

## INTRODUCTION

Most music lovers know that Mozart worked out many of his compositions in his mind before writing them down, often without even sketching them. We are told that the score of the Overture to his opera *Don Giovanni* was notated in three days and finished only a day before the first performance on October 29, 1787 in Prague. Mozart was obviously exceptional, one might think. And yet it appears that most polyphonic music of the late Middle Ages and Renaissance was similarly worked out in the mind. We, who are so accustomed to working out compositions in score in writing, find it hard to imagine how composers could have conceived of music for three or four parts without a score or an instrument. But their mental feats were not unique. Thomas Aquinas worked out his texts in the mind before he dictated them, by some accounts, to three scribes simultaneously. So the question is, how could this be achieved?

The relationship between the art of memory and compositional process has received a great deal of attention in recent years. The work of Mary Carruthers and others<sup>1</sup> has made it clear that in premodern Europe the act of composition was preceded by a long educational process in which a memorial archive was established. Only after one had memorized a great number of texts was one able to delve into the memorial archive and use its riches while composing new texts.

There are many ways of committing material to memory. The most basic one, to which virtually every student was exposed, is division and classification. It is easier to remember a long text if one breaks it down into smaller units. These units are then classified, perhaps according to subject or alphabet, so that the material can be swiftly recalled. Equally important is the visual aspect of memorization. The material which one wants to memorize is placed on some kind of imaginary or real structure, say, a

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<sup>1</sup> M. CARRUTHERS, *The Book of Memory* (Cambridge, 1990) and *The Craft of Thought* (Cambridge, 1998). See also MARY CARRUTHERS and J. M. ZIOLKOWSKI, *The Medieval Craft of Memory* (Philadelphia, 2002).

house or a monastery, a hand or a tree. If one wants to retrieve the material one goes through the structure, always in the same order. Often these structures will include an enormous amount of information in abbreviated form, which triggers additional subdivisions (see Stefano Lorenzetti's paper in this volume). It is important that all of this information can be seen in a single glance or gaze. Lorenzetti describes tree diagrams where all music theory is summarized on one page.

The visual aspect is equally important for the composition of new texts. The text can be visualized on a wax tablet, an architectural structure, or any kind of diagram. Visualization works similarly to writing: once one has created a new text and placed it on a visual grid of some sort, one is able to read it back word for word.

Another important point in recent memory research is that it has become increasingly clear that the invention of writing, or of print for that matter, did not do away with memorization, but allowed instead for new ways of committing material to memory. It became possible to check whether one had memorized material correctly. In other words, writing and printing allows for verbatim memorization. This is certainly true in literature, philosophy, and music. But it is remarkable that architectural theorists did not follow this trend: printed architectural manuals are so complicated that they could no longer be memorized (see Mario Carpo's contribution in this volume).

The editors of this volume were Fellows at Villa I Tatti, the Harvard University Center for Italian Renaissance Studies, in 1992-93, when these issues were just beginning to be discussed. We have both studied various aspects of the relationship between memory and composition since then. So when we met again at the same institution fifteen years later, we decided to assemble a group of scholars from literature, art, architecture, and music to discuss the current state of research in this area. The papers assembled in this volume are the result of the symposium that took place at I Tatti on May 11, 2006. They offer an insight into our thinking today on various aspects of the interaction between the art of memory and the processes of composition in several fields.

Alison Cornish investigates how the art of memory could have affected translation. Virtually all ancient and medieval authors who discuss the art of memory distinguish between verbatim memorization, *memoria verborum*, and memory for the discussed subject matter, *memoria rerum*. Cornish shows that trecento translators made the same distinction. In a discussion of two groups of texts, the *Fiore di rettorica* and the *Fatti dei romani*, she shows how ancient texts were gradually appropriated in

the vernacular. Surprisingly, she also demonstrates how over time translators restored the original Latin and showed less tolerance for translations because of their inevitable inaccuracy.

Stephen Orgel offers what he calls an “antimatter to everyone else’s matter.” Rather than concentrating on the use of memory in Shakespeare’s plays, he turns the topic upside down by exploring in often unexpected ways the role of forgetting in these works. The plays are notorious for their difficult source situation, and many of the inconsistencies may be the result of problematic transmission. But Orgel argues that forgetting, no less than remembering, is central to the act of creation in drama.

The architectural historian Mario Carpo describes the impact of the shift from manuscript to print culture in architectural treatises. He juxtaposes the treatises by Vitruvius and Alberti, which are centered around easily memorizable rules, with texts by Serlio and Vignola, which are full of architectural drawings. The transition can be demonstrated in particular in the latter group: Serlio, the earlier of these, includes drawings with rules; nevertheless, it is the rules, not the drawings, that are really central. By contrast, Vignola dispenses with rules altogether and includes only drawings, now combined with proportional numbers. Carpo points out that Vignola’s drawings can be easily understood by a twenty-first-century engineer. The ultimate result is that memory and rules gradually become redundant. The later number tables published in printed books are meant to be consulted at all times, not to be memorized.

In the second half of the sixteenth century, art treatises underwent significant methodological changes. Massimiliano Rossi argues that this was particularly true in Italy, where writing on art became a genre in which ancient venerable traditions were interwoven with contemporary aspirations: from the search for a totally new pictorial “science” giving expression to *affetti*, to classical rhetoric and preaching which, in the long run, had already offered different techniques for control and expression of the passions as well as for meditation and interior oration. Within this framework, the art of memory assumed the leading role for such superimpositions, combinations and overlappings. In particular, the essay aims at re-considering the editorial work of Giovan Paolo Gallucci, the author of the little known *Libro quinto*, written as an addition to the translation from Latin of Dürer’s *Vier Bücher*, published in Venice in 1591 (*more Veneto*). In presenting Dürer’s precepts reformulated with extensive quotations from Lomazzo and Tasso, the treatise is a tool whose effectiveness is strengthened by an extensive catalogue of correctly proportioned figures animated by appropriate *passioni*.

Anna Maria Busse Berger's paper is concerned with how composers went about creating polyphonic pieces in the late Middle Ages and Renaissance. Theorists give only very general rules concerning interval progressions for note-against-note counterpoint, but have almost nothing to say on how diminished counterpoint as it is found in motets, masses and chansons was taught. In an attempt to find an answer, Berger looks into the compositional process of artists in the fourteenth and fifteenth centuries, centering in particular on the model book, which must have served as a kind of memorial archive for the artist. Yet the models are only taken as a point of departure by good artists, they are not simply copied. Returning to music, she suggests that memorization of the note-against-note progressions represents a similar memorial archive for the musician. Diminished counterpoint was learned without a textbook, probably through oral instruction, regular singing of polyphony, and copying of manuscripts.

Stefano Lorenzetti gives an overview of the influence the art of memory had on sixteenth- and seventeenth-century music theory treatises. He describes and analyzes German, Italian, and English theorists dependent on Peter Ramus, all of whom summarized music theory in various elaborate structures, especially trees. These graphs classified and organized the material in abbreviated form, which, in turn, would help recall the theory rules in its entirety. Next, he shows how solmization syllables originally invented to memorize music were applied for the memorization of texts by Johann Heinrich Alsted which are not musical. He also investigates the relationship between the terms *memoria* and *fantasia*. Finally, he shows that sixteenth- and seventeenth-century theorists, composers, and musicians approached musical composition and improvisation in the same way. It was first necessary to establish an enormous memorial archive through continuous practice. This archive included rules and examples of note-against-note and diminished counterpoint, the types of cadences and their points, and the position of the entering voice. In other words, like Berger, he believes that writing and rewriting, improvisation and compositions are not to be seen as being in opposition to each other, but as part of the same process.

Much has been written about the hand as a mnemonic device. Musicologists have concentrated especially on the role of the hand for learning the musical gamut. Philippe Canguilhem's essay explores the possible application of the hand as a tool to help sing improvised polyphony. Canguilhem noticed that the angels in Benozzo Gozzoli's *Cappella dei Magi* are engaging in various hand gestures which are identical to those used for the instruction of chant. Previous scholars had noticed that the angels

were singing, but since there was no manuscript to be seen, it was assumed that they were singing plainchant. Canguilhem describes a little known tradition in which students learned how to sing improvised polyphony with the use of the hand, even before they learned how to compose music in writing. Some contemporary descriptions of images of angel concerts describe the music of the angels as polyphonic. All of this lends strong support to his hypothesis that Gozzoli was depicting a choir of angels who improvise polyphony.

Lina Bolzoni fittingly closes the volume with an overview of the most recent publications on the art of memory. She shows that while some scholars do acknowledge their debts towards the founding fathers of the art of memory (Ludwig Volkmann, Frances Yates and Paolo Rossi), others do not. In evoking continuity or even repudiation, Bolzoni offers a significant and problematic portrait of (post)modern cultural history, above all when she underlines how nowadays different perspectives on the art of memory try, on the one hand, to find more and more links with neurosciences and anthropology, and, on the other, attempt to follow and develop the endless possibilities which can grow from 'historical' scholarship.

The editors would like to dedicate the volume to Lina, since she has done more fundamental and original work on the subject than anyone else. Many of the contributors are indebted to her for advice and help. She is one of the few scholars who is equally comfortable in literature, philosophy, and art. Without her this field would be much less exciting.