

THE THREE PLEASURES OF MIMĒSIS ACCORDING TO
ARISTOTLE'S *POETICS*

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English version revised by Linda Blake

In the seventeenth and eighteenth centuries, modern thinkers thought that the essence and ultimate finality of arts consisted in "imitating nature." In so doing, they were often appealing to the authority of ancient philosophers, and in particular to Aristotle. Yet it is well known that they were misinterpreting the ancients. When the latter spoke of *technē* (pl: *technai*), they did not mean what we now call the arts (in the sense of "fine arts"); they were referring to technique or "know-how." Therefore, the ancient theory according to which "art imitates nature" is by no means an aesthetic theory; it is at most an explanation of processes of production for artifacts in general.

However, I believe the ancients, and specifically Aristotle, *did* indeed create a concept to subsume all and only those activities we call "artistic," identifying their essential unity. He called them "imitating arts" (*technai mimētikai*). The coexistence in Aristotle's work of this concept with the idea that "art (in general) imitates nature" has been a matter and the source of great confusion in recent centuries. To develop these ideas, I will focus on the following interrelated points: first that Aristotle introduced a hybrid concept of *technē mimētikē* in his *Poetics*, second that even if every art imitates nature, it is not *this* relationship that defines "imitating arts," and third that the constitution of this complex concept allows us to explain the different pleasures people feel through works of art, and in particular to distinguish the pleasure that springs from their imitative function (the pleasure of representation), from that derived from their artistic form (aesthetic pleasure).

ART, IMITATION, AND "IMITATIVE ARTS"

Aristotle invented the concept of "mimetic arts" (*technē mimētikē*),¹ which is very akin to our concept of "fine arts," by combining two heterogeneous concepts: the concept of "art" (*technē*) and the concept of *mimēsis* (which I will translate by "imitation" or "representation").

The Greek word *technē* refers to a skill in some field, and to the knowledge on which it is based (the “know-how”). In *Nicomachean Ethics*, Aristotle claims this *technē* to be the virtue of *making*, the *poiein*. Making, contrary to doing (*prattein*) and to contemplating (*theorein*), does not have its “end” in itself, but in a product, the work. For example—these are the two favorite examples given by Aristotle—medicine “makes” (or “produces”) health, just as building “makes” (or “produces”) a house. The virtue by which something is well made is based on true knowledge of it: this is *technē*.² It can therefore be compared to nature (*physis*). Both *technē* and *physis* are “principles of movement,” that is, the ultimate cause of any change; like natural processes, technical operations may be explained by their end result. But while a natural being develops of its own accord and carries in itself its own completion, the principle and end of an artificial operation lie not in the operation but outside it, respectively in the artist (the principle) and in the product (the end result). While nature is the principle of a finalized movement that lies in the moved thing,³ *technē* is the principle of a finalized movement that lies outside the moved thing.⁴

Let’s take a closer look at the meaning of *mimēsis*. Aristotle does not give any definition of it. This word commonly refers to the act of miming someone (or something), and more generally to every kind of imitation or representation. In Aristotle’s view, *mimēsis* is a natural human activity in the sense that it is both spontaneous before being technical (“artistic”), and universal, even if only the most talented individuals accomplish it perfectly.⁵ Just as most arts are not mimetic, so most mimetic arts are not technical.

By crossing this concept of *mimēsis* with the concept of *technē*, Aristotle invented a new way to categorize experience: mimetic arts lie at the intersection of regulated activities (as opposed to informal, spontaneous, or improvised) and of imitating activities (as opposed, especially, to “productive” ones). Coming under this new concept of *technē mimētikē* (representative art) we find “literature” (Aristotle’s anonymous invention⁶), painting, sculpture, music and dance—that is, what we call the “fine arts” today, a very astonishing collection for the ancients, and especially for the Platonic minded.⁷ But differences do exist between our modern concept of “fine arts” and the Aristotelian concept of representative arts. To speak of fine arts is primarily to refer to *works* (novels, statues, paintings, symphonies, ballets, and so on). But by *technē mimētikē*, Aristotle primarily means *acts*; he does not refer to things made, but to modes of making. In fact, art is some kind of methodical making, and *mimēsis* also designates making, the making believe, the

imitating act (either of someone, or of some action or emotion); it is not a product (a painting, a statue, a tragedy)—these are called the *mimēmata*. This is why, if we view painting—or sometimes poetry—as the preeminent fine art (for its result is a self-sufficient and self-subsistent product), the ancients and in particular Aristotle, considered drama to be the preeminent *technē mimētikē* (for its result is not a product but an action that depends on agents and that does not subsist beyond the time of its representation).

The homogeneity of the concept is thus the following: *technē mimētikē* is methodical know-how (that is its “genus”) used to produce representations (that is its “specific difference”), as opposed to nonproductive arts or to nonrepresentative productions). And yet even though they are both considered to be “arts” from the standpoint of “production” and not of “contemplation,” *technē* and *mimēsis* are not on the same plane of experience. *Technē* is a particular determination of productive activity (artistically achieved as opposed to being naturally achieved). *Mimēsis*, on the contrary, defines a particular relationship between the product and nature (it mimes nature). The concept of *technē mimētikē* is consequently characterized by two relationships, the relationship a person has with it (*technē*), and the relationship it has with the world (*mimētikē*). What the work owes to art, it owes in connection with its producer; what is “mimetical” in the work it owes to the work’s connection with the reality represented,⁸ producer and reality being both prior and exterior to the work itself. And these two relationships—that is, the technical and “mimetical” relationships—move in opposite directions with respect to nature. To say that a production belongs to art, is to say twice over that it is *not* dependent on nature: it is made by humans, (as opposed to natural beings, which do not depend on humans), and it has been achieved by humans according to rules of art (as opposed to “natural” activities, that is, those that are not learned, not transmitted, not regulated). But to say that a production belongs to *mimēsis* is to say that it *is* dependent on nature, because it represents a natural reality that exists independently from humankind.

THE TWO “IMITATIVE” RELATIONSHIPS BETWEEN ART AND NATURE

Imitative Arts and the Imitation of Art

We must now distinguish two kinds of relationships between art and nature through *mimēsis*. Imitating nature is the purpose of only *some* arts, the *technai mimētikai*, those that create works representing something that

exists naturally. But all arts qua arts mime nature since, as the famous Aristotelian expression puts it, "art imitates nature."⁹ This does not necessarily mean that art creates an image of nature, but that it proceeds like nature. For Aristotle, this statement is not only intended to clarify how art proceeds, but also how nature proceeds. What he means is that we can understand nature if we consider art as its explicative model, since art takes nature as its real model in its *modus operandi*. It does this in two ways: first, like natural production, every artistic production "informs" a material, that is, it organizes several parts into a whole, which would indicate that the material cause is subordinated to the formal cause; second, in natural production as in artistic production, the successive operations are subordinated to their end, that is, in both cases the chronological order of productive causality is opposed to the rational order of real causality, meaning the efficient cause is subordinated to the final cause.

We can see the extent to which modern thinkers misunderstood the Aristotelian expression in having made it the slogan, justification, and essence of fine arts. In reality, the expression "art imitates nature" is not prescriptive, but descriptive. It does not indicate what art should *intend*, nor what any particular work of art should *represent*, it simply characterizes an operating mode. It does not define the static relationship between works and their model from the point of view of the spectator, but compares two dynamic processes of production from the point of view of the maker. Moreover, it does not concern fine arts ("imitative arts"), but art or skill in general. For it is not qua imitative but qua arts that imitative arts imitate nature.

We must therefore distinguish two ways of "making like nature": it is both making *the way* nature makes, and this is what any art does, whether it is imitative or not, and it is also making (or mimicking) *what* nature makes—and this is what any *mimēsis* does, whether it is artistic or not. "Mimetic art" is mimetic twice over: being an art, it imitates natural production, and being mimetic, it imitates the natural product. We may infer from this what might be called the *double* four-causes theory of mimetic art: the first theory considers art as a process of making, and is developed in Aristotle's *Physics*; the second theory considers art as a process of imitation (*mimēsthai*) and is developed in Aristotle's *Poetics*.¹⁰

The Double Four-Causes Theory of Mimetic Arts

In *Physics* (II, 3) Aristotle presents the famous "four causes" (or "types of explanation") theory, and illustrates it with artistic production. Being a product of making, the statue is explained in a fourfold manner by the

matter out of which it has been made, by the form given to this matter, and by the acts of the maker who aimed at producing an achieved work. In the same manner, the first four chapters of the *Poetics* can be read as a four-causes theory of *mimēsis*. In this case, any mimetic production (the statue or even a tragedy) is not considered as a product of *technē* but as an effect of *mimēsis*. Indeed, in the very beginning of the *Poetics* (ch. 1, 1447a13–17), Aristotle states that imitations (*mimēseis*) "represent with different media, or represent different things, or represent in different ways." He thus announces the subject matter of the first three chapters of the treatise, in which he deals with the material (ch. 1), the formal (ch. 2), and the efficient causes (ch. 3) of *mimēsis*.

Matter In general, the *matter* of something is the answer to the question "what is it made of?" which means "what has it been made from?" and "what constitutes its parts?"¹¹ But a *technē mimētikē* work has two different kinds of matter, depending on whether it is considered the product of *technē* (as theorized in the *Physics*) or the product of *mimēsis* (as theorized in the *Poetics*). The matter of a work of art is for example bronze, wood, and even sound, which is shaped by the artist. The matter of mimetic works varies in relation to the types of representation and designates the medium "in which" (1447a17) the representation is made: each imitation has its own medium. This question, dealt with by Aristotle in chapter 1 of the *Poetics*, leads him to an initial classification of the fine arts in relation to the medium: sculpture, the medium of which is shapes (*schēmata*, 1447a19), painting, the medium of which is shapes and colors, and so forth for literature (art of language), instrumental music (art of rhythm and melody), dancing (art of rhythm and shapes), and singing (art of melody and language).

Form In general, the *form* of something is the answer to the question "what is it?" Once again, we can distinguish the form of a mimetic work *qua* work of art and *qua* mimetic work. The first is the "configuration of the whole as such" that the working artist has in mind. The other differentiates the *mimēseis* according to *what* is represented (1447a17). The form of the representation is thus a reality coming from the artist's mind. *What* the *mimēsis* represents—this will be its form. So generally, every *mimēsis* is the representation of at least a possible if not an actual reality (see ch. 25, 1460b7–11). More specifically, each mimetic art has its own form of representation, and this leads Aristotle to make a second classification of them in chapter 2 of the *Poetics*.

Summarizing this chapter with chapter 5 of book VIII of the *Politics*, we can infer the following: the intent of every imitation is to mime acting persons; music represents their temperaments, literature represents actions,¹² and the visual arts represent persons in action.

There are consequently two ways of identifying the “form” of a mimetic work of art: what is it that the artist has done, that is, what is it as a work of art? (Answer: A statue of Zeus.) And what is it that the work represents, that is, what is it as a mimetic work? (Answer: Zeus hurling his lightning bolts.)

Efficient Cause Let’s now examine the third cause, the “efficient” cause, which again is not the same depending on whether we consider the work *qua* art or *qua* representation. The efficient cause of *technē* is the artist (Polycleitos or Sophocles) or the gestures he or she makes according to the rules of art. The efficient cause of *mimēsis* is not who or what makes the work, but what in it *makes it represent* something. And of course this depends on the *way* (*Poet.* 1, 1447a17) of representing. This is dealt with in chapter 3 of the *Poetics*. For example (it is the only one given by Aristotle), there are two main ways of representing actions as the poet does: the narrative way (1448a21–23)—as in the epic form, where the motor of representation is somehow external to the moved thing (*Poet.* 3, 1448a19–24)—and the dramatic way, where the motor of representation is somehow internal, since acting individuals (the “actors”) are representing by their acts other acting people (the “agents”).

Final Cause What is the fourth cause, the *telos*? Any art *qua* art, whether it is imitative or not, aims at producing and achieving a work. This is true for medicine, which produces health, for building, which produces a house, for painting, which produces a drawing and for poetry, the work of which is “the plot.” But any *mimēsis qua mimēsis*, whether it is artistic or not, has a different end: it is simply *pleasure*. This is the main concept of chapter 4 of the *Poetics*, which establishes the “natural causes of the birth of poetical art as such.” Considered from the point of view of their final cause, there are no differences among the mimetic arts, whatever differences they may have in terms of media, objects, and ways of representation. There is only one reason why representation (*mimēsis*) exists: it is simply because people naturally enjoy both making and contemplating representations.

We must now analyze this pleasure, which is the single final cause of all the imitative arts. Again, we will discover that this pleasure is two-

fold: the first kind of pleasure corresponds to imitating (the processes of) nature as every art does; the second corresponds to imitating nature as only mimetic arts do.

PLEASURE: THE FINALITY (END) OF EVERY IMITATION

For Aristotle, pleasure is simply a natural state of being signifying the perfect accomplishment of a natural function in a living being.¹³ This raises two kinds of questions about a representative work of art. Does it give pleasure to those who perform it (the artists)? Does it give pleasure to those for whom it is performed (the spectators)?

The Artist's Standpoint

From the artist's standpoint, we must again distinguish what depends on art from what depends on mimetic activity. According to the definition of pleasure that implies an “achieved process,” there cannot be any true pleasure in making, but only in having made—except when “making” and “having made” are coincident:¹⁴ the musician (not the composer, but the interpreter) finds pleasure in playing music because it is an activity whose result cannot be separated from its making.¹⁵ The true pleasure of a painter or a poet does not come from making a work (painting, tragedy) or from making it well, but from having made it, and from having made it well, just as for a doctor, pleasure does not come from curing the patient but from seeing him or her healthy. (But if there is no pleasure in art *qua* art for the artist, there must be pleasure in the artist's work as a work for the audience. We will examine the spectator's pleasure a bit later.)

But if we consider *technē mimētikē* *qua* mimetic, this completely changes things for the artist himself or herself. *Mimēsis*, whether it is artistic or not, is a natural activity, the mere practice of which is pleasant.¹⁶ This is the pleasure the agent of any mimetic activity feels, whoever he or she is, whether an inexperienced child or a skilled artist.

Moreover, not only does imitating a natural activity give pleasure to anyone who does it, and humans indulge in it specifically for this reason, but the mimetic arts are also natural beings having a natural history. Arts are born naturally and grow spontaneously from informal mimetic activities.¹⁷ The *Poetics* (chapter 4) describes the three stages of the natural history of poetic art: the embryonic stage (1448b5), corresponding to a universal innate tendency to imitate and to a natural instinct for melody and rhythm (1448b20); followed by the birth of art (1448b22), corresponding to the individual innate gift of some people for improvisation;

and finally, the maturity of the arts, marked by their differentiation into genres (1448b24–26). Mimetic arts are thus doubly natural: as mimetic they at first coincide with an anthropological disposition for imitation, but since “nature never acts in vain,” they naturally grow to a technical stage, because as *technai* (arts), they satisfy another natural human tendency: in fact, not any special need (as for the other arts), but merely a disinterested delight, or as Aristotle puts it in his *Metaphysics*,¹⁸ some pleasure. Pleasure then is afforded to humans not only by *mimēsis*, by the act of representing, but also by its result, the *mimēma*. The work of mimetic art does not afford the artist with any natural pleasure of art, but with the natural pleasure of imitating. Let’s now consider the problem from the standpoint of the spectator for whom the work is destined. The spectator’s pleasure depends on both the “artistic” (technical) aspect of the work, and on its mimetic aspect. A work pleases because it is well made and because it represents well.

The Spectator’s Standpoint

The different pleasures of contemplating a work of mimetic art are explained by Aristotle in chapter 4 of the *Poetics*:

Men have . . . a tendency to enjoy representations. Practical experience provides proof of this: we enjoy looking at the most refined images of things we can’t bear to see in reality, for example the shapes of animals absolutely vile or of corpses, because learning is not only a pleasure for philosophers but also for other men . . . The reason why men enjoy seeing an image is, that in contemplating it they find themselves learning or inferring, and saying perhaps, “Ah this is that.” For if you happen not to have seen the original, the pleasure will be due not to the imitation as such, but to execution (*apergasia*), or the colouring, or some such other cause. (*Poet.* 4, 1448b6–19)

This text points to at least two principal types of pleasure evoked by a work of art. The first is associated with the mimetic function and depends on the way the spectator connects the representation to the thing represented. The second type is explained in the last sentence quoted above and depends on the image itself. But I believe that this final dense sentence distinguishes two kinds of pleasure of the second type of pleasure: the pleasure afforded by colors, and that afforded by the quality of execution (*apergasia*). There are thus three kinds of pleasure: the pleasure that is purely sensory (the colors), the pleasure felt by contemplating the perfection of execution—both based on image

alone—and the intellectual pleasure resulting from comprehending the *relationship* between the representation and the thing represented. I will first attempt to define these three pleasures, then to show, setting the first one aside because it is linked to the natural activity of our senses, that the other two depend on *technē mimētikē*, the first stemming from the proper effect of art (*technē*), the latter from the effect of *mimēsis*.

The Sensory Pleasure Provided by a Work of Art I will not spend much time on this type of pleasure because it depends neither on *technē* nor on *mimēsis*. Aristotle gives the example of the colors in a painting. According to his view, color only embellishes drawing, which is the representative element of painting. This is also the case with poetry. In the spectacle of a tragedy, rhythm, melody, and singing are not used in their mimetic function but only as sensory ornaments of the plot, which, being expressed through language, the very medium of poetry, is the only representative element of tragedy. Rhythm, melody, and singing afford only a sensory, additional pleasure, being both “extratechnical” and extramimetic. Aristotle calls them “seasonings” or “embellishments” (*hēdusmata*).¹⁹ The “seasonings” of tragic language are rhythm, melody, and singing, that is, representation media that are foreign to literature—the proper medium of which is language. They belong to other mimetic activities (music and dance). In the tragic spectacle, these media are not used in their mimetic function but only as sensory ornaments. They play the same role as color does in relation to drawing in painting: the drawing represents and color embellishes. In theater, language represents and music embellishes. The “seasonings” add sensory pleasure that is deeply felt,²⁰ but they are called *atechnon*, because strictly speaking they are neither “art” nor “representation.”²¹

This pleasure is derived solely from the activity of the senses. According to the definition of pleasure, the senses afford pleasure when they are used naturally, when there are no limits to their activity, and when they are exercised merely for the sake of themselves. This pleasure is at most the sign of a natural activity.²²

The Pleasure of Artistic Representation Let us now consider the pleasure of representation. How does it function? This pleasure can be understood by comparing the text of the *Poetics* with a portion of the *Rhetoric* (I, 11, 1371b4–11). According to Aristotle, it is possible to feel very great pleasure through the contemplation of unpleasant images if as

a result we can make a deduction ("this is that") and in so doing, learn something.

The problem is to understand what "this is that" means. It is clear that *this* means the representation (whatever it may be, picture, statue, tragedy, and so on), and that *that* is its model. But exactly what do they stand for? It is not, for example, "the image of Coriscus" and "Coriscus"; what could we learn in merely recognizing Coriscus? But it could mean something like: "these colored patterns on the wall are Coriscus." This interpretation sounds better. Here we have a real task of deduction from the matter of the representation to its form. The shift from the thing representing to the thing represented is not immediate: I must be able to perceive the shapes as a whole, and to recognize in a two-dimensional drawing the three-dimensional patterns of Coriscus. Pleasure follows from this: "yes, it's him, it's *really* him." (We may compare this pleasure with the pleasure we feel when we look at a family picture album.) And learning also follows from this. We learn to see Coriscus himself in his represented figure or profile; we see him, so to speak, as presented to our mind and recognition alone, to pure contemplation; his form is detached from anything else, his body hidden. Here lies, in my opinion, the learning and pleasure of *mimēsis*. In visual *mimēma*, we learn to see things, to merely *see* them, by identifying them. The process by which we recognize beings through their portraits is the perceptive transposition of the scientific question: "what is this?" Thus, each thing, each person, can be subsumed by its various representations; we learn to identify the thing or person via its representation in different media. We therefore learn perceptively what they are; this is exercising our senses for the sake of pure pleasure.

This interpretation of "this is that" is certainly relevant but still insufficient. If it can be said in the case of painting that "this" designates shapes and colors, it cannot be said that "that" designates Coriscus. The true form of *mimēsis* is not nature in general, nor humans in particular, but more specifically, acting humans. The true meaning of "this is that" in this case must be something like: these drawn and colored patterns on the wall are "Coriscus fishing" or "Socrates conversing" or "a mother mourning for her son." Not only do we learn to recognize specific people, we also learn to recognize the specific way they express their affections. It is through such representations that we learn to know and understand the human heart.

And this also happens in tragedy, which, through the plot, represents action. We can understand how the general pleasure of compre-

hending, which is evoked by any spectacle of imitations, becomes a specific pleasure when evoked by tragic imitation. A tragedy is mimetic of an action in which noble individuals appear, an action that is one. Its strictly imitative motor is thus the story (the *mythos*; see *Poet.* 6, 1450a3), which is to tragedy what drawing is to painting, its "soul" (6, 1450a39-b3): it is the "soul," strictly speaking, that mimes the action. Therefore, the strictly imitative pleasure is that which comes from the narrative and not from the personalities of the heroes. Tragic pleasure is linked to the work of tragic narrative, which is to "represent" (*mimētikēn*) frightening and pitiful events (13, 1452b31-33). The "frightening" and the "pitiful" are objective attributes of the succession of events the story represents.²³ The spectator who feels fright and pity thus experiences the appropriate affections when confronted with the situations presented, a sign that the spectator's emotive activity is functioning properly, apart from the fact that there is nothing really painful actually occurring, since tragedy is only representation. *We thus feel the pleasure of emotive activity without the pain.* The conclusion drawn from this in the next chapter is: "it's not just any pleasure that poetry must produce, but the pleasure that is proper to poetry. But since the pleasure the poet should afford is that which comes from pity and fright through imitation, it is evident that this quality must be impressed upon the events" (14, 1453b11-14).

But we will not go into a detailed analysis of tragic pleasure here. Suffice it to say that drama, like painting, both being considered as *mimēma*, brings cognitive pleasure that, however complex, is still linked to identification: we learn to know and recognize what beings, and especially what humans are, with their different temperaments, drawn for us by means of an exposé of their features. Like all visual arts, painting answers the question "what is it?" Considered as a *mimēma*, drama also brings cognitive pleasure linked to the succession of acts and events that constitute the plot. But drama does not answer the question "what is it?" (nor the "is there?" question), it only answers the "what?" and "why?" questions,²⁴ "what?" meaning "what's going to happen next?" and "why?" meaning "why did it happen?" For the spectator, understanding the plot is always based on two constantly repeated questions, one of which is prospective: "what will happen next?" (which can never be answered with certainty); the other of which is retrospective: "why did it happen?" (which can always be answered with certainty but with a constantly changing response). Drama relies on our experience of the world in order to expand our knowledge of it.

The third type of pleasure for the spectator of a work is also cognitive, but it is not evoked by *mimēsis*, but by art itself.

The Pleasure of Artifice There is another pleasure afforded by mimetic works of art that is neither sensory nor linked to mimetic function: it is the effect of art itself. We feel pleasure in admiring the artist's labor, the perfection of his or her work: *apergasia*. This unusual word²⁵ would appear to designate the quality of an image well done, implicating know-how and skill that distinguish the artist from the amateur.

This third pleasure can best be understood by comparing it with the pleasure Aristotle describes in *Parts of Animals*. In this text, Aristotle demonstrates that one can feel pleasure in contemplating ugly animals the moment one recognizes the work of nature in them, just as one admires a sculptor's or a painter's work. This pleasure is not based on connecting the image to its model (its formal cause), but to the agent's art (its efficient cause). The image is well done qua image. We admire the artist, whether a human being or nature. This admiration has the capacity to convert displeasure into pleasure. We can enjoy contemplating the image of an unpleasant being, admiring how the artist has managed to give it an organic unity, and we can also enjoy contemplating its natural model, provided that at the same time we admire how nature has succeeded in giving a living being its organic unity. The pleasure we feel in freely contemplating any natural being (dealt with in Aristotelian biological treatises) must therefore be compared with the pleasure we feel in contemplating a technically successful artifact (dealt with in the *Poetics*: the *apergasia*); this is *not* the pleasure of recognition (which comes from *mimēsis*). This is why we find a theory relating to this third type of pleasure throughout the *Poetics*, the pleasure afforded by the arrangement of parts into a whole, resulting from the artist's talent and the work of *technē*.

Chapter 7 of the *Poetics* in particular describes the formal qualities of "the arrangement of events" that a tragedy must have in order to afford this artistic pleasure, which is set apart from the mimetic element of the plot, affording the intellectual pleasure of recognition and understanding. A tragedy must have consistent parts constituting a single whole, as opposed to chance, in order to imitate finality. The idea of totality is complemented with the idea of unity. The plot must develop a unified action that forms a whole. And the pleasure, which results from apprehending the unity of the whole, is greater when it results from a higher number of parts. This is the *maximal* principle (the maximum

number of elements in the biggest unity), provided the totality does not exceed a specific limit, defined by the second rule: not too big, nor too small, the standard being, in space, the spectator's range of vision (1450b39–51a1) and, in time, the spectator's memory.

We can finally comprehend what this pleasure is: it results from what we call beauty. Beauty is the effect of *technē*, and more specifically, it comes from the work of composition achieved by the artist. Aristotle bases the rules of art (*technē*) on the general principles, which are justified and altogether illustrated in natural beings, and, in particular, in living beings. For living beings too are the organized unity of different elements answering to a single finality, life—that is, the preservation and perpetuation of being as such. The rules of beauty are not, in consequence, rules of mimetic work as such (what we would call the work of Art), but rules of the artistic work as such (what we would call the technical or artificial). A work of art is not beautiful because it imitates nature (for imitated nature can itself be ugly), but because it has been made with art—that is, it has been made by imitating nature, in the sense that any art imitates natural processes by proceeding rationally, by subordinating the material cause to the formal cause, and by organizing the maximum number of elements into a whole. In this, nature acts like art.

CONCLUSIONS

It is generally thought that the concept of the fine arts, which groups together arts having no other purpose than that of pleasure and disinterested contemplation, is an eighteenth-century invention. In reality it goes back to antiquity, to Aristotle's concept of imitative arts. But if the extension and the finality of imitative arts are the same as those of the fine arts, Aristotle's concept is viewed from the standpoint of the artist and not from the standpoint of the spectator.

It is generally thought that for the ancients, the natural was opposed to the artificial, and that between the two there was a simple and asymmetrical relationship of imitation. We have seen that this is not the case. "Every art imitates nature" does not mean that it reproduces it, it means that the two modes of making are isomorphic. Without nature, it would be impossible to proceed artificially, without art it would be impossible to understand how nature naturally proceeds.

It is generally thought that the "imitation of nature" is the definition par excellence of artificial activity. For Aristotle it is nothing of the

sort, first of all because imitating nature is a natural activity, at least for humans, secondly because such activity only becomes "artistic" at the end of a historical process, itself conceived as a natural process of development.

The relationships between the artificial and the natural become more and more complex in the concept of "imitative art," which intertwines art in general as imitator of nature, and imitation as a natural activity of humans; *mimēsis*, while being a natural activity, does represent nature, but art, while imitating the natural process, does not represent nature. The imitative arts are thus imitative twice over. As arts they imitate the natural production process, and as mimetic they imitate the natural product. From this twofold perspective results a twofold theory of the imitative work of art: as a product of art, it contains, paradoxically, all the characteristics of natural production (the same type of material cause subordinated to the formal cause, the same type of efficient cause subordinated to the final cause), and inversely as an effect of mimetic activity, it contains matter, forms, efficiencies, and singular ends that are specific to imitation and that are not those of nature, nor those of art, but bear witness to the autonomy of the sphere of representation. This twofold nature of imitative arts is also translated into the twofold nature of the pleasure imitative works give to the artist and to the spectator: the pleasure that depends on their artistic dimension and the pleasure that depends on their mimetic dimension, disregarding a third pleasure, which is purely sensory and which points to the fact that our senses are functioning properly. What is amazing and once again reveals the distance between the ancient and modern positions, is that the aesthetic pleasure of representation is first of all a pleasure of knowledge and recognition. Conversely, the pleasure linked to the contemplation of the beauty of a work of art is the same pleasure one experiences in viewing any well-made artificial object, and it is again the same pleasure one experiences in viewing any natural object (considered only for its own sake). Nature and art afford their contemplators the same pleasure.

NOTES

1. There is such an expression in Plato, but it is depreciatory: *technē mimētikē* is a type of "productive" *technē (poiētikē)* designed to produce images, not realities (Plato, *Soph.* 265a–b).

2. It is a "state involving true reason (*logos*) concerned with production" (Aristotle, *Nic. Eth.* VI, 4, 1140a21).

3. See Aristotle, *Phys.* II, 1, 192b20.

4. See Aristotle, *Metaph.* XII, 7, 1070a7.

5. See *Poet.* 4, 1448b424.

6. See *Poet.* 1, 1447a28–b13.

7. In Plato there is no *technē mimētikē* in this specific sense for at least three reasons: (1) he generally refuses to give to poetry (and to rhetoric for similar reasons), the title of *technē*, that is, methodical know-how; (2) there is no *single* concept designating linguistic *mimēsis* in general: some forms of *mimēsis* are highly valued (the "Socratic dialogue" for example), others are completely disregarded; (3) Plato never puts music (nearly always highly valued) on the same level as the other imitative arts (which are almost always disregarded).

8. See S. Halliwell, *Aristotle's Poetics* (Chapel Hill: University of North Carolina Press, 1986), 51.

9. This expression can be found in *Physics* II, 2, 194 a 21 (see also *Meteor.* 381b6, *Protrept.* B 13, 14, 23), but it is in another passage of *Physics* (II, 8, 199a8–20; see also *Part. An.* I, 1, 640a16 et *Pol.* VII, 17, 1337a1–3) that Aristotle develops the idea.

10. Based on a remark made by V. Goldschmidt, *Temps physique et temps tragique chez Aristote* (Paris: Vrin, 1982), 209–210.

11. See *Phys.* II, 3, 194b23.

12. A noble action in tragedy, a vulgar action in comedy (*Poet.* 6, 1449b24).

13. See Aristotle, *Nic. Eth.* X, 1174b23–33.

14. See Aristotle, *Metaph.* IX, 8, 1050a23 sq.

15. See Aristotle *Eth. Nic.* X, 4, 1175a13–15. This text refers to the playing musician and not to the composer in the modern sense of the word. It is probably the same for the actor as opposed to the dramatic poet: "two-stage" arts (creation/interpretation) give pleasure to the artist (the interpreter), whereas "single-stage" arts do not give pleasure to the artist as such.

16. See *Poet.* 4, 1448b5–7.

17. On the natural history of the arts, see in *Pol.* VII, 10, 1329b25sq., the periodic reinvention of arts propelled by need.

18. See *Metaph.* I, 981b15, and 981b18, 22.

19. By "seasoned language I mean language that contains rhythm, melody and singing" (6, 49b28–31). Elsewhere, singing is said to be the most important of tragedy's "seasonings."

20. In tragedy there is another "seasoning," the "spectacle" (*hopsis*), having to do with what we would call today artistic direction or stage management, and concerning

which Aristotle explicitly states that the control of its effects is not, strictly speaking, "art." Refer to his comments concerning music, which he places on the same plane as "spectacle." Tragedy possesses all that which an epic possesses, plus "music" and what would be considered "spectacle," whence springs the deepest-felt pleasures.

21. Indeed, the proper effects of tragedy (for example pity) can be produced by extratragic means and in particular by means of the "spectacle." But producing these effects by this means cannot be considered "art," it is a matter of artistic direction. It is the same as producing fear, or rather the monstrous.

22. See Aristotle *Eth. Nic.* X, 4, 1174b14 sq. on vision, and also X, 3, 1174a14.

23. Similarly in 9, 1452a1–3: "the purpose of representation (*mimēsis*) is not only an action and its achievement, but also frightening and pitiful events."

24. On these four types of questions ("is there?" and "what is?," "what?" and "why?") and their relationships, see Aristotle, *Anal. Post.* II, 1–2.

25. See Plato, *Prot.* 312d.

4

ART AND NATURE IN ANCIENT MECHANICS

Mark J. Schiefsky

4.1 INTRODUCTION

In this chapter I discuss the art-nature relationship in antiquity with special reference to one important ancient art or *technē*: mechanics. Although different ancient authors express different views about the goals, methods, and scope of mechanics, they tend to agree in conceiving it as a *technē*, an art or science, involving a combination of various kinds of theoretical and practical knowledge. In a range of sources from the third century BC to the third century AD, mechanics is typically described as a *technē* that includes a wide range of fields, from the theory and practice of building machines for lifting heavy objects to the construction of artillery engines and automata.¹

This chapter addresses two primary questions. First, how did ancient writers on mechanics conceive of the relationship of their *technē* to nature or *physis*? Second, what did these views on the art-nature relationship imply about the ability of mechanics to provide knowledge of nature? According to one line of modern interpretation, advocated by F. Krafft in a series of influential publications, mechanics in antiquity was universally viewed as bringing about effects that were "contrary to nature" (*para physin*); as a result, it is claimed, the study of mechanics could yield no knowledge of nature. Krafft often describes the goal of ancient mechanics as the "tricking of nature" ("Überlistung der Natur"), and claims that it was only in the early modern period—in the work of Galileo in particular—that the view arose that mechanics follows nature and its laws rather than working against it.² What exactly Krafft means by the tricking of nature is not immediately clear, but the opposition he sets up between tricking nature and following natural laws, as well as his emphasis on the association between mechanics and wonder-working or trickery that can be found in a number of ancient authors, suggest that he understands the tricking of nature to amount to the production of a break or suspension in the order of nature, where this is understood