

Luring nature in sixteenth century natural magic

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ABSTRACT: In his *Magia naturalis* (1589), Giambattista della Porta (1535-1615) refers to a double aspect of nature: at the same time it makes itself visible to the human eyes it conceals itself under the veil of appearances. According to him, nature enjoyed the movement of changing and disguising because it liked metamorphosing itself in different and astonishing forms and playing (*ludere*) with who wanted to hold its secrets. This meant that nature did not reveal its secrets easily because it played (*ludere*) with whoever wanted to understand its secrets and deceived (*ludere*) those who disregarded the hidden causes. One could say that Della Porta introduces us to the playful element as a resource that conciliates practical operation and theoretical speculation. The "ludic" incursions in his work seem to be related to his purpose to warn the readers about nature metamorphosis as long as with its inevitable coming-into-being which should be understood by the magician. Once the whole self-movement of nature was ordered in a purposeful manner, every natural thing had its specific growth and achieved its own particular final form. This suggests that nature did not make mistakes and was not easily deceived. However, a magician should court nature and put it in a constrained situation by using his abilities and knowledge. The aim of this paper is to point out that magical devices were not only designed on an empirical basis to promote the understanding of nature, but also to make those powers (*vis*) which were developed within nature visible.

Introduction

Despite the great impact *Magia naturalis* had in the sixteenth century¹, some studies in history of science, based on a certain historiography trend, considered this work confused, inaccurate and strongly marked by credulity and superstition by the author². Furthermore, as Muraro notes, few studies, which point out its philosophical and scientific contents, kept apart that aspect considered "scientific" from "magical",

¹ G. della Porta, *Magiae naturalis libri XX in quibus scientiarum naturalium divitiae et deliciae demonstrantur*. (Napoli: Horatium Salvanum, 1589) ; henceforth to be denoted by *Magia naturalis*. For 1658 English version, see: *Natural Magick by John Baptista Porta a neapolitane in twenty books* (London, 1658); henceforth indicated by *Natural Magick*.

² L. Balbiani, "La ricezione della *Magia naturalis* di Giovan Battista della Porta: cultura e scienza dall'Italia all'Europa", *Bruniana & Campanelliana*, V (2, 1999): 289-92.

suggesting that Della Porta was unable to build a coherent theory which reconciled practical and theoretical investigation.³

In fact, if *Magia naturalis* is taken out of its historical context, it can be reduced to a mere collection of curiosities and magical tricks since this work had the purpose not only to introduce prodigious phenomena, but also to entertain the readers providing them with some formulas that could mislead their perception. However, if it is properly contextualized and examined in the light of other contemporary documents, *Magia naturalis* shall reveal to be more than an inventory of rare phenomena.

In fact, the playful incursions in this work seem to be related to the capacity of science (*scientia*) for playfulness which was very usual in the sixteenth century⁴. It should be taken into account that Della Porta was part of the Neapolitan nobility and was trained to attend court⁵. Regarding this, we cannot overlook that he carefully cultivated his reputation as *magus*, fostering his relationship with princes and nobility since natural magic was also a tool to self-promotion in the court⁶. Furthermore, the playful incursions in *Magia naturalis* were related to the rules prescribed by courteous speech following the old "rhetorical precept" known as *prodesse et delectare*. Although it was not explicitly formulated by Della Porta, this precept is notorious in his work once the usefulness and delightfulness pervades *Magia naturalis*, granting it a pleasurable and fun connotation such as those of comedy⁷.

Usefulness and delightfulness were closely associated to the idea of playfulness (*lusus*) which had implications for early modern scientific discourse. According to Findlen, "natural history and to a certain extent science in general rediscovered its capacity for playfulness in the form of the scientific joke"⁸. By scientific joke it means the *lusus*

³ L. Muraro, *Giambattista Della Porta, mago e scienziato*. (Milano, 1978), 11-4. On magic, see: P. Rossi, *Il tempo dei maghi: Rinascimento e modernità*. (Milano, 2006); W. Eamon, *Science and the secrets of nature. Books of secrets in medieval and early modern culture* (Princeton, 1996); P. Zambelli, *L'ambigua natura della magia: filosofi, streghe, riti nel Rinascimento* (Milano, 1991); W. Shumaker, *Natural magic and modern science: four treatises 1590-1657* (Binghamton, 1989); B. Vickers, ed., *Occult and scientific mentalities in the Renaissance* (Cambridge, 1986). On Della Porta's natural magic see: N. Badaloni, "I Fratelli Della Porta e la cultura magica e astrologica a Napoli nel '500'", *Studi storici* iv (set. 1960), 677-715; and L. Balbiani, *La Magia Naturalis di Giovan Battista Della Porta. Lingua, cultura e scienza in Europa all'inizio dell'età moderna* (Oxford, 2001).

⁴ P. Findlen, "Jokes and Nature and Jokes of Knowledge: The Playfulness of Scientific Discourse in Early Modern Europe," *Renaissance Quarterly* XLIII (2, 1990): 292-331, 292.

⁵ The father of Giambattista, Nardo or Leonardo Antonio, belonged to a noble neapolitan family whose members were enhanced to the title "familiari e domestici del re di Spagna" by Emperor Charles V (1500-1558) in 1548. Della Porta's lost the title for taking part of the conspiracy against the viceroy Dom Pedro de Toledo (1484-1553) headed by Ferdinando Sanseverino (1507-1572), prince of Salerno, in 1552. However, Nardo Antonio managed to keep his privileges; see: P. Piccari, *La sapienza dei maghi: Giovan Battista della Porta e la filosofia occulta*. (Firenze, 1999), 4; and G. L. Clubb, *Giambattista Della Porta Dramatist*. (Princeton/New Jersey, 1965), 3-4.

⁶ See Eamon, *Science and the Secrets of Nature*, 227.

⁷ Della Porta published comedies, vide: Clubb, 88-249.

⁸ See: Findlen, "Jokes of Nature and Jokes of Knowledge", 292-331; and *Idem*, "Between Carnival and Lent: The Scientific Revolution at the Margins of Culture," *Configurations* 6 (1998): 243-67.

naturae or joke of nature, and the *lusus scientiae*, or joke of knowledge that populated the museums and scientific texts of that period.

The playfulness (*lusus*) is implicitly introduced by Della Porta as instances of the seemingly occult properties of nature made manifest through the discerning eye of the magician. This "logic of *lusus*" pervaded nature and was manifested in its double aspect: at the same time as it makes itself visible to the human eyes it conceals itself under the veil of appearances⁹. He shows, in several reports and experiences, an artful nature which basic feature was its propensity to metamorphose itself.

As Della Porta sees it, nature was in a progressive process of coming into being revealing itself in the phenomena of growing and putting forth. Characteristics of growth were those which always originate from something else, and something, which has already been formed, tended toward a new form or shape. According to him, nature enjoyed the movement of changing and disguising because it liked metamorphosing itself in different and astonishing forms¹⁰.

In accordance with Aristotelian natural philosophy, the entire coming into being and directing activity of nature come about through its own agency in such a way that the source of that movement, which is this coming into being, lies in the thing itself which comes to be. Furthermore, the whole self-movement of nature was not simply effected in the sense of being caused, but ordered in a purposeful manner¹¹.

Based on the classical thought, especially Aristotle, Ovid, Pliny among others, Della Porta addressed to the subtlety of nature's architecture remarking that nature played (*ludere*) with whoever wanted to understand its secrets.¹² Then, if on the one hand, nature "played" (*ludere*) with one who understood its secrets, on the other, "deceived" (*ludere*) who disregarded the hidden causes.

Della Porta seems to point out that nature played (*ludere*) with who wanted to hold its secrets. In this sense, for a simple reader, the phenomena described in *Magia naturalis* offered only fun (*lusus*). But, for a magician they should be taken as challenges having as a prize knowledge obtained by applying the instructions given by the book, which were not always explicit¹³. In this latter sense we can say that the results acquired by applying such instructions were seen by magicians as prizes reserved only to those

⁹ This idea of nature was not new. See: P. Hadot, *Le voile d'Isis. Essai sur l'histoire de l'idée de nature*. (Paris, 2004).

¹⁰ The nature playfulness had a central part of Della Porta's natural magic. Aas Paula Findlen (1998) remarks, in the sixteenth-century, different approaches to nature celebrated the ludic in their own peculiar ways.

¹¹ F. Saito, *O telescópio na magia natural de Giambattista della Porta* (São Paulo, 2011), 40-50.

¹² According to Huizinga, the fundamental feature of joke is its playfulness. That is why we use here the words *lusus* from *ludere*. It should take into account, as Huizinga observes that *jocus, jocari*, in the sense of playfulness does not have the same meaning of *lusus*. See: J. Huizinga, *Homo ludens: o jogo como elemento da cultura* 5ª ed. (São Paulo, 2001), 41.

¹³ Balbiani, "La ricezione", 77.

who could put into practice the acquired knowledge. Then, by providing a mix of fun and knowledge, natural magic show us playfulness as an instance that reconciled manipulations, operations, practices and theoretical speculations.

This procedure was considered to be part of natural magic taking into consideration the purpose to know nature by different means combining practical and theoretical knowledge in order to warn the reader not only about nature metamorphosis, but also to point out those rare, artificial and artful phenomena.¹⁴

Natura

Nature was a receptacle or a lap of secrets which could be uncovered by the keen eye of the magician. By surveying astral influences, hidden qualities of animals, plants, minerals, and sympathies and antipathies that existed between different nature beings, a magician could acquire knowledge to master nature. However, surveying this very secrets was more than a mere work of inventorying different observed and observable phenomena in the course of nature. The real aim of natural magic was the investigation of the inevitable necessity of nature, trying to understand that "order" in the course of nature. In fact, the idea of a stable nature intertwined with the idea of a mobile and essential nature.

As G. Belloni emphasizes it, the purpose of natural magic was not to understand the "rule of necessity", but to inquire on the production of exceptional phenomena and bring to light the wonders of nature. Since the entire world under regular circumstances was a manifestation of a chain of causes and effects, nature could be understood as an agent predictable within certain limits¹⁵.

One should take into account that natural magic encompassed all reality as one. It is notoriously in the idea of nature embraced by magic. Nature was considered in its active principle (*anima mundi*) which implied that this very nature was endowed by a principle of self-preservation such as that in the human body which parts were found harmoniously combined. This principle was realized *ad infinitum* through a constant coming to being flux (generation and corruption of things). The architecture of the whole world was granted by a kind of "power of regeneration" manifested by that chain which linked the inferior and superior worlds. In this sense, the concept of *anima mundi* was associated to that power which could restore all things to their proper places in nature¹⁶.

¹⁴ Saito, *O telescópio na magia natural*.

¹⁵ G. Belloni, "Conoscenza mágica e ricerca scientifica in Giovan Battista Della Porta", *Criptologia*, G. Della Porta. (Roma, 1982).

¹⁶ Saito, 55.

Master that power could enable a magician put nature to the service of man. The prodigious effects that caused delight and wonder supplied natural magic with useful knowledge by which one could quicken some long and laborious processes. That is why magic establishes a parallel between the natural process of transformation and the magician's skill who sought to imitate it and even improve it. Once the working processes of nature gave access to the subtle aspects of nature, physical manipulation was then required.

The works of nature was not revealed unless some procedures were taken into consideration. Part of these procedures depended on the magician dexterity in dealing with singular phenomena, either to manipulate it to produce even bigger wonders, or to use it for profitable purposes. In order to accomplish this, some apparatus and devices were usually required.

Contra natura

Magical devices were not designed on an empirical basis to promote the understanding of nature in natural magic. They were minded suitably with the purpose to produce certain effects in order to make those powers, which were developed within nature, visible (i.e., able to be manipulated). Once a magician had this power at hand, he could use it artificially in the "laboratory" in order to uncover other subtle aspects of nature.¹⁷

In a certain way, such devices were used to provoke nature to make it perform some movements which were *contra natura*. However, this kind of intervention which took nature away from its ordinary course had not the purpose to master nature violently. Differently from the baconian idea of interrogation that requires handcuffs and chains which were used to interrogate nature, as Bacon asserted in *Novum Organum*, natural magic proposed to approach nature playing (*ludere*) with it¹⁸.

One should take into account that the baconian procedure had a judicial significance. Hence, the meaning of interrogation meant that nature must be vexed (*vexatio*), agitated or disturbed. Such meaning is very close to Della Porta's, although it differs in one important point; in natural magic, nature was not put to the rack. In this sense, *contra natura* did not mean "against nature", but that nature behaved differently (or contrarily) from the ordinary way (as it used to behave) when it was put in a constrained situation.

¹⁷ Saito, 54-71.

¹⁸ F. Bacon, *Novum organum*, I, 98. See also: P. Pesic, "Wrestling with Proteus: Francis Bacon and the 'Torture' of Nature," *Isis* 90 (1999): 81-94.

We must emphasize that the operations of nature were mysteries which the magician should be introduced gradually. When a magician operated nature, approaching it by devices and different kind of apparatuses, he was not addressing to a hostile nature. Rather he was seeking resources to enable him to "operate nature from within in".

In fact, Della Porta emphasized that art was immanent in nature. He established an analogy between nature and art, remembering that nature itself was *maga* (magician), whose first rule (*lex*) was the power (*vis*) of love¹⁹. Then unlikely from the baconian sense of *vexationes* which addressed to a nature who one must confront, Della Porta seems to approach to a nature with which one must "dialogue" or "play" (*ludere*), as a courtier does when he courts a lady.

In other words, devices were simulations of working processes of nature which were taken by a magician as lessons learned from nature itself. These very devices were used not only to lure nature in order to make it reveals its secrets, but also to make it achieve what it was unable to accomplish alone²⁰. In this sense, the trial and retrial and the use of different devices attending to several procedures in natural magic acquired the feature of *lusus*.

Final remarks

Nature was not an assembly of phenomena in which a magician must find the connection between cause and effect in the modern sense. It was in fact an active principle, which natural magic had it as object of investigation. The main purpose of magic then was to inquire the production of exceptional in order to operate nature from within. In this sense, the idea of mediation by means of apparatuses and devices which revealed several processes implicated by using them, should be taken cautiously. Once devices were part of nature and not intermediary instruments used as a simple tools to make nature reveal its hidden secrets, there were no split between observer (magician) and nature in the modern sense. We can say, in a broad sense, that nature was a kind of "playground", in which a magician should seriously take into consideration, where he had to exercise his abilities in lure it.

¹⁹ On the idea that nature is magician itself, see: Della Porta, *Magia naturalis...*, I, 2.

²⁰ F. Saito, "Knowing by Doing in the Sixteenth Century Natural Magic: Giambattista della Porta and the Wonders of Nature" [forthcoming].