *Practising Peeping! New Notes and Comments on the Collection Des Prospects of New York*

City, is substantial, and his contribution is not limited to this discovery. Pierce's argument is based primarily on the iconography of the prints as a significant factor in understanding the German context of production. The author's ambition is to determine whether the engravings in the *Prospectus Collection* reflect a position on the revolt of the thirteen American colonies. However, the ambivalence of the representational codes of Habermann and Leizelt's optical views does not allow Pierce to rule on the ideological discourse they might communicate.

The only author to escape the dichotomy between apparatus and engraving, art historian Erin C. Blake examines the perception of optical views by the British elite and upper classes between 1740 and 1800 in *Zoograscopes, Perspective Prints, and the Mapping of Polite Space in Mid-eighteenth-century England* (2000). She pays particular attention to their initial marketing between 1747 and 1753. Her corpus consists of European engravings, mainly English. For the author, the depth created by the device¹⁴ influences the reception of the images. Access to a virtual reality that allows for experimentation with public space, without the segment of recipients who define themselves as belonging to polite society having to leave their private space, would promote a cartography of cities that respects the codes of conduct favoured by the elites at the time. Influenced by theories on visualisation instruments and geographical approaches, Blake's text is one of the important contributions to the study of optical views. However, his analysis would have benefited from not categorising optical views in relation to a single type of device used in the domestic space. By disregarding the presence of engravings in the public environment, his reasoning is particularly valid for the period when prints were the almost exclusive preserve of the wealthy and educated classes, i.e. the first ten years in which they were commercially available.

Produced later, the engravings by Habermann and Leizelt differ from the prints studied by Blake. They do not depict a European location and have little connection with topography

¹⁴ In this thesis, the term "device" is used to refer to the set of instruments and works.

real place. Several of the comments written during the 19th and 20th centuries emphasise the fictional aspect of the images of the city produced in Augsburg. This is the case for historian Charles P. Devolpi (1971), art historian John Russell Harper (1970: 139) and the priest responsible for cataloguing the engravings at the Seminary, most likely Amédée E. Gosselin¹⁵. The clergyman wrote of them: "Needless to say, these engravings, which are quite rare, are purely fanciful. However, they must find a place in a collection such as this¹⁶. Modelled to correspond to geographical markers that allow viewers to identify a landscape perceived as authentic and specific, German etchings use a graphic vocabulary that has only loose ties to the actual layout of Quebec City. The use of these indicators in a communication tool accessible to both the elite and the less well-off will be the focus of this thesis.

Taking into account the theoretical contributions developed by previous researchers, we would like to approach Quebec City's views as representations of society, as defined by Howard S. Becker in *How to Talk About Society: Artists, Writers, Researchers, and Social Representations* (2009). For Becker, social representations are "something someone tells us about a social aspect" and, more specifically, an aspect that we cannot experience directly (2009: 20). Furthermore, we believe, like Becker, that images are the result of social interactions and collective actions, which influence their creation and reception (Becker 2010: 27-63). In addition to this social organisation, other network actors, technical objects and discourses interact with the engravings. They influence the meaning of the images as well as the practices of the viewers, which they stabilise for a time (Latour 2006). Finally, we will consider optical views as mobile and immersive images that meet the expectations of a heterogeneous audience accessing them in a variety of social situations. We will therefore present a visual culture that cannot be reduced to a dominant model transmitted by the culture of the elites.

¹⁵ Archives of the Museums of Civilisation of Quebec, Quebec Seminary Collection, Seminary Journal, 11 June 1908, vol. 8, p. 124.

¹⁶ Archives of the Museums of Quebec Civilisation, Quebec Seminary Collection, Manuscript 15.

Intended for a broad market rather than a patron or collector, Habermann and Leizelt's optical views were accessible to audiences from different segments of the population in a highly structured society under the Ancien Régime. In a culture steeped in hierarchical roles, the engravings produced by Habermann and Leizelt were consumer goods that fuelled the emerging culture market, as described by German sociologist and theorist Jürgen Habermas in *The Public Sphere: Archeology of Advertising as a Constituent Dimension of Bourgeois Society* (1978) and by science historian Simon Schaffer in *Natural Philosophy and Public Spectacle in the Eighteenth Century* (1983). They are visual entertainment; they are a way for 18th-century Europeans to appropriate the world, and they leave room for indeterminacies that require interpretation by the viewer. Optical views are also objects that interact with the viewer's body. The representation oscillates between a material embodiment and an ethereal double that exists only when the image is transmitted to the pupil through a lens or mirror. This connection between the work and its implicit receiver makes the viewer an actor during viewing, where their gaze is constitutive of the works as a whole. We will consider that one of the factors explaining the discrepancy between the Augsburg images and the topography of Quebec City is the use of visual codes that were interpretable to viewers at the end of the 18th century, particularly in states belonging to the sphere of influence of the Holy Roman Empire.

Places without memories for most Germans in the 18th century, the distant landscapes of North America were primarily conceptualised representations on maps. The sudden emergence of transatlantic territories in German political and economic news following the outbreak of the American Revolution (1775-1783) fundamentally changed this situation. Discursive and interpretative descriptions were disseminated in various forms: letters from German mercenaries enlisted to support British troops on the New Continent, travelogues, letters from immigrants, novels, geography books and newspapers. At the same time, the production of Habermann and Leizelt's fantastical urban landscapes was the result of this interest in accessing distant cities at the heart of a military conflict. These urban representations are distinctive, but do not escape

completely, to the identity marking that makes wilderness, not to say savagery, since this nature is expressed above all through the bodies of the Indigenous people represented, a distinctive visual sign of America. The conception and reception of the Augsburg optical views therefore correspond to a perception of the Laurentian territory shaped by European imperialism. However, this is not the only parameter to consider in order to understand the stereotypes they invent. The reference system of optical views is essentially visual rather than legible. It is based on a collective imagination shaped by the development of city views and by expectations¹⁷ linked to the medium. As immersive entities that organise the experience of elsewhere and of the other, optical views of Quebec City are therefore culturally constructed urban representations subject to constraints associated with the conditions of their appearance, the desired effect and the context of their reception.

In order to explore the various facets of this mediated landscape, we have chosen to divide this thesis into two complementary parts. The first chapter, *Optical Views at the Time of Their Production*, will address the production of optical views. It will provide keys to understanding the development and main characteristics of the medium. In doing so, we will discuss the restrictions imposed by the device and the creative context during the design of Habermann and Leizelt's engravings. We will also be able to assert that pre-existing models had an impact on the representations of Quebec City created in Augsburg. This will lead to the development of a network of influences involving several actors, which we will supplement by examining the circuit in which the two engravers' practices were embedded. We will first study the case of Habermann, whose prints are composite creations that draw on several dominant ideas about the American territory. To understand them, we must therefore take into account the place of the engravings in the series and the state of knowledge concerning the landscape of the city of Quebec. Leizelt's method, which consists of using existing engravings representing other places, will allow us to

¹⁷ The expression "horizon of expectation" is borrowed from the reception theories developed by literary theorist Hans Robert Jauss. It refers to the different interpretations made by receivers based on historically situated reference systems (previously known works, experience of the genre and everyday life) (Jauss 1990).

explore the significance of print mediation, taking into account the exchanges between the various centres of engraving production in Europe at the end of the 18th century.

Entitled *Views of Quebec City: Towards a History of Reception*, the second chapter focuses on how optical views are perceived. Marking a transition from the first part of the text, it begins by describing earlier depictions of Quebec City, focusing on markers of identity and their relationship to the imaginary of places. In this way, we hope to unfold the different layers of discourse that are part of the culture of 18th-century observers whose eyes are fixed on the optical views of Habermann and Leizelt. These viewers do not form a uniform whole. That is why the thesis will conclude with the relationships of the recipients with the space induced by the optical views according to their social group and the places of reception. We will see that the reactions of polite society are determined by the manipulation of images and social norms, the device being seen as useful entertainment that appeals to empiricist notions. The control exercised by the elites over representations contrasts with the consumption of optical views in a popular context. The exhibitors capitalise on the spectacular nature of the device. They allow the curious to satisfy their desire to look through the keyhole by completely controlling the process. The illusion serves the venues, the street and the fair, which escape the rigid codes established by the burgeoning bourgeoisie and aristocratic circles.

1. Optical views in the era of their production

The 18th century was dominated in art by the authority of the academies and a hierarchy of genres influenced by writings such as André Félibien's (1619-1695) preface to *the Conférences de l'Académie royale de peinture et de sculpture* (1668)¹⁸. The period was also marked by an increase in the production of engravings and changes in the techniques used (Adhémar 1972: 64). Long considered the most sophisticated method of reproducing paintings (Griffiths and Carey 1994: 13), the burin was gradually supplanted by etching for the most prestigious engravings. Etching is a technique dating from the mid-17th century (Préaud in Rodari 1996: 46), based on the use of acids on varnished metal plates¹⁹. Its popularity was mainly due to two factors: the speed with which an engraver could produce a matrix and the effects that could be obtained during printing. Indeed, the diversity of effects developed for etchings grew significantly from 1740 onwards thanks to a better understanding of the chemical reactions involved. Among these innovations, the most notable are the crayon technique, the pastel technique, colour prints, the refinement of aquatint and, above all, experiments with mezzotint²⁰ (Adhémar 1972: 67; Roy 2008: 176-177; Sarto in Rodari 1996: 94). The changes brought about by the proliferation of processes gradually affected Paris's dominance as the European centre for the production of art engravings: London became a rival to the City of Light.

¹⁸ Highlighting royal patronage, Félibien's preface to *the Conférences of the Royal Academy of Painting and Sculpture* reconstructs the history of the conferences and seeks to establish distinctions between different artistic activities. In Félibien's preface, representations of man are placed at the top of the scale, to the detriment of nature and inanimate objects. It precedes a heterogeneous corpus consisting of certain texts read and debated during the Academy's sessions. The collection deals with the main theoretical questions concerning painting and sculpture as well as the artistic practices of the time.

¹⁹ The most common metal is copper, but other materials are sometimes used by engravers: bronze, brass, iron, lead and tin. Tin is the material most often used to make plates for musical scores (Stijnman 2012: 132-136).

²⁰ This technique is also known as mezzotint or English manner.

The emergence of London publishers can be attributed to their mastery of large mezzotint formats. It was also due to the Treaty of Paris of 1763 and the Eden-Rayneval Treaty⁽²¹⁾ which granted the British particularly advantageous trading conditions (Griffiths and Carey 1994: 14; Roy 2008: 179). Finally, it stemmed from their propensity to use subjects drawn from literature, culture and contemporary events (Griffiths 2005: 377). Their Parisian colleagues, for their part, tended to prefer themes from mythology or ancient history (Roy 2008: 176-177). The popularity of British works grew gradually. In Germany, collectors became enamoured with London publications from the mid-18th century onwards, particularly in the last quarter of the century (Clayton 1993: 123; Griffiths and Carey 1994: 14). Buyers' enthusiasm for English art engravings coincided with continental Europeans' interest in another type of loose-leaf print from London: optical views.

Optical views are etchings²², sometimes enhanced with a burin, whose status lies somewhere between popular engravings and art reproductions. First sold by London publishers and merchants around 1720, optical views made the fortunes of the companies of Henry Overton II, Robert Sayer, John Bowles, John Boydell, and Robert Laurie & John Whittle. These companies acted as publishers, distributors, and sellers. From 1740 to 1755, the views were initially considered by the British to be exclusively a domestic amusement (Blake 2000: 45). They later became a popular spectacle (Kappff 2010: 13). They were imported into France and other European countries from the 1750s onwards (Roy 2011: 47). This growth in the market led to the establishment of other production centres that competed with British traders. The most

²¹ The Eden-Rayneval Treaty is a trade agreement resulting from the Treaty of Paris in 1783. It is the Franco-British counterpart to the agreements signed between Great Britain and the thirteen American colonies following the American War of Independence. Art historian Stéphane Roy, in his article "English Print Market in Paris, 1770-1800", explains the importance of this treaty for the print trade. The agreements stipulate that English goods, except textiles, are taxed by weight in France, while French products arriving in England are taxed per item. This difference favours the export of English engravings to the French market (Roy 2008: 179).

²²Sixt von Kapff and Angelika Steinmetz-Oppelland mention that some publishers began producing optical views using lithography from 1790 onwards, which changed the functioning and content of engravings, even though prints tended to adopt an older style (2001: 199). This was the case with the Berlin publisher Winckelmann & Söhne, one of the last German publishing houses to produce optical views. The company produced 95 optical views in the 1860s (Seitz 1995: 33; Steckelings 1995: 69).

The most important of these publishers were based in Paris, Augsburg and Balsamo²³. Their production peaked between 1760 and 1800 (Kaldenbach 1985: 87). Regardless of their origin, optical views are most often interpretive engravings²⁴ created for commercial purposes. The sources they use, the formal characteristics they perpetuate from the London model, and the desired renderings are the result of workshop practices, but above all of the commercial circuit in which the various actors involved in their creation operate. At the time of their creation, the works therefore constitute a repository of different relationships involving social actors, discourses and non-human agents (Latour 2006). However, their belonging to a specific network is only interesting in relation to two other conditions that determine their appearance: the particularities of the medium and the social situation in which they are conceived. This chapter will discuss the interplay between the various factors involved in the design process. We will examine the impact of the medium and the influence of the environment on the content of the engravings. We will also look at the sources and iconographic choices made by Habermann and Leizelt when creating the views of Quebec City.

1.1 Devices and engravings: on the medium of the

Reflecting humanity's conquest of territory, places of power and commerce, cities are the symbolic expression of a collective identity. Steeped in meaning, urban landscapes exert a fascination that leads artists and artisans to develop urban imagery for a multitude of media. Optical views are among the media that use the city as their predominant theme. Cities and their public components are the subject of the vast majority of them, although other themes are also addressed²⁵. The recurring presence

²³The main Parisian publishers of optical views were André Basset the Younger (17..-178), Nicolas-Dauphin de Beauvais (1687?-1763), who was the king's engraver, Jacques-François Chereau (1742-1794), Jacques-Gabriel Huquier (1730-1805), Laurent Pierre La Chaussée (17..-1782), Mésard, Louis Joseph Mondhare (1734-1799) and Jean-François Daumont. In Balsamo, the Remondini firm monopolised virtually the entire production. We will return to the Augsburg publishers a little later in this introduction.

²⁴ The term "interpretive engraving" refers to engravings made from existing works that are reproduced, in whole or in part, using specific engraving techniques. Here, we are broadening the term to include prints that used engravings as their source.

²⁵ For example, according to Blake, urban spaces and parks account for about 75% of the optical views published in London around 1750 (2000: 61). Outside cities, the most common representations are gardens, current events, battles, mythological subjects, scenes from the Bible, theatre or

Is the prevalence of constructed landscapes due to the constraints imposed on engraving by viewing instruments? It seems that we should not automatically assume this to be the case. Indeed, some prints in the Prospectus Collection feature natural elements, such as *View of the Rhine Falls at Lauffen, Canton of Zurich* (Figure 7)²⁶, as is the case with engravings produced in Austria and Prussia in the 19th century²⁷. Furthermore, in his doctoral thesis, Blake notes that it is possible to manipulate the perspective of other genres, such as portraiture, to achieve the same effect (2000: 58-59). For her, the choice to represent the built landscape is determined more by the audience for which English optical views are intended. Her analysis suggests that London optical views mainly depict English locations, to which are added the exteriors of monuments typically associated with the Grand Tour (2000: 62). They are a means for *polite society* to access socially desirable public spaces, especially local ones, without having to experience the inconvenience of physical contact (2000: 75).

The fact that they almost exclusively depict places within the national territory is typical of the British. This habit is not observed in optical views from continental Europe. More open in terms of subject matter, the latter are not limited to the architectural landscape of a state²⁸. However, the city and its public places remain predominant. The emphasis on urban iconography is probably the result of several factors, including the influence of London optical views and the popularity of topographical views at the time. Everything indicates that it is also directly related to the medium. Devoted to motionless walks and aimed at creating an immersive three-dimensionality for the viewer, optical views offer an iconography in which the body can project itself. This medial characteristic must be combined with the abundance of motifs likely to accentuate the perspective present in urban or historical representations

historical narratives and architectural interiors. There are also very rare examples of images depicting the senses and natural landscapes.

²⁶ The Bibliothèque nationale de France dates this engraving to the 1790s. We believe that the optical view was actually produced in the early 1780s, as its engraver, Gottlieb Friedrich Riedel, died around 1784.

²⁷ We have identified engravings produced by Jacob Alt (1789–1872), Eduard Gurk (1801–1841) and Leander Russ (1809–1864).

²⁸ It should be noted, however, that nearby cities are often overrepresented. There are two possible reasons for this: the availability of images and transport difficulties. We will return to the second reason in the second chapter.

suburban areas. Responding to these expectations, engravers developed content determined by phenomena of perception resulting from the amplification of the characteristics of the prints by the optical devices used to view them.

These distinctive features of optical views are not unique. Several of the processes used in their composition are commonly employed in landscape imagery. Optical views differ from other urban views in their combination and almost systematic application of these compositional techniques in the context of media coverage. This style of optical view was first developed by British craftsmen. Once it became established, it was adopted and adapted by engravers working in other European production centres. In Augsburg, this was initially the case for craftsmen associated with the workshop of Georg Balthasar Probst (1732-1801), of which Leizelt was a member²⁹. A publisher and engraver, Probst was the first Augsburg craftsman to publish large-scale optical views, starting in the mid-1760s (Kapff and Steinmetz-Opelland 2001: 201; Seitz 1995: 30). Following Probst, most of these particularities persisted in the prints published in Augsburg by the Imperial Academy of Liberal Arts and by Max Abraham Rupprecht (1734-1800), an engraver active in Augsburg between 1770 and 1790. Later, they were adopted by the publishers Domenico Fietta (active 1788-1807) and Joseph Carmine (1742-1822), who were active in Augsburg from 1795 to 1810 and from 1808 to 1828, respectively (Kapff and Steinmetz-Opelland 2001: 200).

The graphic characteristics of optical views aim to eliminate signals that reveal the flatness of the landscape, taking into account how human vision works and the amplifying effects of reading instruments. The illusion created by optical views is based on

²⁹ The exact date on which Leizelt came into contact with Probst seems impossible to determine with certainty. The numbering of the prints designed by Leizelt corresponds to different periods in Probst's production. Leizelt engraved for Probst: two views of Delft (254 and 255) and two views of Schiedam after the Dutch artist Isaac van Haastert (1753 and 1834), two views of Mannheim (63 and 64) after Gebrüder Klauber, six views of Leipzig (331 to 334; 351 and 352) after works by Carl Benamin Schwarz dating from 1784, two views of Kingston (215 and 216), two views of Brussels (unnumbered), the source of which dates from 1786, and a view of Vlissingen showing the shipyard in 1779 (unnumbered). He may also be the author of a view of Chatham and a view of Portsmouth (unnumbered), whose identifications are laconic. This information has been compiled from the inventory established by Kapff (2010: 31-534).

binocular disparity, monocular cues and oculomotor cues³⁰ (Blake 2000: 78-79; Koenderink, Wijnjtes and van Doorn 2013: 194-195). Binocular disparity and oculomotor cues, in the case of optical views, are purely a result of interaction with the devices. These instruments are zograscope, also known as diagonal optical boxes³¹ (Figure 8), dioptric boxes (Figure 9) and catoptric boxes³² (figure 10). The zograscope is a device used exclusively in the salons of the wealthy. It consists of a base on which rests a post, at the top of which is attached a biconvex lens to which is attached, by a flap, a mirror raised at a 45-degree angle by two hinges during viewing. The lens and mirror are sometimes replaced by a concave mirror. Some zograscope have a peg at the top of the upright, which is used to control the height of the lens and mirror. Catoptric boxes incorporate the components of the zograscope in a closed environment. Dioptric boxes, which use direct vision, do not have a mirror. They are generally longer. All three devices are therefore equipped with a lens and sometimes include a mirror. These optical intermediaries cause ocular adjustments (Blundell 2015: 7-12). These muscular adaptations of the eyes lead to cerebral interpretations that affect the sense of depth. The objects in the engravings are then perceived as being at least two metres away from the viewer³³. The lens or biconvex mirror also affects the perceived shape. For the viewer, the dimensions of the prints expand and the engravings lose their flatness, as evidenced by this excerpt from Guyot's text: "Prints arranged in this manner can also be placed in optical boxes where they can be viewed through glass; but as the glass extends and enlarges the object, they must then be illuminated even more strongly."

³⁰ Monocular cues are one type of visual cue that indicates depth. They are derived from information gathered by a single eye. In contrast, binocular disparity, including stereoscopy, results from information gathered by both eyes. Oculomotor cues, on the other hand, relate to eye movement.

³¹ Zograscope is a term that appeared in England in 1753 (Blake: 2002: 120). It is currently used in German and French, but does not seem to have been common in either language at the time.

³² In the 18th century, there was no specific vocabulary for each of these devices. The words used, optical boxes, Guckkasten and peepshows, refer to a set of boxes, the contents of which may vary and include other types of entertainment besides optical views. We will return to this aspect in chapter two.

³³ Our own observations using the zograscope did not produce this effect, which was, however, observed with optical boxes. As we did not carry out the experiment with a large number of devices, we base this statement on Blake's thesis (2000: 81).

(1799: 123). They also become rounded, lifting the objects represented from the surface of the image (Blake 2000: 82-83; Poggi, Stafford and Terpack 2001: 96).

Unlike binocular disparity and oculomotor cues, monocular cues are based on representational codes found in engravings. They draw on artificial cultural models of image observation, particularly of landscapes. The three-dimensionality of landscapes in optical views is based on the internalisation of methods that suggest spatial depth, including perspective. Although the desired transparency of perspectival techniques applied to landscape is not a given that applies solely to optical views, as Anne Cauquelin demonstrated in her book *L'invention du paysage* (2000: 29-30), it is one of the most fundamental mediations of urban imagery, as it characterises the medium. Appearing as relatively simple engravings, optical views are nevertheless a means of communication that strongly manipulates the viewer's perception by inscribing themselves in the visual culture of the time.

Contrary to the perspectivist model from which they are derived, that of the Quattrocento, optical views are images that maintain their depth, even though the width of the visual field, which is 30 to 40 degrees when the engraving is placed under the optical instrument, means that the eye must move over the different parts of the representation in order to take in the whole (Koenderink, Wijntjes and van Doorn 2013: 194). In the case of the Augsburg engravings, this effect is produced by off-centre vanishing lines placed diagonally. This spatial arrangement is used by Leizelt, but it is most effective in Habermann's engravings. It is easily recognisable in *Vuë de la haute ville a Québec avec la Place pour aller a Cavalier du Moulin* (figure 3). In this work, the vanishing points are arranged along the lateral axes, which allows certain details, mainly buildings, to be represented using oblique axonometric projections. This type of projection accentuates the effect of relief. Although the viewpoint is different and there is no juxtaposition of planes, the use of this type of volumetry perpetuates the representational habits of certain urban maps of the 16th and 17th centuries (Nuti 1994: 116). A fundamental element of the composition of the engravings, the perspective off-centre is however not used

systematically by all engravers in continental Europe, since a small number of optical views are based on a centred perspective.

By omitting off-centre perspective, zoomorphic vision is partly triggered by visual techniques already used by artists depicting landscapes. This is the case with the oblique and elevated viewpoint and the fragmentation of the panorama, which are part of the visual strategies adopted by engravers of optical views. Invented by Northern European artists living in Italy in the 15th^e century, these methods of constructing geometrically organised images were used to obtain a wider field of vision (Naddeo 2004: 24; Nuti 1994: 110-113). They also made it possible to draw buildings beyond the foreground while reducing volumes in the distance. The adoption of an elevated viewpoint also offers the advantage of not breaking the unity of perspective. It matches the implicit subjective observation point to the position of the viewer leaning towards the lens, which adds to the credibility of the image. Used mainly to represent cities from an external viewpoint, this spatial arrangement can be clearly identified in *Vuë de la basse Ville a Québec vers le fleuve St-Laurent* (figure 4) and in *Quebeck* (figure 6).

The engravers' desire to emphasise the linear perspective of optical views affects other elements of the composition and the choice of motifs. To create an effect of proximity, the foreground is often provided with textured details to represent the ground in the centre or architectural elements on the sides, which contrasts with the background where the motifs are schematic. In addition, the central foreground tends to be uncluttered. The elements found there are most often human figures, animals, street furniture or, in the case of harbour scenes, ships. The interactions between these forms tend to be simplified, except in the case of Probst. The latter uses a slightly busier foreground, emphasising a genre scene or visual anecdote based on a small number of figures in the foreground. His British colleagues tended to use members of the educated public as central forms. In the case of the Prospectus Collection, engravers favoured the presence of characters typified according to their social status. The characters are reminiscent of the *Cris de ville* in their attitudes, postures and attributes.

Cries³⁴are prints, either single sheets or part of series, created for the civic elite and primarily depicting itinerant trades (McTighe 1993: 75-91; Milliot 1995: 65-78). In the era of Habermann and Leizelt, they encompassed other socio-cultural conditions and were popular with both the wealthy and the less fortunate. Integrated into popular culture, they became a visual source with a double entry point, where the viewer could identify with the image and be influenced by it. Despite the change in audience, the visual codes underlying the Cries remained focused on the view of the poorest by the richest. In the^{18th}century, they were still used for educational purposes with children from wealthy homes. It was also a means adopted to observe the "other" coming from a different geographical location during the Enlightenment³⁵. Typological in nature, this approach reduced the characters represented to their function in the city. In the case of the Collection des prospectus, the figures also served to characterise a site by offering a nomenclature of generic active signifiers. However, the Augsburg optical views are not uniform. When engravers depict current events, their prints tend to feature more characters, who are then animated by a relatively crude narrative. However, in this case, the action usually takes place in the middle ground, and the central foreground remains relatively bare. The figures are usually arranged in scattered groups or isolated so that the eye can penetrate the representational space. Overall, the engravings in the Prospectus Collection are distinguished by a rejection of narrative within the discursive space of representation in order to avoid drawing the viewer's attention to specific parts in favour of an overall effect of depth.

Habermann, Leizelt and their colleagues also regularly use motifs featuring parallel lines. These motifs establish vanishing points that seem to converge in the distance. Engravings depicting the interior of the city most often exploit the linearity of the streets; this is the case in *Vuë de la Place capitale dans la Ville basse a*

³⁴ It should be noted here that despite their name, the Cris de ville were not always associated with the urban landscape. According to historian Vincent Milliot, their recurring association with the city through their décor dates back to the^{18th}century (1995: 237-238).

³⁵Cultural historian Melissa Calaresu asserts that an interest in prints related to foreign travel, particularly the Grand Tour, developed in the^{18th}century. According to her, the development of this market had a particular impact on prints in Italian cities (2013: 181–209).

Quebec, View of the Upper Town of Quebec with the Place to go to Cavalier du Moulin and View of Rue des Recolets in the Upper Town of Quebec. In *View of the Lower Town of Quebec towards the St. Lawrence River and Quebec*, engravers used the river's harbour banks to achieve the same result. In Habermann's work, the motifs used to establish the vanishing points tend to curve slightly, thereby enlarging the foreground. In the case of original works, the overall spatial arrangement is dictated by the medial characteristics we have just outlined. However, optical views are usually interpretive engravings; compositional choices therefore influence the selection of the starting image and the way in which it is modified.

The creative constraints imposed by interpreting a model do not pose the same limitations for engravers using another tool that enhances the tunnel effect: atmospheric perspective. Completely controlled by the engraver, the tonal regression that occurs as the background recedes is intensified, in some cases, by the dark frame of the representations. The frame is often double for engravings from Augsburg. A thin line usually delimits the image and a second thicker line is used to create the contrast effect. The effectiveness of this framing varies depending on the viewing device. It is effective in the zograscope, which is an open device where the viewer's gaze is almost, but not entirely, occupied by the image, the edges of which can be seen. The permeability of the tool means that the lighting on the sheet cannot be controlled. The frame therefore serves as an 'ontological cut-off' that separates the view from its surroundings, the real space from the created space. It delimits the place where the gaze should rest and acts as a point of support allowing viewers to project themselves into the depth. However, it tends to remind the inexperienced viewer of the flatness of the engraving that serves as the basis for the three-dimensional image (Blundell 2015: 12). The presence of the frame is less noticeable in dioptric and catoptric boxes, which are closed assemblies, the interior of which is sometimes coloured black (Blake 2000: 86). The light is usually controlled by lids or flaps. The viewing space is restricted by the instruments, cutting the observer off from their surroundings. The viewer's eye is entirely occupied by

³⁶ This expression is borrowed from an essay by art historian Victor Stoichita. Reflecting on the frame as a symbolic object in the 17th century, the author defines the role of physical barriers surrounding moving images from the late Renaissance onwards (1997: 30-31).

the image, as demonstrated by this excerpt from a letter by French philosopher Jean-Jacques Rousseau (1712-1778). The letter is dated 20 October 1764 and was first recorded by film historian Laurent Mannoni (1994: 91):

It is indeed an optical device such as you describe that we had discussed. I do not like those that remain completely open, letting light in from all sides and presenting the surrounding objects along with the image. You told me of a way of enclosing the image in the box with a kind of black frame so that only the print is visible. (Rousseau 1959: 261)

In these latter devices, as in many optical instruments (della Dora 2009: 339), it is therefore the lens of the tool that serves as a threshold. However, the frame remains important in creating the contrast effect, since the darkness surrounding the engraving does not normally conceal its edges.

The assembled views in rolls used in dioptric boxes are partially exempt from this rule, as part of their edges are often cut off and blackened by their users³⁷. This blackening of the edges serves to increase contrast. It also aims to enhance the illusionist effect by reducing clues that might reveal the materiality of the image. This practice is mentioned in a text cited by C. J. Kaldenbach, Johan Bischoff's *Beyträge zur Optik*, published in 1764:

[...] one should cover the flat mirror so much until one sees through the lens neither the edge of the painting [print] nor anything outside the edge, but only the painting almost entirely... In opticas in which one cannot cover the mirror one can help by blackening the edges of the image (Bischoff cited by Kaldenbach 1985: 90).

Blackening and controlling the space being viewed are methods used by observers to increase perceived depth, while engravers use the frame. However, this is not the only method they use.

Dark masses

³⁷ The edges of the paper in some copies in the Kunstsammlungen und Museen collection in Augsburg have been completely darkened up to the frame. These prints were part of a scroll that has been split up. We also noticed that the edges of the images incorporated into the scrolls in the Lotter and Prittwitz private collections are also blackened. Blake notes that this is also the case for some of the London copies she consulted (Blake 2000: 85).

are often placed at the edges of the foreground. The compositional strategies used to create these masses take different forms. For the views of Quebec City, two methods are employed. The first is lighting that allows shadows to be cast in *View of the Capital Square in Lower Town Quebec* (Figure 2), *Vuë de la haute ville a Québec avec la Place pour aller a Cavalier du Moulin* (figure 3), *Vuë de la rue des Recolets dans la haute Ville de Quebec* (figure 5) and *Quebeck* (figure 6), where a shadow area darkens the expanse of water up to the bow of the central ship in the middle ground. The second method is to use a contrasting pattern. For example, in *Quebec*, there is a succession of gradations, with a very dark strip of land preceding the shadows on the river. In *View of Lower Town Quebec towards the St. Lawrence River* (Figure 4), the shore in the foreground is placed in shadow at the left end, and patterns contrasting with the paleness of the water are found on the right³⁸.

Other types of monocular cues are also incorporated: exaggeration of relative dimensions, reduction of textures, and partial superimposition of patterns. In the case of the Collection des prospects, the disproportionate size of human figures serves to exaggerate the relative distance between the various elements depicted, based on an assessment of distances drawn from the viewers' experience. This technique, which is very common in Leizelt's work, is applied less consistently by Habermann. This is particularly the case in Habermann's *View of Lower Town Quebec towards the St. Lawrence River* (figure 4), where the figures on the quay appear far too imposing. They are almost the same size as the human figures depicted in the foreground. When viewed through a zograscope, however, the nobles crowding near the water clearly stand out from the building behind them. The illusion is probably the result of another factor: the use of colours that cause tonal vibrations.

The arbitrary nature of the colours applied to optical views is mostly based on a conscious choice. Referred to as illuminations³⁹, the colours of optical views are

³⁸ These indications are reversed if the image is viewed with a device containing a mirror.

³⁹ Illumination is defined as follows in the 18th century: "Coloured image or print: this form of painting has no merit other than the brightness of its colours, most of which are dyes applied to the paper with gum, after it has been coated with a clear, white glue and a little alum water" (Virloys 1770: 542).

normally painted in watercolour by publishers, printers or street vendors in order to increase their value. An advertisement published in 1761 in *L'Avant-coureur* on behalf of a publisher-merchant announced that:

Mr Huquier, junior, has just added 20 different pieces to the collection of optical views, which are very impressive. To prevent the abuse of this type of curiosity by peddlers and print sellers [street vendors], who have them illuminated at very low prices and, consequently, very poorly, Mr Huquier has decided not to supply them with his new items of this kind, so that enthusiasts are not exposed to buying these defective illuminations, which are now flooding Paris and are infinitely inferior to those that Mr Huquier has carefully and faithfully produced under his own supervision [...] (*L'Avant-coureur* 1761: 391).

In the case of publishers and printers, colours were probably applied using a stencil for some designs, with a view to mass production⁴⁰. Some buyers chose to colour the prints themselves. To do so, they used the instructions available in certain manuals, including Edmé Gilles Guyot's (1706-1786) *Nouvelles récréations physiques et mathématiques*, which was first published in French from 1772 to 1775, then immediately translated into German in Augsburg⁴¹. The tones were normally selected according to the physiological effect of tonal vibrations (Blake 2000: 80). Already known empirically at the time, chromostereops⁴² almost systematically influenced the choice of colours, which explains the presence of intense red motifs on all optical views. The brightest and most opaque colours, distributed across the surface of the representations, also seek to create the same effect of depth (Blake 2000: 80). In this context, the pictorial choices are not based on realism, which would allow, for example, the colours of *the* uniforms in *View of Rue des*

⁴⁰ The use of a template created by cutting out windows following the design of the patterns to be coloured is a technique that emerged with the advent of engraving. It is intended to quickly colour large print runs. The method continued to be used until the 19th century for maps, popular prints, plans and playing cards (Préaud 1996: 18).

⁴¹ Designed in several volumes, the book was published by Kletts between 1772 and 1777 under the title: *Neue physikalische und mathematische Belustigungen*.

⁴² Chromostereopsis is caused by different refractions of blue and red in the eye. Red is projected closer to the fovea than blue. In a representation, it is therefore perceived as being in front of blue (Schwartz 1971: 25–27).

⁴³ Augsburg was also renowned for a practice known as the "German method", which consisted of applying opaque colours to topographical documents (Pedley, 2005: 67-69).

Recolets in Upper Quebec City, View of the Capital Square in Lower Quebec City, View of Upper Quebec City with the Square leading to Cavalier du Moulin, Quebec, and View of Lower Quebec City towards the St. Lawrence River in terms of belonging to a specific German or English military corps. Colours are dynamic tools that contribute to the illusion.

The colours of optical views, including those in the Collection des Prospects, have another unique characteristic that is indirectly linked to the accumulation of depth cues: they give the impression of having been applied without precision. This lack of finesse in the application of pigments is due to the presence of optical instruments during observation. The colours perceived on the engravings with the naked eye do not correspond to those seen through the lens, concave mirror or mirror. The use of these devices causes chromatic aberrations and blurring (Koenderink, Wijntjes and van Doorn 2013: 198-199). Although partially corrected by the eye, these alterations caused by optical tools remain significant enough that the meticulous application of colours to engravings is not necessary, unless the producer wishes the prints to have value beyond their use with instruments. This is the case with English optical views, which are carefully coloured and advertised for their value as decorative objects in catalogues such as *Carington Bowles's New and Enlarged Catalogue of Useful and Accurate Maps, Charts, and Plans*, produced by Bowles in 1784:

The following sets consist of a large variety of perspective views, containing remarkable views of shipping, eminent cities, towns, royal palaces, noblemen and gentlemen's seats and gardens in Great Britain, France and Holland, views of Venice, Florence, ancient and modern Rome, and the most striking public buildings in and about London. Esteemed not only for furniture, but are likewise much used, properly coloured, without frames, for viewing in diagonal mirrors or optical pillar machines, in which method of looking at them, they appear with surprising beauty and magnify almost to the size of the real building; any of them may be had separately (Bowles 1784: 70).

We assume that this is also the case for the optical views printed by Probst, whose colours are carefully chosen. The engravings produced by Probst would then have a higher status than the prints in the Collection des prospects, which are coloured carelessly. In this respect, the

The situation in Augsburg seems to follow a general pattern whereby optical views are shifting from a status akin to that of decorative works to that of objects of entertainment. Overall, the later the optical views are produced, the more basic the colouring becomes, with a limited number of colours being used, mainly to distinguish generic signifiers such as the sky, water, etc. The colours used then take on the role they occupy in other topographical prints, mainly maps (Pedley 2005: 67-69).

The impact of optical instruments is not limited to the graphic aspect of the prints. The inversion of the image by the mirror in several of the instruments led some publishers to adapt some of the titles. The representations are usually accompanied by a text whose layout varies little. All publishers included a title, a complete description and information about the producer in the usual reading direction at the bottom of the image⁴⁴. In the case of German, French and Italian views, a second inverted and shortened title often appeared above the representation. This reversal, which does not exist in England, allows access to a description during viewing. It is applied invariably to the prints in the Collection des Prospects. In addition to this influence of the medium on the layout of the script, there are also adaptations concerning the support of the prints. Optical views use a horizontal format typical of landscape representations, which reinforces a structure focused on a representation of the distance.

Optical views seek to create a mimetic space that seems self-evident because it is based on artificial depth relying on long-standing representational conventions. Integrated into the collective visual vocabulary used to describe the landscape in the 18th century, these codes appear all the more transparent. The appearance of *Vuë de la rue des Recolets dans la haute Ville de Quebec*, *Vuë de la Place capitale dans la Ville basse a Quebec*, *Vuë de la haute ville a Québec avec la Place pour aller a Cavalier du Moulin, Quebeck* and *Vuë de la basse Ville a*

⁴⁴ Although still present at the time of publication, the descriptions may have been cut from some copies intended for scrolls. In the scrolls of the Lotter and Prittwitz private collections, the titles were often written on the back of the engravings. On these copies, the texts on the reverse are not always written in the usual direction.

Quebec towards the St. Lawrence River is therefore, in part, the result of the application of certain compositional principles dependent on the desired effect: an immersive three-dimensionality. Due to the medium used, the engravings are subject to a number of conventions. The restrictions imposed by the medium influence the selection of sources that are interpreted by the engravers as well as decisions regarding the iconography chosen. The form of the engravings is also marked by the anticipated presence of optical instruments at the time of reception. The lens, the only part found in all three devices, is the determining technological factor that influences the creation of optical views.

The relationship between prints and lenses explains the visual cohesion within the Prospectus Collection and, more broadly, between the prints produced by European continental publishers of optical views. It is also fundamental to understanding the striking similarities between the Augsburg engravings and certain works depicting the city that were produced during the same period. Indeed, another instrument incorporating a convex lens and, in most cases, a mirror tilted at 45 degrees, attracted the interest of the masses at around the same time: the *camera obscura* or darkroom. Although the camera obscura had been one of the tools used by painters since the end of the 16th century⁴⁵, it was in the 18th century that small, portable models became available to a wider audience. Its use then became widespread for depicting and observing the landscape⁴⁶. During the Enlightenment, the most prominent landscape artist working with the *camera obscura* was undoubtedly Giovanni Antonio Canal (1697-1768), known as Canaletto (Fritzsche 1936: 158-194; Gioseffi 1959)⁴⁷.

⁴⁵Since the publication of David Hockney's book in 2001, there has been debate about when painters first began using the *camera obscura*. Like Michael J. Gorman, we reject Hockney's dating of the camera obscura for chronological reasons (2003: 95-96).

⁴⁶ Several treatises intended for artists or the general public prescribed the study of images provided by the *camera obscura*. This was the case, for example, in John Harris's *A Treatise of Optics Containing Elements of Science* (1775), *Rational Recreations* (1782) by William Hooper, *The Complete Dictionary of Arts and Sciences* (1764) edited by T. H. Crocker, *Méthode pour apprendre le dessein* (1755) by Charles Antoine Jombert, *Saggio sopra la pittura* (1763) by Francesco Algarotti, and *The Art of Drawing, and Painting in Water-Colours* (1732). Some works also attest to its use for observing the landscape while travelling, for example: *Apodemik oder die Kunst zu reisen* (1795: 62) by Franz Posselt and *Travels to Discover the Source of the Nile, in the Years 1768, 1769, 1770, 1771, 1772, and 1773* (1790: viiii-ix) by James Bruce.

⁴⁷ In the 18th century, several artists acknowledged using the camera obscura while asserting that this type of mechanical reproduction should be distinguished from the artist's work. This was the case for several painters working in England: Josuah Reynolds (1723-1792), Thomas Sandby (1721-1798), Benjamin West (1783-1820), John Singleton Copley (1738-1815), to whom we might perhaps add Paul Sandby (1731-1809), who bought his brother's *camera obscura*.

Some of this artist's representations were copied by publishers of optical views⁴⁸. Some of Canaletto's plates were also purchased by the Remondini company and printed as optical views (Minici 1988: 212). Like the devices manufactured for optical views, the camera obscura reverses the original object, causes a linear rendering, affects the construction of volumes and intensifies the effects of light. Both instruments also tend to play on the succession of planes and create distortions of scale⁴⁹. Finally, they both have the effect of offering a fragmented and framed landscape through a luminous, evanescent and floating image. There are several well-known examples where a device can be manipulated both as a catoptric box and as a camera obscura (Huhtamo 2012: 37; Mannoni 1994: 10).

Optical views were therefore part of a creative movement influenced by the popularity of optical devices during the Enlightenment. Visually, they share similarities with images captured by artists using the *camera obscura*. Landscape representations and city views of the period were influenced by the lens, whose predominance was linked to the tastes and cultural skills of the human agents involved, both creators and viewers. The resulting compositional homogeneity made it easier for engravers of optical views to appropriate prints already in circulation. Optical views are also marked by the methods used to produce the engraving and by the determinism generated by the device. The landscapes they depict are artificial constructions based on culturally connoted visual references. Featuring general features of the Laurentian city, Habermann and Leizelt's representations of Quebec City are the result of what Becker calls the correspondence between "the fragments of reality that manufacturers want to represent" and "the conventional elements available in the medium used" (2009: 36). Their form and content also result from their genesis in a specific editorial environment. We will now focus on these modes of development.

upon the latter's death (Caron and Shafer 2008; Bonehill and Daniels 2009: 23). On the Italian peninsula, apart from Canaletto, the artist best known for his use of the *camera obscura* is Bernardo Belotto (1722–1780).

⁴⁸ For example, Leizelt adapted at least two of Canaletto's works: *View of the Rialto Bridge in Venice* and *View of the Rotunda from Inside the Rotunda in the Ranelagh Gardens*.

⁴⁹ For more specifically on the impact of the *camera obscura* on landscape representations, see the English visual culture specialist Marie-Madeleine Martinet (1981: 76) and the art historian Shearer West (1999: 91).

1.2 The impact of origins: Augsburg and the Imperial Academy of Liberal Arts

A free city of the Holy Roman Empire from 1276 to 1803, Augsburg became one of the German centres of woodcut production at the end of the 15th century. The first Augsburg engravers to gain a certain degree of notoriety were active from 1490 onwards. These were the Hopfer brothers⁵⁰, the best known of whom was Daniel, the inventor of burin engraving, and the Brugkmair family⁵¹ (Hind 1963: 108; Stewart 2013: 263). In terms of quantity, the city was the third largest centre of production behind Paris and London from the 17th century onwards, a position it retained until the end of the following century (Griffiths and Carey 1994: 12; Seitz 1986: 116). Hit by a decline attributable to political events, demographic decline, the immobility of the city council and new tariff barriers, the city saw a gradual decline in the number of engravers working within its walls from the second half of the 18th century onwards (Bushart 1989: 340; Mančal 2010: 5). The number of engraving workshops fell from 71 in 1731 to 50 in 1780 (Mančal 2010: 14).

This situation caused tensions between publishers and artisans over wages (Mančal 2010: 14). According to the city treasurer Paul von Stetten, it also led to a decline in the quality of the works: *"The number of publishers increased too much, and as a result, the number of artists decreased. Einige Wenige blieben der Kunst und dem Geschmacke getreu, die meisten trachteten allein nach Brod⁵²"* (1779: 14). The scale of operations remained high, however. Based on the writings of German history specialist James J. Sheehan, who asserts that the geographical concentration of a large number of craftsmen in one place means that production is not intended for a local market (1989: 107), it must be assumed that this was still an export trade despite the reduction in manpower. This theory seems to hold true for the production of optical views.

It was in these circumstances that the Protestant engraver Johann Daniel Herz the Elder (1694-1754)

⁵⁰Daniel Hopfer and his brothers Hieronymus and Lambert Hopfer. Although falsely attributed to Dürer in some writings, the discovery of engraving with a burin is credited to Daniel Hopfer (Stewart 2013: 263).

⁵¹Hans Burgkmair (1473–1531) and his son Hans Burgkmair the Younger (1500–1562).

⁵² We translate: "The excessive number of publishers has reduced the number of artists. A few have remained faithful to art and taste, but most aspire only to earn a living."

established the Imperial Academy of Liberal Arts⁵³ in the 1750s, for which he was granted an imperial privilege⁵⁴ for ten years, as evidenced by the *Die schon längst von vielen eifrigst verlangte Nachricht von der Beschaffenheit, Einrichtung und Vorhaben der Kaiserl. privilegierten Gesellschaft der freien Künsten und Wissenschaften* (1753). He subsequently requested permission to collaborate with individuals of his choice regardless of their religious practices⁵⁵, which was granted in 1755 (Bushart 1989: 341). Upon Herz's death, it was initially suggested that the management of the enterprise be transferred to the city's official academy, the *Reichsstädtliche Kunstakademie*, established between 1710 and 1715. In the end, it was his son, Johann Daniel Herz von Herzberg, who inherited it in 1755, while he was living in Vienna (Bushart 1989: 341). It was under his leadership that the Academy printed optical views, including those of Quebec City, which were created by the workshops of Habermann and Leizelt.

The Academy was an ambitious project whose goal was to make Augsburg a centre of excellence for the graphic arts by establishing a collection of models, creating a space for discussion and exhibition, publishing an arts journal, and offering public lectures (Bushart 1989: 341). Its establishment attracted the interest of many German-speaking personalities who were honorary members or corresponded with the Herz family. This network included intellectuals, artists and thinkers living in the Holy Roman Empire or elsewhere on the European continent⁵⁶. Among them were Johan Joachim Winckelmann (1717-1768), a renowned art historian and theorist of German Neoclassicism, Johann Georg Wille (1715-1808), an influential engraver based in Paris, Anton

⁵³ The Academy underwent numerous name changes during its existence and is identified by different names in recent publications. When it was founded, it was first named the *Societas Atrium Leberarium*. When Johann Daniel Herz von Herzberg took possession of it following the death of his father, it took the name *Caesareo-Franciscae Artium liberatum Academia*. In contemporary German literature, it is most often referred to as *the Kaiserlich Franciscische Akademie* or *Kaiserlich Franciscische Akademie Der Freien Künste und Wisseschafte* (Baer 1998: 407, 495-496; Bushart 1989: 340-341). We use the common French name, which is also the one used on the engravings.

⁵⁴ Imperial privilege protects publishers from fraudsters seeking to make unauthorised copies of works. In the Germanic states, this type of legal protection offers the most extensive geographical coverage due to the size of the territory controlled by the emperor (Carey and Griffiths 1994: 12).

⁵⁵ To preserve the balance between Catholics and Protestants, rules of religious representation, known as biconfessionality, are usually observed in Augsburg.

⁵⁶ This support can be explained by the stated intention to train excellent engravers capable of reproducing the paintings of German artists (Bushart 1989: 341).

Raphael Mengs (1728-1779), a neoclassical painter from Bohemia who settled in Rome, Martin von Meytens (1695-1770), official painter to the Habsburg court, and Christian Ludwig von Hagedorn (1712-1780), art theorist, painter and director of the academies of fine arts in Dresden and Leipzig (Bushart 1989: 341). However, the Academy's integration into the local institutional network did not go smoothly. The official academy perceived it as a rival, and tensions arose with the guild over the status of artists. (Bushart 1989: 340). In fact, a lawsuit pitted the *Reichsstädtliche Kunstakademie* against the Imperial Academy of Liberal Arts in 1778⁵⁷.

Ultimately, the institution established by the Herz family played little role in training engravers and disseminating theoretical trends in art, apart from a short-lived journal and Mengs's shipment of plaster models to Augsburg (Bushart 1989: 342). The Academy was primarily a publishing house whose financial objectives differed little from those of its Augsburg competitors. Discredited because of Herzberg's obscure and disastrous financial management, the Academy saw its activities decline from the end of the 1780s and was finally dissolved shortly after Herzberg's death in 1793 (Baer 1998: 407; Bushart 1989: 341). The context of production in Augsburg and the dynamics prevailing in the publishing house's activities had an impact on Habermann and Leizelt's optical views. The influence of this environment on the content and format of the optical views will be discussed in the following pages, focusing on the availability of sources, commercial and artistic objectives, material constraints and the consequences of censorship.

Focused on mass production, the Augsburg publishing industry has long been involved in creating representations of the built landscape. In the mid-18th century, publishers went so far as to send engravers on their behalf to produce models⁵⁸. These loose-leaf images illustrating cities, gardens and buildings were one of their main products

⁵⁷ The minutes of this trial are compiled in a printed document entitled *Le Versuch über die Naturgeschichte des Maulwurfes und die Anwendung verschiedener Mittel ihn zu vertilgen mit kupfern* (La Faille 1778).

⁵⁸ For example, the drawings of Friedrich Bernard Wermer (1590-1776) served as the basis for 278 engravings by Martin Englebrecht (1684-1756), 138 by Johan Georg Merz (1694-1762), 89 by Jeremias Wolff (1663-1724) and 109 by Johan Christian Leopold (1699-1755) (Milano 2011: 81).

Augsburg engravers (Mančal 2010: 15). In addition to these, there are other types of urban representations that form part of the main focus of Augsburg's graphic production. Indeed, several publishers have specialised in the creation of maps and geographical treatises since the 15th century (Ritter 2014: 10-19; Seitz 1986: 116). These include numerous cartouches of city views. Following a long tradition of engraving that consists of appropriating another work, in whole or in part, adapting it and changing its meaning, the craftsmen who designed optical views used these images. In addition to this main pool, engravers could draw on the vast collections that Augsburg publishers built up thanks to a postal system that was exceptionally reliable for the time (Mančal 2010: 8), enabling them to obtain recent publications. Among these prints were a large number of English engravings, which were imported to be copied by Augsburg engravers from the mid-18th century onwards (Clayton 1997: 274). Obtaining engravings from London was not necessarily a straightforward process. Art historians France Carey and Antony Griffiths argue that contact between London publishers and their German colleagues was limited due to the language barrier (1994: 19-20). Interactions most often took place through correspondents who maintained links with London and recorded a wide range of English publications for sale in German-speaking countries⁵⁹. Engravings could also be obtained through the resale market, either through engraving peddlers or auctions.

Leizelt borrowed from the Collection des Prospects, which included representations created in Augsburg and European works that were popular at the time. He used prints by the Augsburg engraver Karl Remshart (1678–1735) as models, as well as engravings inspired by artists such as Joseph Vernet (1714–1789), Jan Arends (1738-1805), Jacques Rigaud (1680-1754) and Nicolas Ozanne (1728-1811). Present at the locations depicted, these artists are, for the most part, clearly identified in the credits at the bottom of Leizelt's engravings, as their names add to the credibility of the image. In the case of Leizelt's American representations, the attributions are not always indicated.

⁵⁹ The publisher Bremer & Sohn in Braunschweig dominated the importation of English prints into the Holy Roman Empire (Carey and Griffiths 1994: 200).

⁶⁰ The indications are most often *pinx.* or *delin.*

Dominique Serre (1719–1793), François Denis Née (1732–1817) and the Chevalier d'Eprenay⁶¹ are credited as the creators of the works from which the views of the Caribbean and South America⁶² are taken. The naval battles, *Etat malheureux du Quebeck et de la Surveillante vaisseau de guerre francois* (figure 11) and *Combat memorable entre le Pearson et Paul Jones* (figure 12), are attributed to the English marine painter Richard Paton (1717-1791) without mentioning the craftsmen who transcribed the paintings⁶³. However, the letter ⁶⁴at the bottom of the image does not mention the models used to create the images of North American cities.

First identified by architectural historian Christopher Pierce, the source used to create *Quebeck* was published privately on 15 February 1775⁶⁵ (2007: 24). It is *View of the Royal Dockyard at Chatham* (Figure 13), a burin engraving created by Pierre Charles Canot (1710-1777), an engraver of French origin residing in London. The engraving was based on a drawing by John Hamilton Mortimer (1740-1779), which was itself based on an oil painting by Richard Paton. Leizelt's access to this engraving can be explained primarily by its popularity. The works of Canot and Woollet were extremely popular at the time and were widely discussed in periodicals circulating in the German states (Clayton 1993: 129-130; Carey and Griffiths 1994: 14). They also appear in

⁶¹ Our research has not enabled us to clearly identify this person. We only know that he was a French soldier.

⁶² These are four engravings: *First view of Fort Royal in Martinique from the sea*, *Second view of Fort Royal: View of the first embrasure of the Prison battery*, *Second view of Fort Martinique/from the Rade des Flamands taken halfway up the Morne from the residence of Mrs Claverit*, and *View of Fort Royal in Martinique from the Port*.

⁶³ James Filtler and Daniel Lerpinière are the London engravers of the two etchings that inspired Leizelt. *The distressful situation of the Quebec & the Surveillante*, dating from 1780, was used for *The unfortunate state of the Quebec and the Surveillante French warship*; and *The memorable engagement of Captain Pearson of the Serapis*, also published in 1780, is the source of *The memorable battle between the Pearson and Paul Jones*.

⁶⁴ In engraving, the term "letter" refers to information relating to the circumstances of production and sale. It includes, among other things, the signature and references to interventions, which are indicated by abbreviations (Sanciaud-Azanza 2000: 131). In addition to the forms we have already mentioned, these abbreviations may be inscribed using the words *sculp it* or *deli*.

⁶⁵ This information is indicated directly on the image due to British legislation. The Hogarth Act of 1734 requires publishers to indicate the date and place of production in the caption (Deltour-Levie 2006: 57; Rose 2010: 81-84).

certain manuals⁶⁶ intended for collectors from a new and relatively expanding social group: the educated public. Furthermore, the engravings after Paton were among the first English prints to be reviewed in the German periodical *Bibliothek der schönen Wissenschaften und der freyen Künste* in 1759 (Clayton 1993: 126). Subsequently, they were reviewed in the *Bibliothek der schönen Wissenschaften und der freyen Künste* (Clayton 1993: 126). Everything therefore suggests that they were readily available in Germanic states at that time.

The absence of any mention of responsibility can probably be explained by the original purpose. Indeed, publications in the Collection des Prospects generally omit the source when it does not reinforce the authenticity of the landscape being depicted. Exceptional in Leizelt's practice, this absence is more common among other engravers at the Academy. This is particularly the case for engravers who seem to have used little first-hand material, including Johann Baptist Konrad Bergmüller (1724-1785), who produced views of Brussels in which, according to Deltour-Levie, the city resembles a German urban agglomeration (2006: 5). Habermann's work, whose views of Quebec City are invented, also follows this line. Unlike Leizelt, Habermann's sources are rarely identified on his optical views, regardless of the location depicted.

Before returning to the borrowing system, two elements should be noted regarding the interactions between the various textual components inscribed at the bottom of the images edited by Herzberg. First, the reference at the bottom of the optical views in the Collection des prospects corresponds to the title identifying the site. This title is descriptive in nature and serves to reinforce the credibility of the representations. It may be short, as in the case of *View of the Capital Square in the Lower Town of Quebec*, *View of the Upper Town of Quebec with the Square leading to Cavalier du Moulin*, *View of the Lower Town of Quebec towards the St. Lawrence River*, or *View of Rue des Recolets in the Upper Town of Quebec*, or it may be supplemented.

⁶⁶ *The Fishery*, which Leizelt uses as a source for *L'Arrive du Prince Quillaume Henry, fils du Roy d'Angleterre a Nouvelle York en Amerique 1781 le 16 octobre* (The Arrival of Prince William Henry, Son of the King of England, in New York, America, on 16 October 1781), is one of the works that Carl Ludwig Junker recommends acquiring in *Erste grundlage zu einer ausgesuchten Sammlung neuer Kupferstiche* (1776: 17).

with a caption, as is the case with *Quebec*:

Quebec, a city in Canada in North America on the left bank of the St. Lawrence River, was the capital of New France, but the English took it in 1759 and, under the subsequent peace treaty, it was ceded to the Crown of England along with the whole of Canada.

When present, the caption provides additional contextual information. The second element, the presence of the letter at the bottom of the engraving, is part of a completely different dynamic. Common in semi-fine prints and topical engravings (Sanciaud-Azanza 2000: 133-134), the letter includes the engraver's signature. It is rarely included in French and German optical views. The almost systematic identification of engravers' names by the Academy is therefore an exception. Presumably, this editorial decision resulted from the objectives it set for itself as an institution, namely to enhance the status of engravers and emulate high-quality prints. It also made it easier for potential buyers to identify the engravings when they were put into circulation. At the time, the mention was often added to encourage collectors to purchase sets designed by a particular engraver. These methods of writing did not only affect optical views depicting cities, gardens or buildings. They also applied to other types of images whose content was borrowed from existing sources.

In addition to the representations of the built landscape reproduced by the engravers of the Collection des Prospects, there is a series of biblical scenes probably inspired by local production. Almanacs and devotional images are another important facet of Augsburg publishing (Griffiths and Carey 1994: 12; Seitz 1986: 116). Devotional images also occupy a central place in the catalogue of the Imperial Academy of Liberal Arts, the *Verzeichnuß Des halben Theils Der, Von der Augspurgischen Gliederschafft Der Kayserlich Franzischen Academie freyer Künsten errichteten Tontine Oder Leib-Renten* (1757), which was published before the publishing house became involved in the sale of optical views. The development of Augsburg as a centre for the production of optical views was therefore due to the availability of a wide range of engravings that could be copied.

or interpreted.⁶⁷ Herzberg's decision to develop a series of optical views was therefore in line with the emerging context. The Imperial Academy of Liberal Arts benefited from readily available sources and an already structured distribution market at a time when it was experiencing significant financial problems⁶⁸. Moreover, this network enabled it to charge fairly high prices. At the end of the 18th century, Augsburg publishers were second only to Vienna in terms of the quality and prices⁶⁹ of their prints for optical devices.

The inclusion of *Vuë de la rue des Recolets in the upper town of Quebec*, *Vuë de la Place capitale in the lower town of Quebec*, *Vuë de la haute ville a Québec avec la Place pour aller a Cavalier du Moulin, Quebeck* and *Vuë de la basse Ville a Québec vers le fleuve St-Laurent* in the Collection des prospectes does not only affect the content of the representations. The titles used and the format chosen depend directly on the publishers' requirements. The optical views in the Collection des Prospectes have descriptive titles at the bottom of the image in German and French⁷⁰. In addition, a French title with reversed spelling appears above the image. The use of French on the engravings is directly linked to Herzberg's commercialism. It increased commercial opportunities by allowing distribution in French-speaking states. The reproduction of some of the optical views from the Collection des Prospectes by Jean Zanna in Belgium and André Basset and Jean-François Chereau in Paris suggests that the prints published by Herzberg were indeed traded in these territories⁷¹. The use of French also made it possible to expand the pool of potential buyers, as French was the *lingua franca* of the time (Hesse 2006: 503).

⁶⁷ With the exception of religious images, this catalogue mainly includes portraits of sovereigns, engravings based on historical paintings and landscapes.

⁶⁸ For more information on the Academy's financial situation between 1775 and 1790, see the catalogue published by historian Josef Mančal (2010: 8).

⁶⁹ C. J. Kaldenbach estimates that the price of an optical view from Augsburg ranged between one and two Augsburg florins, which, given the exchange rate at the time, corresponds to between eight halfpennies and three shillings. London optical views, for their part, were sold for between eighteen shillings and two pounds. The price of Parisian and Italian views was much lower (Kaldenbach 1985: 101-102).

⁷⁰ The German version uses different spellings depending on the copy. It is most often in antiqua, but fraktur is sometimes used for German. Antiqua corresponds to the typography of our current alphabet and was the normal form of writing in most other European countries during the Enlightenment. The French version is always in antiqua.

⁷¹ We will return to some of these borrowings when we discuss the views of New York.

This desire to sell as many copies as possible also explains the mention of the series, the Collection des Prospects, at the top of the prints. The Academy is thus targeting collectors in the hope that they will seek to amass sets of engravings.

The collection of urban representations is rooted in a tradition that dates back to the first illustrated atlases produced in the 16th century⁽⁷²⁾. Like atlases, the Collection des Prospects reifies public space to make it available to viewers. Both types of objects are ways of observing the world that are based on a certain schematisation and a desire for exhaustiveness. However, the Prospectus Collection departs from a quantitative and abstract geography in favour of a qualitative, social, visual and three-dimensional vision. Some of the French and Augsburg publishers take this logic to its extreme. They numbered the optical views sequentially without attempting to organise the viewer's experience according to a predetermined narrative beyond groupings by location. This was the case with Probst and Basset, among others. Herzberg's approach was more subtle. The images' belonging to a set was indicated by the title of the series, which was affixed at the top of the prints. This title, Collection des prospects, seems to have been chosen for commercial reasons that go beyond collecting. The name evokes the Anglo-Saxon terminology for optical views⁷³. It is therefore likely that Herzberg is attempting here to establish clear links between the engravings they offer and the most popular optical views on the European continent: British optical views.

This concern for distribution networks also affected the size of Habermann and Leizelt's optical views. The overall dimensions of the prints produced for the Herz family correspond to the majority of optical views designed in Augsburg, Paris and Bassano. Apart from a few half-format prints published by Probst⁷⁴, the size of the representations from these three cities generally ranges from 24 to 25 cm in width by 39 to 41 cm in height, with

⁷² The first large-scale illustrated atlas was *Civitates orbis Terrarum*, the first volume of which was printed in Cologne in 1572. The production of *Civitates* was preceded by several partial attempts by Italians, especially Florentines, who drew inspiration from the *Cosmographia* or *Geographike Hyphegesis* written by Ptolemy around 150 AD (Nutti 1994: 105).

⁷³The *Deutsches Wörterbuch* (DWB), commonly known as Grimm's dictionary, notes the English origin of the word.

⁷⁴ Rare examples of smaller formats published by Probst are preserved in the Prittwitz collection.

A woodcut measures between 27 and 30 cm in height and 40 to 42 cm in width. English engravings have more variable dimensions (Deltour-Levie 2006: 3). The regularity of the size of views from continental Europe seems to stem directly from the standardisation of paper sizes in the various European states from the mid-18th century onwards (Stijnman 2012: 259-260). It undoubtedly also encouraged the circulation of prints and the production of copies from one publisher to another⁷⁵ and is directly affected by the presence of engravings in a device. Indeed, in order for the mirror to reflect more than just part of the prints, the ratio between the size of the mirror and the size of the image must remain constant⁷⁶. By opting for the most common format, the Academy ensured that it could sell its views in the surrounding regions.

While the dimensions of the optical views published by the Herz brothers were dictated by their reception frame, the number of representations published for a given subject must be correlated with the objectives pursued during production. When examining the prints in the Prospectus Collection, it is easy to see that the same theme is often represented in four different ways or repeated in multiples of four. While the production of multiples is normal for optical views, the number of prints designed for each site usually varies. In our opinion, the fact that most themes are represented in groups of four is due to factors related to the technical means available and the profits sought. We believe that the press used allows four matrices to be printed at the same time, which explains why engravers prefer to repeat the same subject or the portfolio of the same artist according to this multiple. This type of large-scale press is rare and exists in Augsburg. Their presence is due to the decisive role played by the city's engravers in the publication of large-format maps, and it is very likely that the publisher of the Imperial Academy of Liberal Arts had access to them⁷⁷. The decision to produce matrices in groups of four was

⁷⁵ This theory is put forward by collector Richard Balzer in his book *Peepshows: a Visual History*. Although we believe his conclusion to be correct, we are not satisfied with the data on which he bases it. The author relies on the format of the engravings, which he considers to be standard in England and on the European continent. However, the measurement he gives corresponds to the size of the paper rather than that of the image (Balzer 1998: 32).

⁷⁶ The presence of a peg on several zograscope would then be a means of counteracting this obligation by adjusting the distance between the engravings and the mirror.

⁷⁷ Although he was not a specialist in cartography, Herz the elder also used very large paper formats measuring up to 88 x 130.5 cm for plates measuring 82 x 121.5 cm (Stijnman 2012: 260). Director of

probably taken for financial reasons. It allowed the publishing house to increase the number of copies available more quickly, which meant that Herz could reap higher profits. In addition, by increasing the diversity of images offered on the same subject at the same time, the publisher improved the commercial potential of the works. When grouped together, the representations are more likely to be purchased in batches by collectors eager to admire the appearance of a city from several viewpoints or different scenes of the same event. The production and purchase of engravings showing several angles of the same object were common practices in the 18th century.

These material, social and economic conditions of production allow us to assert that the Quebec City optical views designed by Habermann and Leizelt do not form a whole. The engravings belong to two distinct groups. Leizelt engraved four urban views of the English colonies in America. In addition to *Quebec*, he designed *Salem* (figure 14), *Philadelphia* (figure 15) and *New York* (figure 16). *Salem*, like *Quebec*, is taken from *View of the Royal Dockyard at Chatham*, from which it reproduces the right-hand side. *Philadelphia* and *New York* are derived from the same portfolio. The two etchings are adaptations of parts of *View of the Royal Dockyard at Deptford* (figure 17), which was engraved in 1775 by William Woollet after a drawing by Mortimer. Mortimer himself was inspired by a painting by Paton (figure 18). In addition to these prints by Leizelt, there are four seascapes directly related to the American War of Independence: *Memorable Combat between the Pearson and Paul Jones*, *Unfortunate State of the Quebeck and the Surveillante French Warship*, *The Arrival of Prince William Henry, Son of the King of England, in New York, America, on 16 October 1781* (figure 19) and *The Fortress of Gibraltar Encloses the Spanish*⁷⁸ (figure 20). The first two prints in this set are also adaptations of engravings by Paton⁷⁹. First published privately in 1768, the third is

A member of the Academy until his death, Herz was also an engraver, and several of his prints are included in the 1757 catalogue.

⁷⁸Spain intervened in the conflict between the American colonies and England in June 1779. The Spanish crown's main objective was to regain possession of the territories lost in previous wars, including Gibraltar, which was then in English hands (Bély 2007: 622-623).

⁷⁹ We have been unable to identify the source of *La Forteresse Gibraltar enferme des Espagnols. Etat malheureux du Quebeck et de la Surveillante vaisseau de guerre francois* is inspired by *The distressed situation of the Quebec & the Surveillante* (1780) and *Combat memorable entre le Pearson et Paul Jones* is adapted from *The*

an interpretation by Woollett of a painting by Richard Wright (c. 1735–1775)⁸⁰. The lack of archives makes it impossible to determine when Leizelt came into possession of the English engravings. However, this date cannot be earlier than the following March due to the time required to transport publications between German-speaking countries and Great Britain. This usually takes around three weeks⁸¹. To this must be added the time required to produce the matrices. Optical views, which are half-fine line engravings take between three and six months to produce⁸². These figures must be multiplied by the number of matrices designed to be printed at the same time. It is therefore highly unlikely that *Quebeck* and the other American city views were sold before 1776.

For his part, Habermann designed prints depicting three American cities. First, there are the four views of Quebec City that are included in this thesis. In addition, he created four depictions of New York City entitled *The Destruction of the Royal Statue in New York* (figure 21), *The Triumphal Entry of Royal Troops into New York* (figure 22), *Representation of a Terrible Fire in New York* (figure 23) and *Landing of English Troops in New York* (figure 24). He also drew four views of Boston: *View of Boston towards the Harbour* (figure 25), *View of the Street and Town Hall in Boston* (figure 26), *View of King Street towards the Country Gate in Boston* (figure 27) and *View of the Great Street towards the South Presbyterian Church in Boston* (figure 28). The New York views are the only ones to directly depict events from the American War of Independence. Like other engravings of North American cities by Habermann and

Memorable Engagement of Captain Pearson of the Serapis (1780). Both engravings are interpretations of Paton's work by James Fittler (1758–1835) and Daniel Lerpinière (1745?–1785), published by Boydell.

⁸⁰ We identified the source of *L'Arrive du Prince Quillaume Henry, fils du Roy d'Angleterre a Nouvelle York en Amerique 1781 on 16 October* earlier in a footnote. It is *The Fishery*.

⁸¹ We establish this discrepancy by referring to the dates of the London dispatches that were copied and printed in the *Augsburgische Ordinari* newspaper between 1774 and 1777. These time frames correspond to those established for Hamburg (Krebs and Moes 1992: III-IV).

⁸² This estimate is based on the number of prints produced by the workshops of the twelve engravers in the Collection des Prospects over a period of approximately fifteen years. It is difficult to be more precise for two reasons. Firstly, we do not know how many apprentices, journeymen and day labourers worked in the workshops of Habermann and Leizelt. Secondly, the manuals of the time are not very forthcoming on the question of the speed at which engravings were produced, and an academic study on this aspect has yet to be carried out.

Leizelt, they were reprinted by Parisian publishers Basset and Chereau⁸³, and by an Italian publishing house, Remondini. As we pointed out when discussing the presence of a bilingual letter, these adaptations tend to prove that optical views from Augsburg were circulating outside the Holy Roman Empire⁸⁴.

When examining Habermann and Leizelt's work in relation to production constraints, it seems that we must consider the views of Quebec City in terms of their belonging to two distinct visions of the North American continent. These perceptions are developed through several urban landscapes. This feature is unique, as only one other series, *Scenographia America*, produced in London in 1768, presents images of Quebec City through a collection of engravings illustrating North America. The views of the city are juxtaposed with other territories acquired militarily by the British in America and are mixed with engravings depicting naval battles, urban and wilderness landscapes, and scenes of Caribbean life (Parent 2005: 160). Other British series from the same period include *Sixth Elegant Views of the Most Remarkable Places in the River and Gulf of St. Laurence* after Hervey Smyth (1734-1811), first published in 1770, and *Twelve Views of the Principal Buildings in Quebec*, drawn from the works of Richard Short (active 1754-1766) and first printed in 1761, focus instead, as geographer Alain Parent explains, on glorifying conquest and consolidating imperial identity (2005: 63-65).

The final element of the Augsburg context to influence the content of the optical views in the Collection des prospectus is the presence of an information control body. An autonomous, bi-denominational city where Catholics and Protestants coexist, Augsburg is home to a

⁸³ This is *Représentation du feu terrible à Nouvelle York* by Habermann, copied by Jean-François Chereau under the title *Représentation du feu terrible à Nouvelle Yorck, que les Américain ont allumé pendant la nuit du 19 septembre 1776* (Representation of the terrible fire in New York, which the Americans lit during the night of 19 September 1776) and by André Basset under the title *Représentation du feu terrible à Nouvelle Yorck*. Basset drew inspiration from two compositions by Leizelt, *Vue de la Nouvelle Yorck* (View of New York) for *La nouvelle Yorck* and *Vüe de Philadelphie* (View of Philadelphia) for *Philadelphie*. In addition to these reproductions that we have discovered, there are three Augsburg engravings that served as the basis for French prints. Identified by Pierce, these three sources are: *La Destruction de la Statüe royale Nouvelle York* (The Destruction of the Royal Statue in New York), *Débarquement des Troupes Angloises à Nouvelle York* (Landing of English Troops in New York) and *L'entré triumphale des troupes royales à Nouvelle York* (The Triumphal Entry of Royal Troops into New York) (2007: 22).

⁸⁴Chereau, Basset and Remondini are all publishers of optical views. These copies demonstrate that there is a reuse of motifs within a network determined by the medium.

joint council, composed of two councillors and two referrers, supervising the religious content of publications (Clédière 1982: 49). The proponents of each faith thus censor images that may contravene their practice. This peculiarity may explain why churches are often absent, relegated to the middle ground or background in Habermann and Leizelt's American representations, whereas religious buildings feature prominently in travelogues⁸⁵ and in English and French engravings depicting the Laurentian city. This situation could also explain the absence of priests among the figures walking in the streets in the interior views. Finally, this tactic on the part of the engravers was probably the result of discomfort with Quebec City's religious status: a Catholic city belonging to a Protestant empire. At the same time, this spatial arrangement of religious buildings avoided offending the devotional sensibilities of the target audience. The titles of the prints do not contradict this interpretation. The only optical view with a title evoking the Catholic presence, *Vue de la rue des Recolets dans la haute Ville de Quebec*, takes its name from the buildings most often identified in the captions accompanying city maps. This is also the case for Haberman's other engravings: *View of the Capital Square in the Lower Town of Quebec* and *View of the Upper Town of Quebec with the Square leading to Cavalier du Moulin*.

Mandated to ensure that documents published in Augsburg did not offend the Emperor, the prince-electors or, more generally, public morals, the council also played a political role (Clédière 1982: 49). It is possible that the prohibitions stipulated by the council also had an impact on the view of the continent that emerges from the views of Quebec in the Collection des prospectus. The presence of military detachments, peacefully patrolling the streets or leading prisoners, could then be explained by a desire to present the deployment of troops in America in a positive light. The decision by the German sovereigns to send mercenaries to fight alongside the British in America would then be justified by the low level of risk involved. In Habermann's engravings, the soldiers are not in danger and are not involved in combat. Among the four optical views depicting the

⁸⁵ This is the case of the Jesuit priest Pierre-François-Xavier de Charlevoix (1682-1761), who devotes half of his third letter, dealing with the geographical situation and the main buildings of Quebec, to comparisons between the religious buildings of the colony and those of the metropolis (1994: 219-228).

directly (the views of New York that we have already identified), only one depicts troop movements related to the American Revolution. This engraving, *L'entrée triomphale de Troupes royales à Nouvelle Yorck* (The Triumphal Entry of Royal Troops into New York), is more reminiscent of a parade than an armed conflict. The content of the optical views representing Quebec City would therefore be directly dictated by constraints related to the political climate and the presence of two religions in the bourgeois authorities.

The various elements we have listed lead us to conclude that Habermann and Leizelt's views of Quebec City have distinctive features that relate to what Becker calls "organisational constraints" (2009: 32), constraints that are part of a circumscribed social structure. In the case of the Collection des prospectus, the first of these constraints is membership in an already established commercial circuit. This inclusion in an economic network affects, among other things, Leizelt's etchings. The content of *Québeck* is directly linked to the pool of prints available for interpretation and to the popularity of English engravings. Pressure from the community also had an impact on some of the choices made by the publisher. The Herz family's financial needs and artistic ambitions meant that the names of the engravers and the series to which the prints belonged were indicated. Linked to expected profits and the availability of large presses, the publisher's decision regarding printing methods also had consequences for the views of Quebec City. It forced engravers to design their prints in groups of four. In the case of the American views, these groupings and stylistic similarities between the prints indicate that the representations were designed to belong to a continental whole. Created in a specific political and religious context, Leizelt and Habermann's optical views were ultimately subject to censorship. Media constraints and the creative environment had a direct impact on the tenuous links between the optical views and the factual reality of the place. This discrepancy was also caused by another factor, which will now be discussed: the workshop practices of the two engravers and the knowledge available to them.

1.3 Distinct practices: Habermann and Leizelt

Cutting through the waves with their seaweed-covered wooden hulls, ships crossing the Atlantic Ocean in the 18th century were at the mercy of natural forces and human contingencies. Between their creaking, damp sides, travellers on the journey had to fear wind failures, storms, pirates, manoeuvring errors, or stray icebergs. The reality of the distance to be travelled was linked to physical sensations and duration. This experience of distance made the colonies on the North American continent seem remote and difficult to comprehend for Europeans of the Enlightenment. The uncertainties arising from the transmission of information by sea and the time required to transmit information about North America accentuate this perception. If it takes ten to eleven weeks for an event taking place on the New Continent to be known in the British metropolis, an additional ten to fifteen days must be added to this period for the information to reach Augsburg. The reports reaching the German states added to these perception problems because they were often transmitted by unreliable sources. As a result, the information published was fragmentary, erroneous or contradictory. Its publication was often followed by denials in the newspapers and magazines that had printed it (Krebs and Moes 1992: III-IV).

This context suggests that the information about Quebec that reaches Augsburg is exaggerated and influenced by preconceptions. It should also be noted that this information was limited for the vast majority of the population of the Holy Roman Empire, despite the translation of certain accounts, mainly by French travellers⁸⁶, from the middle of the century onwards. It was the participation of several German-speaking states in the conflict between the British Empire and the Thirteen Colonies that led to a rapid increase in the number of documents available. In

⁸⁶ The main source is Charlevoix's account, but other texts on New France are also available in Goethe's language from the early 1750s onwards. These are excerpts or complete translations of works by the following authors: the scholar Marc Lescarbot (1570-1641), who lived in Port-Royal at the beginning of French colonisation; the surgeon and writer Marin Dières, known as Dière de Diéreville (active from 1699 to 1711), who also stayed in Acadia in the 17th century; economist and historian Georges-Marie Butel-Dumont (1725-1798), who published or translated several works on America; Recollect Emmanuel Crespel (1703-1775), who resided in the Laurentian Valley from 1736 to 1737 and from 1750 to 1775; botanist Pehr Kalm (1716-1779), whose travel journal on America was first published in Latin in Sweden between 1753 and 1761.

Indeed, as demonstrated by statistics compiled by historian Horst Dippel (1977: 5–21) and communications researcher Jürgen Wilke (1995: 65–66), it was from 1776 onwards that the number of references to America in German-language publications, books and periodicals became significant. There were many reasons for this interest. Beyond the military participation of Germanic troops, numbering around thirty thousand mercenaries, a third of whom were stationed in the Laurentian Valley (Ritchot 2011: 17), it was sparked by the involvement of settlers from the Holy Roman Empire. According to historian Thomas Ahnert, these settlers and their descendants made up around one tenth of the American population on the eve of Independence (2008: 98). Finally, this enthusiasm resulted from the involvement of certain Germanic states and merchants in trade within the transatlantic economic network (Ahnert 2008: 97; Weber, 2004: 311). However, the production of writings on North America seems to have been short-lived, as a decline occurred as early as 1783 (Dippel 1977: 5-21).

We believe that the first impression of Habermann and Leizelt's optical views corresponds to this period. This dating is based on the sources used by Leizelt on the selected cities, as well as on the war-related motifs affixed to some of the engravings and the dates on which the Academy was active in publishing optical views. It also stems from the fact that Habermann agreed to become a professor at the *Reichsstädtliche Kunstakademie* around 1781, a position he was unable to hold while continuing his work for the Imperial Academy of Liberal Arts, given the disagreements between the two institutions. Furthermore, it is justified by the fact that their publication coincided with the peak in demand for geographical descriptions of American cities. The Augsburg etchings therefore reflect, in part, the state of knowledge and perception of Quebec City among producers in the last quarter of the 18th century. Periodicals and French accounts, made more accessible by translation⁸⁷, were therefore likely among the sources of information used by Herzberg, Habermann and Leizelt. However, the engravers' and publisher's imagination of these places was not solely based on literature.

⁸⁷It is difficult to comment on the language skills of Herzberg, Habermann and Leizelt. While it is possible that the former knew French, it seems doubtful that the latter two did, given the usual training of engravers and artists from this region in the 18th century. In any case, it is unlikely that they could read English. Indeed, in the Germanic states, proficiency in this language was uncommon at the time (Clayton 1993: 125).

In addition to cartographic representations, prints that were already in circulation and accessible also contributed to the construction of an imaginary image of places. In the politically heterogeneous Holy Roman Empire, these images were derived from the official French model of representation of the city of Quebec, since the engravings by Hervey Smyth and, above all, those by Richard Short seem to have been little distributed there at the time⁸⁸. In Bavaria, these included engravings such as *Prospect von Quebec* (figure 29) by Christoph Heinrich Korn (1726-1783), dating from 1776 and published in Nuremberg in *Geschichte der kriege in und ausser Europa vom Anfange des Aufstandes der brittischen Kolonien in Nordamerika*, edited by Gabriel Nicolaus Raspe (1712-1785), and *Prospect der Haupt Stadt Quebec in Canada in dem Nord America* (figure 30), first published in 1763 in Augsburg by Christian Friedrich von der Heiden in the work *Americanische Urquelle derer innerlichen Kriege des bedrängten Teutschlands*. According to architectural historian Marc Grignon (1999: 102-103), the conventions put forward by French artists are summarised in the cartouche by Jean-Baptiste-Louis Franquelin (1653-ca. 1725) affixed to the 1688 *Map of North America* (Figure 31). For Grignon, these features are: an elevated observation point on the St. Lawrence River, which shows the city in geometric elevation; a frame limited by Cap Diamant and the St. Charles River; a distinction between the upper and lower towns; and an emphasis on bell towers (1999: 102-104). Franquelin's engraving has all the characteristics of a portolan chart, developed during the late Italian Renaissance, whose purpose is to depict a navigable coastline. This manipulated and socially hierarchical vision compartmentalises the territory of the

⁸⁸ This hypothesis is based primarily on the absence of engravings based on Short and Smyth in the Germanic states in the 18th century. It is also based on the lack of notoriety of the two military artists and the lack of contacts among publishers. In Smyth's case, the publisher, Thomas Jefferys, was a specialist in cartography, particularly colonial maps. His distribution network focused on this material (Jefferys and Faden 2000). In 1777, one of his correspondents in Leiden noted that even this cartographic production was not widely distributed in German-speaking countries (Jefferys and Faden 2000: 83). As for Short, the first editions of his engravings were published at his own expense and deposited in Jefferys' shop for sale (Parent 2005: 112). We would also question their distribution in continental Europe because they are absent from the inventories we have consulted and because the patriotic discourse they convey seems to make them a production intended for a local audience. The export hypothesis put forward by Parent (2005: 133) is based solely on the presence of a French title, a linguistic choice that could have other justifications, including the preponderance of French among the educated English elite or the desire to disseminate Short's views in the new French-speaking colony.

institutions, symbolising hegemony, from the king to commercial transactions, almost invariably presented as a port evoking connections with the metropolis (Crowley 2005: 4; Noppen and Morisset 1998: 36). This imperialist imagery, intended primarily for the court, was put in place, according to Grignon, to emphasise the power of the king and the predominance of the aristocracy (1999: 106). Despite its use by Germanic publishers and its connections with the 18th-century accounts we have already mentioned⁸⁹, the main visual elements of this model were not retained for the Collection des Prospects.

It would be tempting to invoke the formal characteristics of optical views to explain this neglect. The French model is ill-suited to creating the effect of depth that we described at the beginning of this chapter. It is too frontal, the viewpoint of the city is too distant, and it does not easily allow for variations in tone. However, we cannot conclude that this was the only reason behind the creation of Habermann and Leizelt's engravings. In fact, a modified version of the French model was used for one of the two English optical views of Quebec City that we have catalogued: *A Perspective View of Quebec Drawn on the Spot* (Figure 32), printed in the Royal Magazine around 1760. In addition to the economic factors we have already mentioned, we believe that the abandonment of French conventions was due to a change in perception of the city. This change in the imaginary of places would stem from the change in political status: the transition from French territory to British possession, connoted by current events, namely the American Revolution. This renewal does not mean that the information conveyed by French engravings is not found in the Augsburg optical views. As in some images in the English corpus (Grignon 1999: 110), they are rather absorbed to create the prints in the Collection des prospects. Starting from these same premises, Habermann and Leizelt nevertheless produce engravings which, while complementary, show marked differences. It is these visions of the city that will now be discussed.

⁸⁹Grignon mentions that the descriptions of the city conveyed by the accounts tend to conform to the model established by the engraving. He gives Kalm's text as an example (1999: 104).

1.3.1 HABERMANN, AN IDEALISED, CHARACTERISTIC BAVARIAN CITY

Architectural historian Christopher Pierce, whose theories we summarised in the introduction, has suggested that Habermann used existing representations to create his American images, particularly his views of New York: "*It is improbable, especially considering his professional decline, that Habermann would have based his images of New York on anything other than pre-existing material*" (2007: 12). Continuing with this assertion, he attempts to determine the original corpus that was used, focusing primarily on portfolios by British artists. Although we agree with Pierce's initial premise, we believe that the method used by Habermann or the members of his studio is more complex. We believe that each of the prints of America combines several images, including some drawings by the engraver himself, to construct a composite representation. This hypothesis is based on the remarkable stylistic and architectural homogeneity of the engravings. It is also based on the concomitant presence of features associated with the Laurentian city and a typically Augsburg architectural setting.

The identity markers in question can be found both in the representation and in the letter. They correspond to the main characteristics described in French travel accounts, dictionaries of the time, geographical treatises and articles in German-language periodicals published during the War of Independence. In *Vuë de la basse Ville a Québec vers le fleuve St-Laurent*, the only one of Habermann's engravings depicting the city from an outside perspective, these features are military infrastructure or resources used for trade. These include a wall topped by a tower, a large river suitable for navigation, and a British merchant port, as indicated by the ship flying the flags of the empire and the unloading of goods from the boat. In addition to these graphic elements, the title indicates the existence of a lower town. This indication is repeated in *Vuë de la Place capitale dans la Ville basse a Quebec (View of the Capital Square in the Lower Town of Quebec)*, which is counterbalanced by the mention of an upper town in the title of another print, *Vuë de la haute ville a Québec avec la Place pour aller a Cavalier du Moulin (View of the Upper Town of Quebec with the Square to go to Cavalier du Moulin)*. As we indicated above, this bipolar organisation of the city is necessary because of the

dissemination of French representations and narratives from the early^{17th} century onwards. By omitting the letter, interior views tend to transfer these characteristics that identify the city onto the figures wandering through it. Among the inhabitants dressed in Bavarian style according to their social class⁹⁰, two groups of characters are particularly significant: the indigenous people and the military.

Used as a figurative code, the Native American plays a symbolic role that corresponds to Europeans' idea of North America. Although he is excluded in favour of black slaves in the prints of New York, he is represented in the interior views of Boston and Quebec City. Most often wearing a feathered headdress and holding a weapon, bow or rifle, Habermann's Native Americans evoke the model of the American "savage" established by the Frankfurt publisher Théodore de Bry (1528-1598) in the thirteen volumes of *Peregrinationes in Indiam orientalem et Indiam occidentalem* (1590-1634). Although surprising today, this transfer of a type whose origins date back to the^{16th} century is the result of publishing practices that did not renew their materials. Habermann was not the only one to reuse it in the^{18th} century. According to American history specialist Michiel van Groesen, de Bry's engravings are also reproduced in *Mœurs des sauvages américains comparés aux mœurs des premiers temps* (2008: 374). This book, written in 1724 by Jesuit priest Joseph-François Lafitau (1681-1746), may have served as a source for Habermann, as it was translated into German in the middle of the century. This iconographic type of Native American, established by de Bry and used by Lafitau and Habermann, is based mainly on three attributes. The first is the wearing of feathers, mainly as headdresses. The second is the posture of the figures, reminiscent of Greek statuary. Finally, the third is the partial or total nudity of the bodies, which is associated with the absence of civilised behaviour or with theories that explain the diversity of human behaviour by the physical environment (Chaffray 2005: 32; Groesen 2008: 195).

⁹⁰ In Habermann's views of Quebec City, the clothes worn by the townspeople are exactly the same as, for example, those found in *View of the Bread Market near the Town Hall in Augsburg*, published by Probst.

Habermann's version differs from de Bry's depictions in that it adds rifles to the bows and arrows, and in that the clothing modestly covers the bodies of the Indigenous people, who are dressed from head to toe (figure 2)⁹¹. These costumes differ little from the clothes worn by peasants, a decision that may stem from the fact that some descriptions of the period compare the two forms of dress⁹². These clothes reinforce the status of the Indigenous people as "noble savages", a connotation that is implied in the engraving by their peaceful behaviour. The Indigenous figures could also convey another European discourse based on political and economic interests. In this discourse, the Indigenous peoples' relationship with nature is pragmatic, linked to the exploitation of natural resources. According to historian Stéphanie Chaffray (2005: 39-41), this view of Indigenous peoples was very prevalent in the 18th century and is suggested by the presence of a beaver skin on the ground near a group of feathered figures engaged in discussion in *Vuë de la Place capitale dans la Ville basse a Quebec* (figure 2). Like the Indigenous figures, the iconography of this fur coat is reminiscent of earlier versions. The use of these older sources, whose characteristics were first described by art historian François-Marc Gagnon (1994: 15-16), would explain why the animal looks more like a stuffed animal than a supple representation of fur.

To these rare images of 18th-century urban Indigenous peoples⁹³, Habermann's prints add soldiers to suggest the city's identity. These soldiers, who are drawn in all the interior views, are depicted on parade or arresting a prisoner. They were probably added to the prints because, due to current events and the landing of German mercenaries in the Laurentian Valley, they came to characterise the city's identity for the inhabitants of the Holy Roman Empire. As we have already noted, these soldiers do not take part in combat in order to convey a positive image of their commitment. This desire to

⁹¹ For example, the three figures who are completely in the foreground of the engraving.

⁹² This is the case, among others, with Kalm, who says, "Every day of the week, except Sunday, they [the women] wear a small, elegant mantilla over a short petticoat that barely reaches halfway down the leg, and in this detail of their attire, they seem to imitate Indian women" (Kalm 1880: 43) or again:

Curious thing! While many nations imitate French customs, I notice that here it is the French who, in many respects, follow the customs of the Indians, with whom they have daily contact. They smoke Indian-style pipes with Indian-style tobacco, wear Indian-style shoes, and wear garters and belts like the Indians. (Kalm 1880: 193)

⁹³It was not until the 19th century that other works began to include Indigenous peoples in urban scenes.

Presenting a favourable image of the dispatch of soldiers could explain the absence of an identity marker that evokes a negative view, even though it is mentioned extensively in accounts of Quebec City: winter and the cold it brings. The desire to present the dispatch of troops in a positive light may also have played a role in another aspect, namely the absence of buildings destroyed by the successive sieges of the Seven Years' War and the American War of Independence. However, this omission may be due to other conventions, since the only optical views depicting destroyed cities focus on disasters, mainly fires and earthquakes. Habermann thus assembles features perceived by Europeans as belonging to a specific and authentic geography of the site. In the same way as Canaletto's *capricci*, Giovanni Paolo Panini (1691-1765) and Michele Marieschi (1710-1743) did at the same time, he amalgamates imaginary buildings or buildings with different origins into these forms that are intended to be realistic. Where do these buildings come from?

Most of the buildings depicted in the four optical views of Quebec City reflect the Baroque and Rococo styles as adapted in Augsburg. In *The Destruction of the Royal Statue in New York* (Figure 21), Habermann drew direct inspiration from the town hall of the Bavarian city, reducing its proportions. He added the monument that actually stands in front of the town hall, the statue of Augustus, which was transformed for the occasion into George III of England. Although our research in the image banks of Wolfgang Schwarze, a specialist in the history of Augsburg architecture, did not reveal any other such obvious borrowings, it is not impossible that there may be others. Indeed, several of the buildings in the views of Quebec City correspond to the main features of the vernacular and ecclesiastical architecture of Augsburg in the 18th century, as depicted in the engravings by Probst (Figure 33) and Karl Remshard (Figures 34 and 35). This is particularly true of domestic buildings.

The architecture of domestic buildings found in both Augsburg and Quebec City is distinguished by narrow façades with curved edges and gabled roofs ending in volutes. These façades are pierced by windows with pediments borrowed from classical or rococo styles and are attached to rectangular buildings topped by gabled roofs. In both cases, the buildings are at street level, which is paved in Augsburg and dirt in the American cities. Pierce suggested that the paving in Augsburg was a reflection of the city's status as a major centre of trade and commerce, while the dirt streets in Quebec City were a reflection of the city's status as a centre of agriculture and industry.

buildings are, in both cases, at street level, which is paved in the case of Augsburg and dirt in the American cities. Pierce suggested that the coarser road surface in the cities of the New World reflects a perceived difference in the state of civilisation (2007: 20). We are not convinced by this theory, since cobblestones are also absent from most of the optical views in the Collection of Prospects representing European cities. Moreover, German cities were rarely paved in the 18th century (Sagarra 1977: 65).

Returning to architectural choices, in Habermann's case, they are interesting for more than one reason. They are probably primarily attributable to a certain similarity between the two cities. Augsburg, like Quebec City, is a city bordered by a river and divided between an upper town, where the residences of the elite and the main religious buildings are located, and a lower town, a commercial area where craftsmen's workshops and shops are clustered. While Habermann's selection stems from the use of a familiar environment to evoke a distant site, it could also be linked to the engraver's practice. Indeed, as Ebba Krull demonstrated in *Franz Xaver Habermann (1721-1796): Ein Augsburger Ornamentist Des Rokoko* (1977), Habermann was a specialist in Rococo ornamentation. He was therefore able to transfer some of the ornamental templates he created onto the façades of the buildings in his etchings. These borrowings from the iconography at his disposal may not have been limited to his own production. The addition of neoclassical buildings may be due to the availability of model repertoires. Common at the time, these portfolios may have come into his possession through Herzberg, for example. As explained earlier, the publisher corresponded with several proponents of German neoclassicism in the context of the Academy's activities. Whether influenced by Baroque, Rococo or Neoclassicism, the buildings visible in the engravings of Quebec City all belong to styles that were relatively recent in Bavaria. Should this be seen as a way of highlighting the city's recent foundation? Was this decision purely due to the accessibility of the material? In our opinion, both factors are likely to have played a role.

Contrary to workshop practices regarding the creation of optical views, which require a single print to serve as a source, Habermann amalgamates scattered motifs that

either characterise the city or provide a backdrop. This approach did not prevent him, as we saw at the beginning of this chapter, from respecting the media constraints of optical views. As a result of these choices, Habermann's prints have a certain degree of abstraction. The Augsburg engraver's representations correspond to what Cauquelin refers to as an allegorical site. Indeed, for the author, allegory suggests, through illustration, and indexes the elements of a whole belonging to an uncertain reality (2002: 95). Habermann probably used this process because he did not have access to engravings that would have offered him a variety of perspectives on the city. The view of Quebec City that emerges from Leizelt's engraving explains why he chose to use a different solution.

1.3.2 LEIZELT, A BRITISH PORT AMERICANITE

Conquered by the British Empire in the mid-18th century, Quebec is depicted by Leizelt as a colony whose visual description maintains a direct link with its political and economic status rather than with the particularities of its physical environment. Interpreting part of *View of the Royal Dockyard at Chatham* by simplifying it, raising the horizon line, bringing the quay closer and making additions, the Augsburg engraver uses the image of one city to show another. In *Geography of the Gaze: Urban and Rural Vision in Early Modern Europe* (2002), a book on the impact of developments in technology, science, cartography and art on the perception of landscape between the 17th and 19th centuries, architectural historian Reno Dubbini explains that this kind of borrowing was quite common at the time and served to establish a correspondence between two cities (2002: 56-60). Leizelt therefore implies in his view that Quebec City is part of the mother country. The idea of viewing a colony as an extension of the metropolis was more widely held in European mindsets, as demonstrated, among other things, by this passage from *Taxation No Tyranny: An Answer to the Resolution and Address of the American Congress* (1775), written by the writer and pamphleteer Samuel Johnson (1709-1784) in response to the American insurgents: "A colony is to the mother country as a member is to the body, deriving its action and strength from the general principle of vitality" (1977: 425). This perception also had an impact on the actual landscape of Quebec City. Thus, after the Conquest, the plaster covering the walls of

Quebec homes changed from light yellow-white, meant to recall the limestone of Paris, to the blue-white typically associated with London (Noppen, Morisset and Karam 2008: 35).

Quebec City's connection to a British port city is also directly reflected in the engraving. Although the Augsburg engraver does not identify his source at the bottom of *Quebeck*, the mediation has left its mark. The optical view is covered with warships flying British flags. A projection of the domination of the territory by a European power is therefore detectable in the iconography. This power of the empire over the city's destiny is also materialised textually, since the description of Quebec at the bottom of the etching mainly describes the place in terms of its changing allegiances:

Quebec, a city in Canada in North America on the left bank of the St. Lawrence River, was the capital of New France, but the English captured it in 1759 and, under the terms of the subsequent peace treaty, it was ceded to the Crown of England along with the rest of Canada.

The commentary, which is intended to be descriptive, is in fact an interpretative gloss on the city with political overtones. The same kind of caption is found in *Philadelphia, New York* and *Salem*. These three prints and *Quebec* are also based on engravings illustrating military ports whose role is to maintain British maritime supremacy on the world's oceans. This figurative homogeneity highlights the importance of water in the dynamic between the metropolis and its satellites. It also explains why Leizelt depicted some of the naval battles that took place during the conflict. Furthermore, it emphasises the role played by the Atlantic as an active economic and imperial space.

Following the Treaty of Paris in 1763, Quebec became part of this vast Anglo-American commercial and cultural network. The main products that dominated the colony's revenue were export goods that travelled by ship to consumption centres controlled by the mother country: dried cod, beaver pelts, wheat and timber (Dickinson and Young, 1995: 93). This integration into the transatlantic trade network is part of the ideological parameters that Leizelt uses to construct his image. While the transposition of landscapes seems at first to be guided by a process that affirms the status

Dependent on land, it is also a metaphor for the maritime identity of the British Empire. Based on an engraving depicting a military port whose role is to maintain the maritime supremacy of British ships on the world's oceans, *Quebeck* itself represents a port and shipyard that are part of the city's urban landscape.

The presence of a stretch of sea shows that the borrowed reality of the optical view overlaps with some of the existing features of Quebec City. The image depicts it as it is presented in certain works of the time on trade, including the *Dictionnaire universel de la géographie commerçante* compiled by Jacques Peuchet (1758-1830), a French lawyer and politician considered to be the father of modern statistics:

Quebec is very well situated for trade; it is divided into upper and lower towns. The upper town is built on a mountain, at the foot of which lies the lower town. The Saint Lawrence River flows at the foot of this mountain; it is the largest and most navigable river in the world. It is no less than 4 to 5 leagues wide from its mouth to Quebec, in front of which it is only three leagues wide. The port can hold a hundred ships of the line. The English have carefully preserved the shipyard that the French had built there to construct ships (Peuchet 1799: 432).

The prominence of the Saint Lawrence River in the etching therefore partially reflects the actual topography. Covered with British warships and transport boats, the representation of the river corresponds to its military and commercial importance. Inverted by the mirror, the image uses a sailor as an admonisher, inviting the viewer to look at the moving waters, whose currents are rendered by hatching. This presence reinforces the river's pre-eminent role in the engraved landscape, as does the structure of the successive planes. Placed in the foreground, the banks of the St. Lawrence guide the eye into the tunnel created by the perspective. In the composition, the watercourse thus takes on the role usually assigned to the road in optical views. This iconological echo is probably not coincidental; it allows the intended audience to identify the St. Lawrence and its port as an essential transit point for transatlantic maritime trade.

Quebeck's iconological references and composition situate the etching within an economic network based on the transport of goods by boat. Also used in Leizelt's other representations of American cities, this formal construction of the image suggests a globalising homogeneity of the New Continent, defined by its relationship with the metropolis via the ocean that connects them. Political and economic, the city's affiliation is one of the only distinctive features of the representation. This choice should not necessarily be seen as a political statement about the ongoing war. The identity of Augsburg, like that of other autonomous imperial cities, is itself rooted in its affiliation with the Holy Roman Empire. The vision that emerges from *Quebeck* and other representations is therefore probably a way of viewing the world according to a frame of reference from which Leizelt could hardly escape. According to geographer Denis E. Cosgrove, this way of depicting the landscape according to one's own identity was widespread among Europeans in the 18th century (1998: 1).

Escaping the French canon of representation of Quebec City, the content of Habermann and Leizelt's optical views therefore draws on different *topoi*. In Habermann's case, these are composite images created by the engraver. The identity of the city is based primarily on physical characteristics, the infrastructure of *Vuë de la basse Ville a Québec vers le fleuve St-Laurent*, and specific groups, such as Indigenous peoples and soldiers. These geographical markers are combined with buildings inspired by those in Augsburg and neoclassical or rococo models. These architectural styles were chosen because of their availability and, perhaps, to emphasise the recent nature of European settlement. Leizelt, for his part, interprets an English source that is part of a portfolio from which all his American urban views are taken. He defines the city in terms of its political status, i.e. its membership of the British Empire, and the transatlantic economic network to which it belongs. Despite their differences, both engravers base their representations on what Becker would identify as a common and shared knowledge that is likely to be understood by viewers (2009: 30).

French engravings, travelogues, dictionaries, geographical and commercial treatises, and periodicals established characteristics that included

Habermann and Leizelt make a selection in an effort to synthesise. The social reality they seek to represent is therefore the result of a sampling of possibilities. The two engravers thus give rise to representations of a supposed city that does not correspond to the topographical reality of Quebec City. As we have seen, these images are also modelled according to media constraints that aim to create a three-dimensional effect by using the specific features of the devices and engravings. To achieve this result, the prints draw on culturally constructed habits of landscape observation. In the case of optical views, these models of reception are based on the internalisation of artificial clues to depth and the visual impacts of the lens. These cultural constructs are transparent because they are part of a shared cultural heritage; they are part of artistic conventions. During production, the inclusion of these indicators in the composition depends on an empirical understanding of how the eye works, a mastery of perspective, and a certain knowledge of the constraints imposed by the lens. The representations of Quebec City thus created by Habermann and Leizelt are therefore transcriptions that result, in part, from these factors. They should therefore be considered, in the same way as other representations of a society, as "the establishment of a correspondence between a series of elements (the fragments of reality that the manufacturers want to represent) and another series of elements (the conventional elements available in the medium used)" (Becker 2009: 35).

To these first two factors, which determine the content of the views of Quebec, a third must be added: a production context embedded in a specific social structure, that of Augsburg at the end of the 18th century. This environment shapes the constraints and possibilities that engravers must contend with. In the case of Habermann and Leizelt, it was the objectives and material choices of their publisher, the Imperial Academy of Liberal Arts, that had the greatest impact on the prints. They influenced the format, the number of representations created for each city, the availability of sources, and the information included in the letter. The network in which Habermann and Leizelt's optical views were designed included another player that left its mark on the etchings. The two engravers had to contend with the control imposed by a censorship board concerned about the representation of religious tendencies that

arising from the dual confessionality of the Bavarian city. To comply with the limits imposed by the body, they were also required to avoid content that might upset the ruling princes throughout the Holy Roman Empire. As the German political authorities were trying to gain acceptance for the sending of mercenaries to America, this restriction directly affected the views of Quebec.

The representations of Quebec City belonging to the Prospectus Collection therefore seek to convey a potential range of meanings that is the result of a transcription influenced by the context of production of the manufacturers and conventions. They are, to borrow the theory put forward by Baxandall (1985), repositories of social relations. Beyond the people who make it up, this network includes non-human agents, among which the most influential is the device. Are the visual signs of the site chosen by the producers perceptible to the heterogeneous users of the optical views? Since the image viewed is not necessarily the engraving, but an ethereal double produced by the lens to create an immersive effect, to what extent does the supplanting of the message by the medium affect the importance attached to the fidelity of the content? The next chapter will attempt to answer these questions by examining the role of interpretation by users according to their social identity. To do so, we will seek to identify the knowledge likely to trigger acceptance or rejection of the representation of Quebec City proposed by Habermann and Leizelt's optical views. We will also examine the impact of details and the types of narratives that images can evoke in viewers. Finally, we will analyse the influence of the places where the images are received.

2. Views of Quebec City: Towards a History of the Reception of Optical Illusions

xml-ph-0000@deepl.internals are substitutes for reality, reflecting the vision of a supposed world, based on perspectival effects and retaining certain concomitant symbols. However, they interfere with Renaissance concerns by showing little interest in framing a *historia*. They are virtual according to 18th-century definitions^e century⁹⁴. They also transform a two-dimensional surface into a three-dimensional experience of the visible, where the static bodies of the viewers have access to other places, belonging to a real or imaginary geography, escaping the temporality of movement. Finally, they function in conjunction with a device. The engravings we have discussed so far are two-dimensional material objects, and are therefore only a fragment of the images experienced by the recipients of the Enlightenment. What the viewer sees through the device is an image amplified by the lens in conjunction, in some cases, with an intangible double created by the mirror and not the engraving itself. As a form of sensory interference, the perceptual experience of a liminal image produced by optical views influences the reception of the content as much as the subjective interpretation of it by its users.

Indeed, as several researchers, including Becker (1999: 67–68) and art historian Enrico Castelnuovo (1976: 75), point out, viewers necessarily play an active role in the meaning attributed to images. In our view, this role of the receiver is central to optical views, since the immersive effect means that a spatial relationship with the viewer is anticipated during their creation. Furthermore, while the standardisation of their graphic structure facilitates understanding of the content (Becker 2009: 87), it also means that it is up to viewers to make distinctions and give meaning to the images. This dynamic communication process is difficult to reconstruct, as optical views are considered familiar items from the 1780s onwards. As everyday objects, their uses are little described during this period, as they do not achieve the discursive and metaphorical success of the camera obscura (Crary 1990: 30-31). This reality is evoked, among other things, by

⁹⁴ At the end of the 18th century and the beginning of the 19th century, the term 'virtual' referred to objects without tangible existence that had the forms of reality or, in optics, images seen through a lens or mirror (Friedberg 2006: 8).

by Guyot's presentation and, a little later, by the French bookseller Jacques Lacombe (1724-1811) of optical views. In the part of his work devoted to optics, Guyot writes, "These types of optics are in everyone's hands" (1786: 154), while Lacombe (1724-1811) says, "It is on this principle that these boxes, now quite common, are constructed, which are called optical, & whose construction we are going to describe" (Lacombe 1792: 756).

Analysing the reception of optical views therefore poses a significant methodological problem, which is exacerbated by other factors. Research into period documents is complicated by the absence of a standardised term to designate them and by the overlap in vocabulary between different devices that perform similar functions. Added to this difficulty are the contradictions that arise from current texts attempting to trace their uses. These difficulties are even more acute with regard to the images of Quebec City produced by Habermann and Leizelt. Our research has not enabled us to identify any specific reactions to them prior to the 19th century. This is a text by Canadian bibliophile Philéas Gagnon, in *Essai de bibliographie canadienne; inventaire d'une bibliothèque comprenant imprimés, manuscrits, estampes, etc., relatifs à l'histoire du Canada et des pays adjacents* (Essay on Canadian Bibliography: Inventory of a Library Comprising Prints, Manuscripts, Engravings, etc., Relating to the History of Canada and Adjacent Countries), published in 1895. Gagnon says of the Augsburg engravings:

"These views, which are quite curious, are more the fruit of an inventive imagination than a representation of the places indicated; despite this, we enjoy seeing them featured in a collection of Canadian views⁹⁵" (1895: 680). The other clues we have concerning their reception in the 19th century are additional mediations⁹⁶. These derivative images seem to indicate that the sources, the Augsburg prints that show an outside view of Quebec City, are

⁹⁵ Leizelt's name is spelled Leizolt here. The terms used by Gagnon are very similar to those used in the Seminary's inventory. This similarity leads us to assume that Gagnon, who resides in Quebec City, has a connection with the identification made by the priest.

⁹⁶ The first of these documents is an ink drawing enhanced with watercolour by Ogden Wood, produced between 1885 and 1895, which is kept at the Musée national des beaux-arts du Québec and has the inventory number: 1956.81. The second is a later reprint with a title in French only, which makes no mention of the Collection des prospectes or the availability of the image in Augsburg. A copy of this engraving is held in the Rare Books and Special Collections Library at McGill University (inventory number: elf FC2946.37 H378 1770z). Other engravings from the Collection des prospectes that bear only a French title appear to have been reprinted at the same time. Their existence is noted by Niklas Leverenz in his article entitled "Vues d'optique with Chinese Subjects" (2014: 23). As we saw in the introduction, this perception was not unanimously shared by the inhabitants of the place depicted at the beginning of the 20th century.

still considered interesting. This period is later than the one covered in this thesis, since the latter focuses on prints at the time they were printed by the Imperial Academy of Liberal Arts. In this context, in order to avoid projecting our current cultural references onto the past as much as possible, the hypotheses we formulate will be based primarily on the most compelling evidence provided by the various types of devices, the interpretation of works from the period showing people looking at optical views, the prints themselves, and the primary sources that have come down to us.

Before proceeding further, it is important to consider a second aspect that also has an impact on our interpretation of the reception of the five engravings of Quebec produced in Augsburg. We must differentiate between the recipients and the viewing sites of optical views in the 18th century. Although the content of optical views does not change, their interpretation depends on both the education and experience of the viewers (Becker: 1999: 67-68). The meanings attributed to optical views also vary depending on where they are used and the social groups that view them. In fact, two main types of observers located in distinct types of places can be discerned. The first group corresponds fairly closely to Habermas's definition of the literary public sphere (1986: 38-43). This audience, which constitutes "high society", includes viewers from the enlightened nobility, the wealthiest classes and the educated public, to which must be added a few prosperous shopkeepers and artisans⁹⁷. This assertion is difficult to substantiate with archives for Augsburg optical views, since the documents concerning the Academy's distribution do not seem to have been preserved. However, it is justified by the potential number of purchasers who, in addition to the engravings themselves, must have owned the devices to view them (Huhtamo 2012: 37). Furthermore, it is based on the high prices charged⁹⁸. Only the wealthy could easily afford them.

⁹⁷Citing the 3,507 Dutch inventories compiled by Marie van Dijk, Kaldenbach indicates that the aristocracy and the bourgeoisie are the two groups most likely to own optical devices. However, he notes that a small number of merchants and craftsmen also have such instruments in their homes (1985: 93). The facts noted by historian Daniel Roche suggest that the situation was the same in Paris during the period in question (1981: 28).

⁹⁸ Prices have already been indicated in the previous chapter.

acquisition outside the resale market. Members of this privileged section of society examine and possess optical views within the domestic sphere.

The second group comprises onlookers who wander around certain public spaces: fairs and town and village squares. It is mainly composed of what was then referred to as "the plebs" or "the common people", although the crowds that gather in these places also include individuals from the more affluent strata of society under the Ancien Régime. Huhtamo notes that contact with the images was then made through a showman who charged for access to the lenses (2013: 35). This division of types of reception, according to a divide between public and private space, seems to stem from habits developed in the second half of the 17th century concerning optical boxes⁹⁹. It is part of a dynamic in which cultural practices materialise in transforming sites which, as historian Daniel Brewer explains, have two entrances. They are both real everyday places and socially constructed spaces that convey meaning and values, which are transmitted through certain types of representations during the Enlightenment (Brewer 2004: 173-175).

Focusing on the representations produced by Habermann and Leizelt, this chapter echoes the dichotomy between viewing sites and audiences in order to establish the ways in which social relations influence the meanings conveyed by images. We will also attempt to determine the meaning of the transfers that optical views operate on a perceptual level for 18th-century viewers. To do this, we will first

⁹⁹ This hypothesis is based on the use of magic lanterns in both types of venues from the end of the 17th century onwards (Hankins and Silverman 1995: 44,49; Mannoni 1994: 45). It is also based on the existence of two types of boxes from the beginning of the 18th century onwards. In fact, several types of boxes preceded optical views. In private spaces, these were boxes, mentioned by Martin Kemp (1990: 204-205) and Oliver Grau (2003: 50-52), among others, which were designed for opulent homes. They were painted using perspective and recreated illusory interiors. From the early 18th century onwards, they gradually faced competition from the boxes produced by the Augsburg publisher Martin Engelbrecht (1684-1756), whose contents, arranged in a series of panels, replicated the layout of a theatre stage. Versions of these two devices, handcrafted and often larger in size, seem to have been intended for fairs and public squares. Their appearance coincides with that of the showman as an iconographic motif associated with fairs from the early 18th century onwards. This motif can be found in books, including *Rommel-Zoodjen* (1709) and *Abraham a Santa Clara: Centifolium Stultorum in Qarto* (1709), and in engravings such as *O Rare Show* (circa 1710) and William Hogarth's *Southwark Fair* (1733).

question of the prevalence of upper-class knowledge in the codification of bourgeois optical views. We will see later that social patterns give rise to strategies for receiving culturally connoted images, particularly in the homes of scholars and nobility, where they are linked to social status. These strategies revolve around, on the one hand, scholarly games rooted in an interest in experimental physics, geography and travel among the elites and, on the other hand, a spectacle with hints of natural magic in the public space.

2.1 Wealthy audiences and gazes at residence

2.1.1 GAINING AN INSIGHT INTO AMERICA

As cultural goods intended for an export market, optical views occupy a borderline status and do not belong directly to the specific field of art in the 18th century. Mobile and easily reproducible, they cannot be understood in terms of the emerging economic model associated with painting and sculpture. In the absence of a community of collectors interested in acquiring unique works or limited editions, Herzberg therefore focused primarily on the emerging bourgeois culture market (North 2008: 1-2; Schaffer: 1983: 1-43). This interpretive community¹⁰⁰ had a particular knowledge of representations, even though the graphic language used was accessible to the whole of society at the time. These buyers were primarily German-speaking. The number of German literati was growing rapidly at the time, even though this educated elite constituted no more than five per cent of the population (Sheehan 1989: 157; Withers 2007: 47). For the reasons mentioned in the first chapter, however, these buyers were not the only audience. The distribution network ensured that readers who were proficient in French also had access to the Augsburg optical views. The works of Habermann and Leizelt were therefore distributed to multiple buyers, mainly residing in northern continental Europe and Italy.

¹⁰⁰ The expression is used by Becker (2009: 75). In English, he uses the words "interpretive community" (Becker 2007: 69). The concept was originally developed by literary theorist Stanley Fish in his article "Interpreting the Variorum" (1976). Fish establishes that texts have no meaning outside the cultural preconceptions of their recipients.

Habermann, Leizelt and Herzberg are not necessarily aware of the conceptions, ideas and practices of the markets they serve. The publisher and the two engravers likely relied on local perceptions and concerns mixed with the information that was circulating. However, in the case of the views of Quebec City, the target buyers shared, at least in part, the same interest as the producers' community in an event: the American conflict. The confrontation between the British and their colony aroused the interest of Europeans because, according to political history specialist Frank Becker, it became a media event from the moment the European powers became involved (Becker 2010). In addition to its presence in European news, there was also a potential curiosity about distant lands whose exoticism had inspired numerous travelogues and novels.

Theatrical and lyrical works added to this enthusiasm for America. They played an important role in establishing a vision of the New Continent by adapting historical facts or dramatising places (Klein 2009: 17). Thus, in *Sturm und Drang* (1776), Friedrich Maximilian Klingler (1752-1832) makes America a land of redemption where intense passions are expressed. His main character, a young Englishman named Carl Bushy, known as Wild, voluntarily joined the rebels to die in war, not for ideological reasons. He is saved when he accidentally finds his first love (Klein 2009: 22). For its part, *Die Mätresse*, written by Karl Gotthelf Lessing (1740-1812) in 1780, presents America as an ideal land. The central protagonist, Otto von Kronfeld, escapes the pernicious influence of Europe for a time by working for an American farmer. During his stay in the United States, Von Kronfeld learns to live close to nature and to value the impulses of his soul over social dictates (Klein 2009: 22).

The drama *Inkle and Yarico* is a story presented as true when it was first published by Richard Ligon (1585?-1662) in England in 1657. The play was first performed in German in Hamburg in 1732. It tells the adventures of an English sailor who is rescued by a Caribbean indigenous woman after a shipwreck. A romance develops between the two

¹⁰¹ The play later gave its name to the German Romantic movement.

protagonists, but as soon as Inkle manages to reach England, he sells the young woman into slavery (Klein 2009: 19-20). The show establishes the figure of the American "savage" by using a young indigenous woman as a pretext to discuss European society and slavery. The Native American embodies the other who is at once attractive, repulsive and disturbing. It should be noted, however, that the newly discovered territories in the Pacific Ocean tended, at that time, to supplant this interest in the American other and elsewhere due to their remoteness. Nevertheless, the subject remained appealing to both Habermann and the recipients of high society. However, these were not the only cultural references that the Augsburg engravers shared with the audience for whom their works were intended.

The knowledge used by engravers corresponds to the level of knowledge of their clients. In both cases, the information comes mainly from images that are mediations of the French iconographic model. In addition to these representations, there are geographical dictionaries, travelogues written in France, literary works intended for theatre or opera sets, as well as recent letters and reports produced by German-speaking soldiers deployed in America. The content of the prints is therefore based on data that is already accepted. The inventory method used by Habermann to define the territory and Leizelt's definition of the city based on its membership of the British Empire and a transatlantic economic network therefore do not cause any problems of interpretation. The images are consistent and allow European viewers to recognise the site depicted thanks to characteristics that designate it as authentic and specific.

Beyond the correspondence between the state of general knowledge, buyers' acceptance is based on the absence of any profound contradiction between the Augsburg engravings and the majority of the descriptive and visual apparatus in place at the time. This conformity is largely due to the predominance of engravings derived from the French model in continental Europe. The French model and the distant view it advocates mean that the internal structure of the city and architectural details are not visible. There is therefore no possible comparison between the French views and the close-up perspectives adopted by Habermann and Leizelt. As we

As we saw in the first chapter, the lack of distribution of English engravings means that they are unlikely to have challenged this view of the city¹⁰². It should also be noted that the shortcomings of engravings are only marginally corrected by maps and plans, since these two types of documents no longer render the volumetry of the 18th century. Furthermore, even if the layout of the streets is accessible, the names of the roads are not, beyond the main thoroughfares.

This topographical information is also absent from the accounts written by historian Georges-Marie Butel-Dumont (1725–1798) in *Histoire et commerce des colonies angloises, dans l'Amerique septentrionale* (1755) and by Recollect Emmanuel Crespel (1703–1775) in *Voiages du R.P. Emmanuel Crespel dans le Canada et son naufrage en revenant en France* (1742). These texts say little about the appearance of Quebec City, focusing instead on the city's role as an economic and political hub and a place of transit. The scholar Marc Lescarbot (1570-1641), in his *Histoire de la Nouvelle-France*¹⁰³ (1609), mentions Quebec only to extol France's establishment in the Americas. In passing, he compares the nature of Germany with that of the colony (1609: xi). Finally, the lawyer and novelist Christoph Heinrich Korn (1726-1783), in his book on the American Revolution, *Geschichte der Kriege in und ausser Europea*¹⁰⁴, is interested in Quebec only in the context of suzerainty and the military manoeuvres carried out there (1776: 22). These two descriptive angles also seem to have been adopted by the German military stationed in America and by the Augsburg newspaper *Augsburgische Orinarie Postzeitung von Staats gelehrren, historis. u. deonomis Neugkeiten*. A review of the periodical shows that news about the colonial city is particularly prevalent in 1776, the year in which information about the attack attempted by the American army from December 1775 onwards reached the Old Continent. A report of the event is found there.

¹⁰² Moreover, only Short's engravings would have contradicted the Augsburg views, since the prints based on Smyth's work also depict the city from an external perspective.

¹⁰³ This book was first translated into German in Augsburg under the title *Noua Francia: Gründliche History von Erfündung der grossen Landschafft Noua Francia, oder New Franckreit genannt, auch von Sitten vnd Beschaffenheit derselben wilden Völcker* (1613).

¹⁰⁴ This account is mentioned in the first chapter of this memoir because of the engraving of Quebec that appears in it.

printed on 15 March 1776. The other entries mainly concern the dispatch or arrival of troops in the Laurentian colony¹⁰⁵.

The information disseminated in Europe through periodicals is not the only factor shaping perceptions of the territory. More detailed descriptions are also circulated, and the identity markers recorded in them are remarkably consistent, creating a cultural image of the Laurentian colonial city. These features correspond to the information provided in the dictionaries and geographical treatises of the time¹⁰⁶. We will focus on two of these works, which are interesting for two reasons: they are representative of the texts contained in works describing the geography of the period, and they were preserved by a collector, the socialite Jean-Vincent Capronnier de Gauffecourt (1692-1766), who owned optical views (Duplain 1766: 26). These two documents are the *Dictionnaire géographique portatif* (1747), which includes a short paragraph on Quebec City, and *Le grand dictionnaire géographique et critique* (1738), which includes a long passage from *Histoire de l'Amérique septentrionale* (1722) by historian Claude-Charles Le Roy de la Potherie dit Bacqueville de la Potherie (1663-1736)¹⁰⁷. Although the description in the second book is more detailed, the same elements emerge from both texts. Quebec City is depicted as an American city and the capital of Canada or New France. The authors mention that it has a harbour. They add that it has a fortified castle and a bishopric, as well as other buildings belonging to religious orders. According to them, it is located on a hill and is divided into an upper and lower town, the latter running along the banks of the St. Lawrence River (Echard *et al.* 1747: 431; Martinière 1738: 11-14). Finally, the second description explains that the city is fortified (Martinière 1738: 12-13).

These descriptions correspond to those found in the main accounts and travel journals concerning the Laurentian colony: that of botanist Pehr Kalm (1716–1779) in

¹⁰⁵ During the American conflict, information related to Quebec City was published on the following dates: 15 March 1776 (No. 65), 27 April 1776 (No. 102), 29 May 1776 (No. 129), 20 June 1776 (No. 148), 22 June 1776 (No. 150), 12 August 1776 (No. 193), 20 August 1776 (No. 200), 16 August 1777 (No. 196), 22 August 1778 (No. 201) and 31 August 1778 (No. 208). The newspaper is not paginated. In most cases, it consists of translations of dispatches identified as coming from London.

¹⁰⁶ The geographical dictionaries and treatises consulted are listed in Appendix A.

¹⁰⁷ La Potherie was a civil servant of the king in New France from 1698 to 1701 (Pouliot: 1991).

the French translation of *En resa til Norra America* (1753-1761)¹⁰⁸, that of Jesuit priest Pierre-François-Xavier de Charlevoix (1682-1761) and that found in *Geographische Beschreibung von Canada besonders der Hauptstadt Quebeck* (1777), which is generally attributed¹⁰⁹ to the German soldier and entomologist Frederick Valentine Melsheimer (1749-1814). Approaching the coasts of America at the time of New France, Kalm and Charlevoix wrote texts in which Quebec City was portrayed in a similar light. According to Grignon, Kalm adopted the conventions developed in French iconography (1999: 104-105). Using the maritime perspective recommended by the French representational model, Kalm painted a picture of a city built near the river with a port through which goods exported from Canada to France passed (1880: 96-98). He specifies that the city is surrounded by a wall and separated by an elevation between an upper and lower town. According to him, its narrow, muddy streets intersect at irregular intervals and are lined with whitewashed stone houses, most of which are one storey high (1880: 96-106).

For his part, Charlevoix also begins the third letter of his *Journal d'un voyage fait par ordre du roi dans l'Amérique septentrionale* (*Journal of a voyage made by order of the King in North America*), dated 28 October 1720, emphasising the city's maritime position and detailing the characteristics of its port (1994, vol. 1: 212-215). He then distinguishes between the upper town and the lower town, indicating the main squares and thoroughfares (1994, vol. 1: 215-217). In passing, he mentions that most of the buildings are made of stone without describing their appearance in any greater detail, except for the main buildings, which he highlights by mentioning their relative importance and spatial organisation and comparing them to French buildings on the European mainland (1994, vol. 1: 218). Charlevoix continues his letter by describing the different parts of the fortifications before moving on to other subjects. Of all the information provided by the two authors, the only details that conflict with the images of Habermann and Leizelt are those given by Kalm. These concern the height of the buildings and their colouring. In the 18th century, observers were unlikely to

¹⁰⁸ The book was translated into German by Johann Andreas Murray between 1754 and 1764 under the title *Des Herren Peter Kalms Beschreibung der Reisedie er nach dem nördlichen Amerika*.

¹⁰⁹ As the text is unsigned, questions remain as to the identity of its author, and attribution varies in library catalogues. However, in all cases, authorship of the account is attributed to a German officer sent to America, which is the essential point in the context that concerns us here. We have chosen the author most frequently mentioned.

for rejecting the images by Habermann and Leizelt on the basis of the size of the buildings, since the representations already in circulation contain the same error. Furthermore, this difference could be attributed to changes that had occurred since the time of Kalm's travels, the dates of which, from 1748 to 1751, are noted in most editions. Finally, the acceptance of differences is in line with the requirements of the medium in terms of colour. The artificial shades that are recommended are essential, as we have seen, for the effect of depth. They therefore become standards unrelated to the subject represented and must be tolerated by the recipients in this specific context.

First published in 1776 and reprinted several times thereafter, the brief description found in Melsheimer's work¹¹⁰ presents another discrepancy with the prints produced for the *Collection des prospectus*. Melsheimer points out Quebec City's defensive position and the main features of its appearance. In doing so, he notes the significant damage caused by successive attacks on the city (1777: 3-4). However, the absence of this damage is probably not enough to undermine the impression of veracity that Habermann and Leizelt's optical views produced on 18th-century audiences. To be convinced of this, one need only think of other works produced at the same time that fail to mention the damage caused by the British conquerors and American rebels. This is the case with the successful epistolary novel *The History of Emily Montague* (1769)¹¹¹ by English author Frances Moore Brooke (1724-1789), which, despite its underlying imperialist discourse (Crowley 2005: 17) and the author's stay in Quebec City¹¹², offers a cheerful view of the city.

Hervey Smyth's engravings, which are all exterior views, also depict a Quebec City whose buildings are intact, while Richard Short's images, in which buildings destroyed by war predominate, circulate throughout the British Empire¹¹³. Regarding

¹¹⁰ Melsheimer fought as a mercenary during the American Revolution.

¹¹¹ The novel was first published in England before being translated. It appeared in French (1770) and German (1783) during the period in question (McMullen 1980).

¹¹² Frances Moore Brooke accompanied her husband, chaplain in Quebec City, from 1763 to 1768 (McMullen 1980).

¹¹³ These prints are: *View of the Intendant's Palace*, *View of the Treasury and the Jesuit College*, *View of the Church and the Jesuit College*, *View of the Cathedral, the Jesuit College and the Récollets Church, taken from the Government Gate*, *View of the Episcopal Palace and its ruins, as seen from the Lower Town*, and *View of the Church of Our Lady of Victory; built in memory of the lifting of the siege in 1695 and demolished in 1759*. They were first printed in 1760.

In the latter case, a distinction must also be made between the rubble found in Short's engravings, which is an exception¹¹⁴, and the aesthetics of 18th-century ruins, which apply to cities marked by history. In fact, although the integration of buildings that have suffered the ravages of time is popular in the works of the period, ruins, whether real or imaginary, are depicted in order to evoke antiquity or the passage of time. Several of the representations of architectural elements by Giovanni-Paolo Pannini (1691-1765), Hubert Robert (1733-1808), Jean-Nicolas Servandoni (1695-1766), Giovanni Battista Piranesi, known as Le Piranesi (1720-1778), Francesco Guardi (1712-1793) and Bernardo Bellotto (1722-1780) are typical of this trend. Engravings illustrating the destruction of contemporary cities are most often limited to fires and earthquakes, as is the case with optical views¹¹⁵, and they are often ennobled by elements indicating their imminent decline.

Contemporary cities are therefore not usually depicted with buildings damaged by war. By not illustrating the effects of conflict, the optical views representing Quebec City therefore comply with the iconographic rules in force, unlike Short's engravings. They are also, to use an expression employed by Cauquelin in defining the conditions for adherence to the reality of a landscape (2002: 113), "consistent with the state of belief," since they respect the main features set out in each of the descriptions. It is also important to add that they are not passive forms of dissemination of the urban imagination; they have their own agency. More affordable than books, they contribute, in the same way as existing prints, to the construction of a vision of the city because they are mobile geographical objects.

¹¹⁴ First analysed by Parent (2005: 138–156) and also highlighted by Crowley (2005a: 14), Short's frequent depiction of the effects of urban bombing deserves further study, going beyond Parent's comparison with Lisbon, which was destroyed by an earthquake (2005: 139-145). Indeed, it would be worth questioning the rarity of the iconography chosen, that of a contemporary city destroyed by military action, and to look for other earlier and later occurrences. Parent's analysis could also be qualified by taking into account the fact that, with the exception of the view of the destruction of Notre-Dame-de-la-Victoire, all the damaged buildings depicted by Short are in the Upper Town, the seat of power in the French graphic model. The choice to include the church could be explained, in an analysis based on this distinction, by its high symbolic value, since the religious building was renamed to commemorate French victories.

¹¹⁵Some of the works in the Prospectus Collection are typical of this trend, including Habermann's *Representation a Feu Terrible a Nouvelle Yorck*.

widely distributed. In the introduction to *Il Nuovo: le meraviglie della visione dal'700 alla nascita del cinema* (1992), film historian Gian Piero Brunetta goes so far as to assert, speaking more generally about optical views, that they constitute the first common language for describing the world in the 18th century (Brunetta in Minici 1988: 11; Brunetta 1992: 14). While optical views are consistent with the visual culture of their audience, another factor related to their expectations could explain why the differences between the elements disseminated by Melsheimer and Kalm and the optical views are probably not noticed by the target audience: the preponderance of the effect of depth and immersion over the veracity of the content.

2.1.2 IS THE MESSAGE THE MEDIUM?

As we have seen, the design of optical views is largely linked to the creation of a three-dimensional space into which the viewer can project themselves. With the exception of London optical views and certain high-quality versions produced in continental Europe, optical views are not created to be works of art, whose main purpose is to be admired for their aesthetic qualities. Furthermore, the few traces we have of their use seem to indicate that the original intentions of the producers were adopted by the viewers. This is illustrated by Rousseau's letter, quoted above, in which he tells his correspondent that he wants a third party to purchase optical views, emphasising the effect to be achieved:

In seeking the greatest illusion, it follows that we must also have the best prints: those from England seem to me to be the most suitable for this purpose; it is true that they are extremely expensive; if you could gather a dozen or fifteen very good ones, that would suffice for me until I can have some sent from Paris. You know that we need distances, perspectives, alleys, avenues, galleries, seascapes, in a word, everything that creates and extends space; architecture with courtyards and forecourts, colonnades, etc., also works very well. (1959: 261).

Rousseau specifies in this exchange that the subjects are important insofar as they contribute to the illusion. The philosopher is not the only one who shows little interest in the themes addressed by his optical views. This emphasis on the medium is also evident in the inventories after death, which reflect the organisation of the collections and the interest aroused by each of the objects among collectors.

In most auction catalogues of deceased persons' collections, information about the engravings themselves is usually limited to their number, or even the number of portfolios in which they are kept. This is the case in the 1780 document listing the assets for sale of the Bruges nobleman Charles-François Custis (1728-1780): ' Instruments, mathematical and physical items. Ten portfolios, each containing 50 of the most beautiful illuminated prints, used for optics" (Gimblet 1780: 26). The inventory of the Ghent priest Jean Baptiste Hellyn is no more forthcoming: "a packet of 35 illuminated views of optics " (Somers 1762: 35). This form of succinct description is also found in Gauffecourt's inventory. The character, whom we have already mentioned, is a retired Swiss civil servant who frequents the same Parisian salons as the Encyclopedists and Rousseau (Joly 2012: 7). Gauffecourt left behind a diverse collection typical of the Enlightenment, which was sold at auction in its entirety since he died unmarried and childless (Joly 2012: 83-100). The volume listing the various items in the collection includes this short sentence: "An optical device mounted on a black wooden table with a crowbar, the optical case varnished and gilded on the edges with 110 prints, 25 of which are not illuminated, but of great beauty" (Duplain 1766: 26). Like the other excerpts cited above, this one does not include details about the subjects depicted in the optical views, but rather their number and the fact that they are coloured. However, some inventories also contain incomplete information about the content of the optical views or where they were produced. An example of this process can be found in the short volume listing Joseph H.-Marie Le Febvre's collections in June 1771: "From a fine collection of prints: a packet of optical views, both English and others, the following are mixed together, 24 of each" (Walwein 1771: 5); or "Another [optical view] of 6 pieces, a garden" (Walwein 1771: 5). This information, which is either absent or partial, and the auctioneer's decision to sell the optical views in lots contrasts with the descriptive models and individual sale of other prints in the same inventories. Most often offered individually, art engravings and topographical engravings are described in much greater detail. Their subject matter or the artists who inspired them are always indicated. This lack of emphasis on themes in the case of optical views is not unique to documents created for auctions.

In a handwritten inventory¹¹⁶ of the Prince of Orange's collection, first reported by Dutch science historian Peter de Clercq (1988: 138-141), a device is identified, although the associated engravings are not mentioned: "A Diagonal Mirror and a lens for viewing Prints in perspective¹¹⁷". The interrelationship between the prints and the devices is therefore described here solely in terms of the desired perspective effect and not in terms of the visualisation of the elements represented. Advertisements aimed at reselling collections are just as laconic as the inventories we have just analysed, as evidenced by these extracts from *the Affiches de Lyon* published on 17 July 1771, 29 April 1772 and 4 March 1772 respectively "Very beautiful Optics, of a new kind & quantity of illuminated prints" (1771: 134), "Optics with prints for sale" (1772: 46) and "A very beautiful Optics, with two hundred prints glued onto cardboard, by the best masters, for sale at a fair price" (1772: 128).

The only inventory after death that stands out was published in Brussels. The detailed description of the optical views listed in the *Catalogus librorum bibliothecae illustrissimi viri domini domini Pauli Francisci de Cordeys* (1760) could be explained by their provenance (Vleminckx 1760: 461). Indeed, the collection of the royal advisor and treasurer general of the Austrian Netherlands¹¹⁸ Paul-François de Cordeys (?-1759) comprises only English optical views which, as mentioned in the first chapter, have decorative value and are considered to be autonomous works. As we have seen, other inventories devote brief notes to optical views. However, the traces left by booksellers and publishers show that they tended to provide more exhaustive descriptions. This is the case with this advertisement, which appeared in *L'Avant-Coureur* on Monday 27 April 1761:

Two interesting views intended for optics have just been discovered. They depict the Seine river basin, between the Point Royal and Chaillot. In the first, which looks towards the Point Royal, we see the frigate Parisienne being launched. Many people, attracted by the novelty of the spectacle, form different groups in

¹¹⁶ Entitled *Catalogue des instruments de mathématique et physique de S.A.S Monseigneur le Prince d'Orange* (Catalogue of Mathematical and Physical Instruments Belonging to His Serene Highness the Prince of Orange), the inventory, written in French, dates from 1751. It is kept at the Royal Library in The Hague (76B2). The presence of the device at such an early date may be explained by the marriage of the Dutch lord to an English princess.

¹¹⁷ In our opinion, this description corresponds to a zograscope.

¹¹⁸ The Austrian Netherlands were part of the Holy Roman Empire until 1795.

boats & on the parapets. In the second, which looks towards Chaillot, we see the same frigate armed with its masts & sails & accompanied by its rowboat; passengers, boats, and floating trains fill the Seine. These two prints are drawn with precision & executed with great taste. They can be found at Mr Huquier fils, engraver and print dealer, rue S. Jacques, above the Mathurins, at the grand S. Remi. Every day he adds to his collection of views with carefully selected and illuminated pieces (*L'Avant-Coureur*, 27 April 1961: 265).

This difference is probably mainly due to the commercial objectives of the bookseller-publisher. Huquier has every interest in arousing his customers' desire for new engravings. To do so, he relied on the novelty effect, exaggerating the importance of the site depicted by highlighting an event that aroused curiosity and fuelling their desire to complete their collection, a tendency we have already observed in Gauffecourt, who owned more than a hundred optical views (Duplain 1766: 26) and Calvoore, whose inventory includes five hundred optical views (Gimblet 1780: 26). These data seem to indicate that collectors sought to create exhaustive collections of sites, recreating a geography of the world in the manner of an atlas. As we have seen in analysing the inventories, this sensitivity to the subject is secondary, however, since optical views have value primarily as a whole, rather than as individual representations. Furthermore, interest in the sites is primarily subject to their role as optical illusions. This statement is also true for longer descriptions. Huquier's text does not begin with a description of the site, but rather by specifying that the engravings are "intended for optics". Interest in the subject matter therefore never takes precedence over the desired visual effect.

Thus, there is no diversion from the primary function of optical views by affluent buyers. Users from this group respect the primacy of the illusion of depth that is inherent in the medium. In addition to this perceptual manipulation, there are other visual effects that can distract users' attention from the subjects depicted in the etchings: lighting effects and the movement of images. The lighting effects are intended to give the impression that the image is changing from day to night. To achieve this result, optical views are pierced with tiny windows or holes covered with either paper or transparent fabric (Figure 36). In order for the perforated prints to retain their rigidity, their reverse side

are often reinforced with cardboard or thick paper. They are then placed vertically in dioptric boxes¹¹⁹. To produce daylight lighting, covers on the top or sides are lifted, illuminating the front of the image (Mannoni 1994: 92).

For the night effect, a space behind the prints allows them to be lit from behind. For the night effect, the light source can be natural, in which case it enters through slits fitted with flaps. It can also be artificial: in this case, the light produced by candles or oil lamps enters through slits fitted with flaps¹²⁰. The light passing through the back illuminates the coloured holes, leaving the rest of the image almost in darkness. This change in the direction of the light gives the impression of a night view. During the night effect, the features of the landscape depicted become barely discernible, giving way to the shimmering of illuminated windows, the twinkling of the moon and stars, the dazzling colours of fireworks or the incandescence of flames. Two views of Quebec City by Habermann and Leizelt, modified to create this transition between night and day, are preserved in Quebec library collections: *Vuë de la rue des Recolets dans la haute Ville de Quebec* at McGill University's Rare Books and Special Collections and *Quebeck* at the University of Montreal's Rare Books and Special Collections Library¹²¹. In the case of these copies, as with all optical views, the addition of these openings and coloured papers was done by the users.

It is also the viewers who attach¹²² optical views in rolls. This assembly is essential to the second effect, namely the movement of images, which is mainly created by unwinding rolls of optical views using systems of

¹¹⁹ These are the only boxes that allow this type of arrangement since they do not have mirrors. This detail and other information about them has already been given at the beginning of chapter one.

¹²⁰ It should be noted that both types of lighting can also be used simultaneously. The shutters can be gently closed, creating, according to Mannoni, "a precursor to cross-fading" (1994: 92).

¹²¹ *View of Rue des Recolets in Upper Quebec City* (inventory number: CND FOLIO 33) has perforations, but has lost the coloured paper or fabric that created the coloured lights. *View of Quebec* includes all these elements, but the back of the engraving has been covered with canvas, probably by a 20th-century collector, making the light effects impossible to see.

¹²²In the rolls we consulted, the views were bound on the narrowest side, i.e. the vertical side. However, Huhtamo states that some copies are bound on the widest side (2013: 37). These variations are thought to be due to the different structures of the optical boxes.

pulley systems or cranks. According to art historian Barbara Marion Stafford, the kinetic energy thus deployed increases our perception of depth tenfold (Poggi, Stafford and Terpack 2001: 52). It also causes a more pronounced immersion of the viewer, which is enhanced when strong light contrasts are added (Poggi, Stafford and Terpack: 52-53). Contributing to the three-dimensional effect, most assembled optical views do not offer a narrative story¹²³. In general, several views of the same city or event follow one another before simply moving on to another place or scene. For example, images of Bengal, Dunkirk, Le Havre, Persia, Florence, Jamcefu¹²⁴, Rome, religious scenes, Vienna, Ranelagh, Dresden, Saxony, The Hague, Rotterdam, Liège, Martinique, the clashes in Gibraltar and the city of Florence¹²⁵ follow one another on one of the scrolls preserved at the Staats und Stadtbibliothek in Augsburg.

However, the absence of a narrative linking the prints together, based on scripted actions or geographical routes corresponding to known journeys, does not exclude the possibility that meaning was conferred on this seemingly discontinuous succession of representations. According to Becker, viewers always make comparisons between successive images (2009: 53). The differences and similarities that are detected then have an impact on the analysis of each of the representations and on their meaning as a whole (2009: 54). It is therefore possible that the sequences created by 18th-century users carry one or more meanings that escape us today. These meanings could relate, for example, to visual habits or personal experiences or even current events; the disparity of the subjects covered would then be the same as that observed in today's television news. They could also be linked to individual interests.

¹²³ In *Illusions in Motion: A Media Archaeology of the Moving Panorama and Related Spectacles*, Huhtamo notes this lack of structure in most of the scrolls he consulted (2013: 35–37). However, he points out that there are a few exceptions to this scattered organisation of scrolls, mainly concerning religious narratives. Huhtamo notes the existence of one such scroll that contains only biblical optical views by the Augsburg engraver Albrecht Schmidt (2013: 35).

¹²⁴ This is the spelling used in German to refer to the city of Yangzhou in China.

¹²⁵ This scroll contains views published either by the Academy or by Probst. Several of them were engraved by Habermann. In total, the scroll comprises 41 prints.

Rolls that have retained their integrity are quite rare, and those we have consulted do not include optical views depicting Quebec City. The absence of such rolls prevents us from applying the theories we have just developed directly to our subject of study. However, this deficiency does not mean that rolls containing views of Quebec City did not exist. In fact, several of the assemblies appear to have been destroyed or split up¹²⁶. In any case, the rolls are not the vehicles of an intrinsic discourse. Unlike a story with a known scenario, the meaning given to them may vary depending on the individuals concerned. The visual effects produced by the device therefore remain the main element that is understood by all recipients, making it the predominant message.

The propensity of viewers to accept the geographical representations created by Habermann and Leizelt is therefore due to two intertwined factors. First, it results from conformity with the knowledge and visual culture of the initial audience. Confronted with a coherent set of five prints and having no access to the actual appearance of Quebec City, these users recognise in the Augsburg optical views the markers that generally identify the city and are disseminated through books, newspapers, plays and prints. The common truth thus becomes the accepted truth. Their acceptance is also based on a pragmatic approach to communication described by communications theorist Marshall McLuhan. For McLuhan, it is the nature of the transmission channel that determines the forms of human interaction and action with the message (2009: 108). This pragmatics leads to the primacy of the experience of the device over the content (2009: 107-116). The preponderance of three-dimensionality and perceptual mechanisms on the subject during viewing thus ensures that any inconsistencies between the images and certain descriptions can be downplayed. However, these are not the only factors to consider. In the case of a cultured audience, the social context of reception ensures that a relationship is established with the medium underlying the device, namely engraving as representation.

¹²⁶ The optical view rolls appear to have been separated to allow for individual sale, to facilitate conservation, or to simplify display. At the Kunstsammlungen und Museen Augsburg, it was the latter consideration that prevailed when the roll was split up and is now kept in separate pieces.

readable on an iconic level. Social uses also prompt reflection on the mechanism of vision, which has an impact on the relative importance of the subject and on the meaning given to representations of the Laurentian capital.

2.1.3 FUN SCIENCE AND EMPIRICISM

An era of salons and learned societies¹²⁷, the 18th century was marked by a focus on private socialising that restricted contact between different social groups, while public spaces for cultural gatherings, scholarship and entertainment proliferated. It was in this context that a craze for natural philosophy emerged, particularly for experimental physics and its demonstrators (Hankins and Silverman 1995: 12; Phillips 2012: 19). Optics, which is part of this field, enjoyed great popularity. Its spectacular nature and the fact that it did not require advanced mathematical knowledge¹²⁸ to be understood made it appealing in social settings reserved for the elite (Lynn 2006: 33). The transition of optical demonstrations from the sphere of scientific interaction to the literate public sphere is a common paradigm in Europe (Stewart 2008: 13-14; Schaffer 1983: 1-43). Optical views were part of this craze for science, even though their status was ambiguous.

Reflecting the interest in the mechanisms of vision, books popularising experimental physics provide information on the status of optical views. In this regard, one of these collections is particularly interesting: Guyot's *Nouvelles récréations physiques et mathématiques* (*New Physical and Mathematical Recreations*), which we have already mentioned several times. The *Nouvelles récréations* originally comprised four volumes on magnetic games, numbers, optical illusions, and amusements involving sympathetic inks, air, water and fire. They were first published by subscription between 1769 and 1770 before being quickly reprinted¹²⁹ and translated into

¹²⁷ These invitation-only associations sought to improve their members' knowledge by giving them access to lectures, libraries and, often, cabinets of curiosities. In 18th-century France, they were often referred to as museums (Lynn, 2006: 73-76).

¹²⁸ Several experiments in 18th-century experimental physics required a fairly advanced knowledge of mathematics in order to be understood or to see their effects. This was the case, among other things, in chemistry, gravitational interactions and mechanics.

¹²⁹ Corrected and revised, the first volume of the work was republished in 1772. The other volumes followed between 1773 and 1775. We have already given the date of the German edition in the first chapter: 1772 to 1777.

Dutch, German and English (Belhoste and Hazebrouck 2014: 491). Guyot classifies optical views as visual recreations and more specifically in the category of catoptrics, which also includes mirrors. In the first edition, he states that his work was inspired by the collection of the German countess Maria Johanna von Dachsberg (1746-1832), implying that the content was primarily intended for ladies. However, this stated intention may conceal another. Science historians Bruno Belhoste and Denise Hazebrouck argue that the dedication is in fact intended for the Countess's husband, Maximilien Joseph de Lamberg (c. 1730-1792), who is believed to have commissioned the work (2014: 494). Lamberg was a courtier and cosmopolitan scholar best known for his correspondence with Voltaire, Casanova (1725-1798) and the Swiss poet, naturalist and physician Albrecht von Haller (1708-1777). Lamberg was in the service of the Bishop of Augsburg around 1764 and retired to a Bavarian town not far from there in the early 1770s. It is therefore possible that the collection on which Guyot claims to base his work contains optical views of Augsburg.

Beyond these potential links with Augsburg, Guyot's book deserves our attention because it marks a break with other documents of the same type published at the beginning of the 18th century. Abandoning the didactic and serious tone of previous works, such as Jacques Ozanam's (1640-1718) *Récréations mathématiques et physiques*, he seeks first and foremost to entertain by making experiments accessible, and then to elevate the minds of his readers. Furthermore, the experiments contained in *Nouvelles récréations* are intended to be reproduced for guests who take an active part in their performance (Belhoste and Hazebrouck 2014: 496-497). The presence of optical views in Guyot's work therefore attests to their intended use in the sphere of instructive pleasures of social life, which is confirmed by certain devices whose form shows that they were kept in the living room or in a cabinet (Huhtamo 2013: 37; Whalen 1998: 78).

Optical views, whether flying or in rolls, are therefore among the many devices of the Enlightenment whose role is to reveal the principles of natural philosophy through artifice and spectacle (Withers 2007: 230). The section on "instruments of mathematical and physical pieces" section of Calvoore's collection, which we have already mentioned, presents a typical sample of the devices used in the

part of these edifying amusements of the 18th century. In addition to optical views, the category includes a perpetual motion machine, magnet sets, a magic lantern, a press, a telescope, a microscope, and devices demonstrating electrical forces (Gimblet 1780: 26). They also appear in formal physics cabinets, such as the Cabinet de physique de Dijon (Dubois 2002: 113-114). As such, they contribute to the formation of scientific knowledge while defining some of its contours through the very limits they impose by their materiality and their integration into social interactions. Optical views are therefore objects whose status lies in a grey area between entertainment and science.

However, these mundane and scientific purposes are not the only ones. A letter from Rousseau attests that optical views are also used for private entertainment. Considering himself a lonely being, the philosopher explains his desire to acquire optical views at the end of the letter we have already mentioned:

These kinds of machines are very flat unless they create a complete illusion, but when they do, they are very entertaining, and I feel that in my condition, locked up for more than six months every year, I have a great need for entertainment that distracts my mind and prevents it from consuming me in my prison (1959: 261).

The distractions Rousseau longs for in his solitary exile correspond, contrary to social customs, to Jonathan Crary's analysis of Enlightenment viewers in his book *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (1990). Crary argues that 18th-century visual culture is characterised by a search for objectivity in which the viewing subject is cut off from his body, the outside world and his interrelationships, thus encouraging the observer to withdraw into himself (1990: 37-40).

Crary's assertions, which are entirely theoretical, subordinate social behaviour to discussions about concepts: his analysis revolves around a direct permeation of scholarly, even philosophical, thought into practice (1990: 37-66). Furthermore, the rupture he establishes is based on a single object, the camera obscura, which he presents as a significant and socially constructed artefact that catalyses a monocular understanding of sight (1990: 26).

In doing so, he omits other devices, such as the magic lantern, which was part of the discourse of late Enlightenment scholars as a metaphor for human vision of the world. Nor does the author take into account the heterogeneity of uses, including those we have analysed, and the diversity of optical devices in circulation at the time. Nevertheless, his text brilliantly highlights three of the main characteristics of the century: a change in our relationship with the world caused by the use of optical tools, a monocular perception of sight, and a fascination with visual observation.

Indeed, Molyneux's problem¹³⁰, the discussions surrounding the theories of English physicists John Locke (1632–1704) and Isaac Newton (1642–1726/27), as well as Irish philosopher George Berkeley (1685–1753) and Scottish philosopher David Hume (1711–1776), were popular topics during the Enlightenment. At the beginning of the 18th century, they were part of a broader interest in the methodical and subjective exploration of the world through the senses, particularly sight. In all cases, the eyes were understood to be equivalent to a lens that projected a single image to the brain. However, this common position was not without differences concerning the relationship between sight and human reasoning and sensitivity. The debates surrounding this question were dominated by two schools of thought: simple empiricism and mathematical abstraction. Thinkers belonging to these two schools consider the human mind to be either an empty matrix on which ideas are articulated through the contribution of the senses during repeatable experiences, or an intellectual process that develops through reasoning (Reil 1994: 349; Riskin 2002: 23-31). The first theory, that of the empiricists, had a significant influence on several prominent thinkers of the late Enlightenment. Its intellectual imprint is noticeable among materialist philosophers, including Denis Diderot (1713-1784) in *his Letter on the Blind for the Use of Those Who See* (1749). It was also felt among German utilitarians, including Johann Jakob Engel (1741-1802), as well as among several thinkers of the Berlin Academy, including Leonhard

¹³⁰ First formulated by John Locke before being taken up by the Irish scholar and politician William Molyneux (1656–1698), Molyneux's problem questions the vision and understanding of the world of a person who has been blind since birth and has regained their sight. This thought experiment seeks to determine whether the subject would visually identify objects that they had initially learned to distinguish by touch.

Euler (1707-1783), Johann Augustus Eberhard (1739-1809), Johann Friedrich Wilhelm Jerusalem (1709-1789) and Johann Heinrich Lambert (1728-1777).

These intellectuals are not alone in dissecting human understanding to determine which mechanisms can provide a better understanding of nature and the thinking subject. Arguing that empiricist techniques and concepts alone cannot provide a complete picture of human beings and the knowledge they accumulate, the German philosopher Immanuel Kant (1724–1804) adopted an approach in which abstraction took precedence over experimentation. For Kant, philosophy is the critical vehicle of reason (Hatfield 1990: 4-6). The end of the 18th century was therefore marked simultaneously by a valorisation of the senses, whose importance was defended by the heirs of the empiricists, and a questioning of their reliability. Sight is thus considered both an effective tool for acquiring knowledge and a sense that can be deceived. In an excerpt from an imaginary dialogue between credulity and the truth-loving man published in *Die Akaedemie der Grazien: eine Wocheshrift zur Unterhaltung des schönen Geschlechts* (1774), Christian Gottfried Schütz (1747-1832), a disciple of Kant, compares the images seen in the optical device in question to dreams¹³¹: "Ja, meine Werthe! Das Gehim ist im Traume nicht anders anzusehn, als wie ein Guckkasten, die Seele ist so zu sagen die Zuschauerin der Bilder, die ihr da vorgehalten werden¹³²" (1774: 139). Just like a dream, the images produced by the lens are therefore perceived as unreal. In the case of Habermann and Leizelt's optical views, which are examined in the comfort of the homes of the bourgeois or noble public, this duality between the eye as a scientific instrument and as a sense that can be deceived is appreciated. It is appreciated because the mechanisms of illusion can be exposed by viewers who use their powers of deduction.

In fact, the sensory distortions caused by the illusionistic nature of optical views are probably accepted because the viewer has access to the engraving outside of the instruments.

¹³¹ This analogy is in line with Schütz's thinking, for whom the soul observes itself, but for whom it is also an active cognitive force oriented towards the outside world (Vial 2008: 63-63).

¹³² We translate "The dreaming brain should not be seen as anything other than an optical box, while the soul is, so to speak, a spectator of the images presented to it".

either when he places or removes the print under the lens. The dematerialised three-dimensional image is therefore relative to a temporality controlled by the viewer: it only exists when he looks at it in the device. It is also manipulated as a two-dimensional graphic entity, which means that the prints exist on an iconic level. The viewer who operates the optical views themselves is not confused by the illusion caused by the prints and devices. They are aware that the device generates a trompe-l'oeil that they can escape, since the materiality of the surface is accessible to them tactilely and visually during repeatable experiments. The observer cannot therefore be confused by the effect of verisimilitude¹³³ caused by optical views because they are able to reason on the basis of the data transmitted to them by their senses.

He is therefore able to understand the ocular processes and optical properties involved in the device. These phenomena are also briefly described in a book such as Guyot's. They are also described in the *Dictionnaire de physique*¹³⁴ (1761), written by the Jesuit priest and physics professor Paul Aimé-Henri Paulian (1722-1801), who explains the mechanisms at work in detail (1761: 24-25). Thanks to this device, the observer can also reflect on a problem that preoccupied authors of the time: the physical location of images that pass through a mirror or are reflected by a lens. This question is formulated in the definition of the term "image in optics" in *the Encyclopédie, ou, Dictionnaire raisonné des sciences, des arts et des métiers*:

"One of the most difficult problems in optics is determining the apparent location of the image of an object seen in a mirror or through glass" (Diderot and d'Alembert 2000, volume 8: 559).

The mystification of sight thus became, for the literate public of the 18th century, a rational amusement in which deception was unmasked. In *Artful Science: Enlightenment Entertainment and the Eclipse of Visual Education*, Barbara Maria Stafford explains that the appeal of games based on the idea of active observation, allowing the viewer to sharpen their

¹³³ The definition of verisimilitude has been the subject of numerous epistemological debates. The word is used here in its simplest sense: close to reality (Oddie 1981: 237-265).

¹³⁴ The book is dedicated to the Duke of Berry, Louis Auguste of France, the future Louis XVI (1754-1793).

skills by recording optical mechanisms, coincides in the 18th century with the promotion of sensory education through activities that are fun in themselves (1994: 56). Present throughout Europe, this emphasis was promoted among Protestants by Pietism¹³⁵, which was one of the vectors for the spread of Enlightenment ideas (Sagarra 1977: 77). According to Stafford, it is also present in the works of Locke and Rousseau (1994: 56). The device used in optical views is therefore not intended to make scientific discoveries, but rather to demonstrate phenomena that are potentially already known to viewers. However, these pastimes can also be somewhat frivolous, as evidenced by this excerpt from the June 1761 edition of *the Journal oeconomique*, in which an anonymous author describes the usefulness of optical boxes as follows:

People who spend their lives in the countryside are often happy to have new ways to entertain themselves; one cannot always concern oneself with serious matters; too much hard work is tiring, and even entertainment becomes boring when it is not varied from time to time. It is therefore for the benefit of reclusive and curious people that I am going to give here a description of an optical machine, designed to view perspectives and landscapes in all their beauty (*Journal oeconomique*, June 1761, 285).

Typical of a commonplace view of the time, which held that country life was dreary and lacking in variety, this text mentions that optical views are a form of entertainment and amusement. In the 18th century, these words often had connotations and were mainly applied to frivolous leisure activities¹³⁶. This is interesting insofar as the relationship between the device and natural philosophy is not the only factor that relegates the content of the images to the background. The reception of Habermann and Leizelt's optical views is also marked by a desire on the part of those who own them to signal their status.

2.1.4 SOCIAL IDENTITIES: SEEING OR BEING SEEN

The text from *the Journal oeconomique*, which we have just quoted, describes optical boxes as objects intended for the curious. At that time, the curious person was, in addition to someone who desired

¹³⁵ Pietism is a branch of Protestantism that emphasises the relativisation of dogma, tolerance, personal understanding of scripture, moral rectitude in behaviour, and education. Kant was one of its adherents (Moreau 2001: 368).

¹³⁶ The academic and man of letters Louis de Jaucourt (1704-1779) makes the following distinctions in *the Encyclopédie*: "Comedy has always been the *recreation* or relaxation of great men, the *entertainment* of polite people, and the *amusement* of the people; it is part of public *celebrations* in certain events" (2000, volume 4: 1069).

expand their knowledge, a collector who amasses objects in a cabinet. These disparate collections consist of works of art, items that appeal because of their aesthetic appeal or strangeness, artefacts related to natural philosophy, technical devices or instruments related to experimental physics. The objects thus accumulated and organised are referred to as curiosities. The term also encompasses the category in which optical views are found in certain post-mortem inventories that list collections from cabinets of curiosities. This is the case in *the Catalogue des estampes, desseins, tableaux, coquilles, échantillons d'agathes, jaspes, cailloux, marbres et autres curiosités* (Glomy: 1774) from the cabinet of the master of accounts and squire Philippe Brochant ¹³⁷(1736-1773). Curiosity cabinets always belonged to wealthy individuals, and sensory pleasure played as much a role in the selection of objects as the development of collections. Numerous correlations can be made between these collections and optical views.

Containing visually pleasing objects that, like engravings, are manipulated by the viewer for entertainment, cabinets of curiosities are also social spaces where aesthetic pleasures are shared in the company of a circle of familiar visitors or connoisseurs (Dietz and Nutz 2005: 48). Furthermore, cabinets of curiosities, like optical views, are located at a point of connection between art and science, education and entertainment. The role of cabinets is also to be a distinctive practice that acts as a symbol of social status (Dietz and Nutz 2005: 62). This symbolic characteristic is also the prerogative of optical views, as demonstrated by the most famous representation of a zograscope: *L'Optique* (figure 37), engraved by J. Frédéric Cazenave (1770?-18..) after a painting first presented at the Salon in 1793 and painted by Louis-Léopold Boilly (1761-1824), a Parisian specialist in portraiture, trompe-l'oeil and genre scenes.

The engraving depicts Louise-Sébastienne Gély (1776–1856), whom French lawyer and politician Georges Jacques Danton (1759–1794) had just married as his second wife. The young woman is accompanied by the son Danton had from his first marriage to Gabrielle Charpentier (1760–

¹³⁷ Brochant came from a very old family of Parisian merchants, whose members became royal officials (Gibiat 2006: 438).

1793): Antoine. The work was reprinted in 1800 by the Augsburg publisher and engraver of optical views Domenico Fietta¹³⁸ (figure 38). The etching illustrates virtuous domesticity based on the intimacy of the setting, the discreetly ornamented clothing, the harmonious interaction between the two characters, and marital affection. The latter is evoked by the *putti* drawn on the vase above the cabinet, which is positioned diagonally with Gély's head. Added to these indications is the bourgeois décor, which includes instructive and virtuous amusements: reading and music. As a surrogate mother, Gély is both discreetly eroticised as an object of desire and of the male gaze, and represented as a symbol of bourgeois family and domestic values. According to art historian Susan L. Siegfried, this dual meaning is typical of most of Boilly's female figures from this period (1995: 165).

Gély is also presented as an educator whose role is to impart knowledge through optical entertainment. Here, she trains the child's gaze by asking them to actively observe, allowing their senses to become aware of the relationship between reality and illusion. These relationships are also emphasised by the painter, many of whose works tend to focus on the relationship between the viewer and the objects being viewed (Siegfried 1995: 182-183). This questioning of mimesis has a particular resonance in *L'Optique*, as it highlights the function of the device at the centre of the engraving. The tension between the tangible and the imaginary is first manifested in the representation of Gély's hand, which, by lifting the engravings, reveals their materiality and two-dimensionality. It is also evoked by a trompe-l'oeil in the décor itself, namely the mirror that reflects the chandelier and a row of door frames. The mirror above the fireplace multiplies an element of the room. Placed diagonally with the zograscope, it creates a false opening whose layered depth forms a tunnel that echoes the effect produced by optical illusions.

Although the collection is intended to be an expression of family and private life, the representation serves above all to showcase the values that Danton wishes to be publicly associated with. In

¹³⁸ Fietta was of Italian origin; his activities as a publisher of optical views have already been detailed in chapter one.

Indeed, the print, which appears to have been widely distributed¹³⁹, emphasises the respectability of the family and one of the political projects that Danton wishes to champion, namely public and secular education for children¹⁴⁰. It allows Danton to associate himself with experimental physics, which is perceived as a rational and useful activity (Lynn 2006: 34). The engraving therefore demonstrates the care that the politician took with his public image. It also reflects an interest in optics, which is directly linked to the display of what sociologist Pierre Bourdieu would define as an objectified form of cultural capital (1979: 5). The zoetrope and the optical views in front of the characters refer to the culture of the educated elites, as do certain secondary elements of the work: the guitar on the floor, the cabinet and the books. They also place Danton's relatives in the sphere of people capable of owning and controlling optical technologies, technologies that depend on the knowledge developed by their social group.

Written after the period we are concerned with here, *L'Optique* explicitly addresses the customs of a social group, the educated European elite, whose influence and values were beginning to take root in the early 1770s (Vila 2014: 9). Nevertheless, it confirms the role of optical views as objects capable of conferring social status. This vocation is also suggested in the novel *La femme dans les 3 états de fille, d'épouse & de mère. Histoire morale, comique & véritable (Woman in the Three States of Maiden, Wife and Mother: A Moral, Comic and True Story)* by the moralistic and somewhat misogynistic writer Nicolas-Edme Rétif de La Bretonne (1734-1806):

I begged the lovely Juliette to keep the secret [of a painting depicting her] from me; she kindly promised to do so, and I kissed her hand, as I had expressed in my work. Then she returned to the two ladies, before whom I begged her to accept one of these optical boxes, which make a magnificent palace out of a crude print; a very rare curiosity at the time, and almost unknown. The next day, the box I had given her was admired by some of Juliette's friends who came to dinner at her parents' house: they talked about me; they praised my merits, etc. (1773: 79).

(¹³⁹) This assertion is based on flaws in certain prints, especially those that have been coloured. These flaws seem to indicate that the plate was used until certain parts were very worn. This assertion is also based on the number of copies made from the engraving. First, there are engravings, which are smaller in size. There are also reproductions made on other media. The François Binétruy collection, whose inventory is available online, includes an 18th-century watercolour reproduction and wallpaper dating from the 1790s.

¹⁴⁰On 13 August 1793, Danton delivered the decisive speech that led to a resolution being passed on primary education (Chaussinand-Nogaret 2005: 203-204).

The excerpt suggests that optical boxes can raise the social status of several characters: Juliette among her friends, as well as her suitor among the beautiful woman and her entourage. They are used for the same purposes in Nikolaus Ernst Kleemann's (1736–1801) account of his introduction to the Turkish court in *Voyage de Vienne à Belgrade et à Kilianova*¹⁴¹ (1780: 49). Kleeman is summoned to the prince to give demonstrations after giving him "[...] a camera obscura, a magic lantern, an electric machine, a large optical device representing several cities and citadels of Europe, large boxes known as curiosities, &c. " (1780: 49). Gifts likely to appeal and be shown off in social exchanges, optical views are objects whose appeal lies in their ability to produce a temporary illusion. The social status they confer can take on other nuances. This is the case in a drawing (Figure 39) by Louis Carrogis, known as Carmontelle (1717-1806), created around 1765, featuring the two sons of the Marquis and Lieutenant-General of the King's Armies, François Rémond de Montmort (1707?-1795?): Louis-Jean and Armand.

The two teenagers are drawn in profile in front of a table piled high with optical views, looking at an image through the lens of a zogroscope. The drawing depicts the rural amusements of the French nobility, and the pile of engravings serves as a sign of the wealth of the Montmorts, who had the financial means to collect them. The work also seems to convey a certain idea of control over the territory. This interpretation of the work is based on the presence of a landscape showing part of the family's possessions: the French-style gardens silhouetted in the background. This analysis also implicitly agrees with one of the characteristics of optical views, which partly explains the choice of this motif in the drawing. Indeed, optical views are always based on a bird's-eye view, which allows the viewer to dominate the site depicted. The slightly leaning position of the two figures further emphasises the Montmorts' mastery over what is being viewed.

¹⁴¹ The book was first published in German in Leipzig under the title *Nikolaus Ernst Kleemanns Reisen von Wien über Belgrad bis Kilianova* (1773).

In the drawing, optical illusions also play another role in relation to the clothes worn by the Montmorts: they are dressed in red tones to mark their father's opposition to the army reform (Brancion 2003: 52). Advocated by officer and Secretary of State Jean-Baptiste Vaquette de Gribeauval (1715-1789), this reform of the artillery included, among other things, the use of experimental physics instruments for inspecting cannons and for creating maps and topographical surveys (Chalmin 1968: 485-505). By dressing the two teenagers in scarlet doublets, the artist symbolically makes them soldiers. In these circumstances, the zograscope most likely replaces the optical devices that sometimes serve as attributes for high-ranking military officers in Carmontelle's portraits, including *Mr. De Torempré, aide-de-camp of the army and gentleman of Mr. the Duke of Orléans (1766)* (figure 40) and *Mr. Chevalier de Beausset, squadron commander in the navy (1783)* (figure 41). It is these latter instruments that Gribeauval wishes to systematically implement in order to carry out empirical measurements. Their substitution by an illusionist diversion is therefore likely to be satirical.

In the print taken from Boilly's painting and in Carmontelle's drawing, the optical views are therefore not valued as geographical objects. Moreover, the two artists do not give us visual access to the sites depicted in the engravings that attract the attention of the protagonists of their works. Their content is subordinate to their role as a sign of social status and political opinion. The cultural capital they confer on their owners explains their presence in the works, as well as their purchase and display in salons and cabinets. Social practices also attach importance to the three-dimensional effect. They also make the medium an object of collection, socialising, entertainment and reflection on the role of sight as a tool for understanding the world. Several clues therefore suggest that, in most cases, the subject addressed by Habermann and Leizelt is secondary. Is this devaluation of content more ambiguous in social contexts that value optical views as imaginary journeys?

Their modelling of places, their immersive dimension and their ability to amplify images make optical views a medium that transports viewers to other places.

These imaginary journeys through sight are immobile and instrumentalised. They provide access to dream locations that correspond to the tourist practices of European aristocratic culture and the emerging bourgeoisie. At the end of the 18th century, the culture of the privileged perceived travel as a sensory experience. Optical views, which require the physical presence of the viewer, fit well into this dynamic. However, they alter the viewer's perception of the time involved in travelling. Françoise Éléonore Jean de Manville (1750-1827), Countess of Sabran, indirectly mentions this in a letter dated 1778 to her lover, Chevalier Stanislas Jean de Boufflers (1738-1815), while she was travelling for pleasure with other members of the nobility:

We will see part of Switzerland, *but as if through a telescope*. Countess Diane wants to be back on 13 September to perform at Trianon on the 19th. You see, we have no time to lose, especially since we will be returning via Geneva, which will greatly lengthen our journey (1875: 28).

The words we highlight echo the fact that optical views are perceived as a way of travelling that compresses time: the passage from one geographical location to another takes place in a matter of moments.

The excerpt also demonstrates that there is a correspondence between seeing a real landscape and experiencing the site through the lens. This association between the place seen and the immersive image of optical views is also present in a description by the English chronicler Henry Swinburne (1743–1803). In *Henri Swinburne's Voyage dans les deux Siciles (Journey through the Two Sicilies)*, first published in English in 1783 before being translated into French and German in 1785, Swinburne makes this comparison: "Then, entering a sunken path beneath the high mountain of Celerita, I saw *Murano*, built like a pyramid on a pointed rock, resembling those illuminated cities that are shown in optical devices [...]" (Swinburne 1786, volume 4: 469). In both excerpts, that of the Countess of Sabran and that of Swinburne, the relationship with the site is primarily visual: "we are going to see part of Switzerland" and "I saw Murano". Optical views therefore often express an "I saw it" rather than an "I was there," which art historian Antonia Nessi attributes to *vedute* brought back from Italy as travel souvenirs (2005: 12). However, like *vedute*, optical views are based on

on a multiplication of viewpoints on the same site (Crary 1990: 52). This fragmentation results from the influence of empirical observation methods. It is also due to the impact of a visual culture in which optical tools, including the camera obscura, telescopes, microscopes and Claude Lorrain's mirror, mediate reality by fragmenting it. As we saw in the previous chapter, these phenomena also influence the creation of optical views.

Although the journeys undertaken by aristocrats and bourgeoisie during the Enlightenment had a sensory aspect, they were above all conducted in accordance with conventions. They were stylised according to norms echoed in accounts of the "grand tour" and, more generally, in books recounting the tribulations of travellers (Adler, 1989: 1368). This spatiality, oriented according to codes of sociability, is also taught in German universities, which offer courses on the art of travel (Adler 1989: 1368). The travellers' goal is therefore not so much to see the world with their own eyes, but to repeat the wandering experiences of renowned authors and to be sensitive to the elements described in guidebooks (Turcot 2007: 522). In the case of Habermann and Leizelt's optical views, these conventions mean that observers are likely to project the elements found in travel accounts already in circulation, which have been analysed earlier in this text, onto the optical views. However, the descriptions available in these accounts are fragmentary. The images as they are conceived are therefore likely to be perceived as accurate descriptions, and their validity must not have been questioned by the majority of the public.

This authenticity is also effective because the immersive effect of the device, beyond the modelling of perspective on the surface, also relies on the activation of the viewer's imagination. The viewer's imaginary projection into the fictional and immersive space of the device is based on the evocation of urban memories that are reactivated. In the case of Habermann's four prints, the constructed landscape that viewers think of cannot be a reminiscence of Quebec City, since viewers have not been in contact with the city. The idea of the city that the European public conjures up is probably directly linked to the urban landscape that surrounds them, namely that of Europe. This recourse to a familiar conception of the street is coupled with a cultural imagination. For 18th-century European viewers, the territories colonised are the expression of a new Europe. This latter way

This apprehension of the continent is expressed in the place names adopted for America: New France, New York, Nova Scotia. It also explains, in addition to the elements we have already mentioned, the presence of Austro-Hungarian-style buildings in Habermann's engravings: *View of the Lower Town of Quebec towards the St. Lawrence River*, *View of the Capital Square in the Lower Town of Quebec*, *View of Recolets Street in Quebec*, and *View of the Upper Town of Quebec*.

Memory sensations may also be linked to the observer's membership of a social group and gender. This is the theory put forward by Blake, whose study focuses on the early days of the dissemination of optical views in England, when engravings were published exclusively for the wealthy middle classes, the rich bourgeoisie and the English elite (2000). According to the art historian, the viewing context allowed observers, mainly women who were not supposed to be present in the street according to the behavioural norms of the time, to have access to public spaces while isolating their bodies, which remained protected in the domestic interior (2000: 120-125). For her, the urban space of optical views is imbued with the customs of polite society and allows for civilised strolls (2000: 95). In this controlled environment, the viewer has access to a city free from danger, physical proximity, unpleasant odours and the intrusive noises that fill crowded streets (2000: 126).

Although interesting, Blake's analysis cannot be automatically transferred to the optical views produced in Augsburg. Indeed, the iconography of the engravings and their spatial organisation differ in certain respects. English prints tend to depict the leisure activities of the social groups they are aimed at in places frequented by English high society. As we have seen, the Augsburg works use more diverse and distant themes, and the common people are present in accordance with already established representational genres: genre scenes or the typology of city cries. Basically, these two genres serve to entertain by describing the customs and habits of others who are socially distant. Habermann and Leizelt's optical views therefore offer, like their English counterparts, strolls through sites where viewers do not have to venture out into public spaces or, in the case of Quebec City, across

the Atlantic. However, their description of the city and its public places is consistent with a change in attitude towards urban or pastoral strolls, as described by historian Laurent Turcot (2007). According to him, in the 18th century, promenades took on a recreational function, with streets and gardens becoming spectacles. Cultured travellers went there to better detach themselves and observe their surroundings with an evaluative eye (2007: 533-535; 539-540). The views of the bourgeoisie also differ from the English model in that they focus more on the distant, whether geographical or social, on a globalising impulse, and are often less realistic and detailed.

The imaginary mobility offered by the optical views of Quebec City is therefore based on the immersive aspect of the engravings and their effectiveness as a sensory substitute for the site. As a substitute for travel or walks, they also appeal to memories of European cities. In addition to these two factors, which modulate viewers' expectations, there is also adherence to existing visual codes, whether they come from *vedute*, French engravers' representations of American cities, or *Cris de villes*. The content is subordinate to these conditions of reception. The works and documents of the period that we have mentioned also demonstrate a marginalisation of the subjects addressed in favour of the medium. These elements, combined with the state of knowledge of buyers, which is modulated according to a visual culture influenced by optical instruments, probably mean that viewers question very little the veracity of the images of the Laurentian capital produced in Augsburg. This lack of scepticism is therefore partly due to the fact that the information contained in these social representations of Quebec City is good enough for the use made of it by its recipients (Becker 2009: 124). This view of the images is held in high society under the Ancien Régime, which seeks to promote a code of conduct. The behaviours of the viewers are diverse, but they are often articulated in terms of a worldly sociability that takes place through optical entertainment, an education of the senses through visual experimentation, and a desire to possess objects that reinforce social status and demonstrate geographical or technological control. These behaviours differ from those of the second group, which had access to optical views through showmen: the stroller who wandered through fairs, markets, village squares, or the shopping streets of European cities in search of entertainment, thrills, and a certain sense of wonder.

2.2 The sense of spectacle: the fair and public space

Noisy, ever-changing and bustling with activity, the public squares of 18th-century towns and villages were the exact opposite of the order imposed in aristocratic salons and wealthy homes. Travelling along city streets and country roads with their large apparatus, showmen were part of an ecosystem that included several other public entertainers. These nomadic vendors often belonged to the lowest strata of society (Huhtamo 2007: 84). They had a dubious reputation, faced administrative harassment when travelling, and were associated in the popular imagination of the time with gypsies, actors and other vagabonds (Hochadel 2007: 531; Stafford 1994: 85). Like many of their colleagues, they were also part of the fairground entertainers.

The fairs of the time were often enclosed and located on the outskirts of towns and villages. They allowed onlookers to shop, and it was possible to buy instruments for scientific entertainment there¹⁴². William V Batave (1748-1806), then *stadtholder* of the United Provinces, purchased such instruments at the fair in The Hague in 1762 (Clercq 1998: 125). The entertainment offered at fairs allowed people to forget their daily lives for a few hours. The shows presented at fairs relied on the unusual, the unexpected and the absurd, as demonstrated by this excerpt from *the Affiches des Trois-Évêchés*, dated 6 May 1779:

The Metz Fair opened last Monday. The only thing that struck visitors as extraordinary was the sheer number of shows. Optical illusions; a 27-inch pygmy; a man whose torso ends in a single leg protruding from the middle of his body [...] (1779: 138).

¹⁴²It is highly probable that zograscope, dioptric boxes and catoptric boxes were available there. Outside of fairs, instruments for viewing optical views could be purchased from established merchants. These were sellers of prints, physics instruments and, possibly, toys (Füsslin in Robinson 1995: 21; Macquer 1773: 658; Roy 2011: 48). Some craftsmen also seem to have designed them; Rousseau's correspondent purchased a box from one of them. Second-hand devices were also sold in newspaper classified ads, at auctions and by peddlers. Finally, it should be noted that instruments made in England were more sought after than their Western European counterparts. Flint, which produces a purer crystal and therefore better lenses, remained an English manufacturing secret throughout the 18th century (Daumas 1953: 209).

In addition to optical views, it is possible to look at the contents of other types of boxes containing visual illusions (Huhtamo 2006: 96; Isherwood, 1981: 32). These amusements associated with popular culture are intertwined with specialist demonstrators of experimental physics, whose presence is described, among other places, in the *Tableau de Paris*¹⁴³ of 1759:

Rope dancers, acrobats, etc. Puppets, cup and ball tricksters. Optics, electricity, magic lanterns, every day during the two fairs. At these fairs, one can see exotic animals of various species, and many other curiosities (Jèze 1759: 254).

The elaborate entertainments of the salons, which included optical views and experimental physics, were reduced to sophisticated sleight of hand in which the phenomena did not appear to have been explained. In the context of fairground entertainment, they took on a prodigious, playful and artificial aspect. They were also subject to theatrical practices. This staging of natural phenomena was strongly condemned by critics from the Enlightenment elite (Stafford 1994: 90). Its presence was one of the factors that led 18th-century chroniclers to describe fairs as places where the lower classes gathered. However, fairs were also places of social heterogeneity (Isherwood, 1981: 29-31). Perceived as subversive by the authorities, they were veritable heterotopias that reversed the usual structures of the Ancien Régime society.

It is in these external economic and collective territories that city dwellers and country folk, their curiosity piqued, come to take a look at the optical views through the lens hole. Often confined to their places of origin (Sagarra 1977: 75; Sheehan 1989: 72-73), viewers are fascinated by the vision of this extraordinary elsewhere (Huhtamo, 2007: 94). The advertisements that adorned the newspapers of the time played on this vicarious nomadism, as shown by this advertisement printed in *L'Avant-coureur* on Monday 24 February 1772:

At the Fair, there are machines that penetrate your thoughts, optics that transport you to the most beautiful places in the world; puppets and their strong compere

¹⁴³ The content of *the Tableau de Paris* is halfway between that of an almanac and a travel guide.

rejoicing; tightrope walkers; dances on the rope, somersaults, juggling and sleight of hand tricks, jesters of all kinds, Fantoccini actors, a miniature harlequin and colombine, parades, caricatures; a brilliant Wauxhall; ornate shops, cafés with concerts, &c. &c. (1772: 124)

The advertisement describes the Saint-Germain fair, about which this excerpt, first spotted by archivist Émile Campardon, also appeared in 1750:

An optical device has arrived from London, the most curious and surprising of its kind, based on the memoirs of the famous Mr Newton, English philosopher and mathematician. This device, which has been viewed with satisfaction by the King, faithfully represents the full extent of reality in its views and perspectives of seaports, royal houses, gardens, the châteaux of Fontainebleau, Trianon, Choisy, Chantilly, Sceaux, the entrance to the port of Marseille with the Grand Cours, the view of the island of Malta with the entrance to the large port, St. Peter's Church in Rome, a view of England, the castles of Antoncourt, Kensington la Montagne, the house of Milord Cobsen, Westminster Bridge over the Thames in London, and finally a ship on fire (*Affiches de Paris* cited in Campardon, 1877: 203).

Published in the *Affiches de Paris*, the text invokes the authority of the king and refers to Isaac Newton (1643-1727) to promote the new device and arouse the interest of readers. Street vendors who carry the boxes do not usually have as extensive a repertoire as that described in the 1750 advertisement. In fact, the showmen take advantage of their nomadic lifestyle and the portability of the device to change locations rather than renew their equipment (Huhtamo, 2007: 95).

Fairs and public squares where performers work are also characterised by the inclusion of spectators in the performance, but not as active participants. Peddlers, puppeteers and small theatres use references to the gestures and habits of the population in their performances (Isherwood 1981: 27), as does certain popular literature (Roche 1981: 223-224). In addition to the reasons mentioned above, the parallel between the *Cris de ville* of the 18th century and the iconography of figures in optical views may be due to this mentality. The use of familiar characters with whom they could identify would allow the public to project themselves into an unfamiliar environment such as Quebec City. Despite a stable iconography, differences in perception therefore exist between the public from popular culture and collectors who preserve views.

optics in their homes. However, this interpretative nuance does not constitute the major difference between the two types of reception.

Contained in boxes that rely on an egocentric relationship with representation, optical views are an illusion that aims to be perfect in the context of a fair or public square. Seeking to make viewers forget that their bodies are in tactile contact with their surroundings, the views occupy the entire visual field of the recipients. Moreover, the image that forms before the spectators' eyes is intangible, since it is raised from the surface of the engraving by the mirror and the material support is not accessible. This deception, which stems from the absence of contact with the two-dimensional reality of the prints, is accepted in these urban entertainments. In this context, as we have mentioned, it is rejected by the elites, who see it as an elaborate deception whose mechanisms are hidden. This display of visions, whose appeal lies in their spectacular nature, corresponds fairly closely to the functions of the

"Cinema of attractions." The expression was coined by André Gaudreault and Tom Gunning when discussing early cinema, and the possible connection between the two media was first made by Huhtamo in *The Pleasures of the Peephole: An Archaeological Exploration of Peep Media* (Huhtamo 2007: 194). The term "cinema of attractions" applies to shows performed in public spaces. It refers to visual content that is displayed in sequence and whose appeal lies in its ability to create visually attractive moments rather than stories (Gaudreault and Gunning 1989: 49-63; Gunning 1990: 56-62). The comparison between optical views and early cinema is therefore also based on the narrative discontinuity of the prints shown by public entertainers.

Indeed, the showmen usually used boxes equipped with a pulley system that activated a roller or a system of strings. The images, assembled and sometimes illuminated according to the methods already mentioned¹⁴⁴, thus move before the viewer's eyes with the same absence of narrative that we have established for private residences. However, the context of the fair or the street makes it virtually impossible for a personal relationship to develop.

¹⁴⁴ As we have explained, this type of optical view is equipped with openings that are obstructed by transparent fabrics or papers. During rear projection, made possible by a system of flaps and artificial or natural lighting, specific patterns are illuminated.

with the performances can be established. In fact, the audience does not control the speed at which the film is shown. The pace is dictated by the projectionist, whose speed must be directly linked to the expected profits. He is the one who determines the length of the viewing, and it is in his best interest to shorten it if a large crowd gathers around his box. This restricted access means that viewers only see part of the reel. Instead of being active observers, passive voyeurs become credulous spectators, their senses dazzled by a series of visual stimuli.

The relationship between spectators and optical views, at fairs or in public squares, is difficult to establish further as it has left no written or visual traces. Indeed, although they do exist, depictions of showmen play on the rhetoric used for the fair. They present views from behind, thereby highlighting the crudeness of popular entertainment by playing on codes of civility (Grijzenhout [forthcoming]). They also show thieves taking advantage of sleight of hand to rob the gathered spectators, childish or feminine characters¹⁴⁵, whose presence highlights the lack of judgement of the spectators, or erotic situations associated with concealment¹⁴⁶. In these works, the crowd presses against the walls of the boxes to get closer to this invisible object, which is seen by the lucky few who have approached a lens. These visual codes are an expression of the impudent, uninhibited and unmannered body that is associated with the common people by polite society. It contrasts with the civilised body language of the nobles and bourgeoisie (Arasse 2005: 446). These socially connoted representations of behaviour are mixed in with the *Cris de ville*, among which we find the figure of the *montreur*, who emphasises the poverty of entertainers, whose origins date back to the 17th century¹⁴⁷. In both cases, the specific features of the optical boxes are mostly indistinct, which does not allow us to know whether they are lanterns

¹⁴⁵ Indeed, thinkers of the time believed that women were easily influenced by their senses. Furthermore, female sensitivity was considered to be weaker, more animalistic and more impressionable than that of men. According to them, this sexual dimorphism led to a lack of judgement in women (Vila 2014: 16-18).

¹⁴⁶ These motifs are present, among others, in: *Il mondo novo* (1791) by Giandomenico Tiepolo (1727-1804): *Der Guckkastenmann*, an 18th-century German copy^e century copy of a painting by Nicolas Lancret (1690-1743), *La Curiosité*, engraved by Noël Le Mire (1724-1800) in the 18^e century after a painting by Reinier Brakenburg (1649-1702), as well as *La Foire de campagne*, an etching engraved by Charles-Nicolas Cochin, known as Cochin the Younger (1715-1790) around 1740 and based on a painting by François Boucher (1703-1770).

¹⁴⁷ This type of representation seems to have originated in certain engravings such as *Oh rare shoe*, engraved by Marcellus Laroon (1653-1702) and published by Pierce Tempest (1653-1717) in 1688 in *Cries of London*.

magic lanterns, darkrooms, miniature theatres enclosed in a box, or optical views. At most, it is possible to note that some devices have several openings, allowing simultaneous viewing by several spectators. However, this information is already provided by the boxes themselves. In short, the images provide us with no information other than high society's unfavourable perception of this type of public entertainment.

The lack of written and visual sources also means that we cannot know what the bystanders knew about Quebec City. For the majority of this heterogeneous group, we can only say that the information available is based on some of the accounts we have already analysed, which may have been transmitted through street theatre, circulating images, oral culture or, in some cases, books or newspapers¹⁴⁸. Insofar as the effect of the medium seems even more dominant, the accuracy of the content of the representations is secondary in these boxes available on public roads and at fairs. Indeed, as we explained above, the context of reception favours entertainment that dazzles the eye and transports viewers to unknown places, while using visual codes that allow them to recognise themselves in these intangible images. In this sense, there are several points of dichotomy with the social rituals that prevail in wealthy homes.

In fact, although the images observed are identical, their meanings vary according to what is considered acceptable behaviour and the values attached to the possession and manipulation of optical views. As we have seen, in the high society of the Ancien Régime, views of Quebec City also call upon a series of scientific and relational skills, combined with a desire to demonstrate one's social position and a shared knowledge of the geography of the New Continent. This knowledge is transmitted through visual descriptions already in circulation, literature, the performing arts

¹⁴⁸ This refers to the educated elites who mingled with the crowd, but also to a certain segment of the population. Studies such as that by Daniel Roche tend to show that the majority of ordinary people in Paris could read printed characters in the 1770s (1981: 219-221). These percentages vary greatly across Europe, but the fact remains that a certain number of artisans, labourers and unskilled workers could read.

and periodicals. They are limited, influenced by collective imagination and modelled according to current graphic conventions. Furthermore, when received, this information does not prevail over the effect of depth. The content of *View of the Capital Square in Lower Quebec City*, *View of Upper Quebec City with the Square leading to Cavalier du Moulin*, and *View of Rue des Recolets in Upper Quebec City*, *View of Lower Quebec City towards the St. Lawrence River* and *Quebec* is therefore marginalised in favour of the medium. Habermann's method, based on the main known and accepted topographical features, and Leizelt's choice, whose engraving is based on the maritime and colonial identity of the Laurentian capital, are consequently effective. The Augsburg visual descriptions are sufficient for the use to which they are put: they achieve the required degree of authenticity. Thus, the fictional aspect of the views of Quebec City is probably not detected by the vast majority of this first audience. This last characteristic and the primacy of illusion are, moreover, the aspect that emerges from the study of literate viewers and onlookers who admire the views of Quebec City at fairs or in urban and rural public squares.

Conclusion

On the riverbank, small houses wedged between stone walls are dominated by a rocky headland where buildings proudly rise towards the sky. This description of Quebec City sounds like a tautology. The motifs evoked have become a type that dominates the identity of Quebec's capital. In the 18th century, these major characteristics of the site were juxtaposed with other elements that defined a recognisable and typical landscape. For Europeans at the time, the city was a port and American. In addition, it was home to military garrisons and frequented by Indigenous peoples who came to sell furs. Finally, it was a colony whose economic and political status depended on its British metropolis. Using a degree of modelling that allowed them to highlight these markers, engravers Habermann and Leizelt designed optical views whose content was largely dependent on the context of production and reception.

This thesis demonstrates that the fictional aspect of the five Augsburg engravings is primarily due to the characteristics of the medium. Optical views seek to eliminate the signals that reveal the flatness of representations by relying on culturally constructed visual codes and anticipating the effects of optical instruments. Their creation, whether it involves combining different elements, as in Habermann's case, or modifying an existing source, as Leizelt chose to do, is therefore influenced by the immersive three-dimensionality triggered by the visual device. However, the anticipated presence of optical effects is not the only factor that shapes the content of *Vuë de la Place capitale dans la Ville basse a Quebec* (figure 2), *Vuë de la haute ville a Quebeck* (figure 3), *Vuë de la basse Ville a Quebec vers le fleuve St-Laurent* (figure 4), *Vuë de la rue des recolets de Quebeck* (figure 5) and *Quebeck* (figure 6). The editorial practices of the publishing world also influence the content of the etchings. Two of these practices had a particularly significant impact: the material constraints imposed during printing and the collection, by publishers or engravers, of urban representations that could be used as sources depending on needs and the commercial network. The limitations of the presses affected the format of the representations of Quebec City and their production in groups of four. The availability of several models allowed Leizelt to use compositions from

English engravings to design his American views. Finally, the conditions of emergence favour the exclusion of certain themes. Due to the presence of a censorship board, the Laurentian city is presented in a positive light and religious buildings are relegated to the background.

Spread through travelogues, shows, and periodicals, the discourse surrounding Quebec City also influenced Habermann and Leizelt's views. They created an imaginary image of the place shared by the engravers and their initial audience, namely the cultural, social, and economic elites who viewed the engravings in their homes. Drawing on a sampling of possibilities, the prints avoided the features of the French iconographic model in order to offer close-up views of the city. In doing so, the optical views departed from the topographical reality of the place in favour of a subjectivity that allowed the main features of the site to be synthesised. In the 18th century, any discrepancies between the images thus created and the geographical characteristics were acceptable because they were secondary to the viewers of high society. Indeed, due to a visual culture marked by the education of the senses of active observers, the interpretation of the recipients was dictated by the effect of the device. The meaning of representations of Quebec City is also articulated in terms of a sociability that values optical views as objects capable of signalling mastery of cultural capital. By acquiring the images of Habermann and Leizelt, the owner emphasises that he understands the mechanisms of the illusion of depth and is capable of controlling optical technologies. We must therefore conclude that the medium is the dominant message conveyed by representations of the Laurentian capital to the primary audience. The second group of recipients enjoy the verisimilitude effect of the device in public spaces of transit and entertainment. At fairs, in the streets or in squares, onlookers are drawn by the desire to discover an otherwise inaccessible elsewhere and seduced by a spectacle of visually attractive images rather than a narrative. Just like the one reserved for the wealthiest, this context of display controlled by a showman discourages in-depth observation of the site represented. Consequently, the degree of realism achieved is sufficient to guarantee the authenticity of *View of the Capital Square in the Lower Town of Quebec*, *View of the Upper Town of Quebec*, *View of the Lower Town of Quebec*.

towards the St. Lawrence River, View from Rue des Recolets in Quebec City and *Quebec City* as seen by observers in the 18th century.

These various points therefore allow us to assert that Habermann and Leizelt's views are constructed landscapes whose validity was probably not questioned during the Enlightenment. They escape the documentary paradigm because of the various actors, discourses and social groups that influence their creation and reception. To fully understand them, we must take into account the agents that determine the context in which the images were produced and how they are interpreted, whether human or not. This conclusion, together with the effectiveness of the analytical methods used in our study of the Augsburg etchings, leads us to believe that a new reading of the only other original corpus on the theme of 18th-century Quebec City is possible, and even desirable. Produced by British officers, these works were approached in terms of three factors that had an impact on their content: the ideological conditions prevailing immediately after the Conquest, the training of the artists, and the evolution of compositional models in line with the pictorial trends in vogue at the end of the 18th century.

Thus, art historian Michael Charlesworth (1994: 71) and historian John E. Crowley (2005) establish several of the consequences of imperialist discourse on representations of Quebec City created by British military artists during and after the Seven Years' War. For them, the topographical engravings based on Short and Smyth's drawings legitimise control over a territory populated by French Catholics and Indigenous peoples. They symbolically assimilate the landscape of Quebec City with that of the metropolis by using the aesthetics of a typically British artistic movement: the picturesque. Parent (2005) also highlights the instrumentalisation of Short and Smyth's views in the context of British expansion, emphasising their value as historical evidence. His argument is coloured by a search for the intentions of the producers and a reconstruction of the conditions of emergence. For his part, art historian Pierre Doyon is interested in the relationship between the works and the training of artists at the Woolwich Military Academy. He is particularly interested in measuring the influence of painter Paul Sandby, one of the professors, on the officers who left us watercolours (1982). Finally, Marc Grignon (1999) considers that the images of Short and Smyth are

discursive statements. He establishes that their engravings bear traces of the representational model favoured under French rule, while also displaying certain features adopted by the British, including multiple viewpoints, a ground line that suggests an observer and, in Grignon's words, "marks the concrete and subjective aspect of the image " (1999: 112), the use of chiaroscuro to give volume to architectural elements and depth to the image, and the presence of figures performing stereotypical actions. His analyses are highly structured and could be nuanced and supplemented. Additional research could, among other things, provide clues about: the material conditions of production, the limitations and possibilities imposed by the characteristics of the medium, the methods and sales arguments of publishers, the possible influence of prints created by military personnel stationed elsewhere, the chronology of their dissemination in continental Europe, and the social characteristics of the various interpretive communities.

In addition, this broader portrait would surely provide us with details concerning various similarities between the optical views representing Quebec City, which we have just analysed, and the works of the officers deployed in the city. Some of these similarities are obvious: an interest in a close-up viewpoint that limits the field of vision, a typological approach to the figures represented, and a fragmentation of the panorama. In both cases, these aesthetic and compositional choices could be partly due to a visual culture that values rational methods of observation, which proceed first by analysing fragments in order to understand the whole. At the same time, they could be the result of the influence of optical devices for viewing the landscape. The blurred areas, the precision of the renderings, and the distortions visible in Short's engravings can also be explained by the mediation of the landscape through the camera obscura. The inclusion of optical technologies in the analysis of the corpus could therefore be one of the cornerstones for understanding the perceptions of Quebec City held by Europeans in the second half of the 18th century.

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Appendix e A

Allgemeine Abhandlung von den Fischereyen und Geschichte der Fische. Volume 3. (1773).

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- Reproduces part of Charlevoix's text, pp. 68-80.

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Figure

Figure 1: Séminaire de Québec, Priests' reading room, 1910, photograph, 6.2 x 10.5 cm. Musées de la civilisation du Québec, Fonds du Séminaire de Québec, inventory number: PH2000-1987. Source: Musées de la civilisation du Québec, reproduced with the permission of the museums.

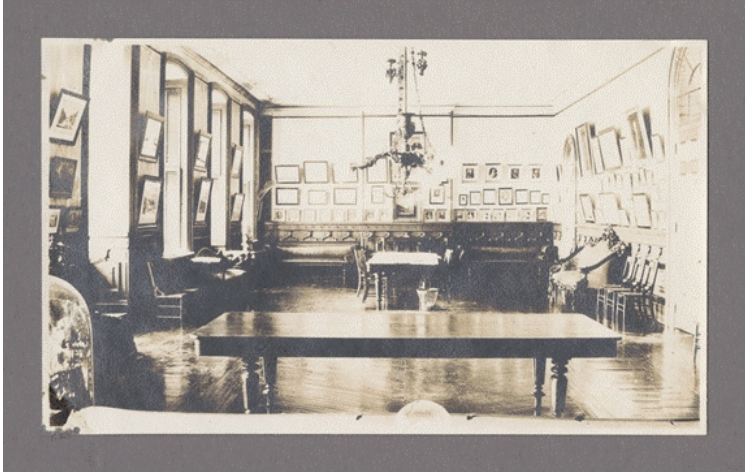


Figure 2: Franz Xaver Habermann, *View of the Main Square in Lower Town, Quebec City.*

Figure 2.1: Franz Xaver Habermann, *View of the Main Square in Lower Town, Quebec City*, circa 1775–1781, Etching with chisel retouching, coloured with watercolour, laid paper, 25.4 x 39.9 cm (image), 32.2 x 42.7 cm (plate mark), 37.5 x 49.7 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Musées de la civilisation du Québec, inventory number: 1993.15100, reproduced with the permission of the museums.



Figure 2.2: Detail. Source: Musées de la civilisation du Québec, inventory number: 993.15099, reproduced with permission from the museums.



Figure 3: Franz Xaver Habermann, *View of the Upper Town of Quebec with the Place to go to Cavalier du Moulin*, circa 1775–1781, Etching with chisel retouching, coloured with watercolour, laid paper, 26.3 x 39.5 cm (image), 31.5 x 41.5 cm (plate mark), 37.2 x 48.5 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Musées de la civilisation du Québec, inventory number: 1993.15354, reproduced with the permission of the museums.



Figure 4: Franz Xaver Habermann, *View of Lower Town Quebec towards the St. Lawrence River*, circa 1775-1781, Colour print on laid paper, 39.7 x 44.5 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory no.: 97-11, reproduced with permission from the library.



Figure 5: Franz Xaver Habermann, *View of Rue des Recolets in Upper Quebec City*, circa 1775–1781, etching with chisel retouching, coloured with watercolour, laid paper, 26.5 x 40 cm (image), 31.8 x 42.5 cm (plate mark), 35.5 x 49.5 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Musées de la civilisation du Québec, inventory number: 1993.15099, reproduced with permission from the museums.



Figure 6: Balthazar Frederic Leizelt, *Quebec City*, circa 1776-1783, Colour print (watercolour) on laid paper, 25.3 x 40 cm (image), no plate mark (cut engraving), 32.2 x 42.1 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Collection of Prospectus. Source: Musées de la civilisation du Québec, inventory no.: 1993.15061, reproduced with permission from the museums.



Figure 7: Gottlieb Friedrich Riedel, *View of the Rhine Falls at Lauffen, Canton of Zurich*, circa 1780, Colour print on laid paper, 29 x 42 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Bibliothèque nationale de France, identifier: ark:/12148/btv1b69492362, reproduced with permission from the library.



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 8: Zogrscope

Figure 8.1 Zogrscope, wood and mirror (lens missing), undated. Source: Musées de la civilisation du Québec, inventory no.: n1993-13124, reproduced with permission from the museums.



Figure 8.2 Zogrscope, inlaid wood, mirror and lens, ^{third} quarter of the 18th century, Château de Flaugergues. Source: HUREAUX, Alain Daguerre de (ed.). (2014). *Le monde en perspective. Vues et récréations d'optique au siècle des Lumières. Les collections montpelliéraines de vues d'optique au château de Flaugergues*, Montpellier: Direction régionale des affaires culturelles du Languedoc-Roussillon, p. 12, © Château de Flaugergues.

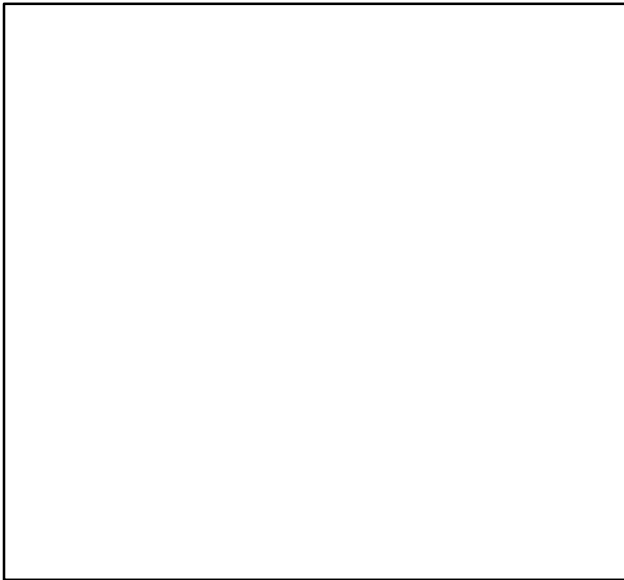
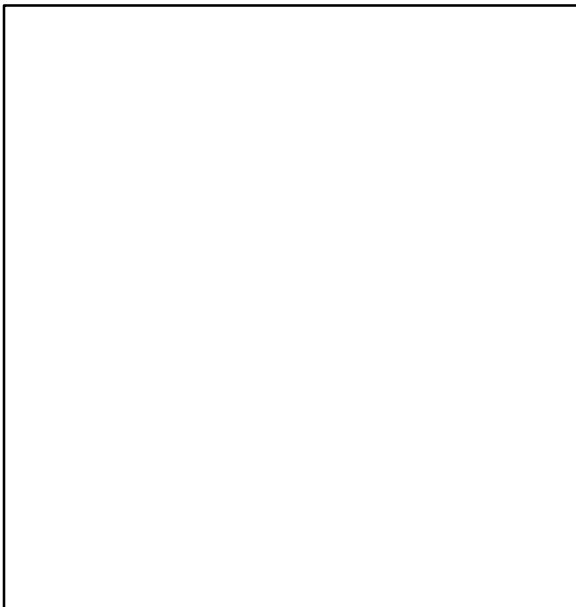


Figure 9: Dioptric box, circa 1770, parallelepiped wooden box topped with a rectangular section containing a magnifying lens and an inclined mirror; four wooden legs; storage compartment between the base and the box for storing optical views, 40 x 53 x 159 cm. Source: Cinémathèque française, inventory number: AP-95-1725, Stéphane Dabrowski (photographer), © Stéphane Dabrowski, © Cinémathèque française.



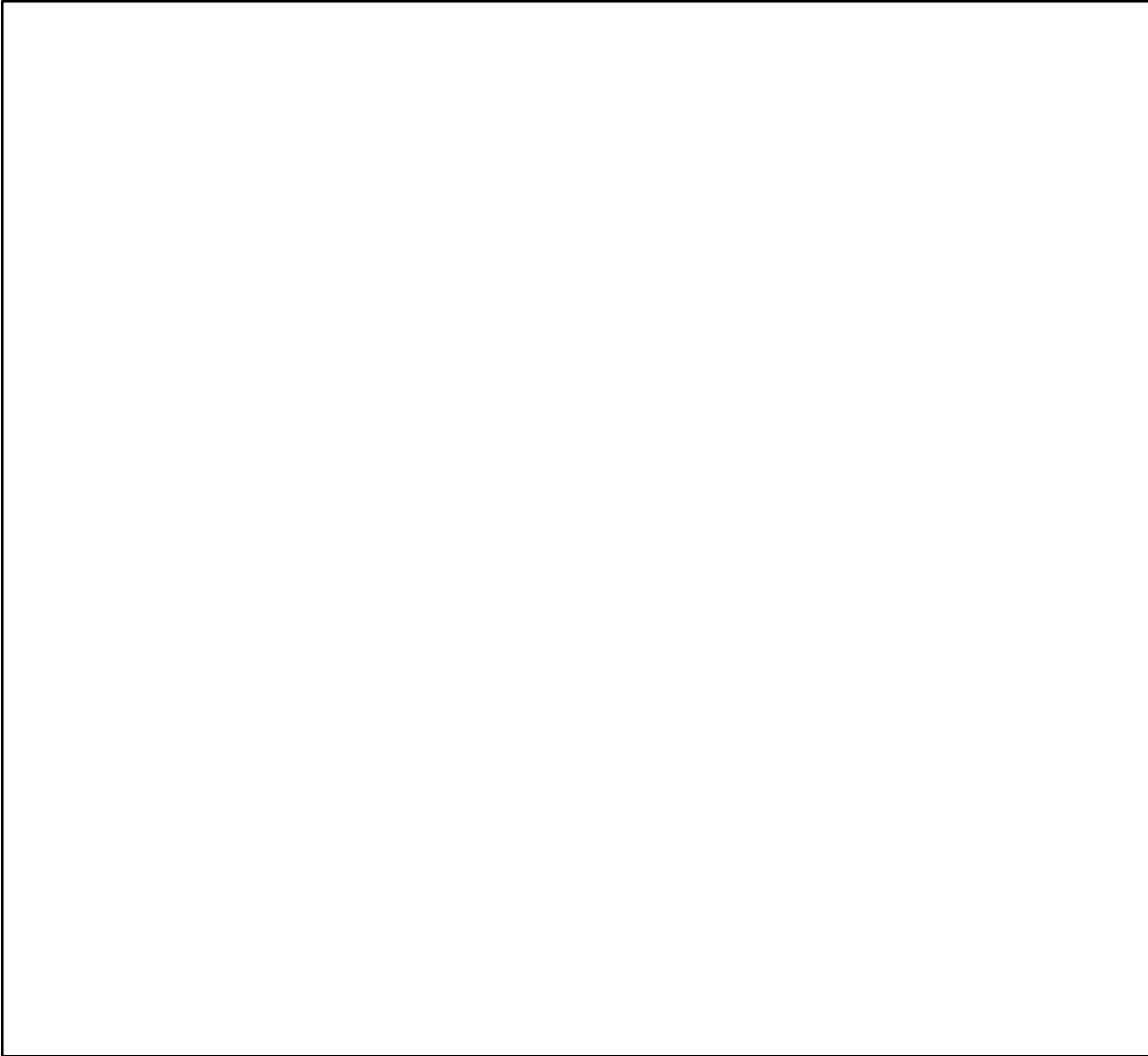


Figure 10: Catoptric box, Landmuseum Württemberg, undated, dimensions unknown. **Figure 10.1** Detail of the interior. Source: Museum der Alltagskultur Schoss Waldenbuch, inventory number 1982/259a, Andreas Praefcke (photographer), Wikipedia Commons, [website], accessed 2 December 2015, http://commons.wikimedia.org/wiki/File:Guckkasten_Waldenbuch_3.jpg



Figure 10.2 Exterior. Source: Museum der Alltagskultur Schoss Waldenbuch, inventory number 1982/259a, Andreas Praefcke (photographer), Wikipedia Commons, [website], accessed 2 December 2015, http://commons.wikimedia.org/wiki/File:Guckkasten_Waldenbuch_3.jpg



Figure 11: Balthazar Frederic Leizelt, *Unfortunate State of Quebec and the French Warship Surveillante*, circa 1780, Colour print on laid paper, 29.8 x 40.9 cm (mark), 40 x 49 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: The Lewis Walpole Library, Yale University, reproduced with permission from the library.



Figure 12: Balthazar Frederic Leizelt, *Memorable battle between the Pearson and Paul Jones*, circa 1780, Colour print on laid paper, no dimensions, Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Library of Congress, inventory number: D.C. 20540, Creative Commons licence.



Figure 13: Pierre Charles Canot after a drawing by John Hamilton Mortimer after
An oil on canvas painting by Richard Paton, *View of the Royal Dockyard at Chatham*.

Figure 13.1: Pierre Charles Canot after a drawing by John Hamilton Mortimer based on an oil
on canvas by Richard Paton, *View of the Royal Dockyard at Chatham*, 14 February 1775,
Colour print on paper, 50.7 x 68 cm, London: R. Paton. Source: Royal Museums of
Greenwich, © Royal Museums of Greenwich.

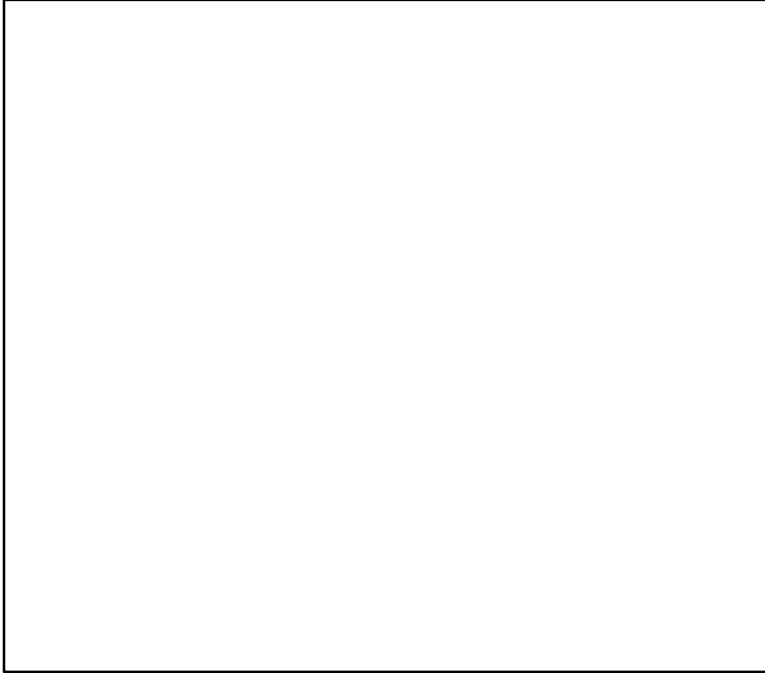


Figure 13.2: Detail, approximate section used by Leizelt for *Quebec*.

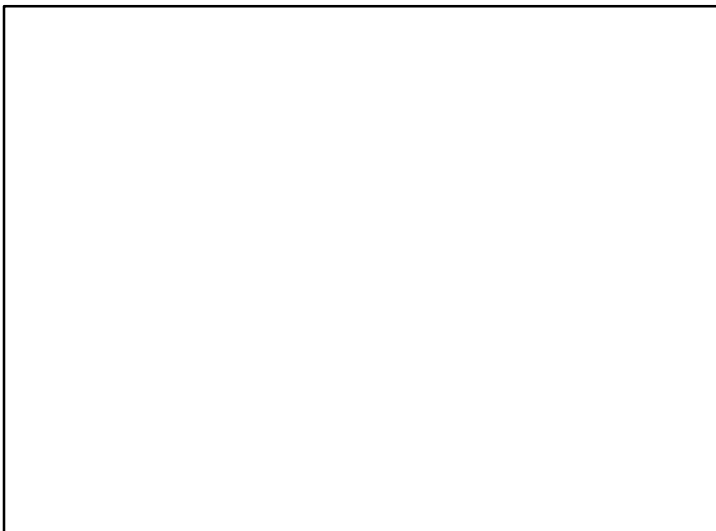


Figure 14: Balthazar Frederic Leizelt, *Salem*, circa 1776–1783, Print on laid paper, 24.9 x 39.7 cm (image), 41.4 x 51.3 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 31166, reproduced with permission from the library.



Figure 15: Balthazar Frederic Leizelt, *Philadelphia*, circa 1776–1783, Colour print on laid paper, 25.1 x 39.6 cm (image), 38.2 x 48 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University: inventory number 83-66, reproduced with permission from the library.



Figure 16: Balthazar Frederic Leizelt, *The New Yorck*, circa 1776-1783, Colour print on laid paper, 25.1 x 39.6 cm (image), 32.6 x 44 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 83-67, reproduced with permission from the library.



Figure 17: William Woollett after a drawing by John Hamilton Mortimer based on an oil on canvas by Richard Paton, *View of the Royal Dockyard at Deptford*, 14 February 1775, colour print on paper, no dimensions, London: R. Paton. Source: Library of Congress, inventory number: D.C. 20540, Creative Commons licence.



Figure 18: Richard Paton, *The Dockyard at Deptford*, circa 1770-1775, oil on canvas, 102.1 x 147.4 cm. Source: Royal Collection Trust, Great Britain, inventory number RCIN 405164. © Royal Collection Trust.



Figure 19: Balthazar Frederic Leizelt, *The Arrival of Prince William Henry in New York*, circa 1776–1783, colour print on laid paper, 25.1 x 38.1 cm (image), 29.1 x 39.9 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 92-33, reproduced with permission from the library.



Figure 20: Balthazar Frederic Leizelt, *The Fortress of Gibraltar Imprisons the Spanish*, circa 1779–1783, colour print on laid paper, 30 x 42 cm, Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: National Library of France, identifier: ark:/12148/btv1b69492844, reproduced with the permission of the library.



Figure 21: Franz Xaver Habermann, *The destruction of the Royal Statue in New York*, between 1765 and 1781, Colour print on laid paper, 24.1 x 39.9 cm (image), 39.9 x 44.4 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 20550, reproduced with permission from the library.



Figure 22: Franz Xaver1, *The Triumphal Entry of Royal Troops into New York*, circa 1775–1783, Colour print on laid paper, 24.4 x 39.7 cm (image), 29.3 x 40.3 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Collection of Prospects. Source: John Carter Brown Library, inventory number: 05-15, reproduced with permission from the library.



Figure 23: Franz Xaver Habermann, *Representation a Feu Terrible a Nouvelle Yorck*, circa 1775-1781, Print, 23.9 x 40.4 cm (image), 30.2 x 41.6 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Collection of Prospects. Source: John Carter Brown Library, Brown University, inventory number: 20553, reproduced with permission from the library.



Figure 24: Franz Xaver Habermann, *Landing of English Troops at New York*, circa 1775–1781, Colour print on laid paper, 24.4 x 39.4 cm (image), 35.6 x 48 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 92-34), reproduced with permission from the library.



Figure 25: Franz Xaver Habermann, *View of Boston towards the Harbour*, circa 1775-1781, Colour print on laid paper, 25 x 39.6 cm (image), 35.8 x 46.1 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 83-65, reproduced with permission from the library.



Figure 26: Franz Xaver Habermann, *View of the Street and Town Hall in Boston*, circa 1775–1781, colour print on laid paper, 25.3 x 40 cm (image), 35 x 45.3 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 83-63, reproduced with permission from the library.



Figure 27: Franz Xaver Habermann, *View of King Street towards the Country Gate in Boston*, circa 1775–1781, colour print on laid paper, 25.1 x 39.5 cm (image), 35.7 x 46 cm (paper), Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: John Carter Brown Library, Brown University, inventory number: 83-63, reproduced with permission from the library.



Figure 28: Franz Xaver Habermann, *View of King Street towards the Country Gate in Boston*, circa 1775–1781, Print on laid paper, 32.4 x 43.1 cm (paper), Augsburg:

Imperial Academy of Liberal Arts, Prospectus Collection. Source: Boston Public Library, inventory number: 08_02_003891, Digital Commonwealth Massachusetts Collection Online, [online image database], accessed 3 December 2015, <http://ark.digitalcommonwealth.org/ark:/50959/c821gr35b>, Creative Commons licence.



Figure 29: Christoph Heinrich Korn, *Prospect von Quebec*, 1776, print, 14 x 18 cm on a folding map measuring 29 x 38.1 cm, Nuremberg, *Geschichte der Kriege in und ausser Europa vom Anfange des Aufstandes der brittischen Kolonien in Nordamerika*. Source: John Carter Brown Library, Brown University, inventory number: 03220, reproduced with the permission of the library.



Figure 30: Christian Friedrich von der Heiden, *Prospect der Haupt Stadt Quebec in Canada in dem Nord America*, 1763, Print, 17 x 25 cm (image), 20 x 32 cm (paper), Augsburg, *Americanische Urquelle derer innerlichen Kriege des bedrängten Teutschlands*. Source:

Montreal Archives, City of Montreal, inventory number: CA M001 BM007-2-D19-P018, Creative Commons licence.



Figure 31: Jean Baptiste Louis Franquelin, *Map of North America: from 25 to 65 degrees latitude and approximately 140 and 235 degrees longitude.*

Figure 31.1: Facsimile map, 103 x 160 cm. Source: Library of Congress, Geography and Map Division, call number: G3300 1688 .F7. (1688], Creative Commons licence.



Figure 31.2: Detail of the cartouche. Source: Library of Congress, Geography and Map Division, call number: G3300 1688 .F7. (1688], Creative Commons licence.





Figure 32: James Hulett, *A Perspective View of Quebec Drawn on the Spot*, circa 1760, print, no dimensions, London, Royal Magazine. Source: Musées de la civilisation du Québec, inventory number: 1993.15827, reproduced with permission from the museums.

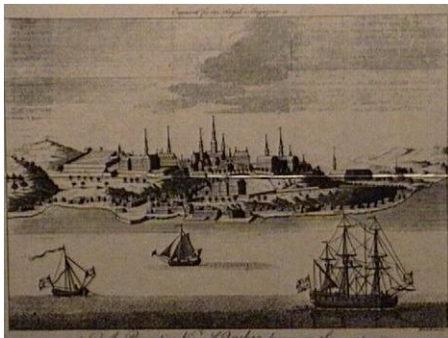


Figure 33: Georg Balthasar Probst, *Ansicht der sogn. Malegrasse, auf den Perlachturm und Rathaus*, second half of the 18th century, print, no dimensions. Source: SCHWARZE, Wolfgang (1978). *Alte Augsburger Stadtansichten*, Wuppertal: Kunst und Wohnen Verlag, p. 55.



Figure 34: Karl Remshard, *Prospekt der Kirchen und Kloster bey denen Barfussigen Carmeliten in Augspurg*, circa 1770, print on paper from a reissued plate (original circa 1735), 24.9 x 38.4 cm, Augsburg: Imperial Academy of Liberal Arts,

Collection of Prospects. Source: British Museum, inventory number: 1898,0725.8.1920, Creative Commons licence.



Figure 35: Karl Remshard, *Prospekt der Kirchen und Kloster bey denen Barfussigen Carmeliten in Augspurg*, circa 1770, print on paper from a reissued plate (original circa 1735), 24.5 x 37.5 cm, Augsburg: Imperial Academy of Liberal Arts, Collection of Prospects. Source: British Museum, inventory number: 1898,0725.8.1926, Creative Commons licence.



Figure 36: Perforations

Figure 36.1: Reverse side, Franz Xaver Habermann, *Landing of English Troops at New York*, circa 1775–1781, perforated colour print on laid paper, Augsburg: Imperial Academy of Liberal Arts, Prospectus Collection. Source: Anton Lotter private collection, Marjolaine Poirier (photographer).

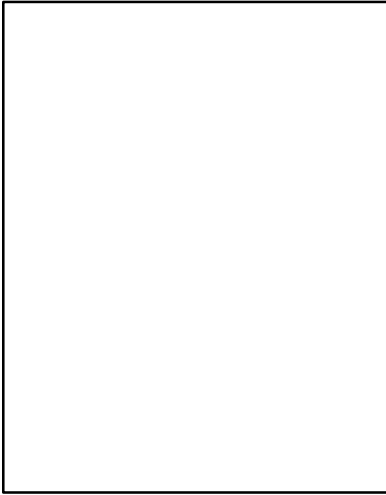


Figure 36.2: Rolls (detail), perforated, coloured and assembled prints. Source: Anton Lotter private collection, Marjolaine Poirier (photographer).

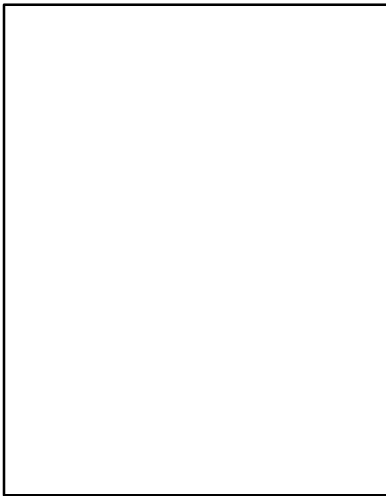


Figure 37: J. Frédéric Cazenave after an oil on canvas by Louis-Léopold Boilly, *L'Optique*, 1794, etching with stippling retouching, 67.8 x 53.4 (basin), Paris: Cazenave. Source: Rijks Museum, inventory number: RP-P-2006-36, made public domain by the museum.



Figure 38: Domenico Fietta, after an engraving by J. Frédéric Cazenave, after an oil on canvas by Louis-Léopold Boilly, *L'Optique*, circa 1800, coloured print, no dimensions, Augsburg: Fietta. Source: David ROBINSON *et al.*, *Der Guckkasten: Einblick, Durchblick, Ausblick*. Stuttgart: Füsslin, p. 13.

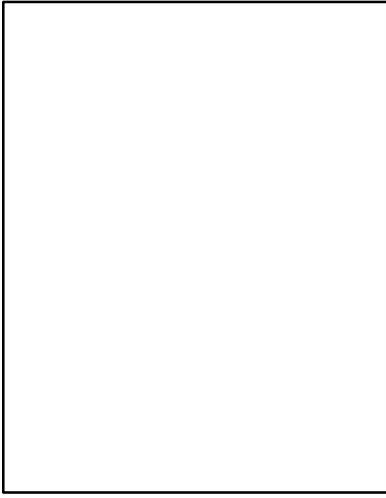


Figure 39: Louis Carrogis, known as Carmontelle, MM de Montmort, son of the major of the bodyguards, 1762, drawing on paper executed in graphite and coloured with sanguine, watercolour and gouache, 28 x 18 cm. Source: Musée Condé, inventory number: CAR 181, © Musée Condé.

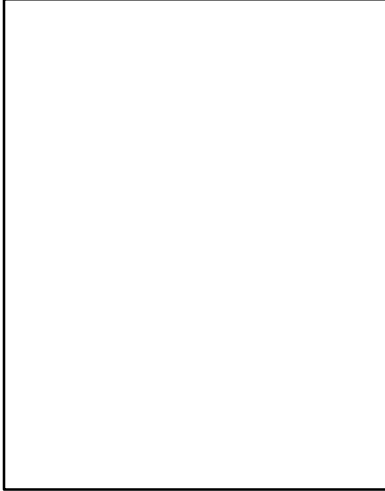


Figure 40: Louis Carrogis, known as Carmontelle, *Mr. De Torempré, assistant quartermaster in the army and gentleman of the Duke of Orleans*, 1766, drawing on paper executed in graphite and coloured with red chalk, watercolour and gouache, 29 x 17.5 cm. Source: Musée Condé, inventory number: CAR107, © Musée Condé.

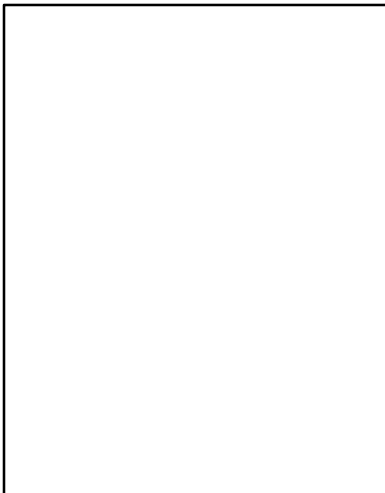


Figure 41: Louis Carrogis, known as Carmontelle, *Mr. Chevalier de Beausset, squadron commander in the navy*, 1783, drawing on paper in graphite and coloured with red chalk, watercolour and gouache, 29 x 17.5 cm. Source: Musée Condé, inventory number: CAR121, © Musée Condé.

