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### Abstract:

During the end of the nineteenth century, the world of transportation saw a revolution in the rediscovery and popularization of rubber, especially its use in pneumatic tires. In the global North, the rubber revolution was one of the most significant developments of the early twentieth century: the freedom of movement offered by the popularization of the ordinary bicycle, now equipped with pneumatic tires, changed women's lives. Men and women of all ages rode bikes to improve their health. Companies like Goodyear and Dunlop had unprecedented profits. But in the global South, the consequences of these newfound freedoms of their neighbors to the North were often socially, economically, and environmentally devastating.

This paper will explore the complex sociotechnical system involved in the rubber trade and the human cost of this new supply chain. It argues that the trend to provide this level of personal freedom and comfort to western consumers disrupted the lives of laborers in the global South and curtailed their freedom and comfort. To make this analysis, I will rely on historical accounts like *The Devil's Milk* and *The Thief at the End of the World*, contemporary newspaper articles, as well as academic papers discussing the global rubber trade and STS ideas about supply chain featured in Matthew Hockenberry's "Material Epistemologies of the (Mobile) Telephones."

argues that the conditions necessary to provide the level of personal freedom to western consumers were

### Outline:

#### Introduction

#### Working thesis:

While the mass consumption of rubber brought comfort and prosperity to Western consumers, the need to fulfill this demand created a perverse supply chain that robbed native peoples from South America and Africa of their freedom, economic self determination, and often life.

- I. Brief history of the pneumatic rubber tire and its importance within the late nineteenth century context.
  - a. The rise and fall of the first pneumatic tire, which never became popular because other innovations made it unnecessary.
  - b. The niche use of the early bicycle due to its lack of comfort and danger before the pneumatic tire.
  - c. The popularization of the ordinary bike once every one of them came equipped with the pneumatic tire.
- II. Both the popularization of the modern bike and the mass production of automobiles are widely known for changing western society for the better.

- a. Bicycles offered women unprecedented freedom of movement.
- b. Ordinary citizens understood and enjoyed the health benefits of this new past-time, now made achievable by anyone thanks to the air tire.
- c. Big corporations like Goodyear and Dunlop saw incredible growth. Ford created Fordlandia in Brazil, an attempt to run his own rubber plantation.

III. But it took the creation of a perverse and destructive supply chain between Western powers and the global South to offer this wealth and comfort to the capitalist and consumers.

- a. Brief overview of how natives had used the rubber plant.
- b. The shift from local production and use to large scale extraction and the rubber supply chain explained.

IV. Without access to a critical understanding of where their product was coming from, western consumers became passive accomplices in a violent supply chain.

- a. Overview of the social changes in Northern Brazil brought by the rubber boom.
- b. Labor conditions and human rights violations.
- c. The environmental cost of experiments like Fordlandia.

V. While the end of the rubber boom did not change the global North's consumers access to their final product, its aftermath left an economic hole in the communities that had thus far been committed to rubber production.

- a. Displaced native peoples and systemic poverty in Brazil and Congo.

VI. Conclusion  
(WIP)

#### Sources:

John Tully. *The Devil's Milk A Social History of Rubber*. NYU Press, 2014.

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Randolph R. Resor. "Rubber in Brazil: Dominance and Collapse, 1876-1945," *The Business History Review*, 1977.

Walter Hardenburg. *The Putamayo*, 1912.

Several newspaper articles.