Phenomenology and Social Reality

ESSAYS IN MEMORY OF ALFRED SCHUTZ

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THE ROLE OF MUSIC IN LEONARDO'S PARAGONE

by

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PREFATORY NOTE

Alfred Schutz was profoundly musical, and a study such as the present one on Leonardo's Paragone would, no doubt, have led to one of those long, nocturnal discussions which we used to have through forty years in Vienna and then in New York. We first met as students of law at the University of Vienna in 1918, but it was music which really brought us together. We ran into each other on the steps leading to the standing room section high up under the roof of the Vienna Opera House, both of us duly equipped with the score of the "Entführung aus dem Serail."

Schutz had a broad and intense knowledge of German and French literature, and he had his favorites among painters: he could become ecstatic before a Giovanni Bellini "Pietà" or Rembrandt's "Jewish Bride," but his beloved art was music. Even in his student days, his knowledge of the theory and history of music would have done honor to any musicologist. His interests and his tastes were catholic, and reached from Pachelbel and Heinrich Schütz to Alban Berg's "Wozzeck." He knew by heart J. S. Bach's Passions, most of his Cantatas and the Goldberg Variations; he was equally at home with Mozart's Masses and operas and the chamber music of Brahms. One of his special idols was Gluck; he knew every page of the standard treatises by Spitta, Schweizer, Chrysander, Jahn-Abert and Thayer. He played the piano with little technique, but the form and emotional content were magically conjured up by his enthusiasm. We played four-hand music throughout all the years of our friendship, and though we often squabbled over Brahms' triplets or Bruckner's hemioles, his shining face and radiant pleasure and our ensuing arguments belong to my dearest memories. We often discussed the experience provided by music, and analyzed the nature of flow, succession and time and their relation to Bergson's durée, and the musical structure as a model of the role and function of memory as creator of form and flux.
Alfred Schutz's concern with the phenomenon of music deeply influenced his philosophy. It will be a task for his philosopher friends to explore this connection and to continue his work.

INTRODUCTION

It is not generally known that Leonardo da Vinci was deeply engaged in Music, not only as an admired performer, improviser and teacher, but in many avenues of research such as acoustics, musical aesthetics and the invention of numerous ingenious musical instruments. Some of his most interesting ideas about the nature of Music and her noble status as an art are included in his Paragone (comparison of the arts), a treatise animated by the visible intention to exalt the noblest of all arts, Painting, "the grand-child of Nature and relative of God." Yet for the reader between the lines it is a fascinating spectacle to see how Music, the inferior sister of Painting, and "ill of many defects," appears at closer study and at second thought to be an art equally as noble as Painting and a discipline in her own right, the "figuratione dell' invisible."

The Paragone, or Comparison of the Arts, is part of the Trattato della Pittura, a book arranged after Leonardo's death from his writings on the arts scattered throughout many of his manuscripts, including some now lost, by his pupil Francesco Melzi. Melzi's manuscript is now in the Vatican library, known as Codex Vaticanus (Urbinas) 1270. We can only guess why Leonardo did not himself arrange and edit these ideas in book form — most probably he did not have the time. Often in his manuscripts, he reminds himself to write "a book" on this or another matter, but none of these have come to us.

The first printed editions of the Trattato appeared in 1651, in French as


well as Italian. The Paragone forms the first chapter of the Trattato, and is comprised of 45 small sections, which we will call chapters, retaining the numbers given to them in the edition by Heinrich Ludwig.\(^3\)

If we seek to clarify the role and rank assigned to Music by Leonardo, we find that the existing translations do not suffice, because the translators were not familiar enough with all the evidence of Leonardo's theoretical and practical concern with the art of Music; nor were they sufficiently acquainted with the structure of Music as an aesthetic phenomenon and with the musical thought and terminology of Leonardo's day. Thus, I had to make my own translations of the chapters, or parts thereof, relevant to Music.

Whenever my translation of certain passages did not seem to me to be the only possible one, or when no exact equivalent existed in English, I inserted an alternative and marked it by [ ].

**TEXTS AND COMMENTS**

**Trattato 21:**

**CHE DIFFERENTIA É DALLA PITTURA ALLA POESIA**

La pittura è una poesia muta, et la poesia è una pittura ciecha, e l'una e l'altra va imitando la natura, quanto è possibile alle loro potentie, e per l'una e per l'altra si pò dimostrare molti morali costumi, come fece Apelle con la sua calunnia. ma della pittura, perchè serue al' occhio, senso più nobile, che l'orecchio, obbietto della poesia, ne risulta una proporzione armonicha, cioè, che si come di molte varie uoci insieme aggiunse ad un medesimo tempo, ne risulta una propor­tione armonicha, la quale contenta tanto il senso dello audito, che li auditori restano con stupente ammirazione, quasi semiuui. ma molto più farà le proportionali bellezze d'un angelico uiso, posto in pittura, della quale proportionalità ne risulta un' armonico concento, il quale serue al' occhio in uno medesimo tempo, che si faccia dalla musica all' orecchio, e se tale armonia delle bellezze sarà mostrata allo amante di quella, da chi tale bellezze sono imitate, sanza dubbio esso resterà con istupenda ammirazione e gudio incomparabile e superiore a tutti l'altri sensi. Ma della poesia, la qual s'abbia à stendere alla figurazione d'una perfetta bellezza con la figurazione parteculare di ciascuna parte,

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della quale si compone in pittura la predetta armonia, non ne risulta altra gratia, che si facesse a far sentire nella musicha ciascuna voce per se sola in uarj tempi, delle quali non si comporrebbe alcun concetto, come se vuolessimo mostrare un’ uolto a parte a parte, sempre ricoprendo quelle, che prima si mostrano, delle quali dimostrazioni l’obliuione non lascia comporre alcuna proportionalitá d’armonia, perché l’occhio non le abbraccia co’ la sua uirità uissiu a’ un medesimo tempo. il simile accade nelle bellezze di qualonque cosa finta dal poeta, le quali, per essere le sue parti dette separatamente in separati tempi, la memoria nò ne riceue alcuna armonia.

WHAT THE DIFFERENCE IS BETWEEN PAINTING AND POETRY

Painting is mute Poetry, and Poetry is blind Painting, and both aim at imitating nature as closely as their power permits, and both lend themselves to the demonstration [interpretation] of divers morals and customs, as Apelles did with his “Calumny.” But since Painting serves the eye – the noblest sense and nobler than the ear to which Poetry is addressed – there arises from it [from Painting] harmony of proportions, just as many different voices [tones of different pitch] joined together in the same instant [simultaneously] create a harmony of proportions which gives so much pleasure to the sense of hearing that the listeners remain struck with admiration as if half alive. But still much greater is the effect of the beautiful proportions of an angelic face represented in Painting, for from these proportions rises a harmonic concert [chord] which hits the eye in one and the same instant just as it does with the ear in Music; and if such beautiful harmony be shown to the lover of her whose beauties are portrayed, he will no doubt remain struck by admiration and by a joy without comparison, superior to all the other senses. But if Poetry would attempt a representation of perfect beauty by representing separately all particular parts [features] that in Painting are joined together by the harmony described above, the same graceful impact would result as that which one would hear in music, if each tone were to be heard at separate times [in different instruments] without combining themselves into a concert [chord], or if [in Painting] a face would be shown bit by bit,

4 The terms “chord” and, for that matter, “polyphony” were not yet idiomatic in the musical treatises of Leonardo’s time, though polyphonic musical practice used chords increasingly. In fact, full triads had become fashionable about one generation before Leonardo.
always covering up the parts shown before, so that forgetfulness would prevent us from composing [building up] any harmony of proportions because the eye with its range of vision could not take them in all together in the same instant – the same happens with the beautiful features of any thing invented by the Poet because they are all disclosed separately at separate [successive] times [instants] so that memory does not receive from them any harmony.

Comments on Trattato 21:

The precedence of the eye over the ear – or rather, of sight over hearing – is mentioned throughout almost all chapters of the Paragone that deal with the comparison between Painting and Poetry. But as soon as Leonardo sets out to demonstrate this preeminence of the eye, he seems to fall immediately into contradictions, for the distinction of Painting is based on a fundamental feature of music – harmonious proportions; and Painting is accorded precedence over the arts of the ear because it shows harmony, just as does an art for the ear – music. Very clearly, Leonardo describes the phenomenon of the chord – the simultaneous occurrence of several tones – though the term “chord” is not yet in his vocabulary; he rather speaks of the armonico concento created simultaneously by proportions – evidently the proportions between tones of different pitch.⁵

While Music is a temporal art like Poetry, it has proportions, of which Poetry is deprived. And this is demonstrated by comparing a poem with a piece of music performed, not by all voices simultaneously, but one voice after another (in vari separati tempi), an absurd procedure that would prevent the formation of vertical harmony.

Memory⁶ is briefly mentioned in the last sentence, but its basic function in the temporal arts of retaining the past sections of the work is not described. Otherwise, Leonardo would have been forced to acknowledge, besides pitch proportions of simultaneous musical tones, proportions between successive portions of works of music or poetry.

⁵ Leonardo was, of course, well versed in the tradition of Pythagorean proportions, and entirely at home in the theory of harmony, especially the musical treatises of his friend, Franchino Gaffuri. He also was familiar with Leonbattista Alberti’s theory of proportions in De Re Aedificatoria, completed 1452, published 1485. There, Alberti recommends borrowing the laws of visual shapes (figure) from the musicians since “the same numbers that please the ears also fill the eyes and the soul with pleasure.”

⁶ About Leonardo’s notion of memory as victor over time, see the Epilogue.
La pittura, per la sua essenza, rappresenta un'idea immediata e concreta che si rivela al senso attraverso la proprietà del suo mezzo. L'arte pittorica si esprime attraverso il proprio mezzo, nella sua utilità e nella sua specificità, ma anche nella sua capacità di perfezionamento. La perfezione, infatti, è un requisito che la poesia cerca di raggiungere attraverso un linguaggio più dolce e conciso.

La musica, invece, si esprime in modo diverso. La musica è un linguaggio che si esprime attraverso l'ascolto, e perciò appartiene al senso dell'udito. La musica ha una grande capacità di esprimere sentimenti e idee, e questo è un aspetto che la poesia cerca di replicare attraverso il linguaggio verbale.

La musica è un linguaggio che è in grado di rappresentare idee e sentimenti in modo più diretto e emotivo, e questo è un aspetto che la poesia cerca di replicare attraverso il linguaggio verbale. La musica è un linguaggio che è in grado di esprimere idee e sentimenti in modo più diretto e emotivo, e questo è un aspetto che la poesia cerca di replicare attraverso il linguaggio verbale.

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OF THE DIFFERENCE AND AGAIN THE SIMILARITY BETWEEN PAINTING AND POETRY

Painting presents its content all at once to the sense of sight [and it does so] through the same means [organ] by which the perceptive sense receives natural objects, and it does so in [at, within] the same span of time, in which there are established the harmonic proportions of those parts which together make up the whole that pleases the sense; and Poetry presents the same thing, but through a means [organ] less noble than the eye, and brings to our perception with more confusion and more delay the shapes [forms, delineations] of the designated [verbalized] things [the things presented]. The eye [on the other hand], that true link between the object and the sense of perception, presents [supplies] directly and with greatest precision the actual surfaces and shapes of the things appearing before it. From these [surfaces and shapes] arise those proportions called harmony which in their sweet combination [unity, concord] please the sense, in the same manner in which the proportions of diverse voices please the sense of hearing which again [as I said before] is less noble than the eye, because there [in the sense of hearing] as soon as it is born, it dies, and dies as fast as it was born. This cannot happen with the sense of sight; for if you [as a painter] represent to the eye a human beauty [the beauty of the human body] composed by the proportions of its beautiful limbs, all this beauty is not as mortal and swiftly destructible as music; on the contrary, it [beauty] has permanence [long duration] and permits you to see and study it [at leisure]. It is not reborn [does not need to reappear, come back] like music is when played over and over again up to the point of boring [annoying] you; on the contrary, it enthralles you [makes you love it] and is the reason that all the senses, together with the eye, want to possess it, so that it seems as if they wanted to compete with the eye. [In fact] it seems as if the mouth wants to swallow it bodily, as if the ear took pleasure to hear about its attractions [the beauties of it], as if the sense of touch wanted to penetrate it through all its pores, and as if even the nose wanted to inhale the air exhaled continually by it [by beauty].... The same instant within which the comprehension of something beautiful rendered in Painting is confined cannot offer [give] something beautiful rendered by [verbal] description, and he who wants to consign to the ear what belongs [must be consigned] to the eye, commits a sin against nature. Here, let Music with its specific function enter, and do not place here [into this role] the science of Painting, the true imitator of the natural shapes of all things....
Comments on Trattato 23:

Though here only painting and poetry are compared, music comes into the argument. The argument focuses on the simultaneity of all elements of a painting ("in un subito," "nel medesimo tempo"). The main argument contrasts the eye, as the more noble instrument of perception, with the ear. The eye as the real ("vero") mediator between the world of objects and human receptivity presents shapes at once and simultaneously. Only in this way harmony based on proportions can materialize. The ear, or rather the sense of hearing upon which poetry depends, furnishes the shapes of things less clearly and with delays. "Delay" ("tardità") evidently means "not in medesimo tempo." "L'armonica proportionalità delle parti" is evidently synonymous with expressions used frequently later such as "proportionalità detta armonia." The discussion of this armonia gives occasion to throw a side glance upon music which, paradoxically enough, is considered to lack this harmony that is made possible only by a simultaneously composed object such as the limbs of a beautiful harmonious body and their proportions. Music suffers from the defect of repetitiousness or rather its need to be performed over and over again ("molto sonare"), which creates nausea, boredom ("fastidio")*. This implies, of course, another flaw of music, its main defect, namely, its quick passing or fading away; in Trattatos 29, 30 and 31b Leonardo again refers to this flaw.

After this brief side glance at music, Leonardo returns to poetry and painting, and arrives at a sharper formulation of their basic difference by introducing the concept of, as we would call it today, art in space versus art in time. In poetry, time separates one word from the next; oblivion interferes and prevents any harmony of proportions.

This is a rather naive and unfair criticism of poetry. Oblivion does not prevent the listener and even less the reader of Poetry from retaining past parts of the work of art; there is memory, for the function of which Leonardo finds beautiful formulations, for instance in C.A. 76a and C.A. 9a, and a poem can be envisaged in retrospect as a harmony of its successive parts. More important for our purpose, Leonardo himself seems, later in the Paragone, to suggest proportions between successive parts. But he does so only for Music, not for Poetry (see Trattato 30 and 32 and also perhaps 29). Here, however, Leonardo does not elaborate any further on successive parts and their proportions. Yet he makes an important statement that seems to take Music out of its position as sister of that other temporal

* Leonardo does not explain whether poetry is not affected by this same disadvantage.
art, poetry, and seems to suggest that if the flow in time prevents harmonious proportionalità in Poetry, this is not necessarily so in Music, if only Music is considered by its own rights and merits. Poetry, as we must read between the lines, cannot legitimately do for the ear what Painting can do for the eye, and he insists it is a sin against nature to blur this borderline. But where does this leave music? “Here let music with its specific function take its own place [assume its specific role] and do not confuse it with the science of painting, “that true imitator of true shapes of all things.”

Two words deserve comment here: “l’uffitio della musica” and “imitatrice.” The first emphasizes music’s characteristic role and realm; it doesn’t aim at imitation, but is hors de concours, in a class of its own and not inferior to either painting or poetry. This term of the argument anticipates the more explicit definition of music in Trattato 32 as figuratione delle cose invisibili. In his writings on anatomy, Leonardo gives a long and careful outline of a planned book on anatomy. Immediately after this outline, he says: “Then describe perspective through the office of the sight or the hearing. You should make mention of music and describe the other senses.” (Fogli B 20 v.)

“Imitatrice” and “imitare” in general must not be understood as literal, or rather passive copying, but as the act of re-creation of shapes and figures; only this interpretation of the function of painting supports its claim to being the most noble and most scientific of the arts.

Trattato 27:

RISPOSTA DEL RE MATTIA AD UN POETA, CHE GAREGGIAUA CON UN PITTORE

Non sai tu, che la nostra anima è composta d’armonia, et armonia non s’ingenera, se non in istanti, ne quali le proportionalità delli obietti si fan uedere, o’ udire? Non uedi, che nella tua scientia non è proportionalità creata in istante, anzi, l’una parte nasce dall’ altra successivamente, e non nasce la succedente, se l’antecedente non more? Per questo giudico la tua inuentione esser assai inferiore à quella del pittore, solo perchè da quella non componesi proportionalità armonica. Essa non contenta la mente del’ auditor, o’ ueditore, come fa la proportionalità delle bellissime membra, componitrici delle diuine bellezze di questo uiso, che m’è dinanzi, le quali, in un medesimo tempo tutte insieme gionte, mi danno tanto piacere con la loro diuina proportione, che null’ altra cosa giudico essere sopra la terra fatta dal homo, che dar la possa maggiore.
REPLY OF KING MATHIAS TO A POET WHO COMPETED WITH A PAINTER

Do you not know that our soul is composed [made up] of harmony, and that harmony is generated only in those instants in which the proportionality of things can be seen or heard? Do you not see that in your art [Poetry] proportionality is not created in an instant, but that on the contrary, one part is born from the other, succeeding it, and that this succeeding one is not born if the preceding one does not die? Therefore I regard your invention [art] much inferior to the painter's for the sole reason that in your art no harmonious proportionality is formed. Your invention [art] does not satisfy the mind of the listener or beholder like the proportionality of the beautiful parts that together form the divine beauties of this face here before me, which joined together in the same instant give me so much pleasure with their divine proportion, that I believe there is no man-made thing on earth that can give greater pleasure . . . . It is a justified lamentation if Painting complains of being expelled from the number of the Liberal Arts, [Justified] because she [Painting] is a true daughter of nature and serves the noblest of all senses. Therefore, it was wrong, oh writers, to have left her out from the number of the mentioned Liberal Arts; because she devotes herself not only to the creations of nature, but to countless others that have never been created by nature.

Comments on Trattato 27:

Trattato 27, which introduces King Mathias Corvinus, does not contain a direct reference to music; still it is important in our context because of its reference to armonia, proportionality, and divina proporzioné in relation to the minds of the listener and the onlooker. Harmony is denied to poetry, because in poetry one part is born from its predecessor “successively.” Here, if a reference to music would have been made at all, it would have become clear that music knows at least one form of harmony, namely, harmony in simultaneity (nel medesimo momento) i.e., as a combination of tones of
different pitch into chords; and this alone would have established the supremacy of music over poetry. As it is, this is suggested only later in Trattato 29. By the way, Leonardo does not recognize explicitly harmony or proportionality between successive portions of a poem or any work of poetry -- for instance, the formal balance between the strophes or the lines of a sonnet, though he seems to recognize this kind of proportionality in music (see Trattato 29).

The last two phrases of Trattato 27 are of interest, because here Leonardo proffers openly his complaint that painting is unjustly omitted from the ranks of the liberal arts, which is especially unfair if one considers that painting is not only dedicated to the works of nature, but can create infinite works never created by nature.

Trattato 29:

COME LA MUSICA SI DE' CHIAMARE SORELLA ET MINORE DELLA PITTURA

La Musica non è da essere chiamata altro, che sorella della pittura, conciosiach' essa è subietto dell' audito, secondo senso al occhio, e compone armonia con le congiuntioni delle sue parti proporzionali operate nel medesimo tempo, costrette à nascere e morire in uno o più tempi armonici, li quali tempi circondano la proporzionalità de' membri, di che tale armonia si compone non altrimenti, che si faccia la linea circonfrentiale le membra, di che si genera la bellezza umana.

ma la pittura eccelle e signoreggia la musica, perch' essa non more imediata dopo la sua creatione, come fa la sventurata musica, anzi resta in essere e ti si dimostra in vita quel, che in fatto è una sola superficie....

HOW MUSIC SHOULD BE CALLED THE YOUNGER SISTER OF PAINTING

Music cannot be better defined than as the sister of Painting, for she depends on hearing, a sense inferior to that of the eye, and establishes harmony by uniting her proportional parts [elements] that are performed simultaneously [i.e., the voices or melodic strands that run at the same time, that is, in juxtaposition within the polyphonic web], elements that are destined [forced] to be born and to die in one or more harmonic sections which confine [include] the proportionality of the elements [members], a harmony composed [produced, established] the same way as is that outline of the members [of the human body] which
creates human beauty. But Painting surpasses and outranks Music since it does not die instantly after its creation as happens to unfortunate Music; on the contrary, it stays on [remains in existence] and so shows itself to you as something alive while in fact it is confined to a surface..."}

Comments on Trattato 29:

Trattato 29 begins with a meditation on music itself and is fraught with seeming contradictions. Clear is the statement that painting excels and lords over music because music dying immediately after birth lacks permanence. Leonardo has stressed this aspect before (Trattato 23). Yet music, in spite of its flow, is credited with harmony of proportions, which poses the question of whether Leonardo means proportions between successive portions of the work of music. It is here that the text seems obscure or at least inconsistent. For first harmony is described as a conjunction of proportionate parts performed simultaneously ("nel medesimo tempo"); but right afterwards the text introduces the plural: "in uno o più tempi armonici," and this seems ambiguous. It could mean that chords occur one after each other and that each is equipped with harmony in the sense defined. But it could also refer to successive portions of music and in favor of this interpretation is the formulation that the "Tempi armonici circondano la proporzionalità de membri," which could be translated as instants in the flow that include between them sections of music proportionate to each other. If this interpretation is correct, then Leonardo, in a remarkably independent approach to the phenomenon of music, would have applied the concept of proportion to the relation between successive portions of music and thus established the notion of a quasi-spatial structure of portions balanced against each other.

There are two facts that would invite such an interpretation of Trattato 29: first, it falls in with Leonardo's definition of music as the figuratione del invisible (figuration evidently meaning shape or from — see Trattato 32); second, the text of Trattato 29 goes on to compare the proportional sections ("membri") of music with spatial portions or members that by their proportions produce the beauty of the human body. The limbs of the body could, of course, hardly be compared with musical chords, but only with sections of the musical flow.

It is thus the painter Leonardo who, starting from his most beloved art, painting, finds similarities with music, an approach basically different from

\^ The remainder of Trattato 29 is of no interest as for music.
that of the musical theories of his time. As far as I can see, no treatise on music of Leonardo's days developed this notion of musical form as a balance between the parts of a composition, although contemporary treatises abound, of course, with the notion of numerical ratios between tones of different pitch. Leonardo must have been familiar with this traditional element in musical theory, at least through the treatises of his friend, Gaffuri, the maestro della capella del Duomo during Leonardo's stay in Milan.

Trattato 30:

PARLA IL MUSICO COL PITTORE

Dice il musico, che la sua scientia é da essere equiparata a quella del pittore, perché essa compone un corpo di molte membra, del quale lo speculatore contempla tutta la sua gratia in tanti tempi armonici, quanti sono li tempi, nelli quali essa nasce e muore, e con quelli tempi trastulla con gratia l'anima, che risiede nel corpo del suo contemplante. ma il pittore risponde e dice, che il corpo composto delle humane membra non da si se piacere a' tempi armonici, nelli quali essa bellezza abbia a variarsi, dando figuratione ad un altro, ne che in essi tempi abbia a nascere e morire, ma lo fa permanente per moltissimi anni, et è di tanta eccellentia, che la riserva in vita quella armonia delle proportionate membra, le quali natura con tutte sue forze conservare non potrebbe. quant'abille hanno conservato il simulacro d'una divina bellezza, ch'el tempo o' morte in breve ha distrutto il suo naturale esempio, et è restata più degna l'opera del pittore, che della natura sua maestra!

THE MUSICIAN SPEAKS WITH THE PAINTER

The Musician claims that his science is [of a rank] equal to that of the Painter because it [music] produces a body of many members whose whole beauty is contemplated by the listener [observer, contemplator] in as many sections of musical time as are contained between birth and death [of these sections]; and it is these [successive] sections with which Music entertains the soul residing in the body of the contemplator.

But the Painter replies and says that the human body, composed of many members, does not give pleasure at [successive] time-sections

8 Mistranslated with "rhythms" by J. P. Richter and Irma Richter, Paragone, London, 1949, p. 75.
in which beauty is transforming itself by giving shape (form) to something else, nor that it [beauty] needs, in these time-sections, to be born and to die, but rather that he [the Painter] renders it [the body] permanent for very many years and the painting is of such excellence that it keeps alive that harmony of well-proportioned members which nature with all its force would not be able to preserve—how many Paintings have preserved the image of divine beauty whose real model has soon been destroyed by time or death, so that the Painter's work has survived more nobly than that of nature, his mistress.

Comments on Trattato 30:

Trattato 30 actually does not expound any new arguments in favor of the Musician, but repeats his claim that his science equals that of painting because it operates by combining one "corpo" out of many members. Whether these members are successive sections of the musical flow is not entirely clear, but would seem to be suggested by the term "tanti-tempi armonici" confronting the contemplation of the listener— if "speculatore" could be at all translated by "listener."

When the Painter, however, tries to defend his claim of superiority, he adds to his old arguments one new angle: he credits painting with the capacity of "figurazione," implying that this capacity is lacking in music. We must emphasize this here, because later in Trattato 32 that "figurazione" is regarded also as a characteristic of music, although, unlike the "figurazione" used by painting, it is the figuration of the invisible.

The end of chapter 30, emphasizing the power of Painting to preserve the image of a person beyond his death, echoes Ovid, *Metamorphoses*, Book XV, with the famous lamentation of the aging Helen of Troy observing in the mirror the wrinkles of her face and weeping about Time, the great destroyer of things, and Leonardo's own paraphrase in Codice Atlantico 71 r.a.:

"O tempo, consumatore delle cose, e, o invidiosa antichità, tu distruggi tutte le cose e consumi tutte le cose da duri denti della vecchiezza a poco a poco con lenta morte! Elena quando si specchiava, vedendo le vizze grinze del suo viso, fatte per la vecchiezza, piagne e pensa seco, perché fu rapita due volte. O tempo, consumatore delle cose, e o invidiosa antichità, per la quale tutte le sono consumate."

"O Time, thou that consumest all things! O envious age, thou destroyest all things and devourest all things with the hard teeth of the years, little by
little, in slow death! Helen, when she looked in her mirror and saw the withered wrinkles which old age had made in her face, wept, and wondered to herself why ever she had twice been carried away.

O Time, thou that consumest all things! O envious age, whereby all things are consumed."

Trattato 31:

IL PITTORE DÀ I GRADI DELLE COSE OPPOSTE ALL' OCCHIO, COME 'L MUSICO DÀ DELLE VOCI OPPOSTE ALL' ORECCHIO

Benchè le cose opposte all' occhio si tocchino l'un e l'altra di mano in mano, nondimeno farò la mia regola di XX in XX. braccia, come ha fatto il musicò infra le voci, che benchè la sia unita et appiccha insieme, nondimeno a pochi gradi di voce in voce, domandando quella prima, seconda, terza, quarta e quinta, et così di grado in grado ha posto nomi alla varietà d'alzare et bassare la voce.

Se tu o musicò dirai, che la pittura è meccanica per essere operata con l'esercizio delle mani, e la musica è operata con la bocca, ch'è organo humano, ma non pel conto del senso del gusto, come la mano senso del tatto. meno degne sono anch'ora le parole ch'è fatti; ma tu scrittore delle scienze, non copir tu con mano, scrivendo ciò, che sta nella mente, come fa il pittore? e se tu dicesse la musica essere composta di proporzione, o io con questa medesima seguito la pittura, come mi vedrai.

THE PAINTER USES DEGREES FOR THE OBJECTS APPEARING TO THE EYE, JUST AS THE MUSICIAN DOES FOR THE VOICES RECEIVED BY THE EAR

Although the objects confronting the eye touch one another, hand in hand [one behind the other], I will nevertheless base my rule on [distances of] XX to XX braccia, just as the Musician has done, dealing with [the intervals between] the tones [voices]: they are united and connected with each other, yet can be differentiated by a few degrees tone by tone, establishing a prime, second, third, fourth and fifth, so that names could be given by him to the varieties [of pitch] of the voice when it moves up or down.

If you, oh Musician, will say that Painting is mechanical because it is performed by using the hands, [you should consider that] music is performed with the mouth which is also a human organ though not
[in this case] serving the sense of taste, just as the hands [of the Painter] do not serve the sense of touch — [and as for word-arts] words are even more inferior than actions [such as those just described] — and you, oh Writer on the sciences, dost thou not copy by hand, like the Painter, that which is in the mind? And if you say that Music is composed of proportion, then I have used the same [method] in Painting, as you will see.

Comments on Trattato 31:

Trattato 31 touches on another comparison between music and painting which is farfetched but reveals how anxious Leonardo is to do justice to music within the Paragone. He compares the objects as they confront the eye in a continuous receding row or chain (opposte all' occhio si tocchino l'un altra di mano in mano) with the gradation of tones, that is, with the musical tones that by their numerical ratios ("gradi di voce in voce") form a scale. The mathematical rationalization of pitch values of tones is, of course, old Pythagorean and Boethian tradition and was commonplace in Leonardo's time; it is this mathematical quality of music that gave it a place among the liberal arts, but to credit painting with a similar rational basis was a relatively novel idea. Leonardo's argument is expressly, though only in passing, stated in Trattato 31-b: "Since you accorded to music a place among the liberal arts, either place there painting also, or remove music from there."

It is, of course, the science of perspective which Leonardo has in mind when he speaks of "la mia regola di XX in XX Braccia" (receding of objects from the eye by a standard distance of 220 yards). It is easy to see how forced the whole comparison is — a much more substantial comparison between linear perspective and acoustical phenomena is found in Ms. L, 79 v. where Leonardo tries to find the ratios of fading sound, or more precisely, the proportions between the volume of sound and the distance between the ear and the source of sound; there he establishes a "regola" which in his own language could be termed a perspective of sound.

Trattato 31-a deals with the art of sculpture.

Trattato 31b:

Quella cosa è più degna, che satisfa a miglior senso. Adonque la pittura, satissatrice al senso del vedere, è più nobile che la musica, che solo satisfa all' udito.

Quella cosa è più nobile, che ha più eternità. Adonque la musica,
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che si va consumando mentre ch'ella nasce, è men degna che la pittura, che con uetri si fa eterna.

Quella cosa, che contiene in se più universalità e varietà di cose, quella fia detta di più eccellentia. adonque la pittura è da essere preposta a tutte le operationi, perché è contenitrice di tutte le forme, che sono, e di quelle, che non sono in natura; è più da essere magnificata et esaltata, che la musica, che solo attende alla voce.

Con questa si fa i simulacri alli dij, dintorno a questa si fa il culto divino, il quale è ornato con la musica a questa seruente; con questa si dà copia alli amanti della causa de' loro amori, con questa si riserva le bellezze, le quali il tempo e la natura fa fugitive, con questa noi riserviamo le similitudini degli huomini famosi, e se tu dicessi la musica s'eterna con lo scriverla, el medesimo facciamo noi qui cò le lettere. Adonque, poi chè tu hai messo la musica infra le arti liberali, o tu vi metti questa, o tu ne levi quella, e se tu dicessi li huomini vidi la d'operano, e così è guasta la musica da chi non la sa.

That thing is more worthy which satisfies the higher sense. Thus, Painting, since it satisfies the sense of seeing, is more noble than Music, which only satisfies the ear.

That thing is more noble which has longer duration. Thus Music, which withers [fades] while it is born, is less worthy than Painting, which with the help of varnish renders itself eternal.

That thing which contains within itself the greatest universality and variety of objects may be called the most excellent. Thus Painting is to be preferred to all other activities, because it is concerned [occupies itself] with all the forms which do exist and also with those which do not exist in nature; it is to be more praised and exalted than Music which is only concerned with sound [voice].

With Painting one makes the images of gods, around which divine rites are held which Music helps to adorn; with the help of Painting, one gives lovers likenesses [portraits] of those who aroused their ardor; through Painting one preserves the beauty which time and nature cause to fade away; through Painting we preserve the likenesses of famous men, and if you should say that Music becomes eternal when it is written down, we are doing the same here with letters. Thus, since you have given a place to Music among the Liberal Arts, you must place Painting there too, or eject Music; and if you point at vile men who practice Painting, Music also can be spoiled by those who do not understand it.
Comments on Trattato 31b:

Trattato 31b, combining earlier and new arguments, expounds various reasons for the preeminence of painting over music: 1) Painting satisfies the highest sense, sight, music only the sense of hearing — but why sight should be more noble than hearing is not elaborated. 2) Painting is permanent, music evanescent. 3) Painting occupies itself with objects of more universality and variety than music which is based only on sound (an argument so questionable that one is not surprised to find it nowhere else in Leonardo’s writings).

The passage on the place of painting and of music among the liberal arts has been commented on in my explanation of Trattato 31.

Other arguments proffered here, such as the comparison between musical scores and letters, are rhetorical rather than serious.

Trattato 31c:

Se tu dirai le scientie non mecaniche sono le mentali, io ti dirò che la pittura è mentale, e ch'ella, sicome la musica e geometria considera le proporzioni delle quantità continue, e l’aritmetica delle discontinue, questa considera tutte le quantità continue e le qualità delle proporzioni d’ombre e lumi e distanze nella sua prospettiva.

If you [the Musician] say that only the non-mechanical [physical, bodily, material] sciences [liberal arts] are concerned with the mind⁹ and that, just as Music and Geometry deal with the proportions of the continuous quantities, and Arithmetic with the proportions of the discontinuous quantities, [so] Painting deals with all the continuous quantities and also with the qualities of the proportions [degrees] of shades and lights and distances in their [its?] perspective.

Comments on Trattato 31c:

Trattato 31c introduces a new basis of comparison, the question of whether painting and music are concerned with proportions of “continuous quantities,” as is geometry; or with “discontinuous quantities,” as is arith-

⁹ Mistranslated by Irma Richter, Paragone, p. 77: “If you say that the sciences are not ‘mechanical’ but purely of the mind,” which implies that all sciences are not mechanical, while Leonardo evidently wants to distinguish between scientie meccaniche and scientie mentali.

¹⁰ I. Richter mistranslates as follows: “... with the qualities of proportions, shadows and light...”
metic. The answer given is that both arts concern themselves with continuous quantities. This statement must be understood in the light of the former explanation that painting is based on perspective (“le cose si toccano l’un l’altra di mano in mano . . .”), (Trattato 31), and of the awareness that music exists as continuous flow. Heretofore its flow, by a poetic rather than scientific argumentation, was proffered as evidence of its transience and mortality, flaws not inherent in the nobler art of painting. Now the flow—that is, the smooth gliding from one tone to the next—elevates music to a “scientia mentale” dealing with continuous quantities, like geometry and painting. Thus, under scientific scrutiny, a sort of equality of rank is established between painting and music.

Leonardo’s distinction between continuous and discontinuous quantities comes, of course, from Aristotelian tradition (see especially Metaphysics, Book VI 1,2). Its application to the arts of painting and music is Leonardo’s own. According to Aristotle, Logic 5a, line, space and time belong to the class of continuous quantities “for it is possible to find a common boundary at which their parts join.” And it is probably also based on Aristotle when Leonardo regards poetry (or “speech” in Aristotelian terminology) as inferior to music and painting: “speech is a discontinuous quantity, for its parts have no common boundary” (Aristotle, Logic 4b32).

As for the distinction between “scientie meccaniche” and “mentali,” one should look at Trattato 33, not reprinted here, since it does not deal with music. There, the problem is approached through the consideration of “es­perientia,” that is, empirical research. The classification of arts into artes meccanicae and artes liberales is medieval.

Trattato 32:

CONCLUSIONE DEL POETA, PITTORE E MUSICO

Tal differentia è in quanto alla figuratione delle cose corporee dal pittore e poeta, quanto dalla corpi smembrati a li uniti, perché il poeta nel descrivere la bellezza o’ brutezza di qualonche corpo te lo dimostra a membro a membro et in diversi tempi, et il pittore tel fa vedere tutto in un tempo. el poeta non può porre con le parole la vera figura delle membra di che si compone un tutto, com el pittore, il quale tel pone innanti con quella verità, chè possibile in natura; et al poeta accade il medesimo, come al musico, che canta sol’ un canto composto di quattro cantori, e canta prima il canto, poi il tenore, e così seguita il contr’ alto e poi il basso; e di costui non risulta la gratia della prop­or­tionalità armonica, la quale si rinchiuide in tempi armonici, e fa esso
poeta a similitudine d'un bel volto, il quale ti si mostra a membro a membro, che cosi facendo, non remarresti mai satisfatto della sua bellezza, la quale solo consiste nella divina proportionalità delle predette membra insieme composte, le quali solo in un tempo compongono essa divina armonia d'esso congiunto di membre, che spesso tolgono la libertà posseduta a chi le vede. e la musica ancora fa nel suo tempo armonico le soavi melodie composte delle sue varie voci, delle quali il poeta è privato della loro discretione armonica, e ben che la poesia entri pel senso dell’ audito alla sedia del giudicio, sicome la musica, esso poeta non può descrivere l’armonia della musica, perché non ha potestà in un medesimo tempo di dire diverse cose, come la proportionalità armonica della pittura composta di diverse membra in un medesimo tempo, la dolcezza delle quali sono giudicate in un medesimo tempo, così in comune, come in particolare; in comune, in quanto allo intento del composto, in particolare, in quanto allo intento de’ componenti, di che si compone esso tutto; e per questo il poeta resta, in quanto alla figurazione delle cose corporee, molto indietro al pittore, e delle cose invisibili rimane indietro al musico. ma s’esso poeta toglie in prestito l’aiuto dell’ altre scientie, potrà comparire alle fere come li altri mercanti portatori di diverse cose fatte da più inventori, e fa questo il poeta, quando sinpresta l’altrui scientia, come del oratore, e del filosofo, astrologo, cosmografo e simili, le quali scienze sonno in tutto separate dal poeta.


As for the representation of bodily [corporeal] things, there is the same difference between the Painter and the Poet as between dismembered and united things, because when the Poet describes the beauty or ugliness of a body, he shows it to you part by part and at different [successive] times, while the Painter lets you see it in one and the same moment [simultaneously]. The Poet cannot create [establish] with words the real shape of the parts which make up a whole, as does the Painter who can put them before you with the same truth that is possible in nature [in the concrete appearance of nature], and the same thing happens to the Poet [the Poet encounters the same difficulty] as would to the Musician, if the latter would sing by himself some music composed for four singers, by singing first the soprano part, then the tenor part and then following it by the contralto and finally the bass;
from such a performance does not [ensue] the grace [beauty] of harmony by proportions [musical harmony as produced by the consonance of several voices of different pitch as established by the acoustical proportions], which is confined to moments of harmony (endowed with harmony, i.e., chords) — this is precisely what the Poet does to the likeness of a beautiful face when he describes it feature by feature. You would never be satisfied by such a representation of beauty [of the beauty of the face], because that can only be the result of the divine proportionality of these features taken all together since it is only at the very same moment [simultaneously] that they create this divine harmony of the union of all features which so enslaves the beholder that he loses his liberty.

Music, on the other hand, within its harmonious flow [time], produces the sweet melodies generated by its various voices, while the Poet is deprived of their specific harmonic action, and though Poetry reaches the seat of judgment through the sense of hearing, it cannot describe [render, create] musical harmony because he is not able to say different things at the same time as is achieved in Painting by the harmonious proportionality created by the various [component] parts at the same time, so that their sweetness can be perceived at the same time, as a whole and in its parts, as a whole with regard to the composition, in particular with regard to the [single] component parts.

For these reasons the Poet remains, in the representation of bodily things, far behind the Painter and, in the representation of invisible things, far behind the Musician. But if the Poet borrows from the other arts he can compete at fairs with merchants who carry goods made by various inventors [makers] — in this way he acts when he borrows from other sciences such as those of the orator, philosopher, astronomer, cosmographer and others which are totally separate from his own art.

Comments on Trattato 32:

First, a difference is stated between Painting and Poetry as far as they occupy themselves with the representation of bodily things (figurazione delle cose corporee) — disjointed features are found to be the subject of Poetry, and united features the subject of Painting. In fact, this distinction is only another version of the distinction between arts which present their objects in succession, in the flow, and those arts which present their objects in simultaneity (see Trattato 30). It must, however, be pointed out that Leonardo does not mean to restrict altogether the field of Poetry to figurazione delle
cose corporee, because later in this chapter 32, he has it compete also with music in the field of the *figurazione delle cose invisibili*.

A very important point is touched upon when Leonardo exalts Painting for being able to put before us features with the truth of nature (con quella verità, che'è possibile in natura), because here a basic aesthetic phenomenon is accounted for — the concreteness of visual appearance — or to say it more precisely, the simultaneous impact of an infinite number of features integrated in their concrete, immediate appearance. This observation of Leonardo goes beyond the famous paragone of the 18th century, Lessing's "Laocoon," which strangely enough, does not analyze this phenomenon of the visual arts. Goethe, we recall, was deeply aware of it — for instance, when he admired Delacroix' illustrations for Faust which, as he remarked (Gespräche mit Eckermann, November 29, 1826) added, or rather, were forced to add by their very medium, details to the scene which were beyond his, the Poet's, medium.

Very striking and almost humorous is Leonardo's argument to prove the inferiority of Poetry to Painting by the absurd picture of the performance of a polyphonic four-voice composition by one single singer, who could sing the four parts of the polyphonic web one after another, thus losing harmony and thereby the whole musical purpose altogether. At the same time, this caricature of Music reveals that Leonardo credits Music, if correctly performed, with *proportionalità armonica*, one of the important advantages inherent, according to him, also in Painting.

The remainder of Trattato 32 returns to the argument about proportions which was taken up before in Trattato 21, 23, 27, 29 and 30. We will briefly examine later in the epilogue whether proportions can really mean the same thing in Painting and in Music.

In a peremptory summary, Leonardo states that in the *figurazione delle cose corporee* the Poet ranks behind the Painter, and in the *figurazione delle cose invisibili*, behind the Musician. What then, we ask, is the comparative rank between Leonardo's most beloved and exalted art, Painting, and Music? He has accorded proportionality and harmony to both of them; he seems also to ignore here the cliché disparagement of music — its evanescence — *la malattia mortale* (see Trattato 29: "la pittura eccelle e signoreggia la musica, perche essa non more immediate dopo la sua creazione"). Nothing then hinders him from regarding Music as equally noble in its own right, in consideration of the peculiarities of this discipline. But this ultimate verdict had already been pronounced in chapter 23, which warns against the confusion of arts for the eye and arts for the ear, concluding: "lasciavi entrare l'uffitio
della musica (the peculiar business of music): Let music enter by its own merits and do not confuse it with painting, the true imitative science.”

EPILOGUE

These chapters of Leonardo’s Paragone seem to amount to a mixture of naive, often contradictory statements, commonplaces of his time, rhetorical attempts to bolster the social status of the Painter, and profound original ideas about the nature of the arts, including that of Music.

To be fair, we have to recall that the Trattato was not a book compiled by himself, but composed by Francesco Melzi out of relevant passages — but by no means all the relevant passages — in Leonardo’s notebooks and manuscripts.

Furthermore, Leonardo himself was never a consistent organizer of his thoughts, though he frequently reminds himself in his notebooks to write a treatise on this or that - treatises never found and most probably never written in the continuous onslaught of tasks and problems upon him, the artist, scientist, engineer and provider of entertainment for the court.

Leonardo states clearly in Trattato 34 (not included in our selection) that it is only through ignorance that Painting was classed below the “sciences,” by which he means the liberal arts. This ignorance is the lack of familiarity with the most recent achievement of Painting, linear perspective — an exact rationalization of sight based on mathematical proportions. This made Painting a quasi-mathematical science of the same nobility as Music, for centuries one of the members of the quadrivium together with geometry, arithmetic and astronomy. This practical purpose colors many, though not all, of Leonardo’s comparisons between the arts.

For a summary, it seems practical to list the criteria and arguments proffered by Leonardo in his Paragone for judging the comparative nobility of Music among the arts. Many are notions which were in the air, so to speak; some echo arguments indispensable in the fashionable, intellectual pastime of Leonardo’s day, the disputation of the arts and their merits among courtiers and humanists; some are contradicted by deeper thoughts in the Codice.

11 André Chastel, The Genius of Leonardo da Vinci, New York, 1961, p. 33, seems to underrate this assessment of music when he says: “Ultimately these [the spatial] arts take a higher position than the temporal arts,” perhaps because he does not reprint the critical chapters 23 and 32.

12 Leonardo was not the only one to fight for the inclusion of Painting among the liberal arts. Half a century earlier, Leon Battista Alberti had taken the same stand. And when Pollaiuolo in 1493 designed the tomb of Sixtus IV, he added the allegorical figure of Prospettiva to the figures of the quadrivium and trivium.
Atlantico and other notebooks of Leonardo, where they are mostly just hinted at and jotted down in Leonardo’s typical “self-reminder” fashion. A few, finally, contain new and ingenious ideas.

Cliché Arguments (the numbers indicate the chapters in which they occur):

a. The eye (Painting) more noble than the ear (Poetry and Music): 16, 20, 21, 24, 27, 28, 29, 31b.

b. The evanescence of Music; her mortal disease: fading: 23, 29, 30, 31b.\(^\text{13}\) Strangely enough, the same blame is not laid on Poetry.

c. Boredom and disgust caused by repetitiousness: 23,\(^\text{18}\)

d. Poverty of the musical realm; Music concerned only with sound, while Painting is universal, concerning itself with all things that enter the mind: 31b.

e. Mechanical arts: Music performed with the mouth: 31; see also, 19, 31c; and, deviating from the clichés, 33, not included in our selection.

Serious Criteria:

1. Spatial arts vs. temporal arts

Arts for the eye vs. arts for the ear

The distinction is retained in various versions throughout nearly all of the chapters of the Trattato included in the present essay: 16, 20, 21, 24, 27, 28, 29, 31b – curiously enough, the exaltation of Painting as the foremost visual art is often based on harmony, which is an integral feature of a temporal art: Music. In these contexts, Leonardo stresses harmony as a phenomenon restricted to one single instant, namely the combination of several tones of different pitch in one chord (or as he terms it, \textit{concento}); he never fails to emphasize \textit{in medesimo tempo} – it is perhaps a pity that the compiler of the Trattato did not include also some of the most salient statements of Leonardo on the nature of time as a continuous quantity, for instance BM 173 v, and 190 v, and Arundel Ms. British Museum No. 263 and 132 r.

\(^{13}\) On evanescence and disgusting repetitiousness, see also Codice Atlantico 382 v.a.: “La musica ha due malattie, delle quali l’una è mortale, l’altra è decrepitudinale: la mortale è sempre congiunta allo istante sequente a quel della sua creazione; la decrepitudinale fa odiosa e vile nella sua replicazione.” – (“Music has two ills: one is mortal, the other is related to its decrepitude [feebleness]; the mortal one is always linked to the moment that follows its incipience [each tone of it]; its feebleness causing repetitiousness makes it hateful and vile”).
2. The role of proportions and the continuous quantities: 23, 27, 29, 30, 31, 32:

A discussion of the various meanings of “proportions” in Leonardo’s writings would go far beyond the limits of this little essay. In the Paragone, two kinds of “harmonious proportions” are ascribed to Painting: first, the proportions of the single features of a face or any other object of representation, that create the harmony of the whole; second, the numerical proportions that are implied in mathematical perspective, that as a new method used by the Painter, made Painting a mathematical art worthy of admission into the Quadrivium. The first kind of proportions is [seen] paralleled in musical harmony, that is in the numerical relations between the pitch of the tones united in one chord. This would restrict proportions to the “vertical” aspect of the flow of music. However, Music admits also the concept of “lengthwise” or “horizontal” proportions — that is, the relation between successive sections of a piece of music. There is no clear acknowledgment of such proportions in the Paragone (see my comment to Trattato 30), but Leonardo’s awareness of the problem appears clearly from statements in British Museum Arundel 263, 1736. There he discusses, in the Aristotelian vein, the concept of continuous quantities in geometry (already touched upon in Trattato 31c), compares point and line with their counterparts in time and, on this basis, affirms the proportionality of time sections. The passage is too interesting for its bearing on musical time not to quote it here:

Benché il tempo – sia annumerato infra le continue quantità, per essere inuibile e sanza corpo, non cade integralmente sotto la geometrica potentia, la quale lo divide per figure e corpi d’infinita varietà, come continuo nelle cose uisibili e corporee far si uede; Ma sol co’ sua primi principi si cőuine,-, cioè col punto e colla linia--; il punto nel tempo è da essere equiparato al suo istante, e la linia à similitudine colla lìghessa d’una quantità d’un tempo, e siccome i più sò principio e fine della predetta linia--, così li instanti sò termine e principio di qualòche dato spatio di tempo--; E se la linia è diuisibile in infinito, lo spatio d’ù tempò di tal diuisione non è alieno, e se le parti diuise della linia sono propròzionali infra sé, ancora le parti de tempo saranno proportionabili infra loro.

“Although time is included among the continuous quantities, it does – since it is invisible and incorporeal – fall into the realm of geometry, whose divisions consist of figures and bodies of infinite variety, as a continuum of visible and corporeal things. But only in their principles do they [geometry and time] agree, that is with regard to the point and the line; the point is comparable to an instant in time; and just as a line is similar to the length of a section of time, so the instants are ends and beginnings of each given section of time. And if the line is infinitely divisible, so is the section of time resulting from such division; and if the sections of a line are proportionable to each other, so are the [successive] sections of time proportionable to each other.”
Similar statements based on Aristotle’s 6th book of Physics, esp. 231b, 7; 232a; 233a; and 233b, 15, are found in Leonardo, British Museum Arundel 263, 176r and 190v; but the reference to proportions between successive sections of time is Leonardo’s own, and so is the application of Aristotle’s concept of continuous quantities to the field of aesthetics, particularly to music.

If Leonardo thus admits proportions between successive sections of time and therefore also of successive sections of a work of music, it remains strange that he does not explicitly recognize the role of memory in creating forms in the flux. Memory is hardly ever investigated or analyzed by Leonardo as a psychological or philosophical problem, except in connection with Painting, the art that stems the flight of time by eternalizing the presence of a visual image. One of his rare general references to memory is found outside the Paragone, in Codice Atlantic 76a:

A torto si lamenta li uomini della fuga del tempo, incollando quello di troppa velocità, né s’accorgendo quello essere di bastevole trasito, ma (la) bona memoria—, di che la natura ci à dotati, ci fa che ogni cosa lungamente passata ci pare essere presente.

Wrongly do men lament the flight of time; they accuse it of being too swift and do not recognize that it is sufficient (sufficiently moderate) in its passage; good memory, with which nature has endowed us, makes everything long past seem present to us.

3. *Figuratione delle cose corporee* vs. *figuratione delle cose invisibili*

This distinction may seem at first glance similar to that between arts for the eye and arts for the ear; yet it goes deeper. In chapter 12 Leonardo speaks of the divinity of the science of Painting and, paraphrasing Dante, calls the Painter the lord and creator (padrone, signore, creatore) of all the things which occur in human thought. This concept seems to go far beyond the qualification of painting as an art copying nature. Should not then the idea have occurred to him that Music be still more free and god-like, since it creates “out of nothing”? This seems to be implied in his concept of the *figuratione dell’invisibile*.

Music, in the last analysis is not anymore the “younger and inferior sister of Painting” (Trattato 29), but in every sense “equiparata” (equivalent) to

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14 “Arte, nipote di Dio.”

15 When Leonardo speaks of Painting as an art or science “imitating” nature, he means, in line with current theory, by “imitare” recreating nature and not “ritrarre,” i.e., redrawing, as for instance in a camera obscura. See to this point also the forcible statements at the end of chapter 27, that Painting can concern itself with creations that have never been created by nature.
Painting (Trattato 30). If Leonardo had never said anything else about Music beyond defining her as a *figurazione dell invisibile*, this definition alone would suffice to convince us of his profound understanding of the nature of Music as a discipline that is not bound to copy nature but with an unparalleled degree of freedom creates forms ("figure") out of a material neither tangible nor visible.
The essays comprising this volume are concerned with the major themes of the intellectual life of Alfred Schutz: phenomenology, social science, and the arts. The authors either explore Schutz's work directly or turn independently to subjects germane to his interests. Among the topics examined are sociological, political, and economic theory, literature, myth and music. Taken as a whole, these essays are not only a memorial tribute to Schutz but a contribution to the central task to which he devoted his career: the philosophical illumination of the social world.

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