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Platonic Legacy (4th century BC) - part 1

- Recherches

- Vers un nouveau paradigme scientifique ?

- Sur le concept de rythme - Nouvel article

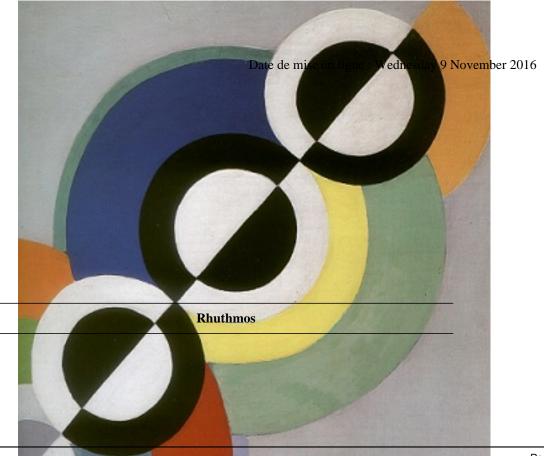


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Previous chapter

In the second part of the 4th century BC, despite the general Platonic framework in which rhythm theories were elaborated and, in some cases, a certain rigidification of Plato's teachings, many new insights were introduced. The main agent of this renewal is Aristotle but his contribution is remarkably large and complex. In this chapter, I will try to show, how he and a few thinkers of his school opened new paths which are still valuable to us, while simultaneously spreading some of the most idealistic Platonic views.

Time as Number of Motion - Aristotle's Physics (4th cent. BC)

Since Werner Jaeger's studies in the first half of the 20th century, Aristotle (384-322 BC) is most often considered as having slowly rejected most of Plato's metaphysical views and paid ever greater attention to empirical observation. As a matter of fact, when reading the few Aristotelian texts dedicated to rhythm, we find both recessing references to Platonic views and new insights drawn from observation. I will go from the more Platonic *Physics* and *Politics* to the intermediate *Rhetoric* and the most innovative *Poetics*, regardless of their possible chronological order, which is in any case much debated and offers very few hints on the evolution of Aristotle's conception of rhythm.

When Plato, in *The Laws*, defined rhythm as "arrangement/order of motion" (*kinêseos táxis*), time was naturally included in his view but it was not direct object of reflection. Time was defined in *The Timaeus* as "an eternal image" of Eternity "moving according to number" and linked with the periodic return of the heavenly bodies. The earthly becoming was flowing in the most perfect way: according to a cyclical and numbered Time.

In his *Physics*, book 4, Aristotle discusses the preconditions of motion: place (*tlpos*), void (*kenln*), and time (*krlnos*, chapters 10-14). Concerning the latter he retains part of Plato's doctrine. But, simultaneously, he introduces in it some significant novelty. Instead of starting from Heaven and conceiving of Time as an earthly numbered image of Eternity, he begins with the human observation of movement: "*We* measure the movement by the time, but also the time by the movement." In this earthly perspective, time is a constant attribute of motion and does not exist on its own but is relative to the movements of things, while these movements are themselves relative to time.

Not only do we measure the movement by the time, but also the time by the movement, because they define each other. The time marks the movement, since it is its number, and the movement of time. We describe the time as much or little, measuring it by the movement, just as we know the number by what is numbered. (*Physics*, book 4, 220b, trans. R.P. Hardie and R.K. Gaye)

So Aristotle endorses the Platonic conception of time as numbered flow but he translates it onto subjective ground: "Time is just this, he says, number of motion *(arithmòs kinêseos)* in respect of 'before' and 'after'" that "we do perceive."

A little further down, Aristotle specifies his thought and firmly puts aside any metaphysical definition. Time is not number as "that with which we count"; in other words, it is not a kind of Pythagorean reality generated *by numbers*. Rather, time is number in the sense that it can be numbered or counted *by us*.

Hence time is not movement, but only movement in so far as it admits of enumeration. A proof of this: we discriminate the more or the less by time. Time then is a kind of number. (Number, we must note, is used in two senses both of what is counted or the countable and also of that with which we count. Time obviously is what is counted, not that with which we count: these are different kinds of things.) (*Physics*, book 4, 219b, trans. R.P. Hardie and R.K. Gaye)

This subjective yet arithmetic nature of time explains why it is both continuous and infinitely divisible.

It is clear, then, that time is "number of movement in respect of the before and after," and is continuous since it is an attribute of what is continuous. [...] Every line is divided *ad infinitum*. Hence it is so with time. (*Physics*, book 4, 220a, trans. R.P. Hardie and R.K. Gaye)

Later on he defines time as "a measure of motion and of being moved." The becoming now flows according to the most perfect measure: the numbered Time.

Time is a measure of motion and of being moved $[\frac{1}{4}-\ddot{A}\dot{A}_{i}\frac{1}{2}\circ\frac{1}{2}@\tilde{A}\mu\dot{E}\dot{A}\circ\frac{1}{2}v\ddot{A}_{i}\frac{2}{2}o\frac{1}{2}\mu\ddot{O}\tilde{A}_{j}\frac{1}{2}-m\acute{e}tron$ kinêseôs kaì toû kineîsthai] (Physics, book 4, 221a, trans. R.P. Hardie and R.K. Gaye)

When Aristotle finally gets to the "regular circular motion" or the "movement of the sphere," it is because they provide us with the best "measure" there is to calculate our earthly human time. In other words, compared to Plato, he proceeds the other way around while maintaining the equivalence between the flow of time and that of numbers. If then, what is first is the measure of everything homogeneous with it, regular circular motion is above all else the measure, because the number of this is the best known. Now neither alteration nor increase nor coming into being can be regular, but locomotion can be. This also is why time is thought to be the movement of the sphere, viz. because the other movements are measured by this, and time by this movement. (*Physics*, book 4, 223b, trans. R.P. Hardie and R.K. Gaye)

This partly new conception of time lays the foundation of physics for numerous centuries to come. It will still be used until the 17th century scientific revolution, which will criticize it while conserving some parts of it. But, as far as we are concerned, it also lays the foundation for a "scientific" approach to musical rhythm, which will soon be described by Aristoxenus, a pupil of Aristotle, as a series of observable time segments organized according to numbers and proportions. The "order of motion" (*kinêseos táxis*) will then be subject to the "measure of motion" (*métron kinêseôs*). But before going on with music, we need to look at politics, rhetoric and poetics.

Form as Law of Change - Aristotle's Physics (4th cent. BC)

In Aristotle's *Physics*, there is one instance in which rhythm is explicitly thematized. Discussing the various conceptions of nature *(phúsis)* before him, Aristotle cites Antiphon the Sophist (5th cent. BC) who wrote a treatise known as *On Truth*, of which unfortunately only fragments survive. Antiphon, says Aristotle, identified "the nature or substance of a natural object" with that "immediate constituent of it which taken by itself is without rhythm" $(\acute{A}\acute{A}, \cancel{14} \ddot{A} \ddot{A}; \cancel{12} - arrúthmiston)$.

Some identify the nature or substance [" $i \partial \mu \ddot{O}$ " ! $\mathcal{R}\{\tilde{A}^{1}\hat{A}^{\circ} \pm v ! i \tilde{P}Aw \pm - Doke\hat{i} d'\hat{e} phúsis kai \hat{e} ousía]$ of a natural object with that [primary] constituent of it [$Ax \dot{A}\dot{A}\ddot{O}\ddot{A}i'_{2} / \dot{A}\dot{A}\dot{Q}\dot{A}\dot{C}i'_{2} - t\dot{O} prôton enupárkhon]$ which taken by itself is without [rhythm] [$\dot{A}\dot{A}\{ \sqrt[1]{1}\ddot{A}\ddot{A}i'_{2} < B'_{2} > \circ_{\pm}i' \pm \dot{A}\ddot{A}y - arrúthmiston < \dot{O}n > kath' eautó]$, e.g. the wood is the "nature" of the bed, and the bronze the "nature" of the statue. (*Physics*, book 2, 193a, trans. R.P. Hardie and R.K. Gaye, my mod.)

In *Metaphysics*, 5 Aristotle repeats the same idea. Among the various meanings of the term $\mathcal{A}E\tilde{I}A^{1}A$ he notes that it sometimes refers to the primary material, " $\dot{A}A\tilde{I}A \cdot U \gg \cdot - pr\hat{o}t\hat{e} \, \hat{u}l\hat{e}$ ", of which an object is made. But the raw, unformed matter of which an object consists is " $\dot{A}A\tilde{I}_{\lambda} / \tilde{A}A\tilde{I}_{\lambda} A - unrhythmized$."

Again, "nature" means (d) the primary stuff, [arrhythmic/shapeless] and unchangeable [$\dot{A}\dot{A}_{,}^{J}\tilde{A}\ddot{A}_{,}\dot{A}$ $D^{J}_{,}\dot{A}_{,}\dot{A}^{,0} \pm v \ ^{J}_{,}\mu\ddot{A} \pm^{2}}$ ® $\ddot{A}_{,}\dot{A}^{,}$ - arruthmístou óntos kaì ametablétou] from its own potency [$^{o}\ddot{A}\mathcal{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\mu\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A}^{,}\dot{A}^{,}\dot{A}^{,-1}\mu\dot{A}^{,}\dot{A$

These two short analyses give us a hint on another conception of nature, close to Leucippus' and Democritus', which considers it as being per se "without any rhythm," i.e. any shape. Nature is an amorphous ground that seems to "continuously" support any "process of making," be it human (bed, statue) or natural (living beings), and that allows things to appear, last a certain period of time, before dissolving again and returning to this primordial arrhythmic ground. Since Aristotle emphasizes that this ground has no " $1/2\pm1/4$ ^{1}A - *potency, faculty, power*" of its own, it seems quite different from Leucippus' and Democritus' concept of nature but Aristotle may consider that any materialist doctrine lacks the right notion of dynamism because it makes chance the main reason for the generation and corruption of things and rejects any teleology. We have seen above that in *Metaphysics*, 1.4, 985b, he similarly criticizes the atomists for not paying enough attention to motion, which is obviously untrue and related with his

polemic against their conception of motion devoid both of prime mover and final cause. Or Aristotle may caricature Antiphon's view in order to present it as an absurd artificialistic worldview, whereby any human artifact, be it an object or a law, would be doomed to soon disappear and therefore of no real value. Or Aristotle may think of both reasons at the same time. Anyhow rhythm is here clearly used in a pre-Platonic way as denoting the existing yet impermanent forms that we observe in the world. Even if it contradicts Aristotle's assertion, it is likely that Antiphon's nature consisted in a dynamic, flowing and shapeless/arrhythmic being that constantly produced inconstant *rhuthmoi*.

It seems that this ontological view was accompanied by an ethical and political doctrine of which we know very little, especially because we are not sure whether it was elaborated by the same thinker since there are mentions in other contemporary texts (Thucydides) of a certain Antiphon of Rhamnus who took up rhetoric as a profession, wrote speeches to be delivered in legal courts, and was also a statesman involved in political affairs in Athens (c. 480 - 411 BC). This doctrine has been variably characterized as anticipating anarchy and rejection of state law in the name of nature (Luria, 1925), Kantian autonomy of moral consciousness and natural law doctrine (Bignone, 1974), Sadean amoralism against social norms (Cassin, 1995), Heideggerian existentialist being-toward-death ethics (Sauvanet, 1999), libertarian defense of natural spontaneity and freedom in contrast to the often gratuitous restrictions imposed by institutions (Long, 2016).

These widely divergent assessments provide very few hints on Antiphon's ethics and politics. We must remain cautious but modern interpretations seem to suffer from their poor understanding of pre-Platonic rhythm. A critique of the law as convention developed from a naturalistic viewpoint seems indeed consistent with a rhythmological materialist ontology. Laws may appear as legal *rhuthmoi*, i.e. as impermanent conventional forms. But this does not mean either that convention should be equated with mere individual choice. Since *rhuthmoi* do *naturally* exist, they are endowed with a certain ontological consistency, they produce forms which have a certain duration and collective value. In other words, the law seems necessary to protect both the liberty of the citizens and the interest of the city state and the arrhythmic ground out of which it forms makes it transient and relative as much as powerful and abiding. There seem to be a tense relation between nature and convention that has been forgotten for reasons that we glimpse in Aristotle's critique.

Indeed the latter clearly rejects this conception of nature because it implies that forms are only "incidental" whereas the dynamic and arrhythmic nature "persists continuously through the process of making." In other words, Antiphon grants primacy to matter and regards forms as occurring only by chance. Forms are mere inconsistent and unstable *rhuthmoi*.

As an indication of this Antiphon points out that if you planted a bed and the rotting wood acquired the power of sending up a shoot, it would not be a bed that would come up, but wood which shows that the arrangement in accordance with the rules of the art $[Ät\frac{1}{2} \ ^{0}\pm \ddot{A}p \ \frac{1}{2}y\frac{1}{4}\frac{1}{2} \ ^{1}q_{.}\mu\tilde{A}^{1}\frac{1}{2} \ ^{0}\pm v \ \ddot{A}t\frac{1}{2} \ \ddot{A}sQ\frac{1}{2}\frac{1}{2} \ \cdot ten \ kata \ nom on diáthesin \ kai \ ten \ tekhnen]$ is merely an incidental attribute $[\tilde{A}A\frac{1}{2}\mu^{2.0}x\hat{A} \ Q\dot{A}q\dot{A}Q\frac{1}{2}\frac{1}{2} \ -sumbebekos \ upárkhon]$, whereas the real nature is the other, which, further, persists continuously through the process of making. (*Physics*, book 2, 193a, trans. R.P. Hardie and R.K. Gaye)

It is common knowledge that Aristotle develops his own conception of the relations between matter $(U \sim -h \hat{u} l \hat{e})$ and form ($\frac{1}{2}\hat{A} \neq \mathbb{R} - morph \hat{e}$), the so called "hylomorphic" doctrine, against Platonic metaphysics of Forms, but we see here that he opposes most of pre-Platonic doctrines as well. For Plato, Forms are eternal, immobile and independent, they reside in another world and things are only their defective replica. The becoming world is a degraded version of the real Being. Instead for Aristotle, who thinks that Platonists do wrongly extend to natural science an abstract method that is more appropriate to mathematics, some forms are indeed eternal and external but most of them do not belong to another world, they reside within the things. But this means that Leucippus, Democritus or Antiphon are as wrong as Plato and his followers. They just propose another extreme version giving primacy to matter while Plato gives it to Forms. They abusively reduce the concept of form by considering it only as *rhuthmós*, i.e. an impermanent shape produced only by chance.

According to Aristotle, we need to replace both views by a new perspective allowing to dynamically articulate matter and form through a doctrine of potentiality and actuality. Before one thing appears, it is only material potentiality, *dúnamis*, then it becomes actual through activity, being-at-work, *enérgeia*, and reaches full completion or *entelécheia*, yet a completion that illustrates the *eîdos* that supported the actualization process right from the beginning. Hence among the three non-material kinds of cause form, agent, and end form plays a dominant role and often overlaps with the other two. In *Metaphysics*, Aristotle even claims that forms are "substances" that are the "final causes" of things. Hence, to do natural science as well as art is reaching to the forms within the things through observation of their apparition, completion, movement, transformation and disappearance. These points which are first presented in *Physics*, 2.3 and 2.7 are again elaborated in *Metaphysics*, 5-7-8.

Subsequently, the pre-Socratic concept of form as *rhuthmós*, with its essential instability and lack of any teleological dimension, no longer has any place in physics. It is substituted with a new concept bringing together that of shape with those of immutability and purposiveness.

One may wonder if this change in the concept of form did not pave the way, as much as the new Platonic concept of rhythm itself, to the subsequent re-elaboration of *rhuthmós* by Aristoxenus and others and the oblivion into which the pre-Platonic concept fell from the 4th century BC on. Indeed, form was not any longer to be taken as the unstable result of a process of agglutination of similar atoms but as the principle or the law that sustains and drives the actualization process of the matter potentialities. Thanks to Benveniste, we know that Plato gave to the common concept of *rhuthmós* a temporal dimension. He developed it into an organization of duration, soon to be applied to whatever activity, change or movement was concerned. But the current analysis seems to show that Aristotle created the condition for temporalizing, hardening and generalizing further the concept of rhythm. Although it has rarely been noticed, there are good reasons to think that, concurrently with his new concept of time, the peculiar model of processual ontology that Aristotle delivered and installed for many centuries to come at a prominent place of the Western philosophical landscape, had a tremendous influence on rhythm theory.

1. It was precisely conceived to replace the pre-Platonic ontology based on *rhuthmós*. 2. Although it was supposed to oppose the Platonic ontology based on separate Forms too, it firmly re-introduced a kind of Platonic concern for stability into the question of becoming that had a powerful effect on the concept of organization of duration: concurrently with the more explicit rhythm concept elaborated by Plato, it suggested that rhythm could be defined as a form endowed with immutability, i.e. as an *eîdos*. 3. On top of this, it introduced a new idea that was to became current and according to which rhythm could be defined as a form endowed with purposiveness, i.e. as a *télos*. I will come back to these points below when we deal with Aristoxenus.

Rhythm in Education - Aristotle's *Politics* (4th cent. BC)

In the *Politics* Aristotle exposes his conception of the ideal city. This essay is the counterpart of Plato's *Republic* and *Laws*. The whole, i.e. the state, is largely superior to its parts, i.e. villages, households and individuals.

The city-state is prior in nature to the household and to each of us individually. For the whole must necessarily be prior to the parts; since when the whole body is destroyed, foot or hand will not exist except in an equivocal sense. [...] It is clear therefore that the state is also prior by nature to the individual; for if each individual when separate is not self-sufficient, he must be related to the whole state as other parts are to their whole, while a man who is incapable of entering into partnership, or who is so self-sufficing that he has no need to do so, is no part of a state, so that he must be either a lower animal or a god. (*Politics*, 1253a, trans. H. Rackham)

Nevertheless, within the limits set by this holistic conception of politics and the fundamentally unequal social relations of his time (1254b), Aristotle is much more favorable to the individual than Plato. The state must provide its citizens with the conditions of a good life. The aim of the political community or partnership (${}^{0} \mathcal{E}^{1/2} \dot{\mathcal{E}}^{1/2} - koinôn(a)$) is not to reflect on earth the heavenly perfection, not even to avoid injustice or establish economic stability, but rather to allow the citizens the possibility to perform noble actions and beautiful acts.

After thorough analyses of the various constitutions, Aristotle discusses in books 7 and 8 the best education for the citizens. Like for Plato the latter consists in four chapters: grammar, which includes reading, writing and some elements of arithmetic, gymnastics, music and maybe drawing (8, 1337b).

Concerning music, i.e. melody and rhythm, he endorses most of the Platonic claims while nevertheless taking some distance from them. Music, he says, is not something useful like grammar or drawing, or favorable to good health and strength like gymnastics, but it provides "leisure for free men" (8.1338a). But to specify this quite general characterization he proposes to contrast the concept of leisure with two other categories. He asks whether music should be considered as more than common pleasure like "sleep," "deep drinking," or "dancing," or whether "it contributes something to a noble life of leisure [$\dot{A}\dot{A}x\hat{A}$ ' $^{1}\pm^{3}\dot{E}$ '® $^{1}\!_{2}$ - pròs diagôgên] and education of the spirit [$\dot{A}\dot{A}x\hat{A}$ / $\mathcal{E}\dot{A}\dot{1}'_{2}$ · $\tilde{A}^{1}'_{2}$ - pròs phrìnêsin]" or, as a second alternative, "whether we ought rather to think that music tends in some degree to virtue [$\dot{A}\dot{A}x\hat{A}$ $\dot{A}\mu\ddot{A}$ ® 1 - pròs aretên]." (8.1339a, my trans.) " $^{1}\pm^{3}\dot{E}$ '® - diagôgê - pastime is idiomatically used of the pursuits of cultured leisure like serious conversation, music or drama, but it also means a way or course of life. $|\dot{A}|\dot{X}\cdot\tilde{A}^{\dagger}\hat{A} - phrìnêsis$ is meant here latiore sensu as synonym with gnôsis or epistêmê - investigation or knowledge. ' $\dot{A}\mu\ddot{A}$ ® - aretê means, as usual, goodness or excellence.

Obviously, he says, music belongs to the first two categories since it provides both low-grade amusement, education for the children, and respectable leisure and knowledge for adults (8.1339b). But in order to answer the question whether music could bring more, i.e. virtue, we must "see if its influence reaches also in a manner to the character and to the soul $[^{o}\pm v \dot{A}\dot{A}x\hat{A} \ddot{A}x \&_{,\dot{c}}\hat{A} \tilde{A}\dot{A}'_{\dot{c}}\ddot{A}\mu^{-1/2}\mu^{1} \bullet_{\pm}v \dot{A}\dot{A}x\hat{A} \ddot{A}t'_{\dot{c}} \dot{E}\dot{A}Q^{\otimes/2} - kai pròs tò êthos sunte nei kai pròs tên psukhên] (8.1340a). And the conclusion, as for Plato, is positive but on very different ground.$

Contrary to "the objects of touch and taste" or "the objects of sight," which "contain no representation of character," music affects us deeply because "pieces of music," i.e. "rhythms and melodies" do perform representations of moral qualities "that most closely correspond to their true natures."

And since it is the case that music is one of the things that give pleasure, and that virtue has to do with feeling delight and love and hatred rightly, there is obviously nothing that it is more needful to learn and become habituated to than to judge correctly and to delight in virtuous characters and noble actions; but rhythms and melodies contain representations of anger and mildness, and also of courage and temperance and all their opposites and the other moral qualities, that most closely correspond to their true natures (and this is clear from the facts of what occurs when we listen to such representations we change in our soul). (*Politics*, 8.1339b, trans. H. Rackham)

Aristotle cites Plato and "those who have studied this form of education" to support his claim that each kind of melody or rhythm has a specific psychological effect. As his mentor, he prefers the Dorian mode, and probably the rhythms related to it, which provides balance and stability to the soul, whereas the others throw it into melancholic or enthusiastic states.

This is manifest, for even in the nature of the mere melodies there are differences, so that people when hearing them are affected differently and have not the same feelings in regard to each of them, but listen to some in a more mournful and restrained state, for instance the mode called Mixolydian, and to others in a softer state of mind, but in a midway state and with the greatest composure to another, as the Dorian mode alone of tunes seems to act, while the Phrygian makes men enthusiastic; for these things are well stated by those who have studied this form of education, as they derive the evidence for their theories from the actual facts of experience. And the same holds good about the rhythms also, for some have a more stable and others a more emotional character, and of the latter some are more vulgar in their emotional effects and others more liberal. (*Politics*, 8.1340a-b, trans. H. Rackham - same idea, 8.1342b)

Since it has the power to shape the mind, music is thus well suited for education. It finds a natural outlet in ethics.

From these considerations therefore it is plain that music has the power of producing a certain effect on the moral character of the soul, and if it has the power to do this, it is clear that the young must be directed to music and must be educated in it. (*Politics*, 8.1340b, trans. H. Rackham)

He concludes this section by citing quite briefly one may notice the Pythagoreans' and Plato's opinions about the affinities between tunes, rhythms and soul.

And we seem to have a certain affinity with tunes and rhythms; owing to which many wise men say either that the soul is a harmony or that it has harmony. (*Politics*, 8.1340b, trans. H. Rackham)

After having shown the appropriateness of music to education, in the two following sections Aristotle examines, again like Plato, what makes good tunes and good rhythms, as well as good instruments. He even asks "whether we are to prefer music with a good melody or music with a good rhythm" an interesting question he, as a matter of fact, won't answer.

We must therefore give some consideration to tunes and rhythms, and to the question whether for educational purposes we must employ all the tunes and all the rhythms or make distinctions; and next, whether for those who are working at music for education we shall lay down the same regulation, or ought we to establish some other third one (inasmuch as we see that the factors in music are melody and rhythm, and it is important to notice what influence each of these has upon education), and whether we are to prefer music with a good melody or music with a good rhythm. (*Politics*, 8.1341b, trans. H. Rackham)

As Plato, Aristotle rejects a series of instruments, particularly the cither which demands professional skills and may distract the children from more important achievements, but also the flute, which is associated with the Dionysian cult *(orgiastikln)* and "prevents the employment of speech."

Flutes must not be introduced into education, nor any other professional instrument, such as the harp or any other of that sort, but such instruments as will make them attentive pupils either at their musical training or in their other lessons. Moreover the flute is not a moralizing but rather an exciting influence [$_{i}P^{o} \tilde{A}\tilde{A}^{1}_{i}A \pm P * x\hat{A}$, $^{10}x_{i}^{12} * p_{i}^{12} = 0$ ($\hat{A}^{31}\pm\tilde{A}\tilde{A}^{10}_{i}$) - ouk éstin ho aulòs êthikòn allà mâllon orgiastikìn], so that it ought to be used for occasions of the kind at which attendance has the effect of purification rather than instruction. And let us add that the flute happens to possess the additional property telling against its use in education that playing it prevents the employment of speech. (*Politics*, 8.1340b-1341a, trans. H. Rackham)

The ultimate moral criterion is naturally the wellbeing of the City. Melodies and rhythms must not make the body

frame "useless for the exercises of the soldier and the citizen."

The study of music must not place a hindrance in the way of subsequent activities, nor vulgarize the bodily frame and make it useless for the exercises of the soldier and the citizen, either for learning them now or for practicing them later on. (*Politics*, 8.1340b-1341a, trans. H. Rackham, with correction proposed in note 1)

We see how close Aristotle's opinions remains to Plato's. However we must also observe that he does not endorse all of them. He agrees with his predecessor that music can be used for the education of the citizens and he recalls very briefly as a matter of fact Plato's arguments about the primacy of the *llgos* or the circle linking the musical harmonies and rhythms to the interior movements of the soul, and the latter to the perfect order of numbers and the periodic movements of the stars. Nevertheless, as in *Physics*, his reasoning is actually quite different.

1. Contrary to Plato who was very suspicious about all Dionysian and pleasurable aspects of tunes and rhythms, he recognizes even if he considers that it must be left to "the vulgar class composed of mechanics and laborers and other such persons" (8.1342a) that any music gives a kind pleasure close to "sleep, deep drinking or dancing" (8.1339a).

2. He emphasizes that tunes and rhythms, if properly controlled, provide noble leisure and education of the spirit to "freemen and educated people" (8.1342a).

3. He explains that they may lead to "excellence" because they allow *mímêsis - re-presentation* and finally *kátharsis - purgation*.

Since we accept the classification of melodies made by some philosophers, as ethical melodies, melodies of action, and passionate melodies, distributing the various harmonies among these classes as being in nature akin to one or the other, and as we say that music ought to be employed not for the purpose of one benefit that it confers but on account of several (for it serves the purpose both of education and of purgation $[^{o}\pm v ~^{3}p\dot{A} \dot{A}\pm^{1}\mu^{-}\pm \hat{A} ~^{1}\mu\mu^{0}\mu^{1/2} ~^{o}\pm v ~^{o}\pm ~^{\neg}A\tilde{A}\mu\dot{E}\hat{A} - kai gar paideías héneken kai kathárseôs] the term purgation <math>[\ddot{A}^{-} r ~^{s-3}; ^{1}\mu\mu^{1/2} \ddot{A}t^{1/2} ~^{o}-, \pm \dot{A}\tilde{A}^{1/2} - ti de légomen tên kátharsin]$ we use for the present without explanation, but we will return to discuss the meaning that we give to it more explicitly in our treatise on poetry and thirdly it serves for amusement, serving to relax our tension and to give rest from it). (*Politics*, 8.1341b, trans. H. Rackham)

Aristotle says he wants to postpone the explanation of *kátharsis* until his writing about poetics. But specialists suggest that the very brief passage of *The Poetics* (6, 1449b, 27-28) where he explains that tragedy "purges emotions" like pity and fear by giving them an outlet, is probably not the one that is referred to in this passage of *The Politics*. Indeed Diogenes Laërtius (3rd c. AD) claims that *The Poetics* was composed of two books, therefore we may think that only the first survived while the second, in which *kátharsis* was more fully explained, was lost.

Anyhow, the last pages of *The Politics* give enough clues to gather that here is maybe the biggest difference with Plato, at least in regard to harmony and rhythm. As we saw in the last chapter, the latter strongly rejects all mimetic aspects in music as well as in poetry and theater. For Plato any *mímêsis* opens up the possibility of a dangerous

Platonic Legacy (4th century BC) - part 1

invasion of the human/manly logocentric sphere by insanity, women dirges and chaotic forces. Aristotle on the contrary sees *mímêsis* as a favorable process which procures a "habituation in feeling pain and delight at representations of reality" which "is close to feeling them towards actual reality" (8.1340a). While *mímêsis* in painting does not provide "representations of character but rather the forms and colors produced are mere indications of the latter" (8.1340a), musical representation does better than only reproduce signs of emotion. It *re-presents* the emotions themselves: "Pieces of music on the contrary do actually contain in themselves representations of character." (8.1340a) Therefore rhythmic and melodic *re-presenting* which is also *re-enacting* has very positive effects on the soul, "even apart from the words."

Everybody when listening to representations [$\ddot{A}\ddot{o}^{\prime}_{2} \sqrt{14} @ \tilde{A} \mu \acute{E} \sqrt{2} - t \hat{o} n \ mim \hat{e} \hat{s} \hat{o} n$] is thrown into a corresponding state of feeling, by the rhythms and tunes themselves, even apart from the words. (*Politics*, 8.1340a, trans. H. Rackham, with correction proposed in note 3)

In the last pages of Book 8, Aristotle considers only harmonies but we may induce that rhythms follow the same logic. Some persons who are "liable to pity, fear and religious excitement" are properly cured, "as if they had received medicinal treatment or taken a purge," by listening to "sacred music." Aristotle probably refers in this passage to kinds of Dionysian or shamanistic rituals where tunes and rhythms were used.

It is clear that we should employ all the harmonies, yet not employ them all in the same way, but use the most ethical ones for education, and the active and passionate kinds for listening to when others are performing (for any experience that occurs violently in some souls is found in all, though with different degrees of intensity for example pity and fear, and also religious excitement; for some persons are very liable to this form of emotion, and under the influence of sacred music we see these people, when they use tunes that violently arouse the soul, being thrown into a state as if they had received medicinal treatment and taken a purge. (*Politics*, 8.1342a, trans. H. Rackham)

Similarly, all passions can be overcome by an adequate melodic and rhythmic purgation and the pleasant feeling of relief that accompanies it.

The same experience then must come also to the compassionate and the timid and the other emotional people generally in such degree as befalls each individual of these classes, and all must undergo a purgation and a pleasant feeling of relief; and similarly also the purgative melodies afford harmless delight to people. (*Politics*, 8.1342a, trans. H. Rackham)

While following Plato on most points, particularly on the primacy of the state upon the individual and the definition of rhythm which still seems to amount, as in the *Symposium*, to a combination of long and short, or fast and slow segments, i.e. to an order of a temporal sequence organized according to alternate times, the *Politics* introduces for the first time in rhythm theory considerations concerning the *positive power of rhythmic re-presentations for the individual*. According to Aristotle, rhythm is to be used by the state not only to foster social order but to help the individuals which yet are, according to him, in short number reach a proper life. Rhythm and tune provide the citizens not only with sheer pleasure and noble leisure but also goodness or excellence.

Next chapter