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Image of nurses during World War I.



IMAGE OF NURSES DURING WORLD WAR I IMAGEM DA ENFERMEIRA DURANTE A PRIMEIRA GUERRA MUNDIAL IMAGEN DE LA ENFERMERA DURANTE LA PRIMERA GUERRA MUNDIAL

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ABSTRACT

Objective: to analyze the drawings inspired by nurses and published by the press, especially their personal attributes in the circumstances of World War I. *Method*: we chose to analyze the documents in the light of semiotics to decode them, relating them simultaneously to history. According to the criteria for the selection of the documents, we analyzed three drawings published by Revista da Semana magazine, based on the concepts of "expression plane" and "content plane". *Results*: the drawings analyzed showed a veil, an armband and the cross as the most remarkable personal attributes of these women, associated with other attributes such as wings and scenes of care provided to war-wounded patients. *Conclusion*: the signs revealed a possible strategy of symbolic manipulation to represent the image of nurses who based their practice on kindness and charity. It is worth mentioning that the armband with a cross, which means neutrality, characterized care provided without any distinction, one of the references of the Red Cross. *Descriptors*: History of Nursing; World War I; Red Cross.

RESUMO

Objetivo: analisar os desenhos inspirados em enfermeiras veiculados na imprensa, com destaque dos seus atributos pessoais nas circunstâncias da Primeira Guerra Mundial. *Método*: optou-se por analisar os documentos à luz da semiótica para decodifica-los, articulando-os simultaneamente com a história. De acordo com os critérios de seleção dos documentos, foram analisados três desenhos veiculados pela Revista da Semana, com base nos conceitos de "plano de expressão" e "plano de conteúdo". *Resultados*: nos desenhos em análise evidenciam-se o véu, o braçal e a cruz como os atributos pessoais mais marcantes das mulheres em destaque, associados a outros atributos como asas e cenas de cuidados aos feridos. *Conclusão*: os signos revelaram possível estratégia de manipulação simbólica para representar a imagem da enfermeira, que pautava na sua prática bondade e caridade. Ressalta-se que o braçal com cruz, por ser portador do significado de neutralidade, caracterizou o cuidar sem distinção, uma das referências da Cruz Vermelha. *Descritores*: História da Enfermagem; Primeira Guerra Mundial; Cruz Vermelha.

RESIIMEN

Objetivo: analizar los dibujos inspirados en enfermeras publicados por la prensa, con destaque de sus atributos personales en las circunstancias de la Primera Guerra Mundial. *Método*: fueron analizados los documentos a la luz de la semiótica para decodificarlos, articulándolos simultáneamente con la historia. Según los criterios de selección de los documentos, fueron analizados tres dibujos publicados por la Revista da Semana, con base en los conceptos de "plano de expresión" y "plano de contenido". *Resultados*: en los dibujos analizados se destacan el velo, el brazalete y la cruz como los atributos personales más notables de esas mujeres, asociados con otros atributos como alas y escenas de la atención de heridos. *Conclusión*: los signos revelaron una posible estrategia de manipulación simbólica para representar la imagen de la enfermera, que basaba su práctica en la bondad y caridad. Cabe señalar que el brazalete con cruz, por tener el significado de neutralidad, caracterizó la atención sin distinción alguna, una de las referencias de la Cruz Roja. *Descriptores*: Historia de la Enfermería; Primera Guerra Mundial; Cruz Roja.

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INTRODUCTION

World War I was a difficult time for the world's population. There were movements in Germany, United States and France funded by the public coffers in order to facilitate healthcare. However, there was not an universal concept about health and, even after the creation of the League of Nations, that concept was not obtained.¹

In Brazil, nursing participation took place as a result of the needs and changes in the field of health. The projects were not intended to combat the diseases already manifested, but rather to avoid them, thus minimizing epidemics of yellow fever and cholera that were affecting the population.^{2, 3}

There are records from the mid-19th century about collective control measures imposed by social medicine in an attempt to prevent diseases, such as drainage and draining of swamps, and creation of services of water and sewerage inspection.² This way, social medicine, able to target issues relating to health, made an alliance with the State. The latter was responsible for disease prevention projects as a way to provide support to science. During the 19th and early 20th century, diseases were considered a threat to defense and the production of wealth in the territory.^{2, 3}

The need for help in the wars gave rise to internal contradiction. Despite they have a negative character, positive aspects should not be ruled out, such as the advancement in the field of knowledge as regards the technologies used for healthcare.⁴

In Brazil, through education to favor the profession and by means of the Voluntary Nurses Courses (1914), Professionals (1916), and the Practice Nursing School (1916) and the Botafogo Polyclinic Nurses Course (1917-1921), both in Rio de Janeiro, the Brazilian Red Cross promoted courses for nurses in order to prepare women for care provided to the sick and needy individuals in situations of public calamity. The main goal was the approach and insertion of the country in the conflict. This action produced progress for the development of nursing professionalization. As far as it is known, that process continued with the creation of Nurses Professional School in 1890, which is the current Alfredo Pinto School of Nursing.^{5, 6}

The courses mentioned above—held in Rio de Janeiro—were intended to meet the emergency needs of that historic moment. The possible explanation would be the control of endemic diseases (malaria, tuberculosis,

smallpox, and syphilis) and/or expertise in caring for those wounded in World War I. The decision of Brazil's participation in that war shook the press. In this sense, in 1917, illustrators had their drawings published in the pages of Revista da Semana¹ to draw the attention of readers and make them aware of the need for help, either by means of financial support or through attitudes that could be understood from the "kindness and charity" perspective.

The present study addressed iconography in the characterization of drawings as historical source, understanding that they are not just a simple illustration. The word iconography comes from the Greek word *Eykon*, which means image and *spelling*, description, writing. It is one of the forms of visual language, which uses images to represent a particular theme. Certainly, it is one of the richest historical sources, in which the objects bring the repertoire in which they were conceived, designed or invented.⁷

To that end, it is necessary to question it as: when?; where?; who?; for whom?; for what?; why?; and how? These questions guided the reflections for the analysis. In addition, it was necessary to decipher the silence, i.e., when the image says what cannot be shown and shows what cannot be said.⁷

From this perspective, it was necessary to clarify that images do not bring the reality in themselves. On the other hand, they carry the reality in their possible traces, symbols, hidden dimensions, codes, and perspectives. This way, the researcher has to decipher the codes in order to use them as possible witnesses, which may assist in the construction of a new version of the past and present in the current days.⁷

With this focus, the goal of the present study was to analyze the drawings inspired by nurses and published by the press, especially their personal attributes in the circumstances of World War I. This way, the study becomes relevant and justifiable in order to enable the contribution of the mechanisms of construction of nurses' image in the echo of professional identity formation.

METHOD

The analytical approach was based on the perspective of semiotics by the tendency of history. From this perspective, the interpretation of the imagistic messages has several social expressions and semiotics

English/Portuguese

¹ Brazilian weekly magazine with a political focus published from 1900 to 1962.

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enables the penetration in the universe of the representations. This way, it is possible to identify and unravel the influences and interrelationships of the mechanisms used by the social groups involved.⁶

Revista da Semana was selected for the study because it was one of the four most requested magazines at that time. It was one of the pioneers in publishing photographs. It addressed contemporary themes of interest to the Brazilian families, excluding those relating to politicians and scandalous affairs, providing a light reading for women. This characteristic was suitable for the schools and nursing courses, aimed at disseminating their images of nurses in the society at that time. ⁶

By applying the selection criteria of the magazine, linked to time demarcation, we found three drawings reproduced and conveyed by Revista da Semana. It is worth noting that the reproduction of the drawings was called "facsimile". The drawings analyzed are so-called because they are a reproduction of the drawings published by Revista da Semana.⁸

As a strategy of analysis, the focus was on drawings including some personal attributes inspired by nurses' images. These attributes were head adornments, dresses, as well as the position of the individuals. This strategy also led to the articulation with other images through the analytical approach proposed by the researcher of the arts known as Erwin Panofsky, who, in short, performed his analysis by comparisons.⁹

We also based our analysis on the semiotic framework by means of "content plane" and "expression plane". The expression plane is understood as the manifestation of content in a verbal, non-verbal, or syncretic system. The content plane refers to the meaning of the text, i.e., what the text says and how it says it. 10

Based on the steps described, we obtained the result of the analysis, which enabled decoding the meanings of the drawings of Revista da Semana. The study met the guidelines advocated by Law No. 9,610/1998 concerning authorization, upgrade and consolidation of copyright legislation and other measures, in particular, on the basis of Articles 43, 44 and 46, since they are public domain images.¹¹

RESULTS

As specified in the method section, three drawings published in Revista da Semana were selected for analysis. They referred to World War I that took place from 1914 to 1918. The Austro-Hungarian Empire and the German Empire, as well as the Triple Entente took part in the conflict. Since Brazil was no able to enter the conflict of such magnitude in 1914, the country remained neutral in the first two years of World War I.¹²

In 1917, one of the Brazilian Merchant Navy ships, the steamship Paraná, was in France's maritime coasts under the standards required for neutral countries at that time. It was attacked by a German submarine which lead to the sinking of the ship and Brazilians' death. This fact led to protests that undermined the relationship between Brazil and the German Empire. As a consequence, the president of Brazil at that time, Wenceslau Braz, announced the participation of the country in the war allied to the United States against Germany. 12

For the female population, World War I had an impact in the sense that women started to perform functions that were not previously intended for the female group. They left the private environment—taking care of the house and children—and entered the public context. They started working in industrial environments, for example, driving ambulances and building work fronts to care for the war wounded, among other activities, which led to the crisis in the domestic work. In this way, the war led women to the work world in view of the imminent necessity of care and help for the combatants wounded in the conflict.

World War I ended in 1918 with the defeat of Germany, leading Brazil to define its policy of international alliance with the United States. Since then, the United States were entitled to guide decisions in Brazil, even influencing Brazilians' style of life.^{6,12}

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Figure 1. At the center of the facsimile No. 1: the Red Cross;¹⁴ on the top left side: the image of Michelangelo's Pietà; at the bottom left side: the painting called Dead Child by Candido Portinari; on the top right side: the flag of the United States; at the bottom right side: the image of Tiradentes Butchers by Pedro Américo.

Figure 1, authored by Charles Dana Gibson, was also published in Life, an American magazine well respected at that time. The Illustrator became famous for creating a character for his drawings, which became influencer of the behavior at that time. It was known as the "Gibson Girl" that could be considered an elegant, independent and self-confident woman. It remained the symbol of the ideal American woman for twenty years and was the inspiration for many women, either due to the hair, the clothes and/or the way to behave. 15

During World War I, Gibson created moving arts, such as Figure 1 published in Revista da Semana issued on 12th October 1917 under the title of "Red Cross". There are two characters in this image: a female figure possibly representing a woman as if she were a Red Cross nurse; and a wounded man. The female figure's hair is misaligned in part, but tied at the top of the head. She is wearing a dress and a armband with the symbol of the cross on his left arm and is barefoot. The dress refers to the pattern of the flag of the United States. The man wears a long-sleeved suit with a band on his head and another in his waist and is wearing shoes. The scene portrayed shows a plain that suggests a war field.

It is known that an armband with the symbol of the cross—when in battlefield scenarios and assisting calamities—bears the meaning of neutrality and is an attribute used by the Red Cross as a signature image.⁶

When relating the armband, the flag of the United States and the figure of the wounded

man with his arm hanging to Michelangelo's Pietà and the paintings by Candido Portinari and Pedro Américo, the fatherland-patriotic relationship can be inferred from perspective of the content plane. In the expression plane, this relationship evidenced by the woman figured as a nurse bearing a fabric with the same pattern of the flag of the United States over her body. This refers to the idea that she represented that country, carrying wounded soldiers in her arms as tragic heroes who had died or been injured fighting for the ideals of the nation.

Comparing with other known arts in various contexts and themes, the tragic hero is represented in terms of the expression plane with his arm down, as is shown in Figure 1. Therefore, it can be inferred that it is an encomiastic drawing, i.e., it is designed to pay tribute. This way, it is not intended to point out the brutality of war, but to praise the courage of those who fought in combat and rescued war wounded combatants. Indeed, the representation of the Red Cross, evidenced by the armband with the symbol of the cross, is a hallmark of the institution.

Figure 2 is authored by Otho Cushing. Many of his drawings contained Greek gods and goddesses and his characters transmitted the Olympic atmosphere, even if these elements were not included. It was published in the issue of 15th December 1917 under title "Red Cross". The facsimile features two characters: the figure of a woman wearing nurse-like attributes, but with wings; and a man.





A CRUZ VERMELHA

Figure 2. On the top left side: a female figure with the personal attribute of the cross on her head and in the armband and, below it, the female figure giving liquid to the wounded. The right side is the facsimile No. 2: the Red Cross. ¹⁷

The attributes displayed by the woman refer to a nurse, namely: dress and veil with the symbol of the cross. In addition to these symbolic elements, the woman exhibits a pair of wings on her back. The man represents a war wounded. He is lying with torn clothes and wearing one shoe only. In the imagistic set, the woman's attitude suggests that she is offering liquid to the man.

In the content plane, life is denied when the man is represented as wounded and the woman provides care to him. Furthermore, since she has a pair of wings-an icon that refers to the figure of an angel-she represents a divine being who has eternal life, highlighting the vulnerability of the human being, a mortal being. This image linked to a female figure refers to the symbol that carries values which denote wholehearted practice of submission, donation and care.

In wartime, many artists used to portray women with nurse's attributes and the wing icon. In the context of World War I, it can be inferred that the symbol tries to convey the message of a nurse as an angel, guardian and protector. She puts aside her personal interests in order to achieve a particular mission. This mission can be considered an activity aimed at relieving someone's pain and fighting against death. In the context of the analysis, it refers to the soldiers who risked

their lives on the battlefield. Care to these soldiers had be provided with an attitude of compassion due to the injuries caused by the weapons.

This notion includes meanings ranging from qualification to disqualification. At the same time that an angel is a loved one, someone who the individuals would like to have with them, it is an entity that have neither its own identity nor sex; it is a mediator between Heaven and Earth. Its mission was to ease the pain of those who needed care and compassion at times of suffering.¹⁸

In this sense, the female figure, portrayed stereotypically as an angel allied to the image of the nurse, brings rewarding values. On the other hand, she is away from professionalism, because the representation of being an angel is uncritical; it does not question and has no autonomy, thus causing contradictory effects for the profession.

Figure 3 is authored by Wladyslow Teodor, known as W. T. Benda. His works sought the look of the "American Girl". Women portrayed by Benda were mysterious and exotic. He illustrated other drawings with strong appeal to the aid of the Red Cross and women's professionalization. ¹⁹ The facsimile dated 22nd December 1917 exhibits a group of more than ten male and female individuals, of which four women are highlighted and one of them is wearing nurse's attributes.

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A SOBREVIVENCIA DA BONDADE HUMANA

Figure 3. Facsimile - The survival of human kindness. 20

With respect to personal attributes, it can be observed that the woman at the bottom right side exhibits symbolic elements that refer to a nurse. She wears a long-sleeved dress and a veil with the symbol of the cross on the forehead. The other women wears a long-sleeved dress and collars without symbolic elements that might refer to a nurse's uniform. With respect to the scene, there is a table, possibly with donations, and soldiers armed at the background with their backs to the women, suggesting the war scenario. There is a woman at the background on the left side holding a flag, which suggests to be the flag of the United States.

DISCUSSION

Figures 2 and 3 show the veil, a female adornment that, among other meanings, reflects a religious aspect. It refers primarily to the Catholic Church, whether worn by nuns and/or by women when entering churches to pray, among other religions and meanings. However, we did not take that inference into account. At the same time, the veil has a functional sense, because it covers the hair, either for respect or hygiene, among other functions.⁶

The symbol of the cross appears in all figures, either in the armband or positioned at the front part of the veil. It is full of polysemic aspects; however, it was understood as religious, recalling the sacrifice of Christ for mankind, for example. At the same time, it was understood as mental trigger linked to the Red Cross. When the cross is part of nurses' uniforms, it refers to donating in support of the others through care, compassion and kindness.

After the semiotic analysis, the veil and the cross stood out as the most important personal attributes in the drawings analyzed

for the construction of nurses' image in circumstances of World War I. These professional adornments of distinction, characteristic of Red Cross nurses, were one of the strategies to indicate the institution that was spread around the world in schools/courses for nurses and nurse's image itself.

Furthermore, these attributes displayed by nurses lead to the idea that they were/are institutional messengers, as if they dressed the flag of the Red Cross in their bodies. That sounds like a wise option as a means to ensure institutional visibility, as it can be identified in the dress of the woman in Figure 1.8

The drawings analyzed sacralize the woman with similar clothing to those of nurses, especially from the Red Cross. For the purpose of visual communication, this is transmitted to society through the dress and the veil including the symbol of the cross, which decoded can be attributed to the meaning of kindness, charity and volunteer work, which reflect the ideals of the institution. Over time, the value of these signs contribute as aggregated elements of the nursing profession image, especially when represented as women.

The drawings analyzed allow identifying traces of communication for nursing's visibility in the world and in Brazil, because they can bring to mind traces of the profession trajectory. The attempt to reconstitute traces and images of this profession, which is focused on saving lives and has left its marks in the course of time, considered signs of representation, can indicate something forgotten at present or something revitalized from the past.²¹

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CONCLUSION

By linking the three facsimiles, presence of the veil and the symbol of the cross stand out. Associating them with the legends of the drawings, it is possible to infer that the nexus was adopted by the artists. From these images, it can also be inferred that the figures representing women with the elements of composition (veil, cross, and wings)—attributes linked to image-may be one of the strategies of symbolic manipulation. This strategy would determine the representation of the good woman-nurse's image, which was based on kindness and charity. It should be noted that the armband also stood out in the images. This finding enabled to understand the identification of neutrality in order to provide care to the wounded and needy individuals of the conflict without distinction.

Neutrality, exalted by those who volunteer to provide care in times of conflict, should be present in the environment of care provision. This involves the development of the profession, which should provide care without making distinction of race and creed, or any kind of discrimination. Indeed, this is one of the prerogatives of the Ethics Code of Brazilian Nursing Professionals and from other countries. It stands out in Brazil in its Article 15, because it refers to the responsibility and duty to provide care free of any kind of discrimination.

Furthermore, it can inferred, and perhaps affirmed, that the semiotic study is one of the possibilities to reflect about the construction mechanism of nurses' public image. From this perspective, critical reflection leads to new versions of the past; however, it is necessary to know and value the history. Knowing the past allows reflecting on certain values and concepts, because they are allied to the image of the profession, contributing to the understanding of professional identity. Last, but not least, it is worth mentioning that there were possibly limitations in the present study due to the methodological rigor and limitation of pages. However, on the other hand, the limitations should be understood as possibilities to advance in the conduction of further studies.

REFERENCES

1. Scliar M. História do conceito de saúde. Rev Saúde Coletiva [Internet]. 2007 [cited 2015 Aug 14];17(1):29-41. Available from: http://www.scielo.br/pdf/physis/v17n1/v17n1a03

- 2. Marques EC. Da higiene à construção da cidade: o estado e o saneamento no Rio de Janeiro. Hist Cienc Saúde-Manguinhos [Internet]. 1995 [cited 2015 Aug 14];2(2):51-67. Available from: http://www.scielo.br/pdf/%0D/hcsm/v2n2/a04v2n2.pdf
- 3. Timoteo RPS. Modernidade, saúde e enfermagem: momentos históricos no Rio Grande do Norte. Rev Rene. 2000; 1(2):36-42. http://www.scielo.br/pdf/%0D/hcsm/v2n2/a04v2n2.pdf
- Pinheiro JN, Chaves MC, Jorge MSB. A concepção de doença nas perspectivas: filosófica, antropológica, histórica, política. epistemológica e Rev Rene [Internet]. 2004 [cited 2015 Aug 14];5(2):93-Available from: http://www.revistarene.ufc.br/revista/index. php/revista/article/view/929
- 5. Sauthier J, Barreira IA. As enfermeiras norte-americanas e o ensino da enfermagem na capital do Brasil: 1921-1931. Rio de Janeiro (RJ): Editora Anna Nery; 1999.
- 6. Porto F, Amorim WM. História da enfermagem brasileira lutas, ritos e emblemas. Rio de Janeiro: Águia Dourada; 2008.
- 7. Thompson EP. A miséria da teoria ou um planetário de erros; uma crítica ao pensamento de Althusser. Rio de Janeiro: Zahar Editores; 1981.
- 8. Neto M. A produção da crença na imagem da enfermeira da Cruz Vermelha Brasileira no período da Primeira Guerra Mundial (1917-1918) [dissertação]. Rio de Janeiro (RJ): Universidade Federal do Estado do Rio de Janeiro; 2011.
- 9. Panofsky E. Siginificado nas artes visuais. São Paulo (SP): Perspectiva; 2011.
- 10. Pietroforte AV. Semiótica visual os percursos do olhar. São Paulo (SP): Contexto; 2004.
- 11. Lei n. 9.610 de 19 de fevereiro de 1998 (BR). Altera, atualiza e consolida a legislação sobre direitos autorais e dá outras providências. Diário Oficinal da União [Internet]. 19 Feb 1998 [cited 2015 Aug 14]. Available

from: http://www.planalto.gov.br/ccivil_03/leis/L9610.htm

- 12. Garambone S. A primeira guerra mundial e a imprensa brasileira. Rio de Janeiro (RJ): Mauad; 2003.
- 13. Willmott HP. Primeira guerra mundial. Rio de Janeiro (RJ): Nova Fronteira; 2008.
- 14. A Cruz Vermelha. Revista da Semana. 1917; 18(36):23.

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15. Charles DG. New York: Herald Square Hotel [Internet] c3013 [cited 2013 Feb 20]. Available

from: http://www.heraldsquarehotel.com/CD Gibson.htm.

16. Otho C. Philadelphia: Chelsea House Publishers [Internet]. c1999 [cited 2013 Feb 13]. Available

from: http://www.sil.si.edu/ondisplay/caricatures/bio_cushing.htm.

- 17. A Cruz Vermelha. Revista da Semana. 1917; 18(45):01.
- 18. Passos ES. De anjos a mulheres. Salvador (BA): Empresa Gráfica da Bahia; EDUFBA; 1996.
- 19. Benda WT. Wikipedia [Internet]. c2016 [cited 2013 Feb 14]. Available from: http://en.wikipedia.org/wiki/W%C5%82 adys%C5%82aw_T._Benda.
- 20. A sobrevivência da bondade humana. Revista da Semana. 1917; 18(46):01.
- 21. Veraldo TX, Porto FR, Passos AM, Rocha JA, Lima DM. Museu nacional de enfermagem Anna Nery: efeito esperado da exposição de longa duração. Rev enferm UFPE on line [Internet]. 2013 [cited 2013 Feb 14];7(Suppl):7254-9. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/2903/8260.

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