

THE SHARED LANGUAGES OF ART AND SCIENCE IN EARLY MODERN EUROPE

Virtual conference
June 25th and 26th 2021

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While the term “science” is most often associated with the systematic study of the physical or natural world, up to the nineteenth century the term “scientia” referred to any branch of systematic knowledge, including the arts and other fields currently associated with the humanities. In the 1950s, the British philosopher C. P. Snow famously coined the term “two cultures” as a major cultural force of the nineteenth and twentieth century in order to describe the by then fundamental divide between science and the humanities. Since then, historians and anthropologists of science have raised the question of how this increasingly hierarchical disciplinary divide came about. How exactly did natural philosophy (the term for “science” until the 19th century), physics, and mathematics turn into “the paradigmatic science,” exerting a dominant cultural impact on other disciplines.

The conference organized online in June 2021 seeks to flesh out the period before such binary (and hierarchical) divisions were established, in particular from a linguistic, rhetorical and poetic point of view. In the sixteenth and seventeenth centuries, art and natural philosophy were not rival disciplines but different forms of expressing a profound curiosity about nature. The papers will be looking closely at shared structures that connected both domains during the early modern period, with a special focus on language as the nexus between conceptual ideas and the sensible world. In examining the dialogue in terms of sociocultural, epistemological, and particularly discursive patterns, “art” and “science” will be associated on a deeper level than that of concrete connections and practical activities.

This event is sponsored by the research project « Before the ‘Great Divide’: The Shared Language(s) of Art and Science in the Early Modern Period », funded by a SSHRC (Social Sciences and Humanities Research Council of Canada) Insight Grant (2019-2024).



Social Sciences and Humanities
Research Council of Canada

Conseil de recherches en
sciences humaines du Canada

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ABSTRACTS

FILIPPO CAMEROTA

The Language of Perspective. A Dialogue between Painters and Mathematicians.

The codification of perspective as a mathematical representation of the visible world is the literary place where the thoughts of artists and mathematicians of the pre-modern age intertwined. The numerous treatises of perspective that separate Alberti's *De pictura* (1435) from Andrea Pozzo's *Perspectiva pictorum et architectorum* (1693), represent a library of knowledge founded on a common language made of signs, technical terms and concepts that express a strongly shared vision of the world. While Alberti adopted the mathematical concept of measurability of physical world to allow painters to represent space with geometric ratio, on the other hand mathematicians used pictorial conquests to explain the graphic concepts of their discipline. Regiomontano, for example, used Alberti's words to explain Ptolemy's third cartographic projection; Commandino wrote a short treatise on perspective to illustrate the Ptolemaic planisphere; and Galileo applied the Tuscan concept of *Disegno* to the explanation of the celestial phenomena observed with the telescope.

NOAM ANDREWS

Unfit to Print: Albrecht Dürer's "Aesthetic Excursus"

In eschewing a universal standard of beauty, for "no single man can be taken as a model for a perfect figure," Albrecht Dürer's *Vier Bücher der menschlicher Proportion* (1528) was unique in its evocative mapping of transformational relationships between all body types, even those not fit or shapely enough to have been typically subjected to theoretical analysis. His "Aesthetic Excursus," appended to Book III of *menschlicher Proportion*, alongside the textual fragments on the topic Dürer had compiled since as early as 1512, reveal an artist laboring to bring the *Ungleichheit* of the human body into dialogue with the predicative capacities of geometry and measurement. These texts form Dürer's extended meditations on an aesthetics of difference and diversity as mediated through geometry, a precarious terrain of unwanted error (*Irrtum*), impossible judgement calls (*Urteile*), and lurking mischief (*Übelstand*).

ANDREW MORRALL

Wenzel Jamnitzer's 'Perspectiva Corpora Regularium' and the Mathematization of Nature.

In his *Perspectiva Corpora Regularium* of 1568, the Nuremberg goldsmith Wenzel Jamnitzer demonstrated the construction of the five regular polyhedra of ancient Greek geometry, placed them explicitly within a metaphysical and cosmological framework based on Euclid's geometry and Plato's *Timaeus*, and rendered them in perfect perspective. This talk will trace the origins of these three strains of Jamnitzer's thought within a local mathematical culture that involved a close nexus of artists and craftsmen, mathematicians, astronomers, publishers, teachers, and enlightened citizens that extended back to the towering figure of Regiomontanus in the fifteenth century. The talk will also show how it was in the hands of Nuremberg goldsmiths and later interpreters like Johannes Kepler that the regular solids came to be understood as no longer mere abstract symbols of a world of ideas, but as intimately connected with the physical world, as the actual building blocks of reality, whose geometric patterns were discoverable in the structures of Nature, and which could be physically represented, reconstructed, and measured. As such, the regular solids became part of a new approach to natural science that was visible and quantitative, just as the process of perspectival drawing by which they were made became a benchmark of rendering objective "truth," carrying the promise that Nature might be made mathematically legible.

ALEXANDER MARR

Holbein's Wit

This paper will address the tactical ambiguity of Holbein's art as a form of wit. Specifically, it will examine how ambiguous elements in his painting provoke philosophical reflection on emergent notions of selfhood. In a number of important portraits, including *The Ambassadors*, *Portrait of Georg Gisze*, and *Lady with a Squirrel and a Starling*, Holbein deployed verbal-visual puns to draw attention to his sitters' and his own ingenuity (*ingenium*). The productive ambiguity of these devices will be set within the context of learned wit and *serio ludere*, particularly Erasmian wordplay and certain topoi of mimesis. This will afford an opportunity to reassess Holbein's treatment of the relationship between skill, character, and identity, in works that bridge linguistically and pictorially the (modern) divide between art and science.

MASSIMILIANO ROSSI

"Vero" and "naturale": Galileo's Legacy in Filippo Baldinucci's Notizie de' Professori del Disegno (1681-1728) between Faithfulness and Betrayal.

My proposal examines all the passages in Filippo Baldinucci's *Notizie de' Professori del Disegno* (6 voll., 1681-1728) in which Galileo Galilei is mentioned as author, scientist, and character in his relationship with the artists of his time. Despite his obsessive devotionality, Baldinucci, who was also close to Vincenzo Viviani and the Accademia del Cimento, has no prejudice in affirming his belief in Galileo's legacy, even quoting the "infamous" *Dialogo de' massimi sistemi*. Categories such as "imitazione del vero" and/or "naturale" are continually evoked, each time, however, assuming a different aspect: for instance, as criteria of evaluation of artistic merit, Baldinucci deplores Lorenzo Lippi's "semplice imitazione del naturale" to which he contrasts Giovanni da San Giovanni's "stravagante naturale". Moreover "vero" can be interpreted as both in the experimental meaning – Eva Struhel has recently shown this – and in a religious sense: as truth of faith. This multifaceted terminology testifies to an intellectual position and a peculiar reception of Galileo's method and thought, which were shared by the Jesuit cardinal and very prestigious man of letters, Pietro Sforza Pallavicino, famously one of Bernini's warmest admirers, always quoted by Baldinucci in his *Notizie* with the greatest veneration but, until now, never considered as an *auctoritas* for the Florentine biographer.

EVA STRUHAL

"D'atomi altri è fatto il mondo" – Atomism and Artistic Creation in Seventeenth Century Florence

My talk focuses on the reconstruction of the interdisciplinary discourse practiced in the Accademia de' Percossi, the literary academy founded by the Neapolitan painter and satirist Salvator Rosa during his stay in Florence (1640-1649). This academy consisted of members from a variety of disciplinary backgrounds: poets, such as Francesco Rovai and Antonio Malatesti; the antiquarian Roberto Dati; the scientist Evangelista Torricelli; and the Florentine painter Lorenzo Lippi. I will analyze the writings produced in this academic setting in order to trace a "shared language" across the disciplines of poetry, art, and natural philosophy. In addition, my paper focuses on the *fortuna* of Lucretius' *De Rerum Natura* in Florence during the 1640s and reconstruct how it affected the work of the painter and poet Salvator Rosa and his friends.

GENEVÈVE WARWICK

The 'Sky Optick': Chambers of Vision in Early Modern Art and Science

In Daniel Schwendter's *Scientific and Mathematical Delights* of 1636, this poet, librarian, linguist, professor and inventor published a number of his newly-devised instruments of scientific study, which included the fountain pen as well as a scioptic ball. The latter, which he illustrated with engraved diagrams, was a spherical construction containing fitted lenses to enable panoramic viewing of both land and sky. Schwenter's optical device quickly became known as *oeil artificiel* in French, due to its evident foundation in the anatomical study of the eyeball; and as 'sky optick' in English for its telescopically-magnified view of the heavens. Arising out of a rich ferment of invention in the field of optics intended as prosthetic extensions of the human eye, Schwenter's device formed part of the so-called 'Galilean revolution' of early modern scientific vision. As Galileo had proclaimed in his earliest publication of a telescopically-enabled view of the sky, the *Starry Messenger* of 1610, at stake was the authority of documented visual evidence as the future of scientific research, set alongside the humanist study of classical texts.

DENIS RIBOULLAULT

"The Woman in White." Ancient Mythology and Renaissance Astronomy at the Villa Barbaro at Maser

This paper offers a new interpretation of the famous but still mysterious female figure dressed in white and riding a dragon in the center of the vault of the Hall of Olympus in Villa Barbaro at Maser. An examination of Daniele Barbaro's rich array of scientific interests and deep knowledge of astronomy opens up a world of references and images that Veronese scholars have barely touched upon so far. Daniele Barbaro's career as an astronomer sheds new light on the iconography of the main reception room, the Hall of Olympus, and in particular on the identity of the "woman in white." The entire iconography of the villa is intimately linked to this central figure and, as I argue, to the astronomical research carried out by Daniele Barbaro in preparation of the Calendar Reform adopted twenty years later in 1582. What is remarkable about the Villa Barbaro is the way in which ancient mythological sources are placed at the intersection of the scientific and domestic discourses formulated by Daniele Barbaro through the brilliant brushstrokes of Veronese.

ANGELO CATTANEO

Merging Art and Cartography: Displaying the Connected World in Dutch Mid-Seventeenth Century Vistas, Maps, Land and Sea Surveys. The Case of Cosimo III de' Medici's 'Carte di Castello'

The *Carte di Castello* are a collection of eighty-two manuscript maps of coastal and island regions, vistas and city plans, particularly of port cities, spread across four continents: Africa, North and South America, Asia and Oceania. They also include a selection of four ethnographic depictions of African people. Altogether, they were purchased by Prince Cosimo III de' Medici (1642–1723) on two consecutive journeys to Europe between May 1667 and November 1669. Sixty-five of the eighty-two maps were purchased in Amsterdam in December 1667 from Johannes Vingboons' workshop, brokered by the publisher and *connaissanceur des beaux-arts* Pieter Blaeu (1636–1706). The remaining seventeen were instead commissioned and bought in Lisbon, brokered by Luís Serrão Pimentel (1613–79), *Cosmógrafo Mor* and *Engenheiro Mor de Portugal* (head cosmographer and engineer of Portugal) in February 1669. For the symposium "The Shared Language(s) of Art and Science" I will focus on the Dutch maps, vistas, plans and drawings. I will address the specific ways in which very accurate, large scale, land and sea surveys combined and were integrated with landscape paintings and miniaturist artistic techniques in order to create a visual rendering of seaports, fortresses and, in general, the operational places for use by the Dutch companies' administration, sea captains, as well as a select group of wealthy collectors.