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Composition and Emotion

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In The Power of Images (1989), I described some of the recurrent symptoms of emotional responses to paintings and sculptures throughout history. Here I take the problem one step further and suggest that one of the tasks of future interdisciplinary work between the neurosciences and the history of art might be to examine the relationship between how pictures look and the emotional responses they evoke. This chapter rejects the notion that such a relationship may be too ragged to plot. In it, I give some examples—from the history of painting and the history of music—where efforts have been made to connect particular compositions with particular emotional states. Poussin's proposal (1647) suggests future possibilities for research in this area.

What are the protocols for conducting an experiment on the relations between pictorial composition and emotional response? Underlying this question is the problem of establishing and defining correlations between particular kinds of compositions and particular emotional responses. In a preliminary group of experiments conducted by Pietro Perona and myself in May 1999, we attempted to establish the possibility of arriving at conclusions about the relationship between the immediate perception of an image and emotional responses to it. Context, of course, conditions and contaminates response, but we were concerned with such responses as might arise from vision unmitigated by prior circumstantial knowledge and as uncontaminated

as possible by contextual factors, whether individual, social, or historical. We acknowledged two initial sets of difficulties. The first had to do with the isolation of compositional features from everything else in a picture (color and subject matter, for example) that plays a role in the evocation of emotion; the second concerned the definition of types of response. We have continued to assess the problems of evaluative criteria; of modes and modality; of parallel processing; and the more general problem of moving from aspects of vision (say, saccadic eye patterns and the issue of saliency) to emotion. The latter move is the crux.

We took two broad kinds of compositions: relatively simple geometric ones, and more complex ones such as paintings. Some paintings from the past contain compositional elements so plainly salient that they may usefully be compared, in terms of the responses they evoke, with plainer geometric compositions devoid of color or iconography. They thus offer the possibility of testing the correlations between composition and emotion more satisfactorily than pictures where the elements of composition are less obvious or less overtly striven for by the artist. The work of the seventeenth-century French painter Nicolas Poussin offers a large number of possible examples. Many of his paintings have compositional structures so clear (and so self-consciously devised, as we know from his writings, his drawings, and his own experiments in composition¹) that the elements of their geometricity appear much stronger, and leave a more lasting impression in the mind, than those in most other figurative paintings in the history of art. Thus, Poussin offers a superior test case for the emotional effects of overall compositional structure, apart from the interferences of color, subject matter, and more apparently decorative structural elements. All this might seem to be a matter of mere impressions, but it hardly needs to be said that mere impressions are to be taken seriously when it comes to the relationship between pictures and the potentially correlative mental effects they generate. Moreover, Poussin offered an interesting set of reflections on just the problem of the relationship between composition and the arousal of emotions in the "soul of the beholders" (as he himself put it). These reflections will form the central text of the first part of this paper. They revolve round an old notion of the musical modes.

I remain unmoved by the argument that the kinds of emotions pictures (and music) arouse are too refined to fall within the scope of the neurosciences. The argument that the most we can now say about the emotions is on a relatively gross level ought not to block research into the correlations between visual composition and emotion, however refined such emotion may be declared to be (or however contaminated by contextual factors). In the meantime, I offer a case study in the history of the modes that seems to me to

constitute an interesting prolegomenon to the problem, not only because of the following:

- The paintings of Poussin present a kind of compositional clarity not often found in other pictures (in them, I believe, composition is indeed so clear that it is less likely, at least in the context of immediate or “early” vision, to be contaminated by issues of color, iconography, expression, etc.).

But also because:

- The historical problem of the modes offers an entirely different way of thinking about modality from current conceptions of that notion;
- The historical parallel with the musical modes—see the skeletal postlude here—points once more to the single issue that has for so long stymied serious study of the relations between aesthetic objects and emotion—namely, that the emotions are too ragged and irregular to be amenable to any kind of rule or law.

The commitment here is to a belief that neuroscientific work (by Damasio, Le Doux, and many others) may introduce order into the general raggedness of talk about emotion and counter our loose inclination to regard emotion—especially when not gross or strong—as a psychoanalytic issue rather than a neural one.

The Modes

The idea of the modes in art (and in painting in particular) was not a common one, at least not until the middle of the seventeenth century. But from then on, it enjoyed a fairly long vogue. Its introduction into the mainstream of the history of art is due to the influence of one man alone.

On November 24, 1647, the French painter Nicolas Poussin wrote a long letter from Rome to his friend and patron Paul Fréart de Chantelou in Paris. “Those fine old Greeks,” he said at one point, “inventors of everything that is beautiful, found several modes by means of which they produced marvelous effects” (Poussin 1911, 372–73).² What did Poussin mean by the “modes,” and what meaning could they have for us?³

In 1647, Poussin painted a *Finding of Moses* for Jean Pointel (see <http://theartfulmind.stanford.edu>), one of several he did of this comparatively unusual subject, and a scene of *Ordination* (part of a cycle of the Seven Sacraments) for Paul Fréart de Chantelou (see <http://theartfulmind.stanford.edu>).

Pointel and Chantelou were Poussin's most important French patrons, though certainly not as important for his art as Cassiano dal Pozzo in Rome, for whom he painted the first series of Sacraments just before his brief return to Paris in 1641-1642. Pointel was a banker and a bachelor, and he eventually owned twenty-one of Poussin's loveliest paintings. He was also the most private of men—unlike Chantelou, who along with his brother Roland Fréart de Chambray was instrumental in what might be called the classicization of French art under Richelieu, Mazarin, and Colbert. It isn't surprising that Chantelou should have commissioned a series of the Seven Sacraments (an extremely unusual subject) in direct emulation of the earlier set, painted for Cassiano, in which Poussin displayed his famous knowledge of the archaeology both of early Christianity and of classical antiquity.

But Chantelou was evidently not satisfied with his painting of *Ordination*. He was constantly looking over his shoulder, and as we learn from a famous letter by Poussin to him in November 1647, he seems to have felt that Pointel's *Finding of Moses* was the better picture. Art historians may think that this is a bit like comparing apples and oranges, and Poussin obviously thought so, too. Quite exasperated by Chantelou's nagging, he wanted to settle the problem once and for all.

"[I]t is easy to dispel your suspicion that I honor you less and that I am less devoted to you than to others," he wrote in a petulant letter to Chantelou.

If this were so, why should I have preferred you, over a period of five years, to so many persons of merit and quality who ardently desired that I should do something for them and who offered me their purses? Why was I satisfied with such a modest price that I would not even accept what you yourself offered me? And why, after sending you the first of your pictures composed of only sixteen or eighteen figures—so that I could have made the others with the same number or fewer in order to bring such a long labor to an end—why did I enrich them further with no thought except to obtain your good will?

If you find the painting of the finding of Moses in the waters of the Nile which belongs to M. Pointel so attractive, is this a reason for thinking that I did it with greater love than I put into your paintings? (Poussin 1911, 371-72)

Then he had an idea. He would try to explain something very basic about pictures to Chantelou. Not having quite the right arguments to hand for painting, however, he turned to an example from the theory of music to explain what may seem obvious to us: that different subjects require different

treatments. But he went still further than this, suggesting that different treatments might have different effects on the beholder.

Can't you see that it is the nature of the subject, and your state of mind [*disposition*], which has caused this effect, and that the subjects I am depicting for you require a different treatment? The whole art of painting lies in this. Forgive my liberty if I say that you have been too hasty in your judgment of my works. To judge well is very difficult unless one has great knowledge of both the theory and the practice of this art. Our senses alone ought not to be the judge, but reason too.

This is why I want to tell you something of great importance which will make you see what has to be observed in representing the subjects of paintings.

Those fine old Greeks, inventors of everything that is beautiful, found several modes by means of which they produced marvelous effects.

This word "mode" means, properly, the *ratio* or the measure and the form we use to do something, which constrains us not to move beyond it, making us work in all things with a certain middle course or moderation. And so this mediocrity or moderation is simply a certain manner or determined and fixed order in the process by which a thing preserves its being.

The modes of the ancients were composed of several things put together; and from their variety there arose certain differences between the modes; and from these one could understand that each mode retained in itself a certain distinctiveness, *particularly when all the things which entered into the composition were put together in such proportions that there arose the capacity and power to arouse the soul of the beholders to diverse emotions* [emphasis added]. Observing these effects, the wise ancients attributed to each [mode] particular effects arising from each one of them. For this reason they called Dorian the mode that was stable, grave, and severe, and they applied it to matters that were grave, severe, and full of wisdom.

And passing on from this to pleasant and joyous things they used the Phrygian mode because its modulations were more refined [*plus menus*] than those of any other mode and its aspect sharper. These two manners and no others were praised and approved by Plato and Aristotle, who deemed the others useless; they held in high esteem this vehement, furious, and highly severe mode that strikes the spectators with awe.

I hope within a year to paint something in this Phrygian mode; frightful wars provide subjects suited to this manner.

Furthermore, they considered that the Lydian mode was the most proper for mournful subjects because it has neither the simplicity of the Dorian nor the severity of the Phrygian.

The Hypolydian mode contains within itself a certain suavity and sweetness which fills the soul of the beholders with joy. It lends itself to divine matters, glory, and Paradise.

The ancients invented the Ionian which they employed to represent dances, bacchanals, and feasts because of its cheerful character.

Good poets have used great diligence and marvelous artifice in adapting their choice of words to their verse and disposing the feet according to the propriety [*convenanse*] of speech. . . . So, when [Virgil] is speaking of love, he has cleverly chosen certain words that are sweet, pleasing, and very gracious to the ear. Where he sings of a feat of arms or describes a naval battle or accident at sea, he has chosen words that are hard, sharp, and unpleasing, so that on hearing them or pronouncing them they arouse fright. If, therefore, I had painted you a picture in which this manner was followed, you would imagine that I did not love you.

Were it not that it would amount to composing a book rather than writing a letter, I would like to bring to your attention several important things that should be considered in painting, so that you could fully realize how much I exert myself to serve you well. For though you are very knowledgeable in all matters, I fear that the company of so many insensitive and ignorant people of the kind that surround you may corrupt your judgment by contagion.

I remain, as always, your very
humble and most faithful servant,
Poussin.

(Poussin 1911: 373-74)

Obviously there is much here that requires comment (the relation between reason and the senses, for example, and the predictable parallels between painting and poetry); but I want to concentrate on what may seem the most arcane part of the letter—namely, the part in which Poussin talks about the modes and his strange references to the grave Dorian, the sharp and warlike Phrygian, the suave Hypolydian, the cheerful Ionian, and so on.

Where does all this come from? It comes, as Anthony Blunt discovered in 1933,⁴ from ancient music theory. In fact, what Poussin wrote about the

modes is little more than a direct plagiarism from Gioseffe Zarlino's *Harmonic Institutions*,⁵ first published in 1553 and reprinted many times for the rest of the century. But this is no reason not to take his ideas seriously. After all, while most of us can recognize the possibility that different kinds of music might stir us differently, the idea that different kinds of pictures move us in different ways would seem rather more resistant to formulation in any clear-cut or systematic way. Indeed, scholars of Poussin have mostly avoided the topic altogether. The usual approach to this letter has been either to dismiss it as simple plagiarism or to see it in terms of the twin doctrines of decorum and of the *affetti*.⁶ That is, Poussin has been understood to be making the rather conventional claim that the expression of the emotions *within* the paintings should somehow be appropriate to the kind of subject to be depicted. Poussin himself wrote in 1637 of another painting which he did for Chantelou, the now almost unreadable picture in the Louvre of *The Israelites Gathering the Manna*, that there were "certain natural attitudes within it" that enabled one

to see in the Israelites not only the misery and hunger to which they were reduced, but also the joy and happiness in which they found themselves, the amazement by which they were touched, the respect and the reverence they had for their leader; with a mixture of women, children, and old men, and of different temperaments.⁷

It was this kind of reading of a picture that was taken up in the famous *Conférences* or lectures in the French Academy of Painting from around 1667 on,⁸ and this is exactly how almost all scholars have tried to deal with the problem. Much of the literature on Poussin and very many of the early commentators on his work, from the late seventeenth century onwards, have expended great effort analyzing the ways in which one or another of Poussin's modes was expressed within one or another of his paintings.⁹ Large quantities of ink have been spilt in order to establish what the particular "modes" of individual paintings could be, and whether a particular subject was expressed in a mode suitable or adequate to that subject. But this is not what Poussin intended, however much his descriptions of the modes may suggest this.

Of course, it may be that we perceive a picture or a piece of music to be severe, say, but that it does not make us feel severe. Expression of emotion, however, is not the real subject of Poussin's letter; the excitation of the emotions is. Expression is evidently bound up with more than composition alone entails (such as, for example, color and subject matter). The stimulation of a feeling¹⁰ may be dependent on expression in a picture, too, but the aim of the project outlined here (as well as the central focus of Poussin's letter) is to move toward the establishment of correlations that precede the contextual

information on which, to a large extent, expression depends. This, however, is not the place to offer distinctions between expression and the excitation of emotion.

To return to Poussin: he was not simply pointing to the difficulty of finding the right modes by which to express the relevant emotions of the actors in pictures. Nor was he making a case for the expression of the moral and emotional character (the *ethos*, as it was then called) of a picture or its actors. The basic issue for him, as the letter makes clear, is the arousal of emotion, not the putative expression of emotions within a picture. Nor was he especially concerned with the issue of how correctly to read the emotions expressed in a painting or by its protagonists.

To view Poussin's letter in any of these ways seems to me to gloss over its most crucial and interesting passage. After all, he himself clearly and articulately observed that "each mode retained in itself a certain distinctiveness, particularly when all the things which entered into the composition were put together in such proportions that there arose the capacity and power to arouse the soul of the beholders to diverse emotions." This is the central claim of the letter. It goes far beyond the injunctions in his letters of ten years earlier about the *Gathering of the Manna* to "read the story and the painting [*lisez l'histoire et le tableau*] in order to know whether each thing is appropriate to the subject [*afin de connaître si chaque chose est appropriée au sujet*]" (Poussin 1911, 21). This notion, certainly, was based on the old parallelism between texts and paintings and on the notion of decorum and appropriateness. But the point now was much more radical. It had little to do with *reading* a picture. It implied—or rather, it stated outright—that a composition may be put together in such a way as to arouse the soul of the beholders to particular emotions.

With music this seems self-evident, commonsensical, intuitive, and consistent with our experience—but with painting? Or sculpture? Or architecture? And could such modes be specifiable for pictures? Could, furthermore, the correlative emotions for the way particular pictures are put together be established? I think that anyone who reflects on these questions will realize instantly that a positive answer would entail a view of the relations between pictures and spectators that is not solely dependent on context. Such a view is predicated instead on the possibility of being able to establish certain rules, and assumes that particular kinds of responses are in fact innate. One has, therefore, to ask whether the kinds of correlations Poussin was suggesting might be both universal (which is what the letter implies) and universally applicable. After all, Poussin said that the modes were specifiable and that the effects of pictures on their beholders could be directly correlated with how they were composed and how they looked.

No one, as far as I know, has taken any of this sufficiently seriously to analyze the possibility that Poussin might indeed have been claiming not only something important about responses to images, but also something basic. I think he was. Furthermore, I believe that what he had to say has powerful implications for the philosophy of mind and for how we think about the architectonics, as Kant would have put it, of mental operations. None other than Bernini, that most sensual of sculptors, seems to have caught something of this when, pointing to his forehead, he remarked (upon seeing the painting of the pictures in Paris in 1665) that "*Signor Poussin è un pittore che lavora di là*"—"Signor Poussin is a painter who works from here" (Thuillier 1960, 127, and also in Thuillier 1994, 177). When I wrote *The Power of Images* (Freedberg 1989), I deliberately refrained from suggesting anything either about human nature or about the possibility of innate levels of response—although some critics caught some hint of that. But I now believe that I was not radical enough. My own sense is that Poussin was right, and that one ought to be able to establish a syntax of correlations between pictures and responses—and that this syntax is in principle discoverable through the idea of the modes.

In his letter, Poussin does not, of course, offer anything remotely approaching a full-blown theory. It is not simply (or at all) the traditional problem of justly expressing the emotions of the figures painted in accordance with the subject of the painting. Nor is it just a matter of decorum. Rather, it entails the production of effects in the mind of the spectators, "*une puissance de induire l'âme des regardans à diverses passions*," as Poussin so clearly put it (Poussin 1911, 373). It is true that Poussin has simply substituted *l'âme des regardans* for Zarlino's *gli animi de gli ascoltanti*. However clear the borrowing, the changes are crucial. And there are two significant ones. First, the change from "hearers" to "beholders"; second, from "souls" to "the soul." Implicit in this latter change is the notion, however unconscious in Poussin, that one may indeed speak of the generic soul rather than of particular souls. The mind is singular, not plural, and as such is analytic.

But what is it in pictures that actually causes the soul to be moved to different emotions? Let us turn to the body of the letter. Most of it, as Blunt noticed, comes from Zarlino. There seem to be three factors at stake: first, variety—that is, the varied ways in which the elements of the composition are put together; second, difference—that is, the difference that produces variety; third, proportion—that is, the proportional relationships between the elements of a composition upon which the diversity of emotional effects actually depends. If we remained solely concerned with the problem of the *difference* of effects, then all this has some logic to it; but if we think of how the effects themselves are actually produced, then it all seems rather abstract and vague.

And the idea of the regulatory possibilities of proportion seems much easier to grasp in the case of music than in that of pictures, since in music they are so obviously confirmed by repetition. How, for example, could one speak of the beat of pictures or of the beat of pictorial effect? The pulse of music may be slow, languid, frenetic, or insistent, and stir one's body to approximately concomitant feelings; but how could one begin to speak of the pulse of pictures? Poussin's letter leaves the problem wholly unresolved.

At the heart of the letter lies the definition of the modes. "Mode," says Poussin, "*signifie proprement la raison,*" and reason is "*la mesure et forme de laquelle nous nous servons à faire quelque chose. laquelle nous abstraint à ne passer pas outre.*" Reason is measure, and as shape or form entails boundedness, constraint, and limit. Constraint and limit ("*ne passer pas outre*") are constitutive of the reason that is mode. At this point the letter seems to take a disappointing turn, for Poussin goes on to speak of the "*médiocrité et modération*" which reason makes us apply to all things.

But we should be careful not to take "*médiocrité*" in its modern sense of a quality that betokens something somewhat ordinary. Nor is this *mediocritas* simply to be understood in terms of the *via media* so beloved of seventeenth-century neo-stoic philosophy. This, of course, at least partly anticipates its modern meaning, referring to something that avoids the excitement of one extreme or another—something tame, safe, ordinary, *not* extreme. But when Poussin (like Zarlino) speaks of "*médiocrité et modération,*" he deliberately makes explicit his awareness that measure entails limits and that its extremities are formally bounded. Indeed, the claim he makes in the final section of this paragraph is what ties it together and gives it its profound consistency: "this mediocrity and moderation is nothing else but a certain determinate order, and has a closure to it by which the thing conserves its being."¹²

This is the fundamental and complex core of the paragraph, and it forms the basis of the ideas of variety, difference, and proportion set out in the next part of the letter. Poussin himself may not have been fully aware of the dense philosophical implications of his extract from Zarlino, but they are fundamental to any understanding of the efficiency of the modes. Being entails conservation; it has to be conserved in order to be; it can never be purely open. Pure openness is the enemy of being. If being were purely open, it would lose its life, terminating in nonbeing; and nonbeing can have no effect. The being of being consists of its own immanent closure and determinacy, or rather, as Poussin puts it, its determinate order. But how is this affective order preserved?

Poussin omits (or rather, he probably forgets to transcribe) Zarlino's crucial addition to his definition of the mediocrity that constitutes being—namely,

the fact that the closed and determinate order that conserves something in its being does so "by virtue of the proportion to be found in it": "*Imperochè tal mediocrità, o moderazione non è altro, che una certa maniera, over ordine terminato e fermo nel procedere per il quale la cosa si conserva nel suo essere, per virtù della proportione, ch'in essa si ritrova*" [emphasis added], says Zarlino.

Order and closure in music, just as in pictures, are only possible by virtue of proportionality. It is proportion that drives the conservation of order and determinacy. Proportion determines closure and thus constitutes order itself. Order changes with changes in proportion, and the distinctiveness of each form depends on proportional variety, the "*je ne sais quoi de varié*" of the next paragraph. Both Zarlino and Poussin insist that it is the proportion used in a composition that generates the power to induce the soul of viewers (or listeners, as the case may be) to different emotions. Each proportion has its peculiar, distinctive, and describable effects. None of this may seem to be sufficient to explain the actual *production* of effect, only the difference between effects. But to conclude in this way would be a mistake. Since proportion always entails rule—each proportion must have its own rule—there must also be a rule-bound correlation with effect. Consider how traumatic it would be, in this kind of reading, if one could stipulate nothing more specific about the relation between proportion and effect! This is one task that must be undertaken.¹³

All this is likely to arouse deep skepticism. I am not now primarily speaking of the relations between perceptual rules and how a picture looks. These, too, are relations whose rules may presumably be discovered, and much cognitive work has been done in this domain; but in proposing a *tertium quid* I am indeed taking a further leap. Even if we assume that we may establish a syntax for the relations between how pictures look and how we cognize them, I believe that there is a further syntactical level: between the look of a picture and the emotions it arouses. And the rules for that syntax, I believe, are innate and specifiable. The general view, of course, is exactly the opposite. This more popular view holds that the emotions are not subject to reason or to any specifiable set of rules; and that very little if anything can be said about the relations between pictures and feeling that is not purely contextual or idiosyncratic. That, of course, is not a view I share.

Key Characteristics

If the idea of the modes and the specific emotional qualities associated with them was uncommon in painting (though perhaps more common than

usually assumed), this was not at all the case with the idea of the modes in music. As we have already seen, it was at least as old as the Greeks, and it has played an important role in all musical theory and much musical practice (from chant through Beethoven) ever since. But one of the problems in music was whether the modes were somehow equivalent to the keys; and with respect to the keys and the emotions associated with them—what have appropriately been called key characteristics—the evidence is abundant, much more so than has generally been acknowledged. “The search for pertinent material was full of surprises; I never knew where I would stumble upon another list of key characteristics,” wrote Rita Steblin in her book on the subject. “It is clear,” she went on, “that the topic cannot be ignored” (Steblin 1983, xi and 1). Here is one such list from the seventeenth century:

PROPERTIES OF THE MODES

C Major	Gay and warlike
C Minor	Obscure and sad
D Minor	Grave and pious
D Major	Joyous and very warlike
E Minor	Effeminate, amorous, and plaintive
E Major	Quarrelsome and peevish
E-flat Major	Cruel and severe
F Major	Furious and quick-tempered
F Minor	Gloomy and plaintive
G Major	Quietly joyful
G Minor	Serious and magnificent
A Minor	Tender and plaintive
A Major	Joyous and pastoral
B-flat Major	Magnificent and joyous
B-flat Minor	Gloomy and terrifying
B Minor	Lonely and melancholy
B Major	Severe and plaintive ¹⁴

Much plaintiveness, as if to cover the possibility of some more precise emotion.¹⁵

It was in the air, this association of particular emotions with particular aspects of musical composition, this need to introduce rule into the correlation between the composition of a work and the emotions it aroused. Our list comes from Marc-Antoine Charpentier's *Rules of Composition*, written around 1692 for the young Philippe d'Orléans; it was by no means the only such list

in the seventeenth century, but perhaps the most detailed. About thirty years later, Jean-Philippe Rameau's chart *De la propriété des modes & des Tons*, from his *Traité de l'harmonie*, would make a similar set of connections;¹⁶ but by then such ideas, however much they may have been theoretically renewed, adapted, and refined, were stale. In all of them, as Rameau's heading makes clear, and as Poussin insists in his letter on the modes, the classical idea of decorum remains in the foreground. The emotions a piece of music expressed, or aroused, had to be fitting to its subject, just as with painting. Let us turn the clock back to times when these ideas were more urgent, less overtly mechanistic, and then remind ourselves of the central period—Poussin's—when they were articulated in such a way that they might still be of relevance to the neurophilosophical problems we are pursuing.

Charpentier's list is headed "properties of the modes," but it seems to provide nothing more than a list of keys with their emotional correlates. This was the commonest way in which the modes were understood in the seventeenth century and after. For the ancient Greeks, too, the modes (the Greeks had only eight) corresponded, very roughly, with our notion of key signatures; and they, too, thought of the modes both as representing particular emotions and as capable of provoking them with similar particularity. But can it be only a matter of key, however understood? Of course not. As everyone knows, there is much more to music than key that can affect its hearers—modulation from one key to another, rhythm, harmony, and melody, for example. Not surprisingly, the modes were often taken to be something else besides these, or a composite of various aspects of a musical composition. Then there was the perpetual issue of the relationship between music and its texts. In fact, this remained the central issue, if not always explicitly so, in every discussion of the relationship between the modes and the emotions, from the earliest times at least until the eighteenth century. And so it is not at all surprising that in his letter about the modes, Poussin should have begun by insisting that Chantelou attend more carefully to the determining role of the subjects of the pictures that had provoked their *contretemps* in the first place.

Charpentier offered two justifications for his list. First, and straightforwardly enough, there was the need to accommodate different vocal ranges. But second—and much more importantly—there was the list's potential utility as a guide to "the expression of the different passions, for which the different key properties [*energies*, significantly enough] are appropriate." (Always the need for the appropriateness and propriety of properties, as if propriety were the chief constitutive element of property.) But if it all were simply a matter of key, the task would be relatively simple, at least in principle. It would not be much different from, say, attempting to establish the *moods* of

particular colors in pictures (in which case "mood" would not implausibly serve as a rough substitute for "mode," and color as a rough equivalent for key). But just as there is more to music than just key, so too there is more to painting than color. Certainly to speak only of color would not satisfy the full implications of Poussin's letter at all.

In 1640, in the wake of a cruel musical competition set up for him by Marin Mersenne, Johan Albert Ban, a slightly crazy and certainly obsessive priest and music theorist of Haarlem, wrote a letter to the famous Dutch bluestocking Anna Maria van Schuurman, in which he assigned emotional qualities to the consonances, thus:

minor third:	soft, bland, and languid
major third:	energetic
fourth:	harsh, because it cannot be divided into two harmonic intervals
fifth:	heroic and martial
minor sixth:	more flattering and languishing than the minor third, because it is a wider interval
octave:	merely pleasing, because it has no power of moving ¹⁷

Ban went on to observe that the dissonances could also affect the emotions in specific ways, but these he did not outline, as they were in his Latin treatises on music, which are now lost. The issue of musical modulation intervenes here, too;¹⁸ but all this raises another and conceivably more crucial possibility for the ways in which cognition and emotion may be understood to interact in works of music and the visual arts—namely, the matter of intervals between notes or what in painting could be called proportion. This is an issue that will be developed in future work on our project. But first the project must identify the ways in which emotions issue from the engagement of the body by the picture (or by clusters of pictures).¹⁹

To appeal to the mimetic powers of music to explain its effects on its listeners is even more vague than to appeal to mimesis in the case of pictures, unless we also attend to the *means* of mimesis (or "expression," for that matter). It could perhaps be argued (although I think it should not be) that for Poussin and other seventeenth-century writers about art, the idea of the modes did not entail the formal means of a picture; but still one would be left with the problem of the relations between how a picture looks and the emotions it arouses. One approach to the problem may be via theories of music often said to be irrelevant to Poussin and his contemporary commentators. Obviously, I believe that those theories *were* relevant—that the seventeenth-century view of the modes as adumbrated by Poussin contains a key to understanding the

relations between seeing pictures and reacting to them with the body and mind, and with the emotions that spring from the incorporation of the body into cognition.

NOTES

1. See, for example (and especially), Blunt 1967, 241–47.
2. My translations from Poussin are adapted from Blunt's generally excellent ones (Blunt 1967), which I have modified where they seemed wrong or in need of clarification.
3. For the ways in which the general problem of the modes was viewed with regard to the visual arts, see the fundamental article by Bialostocki (1961). Bialostocki, however, overlooks the interpretation of the modes outlined in the present article.
4. In his unpublished Trinity College, Cambridge, Fellowship thesis "Poussin's Contribution to the Theory of Painting" of 1932, as noted (and partly published) by Alfassa 1933, 125–43.
5. Zarlino's text on the modes is to be found as Chapter I of Part III of the *Istitutioni harmoniche*; the passages adopted and adapted by Poussin are also reproduced by Alfassa 1933, 138–43.
6. For incisive remarks about the *affetti* (the expression of emotions in the characters of a painting—or even of a story—in such a way, sometimes, as to elicit comparable emotions in the beholder), see Cropper and Dempsey 1996, 13, as well as Dempsey 1989.
7. Poussin 1911, 4–5; Poussin to Stella, ca. 1637, as reported by Félibien 1725, 26.
8. As published in Jouin 1883 and Félibien 1725. See, for example, Jouin 1883, 48–65 and 93–94, as well as Félibien 1725, 412–13.
9. For instances of both modern and earlier attempts, see Freedberg, 1999, 311–38.
10. For a critical distinction between emotion and feeling, see Damasio 1999, 279–95.
11. Now in the Walker Art Gallery in Liverpool.
12. In the interests of clarity I have eliminated some of the vagueness of the original: "*telle médiocrité et modération n'est autre que une certaine manière ou ordre déterminé, et ferme dedens le procéder par lequel la chose se conserve en son estre*" (Poussin 1911, 373). "*Mediocrità o moderazione*" are exactly the words Zarlino uses in his chapter on the modes; cf. Zarlino 1589, I, 378.
13. A strong argument, however, has been made against doing anything of the kind. In his 1985 essay on Roger de Piles, Thomas Puttfarcken argued vigorously against the view that the modes entailed the formal and abstract means of expression in a work. He denied that an understanding of Poussin's use of the modes could be attained by anything approaching what in modern terms would be called "formal analysis," or "by describing a composition using abstract terms like horizontal or vertical" (Puttfarcken 1985, 30–34). For a further outline of Puttfarcken's position and a refutation of it, see Freedberg 1999.

14. My translation from the transcription in Ruff 1967, 250–51.

15. For an important discussion of the distinction between emotions, feelings, and background feelings, see Damasio 1999, especially 275–95. Damasio's distinctions are plainly applicable to lists such as these, in which emotions and various forms of more or less conscious feelings are lumped together—in a way that does not, in my view, harm the project outlined in this paper. When a version of this paper was published for the Web conference Art and Cognition, 2002, several respondents objected to my claims on the grounds that these particular keys may evoke responses other than the ones cited here (see <http://www.interdisciplines.org/artcog/papers>). But no one—at least I do not think so—would want to claim that C major, for example, is universally “gay and/or warlike,” or that E-flat major is always perceived as “cruel and severe.” This is not what my argument entails at all. It may well be that such descriptions of our responses to the keys are merely partial, occasional, meager, inadequate, or even plain wrong. They may be culture-bound; they may depend on personal circumstance (as will the strength of such responses, too). All I want to suggest by offering examples such as this one (and the one cited by Ban below) is that we attend to the principles at stake in the historical claims for the relations between particular modes, or key characteristics—call them what you will, whether in music or the visual arts—and particular responses.

16. Cf. Steblin 1983, 38, citing Rameau 1722, 157.

17. Mersenne 1967, X, 30, 33; Walker 1976, 239–40. See again D'Amasio 1999, especially 275–95, for a discussion of what he refers to as “background feelings,” such as harmony, calm, etc.

18. Ban was especially interested in the “wonderful arousals of the emotions” produced by modulations to remote keys, which he alleged caused strong contrasts of emotion, thus heightening the overall emotional effect of a piece. Cf. Walker 1976, 240.

19. A topic I address in my unpublished “Giotto's Struggle,” a further historical case study of a problem (the structuring and sequence of the episodes on the walls of the Arena Chapel in Padua) with considerable neuroscientific interest.

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