



ri-fas motz et apuo
edoli. Eferan ueiau
esert. O. Annaui pa
stat la luna. Camois
maes plane daua.
Non cantar q' della
mieu. Que mante
pretz egouerna.
A des meillur et es

LO FERM VOLER QU'EL COR M'INTRA

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ABSTRACT. The composition *Lo ferm voler qu'el cor m'intra*, attributed to Arnaut Daniel, sanctions the birth of the lyric sestina, which is still surrounded by an aura of excessive technical-formal sacrality that does not allow its essence to be understood. In fact, the sestina presents compositional peculiarities that must first be returned to the type of fruition that the troubadour performance implied (i.e. oral and not written) (Mayo 2012). Moreover, the significance of this performance is not to be attributed to contrivances for their own sake, but to the composer's precise intention to reintroduce into the performance an unexpected passion of his: that of gambling (Marchis 2009). Here, rhymes and notes actually become the dice with which Arnaut plays, and the sestina is transformed into a permutation of possible random combinations (Canettieri 2023). This is made even more effective by the particular melodic pattern (Rossell 2015) and the phonic-semantic characteristics of the text, which give the performance a characteristic semantic-conceptual poignancy.

PAROLE CHIAVE: Arnaut Daniel, Lyric Sestina, Permutations, Game of the Dice

INTRODUCTION

Humans have always had a special relationship with objects, using them not only as tools but also as extensions of their cognition. The creation and use of tools has played a crucial role in human evolution, intertwining with culture and becoming part of human

identity and history. This relationship with things has shaped the development of human identity and history because objects are not simply inert tools, but actively contribute to the creation of human cognitive and emotional reality. In addition, objects can acquire emotional meanings through experience and association, influencing cognitive and emotional processes. In artistic performances, objects can be used to access shared cognitive and emotional states and to fully engage the audience

(section 2). An example of this involvement and the dynamic interaction between artist and object in the creative process can be seen in the relationship between the dice and the lyrical sestina created by the troubadour Arnaut Daniel. Section 3 presents an integrated approach between cognitive science, philology and musicology in order to gain a deeper understanding of the mental processes underlying artistic creation. In particular, it is proposed to consider the troubadour Arnaut Daniel's conception of the lyric sestina not only as a cultural product, but also as a reflection of deeper cognitive processes linked to play, experimentation and creativity; indeed, its conception could be linked to the game of dice, suggesting a link between the formal structure of poetry and the mechanisms of combination and permutation typical of games of chance.

To better understand this approach, in section 4 we will analyse the figure of Arnaut Daniel, of whom we have, on the one hand, the extremely positive image of the linguistic innovator mentioned by Dante and Petrarch, and, on the other hand, the Provençal sources such as the *Vidas* and the *Razos*, which offer us a more intimate and sometimes even ironic portrait of the troubadour. His poems are full of references to concepts such as chance, luck and betting, which explicitly recall the dynamics of games of chance and dice. These elements are further explored in section 5, which examines the metrical and musical structure of the composition *Lo ferm voler qu'el cor m'intra*, considered to be the birth of the sestina. Broadening the view of the phenomenon through performance studies, section 6 also considers the interaction between the author, the object and the audience in the process of creation and fruition: the object is not a passive element, but actively participates in the creation of the work of art. The dice turns out to be central to the creation of the Sestina: it is not just a formal inspiration, but an object that influenced the cognitive and creative processes of Arnaut and his audience. The game of chance, with its dynamics of risk and uncertainty, left a deep impression on the poem, creating an atmosphere of lim-

inality and subversion of the rules. In section 7, the formal-semantic and symbolic analysis of the text continues, revealing a correspondence between the rhyming words and the faces of the dice. The dice game, recalled in both the metrical structure and the content of the text, gives the sestina an ambiguous and polysemic character. The *prima-words* take on different meanings depending on the context and the turn of the game, and are also tinged with erotic connotations, suggesting a less idealised reading of courtly love as sung by Arnaut Daniel. The game of chance, with its element of uncertainty and abandonment to chance, creates an atmosphere of liminality in which traditional categories (true/false, good/evil, body/soul) are blurred and overlapped, creating a liminal dimension that allows new identities to be explored and the boundaries of the self to be crossed. The courtly love sung by Arnaut Daniel is reinterpreted in paragraph 8 in the light of this playful dimension; it is no longer an individual emotion, but a social performance involving several actors (the lover, the lady, the audience) and reflecting the social dynamics of the time.

OBJECT-ORIENTED COGNITION AND CREATIVITY

Humans have always had a special relationship with things, not only because, since their appearance on Earth, they have managed to use what they find in nature to make tools and perform tasks, but also because through their relationship with things they have managed to extend their own cognitive functions in various ways. Unlike other animals, humans not only use tools, but integrate them into their existence, making them extensions of their own cognition. The creation and use of tools has played a crucial role in human evolution, which is linked to culture, understood not as an abstract concept but as a broad and dynamic system that includes tools, devices and the environment. Creative evolution is a continuous process in which mind, body and artefacts co-evolve, allowing the human being to extend and act on the environment to create a dynamic entanglement: it is not just a matter of

using things to perform an immediate function, but of considering tools and artefacts as an integral part of human biological, cultural and evolutionary identity and history, «an experiential mixture of materiality, affectivity and creativity» (Malafouris, 2016, p.295). The tools that the human species is able to create for its own use represent its potential extensions and become part of the body schema as their use generates automated behaviour. This process of incorporation can also be observed in primates, as demonstrated by the experiments conducted in this regard by Atsushi Iriki et al. (1996): In the process of training a macaque to use a rake, it has been observed that the somatosensory receptive fields involved in the mapping of the arm at some point also include the rake itself, which is perceived as part of the limb. The interaction between an acting subject and an object undergoing its action is not a unidirectional process. During interaction, the object does not merely respond to the subject's action; rather, it contributes to the co-constitution of cognitive reality. In addition to cognitive functions, objects can also acquire emotional meaning through experiences and associations. Several studies have emphasised the interdependence between cognitive and emotional processes in association with objects and the environment (Colombetti and Krueger 2015; Piredda 2022; Viola 2021).

It can be argued that objects play an integral role in our cognitive and emotional reality. This implies that they can be employed intentionally to access shared cognitive and emotional states, which often involve other human beings. This is particularly crucial during artistic performances, in order to facilitate the audience's overall enjoyment. Furthermore, although we tend to associate the presentation of an object with the visual domain, particularly when it is presented on stage to evoke a specific concept or narrative, it is also possible to utilise other sensory modalities to present objects. The following paper will analyse the case of an object that is not physically present on stage but can be perceived through particular auditory cues: a

die. This object is present at every stage of artistic creation, from the artist's everyday life, to the moment of creative conception (which led to the birth of a specific poetic form), to that of presentation to the public. The following sections will examine the genesis of the lyric sestina by the troubadour Arnaut Daniel. Daniel's engagement with the dice can be seen as analogous to the relationship between the potter and the clay described by Malafouris (2014). Just as the potter moulds the clay to create the vase, so too does Daniel mould the dice to produce the sestina. However, the clay is not simply a passive medium; it is a continuous and co-extending part of the potter's mind. The creative process through which Arnaut Daniel devised the lyrical sestina reflects the entanglement of the artist with the object, as well as the causal effect of this entanglement on the artist's thought and action. Furthermore, the act of re-presenting this performance to the public extends this engagement.

THE MATERIALITY OF THE LYRICAL SESTINA

The relationship between philology and musicology with the historical sciences has historically been one of close proximity and interdependence. However, the historicist approach inherent to the historical sciences has, at times, presented a challenge to the openness of these disciplines to non-historical fields of inquiry, such as the cognitive sciences. In this regard, Canettieri (2013) posits that a renewed humanism would be beneficial, whereby the creative output of the human mind is also conceptualised in relation to perception and cognitive processes. The focus thus shifts from the textual object, understood solely as a historical document, to the text as an expression of cognitive, emotional and social processes. From this perspective, the text becomes an object of holistic study, providing insights into the societies, bodies and minds that produced it. The example we wish to examine here is that of the creation of the lyric sestina, which, as we shall see, assumes a markedly different meaning when considered through the aforementioned lens.

The lyrical *sestina* (to be distinguished from the narrative *sestina* or *sesta rima*), is a fixed lyrical form comprising six stanzas (*coblas*) of six endecasyllabic verses each, as well as a leave-taking (*tornada*) of three verses. The most striking feature is the absence of a conventional rhyme scheme, with the six concluding words of the initial stanza reappearing in a predetermined sequence at the end of each subsequent stanza. This order is that of the so-called *retrogradatio cruciata*, or centripetal permutation (ABCDEF, FAEBDC, CFDABE, ECBFAD, DEACFB, BDFECA). The most illustrious poets who made use of the lyric *sestina* include Dante Alighieri, who employed the form in his poem *Al poco giorno e al gran cerchio d'ombra*, which was modeled precisely on Arnaut Daniel's composition, as will be discussed in greater detail below. Francesco Petrarca, another prominent poet of the era, wrote no less than nine lyrical *sestinas*¹. This list includes a double *sestina* consisting of twelve verses (Pulsoni 2010), as well as works by Leon Battista Alberti, the poets of Arcadia, and numerous other notable poets, including Giosuè Carducci, Gabriele D'Annunzio, Giuseppe Ungaretti, Franco Fortini, Rudyard Kipling, and Joan Brossa.

It is not the longevity of the *sestina*'s popularity across diverse geographical regions that is of interest here, but rather its very form. It is thought that the *sestina* was invented by Arnaut Daniel, a 12th-century troubadour and author of the poem *Lo ferm voler qu'el cor m'intra*. This poem is included in the *Canzoniere Ambrosiano* (G, 73r) and is regarded as the source text from which the *sestina* originated. This metrical form reached its apogee with Petrarch², who, although he exploited its expressive potential and poetic effects, modified the original nature of this type of composition, giving it a markedly different and distinctly more courtly guise.

The following paragraphs will endeavour to reconnect with the original meaning of the *sestina*, both as a poetic form and as a performance. In particular, it will

be demonstrated how the material basis of this creation, namely the dice, is of any but noble use.

ARNAUT DANIEL: TALENTED TROUBADOUR AND... PENNILESS GAMBLER

The majority of information regarding Arnaut Daniel is derived from secondary sources, from which it certainly emerges that he enjoyed a wide following and admiration among Italian poets (Bampa 2015), earning himself a place even in the *Divine Comedy*. Dante Alighieri, in fact, encounters him in the seventh frame of *Purgatory*, where Guido Guinizzelli points him out, among the lustful, as «miglior fabbro del parlar materno» (*Purg.* XXVI,115-120). The *parlar materno* used by Arnaut was Occitan, the language spoken in the south of France. He was, in fact, a troubadour, that is to say, a poet-musician who did not use Latin but the vernacular spoken to the south of the Loire. In the same canto, a few verses later, he responds by expressing himself in his own vernacular, which constitutes a linguistic unicum in the entire *Comedy* (with the exception of the characters who express themselves in Latin; no other characters express themselves in a language other than that used by Dante). Petrarch makes mention of Arnaut in the *Trionfi*, where he writes «e poi v'era un drappello / di portamenti e di volgari strani: / fra tutti il primo Arnaldo Daniello, / gran maestro d'amor, ch'a la sua terra / ancor fa onor col suo dir strano e bello.» (*Triumphus Cupidinis* IV vv. 38-42). These recognitions, when considered alongside the evidence that Dante employed Arnaut's *sestina* as a model for *Al poco giorno e al gran cerchio d'ombra* (*Rime Petrose*) and Petrarch for nine compositions in the *Canzoniere*, serve to illustrate that the esteem in which this troubadour was held is evidenced by the fact that he was considered a particularly virtuoso artist in the so-called *trobar ric* or *trobar clus*, a particularly elaborate and refined type of poetry (as opposed to *trobar leu*).

On the one hand, we have the testi-

1 *Rerum vulgariū fragmenta* XXII, XXX, LXVI, LXXX, CXXXII, CCXIV, CCXXXVII, CCXXXIX, CCCXXXII.

2 «In realtà la *sestina* è un'invenzione di Petrarca, se la s'intende in quanto forma fissa» (Beltrami 1996: 11).

monies of those who pay him particular honours. What is particularly noteworthy, however, is the less favourable portrayal of his personality as presented by his contemporary troubadours, the *Razos* and *Vidas*³, and as evidenced in his own compositions. For example, in the *Vida* contained in manuscript B⁴, we read:

Arnautz Daniels si fo d'aquella encontrada don fo Arnautz de Maroill, de l'evescat de Peiregos, d'un chastel que a nom Ribairac, et fo gentils hom. Et amparet ben letras e deleitet se en trobar et en caras rimas, per que las soas chansons non son leus ad entendre ni ad aprendre. Et amet una auta dompna de Gascoigna, moiller d'En Guillem de Buonvila, mas non fo crezut qez anc la dompna li fezes plazer en dreich d'amor. Per que el ditz: "Eu sui Arnautz q'amas l'aura e caz la lebre ab lo boue nadi contra suberna" (Ms.: B 27v)⁵.

From this, we can ascertain information regarding his geographical origin (*Ribairac*, i.e. Ribérac in Dordogne in the region of Aquitaine, bishopric of Périgord) and social background (*gentils hom*, i.e. not a man of lowly extraction, but belonging to the petty nobility). The verses quoted in the final part of the *vida* are taken from the *tornada* (the concluding stanza) of *Ab guai so cuindet e leri* (Ms.: A 41, 43-45), which provides insight into Arnaut's stylistic approach. This approach is characterised by the use of contrasting images belonging to totally opposite semantic orders, which creates a strong effect of surprise. Another noteworthy element is the play on words *aura/aur*: by adding an *a*, one goes from accumulating (*amas*) gold (*aur*) to accumulating only air (*aura*), which is a clear reference to being penniless. This is a concept that Raimon de Durfort also attribut-

ed to him. One is prompted to inquire as to how an artist from a relatively affluent background, who could have afforded to pursue a rigorous education in letters, came to be in such a financially disadvantaged position. The answer, to some extent, is encapsulated in his own creation, the lyric *sestina*. Raimon de Durfort, in an exchange of *sirventes* with Truc Malec (Canettieri 1996) concerning the so-called "*affaire Cornilh*"⁶ (Lazzerini 1983), Durfort seems to call Arnaut Daniel himself into question, calling him as «Arnaut l'escoliers, cui coffondon dat e tauliers e vay coma penedensiers paupres de draps e deniers»⁷ (BdT 397.1a, 31-32). From an analysis of these verses, it can be concluded that he was not a prominent artist engaged in the sophisticated art of *trobar*, but rather a financially disadvantaged individual who was frequently observed wearing shabby attire and displaying an excessive interest in gambling. The terms *dat* and *tauliers* are believed to have originated from the dice and the gambling table, respectively, and were commonly used in the context of medieval taverns. A further reference to the game of dice is provided by Arnaut Daniel himself in his poems. In *Lancanson passat li giure*, for instance, the reference is to the rigged dice (vv. 25-32), with which deceitful love deceives without even concealing the deception. Furthermore, in *Anc ieu non l'ai mas elha ma'a* (vv.1-11), the fragility of romantic attachment is conveyed through the rhythmic pairing of *partida-escarida* (match-destiny). However, the most compelling reference is arguably found in *Quan chai la fuelha*, where we read:

3 *Vidas* and *Razos* are frequently encountered within the Provençal canzonieri. They comprise, respectively, biographies of the composers and an elucidation of the content, inspirations, and circumstances surrounding the genesis of a specific composition.

4 All cited texts can be accessed online via the computerised Repertory of Ancient Troubadour and Occitan Literature (<https://www.rialto.unina.it/>).

5 «Arnaut Daniel was from the same district as Arnaut de Mareuil, from the bishopric of Peiregos, from a castle named Ribairac, and was a kind man. And he learnt literature well and delighted in composing and making dear rhymes, so that his songs are neither easy to understand nor to learn. And he loved a noblewoman from Gascony, wife of Guillem de Buonvila, but it was never believed that the woman pleased him by reciprocating this fine love of his. So he says: "I am Arnaut who loves the aura and hunts the hare with the ox and swims upstream"».

6 This is an exchange of *sirventes* in which the authors debate the question of whether it was permissible to comply with the request of a lady who wished to receive a kiss of a very different kind from the usual one.

7 «Arnaut the schoolboy who is lost among the dice and the board, and looks like a penitent, poor as he is in clothes and money».

Bona es vida / pus Joia la mante, / que tals n'escrida / cui ges non vai tan be; / no sai de re / coreillar m'escrida, / que per ma fe / del mielhs ai ma partida. / De drudaria / nom sai de re blasmar / s'autrui paria / trastorn en reirazar; / ges ab sa par / no sai doblar m'amia, / q'una non par / que segonda nol sia. (Rialto IdT 29.16, 17-32)⁸.

The terms *trastorn en reirazar* (v. 28) and *doblar* (v. 29) are typical of the dice game of chance known as Zara or Azar. They indicate, respectively, the act of winning twice the stakes and a particular roll of the dice. This can be seen by consulting the *Libro del los juegos* by Alfonso X el Sabio⁹, which provides a detailed description of the game. The game of Zara or Azar was a popular pastime during the Middle Ages. It involved rolling three dice in a series of attempts to obtain a winning score. In the game of Azar, the two players were required to roll three dice in succession. If the initial player obtained points between 3 and 6 (inclusive) or points on opposite sides of the three dice, between 15 and 18 (inclusive), they were declared the winner and awarded an Azar. Conversely, if the initial roll yields an intermediate point between the two azars (between 7 and 14), the player assigns this point to their opponent and must then make another throw. Should this subsequent roll result in one of the azars (*reirazar*), the player loses at the game. Conversely, should the initial player roll the dice once more and obtain an additional intermediate point, the dice would continue to be rolled until one of the two points to which the two

players were connected was revealed. The *reirazar*, therefore, has a positive or negative connotation depending on the roll of the dice that preceded it. For example, the same result that at the beginning could lead to victory for the first player can later become very dangerous, causing the first player to lose everything should he come out after the first point.

LO FERM VOLER: RECONSTRUCTING THE PERFORMANCE

Eighteen compositions attributed to Arnaut Daniel have come down to us, but the one analysed here is notable for two reasons: it is the first example of a lyric sestina and is contained in one of only two manuscripts in which musical notation is also recorded. The sestina will only truly reach its full potential once it has been canonised as a fixed metre in Petrarch's *Canzoniere* (Beltrami 1996). However, it can be argued that its genesis can be attributed to the playful personality of its first author, as outlined in the previous section. The text is presented below in Eusebi's edition with the modification in the tornada proposed by Fratta (www.rialto.unina.it):

Lo ferm voler qu'el cor m'intra
no · m pot ges becs escoissendre ni onglá
de lauzengier qui pert per mal dir s'arma;
e pus no l'aus batr'ab ram ni ab verja,
sivals a frau, lai on non aurai oncle,
jauzirai joi, en vergier o dins cambra.

Quan mi sove de la cambra
on a mon dan sai que nulhs om non intra

8 «Beautiful is life / if Joy sustains it, / though some, to whom it does not go so well, / speak ill of it; / I do not know / of what to accuse my fate, / for, in my faith, / I have my share of the best. / As for love, / I don't know what to complain about, / so much so that I disdain / the company of others; / with an equal / I can't quite match my friend, / because no one shows herself / to be second to her».

9 «Otra manera ay de iuego de dados que llaman azar que se iuega en esta guisa. El qui primero ouiere de lançar los dados. si lançar XV. puntos o dizeseys. o dizesiete, o dizeocho. o las soçobras destas suertes. que son seys o cinco o quatro o tres; ganen. E qual quiere destas suertes en qual quier manera que uenga segundo los otros juegos que desuso diximos es llamado azar. E si por auentura no lança ninguno destes azares primeramente. et da all otro por suerte una daquellas que son de seys puntos a arriba o de quinze ayuso; en qual quiere manera que pueda uenir. segundo en los otros iuegos diximos que uinien. E despues destas lançar alguna de las suertes que aqui diximos que son azar; esta suerte sera llamada; reazar. et perdera aquel que primero lançar. E otrosi si por auentura no lançar esta suerte. que se torna en reazar. et tomare pora sí una de las otras suertes que son de seys puntos a arriba o de quinze ayuso en qual quiere manera que uenga. Conuerna que lance tantas uegadas fasta que uenga una destas suertes o la suya por que gana. o la dell otro por que pierde. saluo ende si tomare aquella misma suerte que dio all otro; que serie llamada encuentro. E conuernie que tornassen a lançar como de cabo. E como quier que uiniesse alguna delas suertes que son llamadas azar o reazar, et entre tanto que uinie una daquellas que amos auian tomado pora ssi; non ganarie ninguno dellos por ella nin perderie fasta que se partiesse por las suertes; assí como desuso; diz.» (Alfonso X, *El iuego que llaman azar* [fol. 67r]).

- ans me son tug plus que fraire ni oncle -
non ai membre no · m fremisca, neis l'ongla
aissi cum fai l'enfas devant la verja:
tal paor ai no · l sia prop de l'arma.

Del cors li fos, non de l'arma,
e cossentis m'a celat dins sa cambra,
que plus mi nafra · l cor que colp de verja
qu'ar lo sieus sers lai ontilh es non intra:
de lieis serai aisi cum carn e ongl
e non creirai castic d'amic ni d'oncle.

Anc la seror de mon oncle
non amei plus ni tan, per aquest'arma
qu'aitan vezis cum es lo detz de l'ongla,
s'a lieis plagues, volgr'esser de sa cambra:
de me pot far l'amors qu'ins el cor m'intra
miels a son vol c'om fortz de frevol verja.

Pus florid la seca verja
ni de n'Adam foron nebot e oncle
tan fin'amors cum selha qu'el cor m'intra
non cug fos anc en cors no neis en arma:
on qu'eu estei, fors en plan o dins cambra,
mos cors no · s part de lieis tan cum ten l'ongla.

Aissi s'empren e s'enongla
mos cors en lieis cum l'escors'en la verja,
qu'ilh m'es de joi tors e palais e cambra;
e non am tan paren, fraire ni oncle,
qu'en Paradis n'aura doble joi m'arma,
si ja nulhs hom per ben amar lai intra.

Arnaut tramet son cantar d'ongl'e d'oncle,
a Grant Desiei, qui de sa verja l'arma,
son desirat, qu'apres, en cambra intra¹⁰.

The initial observation is that, while the general context of the text is discernible, certain elements are incongruous and do not align with the conventional portrayal of a romantic setting. In verse 37 (*tornada*), the author himself characterizes the composition as *cantar d'ongl'e d'oncle*, a term that denotes a unique stylistic approach.

This aspect will be further examined later on. The principal issue is that the troubadour production has been transmitted to us in a variety of codices, the majority of which only provide the poetic text, devoid of any musical indication. This indicates that when analysing troubadour literature, the oral nature of the performance, which combined words and music, is often overlooked. Consequently, relying solely on the written text is inadequate, necessitating an imaginative approach to fully comprehend the performance and appreciate its aural impact. It was relatively straightforward to perceive the metrical structure and, more generally, the recurring sound elements of the *coblas*. Unlike other forms of poetry, there are no rhymes in the *coblas*; instead, there is a game of permutations in which six different words are repeated in a different order but always in the final position of each verse of the *cobla* (except in the last one, in which they are contracted into three verses, so we find them in the first and second hemistich). A number of scholars have offered insights into the origin of this specific metrical organisation, proposing an esoteric or cabalistic foundation, a connection with the Pythagorean number, a correlation with the shape of the Star of David, or a relationship to the geometric spiral form (Tavera 1965; Queneau 1965; Roubaud 1969; Roncaglia 1981). Upon closer examination, however, it becomes evident that the inspiration for this piece originates from a pastime that Arnaut frequently engaged in at the tavern: gambling. It can be observed that the words in each of the six verses of each

10 «The firm desire which in my heart enters / no beak can ever tear apart, nor nail / of slanderer, whose smears lose him his soul; / since I dare not strike him with branch or rod, / save secretly, there where there is no uncle / I'll have my joy in orchard or in chamber. / When I recall the chamber / where to my harm I know that no man enters / – for all oppose me more than brother or uncle – / no part of me's not trembling, even nail, / just as the child trembles before the rod: / so much I fear not being close in soul. / Would I were close in body, not soul, / and secretly she let me in her chamber! / It wounds my heart more than a blow of rod / that now where she is her servant does not enter: / I shall be hers just as with flesh and nail, / and heed no remonstrance from friend or uncle. / Never the sister of my uncle / loved I more or so much, by this my soul, / For close as is the finger to the nail, / if it pleased her, would I be to her chamber: / more can the love which enters in my heart / do as it wills than strong man with frail rod. / Since there flowered the dry rod / and from Sir Adam sprang nephew or uncle, / such fine love which in my heart enters / was I think never found in body or yet soul; / where'er I am, outside or within chamber, / my heart (body parts) not from her the length of a nail. / Thus my heart/body takes hold like a nail / and grafts itself in her like bark in rod; / of joy she is my tower, palace, chamber, / and more I love not parent, brother, uncle; / for double joy in Paradise will fill my soul, / if any man for loving well there enters. / Arnaut transmits his song of nail and uncle, / to please the one possessing his rod's soul, / the song desired which, learned, in chamber enters.» (Paterson 2024 : 139-141).

cobla (with a *heptasyllabe* in the first verse followed by five *décasyllabes*, which are roughly equivalent to our octonary and endecasyllabes) do not rhyme with each other (*coblas dissolutas*) and are presented in a different order. In the second *cobla*, the words of the preceding *cobla* are repeated in a specific order, with the final word occurring in the first verse, the initial word in the second, the fifth in the third, the second in the fourth, the fourth in the fifth, and the third in the last. The following is an outline of this structure:

	I	II	III	IV	V	VI	VII
<i>intra</i>	1	<i>cambra</i> 7 (6)	<i>arma</i> 13 (6)	<i>oncle</i> 19 (6)	<i>verga</i> 25 (6)	<i>ongla</i> 31 (6)	<i>ongla</i> 37 (6)
<i>ongla</i>	2	<i>intra</i> 8 (1)	<i>cambra</i> 14 (1)	<i>arma</i> 20 (1)	<i>oncle</i> 26 (1)	<i>verga</i> 32 (1)	<i>oncle</i> 37 (1)
<i>arma</i>	3	<i>oncle</i> 9 (5)	<i>verga</i> 15 (5)	<i>ongla</i> 21 (5)	<i>intra</i> 27 (5)	<i>cambra</i> 33 (5)	<i>verga</i> 38 (5)
<i>verga</i>	4	<i>ongla</i> 10 (2)	<i>intra</i> 16 (2)	<i>cambra</i> 22 (2)	<i>arma</i> 28 (2)	<i>oncle</i> 34 (2)	<i>arma</i> 38 (2)
<i>oncle</i>	5	<i>verga</i> 11 (4)	<i>ongla</i> 17 (4)	<i>intra</i> 23 (4)	<i>cambra</i> 29 (4)	<i>arma</i> 35 (4)	<i>cambra</i> 39 (4)
<i>cambra</i>	6	<i>arma</i> 12 (3)	<i>oncle</i> 18 (3)	<i>verga</i> 24 (3)	<i>ongla</i> 30 (3)	<i>intra</i> 36 (3)	<i>intra</i> 39 (3)

FIG. 1. RHYME-WORD SCHEME. THE ROMAN NUMERALS AT THE TOP INDICATE THE NUMBER OF THE STANZA, WHILE THE ARABIC NUMERALS TO THE RIGHT OF THE RHYME-WORDS CORRESPOND TO THE VERSE NUMBER AND THE POSITION IN WHICH THE WORD HAS ALREADY APPEARED IN THE PREVIOUS VERSE (INDICATED IN PARENTHESES BELOW).

An examination of the *Table 1* reveals that the words invariably adhere to a consistent permutation that reiterates the 6-1-5-2-4-3 pattern. This distinctive arrangement is derived from the configuration of the dice faces, the sum of whose opposite faces consistently yields seven (6+1, 5+2, 4+3). The arrangement of the dice faces has consistently adhered to this rule, as evidenced in the historical sources that describe dice-based games. These include the aforementioned Alfonso X, who dedicated an entire section of his work, entitled *En qué guisa deven seer fechos los dados*, to the description of dice. In this section, he states that «deven seer puestos los puntos en esta guisa: só la ffaz del seys el as; e só el cinco el dos; e só el quatro el tría»¹¹ (Alfonso X 2007 : 255).

As previously stated, the reconstruction of *Lo ferm voler's* performance can also be facilitated by referring to the notation in manuscript G of the Biblioteca Ambro-

siana in Milan (square notation on 5 or 6 lines). However, it is essential to recognise that the indications are not as precise as those found in a modern musical score. Instead, they serve as “suggestions” that recall the fundamental structure, akin to a canvas upon which the actual performance was built. While contemporary audiences are accustomed to attending concerts in which musicians perform from written scores, this was not the case for troubadour performances. Indeed, the written score was not a primary element of these

performances, serving merely as a transmission tool. If we are to make an extreme synthesis, we could posit that while in the modern era the use of the score is chronologically prior to the performance (in a study phase or even earlier in a composition phase), in the troubadour tradition it is only subsequent to an exquisitely oral performance, which is only later – possibly – immortalised on a graphic support. Similarly, the melody of *Lo ferm voler* can be discerned from the modern notation transcription provided herewith:

The opening of three notes at a distance of a third from each other immediately captures the listener’s attention. These notes form what is classifiable in our musical conception as a C-major chord. For a modern-day listener, this chord provides an indication of the tonality of the piece. It should be noted, however, that this is a medieval composition, in which the modal structure is still widely

¹¹ «The dice should be arranged as follows: the six should be on top of the one, the five on top of the two, and the four on top of the three».

Lo ferm vo - ler qu'el cor m'in - tra
nom pot ges becs es
cois - - sen - - dre ni on - - gla
de lau zen gier qui pert
per mal dir s'a ma - -
e car non l'aus - batr ab ram ni
ab ver - - - - - ga
si vais a frau lai on non
au rai on - - - - - cle
jau - zi - rai joi en ver - ger
o dins cam - - - - - bra

used. For a medieval listener, the intervals of fourths and fifths sounded consonant, but the interval of thirds was perceived as unusual. Throughout the composition, one encounters several instances of the same melodic movement proceeding in ascending and descending thirds, which sometimes join to form a single motivic cell (Rossell 2012). It is not feasible within the scope of this analysis to provide a detailed reconstruction of the melody. However, it is possible to offer an illustrative aural representation by combining this transcription with the predominantly iambic prosodic pattern (succession of a short and a long syllable). It can be stated with certainty that the melody appears coherent to the modern listener, with a punctuated rhythm that is slightly claudic. However, it is likely that the medieval listener perceived the musical rendition as highly elaborate.

The interpretative proposal that will be put forward at this point is that Arnaut Daniel sought to achieve all these musical, prosodic and semantic effects with the precise intention of transposing the dice into music. Therefore, ‘*Lo ferm voler*’ represents not only a metric reflection of the dice faces, but also a reification of the dice game in music, metrics and words. When the text is read alone, the permutation is discernible only in the order of the word-rhymes. However, this would constitute an experience that is far removed from the actual performance, as it employs a channel that was not contemplated in the original presentation; in contrast, when considering the entirety of the performance, it is crucial to emphasise orality. Consequently, the expedient of permutation is no longer constrained to the arrangement of words and rhymes, but is encompassed by its sound effects. The suggestions of the unusual intervals of thirds, the iambic rhythm, and the allu-

sions in the text (which will be discussed in greater detail later on) cause the listener to be transported into the goliardic setting of the tavern, where it is customary to play dice. This results in a playful art form in itself.

THE PERFORMANCE OF OBJECTS AND GAMES

It has been observed that the performance of *Lo ferm voler* is closely associated with the specific dimensions evoked by the dice in its metrical and musical structure. However, it is essential to avoid the automatic projection of our experience of composition onto that of the troubadours, which may lead to an inaccurate interpretation. As has been previously observed, our concept of musical composition is inextricably linked to the utilisation of graphic media. However, it is more probable that troubadours engaged directly with the musical instrument, eschewing the externalisation of the artistic product through encoding, and instead memorising it. This suggests a certain degree of slippage in the conventional understanding of performance. Schechner (2013) posits that it is not the stage that defines and delineates the performance, but rather that almost any everyday action is imbued with a certain performative quality¹². This entails the re-proposing of our restored behaviour in various ways, assembling it in different configurations. Consequently, the temporal and spatial contours of the performance are likely to be much more blurred than we typically assume¹³. So, taking into account the considerations from the previous section, it can be said that to fully understand *Lo ferm voler*, it’s not enough to simply read the text¹⁴. Rather, it is necessary to conceive of it as a global performance that also includes the dice and the game of chance. In this regard, Schechner argues that

12 Schechner (2013) distinguishes in this regard between *is* performance and *as* performance.

13 «Put in personal terms, restored behavior is “me behaving as if I am someone else” or “as if I am ‘beside myself,’ or ‘not myself,’” as when in trance. But this “someone else” may also be “me in another state of feeling/being,” as if there were multiple “me’s” in each person.» (Schechner 1985 : 37).

14 It is also possible to consider a fruition that is limited to reading only. However, it is important to be aware that in this case, the original fruition is not being reconstructed as it was originally conceived.

«Play is performance (when it is done openly, in public) and performative when it is more private, even secret – a strategy or reverie rather than a display. This interiority separates play from ritual, which is always being enacted. Games - a special kind of playing - depend on more fixed, solid boundaries» (Schechner 2013 : 92).

In both the game and the performance, the rules, turns and sequences of actions that define a temporal structure have a profound effect on the experience. The rules constitute the framework within which limits, possibilities and modes of interaction are defined. As evidenced by the testimonies cited, the game of dice was an integral aspect of Arnaut Daniel's daily life. However, in *Lo ferm voler*, he incorporates his personal experience into the performance, sharing with the audience not merely the aesthetic aspects of the game, but also the mental and emotional states that it evokes. The game implies a certain emotional dimension evoked by the dice, which allows access to an allegorical symbolism that also has an effect on the profound meaning of the composition (as will be discussed in further detail below). The text does not make any explicit reference to the game, nor does it contain any allusions to it. It is evident that the precise genesis of the composition's creative process cannot be reconstructed. However, it can be postulated that the foundation was a tangible interaction with the dice, an object that Arnaut frequently manipulated. Objects, however, are not external to our reality nor are they passive elements in our lives. Rather, they are an active component of cognitive and/or creative processes. When we interact with an object, whether by manipulating it, observing it, or utilising it in various ways, it does not always remain static. Instead, it presents us with a dynamic scenario that our cognition responds to by adapting and generating new cognitive patterns. This interaction creates a feedback loop in which our cognition is modified by the object itself, which then returns novel patterns and necessitates constant updates to complete a given task (Malafouris 2014, 2016, 2020). In this instance, the dice constitute an in-

dispensable element of the creative process, as it was with and through the dice that the troubadour first conceptualised *Lo ferm voler* as a performance. Indeed, «things actively participate in human cognitive life or that human thinking is better described as *thinging*. We think with and through things, not simply about things» (Malafouris 2019: 4). Arnaut was not merely contemplating the dice when he became aware of *lo ferm voler*; rather, he was reminiscing about the sensations associated with numerous instances of using the dice to attain a specific mental state. This state encompassed elements of risk, precariousness, and the subversion of roles. The game of chance serves to reset the differences between players to zero. The social extraction of the players, their intellectual characteristics, and even their recent success or failure are irrelevant. The dice serve as a leveler, continually restarting from zero. This is true even if a moment before, one was rich or poor, or a moment before, one was a winner or a loser. At each throw, one begins anew because it is at the limit that the gambler lives. This limit is described by Schechner (2013) in particular with regard to rites of passage, identifying a moment in which one loses one's identity but has not yet acquired a new identity. Returning to the experience of limit experienced by Arnaut in gambling and conveyed through the dice, it becomes evident that «At the conclusion of the liminal phase of a ritual, actions and objects take on, and radiate, significances in excess of their practical use or value» (Schechner 2013: 66). The dice used by Arnaut to play the game, the one imagined (or held in his hand) to compose the *sestina*, the one transposed in the performance in front of the audience – it is always the same object with which the author constitutes an entanglement that in turn constitutes the creative process. This process is not constrained by the boundaries of the skull or skin, nor is it confined to the interactions between the subject and object. Instead, it extends beyond this to engage the audience in a shared creative act. It could be argued that the audience participates in this dice game.

THE FACES OF THE DICE

The laudatory portrayal of Arnaut by posterity, which has focused on his trobar clus and his role as a prominent figure within the Divine Comedy, has resulted in an over-exaggeration of the concept of courtly love that animates his compositions. The love expressed by the troubadours is typically characterised as an ennobling and passionate attachment towards an unattainable woman, to whom the poet is devoted. In *Lo ferm voler*, for instance, the poet immediately introduces a reminder of an unfulfilled desire, yet it has already been demonstrated how certain elements clash with the idealised image of a platonic love.

The rhyme-words selected by Arnaut, as previously discussed, align with the faces of the dice with which he engaged in experimentation and which he aims to recreate in his sestina: *intra*, *ongla*, *arma*, *verga*, *oncle* e *cambra*¹⁵. In order to fully comprehend the significance of the permutation, it is essential to approach the text with the understanding that Arnaut explicitly espouses a phonological semantics, as evidenced by his definition *cantar d'ongle e d'oncle* (v.37): It was imperative that the phonic effects be at least as immediately perceptible to the audience as the semantic element, if not more so (Simonelli, 1973). In the initial *colaba*, the six faces of the dice are presented, as evidenced by the phonic relief obtained through various means. To illustrate, the word *intra* is positioned in a phonetic isolation through the juxtaposition of two vowel groups (alternating *o* and *e* for the initial part of the verse and *i-a* for the rhyme-word alone), emphasised by the consonantal call of the liquid *l* and *r*, which recur throughout the verse. In the second verse, the word *ongla* is emphasised through the contrasting alliteration of the sibilant *s* + vowel *e*, framed by the nasal sounds *n* + vowel *o* + vowel *o*, which begins the rhyme-word. The initial word of verse three, with an atonal introduction, is in enjambment with the preceding verse. This is followed by a series of alliterations of the liquid *r* in

combination with the vowels *e* and *i*, continuing up to the rhyme-word *arma* which consistently presents the liquid *r* with vowel variant *a*. The rhyme-word of verse 4 is emphasised by the preceding succession in the rest of the verse of groups of *a* + occlusive + *r*, which creates a striking contrast against which the voiceless labiodental fricative and the vowel *e* in tonic position of the rhyme-word stand out. Verse 5 has an internal rhyme (*frau lai / aurai*) interspersed with groups of nasal *n* + vowel *o*: the rhyme word only gains phonic prominence through the reference to this group of nasal *n* + *o* in the middle of the verse. Verse 6 presents a rhyme word (*cambra*) that recalls that of v.3 (*arma*) through consonantal (liquid *r* and nasal bilabial *m*) and vocalic (*a* + *a*) scaffolding. Similar phonetic-rhetorical devices recur throughout the composition, underlining the link with the permutation of the faces of the dice.

It has already been mentioned that some elements seem to deviate from a purely sentimental conceptual framework; in this respect, the psychoanalytic critic Cholakian (1990) believes that Arnaut Daniel is expressing physical desire. In fact, he identifies the *cambra* as a Freudian symbol of the female organs, the *ram* and the *verga*, with their male counterparts (an allusion also present in modern French). Such an interpretation contradicts the traditional image of the troubadour in love, devoted to the lady by noble sentiments that are anything but carnal; on the other hand, it is much more in keeping with the image of Arnaut as a gambler and tavern keeper who, not unlike his 'colleagues' (as discussed, for example, in the "*Cornilh affair*"), is not immune to the passions of the flesh. In essence, we could say that the presence of the dice in Arnaut Daniel's performance adds another layer of ambiguity to the sestina, whose rhymes and verses take on different meanings depending on the *volta*¹⁶, i.e. the turn, in which they occur.

15 The variant *enonlga* for *ongla* is only attested once, in v. 31. However, it has been demonstrated that the prefixes are prosodically autonomous in Vulgar Latin and Old Provençal (Andreas 2016).

16 In his treatise, Alfonso X el Sabio employs the term *volta* to indicate the turn of game during the Azar.

A ROUND OF DICE WITH ARNAUT

As already considered, the presence of the dice is not only an aesthetic, textual embellishment factor, but provides the link with the mental states attributable to the game of Azar, making the audience part of it. Thus considered, Arnaut Daniel's sestina can be understood as a special case of gamification. As previously indicated (paragraph 6), play can be regarded as a form of performance in itself (Schechner, 2013). The game represents the context in which both play and performance occur (Thibault 2020)¹⁷. Gambling is predicated on the assumption of chance, which precludes any possibility of exerting control over the outcome. This condition of powerlessness in the face of events is simultaneously a source of comfort, as it allows one to "legitimise" their lack of responsibility for the consequences of their actions. The notion that chance governs everything implies that a choice is neither inherently right nor wrong, nor is it a combination of both. Instead, it is the result of a higher power, or "fate." In a society where suffering and poverty were prevalent and submission to authority was the norm, it was crucial for a select group of individuals to comprehend these concepts, not only for their own benefit but also to disseminate this understanding to a larger segment of society, including those who witnessed the performances of troubadours. The code used by Arnaut was therefore comprehensible to his audience. The dice were tasked with evoking a state of ambiguity in which multiple simultaneous possibilities existed.

In light of this, the significance of semantic and textual ambiguities shifts. Rather than being at odds with one another, these ambiguities can be seen to coexist, describing the liminoid space that Turner et al. (1969) discuss. One might, for instance, consider verses 6 (*jauzirai joi, en vergier or dins cambra*) and, in general, the valence of the terms *cambra* and *verga*

throughout the composition. Additionally, verse 13 presents an explicit opposition between the corporeal and spiritual dimensions, with a clear preference for the former over the latter (*Del cors li fos, non de l'arma*): Paterson notes that «the carnal and spiritual sides of his love unite in *fin'amors*: 'there never was such love in body or even soul', and his *cors*, meaning both heart and body, is always entirely with her» (Paterson 2024 : 144). These elements were not to be perceived as mutually exclusive, but rather as coexisting in a complex interplay. The corporeal and carnal dimension does not negate the presence of devotion. Similarly, one must avoid the pitfall of equating romantic love with the courtly love of the troubadours. Instead, it is essential to contextualise this form of love within its historical and cultural context. Romantic poets often depicted romantic love as an individualistic and intimate sentiment, whereas the troubadours expressed it in a much more complex manner. This complexity has endured in literary traditions throughout history. The love expressed by the troubadours is a phenomenon of an eminently social nature in several respects. For example, it has been hypothesised that it was a kind of social performance, a game in which individuals enacted specific roles and behaviours to assert their status. The objective was not so much physical union with the beloved, but rather the acquisition of social prestige (Schulz 2006). The historical reality of the late Middle Ages was characterised by the convergence of the feudal model and the emergence of new national identities. This period saw the initial formation of the concept of Europe, as evidenced by the declaration of war and crusades. The troubadours, who were frequently also knights, played a pivotal role in documenting this era through their compositions. Given that the primary theme of troubadour compositions is courtly love, it is evident that the parallel

¹⁷ «La partita è la testualità prodotta dal processo ludico ed esperita, in primis, e in molti casi soltanto, dai giocatori. La partita, in altri termini, è il "gioco giocato", il processo ludico stesso nel suo svolgersi se viene inquadrato e interpretato come un testo. Da questo punto di vista è quindi assimilabile alla classe di attività che generalmente vengono definite come "performance"» (Thibault 2020: 160).

between the devotion to the lady and the vassal's submission to his lord is clear. Consequently, the procedures conducted by the lovers and their *lauzengiers* (those who impede the relationship), the *guardadors* (overseers), should also be interpreted in this dual context.

In light of these considerations, Arnaut's dice game acquires a social and political dimension. In this context, the concepts of precariousness, waiting for the outcome of fate, fortuitous opportunities, and the possibility of losing or winning everything in one shot are not only metaphors of the (more or less physical) love relationship. Rather, they reflect general social dynamics that are shared by all members of society. The performance of the game and the performance of the troubadour converge to form a unified experience that can be classified as liminoid, a category that enables the exploration of new identities and the transgression of self-imposed boundaries. It is a performance in which the audience and the performer simultaneously embody both themselves and something other than themselves, surrendering to the dice game that, like fate, absolves them of the responsibility of determining their identity. The underlying premise of gambling is the transmission of a message that is antithetical to the conventional notions of success, wealth, and victory. Rather than perpetuating the status quo, aleatory gambling disrupts the natural or acquired hierarchies that exist within society, establishing an artificial equality among all participants. In this context, Arnaut exemplifies the potential for a radical horizontalization of social relations that is often overlooked in mainstream discourse.

CONCLUSION

The objective of the present study was to propose an interdisciplinary approach that shifted the focus from mere formal complexity to a deeper understanding of the meaning and function of Arnaut Daniel's sestina within the context of troubadour performance. A poetic-musical analysis of *Lo ferm voler qu'el cor m'intra*, coupled with the utilisation of tools and methods drawn

from diverse disciplinary fields (including musicology, philology, linguistics, cognitive sciences and performance studies), enabled the object of study to be repositioned in a novel light, encompassing its material counterpart that pervades it at every stage of its existence (from the initial creative conception to the final performance). The relationship between Arnaut Daniel and the dice demonstrates that, in certain cases, the object is not merely a source of inspiration; rather, it becomes an integral part of the artwork itself and the performance.

The analysis of Arnaut Daniel's sestina provides an opportunity to reiterate the importance of an integrated and interdisciplinary approach to the study of artworks and performances. By integrating philology, musicology and cognitive sciences, a deeper understanding of the cognitive and creative mechanisms underlying artistic production can be achieved. This approach invites us to consider works of art, texts and performances not only as cultural products, but as the result of a complex intertwining of individual, society and historical context.

The interdisciplinary approach adopted in this study can be applied to a variety of works, texts and performances, thereby offering new avenues for research.

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