

<running head> Tampon Technology in Britain

Tampon Technology in Britain: Unilever’s Project Hyacinth and 7-Day War Campaign, 1968–80

Camilla Mørk Røstvik

Abstract

How much do we know about the historic relationship between the corporations that develop menstrual technologies and those who buy them? This article adds to the literature on users of gendered technology and feminist approaches by examining consumers’ role in Unilever’s new “superabsorbent” tampon in 1970s Britain. Investigating the creation of the absorbent material Lyogel, Unilever’s menstrual data collection, and the accompanying “7-Day War” marketing campaign, I demonstrate the link between technology, corporation, and consumer. Anonymous consumers gave Unilever information about their menstrual habits. This market research is repurposed to examine the lived experience of menstruation and consumers’ knowledge of menstrual technologies in times when talking about this topic was taboo.

Citation: Røstvik, Camilla Mørk. “Tampon Technology in Britain: Unilever’s Project Hyacinth and 7-Day War Campaign, 1968–80.” *Technology and Culture* 63, no. 1 (2022): PAGES.

Introduction

In 1975, a woman in an English suburb answered the door and was invited to take part in a Unilever market survey regarding her menstrual product habits. The woman, alongside a dozen others, agreed. She provided crucial evidence about product technologies, her material

preferences, marketing concepts, and the culture of menstruation. It is unclear whether she was paid or informed of the subsequent commercial endeavor to develop a new type of tampon, but her knowledge formed the expertise that Unilever applied in their attempt to conquer the British and international menstrual market.

The resulting project, named “Hyacinth” and organized by Unilever’s Project Hyacinth Special Committee (PHSC), reveals how these women’s self-knowledge about menstruation became commercialized in Unilever’s corporate environment. It is a small but important glimpse of what women in 1970s Britain said about menstruation, but, equally valuable, it also shows the industry’s awareness of women as competent and critical users of menstrual technologies. Examining women’s role in developing Project Hyacinth deepens and broadens the historiography of Unilever and gender, as well as users of technology and feminist approaches, by expanding our idea of what innovation means in terms of menstrual product development and consumer culture.

Menstrual products provide a case for examining how a gendered technology is developed with the consumer, as well as the shifting boundaries between users and product manufacturers.¹ By focusing on women’s experiences through a feminist business history and feminist science and technology studies lens, this corporate menstrual history reveals the links between consumers, products, and corporations in the late twentieth century.

In her analysis of technology, production, and power, sociologist Cynthia Cockburn argues that it is necessary to understand how gender relates to technology, especially since

¹ Vostral, *Under Wraps*; Vostral, “Of Mice and (Wo)Men,” 673.

women's part in technological production has been downplayed in histories of development.² This relates directly to Project Hyacinth, where anonymous women appear in research reports about branding and technological development but typically not in the decision-making meetings. The specific contribution of older women ("experienced menstruators") to the research and marketing bristled against the company's ageist assumptions about this group's attitude toward technological change overall. As such, this case is an opportunity to answer Ruth Oldenziel's call to overcome "the historiographical hurdle which will prevent historians of technology from seeing women as active agents in technological developments."³ While the surface-level history of Project Hyacinth is dominated by men, the market reports reveal a richer history, where gendered innovation is a more slippery concept. The gendered environment of menstrual product testing has recently been examined regarding U.S. corporate environments, documenting how women contributed greatly to the scientific development of these technologies outside the confines of corporate spaces.⁴ Project Hyacinth provides further evidence through figures such as Gillian Broadbent and unnamed women interviewees, expanding the scholarship beyond America to see what role transnational corporate relationships played in developing menstrual technologies and consumer habits.

Menstrual Product Technologies and Innovation

² Cockburn, "Technology, Production and Power."

³ Oldenziel, "Man the Maker."

⁴ Vostral, "Of Mice and (Wo)Men," 684.

Innovation was at the heart of Project Hyacinth. It was an ambitious plan for conquering the British, and subsequently international, tampon market through the development of an absorptive material named Lyogel and the launch of creative advertising. The project collapsed in September 1980. Unilever's special committee was having to deal with the project's economic and practical problems and witnessed the public health and media furor surrounding Procter & Gamble's superabsorbent Rely tampon, launched that month in America and linked to toxic shock syndrome (TSS). Procter & Gamble and other U.S. corporations had been technological inspirations for Project Hyacinth and were all heavily involved in competing schemes to develop absorptive gels and new materials for tampons. Thus, the project survives only in the Unilever Special Collections archive in Liverpool, United Kingdom, where the committee's notes give an insight into the project, the market research on women's menstrual product preferences gathered by Research Bureau Limited (RBL), and potential marketing campaigns by Cooper Research & Marketing.⁵

Until the 2010s, the menstrual product market was dominated by a handful of multinational corporations, which Unilever sought to join. Set up in the 1870s, this Dutch-British corporation had a century later become one of the world's largest consumer goods companies, with over four hundred brands. The histories and biographies of the Lever brothers and their

⁵ Project Hyacinth Papers are available to researchers. The project is not named under research costs or in annual reports (once as "sanitary protection"; "Annual Report and Accounts 2020 Highlights," Unilever, accessed October 12, 2020, <https://www.unilever.com/investor-relations/annual-report-and-accounts/>).

business provide valuable information about Unilever’s growth.⁶ In particular, historian Geoffrey Jones’s authoritative book *Renewing Unilever: Transformation and Tradition* examines Project Hyacinth in connection with other innovation failures and in the larger context of Unilever’s inability to improve its gender balance despite acknowledging the discriminatory “glass ceiling” as a problem.⁷ This article dives deeper into Project Hyacinth, providing further documentation and analysis of the gendered imbalances first noted in *Renewing Unilever*, adding new information regarding “the 7-Day War” advertising campaign and consumer market research, and anchoring the story in the historic development of menstrual technologies and women consumers’ role.

Scholarship on menstrual technologies has hitherto focused on the United States, in particular successful or discontinued brands such as Kotex, Rely, and Modess.⁸ The example of Unilever’s failed scheme allows us to ask new questions. How did corporations outside America contribute to the competitive environment? What can historic market research reveal about how corporations valued and understood their female consumers at a pivotal time, and how does this primary material function as an important source when little else is known? Project Hyacinth allows us to understand more about how women consumers’ voices were listened to (or not) during the development process, and that their ideas formed part of the innovation process.

⁶ Jones, *Renewing Unilever*, 285–88; Reader, *Unilever*; Reader, *Fifty Years of Unilever*; Wilson, *History of Unilever*; Hensmans and Johnson, *Strategic Transformation*, 134–46.

⁷ Jones, *Renewing Unilever*, 261–65.

⁸ Freidenfelds, *Modern Period*.

The late 1970s was a particularly interesting time for menstrual technologies, as growing societal openness and the perception of the “sexual revolution” generation meant that the product industry sought to capitalize on the increased willingness to talk about bodies, including menstruation. In order to win over a new generation of girls, it became important to develop new products that were different from the ones older women used. Corporations engaged in an international race to develop the first “superabsorbent” applicator tampons and experimented with numerous materials. The technical goal with superabsorbent tampons was to soak up and hold more blood than earlier models, avoiding frequent changing of the product, and therefore aiding consumers who were not able to check and change their menstrual protection frequently (for example, due to work patterns).⁹ Standardized labeling regarding absorption (including what is considered “super”) became a public and policy debate much later, during the 1980s, mobilized by women health care professionals such as the Boston Women’s Health Book Collective and the TSS crisis.¹⁰ Spurred on by this crisis, in 1990 the U.S. Food and Drug Administration (FDA) required each box of tampons to include specific ranges of absorbency. In the United Kingdom, the Absorbent Hygiene Product Manufacturers Association (the industry’s own representative body) recommends tampon absorbency and labeling, based on an industry-led voluntary code of practice.¹¹ But these interventions happened long after Project Hyacinth,

⁹ On the emergence of superabsorbents: Vostral, *Toxic Shock*, 25, 28.

¹⁰ Vostral, “Toxic Shock Syndrome.”

¹¹ “UK Code of Practice for Tampon Manufacturers and Distributors: Version no. 8 dated May 2019,” Absorbent Hygiene Product Manufacturers Association, accessed October 8, 2020.

http://www.ahpma.co.uk/tampon_code_of_practice/.

which was developed at a time when standardization, testing, and measurement for tampons, “super” or otherwise, were still experimental and driven by corporate laboratory research.

In order to develop new menstrual tampon technologies, corporations experimented with gels, chemical components, and frequent testing, in an intense time of innovation for an industry that until the 1970s had mostly revolved around cotton, wood pulp, and rayon tampons. The market was divided between *applicator* models, encasing the tampon in a cardboard structure to ensure that consumers did not touch blood or the actual tampon, and *digital* models, inserted with fingers directly into the vagina. Applicator types could be useful if consumers did not have the time or ability to wash their hands, or if they preferred not to touch blood for other reasons. Unilever’s ambitious goal to develop a superabsorbent applicator tampon therefore meant they had to create both a novel absorbent mechanism considered “super” and a comfortable applicator insertion model.

<<figures 1 and 2 about here>>

A product such as a tampon is an especially interesting example of gendered innovation, as Unilever’s male leadership often had to learn from and listen to potential female consumers despite the intense taboos surrounding menstruation at the time. The historic associations of gender and innovation link masculine roles and stereotypes to the virtue of technological advancement. Recent scholarship has explored how innovation and creativity remain strongly associated with masculinity, although Lara Pecis points to the scant attention paid to how the innovation and research process reproduces specific gender dynamics by “doing and undoing

gender.”¹² Project Hyacinth reveals a nuanced picture where women and men together developed both myths and progressive ideas about menstruation.

The British Menstrual Market in the 1970s

Unilever’s first research laboratory at Port Sunlight, Liverpool, opened in 1911 and was the pride of the corporation.¹³ In Britain, Unilever was one of few businesses that invested in research and development on par with America and West Germany throughout the late twentieth century, and its role in international, as well as national, innovation and competition remains vital to our understanding of late capitalism.¹⁴ Fundamentally, Unilever was unusually well placed to develop menstrual product technologies, but it was also a latecomer.

Disposable pads and tampons designed to absorb and dispose of blood were popularized in the twentieth century, when entrepreneurs developed disposable single-use products, arguing that these were better than the previous reusable cloth solutions that users made, washed, dried,

¹² Pecis, “Doing and Undoing Gender”; Proudfoot, Kay, and Koval, “Gender Bias”; Oldenziel, *Making Technology Masculine*.

¹³ There are several studies with more on the role of the laboratory in personal care and pharmaceutical development. On the Schering pharmaceutical company: Gaudillière, “Better Prepared Than Synthesized.” On the rise of biotechnology in Britain: de Chadarevian, “Making of an Entrepreneurial Science.”

¹⁴ Jeremy, *Business History of Britain*, 427, 430.

and altered.¹⁵ The early and mid-twentieth century was also a time of change in the ways menstruation was perceived in medicine and in educational settings, which both increasingly advocated more “hygienic” and “modern” menstrual management through disposable products.¹⁶ The sex education developed by women doctors in England from the 1920s to the 1960s revolutionized education on “menstrual etiquette” and menstrual product technologies.¹⁷ Female practitioners fought against the idea that menstruation was an illness and ushered in a focus on healthy and normal menstrual periods in a new generation of British schoolgirls, based in part on the frequent purchasing, changing, and disposal of pads. Despite the shift from the illness to health paradigm, the menstrual visual taboo persisted, as new educational advice about menstruation still focused on avoiding visible blood stains. This disguising role therefore became an important part of menstrual secrecy in the second half of the twentieth century, relying on materials and products that could effectively absorb and dispose of menstrual evidence. The products became closely tied to progressive Western values about education and scientific rationality, wrapped up in the idea of aspirational modernity and cleanliness.

Critiques of this secrecy paradigm were intense even before the industry was established. Notably, feminists began to organize around the issue of menstrual stigma in the late 1960s and

¹⁵ On the early modern history of menstruation: Read, *Menstruation and the Female Body*; Shail and Howie, *Menstruation*; McClive, *Menstruation and Procreation*; Bildhauer, *Medieval Blood*.

¹⁶ Beier, ““We Were Green as Grass.””

¹⁷ Strange, “Assault on Ignorance.” Strange draws on Law’s coinage of “menstrual etiquette” in *Issues of Blood*.

published the first books about the culture and history of menstruation in the 1970s.¹⁸ In Britain, the Women's Environmental Network organized public campaigns against tampons made of chlorine-bleached and scented materials, as well as the flushing of disposable products, thus raising ecofeminist awareness.¹⁹ Twentieth-century menstrual activists advocated better products, more medical research, and good sexual health education, while always keeping a critical eye on the product industry.²⁰

When Unilever entered the market in the 1970s, cracks were already appearing on the smooth surface of menstrual etiquette. In 1976, an important time for international feminism marked in Britain by the Domestic Violence Act becoming law, Unilever's director of corporate development wrote to the Project Hyacinth Committee, "sanitary protection total unit growth is apparent in all countries, due to increasing standards of hygiene, heavier advertising and other support, plus growing frankness."²¹ The remark about frankness highlights how British society was becoming generally more open to sexual themes, but it was perhaps also a nod to how the feminists' work to dismantle menstrual taboos had not gone unnoticed by the industry, who

¹⁸ Delaney, Toth, and Lupton, *Curse*; Shuttle and Redgrove, *Wise Wound*.

¹⁹ Karen Houppert, "Pulling the Plug on the Sanitary Protection Industry," *Village Voice*, February 7, 1995.

²⁰ Bobel, *New Blood*.

²¹ Letter H. Meij to the PHSC, April 6, 1976, Notes on Smith & Nephew takeover (1976), GB1752/BD/SC/3/486, Unilever Archives, Port Sunlight, Liverpool (henceforth UA).

sought to capitalize on this moment while also profiting from the public's increasing desire to raise cleanliness standards.²²

Initiating Project Hyacinth

Observing the menstrual market, Unilever identified several hurdles to entry. The real challenge came from the United States. There, the advertising for popular brands such as Modess, Tampax, and Kotex tried to balance progressive educational messages with a need for coded language and discretion, relying on large budgets that smaller British companies could not easily replicate.²³

Big corporations like Procter & Gamble and Kimberly-Clark also had substantial research funding and set the standard for what was possible technologically. This was exemplified through Unilever's acquisition and admiration of superabsorbent tampons such as Rely at a time when their own products were under development.²⁴ The Project Hyacinth Committee nevertheless saw these challenges as worthwhile, noting that the mid-1970s menstrual market was worth around £260 million and growing.²⁵

Initially, the committee had considered acquiring another brand. For ten years on and off since the early 1970s, Unilever had looked at candidates such as British Smith & Nephew

²² Scanlon, *Gender and Consumer Culture Reader*.

²³ Freidenfelds, *Modern Period*, 48.

²⁴ Dyer, Dalzell, and Olegario, *Rising Ride*; Swasy, *Soap Opera*; also Vostral, *Toxic Shock*, on the development of Rely in America.

²⁵ Letter H. Meij to the PHSC, April 6, 1976, Smith & Nephew takeover (1976),

GB1752/BD/SC/3/486, UA archives.

(SAND), Swedish Mölnlycke (later renamed Svenske Cellulose Axsjebolaget, then Essity), and Tambrands Inc., manufacturers of Tampax applicator tampons. Most of the discussions revolved around SAND, which was still manufacturing the older style of pin and cloth pads (also known as looped towels), as well as single-use pads.²⁶ The company also produced incinerators for the disposal of their products. From menarche to menopause, from purchase to disposal, SAND benefited from every stage of the menstrual experience in the United Kingdom. The committee noted their holistic success but also correctly stated that SAND was not attracting younger consumers who favored tampons over pads, and that it had no reach outside Britain.

Tampons were already imported in great numbers to Britain, and Tampax was the leading brand, with a remarkable 70 percent market share by the mid-seventies.²⁷ Sensing an opportunity, the committee briefly considered acquisition and contacted Tambrands Inc.'s vice president and treasurer Thomas F. Casey about a possible merger in 1978. Reporting back, the committee described Casey as “rambling” and uninterested, but also as a paranoid observer of the British market and Unilever’s plans—a description also afforded other competitors.²⁸

²⁶ Jones covers the SAND episode in *Renewing Unilever*, 285.

²⁷ Letter H. Meij to the PHSC, 4, May 31, 1976, Smith & Nephew takeover, GB1752/BD/SC/3/486, UA archives. SAND had a license from the company that owned the non-applicator tampon brand o.b. (from the German *ohne binde*—“without pad”) to distribute the same product under the brand Lil-Lets in the United Kingdom, but in 1976 it developed its own tampon machine.

²⁸ Letter to Sir David Orr regarding Tampax, September 18, 1978, Smith & Nephew takeover, GB1752/BD/SC/3/486, UA archives. Allegedly Casey was observing Unilever and a successful

Ultimately, it was not possible to acquire either SAND or Tampax. So the committee abandoned the idea and built their own project, titled Hyacinth.

The project's peculiar name deserves an explanation, and Project Hyacinth has a historical and symbolic meaning. Jones writes that Hyacinth was the code name for the failed attempt to acquire SAND.²⁹ The symbolic associations with menstrual culture are worth unpacking. A hyacinth is namely a flower with a strong pleasant smell, reminiscent of the floral perfumes proposed for using in Unilever (and rival) pads and tampons. The flower and its fragrance suggest traditional femininity, masking any allusion to bodily smells. But the Hyacinth is not innocent. The bulb contains poisonous oxalic acid and must only be touched with protective gloves. Likewise, scented menstrual (and other personal) products have caused severe medical problems and led to product recall and corporate apologies.³⁰

The equally complex water hyacinth (*Eichhornia crassipes*) is used as a menstrual product in East Africa and its native South America. In Chris Bobel's investigation of how

European menstrual product VP Schickedanz "controlled by Dr Schickedanz's wife, the king-pin." Other than Grete Schickedanz, women are notably absent from Project Hyacinth records. She led the entire business, including the enormously profitable mail-order company Quelle, when her husband was barred from business activities in Germany after revelations of his Nazi past. The *New York Times* called her the German First Lady of Business, and she was the first woman on Forbes' self-made millionaire list in 1987 (Associated Press, "Grete Schickedanz, German Business Leader Dies, 82," *New York Times*, July 26, 1994, 17).

²⁹ Jones, *Renewing Unilever*, 285.

³⁰ Nicole, "Question for Women's Health."

charities promote menstrual hygiene in the Global South, water hyacinths are sometimes demonized as an unhygienic and “primitive” alternative to the commercial products donated or sold by Western corporations.³¹ It is highly unlikely that Unilever was aware of this at the time, but the water hyacinth’s indigenous geography links to another important part of Unilever’s history: fifty years before Project Hyacinth, Belgian colonists introduced the plant to Rwanda, in order to “beautify” the landscape, and it has since become an invasive species.³² This was the same time that Lord Leverhulme, founder of Unilever’s original company, Lever Brothers, occupied land and commanded forced labor in the neighboring Belgian colony of Congo.³³ By the late twentieth century, Unilever’s colonial palm oil plantations were nationalized, with closer local government involvement.³⁴ Any history of Unilever must acknowledge the corporation’s debt to these colonial forces, as they formed the basis of all subsequent research, development, and manufacturing. Hence, there are literal, historic, and symbolic levels in the floral code name, as with much of the language in Project Hyacinth.

The Race for a Superabsorbent Tampon

In order to understand what consumers might want from new menstrual technologies, Unilever tasked its British-based subsidiary RBL with examining the tampon market and reporting on

³¹ Bobel, *Managed Body*.

³² It was therefore banned in the European Union in 2016. For a history of Western corporations, including Unilever’s use of African plants: Osseo-Asare, *Bitter Roots*.

³³ Marchal, *Lord Leverhulme’s Ghosts*.

³⁴ Sadri, “Unilever as a Global Force.”

attitudes specifically toward applicator tampons. RBL's marketing team gathered information from twelve extended qualitative interviews with individuals (“because of the personal nature of this enquiry”) and four small groups.³⁵ The gender of the interviewees was not specified. Conversations were split between the North and South of England, excluding Scotland, Wales, and Ireland entirely. The women accounted for “the stages in the life cycle” from age 15 to 44, with no recording of race, religion, sexual preference, and other identity markers. Women who used hormonal contraceptives and people with “different types of flow” were recruited to ensure a variety of views on materials and product quality for light and heavy bleeders.³⁶ The marketing team worked under a stated assumption that “tampon users are fairly relaxed in their attitudes toward menstruation, regarding it as an inherent part of being female,” and they mentioned (but did not cite) previous research that had found tampon users to be “less conservative” than pad users.³⁷

Unilever knew that large corporations elsewhere were developing other tampons, for example, International Latex Company's Playtex Plus and Kimberley Clark's Kotex Heavy

³⁵ Project Hyacinth research, 3, August 1975, EFL/7/13/3/9, UA archives. Olszynko-Gryn, Do it Yourself on the Predictor home pregnancy test in *A Woman's Right to Know*.

³⁶ The birth control pill was available for married women in the United Kingdom since 1961, for unmarried women since 1974; Project Hyacinth research, 1, August 1975, EFL/7/13/3/9, UA archives. On the rise of hormonal contraceptive users: Marks, *Sexual Chemistry*.

³⁷ Project Hyacinth research, 1, August 1975, EFL/7/13/3/9, UA archives.

Duty.³⁸ The team wanted to observe the women's reaction to two new products: Procter & Gamble's uniquely structured Rely tampon, and International Latex Company's more traditionally shaped Playtex tampon. Both had been test-marketed in the United States but were not yet commercially available in Britain.³⁹ To facilitate discussion, the team submerged both tampons in water and recorded the women's comments. Rely expanded and moved very differently than other tampons, as its teabag-like shape swelled far beyond the confines of traditional cylinder structures like Playtex.⁴⁰ Compared to Playtex, Rely appeared very large, and the interviewees drew several conclusions. While some women expressed an interest in trying the product (it is unclear whether they did), others noted concern that Rely was potentially dangerous owing to its unusual shape. The marketing team concluded that a compromise between novel absorption technology and a familiar tampon structure would be ideal.

Following on from the demonstration, the marketing team wanted to know more about what type of woman was willing to try innovative products. They suggested that only one group was actively interested: those who had experienced leaking through inadequate products. All

³⁸ Project Hyacinth update and report on competitor activities, March 14, 1976, Project Hyacinth folder, GB1752/BD/SC/487, UA archives. Vostral shows that many U.S. patents involving CMC were created in the mid-1970s (*Toxic Shock*, 23).

³⁹ Summary RBL Project Hyacinth research, 1, August 1975, GB1752/EFL/7/13/3/9, UA archives.

In the early 1970s, RBL merged with others to create a European market research group, and in 1986 it was acquired by the Ogilvy advertising group.

⁴⁰ Vostral, "Rely and Toxic Shock Syndrome," 449.

interviewees, whether satisfied with their current habits or not, also wanted and expected “absorbency, reliability, comfort, disposability, unobtrusiveness, ease and safety of insertion,” and they saw “flushability” as a positive asset in a market where some brands were warning against it.⁴¹ This wish list underlines women’s requirements from menstrual technologies and shows in what ways subpar pads and tampons had previously disappointed them. The marketing team focused on evidence from the most dissatisfied women, who may have suffered heavy bleeding or menstrual health issues, a likely (but not exclusive) cause of extensive leaking and pain. The notion of “creating a need where there previously was none” is of course a common strategy, but in this case the need was real for some women.⁴² This group’s evidence, however, also led to the idea that larger superabsorbent tampons like Rely would be a solution to leaking for all consumers.

Based on the survey findings, the Port Sunlight laboratory team first experimented with a tampon made from cotton and polysaccharides (plastic).⁴³ Conventional cotton was soon abandoned because it became “clear that other big firms were working on a similar idea of

⁴¹ RBL Project Hyacinth research, 2, August 1975, EFL/7/13/3/9, UA archives.

⁴² Olszynko-Gryn shows that Unilever’s Clearblue home pregnancy test created demand from healthy married women trying to get pregnant who were previously content going to their doctor, in “Thin Blue Lines” (*Woman’s Right to Know*).

⁴³ Memos on corporate development, January 30 and March 15, 1973, Project Hyacinth, GB1752/BD/SC/487, UA archives.

increasing absorbency,” including experiments with gel.⁴⁴ The laboratory saw the gel as effective and “superior” (but also more expensive) and focused on mimicking or reverse engineering its properties without compromising patents in 1976.⁴⁵ This new material was named Lyogel, and the Project Hyacinth Special Committee described it as “exciting” because it could bind menstrual blood and stop it from moving like a liquid, ensuring that consumers would not have to change the product frequently.⁴⁶ Evidence on Lyogel’s properties and components is scarce, but Jones helpfully remarks that it could absorb up to forty times its own weight in water, noting that this was a “considerable scientific achievement.”⁴⁷ Plans to develop Lyogel were rocky but went as far as the first stages of manufacturing.⁴⁸

⁴⁴ Private note to committee, August 2, 1973, Project Hyacinth, GB1752/BD/SC/487, UA archives.

⁴⁵ Research division budget on disposables by J. G. Collingwood to the PHSC, January 8, 1975, Project Hyacinth, GB1752/BD/SC/487, UA archives. Jones notes that P&G had a patent for a gel, sponge-like structure (*Renewing Unilever*, 286). Vostral describes novel aspects of the Rely patent (*Toxic Shock*, 25). Boeva et al., “Doing History.”

⁴⁶ Letter to Sir David Orr on Tampax, September 18, 1978, Smith & Nephew takeover, GB1752/BD/SC/3/486, UA archives.

⁴⁷ Jones references *Unilever Magazine*, presumably the view of Lyogel they wished to publicize (*Renewing Unilever*, 286, 288). Vostral notes a 1979 *Chemical Week* article suggesting that superabsorbents could soak up 50 to 1,500 times their weight in water (*Toxic Shock*, 25, 28).

⁴⁸ Jones, *Renewing Unilever*, 286.

Throughout the research stage, Rely's properties were the laboratory team's "target" through close observation of the physical product (obtained, presumably, via U.S. contacts who had access to the test markets) and the associated patent.⁴⁹ The committee was briefed that it was the polyurethane (a polymer) in Rely tampons "which gives them quick take-up and proper spreading as well as absorbency."⁵⁰ It is also highly likely that the committee understood Procter & Gamble's innovative use of the viscose thickening agent carboxymethylcellulose (CMC), which forms a gel when in contact with liquids.⁵¹ Aware of the test markets' ambivalence toward Rely, the laboratory tried to find a balance between mimicking and reverse engineering Rely's properties with a more traditional shape familiar to British tampon users.

Experienced Menstruators

The researchers noted that older women and mothers were more open and clearer about what did and did not work, and that concern about new technologies like Rely could be due to the dominance of "experienced" menstruators in the sample groups. Recognizing this, the marketing team correctly attributed some value to the long-term technological and bodily expertise that people amass during the course of the menstrual life cycle, while underlining ageist assumptions

⁴⁹ Research division budget on disposables by J. G. Collingwood to the PHSC, January 8, 1975, Project Hyacinth folder, GB1752/BD/SC/487, UA archives.

⁵⁰ Notes on Project Hyacinth from the PHSC, March 20, 1975, Project Hyacinth folder, GB1752/BD/SC/487, UA archives.

⁵¹ On Procter & Gamble and other corporations' use of CMC: Vostral, *Toxic Shock*, 25. CMC was linked to the TSST-1 toxin in the early 1990s.

about older women's resistance to technological change. Significantly, the report also ascribed value to the important emotional and educational role that mothers of pubescent daughters play: "In homes where the mother-daughter relationship is relaxed and open, there seems to be an easier acceptance of menstruation and a more emancipated view of life in general."⁵² This nod to emancipation reveals the inherent and assumed connection between menstruation and politics in the decade when the women's movement was growing rapidly in Britain.

Interviewees were often critical of the industry. Significantly, no interviewees connected products to positive experiences of menstruation. On the contrary, products were at the heart of many negative recollections, with stories of pads and tampons embarrassingly dropped on the floor, discomfort and rashes, and concerns about price and quality. Some of these issues were reinforced by a lack of knowledge about the menstrual cycle; however, it was also clear that if parents or school nurses did not provide this information, neither the advertisements nor the companies had been able to fill the menstrual knowledge gap. One interviewee in her twenties described menarche: "I knew nothing about it, I thought I was bleeding to death."⁵³

By including such comments, the market research report provides glimpses of a hidden history circumscribed by taboo. Given the opportunity to talk, the women in the Unilever survey opened up about intensely personal stories, both joyful (about solidarity, humor, and feelings of being "healthy" or "becoming a woman") and disturbingly bleak (memories of traumatic confusion, fears of dying, self-policing, and self-harming). On the topic of pain and irritability during the bleeding phase, the market research also captured stories about interactions with men

⁵² Project Hyacinth research, 3, August 1975, EFL/7/13/3/9, UA archives.

⁵³ Project Hyacinth research, 3, August 1975, EFL/7/13/3/9, UA archives.

(“My husband thinks women are just for having children, so this is part of it”; “It’s the only time he will make me a cup of tea”). Here the gendered power dynamic is playing out between male partners (and perhaps also the men reading the report) and female consumers, a poignant example of menstrual transactions between men and women, as well as a link to the larger history of reproductive technology and debates between genders.⁵⁴ In short, when the marketing team asked women about tampons, they were in fact asking about a myriad of multifaceted and interlinked gendered issues.

Throughout the interviews, many women simultaneously commented on, resisted, and deployed “menstrual etiquette” to explain the taboo. They gave examples of transgression against the taboo (accepting leaking, talking to a male partner about pain, buying products without hiding them), and described the emotion and continual self-surveillance involved in “passing” as “non-menstruating” at all times.⁵⁵ This is underlined by the interviewees’ intense interest in the ability to confidently hide traces of menstrual blood through better technologies. Thus, consumers and corporations were comfortable discussing menstruation and related taboos within the framework of developing technologies and commercial products. When it came to

⁵⁴ Linton, *Men and Menstruation*. On men and reproductive technologies: King, *Fatherhood and Masculinity in Britain*; Leavitt, *Make Room for Daddy*; Fisher, *Birth Control*; Benninghaus, “Modern Infertility.”

⁵⁵ Project Hyacinth research, 3, August 1975, EFL/7/13/3/9, UA archives. Vostral analyzes menstrual products as “technologies for passing” that aim to appear non-menstruating at all times (*Under Wraps*). “Passing” comes from queer and anti-racist activist circles: Ginsberg, *Passing*; Sanchez and Schlossberg, *Passing*.

advertising such products, however, corporations and consumers alike were tied to strict censorship regulations.

Psychoanalyzing Menstruation

In the 1970s, there was a television ban on product advertising for menstrual (and some personal care) products in the United Kingdom.⁵⁶ Moreover, print advertising rules and norms prohibited the use of certain words (menstruation, blood, tampon), images (unwrapped products, blood, anatomical details), and the color red. Nevertheless, advertising companies had become used to working on tricky menstrual product accounts, utilizing creative strategies, metaphors, and symbols to inform and intrigue viewers without incurring the wrath of censorship boards.

The amount of money established companies spent on capturing young British consumers' attention through advertising was already skyrocketing to such a degree that the British government took action in the 1970s. It ordered a Special Commission to investigate the rising price of menstrual products and penalize any companies breaching consumer rights.⁵⁷ This remarkable situation is a further example of the growing openness and interest in menstrual consumer habits. According to the commission, few U.K.-based brands had changed much

⁵⁶ Unilever was the first company to use color TV advertising in the United Kingdom in 1969, but it was not always effective owing to the dominance of noncommercial broadcaster BBC. On TV advertising of reproductive technologies and Unilever's Clearblue history: Olszynko-Gryn, "Thin Blue Lines."

⁵⁷ *Report on Investigation by the Price Commission under Section 4 or 5 of the Price Commission Act 1977*, House of Commons (London: HMSO, 1978).

technologically since their early twentieth-century beginnings, despite price increases. In contrast, the commission noted an alarming rise in the amount of money British and American companies spent on advertising.⁵⁸ In the report summary, a warning stated that the extensive use of funding for advertising, rather than improving the products, was bad for the industry and consumers alike, and that the entire (international) menstrual product market lacked innovation. For newcomers like Unilever, however, it was impossible to compete without a solid advertising strategy to rival U.S. counterparts.

Unilever tasked market researchers Jan Wiener and Gillian Broadbent, of Cooper Research & Marketing (CRAM), with creating concepts for marketing, and advertising company J. Walter Thomson (pioneers of 1920s Kotex advertising in the United States) with carrying out the subsequent creative work.⁵⁹ CRAM was inspired by Freudian analysis and gave Unilever an overview of various menstruators' psychological makeup.⁶⁰ The marketing company's founder,

⁵⁸ Pharma shifted R&D funding toward marketing in the 1970s and 1980s: Malerba and Orsenigo, "Evolution of the Pharmaceutical Industry"; California Nurses Association/National Nurses United, *The R&D Smokescreen: The Prioritization of Marketing & Sales in the Pharmaceutical Industry*, prepared by the Institute for Health and Socio-Economic Policy, version 1.1, 2016.

⁵⁹ Alongside Broadbent, CRAM employed other women. Jackie French had cofounded the company, although only business partner Peter Cooper fixed his name to it.

⁶⁰ The psychological approach was not entirely new in market research: Packard, *Hidden Persuaders*. Packard argues that psychological and subliminal tactics could manipulate and induce desire for products, but advertisers and colleagues heavily challenged and criticized him.

Jackie French, was a pioneering British qualitative researcher and, alongside Broadbent, one of the few high-profile women working in this field in Britain. Similar to Johnson & Johnson's pioneering hiring of Lilian Gilbreth before that, the use of qualitative women researchers in menstrual product market research shows that corporations sometimes trusted women experts to better understand women consumers.⁶¹

When Wiener and Broadbent briefed the Hyacinth Project Committee on their preliminary findings in autumn 1976, they argued that pad and tampon users differed psychologically, suggesting that women who preferred older-style looped towels liked the “ritual” of using belts and pins, especially “the wetness, smell and constant checking for stains” involved.⁶² This, they analyzed, was “a near erotic ritual” that kept older women in touch with their reproductive past.⁶³ They further described the group as “Rigid. Resistant to change. Aware that she should be changing habits and therefore slight guilt feeling. Heavy bleeders. Non-working . . . does not want to ‘dry up.’ Accepts odour and flushing difficulties.”⁶⁴

⁶¹ On Gilbreth's role with Johnson & Johnson: Vostral, “Of Mice and (Wo)Men.”

⁶² Debrief notes regarding advertising concepts from research team, 5, October, 1976, EFL/7/13/3/14, UA archives.

⁶³ RBL Project Hyacinth research, 7, August 1975, EFL/7/13/3/9, UA archives. In his 1945 survey, Robert L. Dickinson claimed that sanitary pads, not tampons, were more likely to cause arousal, demonstrating that fears of menstrual product pleasures had been confusing the industry for some time (“Tampons as Menstrual Guards”).

⁶⁴ Debrief notes regarding advertising concepts from research team, 5, October, 1976, EFL/7/13/3/14, UA archives.

The members of this group, between 35 and 45 years of age, were noted as women who liked to talk and who were “experienced, feel they know it all,” and negative about new technologies. This rather condescending view of menstrual product knowledge suggests that Wiener and Broadbent were happy to document psychosocial details but winced when women responded critically. Yet the idea for the subsequent advertising strategy came from these women, whose comments the CRAM researchers dramatically summed up with a military metaphor: “It is a private—but not public—war at home.”⁶⁵

Conversely, the researchers described younger women who utilized newer styles of adhesive pads as “would-be tampon users” who were also “light bleeders” and more liberated; concerning people who used both adhesive pads and tampons, they noted, “liberated or not? extra feminine? privately she wants to be feminine, to know what’s going on,” and those who utilized older-style pads and tampons were “very anxious.”⁶⁶

Old and young consumers’ habits and opinions suggest that experienced users were more willing to discuss menstruation with strangers. This should perhaps make us question the claim that tampon users were more liberated simply because they were young. Wiener and Broadbent’s claims about the talkative nature of experienced menstruators illustrate the limitations of menstrual discourse at the time. Researchers portrayed tampon users as more modern than others, thus conforming to new ideals of menstrual etiquette. In contrast, the stubborn, “ritual-

⁶⁵ Debrief notes regarding advertising concepts from research team, 5, October, 1976, EFL/7/13/3/14, UA archives.

⁶⁶ Debrief notes regarding advertising concepts from research team, 5, October, 1976, EFL/7/13/3/14, UA archives.

bound,” and expressive older women were troublesome because they questioned new technology, critiqued the industry, and transgressed against the menstrual taboo by talking openly.

Wiener and Broadbent suggested how to capitalize on diverse menstrual product consumers’ life stages, applying their technique for ensuring a psychological connection with consumer groups. The report noted that there were moments in a woman’s life when she may be open to changing product habits, namely:

- *Menarche*: she is inexperienced, willing to try.
- *Leaving school/starting work*: appearance matters, odour may now be an issue.
- *Marriage/sex life*: she is a woman. She may be using contraceptives. She feels independent, yet is conscious of her closeness to a **man**.
- *Birth of children*: physical change leads to uncertainty. She may “progress” or “regress.”
- *Peri-menopause*: the psychological and physical/practical impact of a heavier flow. She may start work again and her daughters may soon be menstruating. Fears loss of sex appeal.⁶⁷

This systematic review of women suggested that with the right psychological insight, Unilever would be able to capture the attention of young menstruators ripe for technological innovation and eager to differentiate themselves from their mothers.

⁶⁷ Debrief notes regarding advertising concepts from research team, 5, October, 1976,

EFL/7/13/3/14, UA archives.

“The 7-Day War” Campaign

Although there are no images of the proposed campaigns in the archives, descriptions reveal how women reacted to the marketing and advertising companies’ suggestions. The concepts varied widely and were all poorly received by the interviewees. Ideas were summarized by title and linked with selected comments from women:

- The DRY concept—“Too absolute. Arid.”
- Shopping for trousers—“Unrealistic.”
- Decorating—“Unrealistic too. In any case one would be at home and not perched on a ladder for hours.”
- Barbecue—“Fanciful. Not easy to relate to. Somewhat Tampax-ish.”
- Theatre—“Too socially out-of-reach.”
- The 7-Day War—“Effective, clear, startling. Extreme. A challenge to all.”

Because some (but not all) respondents showed interest in the 7-Day War concept, it was presented to the Project Hyacinth Committee as a compromise and potential campaign.

Conceptualizing menstruation as a war was an innovative attempt at empathizing with women and rendering taboo material acceptable for public consumption. In the longer history of menstrual technology, the use of conceptual or metaphorical language had already been vested with a defining power that shapes the ways consumers and nonconsumers think about menstrual blood. For instance, by the 1970s disposable menstrual products had been branded as “feminine hygiene” or “sanitary items,” implying that menstruation was linked to femininity, or that it was inherently unsanitary. Such coded terminology was confusing and unhelpful when trying to sell

technologically innovative products. Without precise description, how could companies begin to attempt to sell new concepts such as superabsorbent tampons?

Although working in a very different context, Carol Cohn's observations about the male-dominated sphere of arms control found similar uses of creative language in discussions that were really about deep-seated taboos (in her case, nuclear war and death).⁶⁸ She termed this a "technostrategic" language that utilized sanitizing abstractions and gendered tropes that conflated humans with systems.⁶⁹ Despite referring to a very different sort of taboo, the uses of technostrategic language in the menstrual product industry show that also professionals tasked with working on the topic felt uncomfortable or confused when discussing the realities of menstruation. In recognizing this discomfort, the market team correctly attributed some value to the long-term technological and bodily expertise that people amass during the course of the menstrual life cycle.

Wiener and Broadbent also recorded women warning that all the proposed campaign ideas included "something almost clinical, masculine, medicinal about them," arguing that any chosen campaign therefore needed a woman and needed "humanising."⁷⁰ Here the women equate women with humanity, an important remark at a time when equality between the sexes was increasingly debated in the public sphere. The 7-Day War campaign equated men's wars with conflicts experienced by women, in an attempt to forge a conceptual link to contemporary issues

⁶⁸ Cohn, "Sex and Death."

⁶⁹ Cohn, "Sex and Death," 692, 697.

⁷⁰ Debrief notes regarding advertising concepts from research team, 9, October 1976,

EFL/7/13/3/14, UA archives.

as varied and complicated as the 6-Day War (1967), the Cold War, and the Vietnam War (ending in April 1975 and heavily televised).⁷¹

The link between masculinity, military metaphors, and menstruation had already been explored by feminists and writers. In feminist journalist Gloria Steinem's 1978 essay "If Men Could Menstruate," she philosophized about a gender-swapped world where men experienced a menstrual cycle and celebrated it as a brutal and respectable undertaking akin to military conflict.⁷² Steinem's amusing essay crystallized the feminist argument that most events associated with men, be it war or menstruation, were glorified and justified. In a gender-swapped world, she joked, men would turn menstruation into a competition about who experienced the heaviest cycle or most pain.⁷³ In the same decade, Stephen King's popular novel *Carrie* saw menstruation as a plot device in a horror story that nevertheless empathically detailed the brutality of menstrual shame, as well as confusion about tampons.⁷⁴

<<figure 3 about here>>

⁷¹ On the 1970s counterculture anti-war and antinuclear movements driven by women: Hughes, "Burning Birth Certificates."

⁷² Gloria Steinem wrote, "Generals, right-wing politicians, and religious fundamentalists would cite menstruation ('*men*-struation') as proof that only men could serve God and country in combat, ("You have to give blood to take blood")..." (Gloria Steinem, "If Men Could Menstruate," *Ms Magazine*, October 1978).

⁷³ On queerness and menstruation: Fahs, *Out for Blood*.

⁷⁴ King, *Carrie*; on the horror tropes to describe menstruation: Lindsey, "Horror, Femininity."

These literary statements underlined the ironies of a society that had become more acquainted with bloody wars on television than menstrual blood, as well as a sign of a wider cultural shift regarding menstruation, which might have reached Unilever. Since both war and anti-war movements were very much part of the decade, some advertisers were already actively co-opting the anti-war movement, the women's movement, and the "war of the sexes" in their menstrual product campaigns, promising a revolution, empowerment, and freedom—notably rhetoric that also suggests a way out of conflict or war.⁷⁵

In their discussions of the 7 Day-War campaign, Unilever apparently sought to empathize with women through taking their concerns about menstruation seriously in a world where this was generally unspoken, and they thought a military analogy would lend some legitimacy to women's concerns. The censorship of menstrual advertising may well have sensitized the group to the realities of menstrual taboos and the difficulties involved in creating and selling products. The Project Hyacinth Committee thus noted the embarrassment about making public an essentially private affair, signaling that consumers and corporations alike would struggle to discuss or sell menstrual technologies openly.

Empathizing with women through comparing their experience to men's life at war reveals some interest in acknowledging the troubles of menstruating. Since little could be written or visually represented regarding menstruation in commercial formats, the committee agreed that the war concept easily "defines the problem" and "gave a solution." The campaign aimed to be "flattering" because it accepted the difficulties women had by elevating menstruation into the higher status of war. But the campaign would "include emotional benefit as well—peace of

⁷⁵ Vostral, *Toxic Shock*, 46.

mind” by promising a technology that could effectively hide menstrual blood once and for all.⁷⁶

Here, the technological solution is conceptualized as “peace” in the war on menstruation. Yet the committee’s sympathy collapsed at many stages of development. By describing menstruation as a problem, the committee blended all menstrual experience into the pain and struggle that only some interviewees expressed.

Today, we can only imagine what Unilever’s “extreme” campaign would have looked like. A battlefield would certainly justify images of blood, but who would be fighting, and why? Would we have seen an army of women, tampons fired as bullets through the air, with tanks and bombs producing fireworks of blood and guts?⁷⁷ Or would the fighters be men and the conflict more traditional, with only symbols signifying the likeness of the experience? Would the properties of Lyogel and new menstrual technology be directly compared to technologies of war, perhaps rendering the product the ultimate nuclear option against the enemy of menstruation?

<<figure 4 about here>>

Certainly, the challenge of balancing censorship, product information, humor, and metaphor would have been staggering.

Termination and Consequences

⁷⁶ Debrief notes regarding advertising concepts from research team, 9, October 1976, EFL/7/13/3/14, UA archives.

⁷⁷ On military metaphors in medicine: Nie et al., “Healing without Waging War”; Wiggins, “Stop Using Military Metaphors”; Shapiro, “‘Violence’ in Medicine.”

In the midst of the 7-Day War debate, Procter & Gamble launched Rely in America earlier than planned, in 1978. The committee cautiously waited to see how the product would be received and witnessed the subsequent chaos, as many Rely users became ill with TSS, and some even died.⁷⁸ The ensuing litigation against Rely resulted in a temporary dip in the market before Procter & Gamble recalled their ill-fated product in 1980. The scandal was reported internationally, but since illness and death mostly occurred in the United States, international tampon users were less directly affected.⁷⁹ In Britain, the first reports came in the summer of 1980. Soon thereafter, on September 23, the committee ended Project Hyacinth, the development of Lyogel, and all work on the “7-Day War” campaign. Another research project to develop Lyogel in baby diapers was also halted.⁸⁰ Yet the Project Hyacinth case and attempts to mimic Rely give insight into a larger story than TSS.⁸¹ By the late 1970s, the committee focused mainly on competitors’ efforts and were thus less equipped to successfully integrate innovations such as Lyogel into the overall business landscape at Unilever. Project Hyacinth ended, as Jones has

⁷⁸ Letter to Sir David Orr regarding Tampax “Rely is currently in test markets” and competitors are considering superabsorbents, September 18, 1978, on Smith & Nephew takeover, GB1752/BD/SC/3/486, UA archives.

⁷⁹ Vostral, *Toxic Shock*, 81–82.

⁸⁰ Notes of discussion, September 23, 1980, and meeting, November 4, 1980, Project Hyacinth Papers, GB1752/BD/SC/487, UA archives.

⁸¹ Vostral notes, “It is unfair to characterize this lack of oversight (the dangerous CMC-TSS connection) as purposeful, yet the zeal for superabsorbent overrode their downside” (*Toxic Shock*, 25).

noted, also because of poor management of the project by Unilever's top-level decision-makers.⁸²

The consequences for the corporation were far-reaching; it had spent £15 million and ceded menstrual product domination to others.⁸³ Later, even Procter & Gamble managed to reenter the market with pad brand Always. By 1997, they had also acquired Tambrands Inc. and Tampax, which Unilever had tried to buy in the late 1970s. Meanwhile, in Britain, SAND had collapsed, while Swedish Mölnycke had become a multinational corporation with increasing success there. Unilever thrived in other areas, while the international menstrual technology market has remained dominated by other large multinational corporations ever since.

The history of Project Hyacinth reveals the complicated links between the development of gendered technology, innovation, and consumers' expertise. Overall, the Project Hyacinth Committee sought to create a product aimed at women and therefore needed to understand them. Yet women were often essentialized and described in tropes, by both men and women market researchers. Flickers of resistance to Unilever's proposed product, marketing campaign, and the general industry appear at intervals, revealing the multifaceted approach consumers inhabit when critiquing, analyzing, and consuming menstrual products.

Centering on the women interviewed shows how their insights both underpinned and pushed against the project. Market reports serve an important and unintended purpose beyond the

⁸² Jones, *Renewing Unilever*, 287. Also "Shanks v Unilever Plc. Patents Court," *Report of Patent, Design and Trade Mark Cases* 131, no. 11 (2014), 829–64, stating losses of £15 million related to Project Hyacinth.

⁸³ Jones, *Renewing Unilever*, 285–88.

obvious financial goal: they document the lived experience of menstruation and use of menstrual product technologies in times before it was acceptable to talk about these topics. The women's testimonies evidence technological expertise (regarding Rely), visual and textual innovation (comments on branding and advertising), linguistic awareness, and a vast bank of knowledge about the menstrual body. This analysis of Project Hyacinth extends science and technology studies scholarship on users and innovation, brings it into dialogue with feminist business history, and adds nuance to the history of women's role in an environment typically considered masculine.

As Jones suggests, Unilever's moments of failure may well provide historians with a rich and untapped reserve of archival and research material not readily or publicly available if the endeavor had succeeded. Project Hyacinth archives also provide insight into a hyper-gendered corporate environment and its approach to hyper-gendered products such as tampons. In a "male-constructed stage," as Oldenziel argues, "women who enter the male-defined technical stage must always look like amateurs."⁸⁴ In the case of Project Hyacinth, Unilever successfully capitalized on women's extensive knowledge about the reproductive system, as they would also do during the development of home pregnancy test Clearblue.⁸⁵

Rather than pointing out the obvious difference in gender and power balance between men and women (already documented and analyzed by Jones), this narrative notes the pervasive use of gendered and especially war metaphors to develop, market, and sell menstrual products in

⁸⁴ Oldenziel, *Making Technology Masculine*, 190.

⁸⁵ For the comparative story of Clearblue: Jones, *Renewing Unilever*, 292–96; Jones and Kraft, "Corporate Venturing"; Olzynko-Gryn, "Thin Blue Lines."

the late twentieth century.⁸⁶ Project Hyacinth reveals a corporate culture unsurprisingly driven by rivalry, which often framed the race to develop new products as a conflict, and menstruation as a warlike situation. In contrast, years after Project Hyacinth ended, the Greenham Common Women’s Peace Camp made posters joking that “War is Menstruation Envy!” in their protests against nuclear war, suggesting a humorous, bold, and new type of public menstrual culture far beyond the boundaries of the menstrual product industry and imbued with a new era of politics and language.⁸⁷

<<figure 5 about here>>

Yet these activist women were likely also consumers of menstrual products, underlining the playful, critical, and practical relationship many users of these technologies continued to foster.

Although Project Hyacinth never reached the market, the themes of its conception still echo in menstrual culture today. Consumers, activists, and policy makers are still concerned about the price and safety of products.⁸⁸ For the women who gave evidence to Unilever’s market

⁸⁶ Jones, *Renewing Unilever*, 261–65.

⁸⁷ Liddington, *Road*, 257.

⁸⁸ Ending Period Poverty: A proposal for a Bill to ensure free access to sanitary products, including in schools, colleges and universities, Consultation Monica Lennon MSP for the Scottish Parliament, August 2017; see UK Government’s Period Poverty Taskforce (announced 2018); van Eijk et al., “Menstrual Cup Use”; guidance for industry and FDA staff on menstrual tampons and pads: “Menstrual tampons and pads: Information for premarket notification submissions—Guidance for industry and FDA staff,” 2005, FDA-2020-D-0957.

researchers over forty years ago, this new world may appear the strangest of all. Their insights about gender, menstruation, and innovation are everywhere today—from the rise of the environmentally friendly and more cost-effective menstrual cup, to the accepted use of the term “menstrual” rather than “feminine” products, to the End Period Poverty campaigns run by the Scottish, British, Indian, Canadian, and Kenyan governments, to name a few.⁸⁹ Project Hyacinth is one of many examples of the Global North’s interest in the menstrual market and the subsequent rise of what lawyer Bridget Crawford has termed “menstrual capitalism.”⁹⁰ Thus, knowledge of this history is useful for people who menstruate, who continue to invest in the menstrual product market month after month, and whose ongoing concerns about product safety and industry integrity remain vital for the health of consumers and market alike.⁹¹

Bio/Acknowledgments

⁸⁹ Przybylo and Fahs, “Empowered Bleeders.” The term “Period Poverty” was popularized by activists in the 2010s: Okamoto, *Period Power*. Feminists have discussed the cost of menstrual products as an economic and gender equality issue since at least the late 1960s.

⁹⁰ Bridget Crawford, “Against Menstrual Capitalism,” *Feminist Law Professors* (blog), June 25, 2018, <https://www.feministlawprofessors.com/2018/06/against-menstrual-capitalism/>.

⁹¹ In 2018, Kimberly-Clark recalled their U by Kotex® Sleek® tampons, after women reported feeling ill. U.S. Congresswoman Carolyn B. Maloney is still advocating for stronger safety regulations through the 1997 Tampon Safety and Research Act and 1999 Robin Danielson Act (Danielson died from TSS), with bills in the 2000s.

Dr. Camilla Mørk Røstvik is an art historian at the University of Leeds. The author would like to thank the Unilever Archives, Liverpool, and the audience at the 2019 Society for Menstrual Cycle Research conference for their questions, especially from Professor Sharra Vostral. Sincere thanks to Dr. Catherine Spencer, Dr. Jesse Olszynko-Gryn and Professor Geoffrey Jones and warm thanks to editors Ruth Oldenziel and Hermione Giffard and reviewers for generous feedback and support. This research was supported by a Leverhulme Early Career Fellowship.

Bibliography

Archival Sources

Anne Olson Papers, Donna Novak Coles Georgia Women's Movement Archives, Special Collections and Archives, Georgia State University Library, Georgia University, Atlanta, GA, U.S.A. (GSU)

Duke University Archives, Duke University, Durham, NC, U.S.A. (DUA)

Unilever Archives, Port Sunlight, Liverpool, U.K. (UA). Material from the following collections are cited: GB1752/BD/SC/3/486: Special Committee Papers: 'Corporate Development – Disposables' 1976-1978, GB1752/EFL/7/13/3: Reports Regarding Sanitary Protection (including EFL/7/13/3/9: Report 'Project Hyacinth' 1975 and EFL/7/13/3/14: Report 'Project Hyacinth' 1976), GB1752/BD/SC/487: Project Hyacinth Folder 1973-1980.

Published Sources

Beier, Lucinda McCray. "'We Were Green as Grass': Learning about Sex and Reproduction in Three Working-Class Lancashire Communities, 1900–1970." *Social History of Medicine* 16, no. 3 (2003): 461–80.

- Benninghaus, “Modern Infertility.” In Hopwood, Flemming, and Kassel, *Reproduction: Antiquity to the Present Day*. Cambridge: Cambridge University Press, 2018: 457-471.
- Bildhauer, Bettina. *Medieval Blood*. Cardiff: University of Wales Press, 2006.
- Bobel, Chris. *The Managed Body: Developing Girls and Menstrual Health in the Global South*. London: Palgrave Macmillan, 2019.
- Bobel, Chris. *New Blood: Third Wave Feminism and the Politics of Menstruation*. New Brunswick: Rutgers University Press, 2010.
- Bobel, Chris, Inga T. Winkler, Breanne Fahs, Katie Ann Hasson, Elizabeth Arveda Kissling, and Tomi-Ann Roberts, eds. *Palgrave Handbook of Critical Menstruation Studies*. London: Palgrave, 2020.
- Boeva, Yana, Devon Elliott, Edward Jones-Imhotep, Shezan Muhammedi, and William J. Turkel. “Doing History by Reverse Engineering Electronic Devices.” In Sayers, *Making Things and Drawing Boundaries*, 163–76.
- Cockburn, Cynthia. “Technology, Production and Power.” In *Inventing Women: Science, Technology and Gender*, edited by Gill Kirkup and Laurie Smith Keller, 196–211. Cambridge: Polity, 1992.
- Cohn, Carol. “Sex and Death in the Rational World of Defence Intellectuals.” *Signs* 12, no. 4 (1987): 687–718.
- Creager, Angela, Elizabeth Lunbeck, and Londa Schiebinger, eds. *Feminism in Twentieth-Century Science, Technology and Medicine*. Chicago: University of Chicago Press, 2001.
- de Chadarevian, Soraya. “The Making of an Entrepreneurial Science: Biotechnology in Britain 1975–1995.” *Isis* 102, no. 4 (2011): 601–33.

- Delaney, Janice, Emily Toth, and Mary Jane Lupton. *The Curse: A Cultural History of Menstruation*. Champaign: University of Illinois Press, 1988.
- Dickinson, Robert L. "Tampons as Menstrual Guards." *Journal of American Medical Association* 128 (1945): 490–94.
- Dyer, David, Frederick Dalzell, and Rowena Olegario. *Rising Ride: Lessons from 165 Years of Brand Building at Procter & Gamble*. Boston: Harvard Business School Press, 2004.
- Fahs, Breanne. *Out for Blood: Essays on Menstruation and Resistance*. New York: SUNY Press, 2016.
- Fisher, Kate. *Birth Control, Sex, and Marriage in Britain, 1918–1960*. Oxford: Oxford University Press, 2006.
- Freidenfelds, Lara. *The Modern Period: Menstruation in Twentieth-Century America*. Baltimore: John Hopkins University Press, 2009.
- Gaudillière, Jean-Paul. "Better Prepared Than Synthesized: Adolf Butenandt, Schering Ag and the Transformation of Sex Steroids into Drugs." *Studies in History and Philosophy of Science Part C* 36, no. 4 (2005): 612–44.
- Ginsberg, Elaine. *Passing and the Fictions of Identity*. Durham: Duke University Press, 1996.
- Hensmans, Manuel, and Gerry Johnson. *Strategic Transformation: Changing While Winning*. New York: Palgrave Macmillan, 2012.
- Hopwood, Nick, Rebecca Flemming, and Lauren Kassel, eds. *Reproduction: From Antiquity to the Present Day*. Cambridge: Cambridge University Press, 2018.
- Hughes, Richard. "Burning Birth Certificates and Atomic Tupperware Parties: Creating the Antiabortion Movement in the Shadow of the Vietnam War." *Historian* 68, no. 3 (2006): 541–58.

- Jeremy, David J. *A Business History of Britain 1900–1990s*. Oxford: Oxford University Press, 1998.
- Jones, Geoffrey. *Renewing Unilever: Transformation and Tradition*. Oxford: Oxford University Press, 2005.
- Jones, Geoffrey, and Alison Kraft. “Corporate Venturing: The Origins of Unilever’s Pregnancy Test.” *Business History* 46, no. 1 (2004): 100–22.
- King, Laura. *Fatherhood and Masculinity in Britain, 1914–1960*. Oxford: Oxford University Press, 2015.
- King, Stephen. *Carrie*. New York: Doubleday, 1974.
- Kirkup, Gill, and Laurie Smith Keller, eds. *Inventing Women: Science, Technology and Gender*. London: Polity, 1992.
- Leavitt, Judith Walzer. *Make Room for Daddy: The Journey from Waiting Room to Birthing Room*. Chapel Hill: University of North Carolina Press, 2010.
- Liddington, Jill. *The Road to Greenham Common: Feminism and Anti-militarism in Britain since 1820*. Syracuse: Syracuse University Press, 1991.
- Lindsey, Shelley Stamp. “Horror, Femininity, and Carrie’s Monstrous Puberty.” *Journal of Film and Video* 43, no. 4 (1991): 33–44.
- Linton, David. *Men and Menstruation: A Social Transaction*. Bern: Peter Lang, 2019.
- Malerba, Franco, and Luigi Orsenigo. “The Evolution of the Pharmaceutical Industry.” *Business History* 57, no. 5 (2015): 664–87.
- Marchal, Jules. *Lord Leverhulme’s Ghosts: Colonial Exploitation in the Congo*. London: Verso, 2017.

- Marks, Lara. *Sexual Chemistry: A History of the Contraceptive Pill*. New Haven: Yale University Press, 2010.
- McClive, Cathy. *Menstruation and Procreation in Early Modern France*. New York: Routledge, 2015.
- Nicole, Wendee. "A Question for Women's Health: Chemicals in Feminine Hygiene Products and Personal Lubricants." *Environmental Health Perspectives* 122, no. 3 (2014): A70–75.
- Nie, Jing-Bao, et al. "Healing without Waging War: Beyond Military Metaphors in Medicine and HIV Cure Research." *American Journal of Bioethics* 16, no. 10 (2016): 3–11.
- Okamoto, Nadya. *Period Power: A Manifesto for the Menstrual Movement*. New York: Simon & Schuster, 2018.
- Oldenziel, Ruth. *Making Technology Masculine: Men, Women, and Modern Machines in America, 1870–1945*. Amsterdam: Amsterdam University Press, 1999.
- Oldenziel, Ruth. "Man the Maker, Woman the Consumer: The Consumption Junction Revisited." In Creager, Lunbeck, and Schiebinger, *Feminism in Twentieth-Century Science*, 128–48.
- Olszynko-Gryn, Jesse. "Thin Blue Lines: Product Placement and the Drama of Pregnancy Testing in British Cinema and Television." *British Journal for the History of Science* 50, no. 3 (2017): 495–520.
- Olszynko-Gryn, Jesse. *A Woman's Right to Know: Pregnancy Testing in Twentieth-Century Britain*. Cambridge, MA: MIT Press, 2022.
- Osseo-Asare, Abena Dove. *Bitter Roots: The Search for Healing Plants in Africa*. Chicago: University of Chicago Press, 2014.
- Packard, Vance. *The Hidden Persuaders*. New York: Ig, 2007.

- Pecis, Lara. “Doing and Undoing Gender in Innovation: Femininities and Masculinities in Innovation Processes.” *Human Relations* 69, no. 11 (2016): 2117–40.
- Proudfoot, Devon, Aaron C. Kay, and Christy Z. Koval. “A Gender Bias in the Attribution of Creativity: Archival and Experimental Evidence for the Perceived Association between Masculinity and Creative Thinking.” *Psychological Science* 26, no. 11 (2015): 1751–61.
- Przybylo, Ela, and Breanne Fahs. “Empowered Bleeders and Cranky Menstruators: Menstrual Positivity and the ‘Liberated’ Era of New Menstrual Product Advertising.” In Bobel et al., *Palgrave Handbook*, 375–93.
- Read, Sara. *Menstruation and the Female Body in Early Modern England*. Basingstoke: Palgrave, 2013.
- Reader, W. J. *Fifty Years of Unilever 1930–1980*. Portsmouth: Heinemann, 1980.
- Reader, W. J. *Unilever: A Short History*. Liverpool: Unilever, 1960.
- Sanchez, Maria, and Linda Schlossberg. *Passing: Identity and Interpretation in Sexuality, Race, and Religion*. New York: New York University Press, 2001.
- Sayers, Jentery, ed. *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*. Minneapolis: University of Minnesota Press, 2017.
- Scanlon, Jennifer. *Gender and Consumer Culture Reader*. New York: New York University Press, 2000.
- Shail, Andrew, and Gillian Howie, eds. *Menstruation: A Cultural History*. Basingstoke: Palgrave, 2005.
- Shapiro, Johanna. “‘Violence’ in Medicine: Necessary and Unnecessary, Intentional and Unintentional.” *Philosophy, Ethics and Humanities in Medicine* 13, no. 7 (2018).

- Shuttle, Penelope, and Peter Redgrove. *The Wise Wound: Menstruation and Everywoman*. London: Marion Boyars, 2005.
- Strange, Julie-Marie. "The Assault on Ignorance: Teaching Menstrual Etiquette in England, c. 1920s to 1960s." *Social History of Medicine* 14, no. 2 (2001): 247–65.
- Strange, Julie-Marie. *Issues of Blood: The Politics of Menstruation*. London: Palgrave Macmillan, 1990.
- Swasy, Alecia. *Soap Opera: The Inside Story of Procter & Gamble*. New York: Touchstone, 1993.
- van Eijk, Anna Maria, Garazi Zulaika, Madeline Lenchner, Linda Mason, Muthusamy Sivakami, Elizabeth Nyothach, Holger Unger, Kayla Laserson, and Penelope A. Phillips-Howard. "Menstrual Cup Use, Leakage, Acceptability, Safety, and Availability: A Systematic Review and Meta-analysis." *Lancet* 4, no. 8 (2019): E376–93.
- Vostral Sharra L. "Of Mice and (Wo)Men: Tampons, Menstruation, and Testing." In Bobel et al. *Palgrave Handbook*, 673–86.
- Vostral, Sharra L. "Rely and Toxic Shock Syndrome: A Technological Health Crisis." *Yale Journal of Biological Medicine* 84, no. 4 (2011): 447–59.
- Vostral, Sharra L. *Toxic Shock: A Social History*. New York: New York University, 2018.
- Vostral, Sharra L. "Toxic Shock Syndrome, Tampons and Laboratory Standard-Setting." *Canadian Medical Association Journal* 189, no. 20 (2017): e726–28.
- Vostral, Sharra L. *Under Wraps: A History of Menstrual Hygiene Technology*. New York: Lexington Books, 2010.
- Wiggins, Natasha M. "Stop Using Military Metaphors for Disease." *BMJ* 345 (2012): e4706.

Wilson, Charles. *The History of Unilever: A Study in Economic Growth and Social Change*. 3 vols. London: Cassell, 1970.

CAPTIONS

FIG. 1. The development of tampons provides a historic case study of gendered innovation. (*New tampons waiting to be used*, Photo by Vulvani.)

FIG. 2. The race to develop a superabsorbent tampon hinged on the product's ability to effectively soak up blood. (*New vs. used tampon*, Photo by Vulvani.)

FIG. 3. In *Carrie*, menstrual blood and stigma drive the narrative, breaking with the dominant culture of secrecy surrounding menstruation at the time. (*Bloody Handprint*, Photo by Vulvani.)

FIG. 4. During World War II, menstrual product advertising often featured women's patriotic duties and the need to use tampons for an effective contribution to long shifts in a factory. (*Women at War! Pay Attention to Tampax*, Tampax Inc., 1943. Courtesy of DUL Digital Collections.)

FIG. 5. The Second Wave Feminist movement used humor, awareness raising, the arts, and protest to challenge the historic taboos against menstruation. *War is Menstruation Envy!* button, 1970s. (Source: GSU.)