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THE FANTASTIC ANATOMY OF RAIMONDO DE SANGRO, PRINCE OF SANSEVERO

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SUMMARY

THE FANTASTIC ANATOMY OF RAIMONDO DE SANGRO

Examining myths and historical sources, the article aims to reconstruct the genesis and purposes of the so-called "anatomical machines" of Raimondo de Sangro, Prince of Sansevero, which are currently housed in the cavea of the Sansevero Chapel in Naples. Legend considers them to be the work of the prince, but they were actually made at different times by Giuseppe Salerno and are an expression of the still little known tradition of Sicilian "scientific crafts".

A Dystopian Introduction

Let's imagine that living in Naples we find Clara de Sangro, direct descendant of Raimondo de Sangro, Prince of Sansevero, who, according to the legend, in the 18th century was said to have found a way to inject into the bodies of two of his servants substances that were able to turn their cardiovascular systems into an intricate metal mesh. Let's imagine, then, that Clara was able, through another injection, to bring the anatomical machines back to life, and they could then become zombies who could carry out murders. The story would surely be very fascinating. And indeed it is. It is, of course, pure fantasy, but as it was the subject of a special issue, dated 1992,

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of the famous Italian comic book *Martin Mystère*, it is a measure of how much the dark legend of Raimondo de Sangro and his "anatomical machines" is still of great interest to the general public. And, I would say, especially to them. This is not only true in Italy: a quick search on Google reveals many dozens of English-language websites that, in a very credulous manner, tell the most unlikely stories about the subject.

The purpose of this article is to "navigate" among the legends to understand, in the light of the recent bibliography on de Sangro, how much they have, over the centuries, redesigned the actual role played by the prince in the scientific culture, or at least consciousness, of the time. In particular, I will investigate the origins and the meaning of the anatomical artifacts attributed to him, precisely because of the importance they still have in the efforts of those who, without much historical sense, present de Sangro as a sort of esoteric, Neapolitan Leonardo da Vinci. In short, the question which I will try to answer is: what lies beyond the myth?

From Resurrection to Anatomical Machines

Dr. Faust seems to have lived in Italy. At least, as Benedetto Croce showed, the myth of de Sangro – a scientist, proto-chemist and Neapolitan philosopher of the 18th century – was re-elaborated over the centuries in such a way as to give him characteristics very similar to those of the Goethean character. Croce says, recounting the legend: "When [de Sangro] felt death arrive, he made a plan for his resurrection, and he was cut to pieces by a black slave and placed in a chest from which he planned to jump out alive and healthy at the prefixed time; however, his family [...] searched for the chest, found it too soon, while the pieces of the body were still welding together, and the prince, as if he were awakened in his sleep, tried to rise up but immediately fell down, crying out in a scream of the damned"[1]. Therefore, de Sangro's resurrection failed.

In fact, more or less the whole myth of de Sangro revolves around the concept of resurrection or at least regeneration. The theme of rebirth – and here I move from legend to history – is, for example, a true Leitmotiv in the statues decorating the Chapel (never consecrated) that the Prince renovated and enriched with precious works of art to accommodate the tombs of his family members. Rebirth is known to be a Christian symbol that is appropriate for decorating a funeral chapel, but it is also an alchemical and Masonic symbol: and here we must remember that de Sangro had been the Great Master of Neapolitan Freemasonry, until it was banned in 1751. As Clorinda Donato summarizes:

> *One of the big themes of masonic research was the preservation of life and death, the understanding of the tenuous relationship between life and death, and the desire to penetrate the secrets of antiquity in the signs, symbols and scripts of past civilizations. These two axes of masonic inquiry were intrinsically linked by alchemical practice and often carried out in parallel fashion by their proponents, as the research agenda of the Prince of San Severo amply demonstrates*[2].

Moreover, various testimonies tell us that he conducted experiments in which, after having subjected them to dehydration or calcination, he brought back to life small invertebrate organisms (which, in truth, as we know, were never dead but had only been reduced to a state of "latent life")[3]. Actually it can be said that the dark legend of de Sangro, though clearly highly imaginative, was built on the image he himself wanted to spread about himself, a man capable of breaking the boundaries between life and death. To resurrect himself (though, as mentioned, even in the legend he did not really succeed) and, above all, to resurrect others. As he would admit in the *Apologetic Letter*, he was known for his ability to "call back to life those who were close to passing, which is commonly called resurrecting the dead"[4].

Three years earlier he was said to have healed Luigi Sanseverino, Prince of Bisignano (but also other people). And here we can insert another legend, because it is said that de Sangro, in attempting to care for Sanseverino, realized that his patient had a color similar to that of the substances he had given him. This provided him with evidence that those substances were circulated by the blood. And it was then that he thought of working on the two famous anatomical machines, one male and one female, currently housed in the cavea of the Sansevero Chapel …

Even the two famous anatomical masterpieces have to do with resurrection. As noted in the *Brief Note*, an anonymous repertoire of the wonders kept in the de Sangro house, they were originally placed in the "room of the Phoenix", a name which already brings to mind the idea of rebirth[5].

In the *Brief Note*, written by the Prince or by someone close to him, it is said that in the two machines "it is possible to observe all the veins and all the arteries of the human bodies made by injection", adding that "by opening the skull, it is possible to observe all the blood vessels of the head; and, by opening the mouth, the blood vessels of the tongue are also seen. The delicacy used with the body of a fetus which died with its mother, the female skeleton, is admirable: it lies beside its mother, who stands, and it can be turned around to observe all of its parts. Close to the child is its open placenta, out of which comes the umbilical intestine, which is attached to the fetus in the proper place. Even the skull of this small body can be opened, and the blood vessels observed"[6]. Thus far the quote: I have to inform you that the fetus and placenta were stolen a few decades ago and there are only photos in which it is not easy to understand clearly what they looked like.

In the wake of the *Brief Note*, the few 18th century sources believe that the machines had been prepared by injection. In this way, another legend came into being, echoed in the comic book with which

I opened. Croce says that de Sangro "had two of his servants, a man and a woman, killed and strangely embalmed the bodies so that they would show all their viscera, arteries and veins"[7]. The two machines, according to what many think, were, therefore, obtained with the injection of a metallizing substance. Some believed this was even carried out on subjects who were still alive, so that the woman still has her arm raised, almost in a defensive position[8].

The words of the playwright Salvatore Di Giacomo are an excellent illustration of the Neapolitan fantasies about the Prince's Cabinet: "Wandering flames, infernal lights – the people said – passed through the huge windows that look out, from the ground floor, onto Vico Sansevero [...]. The flames disappeared, darkness returned, and then thuds and prolonged noises were heard there. From time to time, in the silence of the night, there was a sound like the clink of an anvil struck by a heavy hammer, or the cobble of the alley throbbed and trembled, as if with the nearby passage of huge invisible wagons"[9]. Thus, de Sangro is said to have made a precisely Faustian covenant with the devil to know the secret of life and death. Also because, it is said, he not only killed his servants, but "killed [...] no less than seven cardinals" to make as many chairs from their bones and their skin. Not to mention the legends that flourished on the *Veiled Christ*, a masterpiece carved entirely of marble and located in the center of his chapel: it is said that the Prince first covered the original Christ with a fabric veil and then marbled it with a secret substance which he invented. And that, in the end, he blinded the sculptor Giuseppe Sammartino so that he would "never make such an extraordinary sculpture for others".

"Male and Female, He created Them". Two Machines, Two Stories

We could continue at length with these legends, which are truly fascinating. And which could extend to numerous other personages who, between the 18th and 19th centuries, dealt with anatomical

preparations, even in a broader sense[10]. Nevertheless, it is time to question the real origin and nature of the two machines. First of all, one brutally asks oneself: did the Prince make them? At the cost of disappointing some, we must be clear: the answer is no. They were shaped by the Palermo priest, anatomist and artist-artisan Giuseppe Salerno. And, at least for one of them, without Salerno having in mind the great project of Alchemic-Masonic palingenesis to which de Sangro aspired.

Salerno had worked in Palermo under the direction of Giuseppe Mastiani, a student of Jacques-Bénigne Winslow in Paris. At the Academy of Sciences of Paris, Mastiani had been praised for two wood models four times natural size, one of the eye and the other of the human ear, in the way that the two organs had been described by Winslow. Upon returning to Palermo, Mastiani had continued to work on wood anatomical pieces, which, at his early death at age 41, were said to have been purchased, along with all his tools, by the Benedictines of the San Martino Abbey. Salerno had probably learned to work wood from Mastiani, which, as we will see, might have been of some importance in the two de Sangro machines[11]. And from Mastiani he may have learned, above all, how to inject fluid into the cardiovascular system to preserve it. Winslow, his master, had learned the technique in the Netherlands from Frederik Ruysch, the father of anatomical preparations by injection, whose famous works, which seemed to dissolve the border between life and death, captured the imagination of his contemporaries and not only… so that in the 19th century Giacomo Leopardi imagined the awakening of those anatomical specimens in the "Dialogue between Frederik Ruysch and his mummies". Can we, therefore, say that there is a vague element of continuity between Ruysch and Salerno? Maybe yes, although obviously not direct (and not too sure).

But were the two machines, though not prepared by de Sangro, at least made for him? It would seem that the first, the male one, was

not. It was made in Sicily and exhibited at the Academy of Medicine in Palermo on 5 May 1756, during a public demonstration of osteology and angiology in the presence of Viceroy Giovanni Fogliani Sforza d'Aragona even. Furthermore, it would seem that Salerno wanted to bring it to Bologna, a city in that period galvanized by the wonderful anatomical statues of Ercole Lelli. But, passing through Naples, he decided to exhibit his artifact. Instead, some suppose that Francesco Buonocore – doctor to King Charles of Bourbon – had seen the performance in Palermo and had made sure that Salerno was invited to Naples[12]. As it was, he also performed in this city, by decree of the King, with great audience participation, at the so-called Chamber of Conclusions, on 27 November of that same year. And in Naples that machine was so well appreciated that de Sangro decided to buy it the day after, granting a stipend to Salerno[13]. Therefore, the male machine can be dated to 1756 (or slightly earlier).

We must next consider the origin of the second Neapolitan machine. Apparently, despite the legend that the two statues are "twins", i.e. made together, it would seem that the female machine was not produced until a few years later and perhaps with greater participation by de Sangro, at least as far as the design of the techniques used is concerned. A document, to be verified, kept in the Naples Notary's Archive, dated 11 February 1763, reads: "Having the Prince devised a way of constructing the path of arteries and veins in a manner similar to nature, namely with an anatomical machine of great utility for human society, the aforementioned artery and vein circulatory machine will be made in wax and in such a way that the Prince can permit all professors to examine and study the metamorphoses of the human body"[14]. Actually, I was not in a position to re-find this document, which, furthermore, has been published in a highly contested monograph: therefore caution is needed. At that time, de Sangro was already full of debts, but seven years after his first contact, he promised Salerno 2000 ducati for the creation

of another wonder that would increase his prestige[15]. The official purpose, stated in the notarial contract, was that it was to be used to contribute to the training of health care workers to prevent events, such as, for istance, those of 1752-1754, when at the Hospital of the Incurables of Naples, the surgeon Carlo Curzio had been unprepared in the face of the so-called "tree woman": a young woman suffering from thickening and hardening of the skin which would later be named scleroderma[16].

The story of the "tree woman" is very complicated, I will touch on it briefly later. For now, it is enough to remember that, perhaps having in mind just this clinical case, de Sangro claimed to have an anatomical statue that had a teaching function. To make it, it seems, the Prince made workshops and tools available in Naples. Salerno would have had to find a skeleton (or several skeletons, because it is not a given that the bones are all part of the same subject), which should not have been difficult, especially because as a result of the famine of 1763-64, hundreds of unburied dead had accumulated in the streets of Naples. To tell the truth, finding "human material" would not have been a problem in any case. All this to say that the two machines were made in two different moments. As we shall see, they may also be the result of the use of different techniques.

Sicilian Digression. Hypothesis of an Origin

A rumor tells that the Palermitans were not happy about Salerno's choice of donating his masterpieces to the Neapolitans, so they induced him to make two more skeletons, "one of a woman and the other of a man, in which, using real bones, he added colored iron wires to represent what was needed to make visible the vascular system of the entire animal structure"[17]. For some, at least three bodies prepared by Salerno stayed in Sicily: two women and one man. And with (at least) two of them, he is said to have held (at least) two other public demonstrations in the presence of the Viceroy: one in October 1762 and the other in

December 1789, which says a great deal about the theatrical – but also ceremonial – dimension in which these performances took place[18].
In particular, the highly spectacular performance of 1789 was not appreciated by Palermitan doctors and surgeons, who accused Salerno of showing off by attributing to himself results already achieved thirty years earlier by others. Paolo Graffeo or Graffei, a Palermo "surgeon", had already made two skeletons (which, it seems, did not include a cardiocirculatory system) in wax: a male in 1753 and a female, with a four month old fetus, in 1758[19].
If this news is true – actually there are some dating problems and when a source refers to a machine, it is often very general, so much so that in some cases it is not clear whether it is talking about a single object or different statues – it can be assumed that shortly after the middle of the 18th century there were at least six (or seven) anatomical machines in some way "related" to each other: the two made by Salerno in Naples, Salerno's two or three others which stayed in Palermo, and the two made by Graffeo. The story at this point could be told differently:

1. In 1753 Paolo Graffeo made a male machine.
2. In 1756 Giuseppe Salerno, described by almost all as envious, contemptuous and mentally unstable (he, among other things, would commit suicide by throwing himself off a balcony), took inspiration from Graffeo and made his own male machine, then bought by de Sangro. Beyond the scenographic effect, the precision and criticism of his contemporaries, the substantial difference between the works of Graffei and those of Salerno is that the former seem to have been simple osteological statues in wax (the conditional tense is a must); while the latter, were statues with human bones covered by an artificial cardiocirculatory system.
3. In 1758 Graffeo made a female statue. She, along with his

male machine, is said to have decorated the Academy of Medicine in Palermo. There is news of these statues until the middle of the 19th century when they are described as being in poor condition.

4. By 1762 Salerno had probably made two or three other machines, one or two females and one male. A male specimen and a female specimen would be displayed at the Salnitrian Museum of the Jesuits of Palermo. After the expulsion of the Jesuits from the Kingdom (1767) the statues were described as being neglected. They then probably went to the Anatomical Museum, where all traces of them were lost.
5. In 1763 Salerno made the female statue for de Sangro (unless it was one of the ones already ready, but the notary contract would seem to exclude this possibility: however, the question remains to be ascertained)[20].

   Beyond the vicissitudes of the individual machines, which are very complicated, what is important to highlight here is the vitality of the world of Palermitan "scientific craftsmanship" in which these objects were produced. I am talking about a scientific-craft environment rather than a scientific one in the strict sense, because, as Giuseppe Pitré himself complained, the anatomical and surgical investigation of the time was not of a very high level[21]. It should be noted, however, that there must have been some influence on such craftsmanship from the osteology tradition of Vesalian origin brought to the island at the end of the 16th century by Giovanni Filippo Ingrassia. Nevertheless, it only a hypothesis.

Gaetano Giulio Zumbo, who was Syracusan although he mainly worked between Florence and Paris, had in the first half of the 18th century been, in a certain sense, the father of anatomical wax mod-

elling[22]. He seems to have left a certain ideal legacy on the island, so that some waxes kept in the Human Anatomy Collection of the University of Palermo are still attributed to his school. In any case, at this point, around the middle of the century, around the Academy of Medicine in Palermo there flourished a craftsmanship that mixed the tradition of wax modelling, of religious or artistic origin, with other traditions, which might have been woodworking, metalwork and so on.

The Observation of the Machines

Whatever the correct sequence of facts, the two Neapolitan anatomical machines were made about seven years apart from each other. Moreover, the second, according to the purpoted notary contract, included the use of techniques devised by de Sangro. What do the observations made on them say?

One clarification is necessary: in modern times, the two machines have never been removed from their place in the Chapel's cavea and – as it is right – the very few investigations allowed have been non-invasive. Therefore, there is not a great deal of certainty. During a first study conducted in 2006, it was found that both statues exhibited numerous anatomical anomalies[23]. This suggested that, skeletons aside, the cardiovascular system was completely artificial. From the outside it would seem that the organs were made of wood and covered in wax, which would connect Salerno's work to that of Mastiani, who, as we have seen, was renowned for his wood anatomy.

A survey conducted by Lucia Dacome and Renata Peters, published in 2007, also showed that at least one sample of vessels is made of a wire (an iron alloy) interwoven with silk and then covered with colored wax[24]. This temporarily put an end to the idea that some injection technique had been used which would have linked the two artifacts to the Middle-European tradition of Frederick Ruysch. In contrast, the presence of wax emphasized the relationship between

these objects and the wax modelling tradition of Gaetano Giulio Zumbo. Incidentally, in the first half of the 19th century Giovanni Gorgone had the opportunity to see Salerno's two anatomical machines in Palermo, and he also spoke of a metal structure wrapped in linen wires and covered with colored wax and gum resin melted in the spirit of wine: this allowed the vessels to be more flexible and not to be ruined when they were handled[25].

Other research was conducted in 2013 and 2014 and, although with some differences, it seems to have emerged that the coronary trees of the two statues are reproduced with such precision as to go beyond the anatomical knowledge of the time[26]. Therefore, it has been hypothesized that at least the coronary trees were obtained by injection, while the remainder was created with metal wire wrapped in waxed silk. In a sort of compromise, even Ruysch's legacy seems to be recovered at this point. In Palermo, in addition to the inheritance – still to be explored, in truth – of Mastiani, some influence might have been exercised by Jean de Mezan, who – in 1754 only two years before the creation of Salerno's male machine that ended up in Naples – exhibited preparations that he obtained by injection in the local Academy of Medicine. These then remained in Sicily.

There is, however, an important clue that seems to have been neglected so far: while the male machine has anomalies in the coronary tree compatible with life, the female has abnormalities incompatible with it. At least, this is what is said. In other words, the woman could not have survived with that kind of cardiovascular system. Further studies should be conducted, but for the time being, I believe that this information, coupled with the fact – neglected by all those who have dealt with this kind of investigation – that the female machine is thought to have been made later with substances invented by de Sangro, might suggest that the two artifacts are not "twins": that is, not made with exactly the same techniques. In short, the male machine could have

been made by Salerno with an injection into the coronary tree and artificially for the rest of the cardiovascular system. The female one all artificially, with the new substances invented or somehow found by de Sangro. This could perhaps explain why its appearance was vaguely more "airy" than the male machine. Who knows?

An Interlude on Saint Januarius

But with these two machines did de Sangro really want to show that he could break the boundaries between life and death? Yes, but only symbolically or, better, in an exquisitely representative or theatrical manner. Another episode of his life can shed light on the matter[27].
As is known, Naples' principal patron is Saint Januarius, whose blood, according to tradition, melts in three precise moments of the liturgical year: in May, September and December. After the Protestant reform, the miracles admitted by the Catholics were targeted by critics, especially by Lutherans and Calvinists, who began to argue that they were merely swindles invented by the papists to maintain their power and extort money from the naive. Therefore, starting in the 17th century there were quite a few Protestants who sought to find a natural cause for the liquefaction of the blood of Saint Januarius. Some put on theatrical presentations designed to reveal the alleged miracle. Among them was Caspar Neumann, Court apothecary of Friedrich Wilhelm I, who in Berlin, in January 1734, in the presence of numerous members of the Academy of Sciences, presented three ampoules, similar to the Neapolitan ones, containing a solidified reddish substance. According to the ritual of the day, in Naples it was believed that the blood of Saint Januarius could only liquefy when it was near the head of the same saint, which was kept in an anthropomorphic reliquary. At the sight of the head – it was said – the blood became fluid, almost anticipating the pleasure of resurrection. Neumann wanted to recreate this atmosphere in Berlin, so at a nod from him, someone brought him the head of

a dead person, probably a skull. Approaching the first ampoule, the blood completely dissolved and bubbled: the "miracle of science" was accomplished. Approaching the second, the reddish content swirled only a little. Approaching the third, nothing happened. This experience, much talked about in the 18th and 19th centuries, was carried out by Neumann, a convinced Lutheran and an opponent of those who believed popular superstitions, to show that the miracle of Saint Januarius was not a miracle and that canons of the cathedral could have prepared different amalgams depending on whether they wanted the liquefaction to occur or not. However, as he never revealed what he had put into the three ampoules he only created a merely theatrical performance that illusionistically imitated the alleged miracle, he did not reproduce it.

Having heard about the event, in Naples some tried to reproduce Neumann's experience, but went too far. In 1755, the geographer and astronomer Charles-Marie de la Condamine arrived in Naples, and described a bizarre experience:

> *Being gone one evening to pay my court to her Royal Highness, the Margravine of Bareith, a phial was brought to that princess, set in a circle of brass, or silver gilt and mounted on a pedestal very richly ornamented, which was surmounted again with a caduceus, in order to distinguish the mounting of this from that of the phial kept in the cathedral […]. The phial appeared to be half filled with a grey colored fixed mass or paste, and its sides tarnished with dust. On inclining it alternately several ways, and shaking it for about half a minute, more or less, the paste became liquid and melted: sometimes only partially; at other times it grew fixed again; and on shaking it anew, it was either a shorter or longer time in liquefying. All this was done before our eyes; and what was still more deserving of notice, in such a manner that neither the will nor desire of the person who shook the phial could promote or produce either the one or the other at his discretion*[28].

La Condamine recounted that the actual owner demonstrated the transformation to him a second time in broad daylight and finally re-

vealed how the device operated. The substance in the vial was a mixture of mercury, lead, tin, and bismuth. The metal frame hid a circular channel through which the mercury flowed. Below the ampoule were two small cones, one of which could move freely. Depending on how the vial was shaken, the cones would or would not touch. When they came into contact, a hole opened and the mercury in the hidden channel entered the mixture, making it liquefy. Then the hole closed. When stirring the "machine", the random motion of the lower cone allowed the hole to open again so the mercury could ebb and the amalgam ceased being fluid. The timing of liquefaction and solidification could vary greatly, giving an appearance of "intelligence" to the behavior of the fake blood, which seemed to modify its reaction depending on the person who was handling the device. La Condamine did not name its owner, who might have incurred serious risks if he became known. Nevertheless some years later the astronomer Joseph-Jérôme Lefrançois de Lalande identified the inventor as de Sangro, who had since died and passed beyond the reach of his enemies[29].

De Sangro's ingenious device, although inspired by Neumann's demonstration, had a very different visibility and social function. First of all, the Prince of Sansevero lived in the heart of Catholic Naples. His demonstration was, therefore, never intended to be made public. He possessed far more technical experience than Neumann, whom he criticized for his inability to explain the various phenomena connected with the miracle of Saint Januarius and the supposed "intelligence" of the blood, which did not liquefy in the presence of "heretics". Indeed, Neumann's experiment did nothing to counter the point raised for a century by Catholic apologists in defense of the supernatural origin of the event: its inconstancy and unpredictability, or in other words its failure to behave in a way that was consistent with the laws of nature. In his demonstration Neumann used three different ampoules, lending further weight to the idea that the liquefaction was a deliberate fraud carried out by priests who used a different mixture depending on the result they wished to

obtain. With his device de Sangro instead succeeded in demonstrating that "the intelligence of priests", as he put it, was not necessary, because a concoction of mercury and other ingredients was or at least appeared to be more "intelligent" than the prestidigitations of all the prelates of Naples, and could liquefy, solidify, or increase in volume on its own, independently of any intervention on the part of a human agent.

But what is most important to our argument is that de Sangro's demonstration was a "parlor test" or, better, a "parlor show", not only because of the setting in which it usually took place and the noble audience to which it was addressed. In fact, it seems that the primary objective of the performance was not to deny the miracle, although of course it somewhat undermined the notion of an explicit divine intervention. In the same way as the demonstrations in fashionable *salons* of Jacques de Vaucanson's automatons, de Sangro sought to create a form of "rational recreation" through an explicit illusion whose aim was not to be indistinguishable from the miracle in question, particularly in the eyes of Neapolitans who knew exactly what the liquefying blood was supposed to look like[30].

De Sangro's intention was not to devise a perfect imitation of the miracle in order to discredit it as Neumann sought to do, but to create a symbolic representation, a model in which science, or rather the skill of the artist-craftsman-scientist, could "compete" with God without denying the divine power to perform miracles[31]. This is the reason why the caduceus (symbol of the element mercury, and of alchemy, science, medicine, and transformations) took the place of the cross on the shrine. In short, his was a form of recreational and scientific narcissism motivated by the desire that he shared with noblemen, scientists, and the Masonic confraternity to assert their intellectual self-patronage.

Conclusions

Why have I spoken about de Sangro's attempts to imitate, rather than reproduce, the miracle of Saint Januarius? Because I think the story

helps to shed light on the meaning of the two anatomical machines. Do they really express the attempt of the Neapolitan nobleman to create bodies that challenge death? Yes, but only illusionistically. And it is exactly from this point of view that they are "machines", as was the fake vial of Saint Januarius' blood: artificial objects, at least in part, with movable elements (even the skulls could be opened for example), designed for the theatrical reproduction of reality and mostly destined to credit de Sangro as a great *savant* in the eyes of the foreigners who went to Naples for the *grand tour*. The two anatomical artefacts were, in fact, intended as models, namely objects with which to offer a mere spiritual and aesthetic representation, so to speak, of reality. And this to the extent that, as Charles Batteux explained in those same years, art imitates "nature not as it is in itself, but as it could be, how could it be conceived by the spirit". What was exalted was, therefore, a logic in which "the trick is there, but it is not visible", which, for example, also led de Sangro to give Bayreuth's margravine a fake lapis lazuli, which, under chemical analysis, was indistinguishable from a real stone. As Lucia Dacome clearly sums up:

> *The story of the anatomical machines may be similarly situated in the context of the theatrical convergence of duplication and duplicity, veiling and unveiling that, in the eyes of some viewers, characterized de Sangro's pursuits. […] The interplay between art and nature was, of course, a feature of early modern cabinets of curiosities, where artificers and collectors delighted in the blending of naturalia and artificialia. As historians have suggested, incidental to the development of distinct notions of order and patterns of classification was the emergence of a widening gap between nature and art. However, in the case of anatomy, the blurring of art and nature continued to characterize collections and displays well into the eighteenth century*[32].

It is also true that the very idea of the machine is rooted in a perspective of the body that was still iatromechanical, which saw the circulation of blood as the "circle of life". The notion of "model", like the one elaborated by Marcello Malpighi, had been already ap-

plied several times in a real "machine", like the *statua humana circulatoria* created by Salomon Reisel, personal physician to the Duke of Wüttenberg[33]. But now what created the wonder was not so much the "behavior" of the artifact (much simpler than that of Reisel's statue, but also of the numerous automata, of all types, that could be found), as its insertion in a sort of initiatory path through which visitors could, thanks to the landlord-mentor, lift the veil of appearance and tap into the secrets of nature.

It is in this that the "esoteric baroque" of the Prince's cultural project would reside, in the words of Clorinda Donato. And, in essence, a not inconsiderable part of the scientific culture of the time that flirted with and found power in Freemasonry[34]. It was no coincidence that a few hundred meters from de Sangro's house was the Hospital of the Incurables, in whose Spezieria you can still admire pyramids, diabolical effigies and infinite Masonic symbols, the most important of which is the womb, artistically depicted in two extraordinary golden wood carvings[35].

From this point of view, the Prince-Masonic priest did not particularly intend to interact with the Neapolitan scientific tradition – to clarify, from Ferrante Imperato and Marco Aurelio Severino onwards - but rather to recreate it, in the light of the suggestions from beyond the Alps, in esoteric and "centripetal" terms, i.e. centered on his figure. The new encyclopedia of knowledge, redesigned so as to convey Masonic ambitions, had to have passed through his home. And in it he would have discovered the wonders of knowledge.

Therefore, De Sangro did not want to challenge death, but to *re-create* (i.e. to create again) reality and, through this operation, *recreate* the spirits of his guests. It should not be forgotten that de Sangro's scientific wonders were an instrument for him to present himself as a point of reference for Neapolitan scientific culture. And probably the allusion in the notary purported contract to facts connected with those of the "tree woman" – with which knowledge of the cardiovas-

cular system actually had little to do – depended on the fact that the event had attracted the attention of Abbot Nollet, who de Sangro was courting because through him he wanted to become a corresponding associate of the Paris Academy of Sciences[36].

In short, in a dimension of salon society, what one wanted to give to visitors was a marvel elicited not by a natural object or even a miracle, but from the awareness of witnessing the product of a narcissistic artist-artisan-philosopher-patron, who was exalted by this. And since we are still talking about the Prince of Sansevero, while we have almost forgotten Salerno, it means that de Sangro succeeded in his intent.

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