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**Ancient harmony for a new order.  
Mesmerism, music and Timaeus of Locri**



Laboratorio dell'ISPF, XX, 2023

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DOI: 10.12862/Lab23FNM

In his seminal work on mesmerism, Robert Darnton explained the prompt popularity of Franz Anton Mesmer's medical practices in France in light of the «strong popular enthusiasm for science» and the «profusion of cosmologies» in Paris at the time<sup>1</sup>. When the Swabian physician arrived in Paris in 1778, there were indeed multiple *systèmes du monde* in circulation, and developments in the natural sciences fostered a popular fascination with imponderable fluids such as ether, electricity, and heat, which produced some spectacular demonstrations like Benjamin Franklin's lightning rod and the Montgolfier brothers' hot-air balloon<sup>2</sup>. The cosmological background of Mesmer's theory of animal magnetism has been particularly stressed by Simon Schaffer, who linked Mesmer's belief in the influence of the planets on the human body, with earlier traditions of astrology and astro-meteorology<sup>3</sup>. This essay will further explore the astrological references of animal magnetism, yet will trace them back to an even older and more conventional tradition. I shall argue that a certain interpretation of the ancient cosmology of the “harmony of the spheres” or *musica mundana* provided a framework for the development of Mesmer's theory and practice of animal magnetism. For that aim, I rely on two particularly “obscure” printed sources: on the one hand, the publication in the 1760s of two French translations of the work *On the nature of the world and the soul*, an ancient Greek text authored by a certain Timaeus of Locri, and on the other hand, Mesmer's *Théorie du monde et des êtres organisées suivant les principes du M*, published anonymously in 1784 and written with an invented system of ideograms. In putting these works together, I wish to highlight both the cosmological and musical background of Mesmer's insistence on “harmony”, which figures on his views on the universe, the physical body, medical practice, and social order.

Scholarship has placed the decline of the worldview of the harmony of the spheres in the seventeenth century, with the so-called scientific revolution<sup>4</sup>. However, the ancient idea of a musical harmonic cosmos survived in different layers of French culture. This cosmology enjoyed renewed popularity in the 1760s and 1770s in Paris, through the publication of two French translations with comments of a work attributed to Timaeus of Locri, the main character of Plato's cosmological dialogue *Timaeus*, who was allegedly a student of Pythago-

<sup>1</sup> R Darnton., *Mesmerism and the End of the Enlightenment in France*, Cambridge, Harvard University Press, 1968, pp. 18 and. 29.

<sup>2</sup> M.G. Kim, *The Imagined Empire: Balloon Enlightenments in Revolutionary Europe*, Pittsburgh, University of Pittsburgh University Press, 2017; J. Riskin, *Science in the Age of Sensibility: The Sentimental Empiricists of the French Enlightenment*, Chicago, The University of Chicago Press, 2002.

<sup>3</sup> S. Schaffer, *The Astrological Roots of Mesmerism*, in «Studies in History and Philosophy of Biological and Biomedical Sciences», 41, 2010, 2, pp. 158-168.

<sup>4</sup> See e.g. F. Cohen, *Quantifying Music: The Science of Music at the First Stage of the Scientific Revolution, 1580-1650*, Dordrecht, Reidel, 1984; P. Gouk, *Music, Science, and Natural Magic in Seventeenth-Century England*, New Haven, Yale University Press, 1999; P. Gozza (ed.), *Number to Sound. The Musical Way to the Scientific Revolution*, Dordrecht, Kluwer, 2000, pp. 62-63; J. Prins, *Echoes of an Invisible World: Marsilio Ficino and Francesco Patrizi on Cosmic Order and Music Theory*, Leiden, Brill, 2015; S. Clark and A. Rehding, *Introduction*, in *Music Theory and Natural Order from the Renaissance to the Early Twentieth Century*, ed by S. Clark and A. Rehding, Cambridge, Cambridge University Press, 2010, pp. 1-13.

ras and came from the Italian peninsula. The translations were written by Jean-Baptiste de Boyer, Marquis d'Argens, and Charles Batteux<sup>5</sup>. Both d'Argens and Batteux were particularly interested in a group of Greek texts that scholarship now considers apocryphal. In addition to the *Soul of the World*, these texts also included *On the Nature of the Universe* by the pseudo-Pythagorean Ocellus Lucanus and the apocryphal *Letter of Alexander to Aristotle*<sup>6</sup>. All three texts addressed metaphysical issues and proposed “systems” of the world, which represented the cosmos as a harmonic arrangement moved by a single active principle or substance. While neither d'Argens nor Batteux believed in Timaeus of Locri's claim that the cosmos was arranged according to musical intervals – advancements in astronomy had proved this theory wrong – both works paid great attention to music in their comments.

These texts should be read within the broader eighteenth-century interest in antiquity and the attempts to find the origins of modern sciences, languages, and philosophical theories in ancient times. Yet, more interesting here, they appeared at times when both music and cosmology were widely discussed in Parisian sociability. The preceding decade had hosted the *Querelle des Bouffons*, which made music a subject of public debate as well as a national affair: Parisian writers were divided between those who favoured the composer and music theorist Jean-Philippe Rameau, who represented French music and the pre-eminence of harmony, and those who favoured Jean-Jacques Rousseau, who advocated for Italian music and melody. Rameau's alleged discovery and systematisation of the fundamental laws of musical harmony – the *science* of the combination of chords – for which he was called «the Newton of music», was widely commented on beyond musical circles<sup>7</sup>. At the time Mesmer arrived in Paris, a new *querelle* divided public opinion between partisans of French and Italian music, this time represented by the German composer Christoph Wil-

<sup>5</sup> J.-B. de Boyer d'Argens, *Timée de Locres. En grec et en françois avec des dissertations sur les principales questions de la métaphysique, de la physique & de la morale des anciens; qui peuvent servir de suite & de conclusion à la Philosophie du bon sens*, Berlin, Haude et Spener, 1763; C. Batteux, *Timée de Locres, De l'âme du monde. Avec la traduction Française & des remarques*, Paris, Saillant, 1768. Batteux also included the chapter «Timée de Locres, ou l'Âme du monde distribuée selon les lois de l'harmonie» in his *Histoire des causes premières, ou exposition sommaire des pensées des philosophes sur les principes des êtres*, Paris, 1769, where he focused on the soul of the world and the harmony of the spheres, including descriptions of the celestial deities taken from Plutarch, Proclus and Macrobius.

<sup>6</sup> J.-B. de Boyer d'Argens, *Ocellus Lucanus, en grec et en françois, avec des dissertations sur les principales questions de la métaphysique, de la physique & de la morale des anciens; qui peuvent servir de suite à la «Philosophie du bon sens»*, Utrecht, Aux depens des Libraires associés, 1762; C. Batteux, *Ocellus Lucanus, de la nature de l'univers, avec la traduction française et des remarques*, Paris, Saillant, 1768 and Id., *Lettre d'Aristote à Alexandre, sur le Système du Monde. Avec la traduction française & des remarques par M. l'abbé Batteux*, Paris, Saillant, 1768.

<sup>7</sup> See e.g. T. Christensen, *Rameau and Musical Thought in the Enlightenment*, Cambridge, Cambridge University Press, 1993; A. Charrak, *Raison et perception. Fonder l'harmonie au XVIIIe siècle*, Paris, J. Vrin, 2001; A. Shupe, *Aspects of Newtonianism in Rameau's «Génération harmonique»*, unpublished PhD Thesis, University of Western Ontario (2014).

libald Gluck and the Italian Niccolò Piccinni<sup>8</sup>. Therefore, the renewed interest in the harmony of the spheres was part of a broader interest in the scientific and historical knowledge of music and the nature of musical taste.

Mesmer himself was a musical amateur, who had met Mozart and patronised musical performances in Vienna<sup>9</sup>. Many of the accounts of mesmerist sessions report some form of musical performance. Mélanie Traversier has recently emphasised the importance of musical practice in these meetings, focusing on the glass-harmonica, a newly-invented instrument which Mesmer favoured<sup>10</sup>. The pursuit of subtle sounds in the harmonica was related to the taste for subtle fluids in physics – Franklin, while researching electricity and improving his lightning rod, invented the glass-harmonica in 1762 –, as well as to the importance of nuances within the culture of medicine and sensibility. The invention of new musical instruments, acoustic technologies, and instrumental techniques in musical composition and performance, sought new timbre and volume dynamics that adjusted to new “sensible” listeners<sup>11</sup>. Mesmer believed that sound enhanced the powers of the magnetic fluid, which, penetrating the body, had physical and moral effects. The use of sound and musical instruments in Mesmer’s sessions, this essay argues, was informed by a philosophical, cosmologically-charged notion of harmony.

The introduction and some of the articles of a very recent special issue on animal magnetism rightly stressed the importance of the notion of harmony in mesmerist practices, which resulted from a wide use of the concept in French culture at the time<sup>12</sup>. Mesmerists not only called the Society of Harmony their

<sup>8</sup> For the famous musical *querelles*, see e.g. D. Charlton, *Opera in the Age of Rousseau: Music, Confrontation, Realism*, Cambridge, Cambridge University Press, 2012; A. Di Profio, *La révolution des Bouffons. L’opéra italien au Théâtre de Monsieur 1789-1792*, Paris, CNRS Éditions, 2003; M. Darrow, *Dissonance in the Republic of Letters: The Querelle des Gluckistes et de Piccinnistes*, London, Routledge, 2013.

<sup>9</sup> R. Amadou, *Esquisse biographique*, in F.-A. Mesmer, *Le Magnétisme animal*, Paris, Payot, 1971, pp. 15-28; A. Stile, *Mesmer et Mozart: un rapport (apparemment) simple*, in «Laboratorio dell’ISPF», VIII, 2011, 1-2, pp. 1-12.

<sup>10</sup> M. Traversier, *L’Harmonica de verre et miss Davies: essai sur la mécanique du succès au siècle des Lumières*, Paris, Seuil, 2021. See also C. Raz and S. Finger, *Musical Glasses, Metal Reeds, and Broken Hearts: Two Cases of Melancholia Treated by New Musical Instruments*, in P. Gouk and J. Kennaway (eds.), *The Routledge Companion to Music, Mind and Wellbeing: Historical and Scientific Perspectives*, London, Routledge, 2018, pp. 77-92.

<sup>11</sup> E.I. Dolan, *The Orchestral Revolution: Haydn and the Technologies of Timbre*, Cambridge, Cambridge University Press, 2013; A. Fontaine, *Musical Bodies: Materiality, Gender, and Knowledge in Musical Performance in 18th-century France*, in F. Antonelli, A. Romano and P. Savoia (eds.), *Gendered Touch. Women, Men, and Knowledge-making in Early Modern Europe*, Leiden, Brill, 2022, pp. 245-282.

<sup>12</sup> D. Armando, B. Belhoste, J.-L. Chappéy and C. Gantet (eds.), *Du mesmérisme au magnétisme animal. Diffusion et résurgences entre les XVIIIe et XIXe siècles* (dossier), in «La Révolution française», 24, 2023. See especially the introduction *L’harmonie au prisme du mesmérisme: recompositions scientifiques, politiques et morales au tournant des XVIIIe et XIXe siècles*. D. Armando stressed the importance of the concept of harmony on his previous article *Crises magnétiques, convulsions politiques: les mesméristes à l’Assemblée constituante*, in «Annales historiques de la Révolution française», 391, 2018, pp. 129-152.

first and biggest society, but harmony was a recurrent theme in Mesmer's writings and the varied trends of mesmerist writers and societies. Moreover, harmony was one of several features they shared with freemason societies<sup>13</sup>. The renewed interest in Timaeus of Locri and the cosmology of the harmony of the spheres, will further enrich our understandings of the meanings of harmony in mesmerism, as well as its broader importance for the natural sciences and music in late eighteenth-century French culture.

The following pages explore two aspects of Mesmer's theories that were framed according to Timaeus of Locri's cosmology, or so I argue. Firstly, the conception of the magnetic fluid as a blend between the metaphysical idea of the «soul of the world» and the imponderable fluids in physics. Secondly, the cosmological structure of his *Théorie du monde*, which links the origins of the universe with the physical body, and results in a moral and ideal social order.

#### *Timaeus of Locri in the 1760s*

In the 1760s, the Greek text *On the nature of the world and the soul* received unprecedented attention in France<sup>14</sup>. Two translations of the text, with long comments, were produced almost simultaneously. The Marquis d'Argens published the first one while in exile in Prussia at the court of Frederic the Great in 1763. He claimed that his translation of the Greek text was the first one ever published in «vulgar language»<sup>15</sup>. The abbé Charles Batteux, in turn, published his translation in 1768. Additionally, he read memoirs about Timaeus of Locri in the sessions of the Académie des Inscriptions et Belles Lettres between 1761 and 1770<sup>16</sup>. Batteux was a member of this academy, in addition to the Académie Française and the Collège Royale, where he was in charge of the chair of Greek and Latin philosophy. He had gained an established reputation in the philosophy of the arts after publishing *Les Beaux arts réduits à un même principe*, where he claimed that the universal principle of beauty in the arts was the imitation of nature, recalling Aristotle's theory of *mimesis*<sup>17</sup>.

<sup>13</sup> Historians have shown that mesmerism shared with freemasonry a number of members, as well as the structure of their rites and organisational structure. See e.g. M.A. Gravitz, *Mesmerism and Masonry: Early Historical Interactions*, «American Journal of Clinical Hypnosis», 39, 1997, 4, pp. 266-270; P.-Y. Beaurepaire, *The tub between the square and compass. Conflicts of masonic influence concerning animal magnetism and Sociétés de l'Harmonie*, «Annales historiques de la Révolution française», 391, 2018, pp. 105-128.

<sup>14</sup> I will refer to the eighteenth-century French translations and comments of the work as *On the soul of the world*, which is the title given by Batteux and how most sources called it. In turn, I will call it *On the Nature of the World and the Soul* when referring to the original Greek text, which I accessed in T.H. Tobin, *Timaios of Locri: On the Nature of the World and the Soul*, Chico (Ca.), Scholars Press, 1985.

<sup>15</sup> All English translations are my own, unless otherwise stated. J.-B. de Boyer d'Argens, *Timée de Locres*, cit., p. III.

<sup>16</sup> Charles Batteux read a series of presentations which were published as *Mémoires historiques sur le principe actif de l'univers*, in *Histoire et mémoires de l'Académie des Inscriptions et Belles*, Paris, Imprimerie royale, 1761-70, volumes 27, 29, 32, 35.

<sup>17</sup> Ch. Batteux, *Les Beaux-arts réduits à un même principe*, Paris, Durand, 1746.

Allegedly authored by a certain Timaeus of Locri, *On the nature of the world and the soul* is in fact a shorter and simplified version of Plato's dialogue *Timaeus*. Scholarship tends to agree that this text was actually produced by an anonymous author sometime in the late 1<sup>st</sup> century BC or the 1<sup>st</sup> century AD<sup>18</sup>. This was a period of a revival of Pythagoreanism among Middle Platonists, who advocated for the need of Pythagorean mathematics for the proper understanding of Plato's *Timaeus*<sup>19</sup>. Since then, the history of the reception of Plato's *Timaeus* in late antiquity, medieval, and early modern times was often mingled with that of the reception of this apocryphal text, and the mysterious figure of his Pythagoric author<sup>20</sup>. Accordingly, Timeaus of Locri was a real man who lived around the 6<sup>th</sup> century BC in the Greek Italian region of Locri. D'Argens placed him just before Socrates, although he speculated that they could have known each other<sup>21</sup>. A disciple of Pythagoras, Timaeus of Locri would have developed his master's ideas and those he learnt in Egypt, in the first systematic cosmological treatise in history.

For the eighteenth-century translators d'Argens and Batteux, the work of Timaeus of Locri was authentic. They believed that Plato was its mere commentator: such was the greatness of Timaeus of Locri, that Plato endeavoured to communicate his theories and composed «the most beautiful and richest of his dialogues» in his name<sup>22</sup>. Moreover, they claimed that Plato «corrupted» the original simplicity of Timaeus of Locri's treatise in pretending to embellish it. Referencing previous scholars such as Thomas Gale and Dionysius of Halicarnassus, the Marquis d'Argens added that Plato «was far from equalling his original; on the contrary, by augmenting it, he spoiled it, and I dare to say, greatly disfigured it. My opinion is supported by that of several illustrious scholars»<sup>23</sup>.

The fact that the text was a shorter and simpler version of Plato's dialogue, might have contributed to the interest it aroused in 18th-century readers. The apocryphal text was indeed a summary of Plato's original, with some additions

<sup>18</sup> T.H. Tobin, *Timaios*, cit., p. 7.

<sup>19</sup> A. Somfai, *Calcidius' «commentary» on plato's «Timaeus» and its place in the commentary tradition: the concept of «analogia» in text and diagrams*, in «Bulletin of the Institute of Classical Studies. Supplement», 83, 2004, p. 207.

<sup>20</sup> C. Macris, *Timée de Locres (Pseudo-Timée)*, in R. Goulet (ed.), *Dictionnaire des philosophes antiques*, vol. VII, Paris, CNRS Éditions, 2018, pp. 1009-1017; I. Caiazzo, C. Macris and A. Robert (eds.), *Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle Ages and the Renaissance*, Leiden-Boston, Brill, 2022. For the manuscript tradition of Plato's *Timaeus* and pseudo-Timaeus of Locri, see G. Jonkers, *The Textual Tradition of Plato's Timaeus and Critias*, Leiden-Boston, Brill, 2017.

<sup>21</sup> J.-B. de Boyer d'Argens, *Timée de Locres*, cit., p. VIII.

<sup>22</sup> «[Platon] a voulu que le plus beau & le plus riche de ses Dialogues portant le nom de ce Philosophe, ne fût que le commentaire de ses idées». C. Batteux, *Timée de Locres*, cit., pp. 2-3.

<sup>23</sup> «Platon goûta si fort l'ouvrage de *Timée de Locres*, qu'il crut devoir se l'approprier: il composa un Dialogue, sous le nom de *Timée*, qui n'est qu'un long commentaire sur le texte de notre philosophe, qu'il a entièrement inséré dans le sien; mais il s'en faut bien, que *Platon* ait égalé son original; au contraire, en l'augmentant, il l'a gâté, & j'ose dire beaucoup défiguré. Mon sentiment est appuyé par celui de plusieurs Savans illustres». J.-B. de Boyer d'Argens, *Timée de Locres*, cit., p. V.

from later philosophy, such as the Aristotelian conception of matter<sup>24</sup>. It was not written in the form of a dialogue, and used a more straightforward language, probably for pedagogical purposes<sup>25</sup>. Unlike Plato's dialogue, this work did not contain the history of the lost island of Atlantis and provided less physiological and medical details.

*On the nature of the world and the soul* described the origins and composition of the universe. Like Plato's *Timaeus*, the account began with the most essential elements in the formation of the celestial spheres, proceeding then with more anthropological issues such as sensation, physiology, physical and moral health. Briefly speaking, for the pseudo-Timaeus of Locri the universe was the product of God, who composed the world based on two principles: Mind – *intelligence*, for d'Argens, and *esprit*, for Batteux – and necessity. A crucial idea in Plato's *Timaeus*, also recalled in Timaeus of Locri, was that the universe was filled with an active principle, an ethereal substance which animated the world. This was the so-called «soul of the world», which penetrated all bodies of the universe, from the celestial spheres to the smallest earthly beings, and was responsible for maintaining world harmony. The soul of the world was ordered according to mathematical ratios, the same that defined the harmonic intervals in music.

Here we find a crucial difference between pseudo-Timaeus of Locri and Plato's *Timaeus*: the apocryphal text gave greater details about the mathematical proportions of the universe. In its eighteenth-century version, this greater musical emphasis was indeed well-suited for a social elite longing for both music and antiquities, and that was recently acquainted with Rameau's theories on the “science” of harmony – or some general ideas about it. The original manuscripts of the *On the Nature of the World and the Soul*, however, provided heterogeneous levels of information in this respect<sup>26</sup>. Moreover, the specific mathematics that governed the world's soul were the subject of several interpretations and disparities since the earliest reception of the *Timaeus*<sup>27</sup>. While d'Argens avoided long explanations on the mathematics of these musical intervals of the cosmos, Batteux provided a table which developed these musical progressions in great detail. He expressed his hopes that this mathematical table would correctly interpret Timaeus of Locri's progression of 36 intervals<sup>28</sup>.

<sup>24</sup> T.H. Tobin, *Introduction*, in *Timaios*, cit., p. 3.

<sup>25</sup> *Ibid.*, p. 10.

<sup>26</sup> W. Marg, *Timaeus Locrus. De Natura Mundi et Animae*, Leiden, Brill, 1972, pp. 1-52; T.H. Tobin, *Introduction*, in *Timaios*, cit., p. 21.

<sup>27</sup> F. Pelosi and F. M. Petrucci, *Introduction*, in Id. (eds.), *Music and Philosophy in the Roman Empire*, Cambridge, Cambridge University Press, 2020, pp. 1-20.

<sup>28</sup> C. Batteux, *Timée de Locres*, cit., p. 99. Timaeus of Locri elaborated further on Plato's sequence of seven numbers (1, 2, 3, 4, 8, 9, 27) and the intervals of 3:2, 4:3 and 9:8 which determine the harmonic ratios of the world's soul. Departing from the number 384, Timaeus of Locri followed a progression which results in a sequence of 36 intervals. See T.H. Tobin, *Introduction*, in *Timaios*, cit., p. 22.

This exercise is remarkable, especially considering that, like d'Argens, Batteux deemed this cosmological theory too obscure and obsolete<sup>29</sup>.

To explain the soul of the world's harmonic structure, Batteux used the image of a ray of light fixed from the sky, down to the centre of the earth. This ray or «half-diameter» of the world was divided and «graduated» according to the proportions of the musical scale. Then, he claimed, «it is only a matter of placing, in that order, the sublunary and celestial beings or bodies», and one would find «the perfect agreement, or the concert of all the parts of the world»<sup>30</sup>. Batteux also referred to this distribution of the world as an enchainement, following the enduring idea of a chain of beings<sup>31</sup>. This representation of the world soul as a tempered ray did not differ much from earlier depictions of the world as a monochord crossed by a single string, which was plucked by God and vibrated sympathetically (Figure 1).

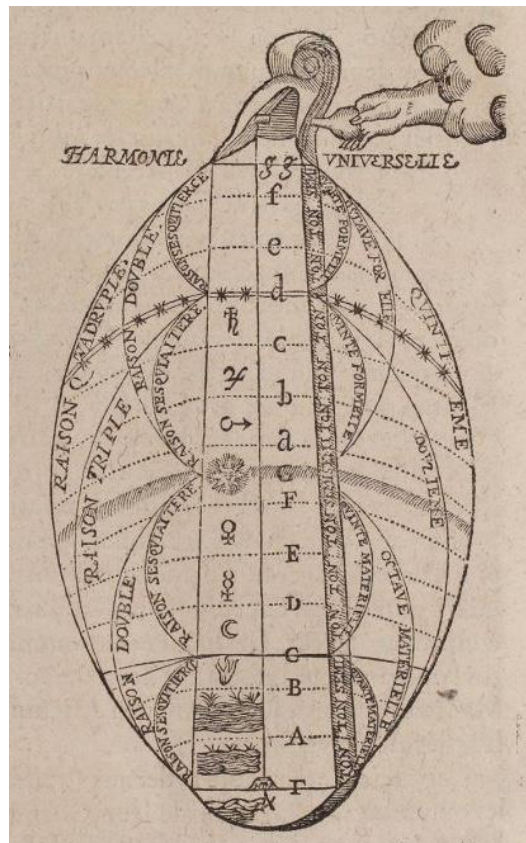


Figure 1. M. Mersenne, *Harmonie universelle, contenant la théorie et la pratique de la musique*, Paris, Sébastien Cramoisy, 1636, p. 48.

<sup>29</sup> *Ibid.*, pp. 129-130; J.-B. de Boyer d'Argens, *Timée de Locres*, cit., p. 124.

<sup>30</sup> «Il ne s'agit plus que d'y placer, dans leur ordre, les êtres ou corps sublunaires & célestes»; «d'accord parfait, ou le concert de toutes les parties du monde». C. Batteux, *Timée de Locres*, cit., p. 100.

<sup>31</sup> For the idea of chain of beings, see A.O. Lovejoy, *The Great Chain of Being. A Study of the History of an Idea*, Cambridge (Ma.), Harvard University Press, 1936.



The idea that the world was arranged according to musical proportions was attributed to Pythagoras. The well-known myth says that Pythagoras discovered music's harmonic intervals after hearing the sounds of different hammers struck together. He measured the proportions of those who made pleasant sounds and then applied them to a string. He concluded that these proportions were the same as the proportions among the planets in the universe. This led to the so-called "harmony of the spheres" or *musica mundana*, a worldview in which music revealed a superior order, one governed by numbers and regular laws. This story was told many times in the eighteenth century, since André Dacier's *Vie de Pythagore* at the very beginning of the century<sup>32</sup>. Later in the century, discussions on Pythagoras gained a certain momentum with philosophical debates around metempsychosis and vegetarianism<sup>33</sup>. Yet Pythagoras became recurrently invoked in the last quarter of the century among freemasons, spiritualists, deists and moralists who were attracted by either the "sect" he allegedly led, the symbolism of numbers, or the moral and political attributes of music.

Timaeus of Locri's apocryphal treatise was considered to be the most ancient account of the widely-disseminated doctrine of the harmony of the spheres. Plato described such a musical cosmos in his *Timaeus* as well as in the *Republic*, specifically in the myth of Er. This latter work explained the musical distribution of the planets which was widely disseminated in late antiquity, and later, in the Renaissance: the seven spheres of the universe had a specific musical chord or tonality, and were led by a particular muse and siren. Altogether, the universe produced a concert, too subtle to be heard by our human ears. Explaining how this harmonic distribution of the universe operated through the world's soul, Batteux quoted Plutarch's comment on Plato's *Timaeus*:

It is probable that the bodies of each of the celestial spheres, that the intervals of the spheres, that the velocities of their movements are like musical instruments well set up in proportion among themselves, and with all the parts of the Universe; and, by a necessary consequence, that these proportions are found in the Soul of the World, which God uses to execute them: in this Soul, which fills the Sky with marvellous effects, and the Earth with seasons & regular varieties, for the birth & the conservation of what is produced<sup>34</sup>.

<sup>32</sup> A. Dacier, *La vie de Pythagore, ses symboles, ses vers dorez et la vie d'Hiéroclès*, Paris, Rigaud, 1706.

<sup>33</sup> See e.g. A. Cocchi, *Régime de Pythagore*, trans. by Philippe-Florent de Puisieux, Paris, Gogué et Dessain junior, 1762.

<sup>34</sup> This passage is taken from Batteux's French passage, which he takes from Plutarch, *De animae procreatione in Timaeo Platonis*, 1030.B (according to Batteux's reference): «Il est probable que les corps de chacun des astres, que les intervalles des sphères, que les vitesses de leurs mouvements sont comme des instruments de musique bien montés en proportion entr'eux, & avec toutes les parties de l'Univers; &, par une suite nécessaire, que ces proportions se trouvent dans l'Âme du Monde, dont Dieu se sert pour les exécuter: dans cette Ame, qui remplit le Ciel d'effets merveilleux, & la Terre des saisons & de variétés régulières, pour la naissance & la conservation de ce qui se produit». C. Batteux, *Timée de Locres*, cit., p. 117. For Plutarch and the

Plutarch not only represented Plato's demiurge as a musician and the planet as temperate musical instruments, but also compared the agency of the world's soul with musical sound itself. This understanding of the world's soul resembles another pervading fluid that filled the universe in harmony and produced marvellous effects, explained its origins as well as its conservation, and acted in a similar way to music: Mesmer's magnetic fluid.

*From the soul of the world to the magnetic fluid*

D'Argens and Batteux wrote their translations and comments of Timaeus of Locri at a time when France had received an influx of cosmological theories, including Newton's gravity and Leibnitz's monads and preestablished harmony. Indeed, d'Argens compared Timaeus of Locri's description of the universe's intelligence and general laws, with those theories of Leibniz, which he might have become familiar with in the circles of Frederic the Great. However, he considered that Timaeus did not conceive purely immaterial entities<sup>35</sup>. D'Argens then engaged in contemporary debates on materialist views of the universe, the division between the soul and the body, and the immortality of the soul, among a variety of issues which makes his work a collection of heterogeneous theories, opinions, and curiosities. Comparing *On the soul of the world* to Spinoza's «system», d'Argens defined the soul of the world as «a spirit [esprit], a subtle fire spread throughout all beings, which brought them to life, and which was to the universe what the human soul is to the body»<sup>36</sup>. This ethereal, yet somehow material nature of the world's soul became a crucial issue in the reception of Timaeus of Locri's work in France. In this context, I contend that Timaeus's "universal soul" was often intermingled, and sometimes explicitly identified, with the idea of a universal subtle fluid in nature, whose physical laws could finally be unravelled by modern science.

Through its eighteenth-century French voice, Timaeus of Locri claimed that there was no void in the universe. Plato's soul of the world, echoed by Timaeus of Locri, was an active agent that filled the universe and explained phenomena that occurred at a distance, such as the magnet's force upon other bodies. Yet the question of whether the universe was void or filled with ether or another form of invisible substance remained in force up to the seventeenth century, when it was submitted to a series of experimental proofs<sup>37</sup>. The debate re-emerged in mid-eighteenth century with a particular reception of Newton's theory of gravity, which building upon new discoveries about electricity, heat, and air claimed that Newton's forces acted through a subtle and pervasive me-

music of the spheres, see B. Demulder, *Music and Plutarch's Platonic Cosmos*, in F. Pelosi and F. M. Petrucci (eds.), *Music and Philosophy*, cit., pp. 38-59.

<sup>35</sup> J.-B. de Boyer d'Argens, *Timée de Locri*, cit., pp. 16-18.

<sup>36</sup> «[...] un esprit, un feu subtil répandu dans tous les êtres, qui les vivifioit, & qui étoit à l'univers, ce que l'âme humaine est au corps». *Ibid.*, p. 107.

<sup>37</sup> See e.g. S. Shapin and S. Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Princeton, Princeton University Press, 1986.

dium<sup>38</sup>. At the times when d'Argens was writing his translation and commentaries of the *Timaeus* of Locri, ether theories gained great popularity in Prussia, which, according to William Clark served as a «cosmic mediator» between advocates of gravity and fans of monads, and between theology, pneumatics and cosmology<sup>39</sup>.

Consequently, in the decade that separated the last of these translations of *Timaeus* of Locri and the arrival of Franz Anton Mesmer to Paris, a series of subtle, invisible, and weightless fluids gained significant scientific and philosophical attention. Besides ether, also electricity, magnetism, gravity, light, and renewed notions of fire and air were addressed by experimental physics. Historiography has rightly placed animal magnetism within the enthusiasm for these physical imponderables<sup>40</sup>. Some partisans of animal magnetism saw the arrival of Mesmer as extremely timely: Mesmer's discovery and mastering of the magnetic fluid was the culmination of a «revolution» that had taken place in the natural sciences. Writing in 1784 when Mesmer's practices were being harshly criticised, Antoine Court de Gébelin placed the emergence of animal magnetism among the newest scientific discoveries of the last «fifteen to twenty years», such as the developments in electricity and chemistry, and claimed with a prophetic tone: «It was at a the time when the fermentation [of new scientific ideas] was at its height, when everything was ready for the most important discoveries, that Mr. *Mesmer* appeared»<sup>41</sup>. Not exactly humble, Mesmer himself compared his theories with the most revolutionary discoveries and scientific instruments: «I dare to flatter myself that the discoveries which I have made, and which are the subject of this book, will push back the limits of our knowledge in physics, as much as the invention of microscopes and telescopes has done for the age preceding our own»<sup>42</sup>.

Strikingly, this enthusiasm for the newest scientific discoveries often came together with an historiographical effort to trace these discoveries in antiquity. *Timaeus* of Locri was often called upon to fill the gap between new scientific knowledge and that which was unknown from ancient history. The ancient *Timaeus* of Locri, silent in the previous decades, suddenly had a say in most of the fashionable sciences in France. He was a new, ancient authority. The Mar-

<sup>38</sup> T.L. Hankins, *Science and the Enlightenment*, Cambridge, Cambridge University Press, 1985, p. 51.

<sup>39</sup> W. Clark, *The Death of metaphysics in Enlightened Prussia*, in W. Clark, J. Golinski and S. Schaffer (eds.), *The Sciences in Enlightened Europe*, Chicago, University of Chicago Press, 1999, p. 449.

<sup>40</sup> R. Darnton, *Mesmerism and the End of the Enlightenment*, p. 10.

<sup>41</sup> «C'est dans le moment où la fermentation étoit la plus grande, où tout étoit prêt pour les découvertes les plus importantes, qu'a paru M. *Mesmer*». A. Court de Gébelin, *Lettre de l'auteur du Monde Primitif, à Messieurs ses souscripteurs. Sur le Magnétisme Animal*, in *Recueil des pièces les plus intéressantes sur le magnétisme animal*, Paris, Gastelier, 1784, p. 102.

<sup>42</sup> «J'ose me flatter que les découvertes que j'ai faites, et qui sont le sujet de cet ouvrage, reculeront les bornes de notre savoir en physique, autant que l'invention des microscopes et des télescopes l'a ait par rapport aux temps qui nous ont précédé». F.A. Mesmer, *Mémoire de F. A. Mesmer, docteur en médecine, sur ses découvertes*, Paris, Fuchs, 1799, p. 4.

quis d'Argens claimed that Timaeus of Locri got a glimpse of what had tirelessly occupied modern physicians up to that date, that is, the explanation of the electric attraction of amber by the existence of a «subtle matter» that penetrated the body<sup>43</sup>. Timaeus of Locri's knowledge of electricity was stressed immediately afterwards by Louis Dutens in his *Recherches sur l'origine des découvertes attribuées aux modernes* (1766) and commented by the press<sup>44</sup>. Similarly, the astronomer, future mayor of Paris, and opponent of animal magnetism Jean Sylvain Bailly, stated in his *Histoire de l'astronomie moderne* that Timaeus of Locri had probably known about the longitude of stars before Hipparchus<sup>45</sup>. Even the most obscure areas of Timaeus of Locri, such as the Pythagorean geometrical figures of the natural elements, were proved «less absurd» by modern chemistry's discovery of crystallisation<sup>46</sup>. After all, Jean-Baptiste-Claude Delisle de Sales declared in 1770, «all Europe is still Pythagorean»<sup>47</sup>.

Mesmer's proposal of a magnetic fluid filling the universe was also anchored in antiquity, and shared many features with other fashionable imponderable fluids at the time. He claimed that his theory of animal magnetism was not a complete novelty: «It is less a new discovery than an application of long-time perceived facts for eternally-felt needs»<sup>48</sup>. Mesmer expressed that his discovery redeemed some hidden truths from ancient history, which contemporary prejudices did not allow us to see. This was the doctrine of celestial influence on earthly events, the knowledge of which had been lost or degraded. Therefore, he aimed to look at «the debris of this science», in order to find what was «useful and true» about it<sup>49</sup>. The indisputable existence of the celestial

<sup>43</sup> J.-B. de Boyer d'Argens, *Timée de Locri*, cit. p. 269.

<sup>44</sup> L. Dutens, *Recherches sur l'origine des découvertes attribuées aux modernes: où l'on démontre que nos plus célèbres philosophes ont puisé la plupart de leurs connoissances dans les ouvrages des anciens*, Paris, Duchesne, 1766. See also *Lettre IV*, in «L'Année Littéraire», 1766, p. 89. The idea of Timaeus of Locri as the discoverer of electricity was further stressed on J.-B.-C. Delisle de Sales, *Essai Philosophique sur le Corps Humain*, Amsterdam, Arkstée et Merkus, 1773-1774, vol. I, pp. 273-274. For the medical uses of electricity and mesmerism, see G. Sutton, *Electric medicine and mesmerism*, in «Isis», 72, 1981, pp. 375-392; F. Zanetti, *Magnétisme animal et électricité médicale au dix-huitième siècle*, in B. Belhoste and N. Edelman (eds.), *Mesmer et mesmérismes: le magnétisme animal en contexte*, Paris, Omniscience, 2015, pp. 103-118; Id. *Contretemps et contrepoints au mesmérisme. Savoirs et acteurs des marges à la fin de l'Ancien Régime*, in «Annales historiques de la Révolution française», 391, 1, 2018, pp. 57-80.

<sup>45</sup> J.-S. Bailly, *Histoire de l'astronomie moderne depuis la fondation de l'école d'Alexandrie jusqu'à l'époque de 1730*, t. I, Paris, Debure, 1785. p. 486.

<sup>46</sup> S. Maréchal, *Voyages de Pythagore en Égypte, dans la Chaldée, dans l'Inde, en Crète, à Sparte, en Sicile, à Rome, à Carthage, à Marseille et dans les Gaules*, Paris, Deterville, 1799, t. V, p. 392.

<sup>47</sup> «[...] je ne voulois que montrer combien l'Europe est encore pythagoricienne». J.-B.-C. Delisle de Sales, *De la philosophie de la nature*, Amsterdam, Arkstée et Merkus, 1770, p. 550. See also S. Maréchal, *Table alphabétique des Pythagoriciens les plus connus, et des autorités les plus graves*, in his *Voyages de Pythagore*, cit.

<sup>48</sup> «C'est moins une découverte nouvelle qu'une application des faits aperçus depuis longtemps à des besoins sentis de tous les temps». F.A. Mesmer, *Précis historique des faits relatifs au magnétisme-animal jusques en Avril 1781*, Londres, n.p., 1781, p. 2.

<sup>49</sup> F.A. Mesmer, *Mémoire sur la découverte du magnétisme animal*, Genève - Paris, Didot, 1779, p. 6.

influence upon the body was demonstrated by phenomena such as affinities and sympathies, or animal instinct<sup>50</sup>.

Nevertheless, historiography has pointed out that the links between animal magnetism and older cosmic or astrological accounts, were rather stressed by their opponents. Indeed, the two scientific commissions appointed by the King to examine animal magnetism in 1784, not only discarded the existence of the magnetic fluid, but also deprived it from originality. The physician and member of the Société Royale de Médecine Michel-Augustin Thouret was explicitly entrusted with the task of assessing this connection in August 1784. Thouret was already well acquainted with the medical uses of magnetism, and had authored a treatise on the subject together with Charles-Louis-François Andry<sup>51</sup>.

Thouret considered that the mesmerists' magnetic fluid was a modern version of the ancients' idea of the soul of the world: «They admitted the existence of a first agent to which they gave the name of *universal fluid*, a more physical name that they substituted in more enlightened times for those that had hitherto been given to this same principle, such as the *soul of the world*, the *spirit of the universe*, the *celestial influence or of the stars*, the *force of sympathy*, or the *occult quality*»<sup>52</sup>. When explaining the idea of the universal soul, Thouret referred the apocryphal sources translated by d'Argens and Batteux, as well as Plato's *Timaeus*<sup>53</sup>. However, Thouret quickly jumped to the seventeenth century, where this universal soul was identified with the agency of the magnet and «the whole of nature appeared to be subject to magnetism»<sup>54</sup>. Accordingly, this «ancient magnetism», which determined the earth's reciprocity with the celestial spheres, was first presented by Paracelsus and then further developed by Athanasius Kircher, William Maxwel and Richard Mead, among others. For these authors, music had a great «magnetic force» and its power was often identified with that of magnetism itself<sup>55</sup>. Similarly, Jean-Jacques Paulet's anti-mesmerist text looked for the «traces» of animal magnetism and concluded that «magnetism» had its «reign» in the last century, with authors like Robert Fludd and Kircher.

<sup>50</sup> F.-A. Mesmer, *Mémoire de F.-A. Mesmer, docteur en médecine, sur ses découvertes*, Paris, Maumus, 1826, p. 19. This was an edited version of Mesmer's *Mémoires* of 1799 by his disciple Picher-Grandchamp.

<sup>51</sup> C.-L.-F. Andry and M.-A. Thouret, *Observations et recherches sur l'usage de l'aimant en médecine, ou Mémoire sur le magnétisme médicinal par MM. Andry et Thouret. Extrait des «Mémoires de la Société royale de médecine» année 1779*, Paris, Imprimerie de Monsieur, 1782.

<sup>52</sup> «Ils admettoient l'existence d'un premier agent auquel ils donnèrent le nom de *fluide universel*, dénomination plus physique qu'ils substituèrent dans des temps plus éclairés, à celles que l'on avoit données jusqu'alors à ce même principe, telles que celles d'*âme du monde*, d'*esprit de l'univers*, d'*influence céleste des astres*, de *force de sympathie*, ou de *qualité occulte*». M.-A. Thouret, *Recherches et doutes sur le magnétisme animal*, Paris, Prault, 1784, p. 7.

<sup>53</sup> Thouret exclaims: «Voyez Ocellus Lucanus, *de la nature de l'univers*; Timée de Locres, *de l'ame du monde*; Platon, dans son *Timée*; & Aristote, dans sa *Lettre à Alexandre sur le système du monde*». *Ibid.*, p. 103.

<sup>54</sup> «[...] la nature entière parut soumise au magnétisme». *Ibid.*, p. 104.

<sup>55</sup> *Ibid.*, pp. 35-36.

Since then, it had been proven wrong<sup>56</sup>. Therefore, the royal commissions called Mesmer's animal magnetism an «old mistake», and associated it with seventeenth-century physicians and astrology<sup>57</sup>.

Yet the link with the past was not only stressed by Mesmer's unbelievers. While Thouret situated Mesmer within the discredited traditions of Paracelsus and medical magnetism of alchemy and astrology, other interlocutors rescued Mesmer from the seventeenth century and placed him in a longer, more conservative, ancient cosmology. Supporters of animal magnetism built upon this historical background with opposite purposes than his detractors: the ancients' belief in a cosmic, universal agent legitimated Mesmer's theories. They stressed the idea of a universal agent or fluid that stemmed from Pythagoras, Timaeus of Locri, and Plato and was followed by a series of authors before and beyond the seventeenth century. The freemason and future deputy of the Third Estate Antoine-François Delandine, for instance, established a chronology of «the most famous Philosophers, Doctors and Physicists who have glimpsed or announced magnetism up to the present day», which started with Pythagoras's idea of «a fluid, soul of the world» that Timaeus of Locri called «the universe's productive force»<sup>58</sup>.

The association of animal magnetism with the soul of the world was also explicit in Amand-Marie-Jacques de Chastenot, Marquis de Puységur, one of the main followers of Mesmer who founded the Société Harmonique des Amis Réunis in Strasbourg in 1785. Puységur recalled the ancient idea of an intermediary subtle substance in nature: «It seems to me that this *chariot of the soul*, this luminous intermediary of Pythagoras, is very similar to what we now call *magnetism* or *animal electricity*, and I doubt that the Greek philosopher would have been able to explain himself more clearly if he had known about the new phenomena that this discovery presents to us»<sup>59</sup>. However, paving the way for spiritualist theories, Puységur criticised Plato and Timaeus of Locri – «his guide and model» –, whose understanding of the soul as an «igneous, subtle and intelligent matter» was too materialist<sup>60</sup>.

<sup>56</sup> J.-J. Paulet, *L'antimagnétisme, ou origine, progrès, décadence, renouvellement et réfutation du magnétisme animal*, Londres, n.p., 1784.

<sup>57</sup> *Rapport des commissaires chargés par le Roi, de l'examen du magnétisme animal*, Paris, Imprimerie royale, 1784, p. 58. The commissaries that contributed to this report were Majault, Franklin, Bailly, d'Arcet and Lavoisier.

<sup>58</sup> «[...] les Philosophes, les Médecins, les Physiciens les plus connus, qui ont entrevu ou annoncé jusqu'à nos jours le magnétisme»; «la force productrice de l'univers». A.-F. Delandine, *De la Philosophie corpusculaire, ou des Connoissances et des procédés magnétiques chez les divers peuples*, Paris, Cuchet, 1785, pp. 196 and 178.

<sup>59</sup> «[...] ce *char de l'âme*, cet intermédiaire lumineux de Pythagore ressemble beaucoup, ce me semble, à ce que nous désignons aujourd'hui sous le nom de *magnétisme* ou *électricité animale*, et je doute que le philosophe grec eût pu s'expliquer plus clairement, s'il eût connu les phénomènes nouveaux que cette découverte nous présente». A.-M.-J. de Chastenot, Marquis de Puységur, *Mémoires pour servir à l'histoire et à l'établissement du magnétisme animal*, London, n.p., 1786, p. 395.

<sup>60</sup> «[...] son guide et son modèle»; «matière ignée, subtil et intelligente». A.-M.-J. de Puységur, on a note in C. de Villers, *Le Magnétiseur amoureux*, Paris, 1824, p. 268.

In sum, referring to the world's soul or to Timaeus of Locri was a way of rescuing ancient knowledge from that of the discredited magnetisers of the seventeenth century. As a defence against esoterism, the fact that their theories were entrenched in the oldest pre-Platonic philosophical tradition, gave them legitimacy. Moreover, as I shall discuss in the next section, this cosmology provided Mesmer with an authoritative reference for his theoretical purpose of combining two «known sciences», namely astronomy and medicine<sup>61</sup>.

#### *Mesmer's theory of the world*

Whether Mesmer's magnetic fluid was part of an articulated theory was a disputed issue even within mesmerists. Mesmer's teachings and practices were partly shrouded in secrecy. He refused to teach his mechanisms widely, and the few theoretical texts he wrote were rather obscure. Indeed, most of his ideas were disseminated by his followers and detractors. Scholars have suggested that Mesmer did not propose a systematic theory, for, as Darnton put it, «he was not, after all, a man of theory»<sup>62</sup>. However, theory was what drove Mesmer apart from most of his colleagues before coming to Paris, according to Mesmer's own account of the facts<sup>63</sup>. Later, Court de Gébelin posed the following rhetorical question to respond to those who called Mesmer a charlatan: «Is Mr. Mesmer's discovery attached to a theory?» He answered that Mesmer's discovery was neither secret nor narrow in its subject, on the contrary, «it forms a sublime and immense theory, which unites all beings, which shows how they form a single whole, and how each part of this whole influences the others»<sup>64</sup>. Mesmer pointed out that his theory sprang from medical practice and could be proved empirically. After twelve years of experimentation and close observation of illnesses, he discovered the single agent that was universally responsible for harmony in the world and the physical body<sup>65</sup>.

Mesmer's cosmological theory is best expressed on a particular text, which, the following pages argue, shows great similitudes with Timaeus of Locri's text and its source, Plato's *Timaeus*. The *Théorie du monde et des êtres organisés suivant les principes de M* was published anonymous in the autumn of 1784 and consisted of three *cabiers*<sup>66</sup>. It was only distributed for the members of the mesmerist Society of Harmony, unlike Caulet de Vaumorel's *Aphorismes de Mesmer* which reproduced some of the same ideas without Mesmer's authorisation but was

<sup>61</sup> F.A. Mesmer, *Précis historique*, cit., p. 2.

<sup>62</sup> R. Darnton, *Mesmerism and the End of the Enlightenment*, cit., p. 14.

<sup>63</sup> F.A. Mesmer, *Mémoire sur la découverte*, cit., p. 34.

<sup>64</sup> «[...] elle forme une théorie sublime & immense, qui unit tous les Êtres, qui montre comment ils ne composent qu'un tout, comment chacune des parties de ce tout influe sur les autres». A. Court de Gébelin, *Lettre de l'auteur du Monde Primitif*, cit., p. 103.

<sup>65</sup> F.A. Mesmer, *Mémoire sur la découverte*, cit., p. 11.

<sup>66</sup> [F.A. Mesmer], *Théorie du monde et des êtres organisés suivant les principes de M...*, Paris, n.p., 1784.

much widely distributed<sup>67</sup>. The *Théorie du Monde* has often been attributed to Mesmer's closest disciple and main disseminator Nicolas Bergasse, who indeed claimed authorship of some *cabiers* with similar characteristics after splitting with Mesmer in 1785<sup>68</sup>. However, it could be that Bergasse's role was rather to transcribe a manuscript by Mesmer<sup>69</sup>. The text was written in ideograms, a feature that reinforced the spirit of secrecy that surrounded Mesmer and his association with freemasonry. A glance at the glossary introduced in the text, reveals the strong interest in concepts drawn from contemporary natural sciences. Like the Pythagorean Timaeus of Locri, the text also introduces many geometrical concepts.

Mesmer first explored the effects of the planets on the human body in his dissertation in Vienna in 1766, called *Physico-medical dissertation on the influence of the planets*. Observing the influence of the sun and the moon on the «flux and reflux» of the sea and the atmosphere, this dissertation offered a synthesis of medical astrology and meteorology, with theories of gravity<sup>70</sup>. Bruno Belhoste claimed that Mesmer broadened the scope of his doctrine considerably after its condemnation in 1784. The *Théorie du monde* resulted from an effort of explaining his doctrine beyond mere «propositions», with the intention of building a physical and moral theory of universal harmony<sup>71</sup>. Here, Mesmer developed further this synthesis of old and new knowledge, including the subtle fluids in physics, the phenomenon of crystallisation and an extended theory of sensation. Furthermore, this treatise followed a similar structure to Timaeus of Locri's *On the soul of the world*, and Plato's *Timaeus*. With an education in philosophy before undertaking his medical degree, Mesmer might have known well Plato's *Timaeus*. He could have encountered the *Timaeus* again in Paris, this time through the French readings of the apocryphal text, and mixed them with the contemporary fashion of world systems, physical fluids, sensibility, and music.

The narrative of the *Théorie du Monde* moves from the origins and organisation of the universe, to the formation and conservation of human beings. This

<sup>67</sup> The work had 100 copies, only for Mesmer's subscribers. E. G. Peignot, *Répertoire de Bibliographies spéciales, curieuses et instructives*, Paris, Ronouard – Allais, 1810, pp. 18-19. For the members and dynamics of the Society of Harmony, see D. Armando, *L'Armonia discorde. Sviluppo e dinamica del movimento mesmerista alla fine dell'Antico regime*, in «Rivista storica italiana», CXXXI, 2019, 3, pp. 847-888.

<sup>68</sup> N. Bergasse, *Observations de M. Bergasse, sur un écrit du Dr Mesmer, ayant pour titre «Lettre de l'inventeur du magnétisme animal à l'auteur des Réflexions préliminaires»*, Londres, n.p., 1785, pp. 25-26.

<sup>69</sup> Barbier attributed the work to Mesmer and commented that he had erroneously attributed it to Bergasse in previous editions. A.-A. Barbier, *Dictionnaire des ouvrages anonymes*, Paris, P. Daffis, 1872-1879, t. IV, R-Z, *anonymes latins*, p. 705. Its writing style and the use of many capital letters, indeed reminds of the German physician.

<sup>70</sup> Historiography has claimed that this dissertation was mainly based on R. Mead, *A discourse concerning the action of the Sun and Moon on animal bodies and the influence which this may have in many diseases*, London, n.p., 1708. See F.A. Pattie, *Mesmer's Medical Dissertation and Its Debt to Mead's De Imperio Solis ac Lunae*, in «Journal of the History of Medicine and Allied Sciences», 11, 1956, pp. 275-287; S. Schaffer, *Astrological roots*, cit.

<sup>71</sup> B. Belhoste, *Franz Anton Mesmer: magnétiseur, moraliste et républicain*, in «Annales historiques de la Révolution française», 391, 2018, p. 47.



structure is not fortuitous: it portrays the world as a harmonic whole, arranged by the same set of principles from the macrocosm to the microcosm. Consequently, the three sections of the work resemble the threefold structure of Plato's *Timaeus*, which after describing the achievements of the Intellect or Reason (29d–47e) and the effects of Necessity (47e–69a), explain their mutual cooperation in the physical and moral constitution of human beings (69a–92c)<sup>72</sup>. However, the *Théorie du Monde* is more closely related to the structure of *Timaeus* of Locri in its grouping of all cosmological elements together and all anthropological ones – sense perception, physiology, health, moral and social improvement – together, without mixing ones with the others<sup>73</sup>.

Accordingly, the first section of the *Théorie du monde* distinguishes the «un-created principle» – God – from the two «created principles», matter and movement. He explains the origins of the universe from the arithmetic combinations of these two principles and describes the formation of the celestial spheres according to geometrical models, just like *Timaeus* of Locri. The second section addresses the physical properties of bodies and movement, which explain phenomena such as gravity, fire, electricity and the magnet. Here he develops his theory of a universal and reciprocal influence between all beings by means of the magnetic fluid and the movement of «flux and reflux». The third section analyses these elements from the point of view of the human being, and, like Plato's *Timaeus* and *Timaeus* of Locri, he conceives the physical and the moral as inherently related. In this last section, Mesmer (or Bergasse) elaborates a medical and social application of animal magnetism, accompanied by a theory of sensation and education. Therefore, like his ancient models, Mesmer's cosmological account culminates with a theory of moral education, which sets the basis for developing an ideal society.

In addition to this structure that interlaced the origins of the universe, the body and the ideal social order, Mesmer's theory also shared with *Timaeus* of Locri and Plato the belief that the harmonic cosmos was supported by a single, active principle. Mesmer claimed to have found the «long-desired» universal principle that pervaded the universe, explained its origins and conservation, and acted upon the nerves<sup>74</sup>. This was the magnetic fluid, which penetrated all beings and their parts, both celestial and earthly. In all this, the magnetic fluid's resemblance to the soul of the world is undoubtable: it was universal and invisible, occupied an intermediary position, had productive and conservative powers, and maintained the harmony of the whole and the physical body. Yet the conceptualisation of Mesmer's magnetic fluid also appropriated some features of sensationalist philosophy and the language of sensibility that was more broadly circulating in this period, from literature to medical discourse, which stressed both feeling and physical sensation, and presented the body as a po-

<sup>72</sup> J. Burnet (ed.), *Platonis Opera*, Oxford, Clarendon Press, 1902, vol. IV. All references to Plato's works follow this edition.

<sup>73</sup> T.H. Tobin, *Introduction*, in *Timaios*, cit., p. 13.

<sup>74</sup> F. A. Mesmer, *Mémoire sur la découverte*, cit., 1779, p. iii.

rous, fluid thing and subjected to the influence of the ambient and others<sup>75</sup>. Moreover, unlike the theory of the world's soul, Mesmer was able to manipulate and communicate his magnetic fluid through his medical sessions. This way, Mesmer's cosmology was tailor-suited for a society craving for virtuosity, spectacle and collective expressions of feeling<sup>76</sup>.

For Timaeus of Locri, the human soul was made out of the same mixture of the world's soul, but it did not present the same degree of purity of the original<sup>77</sup>. Similarly, Mesmer considered that humans were made out of a portion of the universal movement or fluid. Once the currents of fluid entered the body, the fluid became «tonic», that is to say, it acquired a particular movement and «tone», which determined the character and individuality of the person. To explain this, Mesmer compared the physical body with a musical instrument: the universal fluid acquired a new and particular movement in its contact with an singular body, just like the air produced a particular «tone» or «mode» when it entered into the body of a flute or an organ tube<sup>78</sup>. This metaphor becomes more telling if one considers the multiple references to sound and music in mesmerist writings and therapies. For Mesmer believed that sound communicated and enhanced the magnetic fluid<sup>79</sup>.

If the fluid's movement flowed normally in the body and kept the right proportions between matter and movement within all its parts, the body «existed in a state of perfect health»<sup>80</sup>. Illness, on the contrary, was the «aberration» of this indispensable harmony<sup>81</sup>. Like Timaeus of Locri, Mesmer indicated that physical bodies were subjected to the laws of the universe; health was the right alignment of the soul and body parts, with the motions of the celestial spheres. Moreover, he related the illnesses of the body with the «moral illnesses» of the soul, which in turn led him to speak about the importance of education in society. This aspect also echoes Timaeus of Locri and Plato, who attributed the causes of morally deviated behaviour to a bad functioning of the physical body, as well as to bad education<sup>82</sup>. Plato's *Timaeus* stressed the need of good institutions in the city and promoted exercise and education – especially on philosophy and music –, something that was further developed in his *Republic*. There-

<sup>75</sup> A.C. Vila, *Enlightenment and Pathology. Sensibility in the Literature and Medicine of Eighteenth-Century France*, Baltimore, Johns Hopkins University Press, 1998; J. Riskin, *Science in the Age of Sensibility*, cit.

<sup>76</sup> See e.g. P. Metzner, *Crescendo of the Virtuoso*, Berkeley, University of California Press, 1998.

<sup>77</sup> This is also found in Plato, *Timaeus*, 41d.

<sup>78</sup> F.A. Mesmer, *Théorie du monde*, cit., p. 5. In comparing the body to a musical instrument, Mesmer was not original. Other physicians who used the metaphor, albeit with different models of the body in mind, include C. Bonnet, *Essai analytique sur les facultés de l'âme*, Copenhague, Philibert, 1760; F. Boissier de La Croix de Sauvages, *Nosologie méthodique, ou distribution des maladies en classes, en genres et en espèces, suivant l'Esprit de Sydenham, & la Méthode des Botanistes*, vol. VII, Lyon, Jean-Marie Bruyset, 1772.

<sup>79</sup> F.A. Mesmer, *Théorie du monde*, cit., p. 4.

<sup>80</sup> *Ibid.*, p. 6.

<sup>81</sup> *Ibid.*, p. 7.

<sup>82</sup> Plato, *Timaeus*, 86e.

fore, for Plato both the motions of one's health and a righteous society should aspire to align with the «harmonies and revolutions of the universe»<sup>83</sup>.

Likewise, Mesmer's medical cosmology was the cure for restoring individual and social harmony. Universal harmony ruled human actions and explained their instinct to lead towards their conservation and healing, as well as to live as a society. The purpose of education, then, was to cultivate human faculties and habits in accordance with social harmony<sup>84</sup>. In this section, Mesmer expanded on the importance of language and its relationship to civilisation, the passions and moral education.

Plato's project in the *Timaeus* was in a great extent to search for the natural foundations of the ideal city, which he had previously outlined. In this sense, it is telling that Plato's *Timaeus* starts with a brief summary of the ideal city presented in the *Republic*<sup>85</sup>. Similarly, Mesmer's cosmology also provided the basis for a new ideal society. The last section of the *Théorie du monde* moved away from the descriptive character of the cosmological and physical accounts of the world as it is, towards a more prescriptive and propositional depiction of a new possible social order. Mesmer claimed that «harmony is the rule of society»<sup>86</sup>. However,

By the word Society we do not mean Society as it now exists, and which varies in the Principles which constitute it according to Places, Customs and Prejudices, but Society as it ought to be, Natural Society, that which results from the Relations which our well-ordered organisation ought to produce<sup>87</sup>.

Therefore, at the end of the text, Mesmer introduced the features of an ideal society, stemming from his cosmological and medical theory. Bruno Belhoste found in this text the seeds of Mesmer's moral and political theory, which had been mostly disregarded by secondary literature<sup>88</sup>. Indeed, Darnton focused his political readings of mesmerism on the figure of Bergasse, who saw animal magnetism as a means for a social and moral reform, and became an active political figure during the Revolution. Although one could argue that this section of the *Théorie du monde* shows more of Bergasse's hand in the text, Mesmer repeated some of these ideas in later works.

Like Plato's dialogues *Timaeus* and the *Republic*, and *Timaeus of Locri's* apocryphal text, Mesmer's ideal society was based on the model of harmony

<sup>83</sup> Ibid, 90d-90e.

<sup>84</sup> F.A. Mesmer, *Théorie du monde*, cit., pp. 11-12.

<sup>85</sup> L. Brisson, *Introduction*, in *Timée. Critias*, trans. by L. Brisson, Paris, Flammarion, 2017, p. 10.

<sup>86</sup> «La Règle de la Société est l'Harmonie». F.A. Mesmer, *Théorie du monde*, cit., p. 16.

<sup>87</sup> «Par le mot Société il ne faut pas entendre la Société telle qu'elle existe maintenant, et qui varie dans les Principes qui la Constituent suivant les Lieux, les Coutumes, les Préjugés mais la Société telle qu'elle doit être, la Société Naturelle, celle qui résulte des Rapports que notre organisation bien ordonnée doit produire». *Ibid.*, p. 12.

<sup>88</sup> B. Belhoste, *Franz Anton Mesmer*, cit.

and the laws of nature. This social ideal of harmony supposed a specific understanding of equality as «proportion»:

Since the Perfection of Society consists in Harmony, all the Members who compose it must be in proportion to each other; consequently Ages and Strengths must not be confused.

Children can only be formed in a Society of Children. It is only in this Equality that all Actions become Reciprocal and that the Members of this Society Experience the Return or Reflection of all their Actions on themselves<sup>89</sup>.

This representation of the social order based on the specificity yet «reciprocity» among different groups again echoes Plato, this time in his depiction of harmony in the *Republic*. In this work, Plato proposed that the personality or soul was composed of three parts – «reason», «spirit», «appetite» – which stood in mathematical relation to one other, just as the harmony of a musical chord was drawn from the strings of a proportioned lyre<sup>90</sup>. The governance of the polis drew upon this tripartite composition of the soul, which was the cause of harmony. Yet Plato's principle of justice was based on each of the parts fulfilling its own labour or function, «every part of him does its own work, whether it's ruling or being ruled»<sup>91</sup>. Harmony, therefore, ruled a state of «agreement» among the three parts of the soul.

This model of agreement among three parts associated with different functions was central to the popularity of notions of harmony in the years surrounding the French Revolution. David Armando has discussed the wide use of the concept of harmony in the Constituent Assembly, among deputies that were associated with mesmerism. There were different political uses of the concept, and political allegiances of their members<sup>92</sup>. Indeed, the language of harmony flooded political writings, speeches, and engravings during the early revolutionary years. Despite their different purposes and constituencies, harmony was often portrayed as a model of agreement and natural social order. Harmony as the embodiment of agreement was enshrined in the twofold meaning of the word «accord»: agreement and musical chord. Musical chords were specifically invoked after the call for the Estates General in the spring of 1789<sup>93</sup>. While the musical chord was defined by Rameau as the union of three

<sup>89</sup> «La Perfection de la Société consistant dans l'Harmonie, il faut que tous les Membres qui la Composent soient en proportion entr-eux; par Consequent il ne faut pas Confondre les Ages et les Forces.

L'Enfant ne peut se Former que dans une Société d'Enfants. Ce n'est que dans cette Egalité que toutes les Actions deviennent Reciproques et que les Membres de cette Société Éprouvent le Retour où le Reflet de toutes leurs Actions sur eux mêmes». F. A. Mesmer, *Théorie du Monde*, cit., p. 12; see also p. 16.

<sup>90</sup> G.R.F. Ferrari, *The Three-Part Soul*, in Id. (ed.), *The Cambridge Companion to Plato's Republic*, Cambridge, Cambridge University Press, 2007, p. 188.

<sup>91</sup> Plato, *Republic*, 443b.

<sup>92</sup> D. Armando, *Crises magnétiques, convulsions politiques*, cit.

<sup>93</sup> F.L. Bruel, *Un siècle d'histoire de France par l'estampe 1770-1871. Collection de Vinck*, Paris, Imprimerie Nationale, 1909, fols. 53-55.

notes, in the new political regime it was portrayed as the union of the three estates into a harmonious whole. Like in Plato's *Republic*, and Mesmer's ideal society, this harmonic arrangement opened in the Estates General required the specificity as well as the reciprocity among different social groups<sup>94</sup>.

This political application of musical harmony was not new. In the sixteenth century, Jean Bodin applied the neo-Platonic version of the harmony of the spheres to political governance, and proposed a regime that followed the «harmonic proportions» of music<sup>95</sup>. Later, Marin Mersenne also saw in the harmony of the spheres a useful model for social and political order<sup>96</sup>. Harmony not only offered a mathematical and natural model of proportion, it also provided a model for ideas of restoration and improvement of the social order. In this sense, Mesmer's attempt at bringing his astro-medical discourse into politics, should be seen within the profusion of metaphors of the “body politic” during this period, which portrayed the state as a composite organism functioning towards a common end, which could also be perfectible, just as a body can be cured from illness<sup>97</sup>.

Mesmer the physician offered a prescriptive method for healing society from its current state. While this entailed a moral reform, Mesmer did not evoke a radical transformation of the political order. His notion of harmony supposed a society divided into different groups, performing specific functions, as it was prescribed in the traditional division of French society into three orders. Moreover, the transference of harmony from the celestial spheres to the body, and from individual bodies to the body politic, was not original: it followed the ancient tradition of the harmony of the spheres, stemming from Plato's *Timaeus* and widely disseminated through the apocryphal work of Timaeus of Locri.

### Conclusions

This essay pursued the cosmological references of Mesmer's theory of animal magnetism in a specific source, the apocryphal text allegedly written by Timaeus of Locri which summarised Plato's *Timaeus*. The reception of this text in late

<sup>94</sup> A. Fontaine, *Musical Knowledge, Material Practices and the Body Politic in Eighteenth-century France*, unpublished PhD Thesis, University of Cambridge, 2020. <https://doi.org/10.17863/CAM.47086>

<sup>95</sup> J. Bodin, *Les six livres de la République. Livre VI*, Paris, 1576. For later references of this theory see H. Grotius, *Le droit de la guerre et de la paix ... Avec les notes de l'auteur même, qui n'avoient point encore paru en françois; & de nouvelles notes du traducteur*, trans. J. Barbeyrac, t. 2, Amsterdam, Pierre de Coup, 1724.

<sup>96</sup> M. Mersenne, *Harmonie universelle contenant la théorie et la pratique de la musique, où il est traité de la nature des sons et des mouvements, des consonances, des dissonances, des genres, des modes, de la composition, de la voix, des chants et de toutes sortes d'instruments harmoniques*, livre VII, Paris, Sébastien Cramoisy, 1637.

<sup>97</sup> D. Outram, *The Body and the French Revolution. Sex, Class, and Political Culture*, New Haven, Yale University Press, 1989; A. de Baecque, *The Body Politic: Corporeal Metaphor in Revolutionary France, 1770-1800*, Redwood, Stanford University Press, 1997; S.E. Melzer and K. Norberg (eds.), *From the Royal to the Republican Body: Incorporating the Political in Seventeenth- and Eighteenth-Century France*, Berkeley, University of California Press, 1998.

antiquity and the early modern period was immersed in the worldview of the harmony of the spheres. According to this doctrine, music provided a model of natural order based on the mathematical proportions of the harmonics, at the same time as it instantiated the universal, invisible, and powerful influences of the celestial spheres upon animate and inanimate bodies. The renewed interest in this doctrine in the 1760s, arrived during times when both music and cosmology were fashionable subjects of public debate in Paris. Furthermore, Timaeus of Locri's Platonic notion of the world's soul was read within the fascination for new scientific discoveries, especially of the imponderable fluids that anticipated Mesmer's popularity. Consequently, this essay argued that Mesmer's astro-medical cosmology was framed according to the cosmological architecture of the harmony of the spheres, mainly as presented by pseudo-Timaeus of Locri. This essay traced this relationship in two aspects of Mesmer's theories: firstly, the association between the magnetic fluid and the idea of a «soul of the world», and secondly, the strong resemblances between the cosmological account of Mesmer's *Théorie du monde* and that of Plato's or Timaeus of Locri's work, which presented the harmonic order that reigns over the universe and the human body, and set the basis for an ideal society.

Nevertheless, unlike Plato's and Timaeus of Locri's theory of the soul of the world, Mesmer's magnetic fluid was not divided according to the mathematical intervals of musical harmony. In ruling out the mathematical harmonics of the cosmos, Mesmer was in concordance with the critiques that Batteux and d'Argens previously articulated against Pythagorean numbers in their commentaries to Timaeus of Locri's work<sup>98</sup>. The harmonic ratios that governed celestial order since Pythagoras heard the blacksmith's hammers, had been proven wrong by modern astronomy<sup>99</sup>. During Mesmer's period, the harmony of the spheres was criticised alongside broader critiques of astrology, metaphysics, geometry, and "systems" more generally.

This does not mean, however, that Mesmer ruled out harmony, nor the powers of music from his theory. Animal magnetism embodied some of the same effects hitherto attributed to music, such as the powers to mediate between the celestial and the earthly, the physical and the moral, and between individuals and collectivities<sup>100</sup>. The medical, moral and social powers of music were further stressed in the culture of sensibility during this period. Consequently, it is not surprising that music occupied a key role in mesmerist sessions. In this context, the importance of sound, as a fluid or agent that enhanced and even modified the potency of the magnetic fluid, was not isolated from the cosmic framework in which sound originated. According to the Swiss religious minister and freemason Charles Étienne François Moulinié, if animal magnetism «also acts through sound, it is by virtue of this universal harmony

<sup>98</sup> J.-B. de Boyer d'Argens, *Timée de Locres*, cit., p. 124; C. Batteux, *Timée de Locres*, cit., pp. 129-130.

<sup>99</sup> See, e.g., J.-S. Bailly, *Histoire de l'astronomie ancienne, depuis son origine jusqu'à l'établissement de l'École d'Alexandrie*, Paris, Debure, 1781, p. 215.

<sup>100</sup> See, e.g., P. Gouk, *Music, Science, and Natural Magic*, cit.

which reigns in Nature, and in our body in particular, which is a harmonic system forming part of the great whole»<sup>101</sup>.

Ultimately, the two royal commissions appointed to assess the authority and effectiveness of animal magnetism, denied the existence of the magnetic fluid, but they did not deny the powers of music. The report authored by Bailly, Franklin, and Lavoisier, among other respected scientific authorities of the time, deliberately ruled out cosmology from their analysis and decided to consider only «the part of this fluid spread over the earth» and that could be proved empirically through «our eyes»<sup>102</sup>. The biases of their assessment and the epistemological consequences of attributing the powers of animal magnetism to «touching, imagination and imitation» rather than to the existence of a magnetic fluid, have been fruitfully examined by scholarship<sup>103</sup>. Yet the commissioners also stressed a fourth reason, namely the powers of music, as an effective cause of the «convulsions» and sudden changes on the patients' moods and bodies. After all, the influence of music upon the body was a medical fact, as expressed by physicians such as the vitalist Jean-Joseph Menuret de Chambaud<sup>104</sup>. Consequently, ancient heroes such as Orpheus and Amphion, who demonstrated the powers of music to tame beasts and rocks, enjoyed great popularity at this time<sup>105</sup>. At the end of the century, when the model of harmony as an agreement of a fixed set of social orders was no longer attractive, a number of authors recalled the ancient powers of music for restoring primitive harmony and morality in a troubled society, and longed for the uses of music as had been done by Greek legislators. Pythagoras, Orpheus, and Timaeus of Locri would be invoked again to take a part in politics and social or-

<sup>101</sup> «[...] s'il agit aussi par le son, c'est en vertu de cette harmonie universelle qui regne dans la Nature, & dans notre corps en particulier, qui est un système harmonique faisant partie du grand tout». C. Moulinié, *Lettre sur le Magnétisme Animal. Adressée à Monsieur Perdriau, Pasteur & Professeur d'Eglise*, in *Recueil des pièces les plus intéressantes sur le magnétisme animal*, cit., p. 295.

<sup>102</sup> The full quote goes «les Commissaires ont cru qu'ils devoient d'abord écarter cette grande influence, ne considérer que la partie de ce fluide répandue sur la terre, sans s'embrasser d'où il vient, & constater l'action qu'il exerce sur nous, autour de nous & sous nos yeux, avant d'examiner ses rapports avec l'Univers», *Rapport des commissaires*, cit., p. 9.

<sup>103</sup> *Ibid.*, p. 57. For analysis of the royal reports, see J. Riskin, *Science in the age of sensibility*, pp. 189-226; B. Belhoste, *La condamnation du mesmérisme revisitée. Enquête sur les enquêtes officielles de 1784 sur le magnétisme animal*, in «Revue d'histoire des sciences humaines», 39, 2021, pp. 187-214; C. Conickx, (Re-)defining «animal magnetism»: the mesmerism investigations of 1784, in «La Révolution française», 24, 2023.

<sup>104</sup> J.-J. Menuret de Chambaud, *Musique, effets de la*, in D. Diderot and J. le R. d'Alembert (eds.), *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, par une société de gens de lettres*, vol. X, Paris, 1765, pp. 903-909. For examples on the healing powers of music, see J.-J. Rousseau, *Essai sur l'origine des langues ou il est parlé de la mélodie et de l'imitation musicale*, in *Collection complète des oeuvres de J.-J. Rousseau, citoyen de Geneve*, vol. VIII, Geneva, Pierre Alexandre du Peyrou and Paul Moulton, 1781, pp. 357-434; p. 418.

<sup>105</sup> See e.g. V. Agnew, *Enlightenment Orpheus: The Power of Music in Other Worlds*, New York, Oxford University Press, 2008; M. Darlow, *Dissonance in the Republic of Letters*, cit., especially Chapter 3.

der<sup>106</sup>. This time, however, music provided a model of power and influence, yet no longer one of cosmic order<sup>107</sup>.

<sup>106</sup> See, e.g., S. Maréchal, *Voyages de Pythagore*, cit.; J. de D. d'Olivier, *L'Esprit d'Orphée, ou De l'influence respective de la musique, de la morale et de la législation*, Paris, Charles Pougens, 1798-1804.

<sup>107</sup> This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 101029971.





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**– Ancient harmony for a new order. Mesmerism, music and Timaeus of Locri**

Citation standard:

FONTAINE, Amparo. Ancient harmony for a new order. Mesmerism, music and Timaeus of Locri. *Laboratorio dell'ISPF*. 2023, vol. XX [4]. DOI: 10.12862/Lab23FNM.

Online: 29.12.2023

**ABSTRACT**

This essay traces the cosmological and musical background of Franz Anton Mesmer's theory of animal magnetism to the ancient cosmology of Timaeus of Locri, Plato's alleged source for his *Timaeus*. In the 1760s, two French translations and comments of this source were produced by the Marquis d'Argens and Charles Batteux. The essay explores this relationship in two aspects of Mesmer's theory. Firstly, the conception of the magnetic fluid as a blend between the metaphysical idea of the "soul of the world" and the imponderable fluids in physics. Secondly, the harmonic cosmos presented in Mesmer's *Théorie du monde et des êtres organisés* (1784), which links the origins of the universe with the physical body, and results in a moral and ideal social order.

**KEYWORDS**

F.A. Mesmer; Timaeus of Locri; cosmology; harmony of the spheres; music

**SOMMARIO**

*Un'armonia antica per un nuovo ordine. Il mesmerismo, la musica e Timeo di Locri.* Il saggio ricostruisce i precedenti cosmologici e musicali della teoria del magnetismo animale di Franz Anton Mesmer, ricollegandoli all'antica cosmologia di Timeo di Locri, considerata la fonte del *Timeo* di Platone. Negli anni '60 del XVIII secolo, due traduzioni e commenti di questo testo furono pubblicati ad opera del marchese d'Argens e di Charles Batteux. L'autrice ne esplora la presenza in due aspetti della teoria di Mesmer. Anzitutto, la concezione del fluido magnetico come un misto tra l'idea metafisica dell'"anima del mondo" e i fluidi imponderabili della fisica. In secondo luogo, il cosmo armonico presentato da Mesmer nella *Théorie du monde et des êtres organisés* (1784), che connette le origini dell'universo al corpo fisico, e si traduce in un ordine sociale e morale.

**PAROLE CHIAVE**

F.A. Mesmer; Timeo di Locri; cosmologia; armonia delle sfere; musica

*NB This article has been edited to add footnote 107, which was missing due to an editorial error.*

Laboratorio dell'ISPF

ISSN 1824-9817

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