

# WHICH IS THE USE OF SYSTEMS THEORY IN LITERATURE ANALYSIS?: THE DISCOVERY OF THE PLACE IN LA MANCHA IN DON QUIXOTE

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## **Abstract**

The use of systems theory to attempt to determine which "place in La Mancha" was the one whose name Cervantes could not quite recall in his universal novel, appears to be ordained to change certain attitudes towards science held in Cervantine literature. The reason: after four centuries of literary analysis, systemic methodology has proven able to identify the famous "place" with acceptable accuracy. Nonetheless, certain reasonable doubts persist around the suitability of a strictly scientific analysis of literature. In light of those doubts, the present article aims primarily to facilitate critique both of the systemic approach adopted and its outcome.

**Keywords:** Don Quixote, place in La Mancha, systems theory, epistemological totality, determinant variables

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## **1. Introduction**

In principle, the language of variables and mathematics (based on principles such as epistemological totality, environment, variable selection, classification and weighting, inter-variable relationships, modelling, operationalisation and calculation) would not appear to be the most appropriate vehicle for announcing the identification by the systemic approach of the mysterious "place in La Mancha" cited in the first line of Cervantes's novel. That notwithstanding, since the technical details of the systemic-scientific method used have been discussed in previous papers (Parra Luna 2004, Equipo UCM 2005, Parra Luna and Fernandez Nieto 2009, and Parra Luna 2012), they are not

addressed in the present article.

The astonishment aroused around the finding in the Cervantine world nonetheless led us to describe the methods used in a number of encounters. While most Cervantine colleagues accepted the results and understood the utility of the approach, some have persisted in denying the suitability of mainstreaming the scientific principles inherent in systemic analysis in traditional literary analysis.

Yet others have suggested that the subject "Villanueva de los Infantes as the place in La Mancha" should be set to rest. The contention is that since the information, citations from the novel, data and even numbers are there for all to see, there is no need to come back to them time

and again. That stance is understandable, because those colleagues are most likely unaware of the objections raised in certain Cervantine circles to the application of scientific or multi-disciplinary methodologies to analysis, objections that cannot be readily ignored.

We, however, are attuned to the events following on the 2005 identification of Villanueva de los Infantes as the place in Campo de Montiel most translucently or transparently likely to be the "place in La Mancha" mentioned in the pages of *Don Quixote*. That presumed literary transparency initially ran into four obstacles. Firstly, the discovery was generally unexpected, except for Peralta (1944) who, after certain *in situ* measurements taken in the first half of the last century, cited "Infantes" (Villanueva de los Infantes is the modern name) as *Don Quixote's* and *Sancho Panza's* most likely home town. Be it said here that the size and importance of the town at the time counter the more widespread belief that Cervantes's unnamed place was in fact a single-church hamlet located near El Toboso. Secondly, it clashed with a series of vested local interests (Bradariz 1972, Fuentes Gutierrez 1983, Jiménez Castañeda 2005, Ligeró Móstoles 1991, Román Alhambra 2010, Ruiz Castellanos 2004, Ruiz de Vargas 1974, Serrano Vicens 1966), based in some cases on meritorious and well-founded tradition (such as Argamasilla de Alba), that may have felt themselves dispossessed of what they regarded as an exclusive honour; not to mention the claims made by towns in the vicinity of Villanueva de los Infantes on no other grounds than typical local jealousy. Thirdly, in keeping with those interests, the greater demographic potential in certain areas of La Mancha, set against the waning population

that characterises Campo de Montiel, appear to be tipping the political balance in favour of those who seek to marginalise (and if possible rule out) Campo de Montiel and Villanueva de los Infantes as *Don Quixote's* and *Sancho's* (now hardly disputable) point of departure. Fourthly, quite beyond such unsubstantiated opposition to Villanueva de los Infantes, some scholars have found the identification of the place whose name Cervantes was unable to recall an unnecessary, useless and impossible exercise, and the application of mathematical methods to that endeavour strange or extravagant.

## 2. Scientific Misgivings

These objections, these misgivings about the application of scientific procedures, while held by only a minority of scholars and latent and scantily explicit in their papers, are the only ones that merit rebuttal. The four occasions on which they surfaced are discussed below.

2009. A prestigious Cervantine studies institution published a book containing an article by a reputed U.S. colleague whose indictment of the application of scientific and multi-disciplinary methodology to identify Villanueva de los Infantes as the place in La Mancha" was so disgraceful and couched in such academically inappropriate terms that it is hard to imagine how it could have ever been written or published. Moreover, to their great discredit, neither the author nor the publisher accepted a suggestion to publish a rejoinder. Nonetheless, no *a priori* adversity toward the identification itself or toward Villanueva de los Infantes can be detected in the article. Rather, criticism is levelled against a procedure that aims to be scientific, in the understanding that

such methods are absolutely irrelevant to literary analysis. This the American author makes very clear at the outset, where he objects to what he views as a common contemporary tendency to accord science in general inordinate prestige and the rise of what he terms "scientific" ideology and its corollary, spectacular growth in inter-disciplinary approaches. In conclusion, moreover, he contends that the aim of his article was to reveal the serious damage that can be done when an inter-disciplinary team attempts to solve a problem whose nature it fails to understand. He postulates that if our team had understood, even minimally, the intrinsic particularity of the literary text in question, we would have never embarked on the pursuit of a solution. The author appears to have no argument with the identification of the "place in La Mancha" per se. Rather, his objection as a matter of principle is to any application of the scientific method to literary analysis, regardless of the possible results.

2012. The references to Villanueva de los Infantes and its identification as the "place in La Mancha" were deleted from the address written by Nicanor Parra and delivered at the University of Alcalá by his grandson Cristobal Ugarte on 23 April 2012. As a result, that finding was permanently erased from the historic record in all the media, including Internet. This event, while inexplicable, should not be viewed with suspicion, for such an unprecedented decision might merely have been the outcome of an aversion to the application of scientific and mathematical methods in this type of studies. Its eulogy by a poet with a mathematical background may have not been to the liking of someone of a literary mind able to influence

what sort of news is released, who may well have decided not to publicise a fairly unorthodox finding deduced with non-literary methods.

2013. Similar reasons may have informed the decision of a major Spanish journal specialising in Cervantes to reject the publication of an article on why Cervantes may have chosen Villanueva de los Infantes as the "place in La Mancha", alluding to the adverse opinions of two reviewers whom the journal has since been unable to identify (rendering their existence suspect). This refusal was particularly striking because the article in question had been appraised positively by a number of Spanish and foreign Cervantine experts who had been asked to review it prior to publication. The two mysterious adverse opinions may have been prompted by the effort that it would have taken to appraise certain mathematical operations on which the paper was based.

2014. And just a few days ago (May), another Cervantine colleague of repute reiterated this objection in the following terms. You broach Don Quixote as if it were a chronicle rather than the novel it actually is. You constantly refer to your strictly scientific approach and repeat that your analysis is based on scientific methodology, but science and scientific are ambiguous terms. Every science has its own methodology, which cannot be blithely applied to others without risking nonsensical results. The approach and methodology characteristic of the science that addresses specifically "human" issues differ from practice in natural science and, even more widely, from mathematics. Even in science whose object is humanity, one cannot be overly cautious. Neurological physiology may

explain finger movements, but not piano playing, much less the mysteries of Bach's Brandenburg Concertos.

Like the three preceding remarks, this final comment, while largely acceptable on logical grounds, takes it for granted that the scientists on the multi-disciplinary team were "born yesterday" and lack the maturity needed to understand the nature of the object studied, unable to distinguish between things physical and things spiritual or between the precise rules of mathematics and the freedom intrinsic to literary art. None of that is reasonable, given that many of the colleagues are emeritus professors with a long record of research experience. What these anti-scientists fail to realise is that in pointing at the moon they end up focusing on their finger. If they focused instead on the final objective of the analysis, they would see that the findings of the various methods are valid. In the present case, all that systemic/multi-disciplinary methodology has aimed to do, four centuries later, is supplement and acquire specific knowledge in an innovative and verifiable way by identifying the "place in La Mancha" whose name Cervantes was unable to recall.

These four events (a record of which is openly available to interested readers e-mailing their request to the author) triggered the present modest article in one last attempt to define the "place in La Mancha" where Cervantes and he alone decided to begin his tale, according to the text of *Don Quixote*. Moreover, significant literary implications would very likely stem from that discovery if it were to be validated, giving rise to future analyses of Cervantes's oeuvre, as envisioned by reputed Cervantine scholar Clark Colahan (2014).

In the event, it will not be incumbent upon us to justify the anti-scientific attitudes implicit in the events of 2009, 2012, 2013 and 2014.

In light of the reiteration of such attitudes, one can hardly help but wonder, why this contempt for scientific logic? If we all pursue knowledge per se, why this unnecessary determination to conceal results, which is tantamount to concealing the content of the novel? What latent interests dwell in certain Cervantine circles? What underlies this surprisingly covert milieu that casts doubts on our compliance with the good practice required of us by professional ethics, if not as scientists, at least as humans with a thirst for pure knowledge? As *Don Quixote* would say, time will put everything in its place and it is in that hope that we carry on. In it and in the hope of contributing, albeit modestly, to mainstreaming systemic-scientific procedures into traditional literary analysis.

In the wake, then, of this small but troubling core of opposition to the systemic approach, the present multi-disciplinary study aims exclusively to prove, plainly and clearly, and for the last time if possible, the academic soundness of the assertion that Villanueva de los Infantes is the renowned "place in La Mancha". The strategy adopted, startling as it may seem, is to criticise that premise in depth to the point of constructive invalidation, defining "constructive" to mean proof that some other town or village in Campo de Montiel is in fact the unnamed "place in La Mancha" in *Don Quixote*. Any such place would have necessarily to be one of the 23<sup>1</sup>

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<sup>1</sup> The initial research included two villages that do not lie inside the bounds of Campo de Montiel, Argamasilla de Alba and Esquivias, and one, San Carlos del Valle, founded after the novel was written.

existing in the region at the time, unless Cervantes is not to be taken seriously, as quite a number of colleagues seem to think. That opinion about the novel's comicality/seriousness in itself poses an interesting theoretical-literary dilemma taken up below.

And so, dear readers, with "le couteau entre les dents" as the French would say, we proceed to criticise, once and for all, the discovery that the "place in La Mancha" unnamed in Don Quixote was Villanueva de los Infantes. Scientific knowledge must be merciless.

### 3. Essential Works

Anyone interested in studying Don Quixote and in particular the subject of the unnamed "place in La Mancha", its main character's travels or historical-geographic maps showing the sites described in the novel on the ingenious gentleman will certainly find that the following studies are no waste of time.

The first, published in 2005, laid the methodological grounds (the multi-disciplinarity required by systems theory) for changing the determination of three simple things: the places taken until that time to be the literary pair's point of departure; the various routes the two followed when crossing La Mancha; and the series of historical maps of the places mentioned in the novel, beginning with one dating from 1780, authored by King Philip V's official geographer, Tomás López.

The second study, published in 2009, in addition to critiquing and reviewing the 2005 paper, adopted an infrequent stance, opening its pages to other scholars who had challenged the idea that Villanueva de los Infantes was the "place in La Mancha". The joint publication of

the three unabridged critiques and the three rebuttals affords readers the opportunity to judge and weigh the arguments put forward. It is up to them to deliver the final verdict.

The third, released in 2012, is a modest article written in terms accessible to the public at large and designed to show that the "place in La Mancha" whose name Cervantes was unable to recall can be identified. Further to that article, all it takes is three simple steps to draw a conclusion: a) re-estimating the number of days it would take to travel to/from Puerto Lápice, Sierra Morena and El Toboso to/from Don Quixote's unnamed place; b) multiplying that number by the speed ( $V$ ) normally reached by Rocinante (Don Quixote's hack) and Sancho's nag; and c) with the three products as radii, drawing three circumferences on any map of Spain to scale to determine where they meet or the point where their overlaps are minimised. Performance of these three operations neutrally and in good faith inevitably shows that the point in question lies in the geographic centre of Campo de Montiel. That, moreover, merely confirms the author's own assertions on up to five occasions in the novel.

The three studies are summarised at some length below to render this article more readily comprehensible, although the reader is of course invited to consult their full versions. They were also written in the wake of studies such as one very worthy paper by Rodríguez Bustamente (2003) backed by no scientific guarantee whatsoever, for want of a systemic approach, without one of whose basic conceits, "epistemological totality", findings are inescapably spurious. The paper by Caselles et al. (2009), in contrast, is a fine example of

reliable results obtained with systemic analysis.

### 3.1 Systemic Approach to Don Quixote

This subject first came up in a congress on systems theory and socio-cybernetics held in Lisbon in 2004. The initial question was: given that systems theory is the methodological approach par excellence for analysing complex problems, why not use it to attempt to unveil a fact that had been shrouded in mystery for four centuries, the identity of the "place in La Mancha" whose name Cervantes was not quite able to recall when writing his novel *Don Quixote, Ingenious Gentleman of La Mancha*?

The challenge was assumed on the spot. Upon our return to Madrid, a multi-disciplinary team was formed, whose members included Manuel Fernández Nieto (Cervantine scholar), Santiago Petschen (political scientist), Gonzalo Bravo (historian), Jose Antonio Garmendia and Francisco Parra Luna (sociologists); Juan Pedro Garrido and Juan Maestre (anthropologists); and Javier Montero and María Jesús Ríos (mathematicians). The team decided that the principles to be applied to the issue would include equifinality, epistemological totality, inter-variable discrimination and interaction, strong/weak interaction, and the respective calculations.

Its eleven working hypotheses are listed here for the intents and purposes of critique. 1. Cervantes posed a riddle for the reader in the last chapter of the novel. 2. In their second journey, Don Quixote and Sancho slept at 3.5 km from Puerto Lápice. 3. When the novel contains contradictions, specifics are assumed to prevail over abstractions and subsequent over previous information. 4. The inn where Sancho

was tossed around in a blanket is Iruela Inn, near what is now Venta de Cárdenas. 5. The priest was from the same place as Don Quixote. 6. Rocinante and Sancho's nag could ordinarily do no more than an average 31 km/day. 7. The distance between any two points was longer on early seventeenth century than on modern roads. 8. The Campo de Montiel plains are flat enough for riding cross-country. 9. To reach Cartagena from Iruela Inn, Don Quixote and Sancho would take the road from Ciudad Real and Almagro that ran through Villanueva de los Infantes, Alcaraz, Hellín and so forth. 10. The hill Don Quixote and Sancho ran into on their final homebound journey was very close to their home town. 11. The 24 variables selected would have to be accepted or rejected before knowing the results. The fundamentals supporting these working hypotheses are set out in Equipo UCM (2005).

That study showed that six of the seven methodological procedures used (percentage, range points, topology, determinism, elimination and sociology) yielded the same result: the sufficiently well-substantiated hypothesis to be verified was that Villanueva de los Infantes was the unnamed "place in La Mancha".

The initial research was characterised by a rigorous selection, based on the text of the novel, of all the factors (or variables) that could help identify Cervantes's unnamed place. This contrasted with the stance adopted in prior studies, which typically addressed only the variables favourable to each author's initial premise. Table 18 (pp. 230-231) in the book clearly lists the values of the 24 variables selected for all 26 towns or villages initially studied as possible candidates. That matrix,

which proved to be one of the most comprehensive and decisive methods applied in the analysis, epistemologically speaking, was published as proof that factors unfavourable to the candidacy of Villanueva de los Infantes (such as the existence of windmills, proximity of a stream and laundry, the distance from Quintanar) were considered.

Finally, attention should be drawn to the position adopted by the research team when the results identified Villanueva de los Infantes, birthplace of one of its coordinators, as the place in question. Although as a result research was initially interrupted for some time, it was ultimately decided that the coincidence would not have adverse implications; on the contrary, transparent allusion to issue would induce challenges that would contribute to verifying the rigour of the findings.

### **3.2 Debate around the Place in La Mancha**

This second study, conducted during the three years following the publication of the aforementioned monograph, reviewed the time and distance measurements applied in 2005, using the latest generation geographic methods developed by the University of Alcalá's Department of Geography, headed by Professor Joaquín Bosque Sendra. In particular, however, this book was characterised by a fairly unusual feature: it included three texts that clearly criticised the identification of Villanueva de los Infantes as the "place in La Mancha". The three articles in question, reproduced in full, were: *Cuyo lugar no quiso poner Cide Hamete*, by Ciriaco Morón Arroyo; *La imprecisión geográfica del Quijote y la búsqueda del lugar*

*de la Mancha*, by Jesús Sánchez Sánchez; and an untitled critique authored by Justiniano Rodríguez Castillo.

Each was naturally followed by the team's replication, in keeping with the encouragement of debate sought throughout. A meticulous analysis of the critiques and rebuttals thus enables the attentive reader to determine which arguments are more valid, the critics' or the authors'. The aim was to allow the reader the privilege and the responsibility of ascertaining the "literary truth" about the identity of the place Cervantes chose not to name.

The third chapter of this book, entitled "Los cuatro puntos cardinales del 'lugar de la Mancha'en el Quijote" (the four cardinal points defining the "place in La Mancha" in Don Quixote) merits an especially detailed review because it quantifies three basic items, namely the time it took to travel from Don Quixote's home town (X): to Puerto Lápice (2.42 days); Sierra Morena (Iruela Inn, near what is today Venta de Cárdenas) (2 days); and El Toboso (2.8 days). While not indispensable, it also quantified the travel time to Munera, presumably where Don Quixote encountered Don Alvaro Tarfe (2.23 days). The three first measurements nonetheless proved to be sufficient and absolutely conclusive for siting the "place in La Mancha", which was observed to lie in the geographic centre of Campo de Montiel.

### **3.3 The Site of Don Quixote's Penance**

The place of Don Quixote's penitential retreat in honour of Dulcinea was the key to the subsequent identification of his unnamed place. Outside of the more complete and sophisticated methods used in the two preceding studies, this

paper (Parra Luna 2012) aimed to clarify what was termed the "topological" of "topographical" approach, consisting of the use of a compass to determine the location in La Mancha of the starting point for Don Quixote's and Sancho's adventures.

A careful reading of the text suffices to quantify the travel time in days between Don Quixote's home town and Puerto Lápice, Sierra Morena and El Toboso. And while the location of the two villages is unquestionable, the site of Don Quixote's retreat in Sierra Morena is much less precise. The innovation introduced in this study was the shift in focus from the 2 days it would take to travel from Iruela Inn to Don Quixote's home town to the 3.5 day journey between the latter and his Sierra Morena sanctum. If determined strictly following Cervantes's indications, that place of penance (8 leagues from Almodóvar del Campo and over 30 from El Toboso) would be sited on the east side of the head of Jándula Reservoir in the province of Jaén. According to the author, it took 3.5 days from there to Don Quixote's home town (1.5 to Iruela Inn + 2 from there) and 2.4 and 2.8 days from the "place in La Mancha" to Puerto Lápice and El Toboso, respectively. Drawing circumferences with those radii (reduced by certain conversion factors to accommodate the unevenness of the terrain), and even allowing for minor variations in the estimates, Don Quixote's and Sancho's home town would be found to lie in the geographic centre of the region known of old as Campo de Montiel, very close to Villanueva de los Infantes. Regardless of how the calculations are performed, assuming neutrality and good faith, they yield the same result.

As the method described was within reach of anyone interested, this paper was chosen as the third study targeted for criticism here. This fairly simple methodological approach nonetheless called for careful estimation of the conversion factors for reducing straight line distances (5%-10 % depending on the route) to be able to apply a compass to a map with a suitable scale distances and of the distances that Don Quixote's and Sancho's respective mounts could travel in a day. The latter value, 31 km/day, was adopted on the grounds of three criteria: the 50 km travelled by a normal horse; the presumed speed of Rocinante when Don Quixote confronted another knight, Blanca Luna, in Barcelona; and the similarity of gait, according to a PhD. thesis authored by J. Pollos, between Rocinante and Sancho's nag (see Parra Luna et al. (2015)).

#### 4. Fostering Criticism

Predictably, in light of the diversity of their academic authorship and prestige of the publishers involved, the studies that identified Villanueva de los Infantes as Don Quixote's "place in La Mancha" have been generally respected. Unfortunately, however, the persistence of the four incidents described in the Introduction oblige us to return to the subject in an attempt to "dot the i's and cross the t's", as behoves any professional whose methodology has been challenged on the grounds of unsuitability for the object studied. This constitutes no change from the line maintained since 2005, in which we have consistently encouraged well-substantiated critique, i.e., constructive criticism in keeping with standard methodological and academic procedure.

While not all the texts in question meet those requirements, then and now we are only too pleased to come to the fore in response to criticism, although in the understanding that knowledge is furthered only by well-intentioned and constructive commentary.

To that end, the discussion below begins with what might be termed "verifiable literary facts", in an exercise that will enable the reader to determine their veracity or falsehood.

Our position on the discovery has been clearly described from the outset. Firstly, we made the eleven working hypotheses available for review before actually obtaining any results. Secondly, we applied the maximum possible number of methods to determine whether the choice of procedure had any significant effect on the findings. Thirdly, despite our relative confidence in the validity of our conclusions, we systematically specified that our discovery was a mere hypothesis, although better substantiated than any of the others forthcoming to date.

Moreover, in anticipation of the expected criticism, we transparently announced that one of the team members (precisely the undersigned) was born in Villanueva de los Infantes, although he has not lived there for over 50 years. The team was, of course, painfully aware of the existence of certain theories and studies, wholly lacking in any academic rigour, that identified Don Quixote's point of departure with the authors' own towns or villages.

Hence its astonishment (and woe!) when the results of its own scientific approach showed that Villanueva de los Infantes, birthplace of one of its coordinators, was the "place in La Mancha". That naturally set off all manner of alarms and gave rise to an unquantifiable

amount of thought. In fact, in the face of even the slightest hint of the existence of some manner of local interest, research was interrupted for several months. Nonetheless, after a good deal of re-thinking and a conscientious review of all the estimates and calculations that went into its findings, the team decided that rigorous scientific endeavour should not be silenced by such a coincidence. On the contrary, it felt that the coincidence should be aired, as it would constitute greater inducement for other scholars to challenge the research findings and ultimately confirm the scientific validity of the methods deployed. All these matters were addressed in the 2005 study (see Parra Luna et al. (2015)).

That same confidence in our professional ethics led us, four years later, to adopt what Díez (2009) regarded as a highly uncommon editorial decision: three articles critical of our findings were reproduced integrally in a book published in 2009 under the title *El enigma resuelto del Quijote: ...* (op. cit.). The undersigned has maintained that same personal attitude in all the articles subsequently published, as the sole way to confront the unhappy coincidence, from this perspective, of having been born in Villanueva de los Infantes.

That, moreover, is what has induced us, in what may be our last attempt, to invite Spanish Cervantine scholars (perhaps the ones best acquainted with the novel's geography) to openly criticise the Villanueva de los Infantes hypothesis in depth, regardless of how well substantiated it may be. Those who regard scientific findings as the sole basis for communicable knowledge should be the first to subject their own research to review. In other

and clearer words: one of the authors of this list of twelve facts, born at Villanueva de los Infantes, deems that valid human understanding can only be built on the ongoing critique of all previous knowledge. The implication is that the longer Villanueva de los Infantes is upheld as the "place in La Mancha" in *Don Quixote*, the worse it will be for the advancement of knowledge. If, as contended on the cover, the present finding has carried this specific issue as far as humanly possible, progress will have been brought to a halt. Much as it was when water was found to freeze at zero degrees Celsius at sea level, until proof to the contrary is forthcoming.

## 5. The Twelve Basic Dimensions of *Don Quixote* as a System

In keeping with that philosophy, the following is a discussion of the closed system comprising twelve basic and inter-dependent dimensions underlying the hypothesis that Villanueva de los Infantes is the "place in La Mancha". Nonetheless, other facts, likewise verifiable in the novel, may be used to criticise or improve upon that hypothesis, which is the ultimate aim of the present exercise. In the interim, the twelve literary facts to be criticised, all verifiable and systemically inter-related, are listed below.

1. Any town or village specifically cited (recalled) by Cervantes in the novel (El Toboso, Sigüenza, el Quintanar, Argamasilla, Puerto Lápice, ...) was ruled out as THE "place in La Mancha".

2. Since Cervantes tells the reader, up to five times, that *Don Quixote* set out on his venture from the plains of Montiel, towns or villages

located outside that region were disregarded.

3. The locations of three real-life points specified by the author and hence indisputable were used to identify the "place in La Mancha": 1) Puerto Lápice; 2) the head of the dam at Jándula en Jaén (at 8 leagues from Almodóvar del Campo and over 30 from El Toboso); and 3) El Toboso.

4. The days or hours it would take *Don Quixote's* and *Sancho's* mounts to travel from any of the three points specified to the yet unidentified "place in La Mancha" were estimated with absolute neutrality on the grounds of the duration of their travels according to Cervantes. So viewed, the travel times to the "place" were found to be approximately: from Puerto Lápice, 2.4 days (Part I, Chapters 7-10); from Jándula Reservoir, 3.5 days (Part I, Chapters 10, 31 and 37); from El Toboso, 2.8 days (Part II, Chapters 7 and 8) (see Parra Luna & Fernández Nieto 2009).

5. Reduction factors ("r" = 5 %, e.g.) were applied to these three values for conversion to non-straight line distances. Mathematical calculations were subsequently performed to determine the speed factor (V) by which these travel times would have to be multiplied for the circumferences formed by the three resulting radii to concur in a precise geographic point, or for their area of concurrence to be minimised.

6. The point in question was systematically observed to lie at the geographic centre of Campo de Montiel, very close to Villanueva de los Infantes, confirming Cervantes's five explicit references to that region of La Mancha. That finding rendered any biased discussion of the exact boundaries of the region irrelevant. (See calculations in: F. Parra Luna 2012).

7. Given that in the journey from Sierra Morena to Cartagena, Don Quixote was left in his home town (Part I - Chapter 46), that point was assumed to be more or less on the road that presently runs from Ciudad Real to Cartagena via Almagro, Valdepeñas, Villanueva de los Infantes, Alcaraz and so on. The rationale was, firstly, that it would have been illogical to climb from Sierra Morena to any other town or village located north of that "parallel", only to descend to another point on that imaginary line. And secondly, no town or village south of the line would lie within the central area of Campo de Montiel delimited by the three circumferences defined in point 4.

8. The most comprehensive and valid method and the most rigorous approach was then applied: namely, all the possible variables to be taken into consideration (24 in the research conducted in 2005) were tabled against the 26 towns or villages regarded as possible candidates in that initial study to rank each by order of likelihood. Villanueva de los Infantes headed the list.

9. This quantitative proof was believed to be corroborated by other circumstances. With a larger population (than Alcubillas and Fuenllana, located on the same parallel), Villanueva de los Infantes would be a logical stop for a company of soldiers and have a larger population of young women. For three of them to have run off with the company would have been more plausible in such a town than in a tiny hamlet.

10. A further historic fact borne in mind was the strong religious-moral bias in Villanueva de los Infantes, with its five convents, seven large churches, nine chapels, around 200 members of the clergy and 190 noble coats-of-arms on its

mansions, for a population of 6000. Such an atmosphere might explain insanely spiritualised behaviours such as personified by Don Quixote.

11. The appearance at the time of two "mad saints", St Thomas of Villanueva and Friar Thomas of the Virgin, was regarded as possible further evidence of such a radicalised environment.

12. That premise was further supported by the documented biography of Juan de León, a mad ne'er-do-well who travelled from town to town armed with sword and crossbow, assaulting villagers for no apparent reason (like Don Quixote). Declared an outlaw, he was arrested and executed at Villanueva de los Infantes. Unusually, the trial was challenged in a complaint raised to Emperor Charles I who, in an order dated 1521, exiled the erstwhile mayor of Villanueva de los Infantes, declared responsible for the execution (National Historic Archives, Military Orders Section, Historic Archive of Toledo, file 15771).

## 6. Literary Consequences

When writing his novel, Cervantes had in mind a real town in Campo de Montiel. That would imply (from the literary standpoint) that it would have to be one of the 23 towns or villages existing in the region at the time. Inasmuch as the author mentioned other real towns or villages, dates and historic events, the premise that his account is purely fictitious is untenable.

By verifying the twelve aforementioned facts, any educated person seeking only the "literary truth" contained in Don Quixote would be able to identify the "place in La Mancha" whose name Cervantes could not quite recall, or at least allow that the present finding is the most

elaborate hypothesis known to date. In any event, both possibilities are open and refutation encouraged, for that is how human understanding progresses and that is what science is for.

The conclusive verification (or non-refutation) of those twelve facts (and primarily the five from points 4 to 8) would have at least six possible literary consequences. First, they would help to understand and better explain Don Quixote's and Sancho's personal behaviour in light of their socio-economic background. Second, they unveil a real geographic structure concealed in the novel. Third, they would put an end to the proliferation of false routes and maps put forward since the first was published by Tomás López, King Philip V's geographer. Fourth, they would show that Cervantes was not always joking. Fifth, they would add to Cervantes's prestige because he would be taken seriously when he meant to be. And sixth, they would show that the Ingenious Gentleman rather than Madame de Lafayette's *The Princess of Cleves* (according to C. Morón's appraisal) was the first realist novel. These six implications, fitting or otherwise, can only contribute to enhancing the novel's profound significance by introducing new possibilities for reflection and analysis.

## 7. Conclusions

Every possible effort has been made to encourage critique and refutation of the hypothesis that contends that Villanueva de los Infantes is the "place in La Mancha" whose name Cervantes could not quite recall. Those efforts have concurred with the attempt to mainstream systemic-scientific procedures into

literary analysis, for in the long run, all scholars pursue the same ends. No such refutation has been forthcoming, however, and to date, July 2014, the hypothesis can be regarded as sufficiently substantiated. Cervantine scholars of the repute of Jean Canavaggio or Clark Colahan, for instance, accept Villanueva de los Infantes as the only possible town or village in Campo de Montiel that could be the, up to now, mysterious "place in La Mancha".

Canavaggio, in fact, regarding the problem of the identification of the "place" to be solved, took the issue one step further and explored Cervantes's possible reasons for concealing its name. That, then, would be one of the implications envisaged by Clark Colahan of what he took as a proven literary fact, i.e., that Villanueva de los Infantes was the ingenious gentleman of La Mancha's point of departure for his first and three subsequent knightly journeys. The time is now ripe, then, for deliberation on the six theoretical implications tentatively envisaged in the preceding section.

Having reached this point, barring further duly substantiated academic critique, I now rule out any possible reapplication of scientific procedures to prove that Villanueva de los Infantes is the "place in La Mancha". This article should, then, be taken as a final, albeit compulsory, chapter in an even-tempered academic liturgy consisting (noblesse oblige) of a point-by-point reply to any criticism, for the sake and prestige of science and scientists. Be it regarded as one of those high masses celebrated in academic chapels where researchers and critics raise their prayers and supplications to science, knowledge and the gods. The point is not to save some slightly soiled soul from hell

for a scantily understood prejudice against science or the identification of the “place in La Mancha”, but to extend our hand in peace under the beatific gaze of Blessed St Popper, always keen to rectify the errors so often committed by those of us in the trade. In other words, as far as I am concerned, ite misa est.

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