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Research Article

Madness in Teleorman: Chaos and Order

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Abstract

Chaos theory has emerged as a controversial scientific theory in the world of physics contrasting with the settled Newtonian theory supporting that the world and the universe have determinist and linear characteristics working in a regular and predictable way in the basis of causalities. Chaos theory offers the new world non-linearity, unpredictability, Fractal geometry against Euclid geometry and dependence on initial conditions. This theory born in physics has caused an enormous impact on social sciences, as well. Literature as the close follower of up-to-date theories and movements cannot keep away itself from this new theory. Numerous studies have been carried out in the West to interpret literary texts from different aspects -thematically or structurally- based on Chaos theory. This article aims to analyze Caryl Churchill's Mad Forest issuing the Romanian Revolution from a modernist and surrealist way via key terms of Chaos theory with respect to theme and structure. Thus, Chaos theory and its key terms will be defined and its applications on literature will be discussed from different perspectives. Finally, Mad Forest will be analyzed regarding some key elements such as order within disorder, nonlinearity and dependence on initial conditions presented by perspectives of Chaos theory.

Keywords: Chaos theory, Caryl Churchill, *Mad Forest*, butterfly effect, fractals and self-similarity.

Teleorman'da Delilik: Kaos ve Düzen

Öz

Kaos teorisi, fizik dünyasında, dünyanın ve evrenin determinist ve doğrusal özelliklere sahip olduğunu savunan, düzenli, öngörülebilir ve nedensellik prensibiyle işleyen Newton teorisi ile çelişen tartışmalı bir bilimsel teori olarak ortaya çıkmıştır. Kaos teorisi, yenidünyaya doğrusal olmama, öngörülemezlik, Öklid geometrisine karşı Fraktal geometri, belirsizlik ve başlangıç koşullarına bağımlılık gibi yeni ilkeler sunmuştur. Fizikte doğan bu teori, sosyal bilimlerde de büyük yankı uyandırmıştır. Gerçek dünyanın mimesis'i- taklidi- ya da yansıması sayılabilecek edebiyat, bu yeni kuramdan uzak duramazdı. Batı edebiyatında, edebi metinleri farklı açılardan -tematik veya yapısal olarak- yorumlamak için Kaos teorisine dayalı çok sayıda çalışma yapılmıştır. Bu makalede, Caryl Churchill'in Romanya Devrimi'ni modernist ve sürrealist bir tavırla konu alan Deli Orman'ının Kaos teorisinin anahtar terimleri üzerinden tema ve yapı bakımından incelenmesi amaçlanmaktadır. Bu nedenle, öncelikle Kaos teorisinden genel olarak açıklandıktan sonra, edebi eserlere uygulaması ile ilgili anahtar terimler tanımlanacak ve edebi analizdeki uygulamaları farklı açılardan tartışılacaktır. Son olarak, Deli Orman adlı tiyatro oyunu "düzensizlik içinde düzen", "doğrusal olmama" ve "başlangıç koşullarına bağımlılık" gibi bazı temel unsurlar açısından Kaos teorisinin ışığında ve onun bakış açısıyla incelenecektir.

Anahtar Kelimeler: Kaos teorisi, Caryl Churchill, Deli Orman, kelebek etkisi, fraktal ve özbenzerlik.

INTRODUCTION

Caryl Churchill's drama experiments with dramatic forms and is always in progress, which makes her not only a political dramatist but also a dramatist who formulates her own style or "politics of style" affecting the contemporary Theatre of England. In this sense, it is argued that "The kinds of questions which Churchill asks through her theatre reflect her feminist and socialist viewpoints, but allied to her interrogative, political mode of writing is her experimental approach to dramatic and theatrical form. Churchill's theatre is not just a question of politics, but a politics of style (Aston & Reinelt, 2000, p. 80). Churchill becomes one of the a politically-oriented playwrights of British Drama and shaped contemporary drama with her theatrical experimentation in terms of form and theme. Churchill depicts herself as "a socialistfeminist" and in her works, and she combines "social commitment with theatrical experimentation," which makes her not only a strong political figure but also an influential dramatist (Demastes, 1996, p. 14). Over the years, the drama of Churchill gains a post-modern color as Griffiths notes," cross-race and crossgender casting, doubling, pastiche, Victorian light verse, displacement of time and place, and also rhyming couplets destabilize conventional assumptions about both drama and life itself" (Griffiths, 2003, p. 56). The over-lapping dialogues, the speaking silences and the rhyming dialogues of Caryl Churchill are now accompanied with music, dance and choreography as languages of Churchill's drama, which makes her drama less occupied with realism.

Mad Forest: A Play from Romania (1990) was performed by the final year students at the Central School of Speech and Drama, London. The play was later on staged at the National Theatre, Bucharest and at the Royal Court, London in the same year. The Romanian performances played in English with translations made through headsets to sell-out audiences (Garner, 1992, p. 399). It is a common knowledge that *Mad Forest* was written after Churchill, the director and a group of student actors from London's Central School went to Romania three months later than the December 1990 in order to have more knowledge about the events which took place before and after the fall of Ceauşescu and the communist regime. Throughout the visit, Churchill and especially the actors interviewed with the members of the Romanian community. Before the performance, the actors learnt *"authentic Romanian accents with the aid of Deborah Hecht's dialect coaching"* (Garner, 1992, p. 399). Through this, Churchill captured the realistic tone within the play.

Mad Forest is praised by many critics; Morley puts emphasis on its "*immediacy and potency*" whereas Coveney describes the play as a "triumph (Demastes, 1996, p. 113). Billington writes that what it does, "*brilliantly in places, to evoke the mood of a country through snapshot images*" (Demastes, 1996, p. 113). Especially, Billington's words show that the play is a fine treatment of the Romania in chaos as through the short-cut pictures, Churchill gives the panorama of the country in distress. Stanton B. Garner depicts *Mad Forest* as "*a powerful account of the confusions and ambiguities attendant upon a revolution that lacked the apparent moral and political clarity*" (Garner, 1992, p. 400). Churchill presents the "short-cut" picture of a confusing and unstable aura of a country about to experience a revolution and change its destiny gradually.

Chaos Theory and Literature

Chaos theory emerging in the early 20th century as a scientific movement has brought a significant and different perspective in the world of science dominated by the Newtonian deterministic idea which presents whole incidents and systems in the universe within cause-and-effect relationship. In Determinism, universe has a clocklike working system which is characterised with the words such "predictable, linear, regular, mechanically precise and organised" (Hayles, 1991, p. 8). Linear Systems and their clocklike behaviour patterns are supposed to be simple, predictable and repetitive in Newtonian Determinism. Unlike Determinism which takes out "randomness, non-linearity,

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unpredictability and chaos" from the universe's deterministic and unchanging laws, Chaos theory set forth the idea that believing we live in a universe surrounded and governed by "predictable, consistent laws and knowledge is an illusion" (Hayles, 1991, p. 1). Chaos theory can be depicted as "*dynamic non-linear system that are orderly at first, but may become completely disorganised over time*" (Tobin, 1997, p. 112). As the Chaos theory studies on the systems and incidents actively in action between the states of order and disorder, it may be inadequate to define chaos as the lack of order. Chaos Theory offers new vision over the simple systems: "simple system, complicated behaviour" or in another words "*the study of unpredictable behaviour in simple, bounded, deterministic systems*" (Kellert, 2008, p. 5). System's behaviour never stays the same, it does not repeat itself, which makes it complicated and chaotic.

The term "Chaos", in a sense, explained all over again as a zone between order and disorder or in other words as "orderly disorder" (Hayles, 1991, p. 6). "Butterfly Effect" initiated by Ray Bradbury in his short story "A Sound of Thunder" (1952) and theorised later by Edward N. Lorenz, a meteorologist and mathematician, in his 1972 paper titled "Predictability: Does the Flap of a Butterfly's Wings in Brazil Set Off a Tornado in Texas?" is one of the key elements of the Chaos theory. "Sensitivity to initial conditions" or in other words, the idea that a small change in the initial conditions can lead to major changes in the eventual outcome formulates the core of the "butterfly effect" in Chaos theory. The cliché example that explains "the sensitivity to initial conditions" in "butterfly effect" is human beings' not being able to make exact predictions with specific details about consequences of the flapping of a butterfly's wings in a faraway distance over the weather conditions in another faraway place. (Gleick, 1997, p. 11)

Fractals and *self-similarity* are the other fundamental terms within the Chaos theory. Fractals were firstly introduced by Benoit B. Mandelbrot, a Polish mathematician and economist, in his book *The Fractal Geometry of Nature* basically defines fractals as "geometric shape that can be separated into parts, each of which is a reduced-scale version of the whole." Fractals are also depicted as "a way of seeing infinity, in the mind's eye" since they echo the order within the disorder all over again (Gleick, 1997, p. 92) Mandelbrot emphasises the non-linearity and chaotic nature of the world via fractals with his widely-known phrases as "*Clouds are not spheres, mountains are not cones, coastlines are not circles, and bark is not smooth, nor does lightning travel in a straight line*." (Mandelbrot & Mandelbrot, 1982, p. 5) At first sight, these shapes may seem to be irregular and random, yet there is a sort of order and sameness in this complexity, not least in their *self-similarity across* scales. A *fractal* always follows the same fractional dimension even if it is analysed different visions. Similar patterns repeat themselves and self-similarity is "the way the shapes revealed by the zooming strongly resemble one another from level to level" (Polvinen, 2008, p. 17).

The interdisciplinary use of Chaos theory in the literary analysis is still a controversial issue since Chaos theory is presented as a technical and scientific field the wholesome application of which is not possible for humanities (Sokal & Bricmont, 1998, p. 14) and has also been handled by literary critics in totally different strands. According to Susan Strehle, *"changes in physical theories inspire changes in a culture's general attitudes and art"* (Strehle, 1992, p. 8). From this point of view, Chaos theory which breaks and rebuilds the deterministic, linear and cause and effect relation-based laws and ideas of the world inevitably has altered the perspectives and ideas of the literary figures in a non-linear, chaotic and unpredictable way. N. Katherine Hayles claims that contemporary literary works especially the Postmodern writing style, especially in terms of its form, can be accepted as a replica of new physics with its theories. N. Katherine Hayles summarises the connection between Postmodern literature and Chaos theory through these words:

The postmodern context catalyzed the formation of the new science by providing a cultural and technological "milieu in which the component parts came together and mutually reinforced each other until they were no longer isolated events but an emergent awareness of the constructive roles that disorder, nonlinearity, and noise play in complex systems" (Hayles, 1991, p. 5).

Heisenberg also declares within the new literature "reality itself is no longer realistic; it has more energy and mystery, rendering the observer's position more uncertain" and continued "in the quantum universe, space and time aren't separate, predictable, and absolute, narratives can't steer by the fixed poles that guided realistic fiction" (Heisenberg, 1952, p. x). As the literature is described as a mimetic reflection of the real world and real-world issues, the invasion of chaos, non-linearity and uncertainty to world of literature is not unexpected. Another controversial issue in terms of the use of Chaos Theory in the literary analysis is its being limited to structure. John Barth employs the concepts of unpredictability in systems, order and disorder, discontinuity and self-similarity across scales in his books, characters and themes as well as the structure. Due to developments in physics bringing different perspectives on the design of universe, individuals' perception over the world have undoubtedly turned into a totally diverse path. The mind of modern man, once inhabited by wholeness, order and linearity, has become "scattered and fragmented" (Gazzaley & Rosen, 2016, p. 17). Thus, it has become inevitable and predictable for literary figures to reflect these nonlinearity, fragments and chaos in their works structurally and thematically. In terms of literary analysis, there comes out no mutual and unified approach towards text and its language. Yet, Chaos theory can be accepted as the most appropriate and applicable way to make a literary analysis on modern literature since it is close at hand to the nature of new literary works with fragments, chaos and nonlinearity. It would be limited to apply traditional literary analysis and linear, strict, regular, predictable and organised theories to this new sort of literature.

The purpose of this article to analyse and interpret the text within the dynamics of Chaos theory such as order in disorder, non-linearity, *"sensitive dependence on initial conditions"*, *fractals* and *self-similarity*, uncertainty in terms of structure and theme. This article may present a model for the upcoming studies in terms of application of Chaos theory as a literary analysis.

Analysis of Mad Forest Through the Lens of Chaos Theory

Caryl Churchill lays the nature of 1989 Romanian Revolution bare by employing radical questions dealing with the social, cultural and political atmosphere of Romania before, during and after the Revolution through a new style of theatre in Mad Forest (1990). Although the world would enter the last decade of the 20th century, Romania was one of the last Communist states. The country was living under "the iron-fisted rule of its President, Nicolai Ceauşescu" who came to the power with his wife in 1965 (Vasi, 2004, p. 13). Despite the fact that Ceausescu appeared to follow a liberal policy in foreign relationships, he did not apply any liberal reform within the country. His secret police force which was called Securitate carried out rigid and brutal controls over free speech and the media, and tolerated no internal opposition and "served as a repressive tool for the regime" (Sepetys, 2022, p. 30). As a result of country's being in foreign debt in the 1970s and 1980s, Ceauşescu ordered the export of much of the country's agricultural and industrial production, which led to shortages of food, energy, medicine and finally starvation. Although the world was surprised when the Ceausescu dictatorship was broken down over a period of five days in the December of 1989, the walls of his dictatorship had been broken much earlier. Upon demonstrators' starting to protest the government, Ceauşescu ordered security forces to fire on the anti-government demonstrators in Timisoara in December, 1989, which led to the fall of his regime step by step. The demonstrations spread to Bucharest on December 22. On that day, Ceauşescu and his wife were captured while they were trying to escape in a helicopter. On December 25, the couple were shot by a firing at Tărgoviste (Quammen, 2004, s. 226-227).

After the events of that December, there was an ambiguity, a chaos covering the country because there were questions dominating the country: Was it a revolution, is it a new beginning, or what is coming next? The end of socialism also introduced to the country uncertainty, ambiguity and a chaos. Despite the linearity of causality, all systems will be subject to the notion of turbulence at any time (White, 1990, p. 94). Turbulence *"is a mass of disorder at all scales . . . It is unstable . . . highly dissipative*,

meaning that turbulence drains energy and creates drag. It is motion turned random" (Gleick, 1997, p. 90). A small perturbation in a non-linear system can give way to great variations as a consequence. Thus, all the seemingly linear systems depending on causality is apt to experience turbulences or disorders as turbulences and disorders in other words "orderly disorders" are the fundamental feature of human life cycle and the universe design. Rogers explain orderly disorders within the life cycle as follows:

the life process may be likened cadences-sometimes harmonic, sometimes cacophonous, sometimes dissonant; rising and falling, now fast, now slow- ever changing in a universal orchestration of dynamic patterns (Rogers, 1971, p. 2027).

Historical events such as wars, revolutions can be regarded as orderly disorders as they include all the key features such as falls and rises, chaos and dynamic patterns. Since Churchill gathered the data about the Revolution via interviewing with Romanian lay people randomly, this play can be considered as lively documentary like drama about the Romanian Revolution. Yet, the purpose of Caryl Churchill does not only mirror this particular revolution. Churchill illustrates the chaotic, ambiguous, non-linear and open-ended nature of all revolutions by presenting the pre-effect, the event and posteffects of that specific Revolution. As John Barth claims in his essay "Chaos Theory: Postmod Science, Literary Model," stories within stories- the frame tale- provides a "*delicate interrelationship among scale levels*" (Barth, 1984-1994, p. 333). By picturing the nature of this specific Revolution within an episodic and open-ended structure, Churchill makes the audience realize that traumatic and chaotic events like revolutions are not momentary acts but ongoing processes in which one act leads to another and microcosm stands for the macrocosm by falling the similar and nonlinear patterns. Various episodes and events within the play with their fragmentations present the shifts from order to chaos and a new sort of order is introduced. The contemporary literature and its writers have a mutual:

[F]ascination with intricate patterns whose meanings remain indeterminate; an immersion of their fiction, however fantastic or magical some of its qualities, in the details of class, race, and gender that constitute the social world in their countries; a sense of political urgency and an engagement with issues of power and exploitation; a thoroughgoing departure from Newtonian stabilities and from realistic causalities; an exploration of historical events and patterns characterized by discontinuity and accident, presented from angles subjective and uncertain, in fictional forms whose recursive intricacy points toward the actual world (Strehle, 1992, p. 221).

The title of the play also gives the implication of the chaotic atmosphere of Romania, the madness of uncertainty. *Mad Forest* is a translation of *"Teleorman"* that is "the name of the forest, impenetrable to foreigners, where Bucharest now stands" (Garner, 1992, p. 400). *Mad Forest* breaks the *"impenetrability" -impassability* and mystery- and *"ambiguities of Romanian politics during and after the overthrow of its 'Great Comrade'"* (Garner, 1992, p. 400). Instead of using the Romanian name of the forest, *'Teleorman'*, Churchill uses an English translation of atmosphere of the *Mad Forest* or its Romanian name *Teleorman*, Churchill draws the macrocosm, the world's chaotic atmosphere. Although *Mad Forest* tells a story about the Romanian Revolution, *"the problems and resolutions are universal"* as there is a forest surrounded by Chaos in every part of the world at the very beginning of the human history as Ianoş says in a joke;

IANOŞ: And everything?' And he said, 'You did, God.' And God says, 'Then how can you possibly be greater than me?' And he says, 'All these things, what did you make them from? And God said, 'Chaos, I made it all out of Chaos.' 'There you are,' he said, 'I made chaos.' (Churchill, 1991, p. 20).

The title of the play invites the reader to a forest which is surrounded by both the creative and repressive force of the human history: Chaos through the 'Mad Forest' of Romania and Chaos out of which the world was created and has been ruled over. Caryl Churchill as a socialist playwright presents

the chaos to the audience as the creative and survival instinct of the world (Berney, 1993, s. 583). The Forest metaphor presents the core of the Chaos theory with its orderly disorder, fractals, nonlinearity, infiniteness and self-similarity. Forest which is a complex ecological system having a huge animal and plant biodiversity -of numerous kinds and in many shapes- may be considered as an example of fractals of the Chaos theory since like the fractals, the geometric shapes of forest – all kinds of trees, animals and plants- dominate the forest within an "orderly disorder". At first, these geometric shapes seem to be totally different, diverse and disorderly but they inhabit the forest with a sort of self-similarity and the geometric patterns repeat themselves in a kind of harmony within the chaotic, nonlinear and infinite atmosphere of forest. Each living being can be accepted as "a reduced-scale version of the whole" (Gleick, 1997, p. 92). Forest metaphor perfectly summarizes the fundamental features of the Chaos Theory.

Mad Forest also presents the key features of the Chaos theory structurally as the play is divided into three main episodes with various scenes that can be thought as individual plays can be read or acted on their own and also, they still form a fragment of a whole with its chronological order. In terms of structure, the play also illustrates the key elements of the Chaos Theory. Although each episode of the play can be accepted as fractals with individual themes and separate shapes, these episodes, similar to the *fractals*, follow a pattern that repeats itself within the idea of *self-similarity*. All these seemingly separate episodes are the reduced forms of the whole. Churchill employs dramatic narrative in an episodic style instead of using a linear structure, which is also in accordance with the nature of the Chaos Theory with its nonlinearity. Susan Strehle points out that "contemporary fiction departs from realism without losing interest in reality." (Strehle, 1992, pp. ix-x). Contemporary fiction's borrowing from the actual reality and presenting it from a nonlinear, dynamic, uncertain and revised way, which is in accordance with the key features of the Chaos theory. The first and the third episodes view two Bucharest families during the change of their country's history. In the first episode, the two families suffer under the Ceauşescu's communist regime, which reduced the living standards to the starving level. The most effective scene that shows the difficulty of the life in Romania is "Lucia Has Four Eggs". Although there is no dialogue in this scene, one can feel and understand the picture of the starving in this scene regardless of nationality and language. In the first episode, which is named as Lucia's Wedding, there is an ongoing wedding preparation that can be accepted as reference to the preparations for the upcoming revolution. The social panorama of Romania just before the Revolution under the socialist regime is illustrated on the stage with its prohibitions, restrictions and oppressions. Churchill draws "the atmosphere of isolation, silence, mistrust, alienation and deep divisions both within and between the families" (Soto-Morettini, 1994, p. 107). In the third episode, the families struggle at this time to find their way under a revolutionary government. Episode III consists of another wedding, Fiona's Wedding, which is just after the Revolution, and Churchill draws the chaos and confusion that overwhelm Romania and also the selfishness and ignorance of people. Episode II and Episode III show the months leading to and following the Revolution through these two Bucharest families within two separate yet similar wedding ceremonies. Episode II consists of monologues of the cross-section of Romanian people -student, doctor, bulldozer driver, soldier- who witness or participate in the Revolution. Janelle Reinelt (1996) summarizes the second episode through these words:

The middle section of the play also calls up an impression of isolated individuals, struggling to find a position in relation to the revolutionary events taking place around them. In performance the group of isolated individuals giving their different perspectives creates a Brechtian interlude, or break in the action. The audience is invited to consider the differences between perspectives and the epistemological questions it raises: What did happen, and what is the "truth"? (104-5)

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Mad Forest is not a straight narrative, and full understanding of the plot does not come until the second act and the plot slowly unfolds. It can be inferred from these breaks and fragments within the play that the play does not follow a linear path although it seems to be chronologically linear, not an organized and orderly panorama of the revolution though it seems to be orderly. Yet, the different perspectives of isolated people can be accepted as *fractals* with different shapes, their thoughts on the newly acquired regime are similarly ambiguous since all the individuals have the same question in their minds: *"What did happen, and what is the "truth"*?". This can be presented as an example to the *self-similarity* attribution of *fractals*. The episodic structure of the play shows the reader a large canvas which is full of small, similar and fragmented pictures, which makes the reader see the Revolution and the Chaos from a large perspective (Innes, 1992, p. 518) The revolutionary process that takes place within the realm of the play can be given as an example to the *butterfly effect* as *"tiny differences in initial parameters will result in a completely different behavior of a complex system"* (Malcolm, 2016). The alterations within pre- and post-revolutionary behavior patterns of the system and differences between the two wedding ceremonies of two sisters illustrate the butterfly effects with its *"dependence to initial conditions"* and bringing a totally unpredictable behavior changes to the nonlinear system.

Mad Forest illustrates a chaotic atmosphere, orderly disorder as many nonlinear and seemingly irrelevant characters, scenes and themes gathers together on the stage. The play includes some "surreal scenes" which are seemingly unrelated to the main plot. Appearances of ghosts –Flavia's grandmother-, an angel –the angel and priest scene-, and a vampire turns the play to a collage and these surreal figures are related to the main theme through their message with the aim of combining "imaginative abstractions with a strong sense of the physical reality of things. They portray physical reality as the other, as the opposite of the human faculty of imagination, but also suggest that mind and reality obey the same basic rules" (Polvinen, 2008, p. 256). Although all these things appear to be isolated components, they construct a new kind of orderly disorder on the stage with the chaotic and complex nature of the Revolution. N. Katherine Hayles claims in the introduction to *Chaos and Order: Complex Dynamics in Literature and Science*:

The postmodern context catalyzed the formation of the new science by providing a cultural and technological mi-lieu in which the component parts came together and mutually reinforced each other until they were no longer isolated events but an emergent awareness of the constructive roles that disorder, nonlinearity, and noise play in complex systems (1991, p.5).

The structure of the storyline- though seemingly chronological and linear- is continuously broken and cut by the ends of each episode so as to break the flow, which gives the sense of nonlinearity. Churchill's nonlinear and a kind of postmodern style in which apparently irrelevant details such as a wedding ceremony, the angel and priest conversation, vampire and dog speech formulate a pattern or a fractal, which is consistent with the Chaos theory as fractal geometry is described as "geometry of the pitted, pocked, and broken up, the twisted, tangled, and intertwined? The understanding of nature's complexity awaited a suspicion that the complexity was not just random, not just accident." (Gleick, 1997, p. 94)These scenes add a dimension of universality and the human struggle to the play without detracting from the storyline. Like deconstruction in postmodernism, the Chaos theory focuses on the elements that do not match within a system in an orderly, logical way. Both the Chaos theory and postmodernism offer analytical techniques focused on the interrelationship of conflicting element. Especially, the vampire and dog scene – "The Dog is Hungry"- makes the play universal although the vampire is a Romanian local color as vampire concept was born out of Romania but it flourishes the whole world, which can be depicted as a model for butterfly effect since the initial action that started in Romania flourished the whole world as chaos and disorder and changed the behavior system of not only Romanian microcosm but also the world as macrocosm. The vampiric image of the past does not leave the country or the world Moreover, it makes the people his immortal servant as the chaos does not leave the whole universe. Like a vampire, "Chaos" gives immortal life and eternal confusion and damnation. Individuals become captured within this chaotic, claustrophobic and limbo-like country and universe with the ghosts and vampires of the past. The vampire image also can be accepted as a foreshadowing as the upcoming years will not bring a total order to this actual country and to the universe with vampire's eternal desire for sucking blood and bringing chaos. This metaphor of vampire stands for the continuation of "orderly disorder" forever.

Dog: I'm your dog. Nice. Yes? Your dog? Yes? Vampire: You want me to make you into a vampire? A vampire dog? Vampire: Living forever, \ you've no idea. All that Dog: I'd- (Churchill, 1991, p. 46).

Caryl Churchill uses in this play the technique as she labels as "Notes on layout" - which Churchill strategically placed just before the list of characters, also serves as 'notes' to the actor in determining meaning and characterization. These notes are put when a speech usually follows the one before and this interruption is marked by "\". This overlapping language clearly demonstrates the chaotic atmosphere, the confusion, ambiguity and the people in heightened conflict before and after the Revolution in terms of theme and structure. The overlapping dialogues increase in Episode III since the Revolution brings to the families more conflicts and ambiguities, which means more chaos and more madness. The fragmented dialogues with "/" and speeches also provide the nature of the Chaos Theory with its giving the impression of nonlinearity via the breaks in dialogues. "Notes on layout" is also technically a guide for the actor in order to improve the characterization of both his role and his partner's role. In Episode III, the sentences also turn into the question form since the members of two families as the reflection of the Romanian people on stage are left in many uncertainties about their present situation, the Revolution and their future. "What is on the way?" is the main question capturing their minds and the play during this act. In the final scene of the play, there is "a farcical stage melee" in which all the characters in an aggressive tone repeat their outstanding dialogues throughout the whole play both in English and in Romanian language (Garner, 1992, p. 399). This uncertain and ambiguous atmosphere of the play also employs the unpredictability and uncertainty characteristics of the Chaos theory. The characters in the play that repeat the same dialogue in the same tone like chorus can be given as an example to the fractals with *self-similarity* as seemingly irrelevant details or characters form a pattern or a wholeness. By using both English and Romanian language, Churchill breaks the linguistic barriers and provides an intercultural contact in drama and put an emphasis on the universality and self-similarity of chaos within every language. Churchill captures the picture of harmony in the chaos or in other words, orderly disorder via this scene in order to present the audience the invasion of the chaos all over the world and upon any languages.

All the characters in the play are the reflection of the members of the Romanian society before and after the Revolution. Through these two families, the reader sees the repression, ambiguity and the face of the change and its consequences such as uncertainty, doubts and anxiety. The characterization is weak as they represent the stereotypes of that period yet they are dynamic since they are the ones who experience the changes after the revolution. As the regime of the country changes, the life style of characters changes. These changes are clearly seen in two weddings taking place in Episode I and Episode III –Before and After Revolution. The reciprocal structure of play-starting and ending with a wedding ceremony of two sisters- perfectly fits within the reciprocal dynamic of Chaos theory that explains its systems are in charge of downward or upward causality. Churchill uses the two wedding ceremonies as a technical device so as to gather all the characters on stage to illustrate the face of change and alterations *depending on initial conditions*. In the first marriage of Lucia and Wayne -an American-, there is a gloomy and dull atmosphere as their wedding is repressed by the heavy tone of the regime. The wedding ceremony is very plain and the characters who attend the ceremony do not talk individually but altogether, which represents the doctrines of the socialist regime emphasizing the totality over individuality as it can be seen in the following dialogue between the priest and the other characters:

Priest: The servant of God Wayne is crowned for the handmaid of God Lucia, in the name of the father, and of the son, and of the holy spirit.

All (sing). Amen (Churchill, 1991, p. 28).

Unlike the first weddings uniformed and chorus-like speech, in the second wedding ceremony taking place Episode III, every character has voice of their own in higher volume as they are not oppressed by the regime any more. Through this new sort of wedding, they are celebrating their newly acquired freedom, individuality and chaos. The wedding ceremony is like the celebration of the Revolution but Chaos overwhelms the ceremony as Radu says; *"We've got to have another revolution"* (Churchill, 1991, p. 82).

The wedding ceremony ends with a chaos in which all the characters say their important sentences one by one. It is like a collage of the whole play. The totalitarian and repressive atmosphere of the first wedding turns into a wedding in which everyone has his/her own individual voice, which is depicted as parallel to changing the doctrines of two separate regimes. Yet, the future of Romania after the Revolution is still unpredictable and there comes out no infinite order and organization to the country. *"Origins are plural rather than unitary in contemporary physics, and their meaning is indeterminate."* (Strehle, 1992, p. 222) Through this second wedding after the Revolution, Churchill introduces the audience the plural and not uniformed perspectives of the individuals who experienced the socialist regime and the Revolution with their individual voices within the chorus, or separate perspectives in wholeness. Churchill's ending the play in an open-endedness also can exemplify the key features of the Chaos theory such as infiniteness and unpredictability as Susan Strehle explains the nature of Actualistic writing which is in close relationship with the Chaos theory:

Actualistic novels treat events inconclusively, without resolving meaning into graspable forms. Individual sequences and whole novels substitute anticlimax and irresolution for the cathartic end that enables, in conventional narrative, the reader's final detachment from the textual field. Where they invoke traditional structures for closure, like marriage and death, actualistic novels subvert the finality attached to these structures... Actualistic endings remain open, indeterminate, and unsatisfying to the readerly wish for fulfilled promises and completed patterns (Strehle, 1992, p. 227).

Churchill employs dance and choreography into her drama as her dramatic language and the instruments to convey her message. In the play, the décor and music also change in accordance with the change of the regime. In the first two episodes, the stage is dominated by portraits of Nicolea and Elena Ceauşescu, "a visual manifestation of the personality cult that infused all areas of Romanian life under communism" (Garner, 1992, p. 400). Turning up the radio volume in order to make the speech inaudible by Securitate officers and continuously lighting cigarettes are representatives of life under totalitarian regime. In the last episode, the portraits of the Ceauşescus are removed. The music is an important device in the play as it works as a kind of foreshadowing. Episode I ends with "Wake Up, Romanian" – "a song by Andrei Muresiano"-, which is like an invitation to the Revolution which will take place in Episode II. The entrance of the angel on stage is accompanied with an ecclesiastical music, which is the messenger of the coming angel. The Florina's aunt sings a song of a "*little bride*", which announces the

wedding ceremony. The use of audiovisuals such as songs, dance and music enable the nonlinearity of play by breaking the flow of action and also divides the play into fragments seemingly different yet make up a whole when they come together.

Although a fractal will appear different when viewed from different perspectives, it will always conform to the same fractional dimension. A fractal dimension records the extent to which a fractal transgresses the boundaries between conventional geometric planes, essentially denoting a degree of irregularity (Rybczak, 2015, p. 52).

The play ends with the lambada music which is inharmonious and playful very similar to the present situation of the country. Moreover, the lambada music can be taken as an example of a *fractal dimension* from the convention with its disorderly and inharmonious new kind of rhythm and tone, which stands for the rebellious and disorderly new order of the Romania and the world, as well.

CONCLUSION

To sum up, Mad Forest portraits the distressing damage applied to the people's lives through the years of repression and the painful difficulties of lasting change. Although the regime that rules the Mad Forest has changed, Mad Forest still stands in its place with plenty of questions, ambiguity and unclearness. Caryl Churchill draws the panorama of Romania before and after the Revolution and also presents the audience the never-ending chaos captivating the universe by employing the madness in "Teleorman", which is thematically and structurally parallel to the key features of the Chaos theory in terms of butterfly effect, fractals and self-similarity. Chaos theory emphasizes that the order of the universe is not as fixed, linear and stable as we think and moreover, it is proved to be unpredictable, changeable and nonlinear with its disorderly order. Chaos theory, in science and philosophy, with its fundamentals such as dependence on initial conditions, unpredictability, nonlinear structures and fractals draws attention to uncertainty. Shortly after its emergence, the Chaos theory becomes an interdisciplinary approach in Western literature research. The nature of the Revolution with its nonlinearity, uncertainty, unpredictability and chaotic atmosphere can be depicted as a perfectly drawn model to exemplify the doctrines and key terms of the Chaos theory. Mad Forest written by Caryl Churchill illustrates nonlinearity, unpredictability, uncertainty and sensitivity to initial conditions with its fragmented and episodic structure and theme focusing on the disorderly order or orderly disorder and harmony within chaos. Churchill's Mad Forest with the madness of Revolutionary chaos, with disorderly and orderly repetitions, leaving the audience and characters with an enormous uncertainty and two episodic pre and post marriages which can be accepted as the fragments of the revolution can be depicted as a perfect example of the Chaos theory on the stage. The play captures the audience in the *Teleorman* in which the components of the forests, though seemingly irrelevant fractals, gather together and construct a microcosm with an orderly disorder where initial conditions can lead to revolutions and chaos.

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