

FRANK MORETTI'S THEORY OF "LITERARY MAP": A RIGOROUS INQUIRY

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Abstract: This article focuses on the idea of "literary map" and its application by Frank Moretti, an advocate and practitioner of digital humanities. By examining Moretti How to use "Literary Map" in three literary research cases to explore the important value and significance of this research method. In three cases, Moretti used Geometric figures explore the narrative structure of the text, character networks are used to explore the narrative plot of the text, and emotional maps are used to explore the narrative emotions of the text. The application of "map" in the field of literary research is explained from three levels and from different angles. Moretti's research is very important for us to study the spatiality of literary texts and explore the relationship between textual elements. Visualization is of great significance to reveal deeper narrative structures.

Keywords: Digital humanities; Literary map; Frank Moretti; Visualization

1 INTRODUCTION

Frank Moretti, founder of Stanford University's "Literary Laboratory", calls himself "Mapper of Maps". He revealed the spatiality of literary narrative and the literariness of space by drawing spatial maps of literary works, and proposed the concepts of "literary map" and "narrative geography". "Literary map" is different from "literary geography". Literary geography focuses on the impact of specific geographical environment on writers and text generation. In other words, the concept of literary geography is based on the fact that "any writer, work, and even any literary phenomenon are produced in a specific geographical environment and are the geographical environment at a specific time. , which examines the impact of external geographical environment on novel creation. Moretti broke with the traditional research methods and adopted a new literary geographical spatial research strategy[1-3].

2 CHARACTER ACTIVITY SPACE MAP

In his 1999 book *Charts, Maps, Treemaps*, Moretti gets right to the point, "A simple question about literary maps is, 'What do they do? What do they reveal that words cannot?'" "Can maps help us understand literature?" He called on literary researchers to stop "Reading" texts turns to "calculating" and "drawing" literary maps. He firmly believes that although text "reading cannot be completely replaced, The method of "drawing" literary maps will provide new possibilities for exploring the inherent narrative laws of texts. In her study of British writer Mary Cellar Mitford's novel *Our Village*, Moretti draws a literary map of each volume of the novel. In the literary map, Moretti roughly drew three concentric circles of different sizes with characters and major events as the main elements, with the village as the center and distance as the radius. In the map of Volume 1, the elements in the smallest circle are almost all people[4].

In addition to characters, the elements of the two outer circles include characters, events and natural landscapes. In this picture, Moretti completely abandoned the linear structure of time and drew the map from the perspective of the characters' activity space. With the increase of elements and the refinement of the map, the map as a whole becomes more and more concentric. This map reveals a new discovery: literary narrative structure is not necessarily linear, and literary maps can reveal the non-linear narrative structure of literary texts. Since "Our Village" is a narrative unfolded from the perspective of a person living in a village, the elements in the village naturally radiate outward from the center of the village. The famous British scholar John Barrell believes that "any map of an open area in the late 18th and early 19th centuries may be drawn differently due to different viewing angles of different people[5]. So if you draw a map from a person who needs to frequent the village, Written from a different perspective, such as a traveler or a salesman, the narrative of the novel may no longer be circular, and the final map will be of another shape. But the village is a free space that can satisfy almost all basic production activities of the villagers. , the final figure it presents can be circular. As art theorist Rudolf Arnheim believes that "when a system can freely spread energy in space, it can emit its energy uniformly"[6]. A vector, like a ray of light emitted from a light source. Its final shape is a circle in the center. This provides the basis for Moretti's rationality in drawing a concentric literary map for "La Nasa".

Moretti's literary map emphasizes the spatialization and accessibility of literary elements. Visualization, thereby revealing the "unreadable" invisible narrative space of the text. He pointed Says, "The map interests me not because it is almost like a novel. not to be read in this way, but because it changed the way we read novels". For Moretti, the map is almost identical to the text of the novel. It is as readable and as interesting as the novel, but the difference is that the text

The reading of books is a process from concrete to abstract, while the reading of maps is It is a reverse process, that is, from abstract to concrete[7]. His literary map Want to be reflected in "Charts, Maps, Trees", "Network Theory and Plot Analysis" and "London Sentiment" Hit. In these three treatises the literary map breaks the linear structure of the text. structure, presenting the abstract underlying structure of the text directly in front of the reader, thus Reveals the hidden characteristics and patterns of literary texts.

In the process of drawing maps for other volumes of the novel, Moretti discovered that these literary maps were unstable. From the maps in Volume One to Volume Five, although the circular structure is still the core spatial structure of the novel, more and more elements begin to appear outside the village, no longer concentrated, but radiating outward. The instability of the village may be related to the urbanization process in the social environment at that time. With the advancement of urbanization, villages have also begun to transform themselves. Driven by urbanization, people in the village are no longer satisfied with the current life in the village. People have begun to move to places outside the village, and the number of places outside the village has naturally increased. It incorporates many elements of production and life. From the changes shown in the literary map, researchers can explore the reasons for the birth, development, and changes of literary works, and discover the impact of the social environment on literary creation[8].

The literary map Moretti draws is not without controversy, however. Italian geographer Claudio Oseretti For, the literary map Moretti drew for La Vellagna is not exactly a "Map", but simply "Geometry". Map is an illustration of the earth's surface It is a picture of the distribution of things and phenomena on the surface, marked with symbols and words, and usually colored. Oseretti believes that in the traditional sense of the map , location and distance are the most important elements on a map, and in Moretti In a literary map drawn, place and distance are not important; The relationship between points and literary elements. Although in the traditional sense, the characters of Morai serve as the nodes of the map, and the verbal interactions between the characters serve as connections to draw the character relationship network. At the same time, in order to maximize the readability of the graphics sex, reducing interactivity, Moretti gave up the directionality of character interaction and and a demonstration of the importance of character interaction. Compared with the character activity space map pair The literary map is refined and deepened, and the character relationship map focuses on integrating complex The plot is reduced to the interaction between characters, that is, the interdependence of the characters in the novel Relationships are justified by the fact that the plot is made up of character interactions. Hamlet "Special" character relationship diagram breaks the linear narrative structure of traditional drama. At this In this picture, all characters and interactive plots from the first scene to the last scene are Presented on the same plane, so that the past and present occur on the same plane superior. In addition, the character relationship diagram also shows different character interaction areas, which allows researchers to analyze character relationships regionally and find out the plot feature[9].

Through this approach, Moretti reveals issues that traditional methods of close reading miss. Hamlet is undoubtedly the core character of the entire drama. If the node Hamlet and its cross-links are deleted from the diagram, the character relationship diagram will almost collapse. However, if Claudius, who seems to be second only to Hamlet in importance, is deleted from the picture, it will have almost no impact on the stability of the picture. Moretti conducted the following experiment, first deleting Hamlet and then Claudius, and the impact on the picture was minimal. It can be seen that Claudius's influence on the stability of the character network structure is minimal. The literary map drawn by Dante cannot be called a "map", but only a "geometrical map". "Graphics", but the era of digital humanities has subverted the traditional concept of "maps". The concept is that a map cannot just be a representation of natural landforms, but a "visible It is a method that is not limited to geographical maps[10]. In literary research, maps need to be transformed into abstract and usable text elements according to the needs of researchers. Visual and spatial literary maps. Using this kind of literary map, researchers Able to discover patterns hidden deep in the text to make up for the lack of careful reading.

Although these literary maps themselves are not direct interpretations of literary texts, explanations, but they provide researchers with a new method of analyzing literary texts[11]. They are abstract expressions of text, presentation of text space information, and two-dimensional graphics abstracted from a three-dimensional perspective. From three-dimensional to two-dimensional In the process of abstraction, it is inevitable to ignore some secondary elements in the text, but This also allows important elements to stand out. Obviously, these literary places Pictures have extraordinary power. They almost escape the constraints of written description. Spatial relationships directly interpret the invisible narrative structure of the text. As painted by Moretti The "Our Village" map produced by the "Stable" changes reveal the impact of social changes on village life in the novel. ring.

3 CHARACTER RELATIONSHIP MAP

After trying to use character activity space to study the narrative structure of the novel, Moretti raised a new question: whether the plot can be quantified, and how to quantify it? In order to quantify the plot, Moretti drew a character relationship diagram of Shakespeare's play "Hamlet". He thought that if Hamlet and Horatio were deleted at the same time, the character relationship diagram would be completely separated, and the beginning and ending of the story would be completely separated. will be completely torn apart. Horatio is far inferior to Claudius in both the number and importance of his interactions, but structurally Horatio is more important than Claudius. This also shows that the

centrality of the character is not necessarily related to the importance of the character in the narrative structure. Although Claudius is in the densest area in the network, this just shows that he is already in an area where the clustering reaches 100%. This is an area that is interrelated with all nodes, so his presence or absence has an impact on the entire area. Not big. Horatio is a bridge connecting marginal characters. The clustering in his area is very low. Many characters only have a simple connection with him. Losing him will destroy the balance of the entire drama.

On this basis, Moretti moved from plot research to style research. Research. The marginal character Horatio has a weak connection with other characters middle. He showed almost no emotion in the play, and did not speak much, portraying a plain, emotionally cold style throughout the play. "Style, as a style of plot, embodies In terms of plot. " In previous literary studies, "style" has always been generalized, and researchers often start from a broader language. Research style from language and cultural perspectives. Moretti explores the relationship between plot and style. provides a new perspective on the relationship between characters. He uses character relationship diagrams to explore the role of characters in the narrative. importance in the structure, and then discover the style of the characters in the plot, which provided me with They show new ways and new possibilities for studying texts. The literary map of character relationships drawn by Moretti based on network theory breaks away from the shackles of time relationships, breaks away from linear structures, and understands text plots from a spatial perspective . "Network theory can provide a way to quantify plots , thereby providing an important piece that is still missing from computational analysis of the literature."

On this basis, our grasp of the plot will no longer be linear, but based on the text itself. Through the character relationship diagram, we can explore the deep structure below the surface of the text from a more macro perspective, and interpret the plot and even the text style from many aspects.

4 NARRATIVE EMOTIONAL MAP

In the study of narrative emotion, Moretti expanded the scope of the text and turned the focus to London in the 19th-century novel, drawing a macroscopic view of London. An emotional map of 19th century London.

In the process of drawing emotional maps, Moretti once turned to historical geography Home Secchi Bonin seeks advice, Bonin turns to Moretti is critical of the idea, saying of Moretti: "Conceptual meanings like 'materialism', 'equality' cannot be combined with place. These concepts are not There is no intrinsic connection between specific locations on the real map. if These concepts cannot be mapped, so how can emotions be mapped? " However, Philip Fisher was positive about the concept of "emotion in geography" attitude, he wrote in his treatise "The Passion":

"Every citizen...is exposed to a range of dangers and people experience Being constantly or intermittently exposed to this fear of danger. everyone will place one's own expectations within one's own geography of fear...we are now in a In a new geography of fear... this is the passion of fear. Above all, it is the passion of fear that separates suddenness from the role it plays in the passion Leave. "

According to Fisher, human instinct makes people feel a certain space. Feelings are memories and expectations, especially strong emotions such as happiness and fear. "Home" often symbolizes happiness, while "prison" means fear. fear. People tend to associate certain emotions with specific geographical spaces. London, as a huge geographical space, will certainly contain all kinds of human beings. Such complex feelings.

Inspired by Fisher, Moretti determined to draw emotional map of London Confidence. He selected 15,000 paragraphs containing nouns about places in London, each paragraph was about 200 words, and asked the taggers to mark the situations in the paragraphs. feel. Due to differences in the judgment of emotions among the taggers, Moretti finally In the end, we decided to simplify the emotions in the paragraphs and mark the paragraphs with only the two most extreme emotions: "fear" and "happiness", and then mapped out the emotional geography of London. picture.

Under the background of industrialization in the 19th century, London underwent tremendous changes. The city continued to expand outwards, and the population of London increased dramatically. However, compared to London in reality, London in the novel reflects "stability". There are two main reasons for the formation of this "stability". One is because of the "heterogeneity" of London City. As a "small world", London City is complex enough to meet the needs of all writers' writing scenes and needs. Emotional needs, writers rarely need to introduce places outside London On the other hand, it is because of the "homogeneity" shown by London's West End, which is specifically reflected in the fact that the West End has formed a stable structure in the long-term development process. Class style needs to express this class, the author only needs to quote the West London The place name of the district is enough

In the emotional geography map of London, the most worthy of analysis is the emotion of London in the novel. Shockingly, apart from conventional emotional expressions, such as the prison district, which is closely associated with fear, London is mainly emotionally neutral, and more than half of the London place names in the novel have no clear emotional expression. Moretti believes that "such a striking neutrality has less to do with the absence of emotion in the novel than with the silence at the public level."

. Place names in novels are often part of public spaces, settings where people tend to hide their true emotions. In other words, novels gain greatly in emotional intensity when they escape public geography.

Furthermore, the emotions of London novels are not static. During the first half of the 18th century, fear remained the dominant emotion in fiction. As time went on, in the second half of the 18th century, the amount of fear emotion in

London novels decreased significantly. Fisher believes that the reduction of fear is "one of the core achievements of modern civilization." The emergence of electric lights, police, and insurance has reduced people's fear. However, this is inconsistent with the phenomenon in the novel. Electric lights, police, and insurance are all in

It only appeared later. Here, a difference emerges between qualitative and quantitative research. This is probably due to the special characteristics of Victorian novels. Sex, in many novels, specific place names rarely appear, and instead they are used to describe sex, expressed in language. The stability of London's West End in the novel is related to There is a direct link to the happy gatherings of the first half of the 19th century. Early 19th century kitsch The happiness brought by worldly pleasures is transformed into deeper happiness, such as family love, and words such as family love are often associated with the West District.

In the process of drawing the emotional map of London, Moretti proposed the concept of "emotional geography" and found that emotion and geography are closely linked. "We find empirical evidence supporting existing theories of public emotions, showing how established narrative polarities (foreground/background, story/discourse) are responsible for narrative temporality and narrative geography. We also find that real versus fictional significant differences between geographies, while also drawing the "first line" for future "semantic spaces". The three axes of corroboration, improvement and discovery define the variability between quantitative literature research and existing results. relationship. Eventually, the day of theory building will come.

In the paper "Emotional Map of London", Frank Moretti's literary map is no longer content to introduce specific literary elements, such as place names and people's names as the main elements of the map, but also introduces abstract emotional concepts, and The scope of research on literary maps has been expanded.

5 CONCLUSION

In the context of the digital age, the relationship between literature and geographical maps has undergone a transformation. Moretti adopted a subversive research method in the study of literature. He first extracted the elements in the text, and then spatialized these elements to draw a unique literary map and realize the visualization of the text. Different from traditional close reading, Moretti's literary map shows a "distant reading" method. He wrote in "Speculations on World Literature", "Distance is a condition of cognition. With distance, you can focus on units that are much smaller or larger than the text: technique, theme, rhetoric - or It is genre and system. Moretti's idea of literary map itself is the practice of "distant reading" thought. Through literary map, researchers can study the relationship between people and society, the role and style of characters in narrative, and the emotional expression in novels. Literary maps can help researchers understand the deep thinking mechanism of text formation to a certain extent and reveal the complex process of transforming thinking into text. This is what "words" cannot do, but "maps" can do it.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

REFERENCES

- [1] Franco Moretti. Atlas of the European novel 1800- 1900. London and New York, 1999.
- [2] Franco Moretti. Literary Lab Pamphlet 2: Network Theory, Plot Analysis. Stanford Literary Lab, 2011.
- [3] Franco Moretti. Literary Lab Pamphlet 13: The Emotions of London. Stanford Literary Lab, 2011.
- [4] Franco Moretti. Conjectures on World Literature. NewLeft Review 1, 2000.
- [5] Ramos MC. Global positioning from Spain: Mapping identity in African American narratives of travel. In: Tally RT Jr (ed.) Geocritical Explorations: Space, Place and Mapping in Literary and Cultural Studies. Basingstoke: Palgrave Macmillan. 2011: 177–193.
- [6] John Barrell. The Idea of Landscape and the Sense of Place 1730-1840. Cambridge, 1972.
- [7] Mark Granovetter. The Strength of Weak Ties. American Journal of Sociology, 1973.
- [8] Philip Fisher. The Vehement Passions. Princeton University Press, 2002.
- [9] Caquard S. Cartography I: Mapping narrative cartography. Progress in Human Geography. 2013, 37(1): 135–144.
- [10] Rudolf Arnheim. The Power of the Center. A Study of Composition in the Visual Arts. Berkeley and Los Angeles, 1988.
- [11] Zou Jianjun, Zhou Yafen. 10 Keywords in Literary Geography Criticism. Journal of Anhui University (Philosophy and Social Sciences Edition), 2010 (2): 35-43.