

In Search of "La Mancha"

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Four centuries have passed without knowing the geographical situation of the famous "Site of La Mancha" in the novel don Quixote. Nevertheless, a systemic approach seems to be able to discover, geographically, where is this site with an acceptable degree of scientific security. The approach have been carried out by a team of interdisciplinary researchers of the University Complutense of Madrid, and the results have been based on the following system of syllogistic propositions:

- a) If the "site of La Mancha" is, according with Cervantes, within the "Campo de Montiel" (Foreword; Chapters I, VII and LII of the first part, and chapter VII of the second part).
- b) If, situated in the "Sierra Morena" (Venta de Cárdenas) the priest of the village said: "If that is so (the necessity to go to Cartagena), then, we have to (pass) cross by the half of my village, and from there, you take de direction towards Cartagena".
- c) If in the text of don Quixote is said that the "site of la Mancha" is two days far away from Puerto Lápice; two days far away from Sierra Morena (Venta de Cárdenas); twos days and one night from El Toboso; and finally, un day and one night from the Tarfe point, four points of information that makes of that a problem of topological computation,
- d) and even more, if Cervantes says (implicitly) that the velocity of Rocinante/Rucio in the journey Puerto Lapice-Sierra Morena was between 30 and 35 kms/day (chapters XI to XXVII, First Part),
- e) Then, without modifying a comma the Cervantes text, we can enunciate, as a scientific hypothesis, that de the "Site of la Mancha" is predetermined quite clearly by Cervantes himself.

After a brief description of the concept of system, this article enunciates some of the advantages facing systems science today, along with the major tendencies that can be discerned in the direction that present studies in literary objects like novels. Renewed epistemological attention to the observer-subject, the growing importance role played by the Internet as a world wide information system, the preponderance of the systemic approach in modern theories of literature, the appearance of critical system theories that attempt to counterbalance certain hard methodologies considered to be overly conservative, the appearance of new schools of thought addressing systemic ethics that confront what is actually done with what ought to be done, or the tendency to integrate theoretical and methodological approaches as thoroughly as possible are some of the trends that seem to be attracting most attention in the profession. That is why another

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major concern is the content analysis of text that can be carried out on the basis of system theory. In this paper, the Cervantes well known novel “don Quixote de la Mancha” is analyzed with the aim of localizing geographically the site where don Quixote and Sancho Panza were born.

We have to remember that the idea associated with the word “system” has become extraordinarily universal, used profusely “urbi et orbi”, both in the sense attributed to it by systems science and the more lax and less precise meaning it is given in common usage. In the latter case, system is generally used to express one of the following two concepts: a set of interacting material or symbolic elements or the repetition of facts or phenomena that recur “systematically”. The scientific concept of system, however, even in the most general sense, is defined by rather precise features, namely: a) it is a whole whose breakdown into separate parts would alter its significance; b) the role of the separate parts cannot be understood outside the context of the role of the whole in which they are inserted; c) the total is not equal to the sum of the parts: rather, the existence of the set infers that there is something “additional”, be it positive or negative, which generally renders the mere sum inaccurate; and d) the alteration of any given part has a variable effect on the other (mechanical, biological, social, etc.) parts of the system.

From a formal perspective the most general concept of system (S) can be defined, according to Mario Bunge, as follows:

$$S = \langle R(a, b, \dots, n) \rangle (1)$$

where R is the set of relations that affects elements a, b, n.

And whereas the word “system” is used imprecisely and ubiquitously, strange as it may seem, epistemological operations requisite to the scientific concept are used quite rigorously, albeit unconsciously, more often than not. We shall see that the novel “Don Quixote” is a complex compound of 24 relevant variables systemically interrelated which can be analyzed through the following perspectives:

- a) The Tarfe Solution
- b) The Probabilistic Solution
- c) Rank points Solution
- d) Topological Solution
- e) Deterministic Solution
- f) Solution through elimination
- g) Sociological solution.

In this paper, the authors arrived to the following two conclusions: first, that within the Cervantes novel there is an implicit mathematical structure, and second, that this structure can discover both, the site of la Mancha (Villanueva de los Infantes, Ciudad Real), and the velocity (34 kms/day) by that Rocinante / Rucio walked.