**Abstract**

**Purpose:** With the focus on Jean Rhys's *Wide Sargasso Sea*, the author shows how women were possessed by men as objects, what was expected of women as men's property, and the punishment imposed on women who do not meet those expectations in the Victorian era. Following the Industrial Revolution, women also had a desire to live by choosing what they wanted with their own free will, not as the property of men, but society only gave them the role of the angels in the house obeying men and taking care of the family and if this expectation is not met, they were portrayed as madwomen and discarded by men.

**Method:** First, it will be discussed how women at the time, represented as Annette and Antoinette, married men as objects, and what men expected of women as wives. Second, it will be discussed how women were punished when they did not act as submissive wives deviating from what the society of the time expected of women, such as yelling, swearing, drinking, or expressing sexual desire; and why they were treated as madwomen and imprisoned like Annette and Antoinette who were chosen and later discarded by Mason and Rochester. Third, it will be examined how Annette and Antoinette discarded by Mason and Rochester were judged as madwomen and imprisoned, and how they were punished for behavior beyond what the society of the time expected of women.

**Results:** Annette shouted, criticized, and ridiculed Mason when her son died because Mason ignored her thought of leaving Coulibri. In return, she was sexually harassed by black people; her daughter Antoinette was portrayed as a madwoman to an extent that she even thought, 'This is not my mother'; and Antoinette was portrayed as a madwoman who laughed out loud like crazy and hit stones with her fists for the reason that she expressed her sexual desire and lost her chastity before marriage, and were imprisoned by Mason and Rochester respectively.

**Conclusion:** Victorian English society made women men's property and never tolerated women who were not obedient to men or invaded men's domains and tried to dominate them. Seeing that the thoughts, desires, and wills of women at that time represented as Annette and Antoinette through the "Wide Sargasso Sea", the author thinks that even in our present day, it is worth considering whether our society make someone's thoughts, desires, and will crazy and punish them for reasons of order maintenance or public interest.

**Keywords:** *Wide Sargasso Sea, Regulations, Violations, Punishment, Women*

1. **Introduction**

The social status of women in the 19th century in England was about to face major changes following the Industrial Revolution that brought dramatic changes to the population, politics, social structure and institutions, and economy of the society. Rather than waiting for men to choose them for marriage in a social structure in which women could not live with their own free will, they hoped become independent by breaking away from the image of women required...
by the society. However, in those days, it was simply not acceptable for women to become independent with their own free will. Since the gender ideology was preventing women from improving their social status, even with more opportunities for intellectual achievement than before, they could attain only refinement, yet were not given opportunities for social activities[1]. In British author Edwin A. Abbott’s *Flatland*, the first science fiction novel published in 1884 during the Victorian Era (1832-1901), the social status of women at the time was portrayed as the lowest class. Women could use only the women-only entrance, and if a woman became ill with a fatal disease, she should be immediately discarded of, that is, she should die. As such, in the society at that time, women were merely objects to be discarded, and women as objects were unable to evade punishment if they invade men’s domain in a male-centered society, or try to escape the family, the domain of women, defined by society.

In the Victorian era, the successful life of a middle-class woman was marrying an economically capable man, and doing elegant women's works, that is, supervising the servants and doing housework, having artistic hobbies such as painting, playing musical instruments and vocal music, and socializing with others from the same class in clubs, and the marriage was considered the only occupation for middle-class women[2]. Praised as “The Angel in the House” in this way, women were forced to raise their children morally, and become a refuge for their husbands. Only the honor of the angel in the house was given to them. Women had no right to vote, and no legal right at home. By the law, women were not allowed to own their own property, nor could they claim legal authority over their children or division of property from their husbands[3]. A husband and a wife became one through marriage, but a woman’s activities were only allowed under her husband’s protection. A woman married to her husband was considered only part of her husband’s[4][5][6][7]. The oppression over women in the society at that time was also in sync with the growth of education for women. Women were considered intellectually inferior to men, so women old enough to marry were educated only in simple arithmetic and reading, and more importantly, how to marry a man and become a good mother and wife[8][9][10].

A woman only needed a sensual body or something like that to satisfy a man’s sexual desire, not intelligence. However, women’s sexual desire was allowed only when men wanted it. It should be led by men and only as much as men wanted. The Sexual desire beyond this was infidelity, and it was not suitable for the angels in the house[11]. The moment sexual desire is revealed from a woman’s body, it is labeled madness, not love. Paradoxically enough, a woman’s sexual desire was what should not remain as a woman’s[12]. Women were utterly destroyed in exchange for displaying and satisfying their sexual desires. Antoinette took the initiative to satisfy her sexual desires, and Antoinette, a Rochester’s property, was not allowed to do so. She eventually became a greedy woman and was punished. Men in the 19th century who wanted to make women their property tried to dominate women’s minds and hearts, not just to make them submissive to men[13][14][15]. In any case, women who deviate from this male’s viewpoint or try to rise to the position of men are severely punished in the work. Men want women to be completely under their control by showing that even women had economic freedom, even if they are educated at universities and have intelligence, they are never equal to men and they are still treated as men’s property and even wives can be traded, and that they would be condemned as a madwoman and punished[16].

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1 Victorian England considered women as passive and dependent beings in the home, submissive to their husbands, taking care of children and households, and praised such women as the angels in the house.
2 Before 1870, all property owned by a woman before marriage became her husband's property, and all income earned by the wife and inherited to the wife also belonged to her husband.
3 In England in the 18th and 19th centuries, husbands sold their wives openly, and trading wives was done in public places, even through newspaper advertisements. The advertisement of “I am selling my wife Jane Hubbard for five shillings. She is healthy and her limbs are strong. She sows, harvests, plows.” and her auction process is shocking. Her husband strapped her wife around her neck and took her to the square, where her husband instructed her to go up to the stage and sold like cattle to the man offering the highest price. After the auction, the husband, wife, and the men who bought the wife even had a drink in a tavern to celebrate the deal. The last recorded auction of a wife in England was in 1913.
Antoinette asks her mother, Annette, about her nanny Christophine, how old she is, and whether she has been together since long ago, but Annette says that Christophine is just one of her husband's wedding gifts. On the other hand, Antoinette and Annette are treated like an object just like the black slave Christophine by Rochester and Mason. Rochester accused Antoinette of a drunken liar, a clown, and took her to his realm, England, where she was imprisoned, while Mason treated mourning Annette after losing her son as a madwoman. Antoinette and Annette were just objects deserved to be possessed by men like Rochester and Mason.

In this paper, the author will examine how 19th century society treated women as possession and how women, who were men's possession and deviated from social expectations, were treated and punished through Antoinette and Annette in the *Wide Sargasso Sea*.

2. Possession and Expectation - Marriage

The British imperialism in the 19th century created the strong and stern male power of the masculinity in the Victorian era, making the paragon of conservative and dominant patriarchal men, whereas women were defined as weak beings\(^\text{[17]}\). Victorian women were simply men's possessions. They had to be obedient to men in the house, and were to become the angels in the house as men pleased, the rulers of that society. Therefore, Annette and Antoinette were portrayed as men's property. Annette was just a pretty and good dancing object to her husband Mason. At the wedding between Annette and Mason, people gossip.

A fantastic marriage and he will regret it. Why should a very wealthy man who could take his pick of all the girls in the West Indies, and many England too probably? 'Why probably?' the other voice said. 'Certainly'...but Annette is such a pretty woman. And what a dancer. Reminds me of that song “light as cotton blossom on the something breeze”, or is it air? I forget. (WSS 17)\(^4\)

They treat women like an object that a wealthy man can choose by saying that a Mason, a man with wealth, can choose any woman to marry from England or the West Indies.

Such treatment of women also can be seen in Mason's attempt to marry Antoinette to Rochester. Mason tries to marry Antoinette to Rochester, but he does not give Antoinette any explanation and makes the excuse that he wants Antoinette to live a happy without worries.

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\(^4\) The text citation from the *Wide Sargasso Sea* follows the *Wide Sargasso Sea* (New York: W. W. Norton, 1999), and the text citation after that is abbreviated as *WSS* and the number of pages is entered.
I want you to be happy, Antoinette, secure, I've tried to arrange, but we'll have time to talk about that later....I have asked some English friends to spend next winter here. You won't be dull....one of them will. I'm certain of that. (WSS 35)

The one Mason was talking about was Rochester, who came to marry Antoinette. In her marriage, Antoinette's opinion was not considered at all. Antoinette was just moved from Mason to Rochester just like an object, and Rochester came to Jamaica with his own free will to see Antoinette and choose her or not like an object. Rochester chose Antoinette for marriage. He was confused as to whether he bought her or she bought him, but in the end he came to a conclusion. Even though he did not love her, if he possessed Antoinette, a pretty object with her fortune, it was not a bad choice at all.

A woman, who is nothing but a man's property, is forced to be obedient to a man. In some cases, if a man says "It's wrong" to a woman's thoughts without a valid reason, the woman's thoughts become really wrong, and ignored or ridiculed. A woman accustomed to this is hesitant to act because she doubts that she may be wrong. A woman, as a man's property, was just an object that could not and should not have their own thoughts. So, even if the man is wrong, she is the one who will be ultimately punished. Annette tells Mason to leave Coulibri with the increasing threat of black slaves but Mason does not take Annette's words seriously, sneering at her. In rebellion against Mason ignoring her, Annette says she will leave Coulibri, but she doubts herself, wishing that Mason would not oppose her thoughts.

How do you know that I was not harmed? We were so poor then. We were something to laugh at. But we are not poor now....As you refuse to consider it, I will go and take Pierre with me. You won't object to that. I hope? (WSS 19-20)

While Mason hesitates, unable to decide whether to leave Coulibri, the black slaves set their house on fire. Eventually, Antoinette's disabled son Pierre is in danger of death, and Annette yells and swears at Mason.

Calling him a fool, a cruel stupid fool. I told you what would happen again and again. Her voice broke, but still she screamed, you would not listen, you sneered at me, you grinning hypocrite, you ought not to live either, you know so much, don't you? Why don't you go out and ask them to let you go? Say how innocent you are. Say you have always trusted them. (WSS 24)

While Annette doubts herself, and Mason hesitates, her son Pierre dies. Even though Annette was right and Mason was wrong, Annette did what was the exact opposite of obedient wife, swearing, yelling, and laughing at Mason. After Pierre's death, the shock caused her to be seen as a madwoman, acting strangely to the Mason. And it was Annette who was finally punished. Mason could not admit that he was wrong and Annette was right because Annette was his own property, imperfect, uncertain, pathetic and inferior[18][19].

To escape the flames spread to her house, Mason tries to drag Annette away, and Annette says she will not go due to her shock from losing Pierre. To her Aunt Cora asking Mason why she does not leave, Mason bluntly says that Annette is going to take her parrot Coco with her(WSS 24). Rochester also ignores Antoinette's thoughts. Rochester thinks Antoinette is always uncertain and hesitant. When he asks Antoinette if snakes are poisonous, Antoinette replies with hesitation. Antoinette may be right, but Rochester feels pathetic about that attitude.

When I asked her if the snakes we sometimes saw were poisonous, she said, 'Not those. The fer de lance of course, but there are none here,' .... 'But how can they be sure? Do you think they know?....Our snakes are not poisonous. Of course not.' (WSS 52)

Rochester who married Antoinette is guided to her bedroom. Rochester wears a wreath that
lied on her bed on his head, stands in front of a mirror, says it does not match his handsome face. He asks Antoinette for her opinion. Antoinette tells Rochester that he looks like a king and an emperor, as a sign of her respect and love for Rochester, but Rochester regards those words as a mockery.

‘God forbid,’ I said and took the wreath off. It fell on the floor and as I went towards the window I stepped on it. The room was full of the scent of crushed flowers. (WSS 43)

It is unacceptable for Mason and Rochester that their wives, Annette and Antoinette disobey them, even swear and ridicule them, and the easiest punishment is to imprison Annette and Antoinette as madwomen. Mason and Rochester try to undo the choice they make by making Annette and Antoinette madwomen and imprisoning them. It was the greatest punishment for Annette and Antoinette, who were not treated as women in society at the time unless they belonged to men. In the end, an excuse to throw Annette and Antoinette away was needed, heralding a disastrous end for Annette and Antoinette[20][21].

3. Violation - Undoing Choice

Annette, who became mad because of the loss of Pierre, is eventually imprisoned in the countryside by a Mason, and Antoinette enters a convent. Mason shows the reason why he had no choice but to send Annette and Antoinette, his belongings, to a sanatorium and a convent, respectively, that is, why he had to undo his choice thoroughly from his viewpoints. Before entering the convent, Antoinette hears what a strange-looking boy and a black girl following her, are telling. It was the reason why Mason abandoned Annette.

Look the crazy girl, you crazy like your mother. Your aunt frightened to have you in the house. She send you for the nuns to lock up. Your mother walk about with no shoes and stockings on her feet, she sansculottes. She try to kill her husband and she try to kill you too that day you go to see her. She have eyes like zombie and you have eyes like zombie too. Why you won’t look at me. (WSS 29-30)

The story they tell Antoinette is that it is natural for mad Annette is imprisoned. Mason uses the mouths of a strange boy and a black girl to explain to Antoinette the good reason for Annette is bound to be imprisoned and discarded by him. If Annette had left Coulibri immediately, Pierre would not have died, and Annette would not have gone mad. While Mason hesitates, mocking and ignoring Annette’s thoughts, Annette loses her son, but Mason makes her a madwoman for the reason of yelling at him and trying to kill him. And her daughter, Antoinette, is also treated as a madwoman and the eyes of a ghost.

Rochester also makes an excuse for discarding Antoinette as a useless object. Rochester excuses his marriage to Antoinette as his father’s choice, not his own, but in the end he chooses to marry Antoinette, whom he does not love, in order to possess her fortune. However, Rochester made an excuse for his choice, saying that Antoinette was meaningless to him, and that he kissed Antoinette’s hand and danced to win her heart, but that he was only acting according to his role (WSS 45). Rochester deceives Antoinette who does not want to marry him with his sweet words without sense of guilt. Rochester deceives innocent Antoinette by saying he will leave Antoinette with a sad heart, and Antoinette, who loves Rochester, is deceived without any doubt and dresses up for him. However, without any sense of guilt, Rochester denigrates his relationship with Antoinette, saying that he and she have nothing to do with each other, and that every single action he takes is based on his will and effort, not love. Rochester's choice is always right and Antoinette is just an object, so it does not matter what feelings Antoinette has. Antoinette, unaware of Rochester’s sincerity, naively loves Rochester.
I never wished to live before I knew you. I always thought it would be better if I died. (WSS 54)

However, the feelings of Antoinette were completely ignored by Rochester. To Rochester, Antoinette was nothing more than a being that satisfied his own lust that thirsted for his woman, and his possession that could be deceived when it was wrapped in his love. Rochester regarded her as an object of his sexual desire, and one day he saw Antoinette's clothes taken off on the floor of her bedroom, and aroused his lust, and indulged in sex with her caused by his sadistic and masochistic impulses [22]. Although Rochester did not love Antoinette, he deceived Antoinette in order to gain control over her legacy that Mason left to her, her body, and her mind and heart.

Rochester disdains and previses Antoinette expressing her sexual desire as her love for Rochester deepened, "You wouldn't have to kill me. Say die and I will die. Die then! Die!" (WSS 55). Rochester despises Antoinette’s sexual desires and makes excuses that he has to discard Antoinette. During the Victorian era, patriarchal society was deepened, and the imperialism following the Industrial Revolution and colonial expansion was male's, and women were forced to obey and serve their husbands. Therefore, the sexual desire of women was to satisfy men. Lee, Soon-koo, in his research, introduces French medical scientist Auguste Debay's book giving advice on women's sexual desire [23].

A reasonable woman should always be contented with what her husband is able to do and should never be demanded more. Where an overly vigorous husband indulges too frequently in genital activity, it is the duty for a wise wife to use all the power she has over him, to moderate his ardor, assuage his fires and make him understand that venereal excesses are not only damaging to the conversation of his virile faculties, but even more deadly to children conceived in a state of exhaustion....Submit to the demands of your husband in order to attach him to you all the more. Despite the momentary aversion for the pleasures he seek, force yourself to satisfy him, put on an act and simulate the spasm of pleasure, this innocent trickery is permitted when it is a question of keeping a husband.

Rochester continues to insist that he can discard Antoinette because there is no love between them even though he gains a fortune from his marriage to Antoinette. So, he creates the biggest reason to discard Antoinette without sense of guilt. One of the important virtues for a Victorian woman was maintaining chastity for her husband, and she had to maintain her dignity anytime anywhere. Otherwise, a woman would be pointed out by the society by reason that she was depraved. The society does not ask for any proof from a woman, and if men and the society that men lead consider her depraved, she is discarded from her home and society.

Rochester uses the letters and words of Antoinette and her half-brother Daniel Cosway's accusations against Antoinette and Annette to throw Antoinette away like trash without sense of guilt. Daniel says that Rochester was deceived, that the Cosway family had been wicked and loathsome slave masters for generations, that they were plagued with evil as well as madness, and that Antoinette had the blood of wickedness and madness from their ancestors. Also, Daniel says that Antoinette's mother also expressed the madness of white Creoles. Daniel makes a remark that suggests Antoinette is not only mad but also is an unfaithful woman. Daniel tells Rochester that Sandy, son of his half-brother Alexander, was the first man she dated, and that Antoinette deceived Rochester.

She start with Sandi. They fool you well about that girl.... You are not the first to kiss her pretty face. (WSS 75-76)

Rochester found the greatest reason to abandon Antoinette, a possession he did not love, which became the most severe punishment for her in society at the time. Since Antoinette was
a promiscuous woman prior to his marriage, a wicked and mad Cosway, a mad white Creole and the
descent from useless woman Annette, Antoinette was also a madwoman and could be aban-
donied by him. Antoinette’s nanny Christophine tells Rochester how much Antoinette loves him
and how much Antoinette thirsts for his love and asks his love to her, but he ridicules Christo-
phine.

She thirsts for anyone-not for me. She’ll loosen her black hair, and laugh and coax and flatter
(a mad girl. She’ll not care who she’s loving). She’ll moan and cry and give herself as no sane
woman would-or could. Or could. Then lie so still, still as this cloudy day. A lunatic who always
knows the time. But never does. Till she's drunk so deep, played her games so often that the
lowest shrug and jeer at her. And I’m to know it—I? No, I’ve a trick worth two of that. (WSS 99)

Rochester believes, without any doubt, the truth about Antoinette's past, which he learned
from Daniel’s letters and words. This contrasts with Mason making a mockery of Annette’s pre-
vious request to leave Cleveland and Antoinette’s hesitant response when Rochester asked An-
toinette whether snakes were poisonous. Since Daniel is also a man, Rochester is convinced
without a doubt even if Daniel treats Antoinette and Annette as madwomen with mixed anger.
Rochester treats Antoinette as a woman fooling around with men and hates her as a mad-
woman[24][25][26].

4. Punishment - Defined as a Madwoman and Imprisoned

Mason makes Annette, who expressed her anger by yelling and swearing at him after the loss
of her son Pierre, a madwoman. Annette is portrayed as a madwoman who tries to save a parrot
that Mason deems insignificant even when the house is enveloped in flames, laughs loud when
she learns that Pierre is dead, and talks to herself without talking to anyone. Annette is even
portrayed as a madwoman by Antoinette. Even Antoinette think she is not her mother. So Ma-
son made Annette, who is his wife and a daughter of a slave owner, a mad woman, and impris-
oned her in the countryside under the protection of black people, whom she treated like her
own. In Antoinette’s eyes, Annette is completely destroyed. She is not treated as a person by
blacks and is even sexually harassed, yet unable to respond and drooping helplessly.

I saw the man lift her up out of the chair and kiss her. I saw his mouth fasten on hers and she went
all soft and limp in his arms and he laughed. (WSS 80-81)

Rochester also punishes Antoinette suspected of having a promiscuous life before marriage.
Rochester spends one night in a thin partition behind his bedroom with Amelie, the black maid
who beat and quarelled with Antoinette after drinking. However, to Rochester, it is not at all
unfaithful. He has no regrets and punishes Antoinette, who truly loves Rochester. In Rochester’s
eyes, Antoinette is a madwoman who strikes stones with her fists, screams, drinks liquor, im-
personates Rochester, and laughs madly. Rochester calls his Antoinette "Marionette, Marion-
ette, Antoinette"(WSS 92). Even though he knows Antoinette dislikes, he calls her "Bertha"(WSS
81), destroying her personality and utterly ignoring her.

Don’t laugh like that, Bertha.
My name is not Bertha; why do you call me Bertha?
Because it is a name I’m particularly fond of. I think of you as Bertha. (WSS 81)

Rochester punishes Antoinette by taking Antoinette to England and imprisoning her. Impris-
oned by Rochester, Antoinette continues to be portrayed as a madwoman. Antoinette attacks
her brother Richard, who had come to see her, with a knife, and when he takes the knife, she
bites his arms with her teeth. But Antoinette doesn't even remember what she did. It is apparent to anyone that she is a madwoman [27][28][29].

But Grace Poole hired as Antoinette's maid by Rochester sees a passionate soul in Antoinette's eyes and doubts she is a madwoman.

I'll say one thing for her, she hasn't lost her spirit. She's still fierce. I don't turn my back on her when her eyes have that look. I know it. (WSS 106)

Antoinette is confused as to whether she really is mad or not.

There is no looking-glass here and I don't know what I am like now. I remember watching myself brush my hair and how my eyes looked back at me. The girl I saw was myself yet not quite myself....Now they have taken everything away. What am I doing in this place and who am I? (WSS 107)

D. Pole argues that Antoinette is not mad and acts deliberately [30]. However she is a madwoman because Rochester determines her as a madwoman whether Grace Poole suspects Antoinette's madness, or whether Antoinette herself is confused as to whether she is mad or not.

5. Conclusion

In the Victorian era in England, where society was extremely chaotic despite economic prosperity following the Industrial Revolution, men are supposed to go out and solidify imperialism, and women are supposed to obey men and take care of their families, contributing to the imperialism. However, as if the change of seasons can not be resisted, women gradually longed for freedom. The more they did, the more society emphasized the women's domain. In these turbulent times, Jean Rhys brings out Bertha, who was treated as a madwoman in Jane Eyre, and shows why she was treated as a madwoman.

Judging whether Annette and Antoinette were really mad or not depends on various imagination in the realm of literature, but it is clear from the perspective of Mason and Rochester that Annette and Antoinette were mad and treated as madwomen. At that time, men wanted to marry a woman and possess her body, property, and spirit. It was not the greed or cruelty of men at that time, but the greedy era when people were frantic to create a colony. By creating roles and territories of men and women, they tried to maintain order by imposing harsh punishment on women if women tried to invade or dominate men's territory after making women the property of men.

Mason and Rochester easily and comfortably could discard their belongings, Annette and Antoinette, because Antoinette, who had financial freedom with a legacy left by her stepfather Mason and Annette, who had no economic freedom, were all women, regardless of whether they had property or not, and they were the property of men. As these are taken for granted and continue to progress, women are unable to leave their territories. Even if women think something is wrong, they doubt themselves and become unable to act [31]. In situations of self-doubt, people cannot easily act against inequality and oppression and become incapacitated. Antoinette remembers her combing her hair with a comb in a mirror-less room, imprisoned by Rochester, and her eyes looking at herself in the mirror. The mirror is Antoinette's self, and Antoinette tries to find herself. She is really confused as to whether she is mad or not. In her mirror-less room, she recalls herself in the mirror, complaining that "they took everything away from me." The "they" Antoinette refers to is the society at the time that tried to solidify imperialism by making women merely obedient angels in the house, and the men who were the masters of such a society. The men gave women their share and place in society so that they
could not deviate from that boundary, and they never tolerated and severely punished women who tried to escape from the boundaries or enter the boundaries of men, thoroughly suppressing women's free will and desires.

Annette and Antoinette were punished for acting differently from the obedient angels in the house which was required from women by the society at the time. Annette yelled and cursed at Mason, and danced well, unfaithfully. Antoinette she had a fortune that Rochester did not have, and told that she would not marry Rochester. When she saw the wreath Rochester wore on his head, she made a mockery and did not conceal her sexual desire unfaithfully. For these reasons, Annette and Antoinette chosen by Mason and Rochester to become their possession are harshly punished, treated as madwomen, and imprisoned. Annette dies in custody, and Antoinette, though not dead yet, is confused while struggling to find her own self. However, Rochester punishes Antoinette by imprisoning her, treating her as a madwoman, regardless of whether Antoinette is mad or not.

Through the *Wide Sargasso Sea*, the author saw that Victorian women were possessed by men, and if they did not perform the role expected of them, they were eventually punished by being defined as madwomen and imprisoned. Being able to empathize with Annette and Antoinette and being able to understand them, the author thinks that although the pattern and intensity of punishment are different for us living in this era, it is still ongoing for women, and the Victorian era is not so far apart from the present.

6. References

6.1. Journal articles


### 6.2. Thesis degree


### 6.3. Books


# 7. Appendix

## 7.1. Author’s contribution

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