

THE AESTHETICS AND POETICS OF THE *ARS COMBINATORIA*

The frontispiece to the first edition of the works of Ramon Llull in Latin, published by Ivo Salzinger (1669-1728) in Mainz in 1721, features an engraving depicting, in a single scene, the birth of the light.¹ In the foreground, we see the Christ Child on a bed of straw receiving the light of the Holy Spirit from his mother. As is customary, the Holy Spirit is represented as a bird. At the same time, a shaft of sunlight shines in an unbroken, straight line through the vast window of this temple that symbolises the human spirit and passes through two lenses to kindle some logs. The message this scene conveys tells us of the need to bring together the natural light of the reason and the supernatural light of grace, the central theme of medieval philosophy and, in a very distinctive way, Ramon Llull's thinking. However, in this 18th-century engraving we witness a complex symbology resulting from the different intellectual strata that are accumulated and endure: some from the hermetic and alchemical tradition, others from the treatises on dioptrics and the new experiments that had been taking place in the field of natural sciences since the 16th century, and others simply from the iconography of the period. If we compare the engraving on the title page of the first volume, which brings together, among other titles, the book Llull wrote after his intellectual enlightenment in 1274 – the *Ars compendiosa inveniendi veritatem* (The summarised art of finding truth) – with the frontispiece of the *Ars magna lucis et umbrae* (The great art of light and shade), which the German scholar Athanasius Kircher (1602-1680), had published in Rome in 1646, in the wake of the passions stirred up in Europe for Llull's universal science project, we see interesting analogies. These include the beam of light from the sun of divine science (theology) that is deflected off the female figure on the right which, according to the lunar regime, symbolises philosophy, and adds the occasional element from Platonic philosophy, but has the same underlying concern: the harmony between the light of reason and the light of Revelation.²

In his edition, Salzinger would have wanted to include, to the displeasure of the Mallorcans – with whom he had an otherwise excellent relationship –, the work erroneously attributed to Llull, but his early death prevented him from doing so. This may be why the engraving in his edition exudes a certain hermetic aura. However, beyond the varied meanings of this symbology, the idea of analogy is present in the two engravings represented by the oblique beams of light: a reality created on the basis of similarities and parallels between an intelligible

¹ *Raymundi Lulli Opera Omnia*, 8 vols, Mainz 1721-1742 (reprinted Frankfurt am Main 1965).

² Athanasius KIRCHER, *Ars magna lucis et umbrae*, Rome 1646 (amended edition: Amsterdam 1671). For the description of the frontispiece, see: Siegfried ZIELINSKI, *Deep Time of the Media. Toward an Archaeology of Hearing and Seeing by Technical Means*, MIT Press, Cambridge, MA 2006.

and spiritual world and another sensitive and material world. In both cases, it is the work of art that enables both worlds to converge, through graphic depiction and the figure. Nevertheless, the art we are dealing with here is no longer the art of a simple etching; indeed, such depictions are the result of human labour, made with the purpose of extolling divine mysteries, and are, therefore, production and artifice, the art it alludes to in such a veiled way is the *Ars magna*,³ a general or universal art, of divine inspiration, that was to provide a method in order to know about all the sciences, to link together different peoples, races and religions, which had its origins and basis in the far-off visionary experience of Ramon Llull in Mallorca, as the first folio of the Karlsruhe *Breviculum* (see p.17) shows us and, following this same model, so many artistic depictions by the person who has gone down in history as “doctor illuminatus”, “vir phantasticus” or “Ramon lo foll” (see p. 153).

Llull abandoned all material well-being to communicate a spiritual truth. One of the things that still intrigues us about Llull’s divine madness is the exact way he gave intellectual and rational content to the light that filled him and led him to write “the best book in the world”. The way he translated these visions, stemming from the situation of the Christian religion in the 13th century, into a universal grammar based on writing that combined the rhythm of prayer and the invocation of God, with a complex system of diagrams and an algebraic notation that had to be memorised and, to the chagrin of some theologians, sought to resolve and argue the mysteries of Christian dogma, never ceases to amaze. The new aspect of the method used, although presented in the form of complicated diagrams of “combinatorial logic”, which sought to better the old Aristotelian syllogistics, consisted of establishing a web of relationships between concepts and predicates, so that God, man and the world were linked to the same reality.⁴ In order to communicate better this message of unity, Llull used the figures of the wheel, the ladder and the tree, which, in so many cultures, symbolise the union of seemingly separate realities. The way he created a new language, in which even the endings of each word used reveal quaternary or ternary structures – associated, in each case, with a cosmological and Trinitarian symbolism – thereby lending the language dynamism, reflects a relational concept of reality, which is exemplified today by what we call a “network”: an updated version of that web of complex – and,

³ *Ars magna et maior* is the other title of the *Ars compendiosa inveniendi veritatem* in Salzinger’s edition, although the *Ars magna* has become, throughout the centuries, the customary way of referring to Llull’s works that set out his logical and combinatorial method, and Lullian philosophical thinking as a whole.

⁴ To read about Lullian logic, see Vittorio HÖSLE’s introduction to: Raimundus Lullus, *Die neue Logik / Logica Nova*, a critical edition of the Latin text supervised by Charles LOHR, Meiner, Hamburg 1985. The critical edition of the Catalan version, in: Ramon Llull, *Lògica Nova*, supervised by Anthony BONNER, Patronat Ramon Llull, Palma 1998.

at the same time, single – reality.

Logic, mysticism and geometry

The religious basis of this universal grammar was found in the meditative practices of the Jewish Kabbalists, Muslim Sufis and Christian Contemplatives, who addressed God in their prayers using what are commonly known as “Names of God “ and which, with some differences, are found in the Torah, the Christian Bible and the Koran. Llull called these Names “virtues” or “divine dignities” and according to the *Ars generalis ultima*, (Pisa, 1307), they are: goodness, greatness, duration or eternity, power, wisdom, will, virtue, truth and glory. Llull realised that if the three religious communities shared the context of a common language, which had the same context of meaning, in discussing the truths of each religion, it was necessary to take the Names of God as a theoretical deduction of thinking, founded, in turn, on the mystical experience of those sages. The Names of God, which to a certain extent correspond to the ideas in Plato, something like an archetypal reality, showed the divine manifestation their ability to externalise themselves in the Creation and to make themselves communicative. This is why the created world bears the imprint of these dignities and the philosopher’s task consists of discovering them, that is, searching for and finding them. We must remember that Llull had learnt the “troubadour’s art” in his youth; he knew how to write love songs like the Occitan troubadours had done. His scientific method of knowledge incorporated a poetic dimension from the very outset: the human being has to discover (*trovar, invenire*) the secrets of nature as if he is searching for the words to a poem. The intuition of Lullian combinatorics was born of the practice of contemplative prayer, in which the Names of God are repeated over and over again, and poetic composition.

In the more simplified versions of his Art, Llull assigned a letter (B C D E F G H I K) to each divine Name or Dignity, proposing they be combined binarily (BC, BD, BE; CD, CE...) in order to obtain prayers or propositions, that showed in a circle how these themes could be converted, according to whether they were treated, alternatively, as subject or predicate (goodness is great, greatness is good, etc...).⁵ This figure represents “absolute principles” and is also known as figure A (or figure of God), as it is placed in the centre of a circumference around which the dignities are arranged. They are all interconvertible; that is why, in its primitive version, the figure shows the lines stemming from each point or chamber occupied by a letter. A second

⁵ For questions about the method, see: Anthony BONNER, *The Art and Logic of Ramon Llull. A User’s Guide*, Brill, Leiden-Boston 2007 and for the study of the origin of the figures: Josep Enric RUBIO, “The Art”, in: *Raimundus Lullus. An Introduction to his Life, Works and Thought*, edition by Alexander FIDORA and Josep Enric RUBIO, Brepols, Turnhout, 2008, pp. 243-310.

figure (T), called the figure of “relative principles”, combines three lists of terms (difference, agreement, discord; beginning, middle, end; majority, equality, minority), visually represented by different-coloured triangles. These principles could be applied through the understanding of the different levels of knowledge that, like a ladder, diversifies between the sensitive and the intelligible (sensitive-sensitive; sensitive-intelligible; intelligible-intelligible). The third figure consists of the first and second, forming a table, like a web or matrix, with chambers containing binary combinations of letters, bearing in mind that each one of them designates an absolute or relative principle, depending on whether it is in the first or second figure. The fourth figure consists of three concentric circles, the upper one being immobile and the two lower ones dynamic (in ancient manuscripts you can still see a rope in the middle to aid the rotating mechanism) making it possible to obtain combinations in this way, in this case of chambers with three letters. The system also features a section of definitions, another containing rules and one with a list of nine subjects (God, angel, sky, man, imagination, sensitive, vegetative, elementative, instrumentality), each of them signified by a letter from the same alphabet used in the figures. A list of nine questions is added to the above which serves as a table of categories referring to everything that can be said about some of the previous subjects or themes; such as, for instance: Whether the angel is an angel or not? What is the angel? What is it from...? Why is it? How much is it? Which one is it? When is it? Where is it? What is it like/What is it with? A list of virtues (justice, prudence, fortitude, temperance, faith, hope, charity, patience, piety) and a list of vices (avarice, gluttony, lust, pride, sloth, envy, wrath, falsehood, fickleness) are added to this series of sections. The different divisions of the book give us an idea that we are dealing with a system of knowledge with logical, theological, philosophical and moral pretensions. Throughout his life, Llull adapted his scientific objectives to other languages with a high symbolic value, such as the *Arbor scientiae* (Tree of Knowledge), written in Rome *circa* 1295/1296, with fold-out sections designed to give the system the value of an encyclopaedia, or works in which “science is transmuted into literature”, to quote Robert Pring-Mill’s apposite thesis when he refers to the so-called Lullian “novels” such as *Blaquerna* and *Fèlix o Llibre de meravelles* (Felix or the Book of Wonders).⁶

From his very first novel produced in Mallorca in 1274, Llull began to introduce corrections and simplifications, until he came up with more condensed versions of his Art. The mission was key; that is, making intellectually comprehensible his method to better convince people. It is, certainly, an art of logical argumentation and conversion because, in the first place,

⁶ “The *recontements de l’arbre exemplifical* of Ramon Llull: the transmutation of science into literature”, in: Robert D.F. PRING-MILL, *Estudis sobre Ramon Llull*, Publicacions de l’Abadia de Montserrat, Barcelona 1991, pp. 307-317.

we have to recognise that it is an art of conversion to his own Art and that is why he had to become mechanically involved in it. It was, at the same time, an art of composing propositions, but as the mission was its firmest intention, it was likewise an art of action: a *modus operandi* through the senses, intelligence and love. The figures give us an idea of the new Lullian method: the divine principles and the faculties of human knowledge are connected and the description of this connection is the reality in which God has revealed himself. The Christian model of the Incarnation was the context that signified the involvement of the Creator in its Creation, and the Trinity was the grammar that expressed the dynamic relationship between divine persons. A relational model disseminated not from above, but from the centre of figure A, whose centre, according to a hermetic universal symbolism is everywhere and the circumference nowhere. It is true that Lull's philosophy is the heir to Neoplatonism and, hence, the reality is structured hierarchically according to a rhythm of ascending and descending sequences between the first and last principle, but it is nonetheless true that, by creating these circular diagrams he was also foretelling an order of connections that was much richer and more complex than the merely vertical (Platonic) or horizontal (Aristotelian).

"Every philosopher can be a good mechanic", Lull wrote in his *Principles of philosophy* II, 1, (Paris 1299 - Mallorca 1300).⁷ The comment proved contentious among the Averroists from that university who defended the independence of philosophical thought vis-à-vis theology. The attitude of those philosophers, which found its clearest expression during the European Enlightenment with the expression "dare to think" (*sapere aude*), contributed to the birth of modernity, but the reach of the unitary concept of knowledge, which Lull fought courageously for throughout his life, could scarcely have been predicted at the time, in the late 13th century. We shouldn't rush to judgement and see in Lull's thinking a subservience to philosophy over theology and Biblical authority. Unlike other theologians of his age, the religious scope of Lull's thinking doesn't draw on the exegesis of the sacred text. Divine creation has not only been revealed in the Scriptures, but also in created nature and, as a result, human intellect. Just as a drop of oil floats on water (following a Lullian metaphor), intelligence is the foundation of faith that leads us to the higher mysteries.

It is a fact that Lull sought to prove the mysteries of Christian dogma to theologians as well as Jewish and Muslim non-believers, and the schismatic Christians in the Eastern Mediterranean, and, in order to do so, imbued intelligence with the ability to argue. This means

⁷ Ramon LLULL, *Començaments de filosofia* (Nova Edició de les Obres de Ramon Llull), Palma 2003/ "*Principia philosophiae (complexa)*", *Raimundi Lulli Opera Latina*, Brepols, Turnhout 1993. Both critical editions supervised by Fernando Domínguez REBOIRAS.

that he didn't want to subject theology to rational thinking, but to direct it towards the discipline of the Art he invented which we recognise today as a precursor of our computer systems.⁸ The paths that have brought the thinking of a mystic and visionary with no academic training to the present day are long and complex, but we remain powerfully struck by the surprising similarity between his system and the digital revolution and the media. The language of abstract signs Llull proposed (see p. 86) to better convey his message, or mission, required mechanical knowledge of his Art, in a similar vein to Plato, who believed that nobody should take up philosophy without a previous knowledge of geometry. Of course – and it could not be otherwise with someone who wished to touch all branches of knowledge – Llull also wrote the *Liber de geometria nova et compendiosa* (Book of new and concise geometry) and *De quadratura et triangulatura circuli* (About the squaring and triangulation of the circle), both of them in Paris in 1299. His *Principles of Philosophy* introduces us to each of these parts using one or several geometrical figures (see pp. 60 and 61). According to the Augustinian model of the powers of the soul (memory, understanding, will), the philosopher who wishes to find the truth has to make an effort to understand by making representations in space; he has to be able to memorise data from a vast network in which everything is interconnected and, above all, he has to love. In 1298, during one of the crises Llull suffered because of the difficulties he had in convincing students and professors from the Sorbonne of the usefulness of his Art, he wrote a mystical book, *Arbre de filosofia d'amor* [Tree of the philosophy of love] in Catalan. It was dedicated in vulgar (French) to Joanna of Navarre (the dedicatee of the Karlsruhe *Breviculum*) and in Latin (*Arbor philosophiae amoris*) to her husband, Philip IV, the Fair. In the foreword to this book, we read the monologue of a beautiful woman (an allegory of the “Philosophy of love”), on the edges of a forest near Paris, who laments and weeps because of people, as, she says: “if they knew how to love as well as they know how to understand” the world would be in a very different situation. Intellectuals spend a great deal of time learning the “sciences of understanding and truth” and forget the “sciences of love and goodness”. Llull's intellectualism is not speculative but mystical: knowledge is incomplete without love and love is incomplete without knowledge. However, it was precisely the mystical and “amative” element that has been marginalised due to a model of knowledge directed solely at epistemological questions.

It was Athanasius Kircher, who, in an attempt to satisfy the curiosity of the German

⁸ Eusebi COLOMER, “De Ramon Llull a la moderna informàtica”, in: Id., *El pensament als Països Catalans durant l'Edat Mitjana i el Renaixement*, Publicacions de l'Abadia de Montserrat, Barcelona 1997, pp. 85-112. More recently: *Ramon Llull: from the Ars Magna to the Artificial Intelligence*, edition by Alexander FIDORA and Carles SIERRA, Artificial Intelligence Research Institute, IIIA, Consejo Superior de Investigaciones Científicas, Barcelona 2011.

emperor Ferdinand III, and his successor Leopold I, set out to clarify the Lullian Art, and immersed himself in his writings for a long time. Although his patience almost ran out, he managed to come up with the keys to reading it, as described in the preface for readers of the *Ars magna sciendi* (Amsterdam, 1669): “under Lullian principles, a plethora of scientific treasures were hidden, as if below a rough Silenus, whose birth would be a source of enrichment to the country”. Spurred on by such discoveries, Kircher wrote his own encyclopaedic work, with the aim of improving on Llull’s where it was lacking. Nevertheless, he only followed the ideas of P. Sebastián Izquierdo, a former professor of theology at the University of Alcalá, who had published his own book in Lyon (1659), entitled: *Pharus scientiarum* (The Lighthouse of Knowledge) (see p. 105), which was widely disseminated in Germany and extolled the combinatorial method: “the finest and most excellent of all the instruments of knowledge”.⁹ P. Izquierdo replaced Lullian-style combinatorics, which he viewed as inadequate, with a mathematical combination that, in fact, would pave the way for the *Dissertatio de arte combinatoria* (Leipzig 1666), the thesis with which Gottfried Wilhelm Leibniz would obtain his degree enabling him to teach at university at only 20 years of age. The precocious mathematician and philosopher had read Llull in the compilation the editor Lazarus Zetzner (Strasbourg, 1598) had made of his works and he also knew of other commentators on Llull, including Giordano Bruno, Agrippa von Netthesheim, Johann Heinrich Alsted and Izquierdo. However, rather than continuing with the mathematical variations expressed in Llull’s *Ars magna*, which soon left behind the archaic method of combining the Names of God, we are now more interested in observing to what extent combinatorics, as the language of an Art that presented itself as general, has survived in our mindset as poetics and aesthetics, that is, in its creative capacity in the arts, poetry and literature.

In his books, Kircher felt the need to include engravings that would express the well-ordered web that represented all the possible relationships between the different orders of existence (from stone to the angel, via animal and man), as Llull had set out. Although it is true that those symbols and diagrams insisted on bringing us the good news of the union between an above and below, it is nonetheless true that in Llull’s figures, as in Kircher’s drawings, we cannot fail to notice a jumble of interconnecting paths. The world of Llull and his followers still exudes a certain trust in the order created by God, without shying away from showing the tension between

⁹ Cf. Tomàs and Joaquim Carreras y Artau, *Historia de la filosofía española. Filosofía cristiana de los siglos XIII al XV*, vol. II (Real Academia de Ciencias Exactas, Físicas y Naturales), Madrid 1943, pp. 310-311 (Facsimile edition: Institut d’Estudis Catalans/ Diputació de Girona, Barcelona-Girona 2001).

the limits of our knowledge – fragile when faced with the complexity of reality – and trust in intellectual perfectionism.

As early as the 15th century, the Lullian mechanism took different paths. The German theologian, astronomer and mathematician, Nicolas of Cusa, amassed a large collection of Llull's manuscripts in his library and was more interested in the philosophical aspects that may stem from Lullian mysticism. Interest in the apologetic method of conversion soon waned among Renaissance philosophers: Giordano Bruno and Agrippa von Nettesheim wrote several books commenting on Llull's Art, feeling the need to add variables to that archaic method in order to increase the amount of possible combinations. The Art started to be adopted as the art of memory using Leibniz's method of calculation. The new model of science sidelined what Llull had considered the "first intention" (to know and love God), while the "second intention", prevailed: in other words, the instrument, the device, the machine. It is also true that the specific emphasis on the faculties of the soul (like memory in Bruno) certainly contributed to a change in perception that, in turn, gave rise to a new philosophy of the spirit during the 19th century. Although the human faculties present in figure T of Llull's Art gathered momentum by becoming independent from the limits of divine dignities, the fact remains that the unitary concept of knowledge, regulated by a combinatorial Art, prepared the mind for global awareness. The fact that Llull might have added notions of medicine, physics, astronomy and philosophy to his Art, stemming from the Greek intellectual milieu and passed on to the West by Jewish, Arabic and Christian scholars, and that, in order to do so, he would have created a mechanical system made up of words, letters and figures, leads us to think that he may have devised some kind of precursor to present-day instruments of analogue and digital technology.

New cognitive paradigms: Between art and poetry

Peter Weibel has suggested that we talk about the "noetic turn" vis-à-vis cultural shifts (linguistic, pictorial, iconic).¹⁰ Lullian conversion, in its mystical and visionary aspect, is one of the cornerstones of the *Ars combinatoria* insofar as it promotes a dynamics of concepts based on its ability to convert, governed by the idea of an agreement underpinned by difference. This is one of the philosopher's most incisive thoughts: "Without difference, there can be neither agreement nor discord" (*Principles of Philosophy III*, 1). Such thinking, proven by following the circles of the geometric figures (see pp. 60 and 61), has a broader scope, because, while the order of logical

¹⁰ *The Global. The New Art Experience in the Digital Age*, ZKM, Karlsruhe 2015, pp. 6-13

knowledge is signified in the ternary (difference, agreement, discord) of one of the triangles in figure T of the Art, at the same time, it has implications in the order of love: “Without difference, there can be no agreement in any love” (*Arbre de filosofia d’amor* [Tree of the Philosophy of Love]).¹¹ The turn of the gaze, which has its origins in Llull’s religious conversion, gives rise to a means of knowledge and love which serve as a basis for establishing a community of men who have been converted to the intelligence of truth, but always based on a principle of transitivity and otherness between both parties, as Vladimir Jankélévitch already saw when he called Llull: “the philosopher of difference”. For Llull, the truth was unquestionably Christ, but as long as the dogmas (the Incarnation and the Trinity) could also be understood by reason. And nevertheless, here too, it remains to be seen to what extent the so-called “necessary reasons” that Llull saw as a prerequisite for all dialogue with the other should no longer be taken in their meaning as a Logos or idea but as a generator and disseminator, and not so much as a way to discursive knowledge associated with an exercise of simple analysis and distinction.

Llull probably never thought that his method would feed the imagination of philosophers, writers and poets, some of them, like Jonathan Swift (*Gulliver’s Travels* 1726) (see p. 112) and Borges, saw, ironically, a “thinking machine” in that vast web. The effects of this story have had constant repercussions throughout the 20th century among the theoreticians of logic and computation, who have seen it as a unique case. However, his Great Art, the *Ars combinatoria* didn’t resurface until, having cast off its epistemological pretensions, it regained its true artistic and poetic dimension. Even in the classical sense (according to which *poiesis* is understood as the ability to produce or create), the Lullian Art retains its meaning without relinquishing its former requirement to be “inventive”; that is, to be an art of discovery, even when the truth no longer identifies with a metaphysical reality. In a purely Lullian sense, invention, insofar as it was the result of human effort longing for the secrets of the Creation, described the way back to the Creator, closing the circuit begun with the extroversion of God. To some extent, with his Art, Llull delivered his own creation to the Creator, he gave him back the mechanical device produced in nature; the light of intelligence had been able to give a new shape and manner to the form the light of grace had, in turn, created. Furthermore, the light of the Art was transmitted through a book while the light of Revelation was conveyed in the Holy Scriptures.

What remains of Llull’s art today is the dynamic and relational model of a language that describes reality, while highlighting the framework and a new landscape for human creation, be it in the sciences or the arts. Following the collapse of the ancient medieval analogue model, and,

¹¹ Ramon Llull, *Arbre de filosofia d’amor*, edition by Gret SCHIB, Barcino, Barcelona 1980, p. 49.

with it, the disappearance of the belief in the cosmos, a vast spider's web of paths, whose beginning and end are unknown, opens up before us in the great network of digital worlds: the multiplication of possibilities and the appearance of an infinite world, as Bruno intuited. New technologies today put to the test a perceived lack of boundaries. When Llull included the need to abide by a series of rules and definitions in his method, he was only guaranteeing the planes of correspondence between language and reality and, therefore, creating a space for the human creative action (mission). His is a network, or "world between" (Zwischenwelt), as Ernst Bloch called it in his "Leipzig Lessons" (1950-1956); and we find relationality and connectivity in this world. The fact is, Ramon Lull's "worlds between" were rich and varied: his world was Catalan, European and Mediterranean at one and the same time; he wrote in Catalan, Latin and Arabic; he travelled from East to West; he looked for a model of knowledge that integrated God, man and the world; he was willing to foster dialogue between Jews, Christians and Muslims, as well as between Latin and Greek Christians. His thinking is the heir to Greek philosophy, to Jewish and Arabic philosophy and Christian Neoplatonism. His concept of reality was shaped by the intersection of philosophy, theology, science and politics; the system of thinking he created interconnected all the disciplines of knowledge of his age (astronomy, philosophy, theology, logic, medicine and law), and the language he used to express all this, the *Ars combinatoria*, is the best example of a way of linking different things. The tension conveyed by the words "worlds between" expresses the dynamics that occur in each of these worlds in relation to themselves and with others, creating a system marked by the rhythm of opening out and withdrawing, of expanding and retracting. We find this dual, relational and dynamic condition in Llull's life and work. His conviction that all things are interconnected is expressed in his diagrammatical figures.

Nonetheless, in a seemingly limitless world, like today's, how can we seek and find, how can we be "troubadours" in the new universes of language and, even more so, in virtual worlds? All of this affects our understanding of freedom and limits of the will, desire and intelligence. Choice, that is, our freedom, resides in the selection of the combination, which could guarantee that we won't be gobbled up by an even greater possibility. To what extent are we beginning to leave behind the arbitrary and eventful side of postmodernity? There may be something of this in the attitude of certain artists and poets who, years ago, distanced themselves from the surrealist movement. On his return from Paris, Salvador Dalí made pronouncements on the genius of Ramon Llull on several occasions. Dalí felt like one of his followers, as other figures of Catalan culture (Ramon Sibiuda, Antoni Gaudí) had done.¹² It would be a fatal mistake to take

¹² I would like to thank Bea Crespo and Carme Ruiz, from the Centre d'Estudis Dalinians (Fundació Gala-Salvador Dalí, Figueres) for their invaluable help. For more about the links between Dalí and Llull see: Elliott H. KING, "Winged

such manifestations as the product of a delirious mind. Only those who have immersed themselves in the vast literary output of the Figueres-born painter will apprehend his combination of intelligence, humour and madness, while being fully aware of the ambiguity contained in the term madness (*folia*) or fantasy as Lull himself uses them in a literary game with his alter ego.¹³ In Dalí's *Manifeste mystique* (Mystical Manifesto, 1951), which already shows his clear break with the surrealists, Dalí defends the religious drift in his art in the face of the decline of a modern, sceptical and disbelieving world. In this brief text we read: "The most beautiful architectures of the human spirit are the Tempietto de San Pietro in Montorio del divino Bramante in Rome, and the Monastery of El Escorial in Spain: both came out of the same incorruptible mould: ecstasy".¹⁴ To Dalí, the "incorruptible mould" was opposed to the corruptible one that he, through his own experience, associated with academicism. The ecstatic art Dalí sees in the architect behind El Escorial must be understood in the context of the Lullian geometry that Juan de Herrera knew.¹⁵ Dalí understands Herrera's project as an application of the principles of the Lullian Art, and as the product of a visionary experience. Years after his manifesto, Dalí painted: *A Propos of the 'Treatise on Cubic Form' by Juan de Herrera* (c. 1960): on a background resembling the landscape of El Escorial, we see a cube with faces made up of a grid of letters, taken from a Latin inscription (*Silo princeps fecit*). The letters are combined in a way that reminds us of some of Lull's figures, such as the third figure in the *Ars brevis* which comes from a codex kept in the library at El Escorial (see p. 43). Inside the cube we find a smaller one, whose edges spell out the name "Juan" in gold letters, and have a series of numbers on the corners. To mark the height and depth of the outer cube, Dalí painted two nails: one with a circular head and the other with a triangular head.¹⁶ In 1954, during his retrospective exhibition at the Palazzo Pallavicini in Rome, Dalí gave a performance during which he emerged from a cube while reading a long manifesto that read: "This allegorical cube has been created according to the *Treatise on the Human Form*, by Juan de Herrera, the builder of El Escorial and architect to Philip II, and following the doctrine of the archangelic Ramon Llull".¹⁷ However, the centrepiece of this ecstatic body of work is the

Fantasy with Lead Feet: The Influence of Llullism and Hiparxiologi on Dalí's Mysticism": Hank HINE, William JEFFETT and Kelly REYNOLDS (eds.), *Persistence & Memory: New Critical Perspectives on Dalí at the Centennial*, Bompiani, Milan 2004, pp. 189-193.

¹³ To read more about the theme of *folia/fantasy*, we must bear in mind Llull's text, *Liber disputationis Petri et Raimundi phantastici*: Ramon LLULL, *El fantàstic - La ciutat del món* (bilingual edition), introduction, translation and notes by Lola BADIA, Brepols-Obrador Edèndum, Turnhout-Sta. Coloma de Queralt, 2008.

¹⁴ Salvador Dalí, *Ensayos 1* [Obra completa, vol. IV] edition and notes by Juan José LAHUERTA, Destino, Barcelona 2005, p. 67.

¹⁵ To read more about Juan de Herrera as librarian to Philip II: René TAYLOR, *Arquitectura y magia. Consideraciones sobre la idea de El Escorial*, Siruela, Madrid 1992.

¹⁶ Cf. Capi CORRALES RODRIGÁNEZ, "Salvador Dalí y la cuestión de las dimensiones": *Suma* 47 (November 2004), pp. 99-108.

¹⁷ Dalí. *Un artista, un genio*, Complesso Monumentale del Vittoriano, 9 March – 1 July 2012, Rome 2012, p. 246.

great Crucifixion scene, also from 1954, entitled: *Corpus hipercubicus*, which Dalí described in 1962 in a similar way to the cube painting: “A hypercubic cross on which the body of Christ metaphysically becomes the ninth cube, according to the precepts of the *Treatise on the Human Form*, by Juan de Herrera, the builder of El Escorial, inspired by Ramon Llull”.¹⁸ We are struck by the similarity between these metaphysical cubes and the “figura elementalis” of the *Lectura compendiosa super artem inveniendi veritatem* (An abbreviated reading of the art of finding truth) from Ivo Salzinger’s Mainz edition (vol. I), which Dalí seems to have reproduced in a fresco at the Palacete Albéniz in Barcelona, this time in Mediterranean landscapes. When we look at these paintings as a whole, we cannot help but think of the close relationship between the visual arts and the theme of the Crucifixion. Although the theme of the Crucifixion is seldom found in early Christian culture, it became a central motif later on: a long tradition of worship in 14th-century Europe made the cosmic symbology of the Cross its own, particularly in the milieu of the Spiritual Franciscans. In different passages of his *Llibre de contemplació en Déu* (Book of Contemplation in God), Llull tells us, at length, about the “tree of the cross”, as a motif for meditation on the Passion of Christ, thus incorporating the tree as the symbol and central figure of his scientific system. Between Dalí’s first oil painting discussed above and this cubic, or hypercubic figure, in the shape of a cross, there is an attempt to make the subject of the Crucifixion a central theme of his artistic output, having removed any brutal and bloody aspects: Dalí’s Christ is an abstraction or conceptualisation by dint of which we only have the nails, but not the body, or rather, we have the idea of the body, as the centre of the universe, according to Dalí’s interpretation following examples by Renaissance artists.

We will reencounter a passion for a metaphysical geometry that, implicitly or explicitly, harks back to projects by Llull and his followers, in the *Metaphysical Boxes* by the Basque sculptor Jorge Oteiza (1908-2003), for whom: “Llull’s mysticism and rationalism are an aesthetic synthesis in his heart. This is his irrational metaphysical reality”.¹⁹ Oteiza, who made sketches for a series of murals (*Tribute to Raimundo Lulio*) at Tarragona Technical College, also seeks to find his place in a metaphysical tradition that combines realism and fantasy.²⁰ In the 1960s, a group of

¹⁸ Quoted in Robert DESCHARNES and Gilles Néret: *Salvador Dalí 1904-1989. The Paintings*, vol II, Taschen, Cologne 1984, p. 344.

¹⁹ *Goya mañana. El realismo inmóvil*, Fundación-Museo Jorge Oteiza Fundazio-Museoa, Alzuza (Navarra) 1997, p. 118

²⁰ *Oteiza. Catálogo razonado de escultura*, vol. II: *Obra abstracta*, edition by Txomin Badiola (to whom I am indebted for this information), Fundación-Museo Jorge Oteiza Fundazio-Museoa, Alzuza (Navarra), pp. 462-464

artists worked on Net-Art projects with engineers and programmers at the “Workshop for the Automatic Generation of Art Forms”, at the Computing Centre of Madrid Complutense University. They included José Maria Yturralde, Manuel Barbadillo, and José Luis Alexanco.²¹ Despite the morphological differences between these artists and others from the same period who were using computer design, such as Georg Nees and Manfred Mohr, it opened up hitherto unexplored means of expression and interaction with computer storage media for this generation. Once again, fantasy and computing joined hands through artistic creativity. More recently, in Germany, we came across another young generation of artists who are developing web-related projects. They include David Link, who is also a student of the *Ars combinatoria*, and whose work for this exhibition: *Meditationes. A Metaphysical Laboratory* (2016), presents an animated digital book that is constantly being written so that, as visitors read the two open pages, the following pages are still being generated. The setting suggests the confinement of a monastic cell. In a corner of the room, on a lectern, visitors can flick through a print version of the same book which contains the entire text stream that is being generated. The book contains a continuous meditation on the core concepts of Llull’s *Ars magna*: the absolute principles (figure A) and the relative principles (figure T), as well as lists of vices and virtues. The software for *Meditationes* is constantly searching on the internet for these concepts and reveals what people think today about those ideas and how they feel connected to them. The flow of text is not repeated and constantly creates new meanings so that it dissipates the meaning of the concepts and seems to abolish the meaning of any language at any time. This description of the installation *Meditationes*, by the artist, highlights the fact that the software created is based on semantic networks, projected onto a screen inside the room, in which every word is connected with another, just like the concepts in figure A of Ramon Llull’s *Ars generalis ultima*. Link has studied generative and computer text generation systems – as featured in his book: *Poesiemaschinen/Maschinenpoesie* (Poetry Machines/Machine Poetry, Munich 2007) –, which have been translating his research into art installations for years. Maybe we should see a certain irony in the title *Meditationes* with regard to Descartes’ work, *Meditationes de prima philosophia* (Metaphysical Meditations), dating from 1641. His previous work, *The Discourse on the Method* (1637), sounded the death knell for the Lullian method, even though his criticism of the book that marked the beginning of modern philosophy didn’t quite manage to consign it to the history books.

The other members of the new generation of German artists, who continue to use Llull’s work as a space for meditation, are Philipp Goldbach, with a sculpture entitled *Ars generalis*

²¹ *El discreto encanto de la tecnología en España*, exhibition catalogue, Claudia GIANETTI, MEIAC-ZKM, Badajoz/Karlsruhe 2008

ultima. Raymundus Lullus (2016), and others who reference Bruno, Kircher, Descartes and other philosophers; and Ralf Baecker, who has installed a vast sculpture entitled *The inverted machine – Rechnender Raum (Computing Space)*, which reveals what could be the innards of a computer and establishes a subtle conversation with Leibniz, for which: “If controversies were to arise, there would be no more need of disputation between two philosophers than between two accountants. For it would suffice to take their pencils in their hands and to say to each other: Let us calculate” (*Scientia generalis. Characteristica* 1683). The clearly utopian attitude of the mathematician and commentator on the *Ars magna*, is not far removed from the Lullian hope of obtaining a secure space where only reason would dictate the rules. Nonetheless, in Lull, there was something more than mathematical calculation; there was poetry too, because, in it, he also expounded the science of love.

We cannot forget that Ramon Llull’s language was, in the words of Marcelino Menéndez-Pelayo, “the first of all vulgar tongues used for metaphysical speculation”.²² The layman and visionary from Mallorca was the first person to write about philosophy and theology in a language other than Latin. And the fact that this language, which was used to coin new hitherto inexistent words and concepts drawn on Llull’s poetic skills as a troubadour, means that the type of metaphysics we are talking about is not the speculative type from Northern Europe, which was unquestionably more precise in its definition but less explosive in its poetic expression. The vulgar tongue, in this case Catalan, began when he was at his creative peak, to quote the poet and art critic Josep Palau i Fabre, an assiduous reader of Lull, in his *Cuaderno Iuliano*.²³ These were not faltering first steps, rather the introduction of his mother tongue pointed to the most sublime themes: love of women and love of God. All of Llull’s work is imbued with the sensuality of his island, as these verses from his poem *Cant de Ramon* reveal: “between the vine and the fennel plant, I was entrapped by love”. Llull’s destiny was marked from the beginning by poetry and even when he sometimes twists the language in order to fight against the very limits of language in an attempt to convey a doctrine inspired by God, he never abandoned the wonder of the creative word. It is surprising to think that the mystic and visionary, who spent years meditating in the solitude and silence of the mountains of Mallorca, wrote more than 250 books almost compulsively. However, once again, it is important to interpret excess, in this case of writing, as a symptom of the absence of God experienced by the mystic which is resolved in the combination of emptiness and fullness. Excess has its own poetic strategies, as in the “Moral

²² Marcelino MENÉNDEZ PELAYO, *Historia de las ideas estéticas en España*, vol. 1, Consejo Superior de Investigaciones Científicas, Madrid 1994, p. 417.

²³ This text is part of the “Cuadernos del alquimista”: *Obra literaria completa*, vol. II, Galaxia Gutenberg/Círculo de Lectores, Barcelona 2005, pp. 375-428

metaphors“ in the *Llibre d'Amic e Amat* (Book of the Lover and the Beloved), a work in which the mystical outburst seeks the geometric measure, based on meditation on a verse for every day of the year. This book lays bare the most intimate moments; it is a book for everyone yet for no one and puts to the test the precision and ecstasy of passion in one place:

“The lover was asked who he belonged to. / He answered: - To love. / What are you made of? / Of love. / Who begot you? / Love. / Where were you born? / In love. / Who nourished you? / Love. / What do you live out of? / Out of love. / Who named you? / Love. / Where do you come from? / From love. / Where do you go to? / To love. / Where are you? / In love. / Do you have anything but love? / He answered: - Yes, blame and wrongdoings against my beloved. / Is there forgiveness in your beloved? / The lover said that both mercy and justice were in his beloved, and for this reason his abode was set between fear and hopefulness.”

The repetition may also point to that point of annihilation of the meaning the poet reaches, as in the repeated recitation of the Names of God that lead to ecstatic rapture. Lull was also inspired by the way the Islamic mystics', the Sufis', “words of love” were set out, drawing on short examples to encourage devotion. The installation by the artist and playwright Valère Novarina updates a similar recitative procedure that may have a certain resonance today. Entitled *Au dieu inconnu* (To the Unknown God), it could be seen at the exhibition *La beauté* (Beauty) at the Palais des Papes during the Avignon Festival in the year 2000 and at the Centre Pompidou in 2008, as part of the exhibition *Traces du Sacré* (Traces of the Sacred), but is, in fact the 25th scene from the play *La Chair de l'homme* (The Flesh of Man) that premiered in 1995 in Avignon.²⁴ All Novarina's literary work and plays are a continuous reflection on the power of the word, its diction, its virtue, its power to reverse and transfer meanings, in short, its creative power, in dialogue with the biblical dimensions of the creative word. Novarina's actors are the receivers and transmitters of a word that precedes and succeeds them. In the installation *Au dieu inconnu* (To the Unknown God), Laurence Mayor's voice recites, for 59 minutes and 20 seconds, 311 definitions of God drawn from the philosophers of Antiquity, Arab thinkers. Fathers of the Church, medieval scholastics, Jewish mystics, Christians, Muslims, philosophers of German idealism, vehement atheists, psychoanalysts, pop singers and other people close to the artist. The recitation beings with the second proposition from the *Liber XXIV philosophorum* (Book of the 24 Philosophers), an enigmatic text dating from the second half of the 12th century: “Deus est sphaera infinita cujus centrum est ubique, circumferentia vero nusquam” (God is an infinite

²⁴ The sound recording of this piece in: Valère Novarina. *Au dieu inconnu*. Une séquence de *La Chair de l'homme* par Laurence Mayor, P.O.L. Dernière bande.

sphere, whose centre is everywhere and whose circumference is nowhere).²⁵ And from this point, the other propositions follow in succession, following the rhythm of breathing in and out that reminds us of certain meditation techniques: “It isn’t a question of interpreting or disseminating orally a written text,” Novarina says, “but of practising the mental experience of breathing out, like somebody who is forced to feed on their own words every time. Respiratory renaissance. To invent a breath (souffle) for oneself. To manage to become a practitioner of breathing.” (*Le Carnet Rouge*, 16th January 1980).²⁶

Mystic excess and rapture form the basis of this dance, of the song and expiration of divine names, which take the “lover” in search of his “beloved” to the limits of meaning, to the limits of his endurance and mental health: “The lover was lovesick due to a surfeit of love and sought to forget the great goodness of his beloved” (Ramon Llull, *Tree of the Philosophy of Love*, 10.1). Passionate love, can open up labyrinths in front of the lover, depending on the direction of the gaze, in which light alternates with darkness. The Lebanese philosopher Jad Hatem, who studied the madness of love in the case of mystic poems such as *Layla and Majnun*, wrote the following about Llull: “The surfeit of love reveals itself as two intensely diverging lines: one leads to desire in an absolute sense and madness; the other gives rise to pure love”.²⁷ The creation of new words is a trademark of the linguistic dynamics of mystical literature, the birth of which coincides with the birth of vulgar languages in Europe; thus, for instance, “a surfeit of love” even when it isn’t found in this form until Ausiàs March, is already present and intuited as substantive in Llull. The feverish desire to find a new method and a new language is the heir to that time when the inward gaze, which was looking for a reality that was “more intimate than intimacy itself” – as Saint Augustine warned many centuries ago – , found the beginning of the 20th century and its need for spiritual renewal as its best counterpoint.

During the first decade of the century, the avant-garde movements introduced creative strategies that broke with the languages of tradition, whose formal implications, to a certain extent, gave rise to ways of thinking that felt legitimised by developing new models of reality. Repetition and

²⁵ To find out about the origins of each definition: *Valère Novarina 311 Gottesdefinitionen*, edition by Leopold VON VERSUCHER, Matthes & Seitz, Berlin 2012.

²⁶ “Le Carnet Rouge (1972-2014). Extraits, in the monograph: *Valère Novarina*, edition by Laure NÉE, Classiques Garnier, Paris 2015, pp. 227-236; Id.: Amador VEGA, “Éléments de théologie dans la dramaturgie de V. Novarina. Une herméneutique du souffle”, pp. 89- 98

²⁷ Jad Hatem, *Suramour: Ausiàs March, Ibn Zaydûn, Ibn 'Arabî, Raymond Lulle*, Paris 2011.

duration have always been ways of mastering contingency, strategies to neutralise the fear triggered by all temporariness. However, we needed to look for the true sense of repetition, or of a thinking that evolves in circles and whose best forms of visual expression are diagrammatic models, among the ascetic and mystical practices of the visionary and contemplative traditions like the ones that arose in the Mediterranean in the context of the “People of the Book”, as the Muslims called the people of the Abrahamic tradition. The Aragonese Kabbalist, Abraham Abulafia (Zaragoza 1240-1291) was a contemporary of Ramon Llull’s and the leading exponent of the so-called “ecstatic Kabbalah”. He reworked the esoteric traditions of the recitation and continuous combination of letters and divine names which he had discovered through his reading of works by the German rabbi Eleazar of Worms. Abulafia, who had passed through Barcelona on his pilgrimage to Jerusalem at the same time Llull was visiting the city, also cultivated that recitation in circles in which the letters and attributes of God were inscribed.²⁸

In the middle of the 1950s, Juan Eduardo Cirlot (1916-1973) practised the permutational technique as an extreme case of combinatorial poetry; in the preface to his book of poetry *El palacio de plata* (The Silver Palace, 1955) he wrote: “This poem represents the extreme consequences of analogy and parallelism. Apart from the first ten verses, which give rise to the prototype, to the ‘germinal chord’, or ‘symbolic series’, all the rest constitute expressive variations of the longing for each thing in its tendency to join with other ones... I came up with the idea of inventing this procedure by basing myself on the techniques of Abraham Abulafia (Kabbalistic lettrism) and Arnold Schönberg (dodecaphonic music), but also because of a growing disdain for the subject ...”²⁹. In reality, this technique had already begun in the metamorphoses on Gustavo Adolfo Bécquer’s “swallows”, as the poet reminds the reader in the preface to *Inger, Permutaciones* (Inger, Permutations, 1971): “Part I consists of the 120 permutations given by the name Inger (1 x 2 x 3 x 4 x 5). Part II comprises free combinations made up of the phonic material drawn from these permutations ... Apart from the origins of this technique (related to dodecaphonic music, the Kabbalistic Tzeruf and an area of mathematics), instead of having a lyrical function, this poem forms a kind of ritual in the face of the impossible”.³⁰ In this case, we are confronted with a sort of combinatorics that is more formal than material, in which structure takes precedence over content or theme; and, nevertheless, at least in some parts of the poem, certain rules prevail thereby avoiding mere chance in the series of variations. In his article entitled

²⁸ Moshe IDEL, *Cábala. Nuevas perspectivas*, Siruela, Madrid 2005, p. 149.

²⁹ Juan Eduardo CIRLOT, *En la llama. Poesía (1943-1959)*, edition by Enrique GRANELL, Siruela, Madrid 2005, p. 512.

³⁰ Juan Eduardo CIRLOT, *Del no mundo. Poesía (1961-1973)*, edition by Clara JANÉS, Siruela, Madrid 2005, p. 659.

“Contra Mallarmé” (Against Mallarmé) and inspired by the art of musical composition, he criticises the automatism of certain cutting-edge avant-garde movements that gave precedence to the simple word without an idea or model. Cirlot defends the permutation in which each and every element must change places without eschewing anything that is already in the original model, as also happened in the kinetic painting being practised at the time (*La Vanguardia*, 16th January 1969). We must distinguish between pure and simple chance controlled from a model. In his brief text “Momento” (1971), a striking portrait of his set of ideas, he says he has a summary of Lull’s *Ars magna* among the books on his table;³¹ it is hard to know when he came into contact with Lull’s work, but in the May 1951 issue of the magazine *Dau al set*, we find his tribute poem: “A Raimundo Lulio” (To Ramon Lull): “a man with a glittering mouth/flooding the morning with stars”. The phonetic nature of the *Inger, Permutaciones* (admirably interpreted by Javier Maderuelo), is likely to hark back to the first drafts for the *Ur-Sonatte* by Kurt Schwitters, a member of the heterodox German Dada movement. However, the ritualistic and religious character Cirlot imbues his poetry with maybe finds a more apposite meaning in the recitation of texts with an invented language, that combines sounds and words by trying to give a new figuration to experiential contents that can be traced back, in the early years of the 20th century, to the beginning of Dadaism in Zurich and the performances at the Cabaret Voltaire, and Hugo Ball in particular. The ascetic and mystical dimension of Ball’s personality has taken time to make its mark on studies of the movement.³²

Involving the different senses in understanding reality already formed the basis of Lullian anthropology, which, in spite of being underpinned by an intellectual perfectionism, does not abandon the spiritual exercise of the senses. The need to act out his texts in the context of multiple perception has led the artist and writer Perejaume – who looks for our being in the paths and places of surrounding geography and has been carrying out what we could call an ontotopology for years – to make the installation: *L’arbre dels exemples* (The Tree of Examples), which refers to the last tree in the *Arbre de la ciència* (The Tree of Science). In this visual and sonic piece, based on a selection of texts from different books by Lull, he records a series of four a capella voices that sing the texts, while, on a huge screen, that immerses us in a Mediterranean holm oak forest, like those wonderful orchards in Lull’s books, which are ideal for encounters between scholars, we see trees turning on their own axes in time to the singing, like whirling dervishes. Perejaume captures the essence of the Lullian mechanism, which is nothing without the intervention of the senses and its ability to make figures: “It is the nature of understanding that

³¹ Ibid., p. 597.

³² Eckhard FÜRLUS, *Anarchie und Mystik*, Kulturverlag Kadmos, Berlin 2012.

it better understands through the demonstration made by sight and hearing, than by hearing alone" (*Principles of Medicine* 1) and that is why he makes the trees spin from their base, implying the close dynamic relationship between the principles and their possible combinations, following the singers who chant: "The root of the tree is a wheel made up of letters signifying the humours" (according to medieval medicine: choleric, sanguine, phlegmatic and melancholic).

Art, literature and poetry can convey, with an expressive strength, from an ethical and aesthetic point of view, some of the key questions that current cognitive technologies and sciences have developed by trial and error. Barbara Maria Stafford's studies of what she calls "visual analogy" have highlighted the importance of the combinatorial system in the visual arts. But where do we go to find the analogy that has vanished from our minds that no longer look for an above and below? Italo Calvino was an active member of the Oulipo Group which experimented with mathematics and poetry in the 1960s. His short stories reveal a longing for an ever-changing model of creative activity. In 1967, Calvino gave a lecture entitled: "Cybernetics and Ghosts (Notes on the narrative as a combinatorial process), in which, among other topics concerning the place of the narrator, he analysed the relationship between combinatorial and unconscious play. When we read the Italian writer we realise that the analogy may not have vanished but rather concealed itself in timeless labyrinths where it becomes difficult to recognise the two areas of the correspondence, although they are there, hiding one horizon inside the other, just like some of the stories in *Invisible Cities* (1972), in which, for his own entertainment and night after night, Marco Polo tells Kublai Khan about his journeys to unreal worlds that are possible for the mind. Our world is like one of those hanging cities whose foundation is "a net which serves as passage and as support" although the inhabitants of the city "know that the net has a limit".

The same question pulsates through this route: what aesthetic and poetic value does the combinatorial technique have outside the mystical and religious context in which Llull composed his own Art? And a second question arises almost straightaway: what ethical value does such an approach to reality leave us? Two separate paths, the sciences and the arts, have developed different languages from formal structures that may have had shared beginnings, as Ramon Llull conceived them. If the meaning of a poem is in the intonation and rhythm, more than the content, then we need to ask ourselves if it has an aesthetic or literary value. But isn't this what also happens in the recitation of the Names of God among the mystics? Meaning, not content, occurs; it appears during the recitation that seeks out the silent, ineffable and undecipherable essence of God. Who knows if God's angels didn't just communicate using the algebra of letters we want to, or seek to decode? To a certain extent, reducing a concept or phrase to a letter implies an

attempt to dispense with or suspend the immediate content itself, so that the simple pronunciation of a letter, with no intellectual mediation, without reflection, just for the memory, puts us in conversation with another who had memorised the entire alphabet at the same time. A conversation of signs, sounds and music will then take place. What a vain pretence it would be to think that there is a content we can access by logic alone: mysticism and art reach an analogous conclusion. There is a belief that the mechanical exercise leads to a veiled meaning, something akin to the code of God. Logic and mysticism are the two languages with which we can try to view the invisible. Logic alone is a way to madness, the demoniacal dimension of creation, just as mysticism alone can be a mere will-o'-the-wisp. Llull's *ars inventiva* can give rise to both paths. Invention, seeking and finding, certainly requires both shared dimensions, that is, not on the separate sides of the same reality: following a principle of active realism, we have the rule, definition and simple comment on what is agreed as a given and we also have invention among everything we believe possible. Invention, according to Siegfried Zielinski, would consist of finding the new in the old and not the old in the new.

If, as the American philosopher Mark C. Taylor recently wrote about the complex network of connections between religion, the economy, the arts and politics: "Being is being connected", the time will have come to pay attention to this essential interconnectivity we are made up of, with our sights set on an ethics of a transitive relationality, in which the difference will be the foundation of agreement; in this way each and every one of the elements of the network expands creatively, not the same as one another but constantly giving rise to identities that have within them different ways of being.

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