

Palazzo Tè between Science and Imagination

David Malkiel (Bar-Ilan University), 28.1.2021

When travellers face a site remarkable for its novelty or beauty, they are stimulated to reflect upon their own worldview in light of their new experience. If they do so in writing, this moment of reflection affords a glimpse of that worldview through the traveller's eyes. Today I will discuss the visits of two eighteenth-century rabbis to Mantova's Palazzo Tè, the creation of Giulio Romano, who designed its architecture and executed much of its visual art in roughly 1535 to 1545.

The rabbis are Isaac Lampronti of Ferrara and Hayyim Yoseph David Azulay of Jerusalem, who visited the palace in the early and mid eighteenth century respectively, and wrote about their experiences. Their comments open a window on their attitudes to science and religion, and on the relationship between the two subjects, which was a fraught issue in early modern Europe. In some respects their responses were nearly identical to those of Christian observers, as we shall see, while in others they reflect the rabbis' Jewish identity. But we will also see that the reactions of Lampronti and Azulay to Palazzo Tè reflect significant differences in their respective world views, although both were rabbis.

I. Azulay

To begin with Azulay, Azulay traveled through various countries to raise money on behalf of Palestinian Jewry. There were many such rabbinical fundraisers in the 17th to 19th centuries, but Azulay is the most famous, both because he was one of the greatest rabbis of the eighteenth century, and because he composed a travelogue entitled *Ma'agal Tov – Good Circuit* – which offers a rich account of his experiences. In the summer of 1776 Azulay passed through the Po valley, arriving in Mantova on Friday, July 12th. He tours Mantova and the Mantovano, and leaves descriptions of his visits to local sites. On August 11th a local Jewish industrialist accompanies Azulay to the city's recently renovated Palazzo Tè. Let us look at Azulay's account of his visit:

I went with Sr. Aaron to *Palacio Te*, and there are [there] the forms of warriors and *bella Giuditta* [beautiful Judith], and similarly, human forms out of stone. And some rooms, above, on the ceiling [have] plastering and painting, beautiful to see, especially for those knowledgeable in the art of painting; and the English come to copy their images. And there [is] the chamber of the sound called echo, done with mathematics, such that one man stands in a corner and his counterpart [is] in another corner diagonal [to him], and they speak in a complete whisper and [nevertheless] hear one another. And between the corners there are 50.5 feet [*piès*], and we measured with Mantuan arm lengths [*brazos*], and there are approximately twenty one... There, too, is a cave with strange stones and pictures which in former days had been an artificial water [fountain], but now the pipes are broken. And the building is more than four hundred years old. They said that in Milano there is an echo [chamber] where the sound can be heard seven times; and in Athens it was heard thirteen times. And all this is [accomplished] with the science of mathematics.

Azulay's description of the palace's art singles out *bella Giuditta*, which must refer to the biblical Judith, of Judith and Holofernes. Palazzo Tè contains two images of a woman holding the decapitated head of a man, and presumably Azulay's reference is to one or both of these:

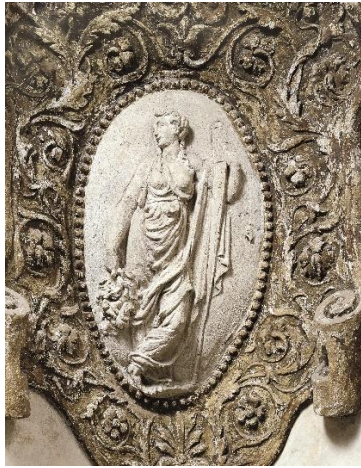


Fig. 1

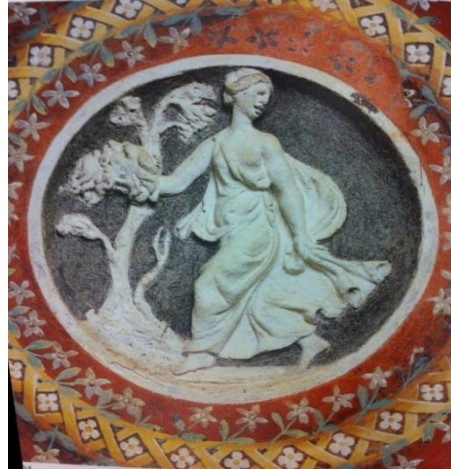


Fig. 2

Fig. 1 shows a stucco decoration, probably by Nicolò da Milano, at the northwest corner of the Camera delle Aquile. The image in Fig. 2 appears on the south wall of the Camera delle Candelabri. In both rooms the image of Judith with the head of Holofernes appears in close proximity to that of David with the head of Goliath, its biblical, symmetrical, counterpart.

Neither of these images is carved from stone, but neither are they frescoes, Azulay's only other category of art. For Azulay to focus on the image of Judith is astonishing, for it is an image of humble dimensions, which is inconspicuous among dozens of similar pieces, none of which was meant to attract more than a passing glance – Fig. 3 grants perspective on the modest presence of this image.

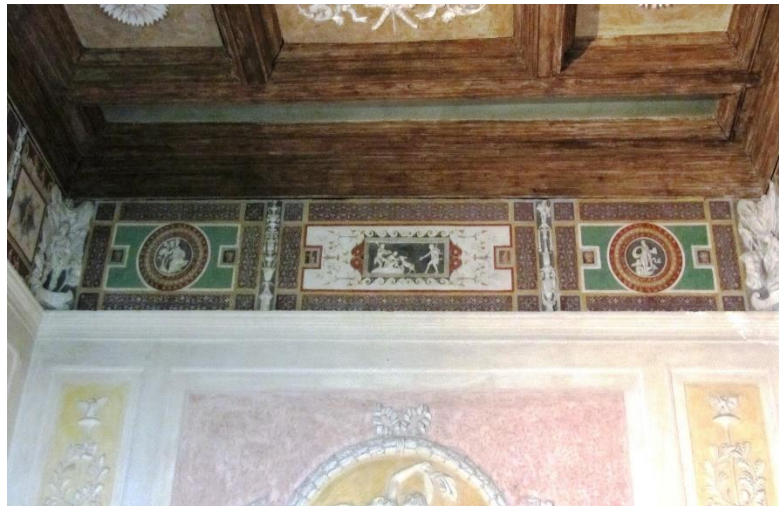


Fig. 3

Perhaps a rabbi felt more comfortable with the Judith image than with those of the palace's Greek gods and goddesses, either because she is a Jewish character or because she is clothed, or at worst with one exposed breast in Fig. 2. Additionally, Azulay might have been more comfortable with the Judith images than with sculpture from a halakhic perspective, given the biblical prohibition of three-dimensional art.

Let us consider Azulay's use of the expression "*bella Giuditta*." The decision to introduce the Italian phrase suggests that this was the phrase with which he was introduced to the Judith piece. Azulay notes that he was accompanied on his visit to the palace by "Sr. Aron," and we may assume that this escort drew the visitor's

attention to the image with this very expression. Plainly, Azulay's visit to Palazzo Tè was mediated, with his local companion showing him the sites *he* found worth seeing, or perhaps those he deemed appropriate for this particular guest.

Sr. Aron is otherwise unknown, but we cannot be sure that he was an art enthusiast. For one thing, Azulay goes on to date the palace to the fourteenth century rather than the sixteenth, and although he may have misunderstood Sr. Aron, it is just as likely that Sr. Aron was no more familiar than Azulay with the palace's actual history. Moreover, Sr. Aron went on to escort Azulay to a local paper factory, which Azulay then describes in as much detail and with no less enthusiasm than he expresses for Palazzo Tè, and in this case, too, Azulay's information and enthusiasm likely reflect the tastes of his escort.

Azulay was accustomed to this sort of cultural mediation, for throughout his travels he was always accompanied, invariably by a personal assistant and generally also by a local Jewish companion. Consequently, Azulay processes the sites he visits through the lens of his escorts, and his observations are to some extent theirs. To return to the problem of what Azulay actually saw, the possibility also exists that *bella Giuditta* was actually nothing of the sort:



Fig. 4

This statue, from the north side of the palace's Loggia di Davide, is just one of several statues of beautiful women in Palazzo Tè, and perhaps Azulay was led to believe that the statue represents the beautiful Judith because of the traditional relationship between Judith and David, both of whom decapitated their enemies. And, notice that the statue's left hand has been amputated, leaving open the possibility that originally it displayed Holofernes' head.

Alternatively, the focus on Judith may have come from the city's Palazzo Ducale, which devotes an entire room to the subject of Judith and Holofernes, including the following image of Judith in the tent of Holofernes.



Fig. 5

Azulay's companion may also have been acquainted with the sixteenth-century fresco in Fig. 6, which shows Judith dropping Holofernes' head into a bucket; this is found in the city's Basilica di Sant'Andrea, in the Mantegna chapel.



Fig. 6

Apart from Azulay's reference to Judith, he also refers to the palace's grounds. He mentions "a cave with strange stones and pictures, which in former days had been an artificial water [fountain], but now the pipes are broken." The cave must be the grotto in the apartment of the Secret Garden – Here is a photo from the grotto, with some of the so-called "strange stones and pictures:"



Fig. 7

The grotto is also mentioned by Leopoldo Camillo Volta, a local librarian and historian, who described the palace in 1763, not long before Azulay's visit. A bit later, in 1783, the palace was visited by William Beckford, an English novelist with a refined appreciation of art, whose travelogue includes an account of his meditation in the garden. Let us see his text:

When it was too late to examine the paintings any longer, I walked into a sort of court, or rather garden, which had been decorated with fountains and antique statues. Their fragments still remain amongst weeds and beds of flowers, for every corner of the place is smothered with vegetation. Here nettles grow thick and rampant: there, tuberoses and jessamine cling around mounds of ruins, which during the elegant reign of the Gonzagas led to grottos and subterranean apartments, concealed from vulgar eyes, and sacred to the most refined enjoyments. I gathered a tuberose that sprang from a shell of white marble, once trickling with water, now half filled with mould, and carrying it home, shut myself up for the rest of the night, inhaled its perfume, and fell a-dreaming.

Azulay's description of the grotto and its fountain contains a hint of Beckford's wistful quality. Both Azulay and Beckford reflected upon the fragmentary remains of what seemed to have been an impressive waterworks, and allude to the eighteenth-century fascination with death, inspired by Edward Young's *Night Thoughts*, and anticipating Shelley's famous *Ozymandias* sonnet of 1818.

Azulay is mainly interested in the echo in the palace's *Camera dei Giganti*. We are struck by the fact that Azulay says nothing about the frescoes of Jupiter punishing the giants for opposing his power and rebelling against him, a scene recorded in Ovid's *Metamorphoses* [1.151-176].



Fig. 8,9

The paintings cover the room completely, walls and ceiling, and Giorgio Vasari explains that the original mosaic floor continued the scene without interruption. The room's power was awesome, profoundly impressing early modern art connoisseurs, including not only Vasari but also André Félibien and Jonathan Richardson, all of whom vividly described its art. Later writers, too, were impressed, some negatively: Dickens found the room nightmarish.

The focus of Azulay's reaction to the chamber is its echo, which was part of the room's original design, and was intended to enhance the effect of the images by intensifying through sound the sense of destruction. Barbara Allason, the twentieth-century Italian author, writes that she was so terrified by the frescoes that she screamed, but then the echo caused "a hundred cavernous, infernal cries," and she ran from the room and out of the building.

Like others who describe the Camera dei Giganti, Azulay carefully presents the room's dimensions. His 21 or so *brazos* are a bit more than Vasari's fifteen *braccia*, but nearly identical to the twenty *braccia mantovane* in the description by Daniello Bartoli, a Jesuit writer, in 1679, who likewise refers to Mantova's variation on the *braccia* unit of measurement. Giovanni Cadioli, a local artist and architect, writing in 1763, also gives the room twenty armlengths, but emphasizes that while the dimensions are modest, the room "sembra una vasta campagna."

But in contrast to these authors, Azulay provides measurements in two different units of length, displaying mathematical precision. The scientific air of the passage is reinforced by Azulay's empiricism, as he emphasizes that he and his companion personally measured the area, an element absent from all the other accounts that provide dimensions. In the same vein, Azulay expresses awe of the power of science and mathematics when he observes – twice! – that the echo is "done with mathematics" or in the second case: "with the science of mathematics."

Azulay's travelogue has many other expressions of his appreciation for the arts and sciences, including natural wonders as well as those of human industry. In Rotterdam, his local companion shows him the impressive statue of Erasmus, of whom Azulay confesses complete ignorance. In Pisa, Azulay visits a number of local sites, including the Palazzo dei Cavalieri, where he is particularly taken with a fountain. He writes: "There [is there] a water fountain, the image of a seated woman, with her bare arms extended, holding in her hands a marble basin, and streams of water from her mouth and hands, a beautiful and praiseworthy thing." This description is striking because the subject of his praise is the figure of a woman, and one with bare arms at that. This is a stark illustration of Azulay's extraordinary receptivity to new intellectual and cultural experiences, and his behavior runs counter to the stereotype of traditional rabbis as incapable of appreciating the products of European civilization.

The products of modern science pose no threat to norms of modesty or to the Second Commandment, but medieval and early modern rabbis often took a jaundiced view of science, which they tagged with the pejorative Hebrew term "Greek wisdom." And, indeed, although Azulay responds to the echo at Palazzo Tè with admiration bordering on awe, elsewhere he is somewhat critical. At Bayonne, Azulay is shown a fossil. He expresses doubt to his hosts, whether regarding its essential nature or its antiquity, and to allay his skepticism, he is told that the fossil had been exhibited in various countries.

Azulay then relates that a local scholar reported reading that there is a bird created in a tree. Those present laugh, whereupon Azulay informs them that this is

found in the *Shulhan Arukh* [2:#84.15], the authoritative code of Jewish law. He adds that "our perfect Torah" is absolutely true, unlike gentile lore, such as the claim that a stone was once a tree, referring to the fossil discussion. This two-part anecdote exemplifies the difficulties facing early modern intellectuals confronted with the latest scientific discoveries, whether because the new knowledge seemed implausible or because it seemed to challenge accepted tradition. Azulay would have been acutely sensitive to this issue in Bayone, a Sephardic community which he considered rife with heterodox behavior and belief.

The respect for mathematics evident from Azulay's description of the echo in the Camera dei Giganti is all the more remarkable in view of the fact that he had no formal education in disciplines outside the traditional Jewish curriculum. Some Palestinian fundraisers circulated in their former homelands, and so they did not experience a culture gap. Azulay, however, was born and raised in Ottoman Palestine, an intellectual backwater, and this helps explain his respect for mathematics.

Azulay's quaint admiration for science at Palazzo Tè fits nicely with other currents in eighteenth-century rabbinic thought, particularly in Italy. *Emunat Hakhamim, The Sages' Faith*, by Solomon Basilea of Mantova, portrays kabbalah as allied with science and opposed only to Greek philosophy. Basilea's approach severs the Aristotelian equation of science with philosophy; it is a logical consequence of the decline of Aristotelianism and the rise of modern science.

Broadening our perspective, it was eastern European rabbis of the latter nineteenth century, most famously Moses Sofer of Hungary, that expressed ambivalence towards modern European culture in response to its impact on Jewish thought and observance. These challenges remained beyond the cultural orbit of the Jews of southern Europe and the Middle East, and consequently the leaders of these communities did not feel threatened. The result was a refreshing combination of a staunchly traditional view of Judaism with a liberal attitude towards new developments in science and technology, and in this case even art. Azulay, a leading Ottoman rabbi and kabbalist, expresses this mindset vividly in his travelogue, and it is encapsulated in his appreciation for the science of Palazzo Tè.

II. Lampronti

Let us move on to our second rabbinic visitor. The echo in Palazzo Tè's Camera dei Giganti had already fascinated an earlier eighteenth-century rabbi, Azulay's elder colleague, Isaac Lampronti of Ferrara. Lampronti studied medicine at Padua's university and practiced his profession while also heading the yeshivah of Ferrara. His magnum opus is a Hebrew encyclopedia of Judaism, *Pahad Yitzhak, Timore d'Isac*, with alphabetical entries on Jewish law and lore. The echo chamber at Palazzo Tè is the subject of the following entry:

In Mantua, outside the city called Tè there is a royal palace, called Palazzo di Tè, and there there is a building and a large room built in the shape of an arch. If you sit at this corner and speak near the corner in a very, very low voice, such that even the people that are close to you hear nothing, someone placing his ear at the diagonally opposite corner will hear everything that is said in a whisper, very clearly and plainly. And I, the author, was there many times and tried [it]. And I heard that a similar thing is found in many places in Italy and elsewhere.

And this is easy to understand for one strong in the science of geometry. And maybe this is what the Sages had in mind when they said *oznayim la-kotel*, namely that sometimes a person speaks and thinks that no one hears, and is wrong, for his words are

heard at a distance when the ear is brought near the wall, and it is as if the wall has ears that hear.

See *Cristiano instruito* by the priest Paulus Segneri, Pt. 2, Speech 18, n. 1, p. 161, in his words on Gehinom: "Many are the inventions which were invented by the cruelty of Dionysus to appear wise, and if one took the glory, it was the prison that he built in the shape of an ear, so that in the small hole that was placed in the arch it would be easy to hear words, laments and noises and cries issued by the prisoners."

See for yourself the intention of our Sages when they said *oznayim la-kotel*.

See also a book called *Dimostrazione delle essenze et attributi di Dio dalle opere della sua creazione* by Guglielmo [i.e. William] Der[h]am, printed in Florence in 1719 according to the Christian computation, Bk. IV, Ch. 3, p. 106, n. 9.

The purpose of this passage is to explicate a Hebrew term, *oznayim la-kotel*, "ears to the wall," rather than to describe a site, and thus, obviously, there are fundamental differences between this text and Azulay's. What stands out is what the two descriptions share, specifically their attitude to science. Like Azulay, Lampronti stresses that he personally tested the room's echo, and not once but on many occasions. For Lampronti, empirical inquiry simply reflects his scientific persona, which makes its appearance less remarkable. Indeed, Lampronti's encyclopedia has numerous entries testifying to his empirical verification of scientific phenomena.

The scientific perspective is expressed not only in Lampronti's statement about the measurements he took, but also in his reference to "the science of geometry." But while Azulay's comments about "mathematics" and "the science of mathematics" are vague, Lampronti's comment is precise, making it clear that he knew what he was talking about. However, while Lampronti goes no further in explaining the significance of geometry, other early modern scholars labored to explain the echo phenomenon.

Some took a decidedly wrong turn. There were those who maintained that words whispered in an echo chamber slither or slide from one corner of the room up to the vault before descending at the opposite corner. This interpretation is discredited by Daniello Bartoli, who observes that, unlike the Camera dei Giganti, the Palazzo Farnese in Caprarola, northwest of Rome, has cornices, which should interrupt the slithering or sliding, and yet the palace is well known for its *stanza parlatrice*. Another wrong approach was the notion that echo chambers have secret ducts behind the walls which conduct sound from one side to another. Heinrich Schickhardt, architect to the Duke of Württemberg, debunks this idea by pointing out that such ducts would have to have openings for the sound to enter and exit, but none are to be found. Bartoli explains that the ducts idea was based on a comparison with the "orecchio di Dioniso" in Siracusa, which, however, also lacks any ducts. Nevertheless, Ellis Veryard of Devon, writing in 1701, attributes the Mantova echo to "certain conceal'd Pipes," and this despite the fact that he, like Lampronti, was a university-trained physician.

Others clung to the mathematical approach. Schickhardt attributes the Palazzo Tè echo to the angle of the vault. Athanasius Kircher discusses the echoes in various palaces, including that of Palazzo Tè, and his explanation of these echoes consistently relies on the laws of acoustics.

Lampronti cites William Derham's *Physico-Theology*, which comments on the ability of certain spaces, like a vault or grotto, to amplify sound, and sometimes to transmit even soft sounds great distances. To this statement, Derham appends the following note, as cited by Lampronti:

It would nauseate the reader to reckon up the places famed for the conveyance of whispers, such as the prison of Dionysus at Syracuse, which is said to increase a whisper to a noise, the clapping one's hands to the sound of a cannon, etc.; nor the aqueducts of Claudius, which carry a voice sixteen miles, and many others, both ancient and modern. If the reader has a mind to be entertained in this way, he may find enough in Kircher's *Phonurgia*. But it may not be irksome to mention one or two of our own in England, among which one of the most famed is the whispering place in Gloucester cathedral, which is no other than a gallery above the east end of the choir, leading from one side thereof to the other. It consists, if I mistake not, of five angles and six sides, the middlemost of which is a naked, uncovered window, looking into a chapel behind it. I guess the two whisperers stand at about twenty-five yards distance from one another. But the dome of St. Paul's, London, is a more considerable whispering place, where the ticking of a watch (when no noise is in the streets) may be heard from side to side; yea, a whisper may be sent all round the dome. And not only in the gallery below, but above, upon the scaffold, I tried and found that a whisper would be carried over one's head round the top of the arch, notwithstanding there is a large opening in the middle of it, into the upper part of the dome.

Like Lampronti, Derham foregrounds the empirical aspect of his testimony, by highlighting his own experiences at St. Paul's.

Derham does not refer to the Mantuan echo and never visited Palazzo Tè, but he likely knew of it from English visitors. Giovanni Cadioli had already noted that "molti de' più illustri ed accorti viaggiatori oltramontani, e particolarmente gl'Inglese, talvolta unicamente per lui si recano alla nostra patria." I've already mentioned Dickens and William Beckford, and another eight Englishmen from the seventeenth and eighteenth centuries left descriptions of the Mantova echo chamber. Five early-modern Frenchmen mention its acoustic effect, and there are also three Germans and a Swede. There are, thus, about as many English testimonies as those of other foreign nationalities combined, excluding Azulay, confirming that the English presence in Italy really was far more robust than other nationalities.

The predominance of the English is to be understood in the context of the Grand Tour. This makes the prominence of Palazzo Tè all the more remarkable, since Mantova was not on the typical Grand Tour itinerary. Entering Italy from the northwest, most English travelers would either head east towards Venice, or down the west coast to Rome, by way of Genova and Florence. Travelers following the western itinerary would often continue to Naples before returning north by way of Ferrara. From Ferrara, travelers could proceed to Venice or begin the journey home via Bologna and Milano. Some would detour southwest from Ferrara to Modena, which was basically en route to Bologna, but few headed northwest to Mantova.

Thus, while it was easy enough for Lampronti to make repeated trips to the Camera dei Giganti from his home in Ferrara, for foreign travelers the decision to visit Mantova was unusual. Yet in Azulay's case it was perfectly understandable, for Settecento Mantova was one of Italy's most thriving Jewish communities, and one a diligent Palestinian fundraiser would be sure to include in his particular "grand tour."

Lampronti shared the general fascination with the palace's echo chamber, but unlike them his focus was on religion rather than on science. *Oznayim la-kotel*, "ears to the wall," the expression that stimulated Lampronti's Palazzo Tè passage, appears in texts from the midrashic literature of late antiquity, which he cites in the Palazzo Tè entry. The first text discusses Ecclesiastes 10:20: "Curse not the king, no, not in thy thought, and curse not the rich in thy bedchamber, for a bird of the air shall carry the voice, and that which hath wings shall tell the matter." In a midrashic passage

[*Leviticus Rabbah* 32.2], Rabbi Jeremiah ben El'azar identifies the so-called "bird of the air" as the raven, and explains that the expression alludes to divination. Rabbi Levi interjects, without elaboration or explanation: "Ears to the path and ears to the wall." Rabbi Jeremiah's interpretation appears again in a later source, which Lampronti also cites, and again the reference to raven divination is followed by R. Levi's pithy remark, this time referring only to "ears to the wall" [*Yalqut Shim'oni* #989].

Lampronti's entry concludes with a cross-reference to his entry on the Medes, which quotes a Talmudic passage in which R. Akiva praises the Medes for only giving advice in a field, rather than in an urban location. Lampronti follows this with Rashi's comment: "As people say, ears to the wall."

Rashi's comment illustrates that people of earlier centuries intuitively understood the expression "ears to the wall" to mean that there is a risk of being overheard, like the equivalent phrase, "i muri hanno le orecchie." Lampronti's association of the midrashic phrase with the echo in Palazzo Tè is counter-intuitive, for it replaces the obvious figurative interpretation with a literal one. How should we understand it?

Lampronti's purpose here needs to be seen in the broader context of his lifelong efforts to synthesize science and religion. For Lampronti, the lesson of the Palazzo Tè text is that readers should take rabbinic dicta seriously, as texts that are both true and profound, even when they are puzzling and may appear erroneous or bizarre. Medieval scholars often suggested figurative interpretations of midrashic lore, to derive lessons in ethics or metaphysics. Lampronti's approach was precisely the opposite, namely, to take the text at face value rather than use allegory to explain it away.

This is also the strategy behind his claim that the Hebrew term *bat qol* – literally "daughter of sound" – a term traditionally understood to refer to divine communication, actually means echo. References follow to earlier interpretations, and Lampronti also cites Derham on the ability of various instruments to amplify sound, most famously Alexander the Great's stentorophonic tube:



Fig. 10

Simply put, Lampronti argues that the Hebrew expression "daughter of sound" represents an indirect reception of the divine voice, like the sight of a person's reflection. This entry is more audacious than the interpretation of "ears to the wall," for it concerns a matter of faith rather than merely of language. Yet in both cases Lampronti interprets an archaic expression by means of a natural phenomenon rather

than an abstract concept. This is a form of realism, which minimizes the need for a figurative reading of ancient texts.

This realist tendency is also found in Lampronti's interpretation of the talmudic text which recommends eating breakfast by the fourth hour of the day, and likens eating at the sixth hour "to throwing a stone into a skin," namely a skin of water. Rashi interprets this expression to mean that the food will be difficult to digest, and Lampronti explains that at so late an hour the stomach, like the skin of water, lacks the ability to actively pull down its contents. Here, too, Lampronti's concrete and specific explanation makes the ancient text seem less arcane.

The most elaborate *Pahad Yitzhak* instance of this hermeneutic concerns a midrashic passage on the role of the human organs (*Berakhot* 61^{r-v}):

Our rabbis taught: Humans have two kidneys, one advises him for good and one advises him for evil. And reason suggests that the good one is on his right and the evil one on his left, as it is said: "The heart of the wise is on his right, and the heart of the fool is on his left" [Eccl. 10:2].

Our rabbis taught: The kidneys prompt, the heart discerns, the tongue cuts, the mouth completes [speech], the esophagus takes in and lets out all kinds of food, the wind-pipe produces sound, the lung absorbs all kinds of liquids, the liver produces anger, the gall throws a drop into it and allays it, the milt produces laughter, the large intestine grinds, the maw produces sleep and the nose awakens.

Lampronti parses this text with his state-of-the-art knowledge of anatomy. He begins with the explanation that the kidneys advise for good and evil insofar as they are the source of semen; thus the dictum refers to sexual activity, which can be righteous when its purpose is procreation or sinful when it serves to satisfy lust. The rest of Lampronti's discussion is more strictly technical, as when he cites a source from Francesco Redi's epistolary to explain the statement "the lung absorbs all kinds of liquids," and then adds his own scientific explanation. Lampronti is delighted with the association of the gall bladder with anger, because it jibes with an anecdote recorded by Jean Fernel about an old, angry, man whose gall bladder had hardened like a rock since it was unable to secrete a drop into the liver to allow the anger to pass. In short, the passage affords a wonderful opportunity to drive home the message of Palazzo Tè, that contemporary science provides tools to unlock the mysteries of ancient Hebrew concepts and sayings.

But not always, and Lampronti also confronts instances when science and religious tradition appear to part company. He is sometimes skeptical of texts and practices that contradict experience. A rabbinic tradition posits that one who masturbates on the eve of the Day of Atonement will die, but the encyclopedia cites a late-medieval source that reports a case in which this did not happen, and Lampronti adds that he knows of a number of such cases.

Similarly, another entry cites the custom of eating the heart of a goose slaughtered during the months of Tevet and Shevat, on account of the tradition that failure to do so may result in the sudden death of the ritual slaughterer. Lampronti nonchalantly notes that he knows of ritual slaughterers who refrained from doing so without consequence.

On the whole, however, Lampronti is loathe to reject rabbinic traditions. A well-known example is his conservative stance on the falsehood of spontaneous generation, which he acknowledges, but which in his view does not justify abrogating a rabbinic precept. He is cautious because he is keenly sensitive not only to the holiness of religious tradition but also to the shortcomings of rational investigation.

An entry on resurrection airs the issue of whether the world is eternal, as well as questions regarding the Afterlife, and while Lampronti offers a few observations, he concludes that “on matters like these, I am not embarrassed to say ‘I do not know.’”

Elsewhere, Lampronti weighs the merits of suggesting an emmendation to a particular talmudic text, but decides against doing so.

To correct by means of reason what our feeble intellect has distorted, by multiplying the realities unnecessarily, is not the way of the wise of heart and of the people who carry the Torah of God in their heart. Rather, everyone is obligated to uphold the version of his book by any means available, and if he cannot, then he can alter [it], or else concede that he does not know, as a wise man said (to scholars who were discussing some philosophical matter among themselves: after lengthy discussion, they conceded that they did not know or understand, for "what their eyes saw was beyond the understanding of their hearts" [Isa. 44:18]).

This passage, like the one on resurrection, expresses a skeptical attitude towards the potential of the intellect, and hence the importance of subordinating scientific inquiry to religious tradition.

Elsewhere Lampronti upholds tradition as a storehouse of truths that are beyond the reach of science. This is the message of the lengthy methodological statement in the preamble to the kidneys entry we read earlier: "You know," he begins, "that the philosophers who strive for knowledge of natural science have achieved great things... but they did not plumb the depths." On the other hand, he continues: "Profound is the knowledge of our scholars who beheld the mystery of God," for those in possession of "the true science" "can perform many more wonders than those which the natural scientists took pride in performing by means of the science of alchemy and *magia naturale*." He concludes: "The human eye cannot see that which is seen by the eye upon which has shone the light of the true science." Ultimately, Dr. Lampronti holds science inferior to the knowledge transmitted through religious tradition.

The preamble to the kidneys entry introduces a programmatic statement about his approach to conflicts between science and biblical or rabbinic dicta:

Therefore, when I arrive at [rabbinic] dicta that talk about matters of natural science, I habitually interpret them in one of two ways: first, according to the opinion of one of the ancient philosophers, even though his colleagues and those who came after him abandoned his opinion... The second [way] is [to interpret them] in keeping with the truth that they knew in the science of tradition, even though this [knowledge] escaped the natural scientists, if it is impossible to reconcile the matter in their method.

Lampronti's first approach to scientific dicta is a historicist interpretation, in which statements and practices in traditional Jewish sources are set in their historical context, rather than evaluated for their objective truth. His second approach reflects the superiority of religious wisdom to science, and still Lampronti labors heroically to close the gap between the two. The echo in the Palazzo Tè Camera dei Giganti excites him because he is convinced that he has found the true, authentic, source of the expression "ears to the wall," just as "echo" is his translation of "daughter of sound." These ancient expressions move from the obscurity of religious arcana into the light of science, resolving momentarily the tension between these realms that preoccupied thinkers in early modern Europe.

III. Conclusion

It is striking that Lampronti and Azulay wrote fairly similar accounts of Palazzo Tè despite the significant differences in their worldviews, which stemmed from their different educational and professional histories. Although both specialized in Jewish law, Lampronti was immersed in the world of science while Azulay breathed the air of Jewish mysticism that pervaded Ottoman Palestine. And still the two accounts of Palazzo Tè marvel at the scientific aspect of the echo in the Camera dei Giganti.

Perhaps another similarity between the two scholars illuminates this remarkable coincidence in their thinking. Lampronti's *Pahad Yitzhak* is the first Hebrew encyclopedia, in a genre that was still in its infancy. Lampronti also produced a series of Hebrew volumes entitled *Bikurei Katzir, First Fruits*, which has been called the first Hebrew periodical. Azulay, too, pioneered two genres in Hebrew literature: His travelogue is the first of its kind in Hebrew, while another work, entitled *Shem ha-Gedolim – The Names of the Greats* – is the first Hebrew bibliography, another genre first produced in the early modern era. The innovative literary quality suggests that both rabbis were restless and ambitious spirits, eager to blaze new trails in their pursuit of knowledge and particularly in its dissemination. From a broader perspective, these generic innovations reflect the importance attributed to order in the eighteenth century, which is attributable to the rapid growth of scientific knowledge, but which was also held up as an aesthetic value.

The irony in our story is that while the two rabbis describe the echo chamber in similar terms, Azulay concentrated on the echo's scientific properties while Lampronti was concerned with its religious significance. This is ironic because the Palestinian kabbalist focused on science while the Italian physician was concerned with religion. This crossover reflects the agility of their minds and the breadth of their horizons, illustrating and confirming their reputations as two of the greatest Jewish minds of the eighteenth century.

But Azulay and Lampronti's Palazzo Tè experiences were not idiosyncratically Jewish; the dozens of printed accounts of the Camera dei Giganti demonstrate that they were typical of the age. Lampronti's remarks reflect the greater accessibility of scientific knowledge in the early modern era. By the seventeenth century, as a consequence of the diffusion of printed works and other social developments, the population of knowledge-consumers had swelled to include non-specialist intellectuals and even cultivated gentlemen. Not only the nobility, but also the simply affluent, strove to broaden their intellectual horizons, and the circle widened to include commoners and even Jews. Young men attended universities and joined academic societies, and their social activity involved polite conversation on recent advances in natural philosophy and natural history.

The role of travel in the acquisition of knowledge, famously in the Grand Tour, is the key to the significance of the Palazzo Tè material for understanding the experience of amateur consumers of knowledge in early modern Europe. People broadened their horizons through travel as well as reading and formal education. They undertook journeys of international travel and later shared the knowledge and experiences they had acquired not only in conversation but also in writing and with the cabinets of curiosities that they assembled.

Azulay hailed from the Middle East, which was atypical, but his account of Palazzo Tè represents the universal hunger for knowledge expressed by seventeenth- and eighteenth-century European travelers, as he marvels at the wonders of human industry in art as well as science. And, indeed, the arts as well as the sciences were the stuff of conversation in early modern salons, and the subjects of treatises and

correspondence by all and sundry. Some visitors to Palazzo Tè were stimulated to contemplate scientific principles, others were moved by the genius of Giulio Romano, but everyone stood still in awe.