

Looking Back in History

History of soap

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INTRODUCTION

Cleansing every day has been a social norm since the ancient period. The act of cleansing, which initially served purely functional purpose of hygiene, has now been promoted as an act of relaxation to improve one's skin health. Soap made of fat and ash has been in use since the Mesopotamian era for cleaning clothes and wool. The importance of soap for personal hygiene was recognized only after the first century. Since then, the personal cleanser industry has evolved rapidly with scientific backing.

HISTORY OF SOAP

Soap is a commonly used skin cleansing product, the chemical composition of which is an alkali salt of a fatty acid. The history of soap dates back thousands of years to ancient Babylonians. The first soap made was a greasy goop with unpleasant smell produced from cooking animal fat with an alkali called "lye" derived from woody ashes. Since then, soap has undergone an evolutionary change with many varieties and various ingredients added to make it cosmetically acceptable. The present day skin cleansers are more complex than the name "soap" implies, containing not only surfactants but also skin-conditioning agents.^[1]

The art of skin cleansing has progressed over several 1000 years practiced for personal hygiene or religious ritual or therapeutic purpose. The oldest accountable daily ritual of bathing can be dated back to ancient Indians as recorded in "grihya sutras." Cleansing in ancient days was done using a piece of bone or stone to scrape off the impurities. Later civilizations used the suspension of soapwort plant ash to wash their hands. Even the ancient Romans who pioneered aqueduct systems for running water and public baths did not use soap for cleaning. It was mentioned that Cleopatra used essential oils and white fine sand as abrasive for bathing.^[1,2]

The earliest record of soap making was found in Sumerian clay tablets dating to circa 2000 B.C. The soap was made by boiling a mixture of fat with wood ashes and used for removing grease from wool before dyeing. In Ebers Papyrus, an Egyptian scroll, it was mentioned that the ancient Egyptians bathed regularly and used a combination of animal oil with ashes dating to 1550 B.C. By 600 B.C., the Phoenicians prepared soap using tree ash and animal fat. Soap got its name from the Roman legend that mentioned Mount Sapo where the animals were sacrificed. The rain washed off the animal fat and woody ashes which formed soap along mountainside. The Roman women discovered that this material helped in washing clothes. The Roman scholar, Pliny the Elder, mentioned in his book "Naturalis historia" from 77 A.D., that the soap made from tallow and ashes was used by Gauls for giving a reddish tint to the hair. The Greek physician Galen (130–200 A.D.) was the first to write about the use of soap for personal hygiene. Bathing habits

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had declined throughout Europe when Rome fell in 467 A.D. The uncleanliness and sub-standard living conditions contributed to plague and the black death in the middle ages.^[1-3]

By the 7th century, soap making became an art in Spain, Italy, and France where olive oil was used for soap making. Eventually, fragrances were added to soap and specialized soaps for bathing, shampooing and laundry were available. By the 13th century, soap making began in Britain which led to the destruction of large areas of British woodlands. As a result, soap was heavily taxed and became a luxury product that only the royals could afford for everyday bathing. Castile soap was manufactured by Europeans based on olive oil making it a pure white soap [Figure 1]. It got its name from the crown of Castile, where the soap was manufactured in large scale. The soap became very popular among royal houses of Europe.^[2] Meanwhile, a soap originated in West Africa, named “Dudu-Osun” made from the ash of locally harvested plants and peels which gave it a black color [Figure 2].^[2] By 1853, Gladstone abolished the tax on soap and made it affordable. In 1791, the French chemist Nicolas Leblanc discovered an alkali soda ash by chemically transforming sodium chloride. As alkali was a key ingredient in soap, this discovery became a milestone for commercial soap manufacturing. The demand for soap increased when Louis Pasteur proclaimed that good personal hygiene reduced the spread of infections. During world war II (1948), there was an acute shortage of raw materials for soap manufacturing. This led to the discovery of synthetic detergent by German scientists. This became a key event in shaping the current day skin cleanser industry as most of the modern cleansers were based on synthetic detergent (Syndet) systems [Figure 3].^[3,4]

Lever brothers in England started importing modern soap by the name “Lifebuoy” in India during the British era [Figure 4]. By 1897, the first soap manufacturing plant was set-up in India by North-west soap company in Meerut, Uttar Pradesh. Mr. Jamshedji Tata, found a soap manufacturing plant after buying coconut oil mills in Cochin, Kerala. In early 1930s, the first branded soap based on coconut oil appeared in the Indian market.^[1]

Even though soap was initially expected to deliver only cleansing benefits, consumer expectations came with time to deliver health and cosmetic benefits. Surface—active substance (Surfactant) is the principal ingredient in a cleanser which is responsible for foaming and cleansing. Surfactant’s ability to lower the surface tension is because of its unique structure with hydrophobic and hydrophilic ends. Surfactant is also responsible for the damage to the stratum corneum (SC) causing dryness, irritation, increased transepidermal water loss, flaking, and sometimes itch. With a greater understanding of the role of SC components, newer technologies emerged for



Figure 1: A bar of Castile soap.



Figure 2: African black soap “Dudu-Osun.”

manufacturing mild and moisturizing cleansers. There are two types of surfactants – natural and synthetic. Natural surfactants were used in the manufacture of traditional soaps, transparent bars, super-fatted soaps, and combars. Whereas synthetic surfactants were used in the manufacture of syndet bars. It was well established that syndet bars have significantly less irritant potential compared to soap with natural surfactants. The present day syndet bars employ milder surfactants such as sodium cocoyl isethionate and glycinate in manufacturing to reduce the irritation and emollients such as oils, glycerin, and petrolatum for moisturization. Liquid body washes are very popular for their convenience in dispensing and hygiene. They deliver greater emollient deposition than soap or syndet bars. Facial cleansers are specifically curated for the health of facial skin sometimes with anti-aging benefits. They are different from liquid body cleanser by containing milder and costlier surfactants and lesser emollients to avoid the heavy “after-use feel.”^[5]

Cleansers were also specifically manufactured for some skin conditions such as acne, atopic dermatitis, rosacea, and sensitive skin with specific ingredients. Apart from

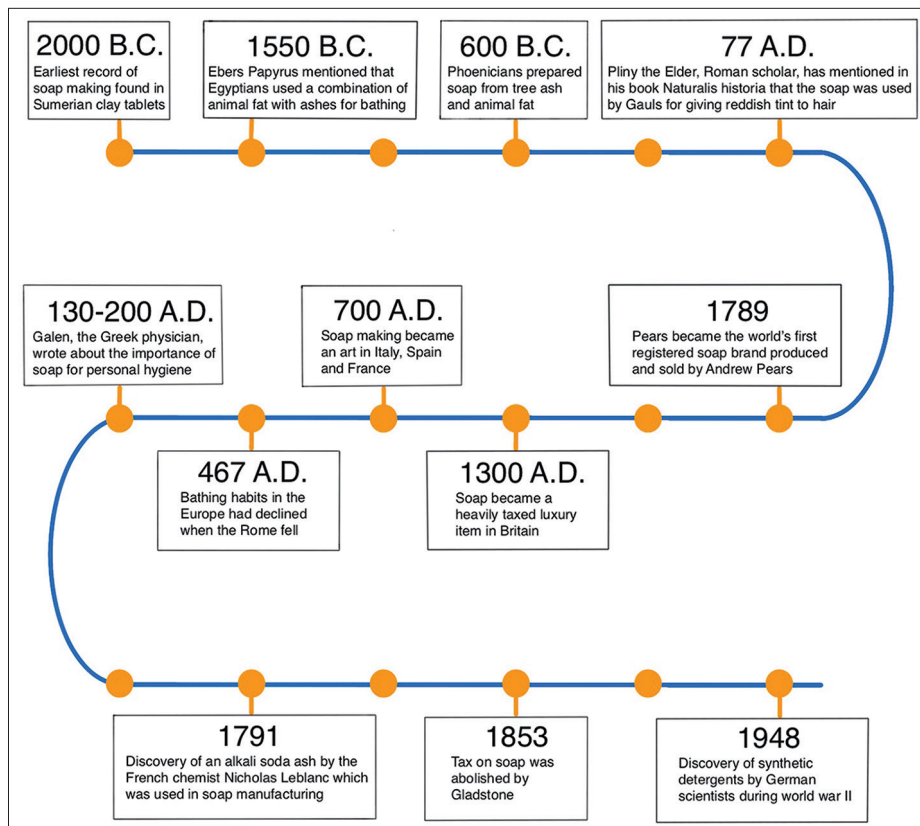


Figure 3: Timeline of the history of soap.

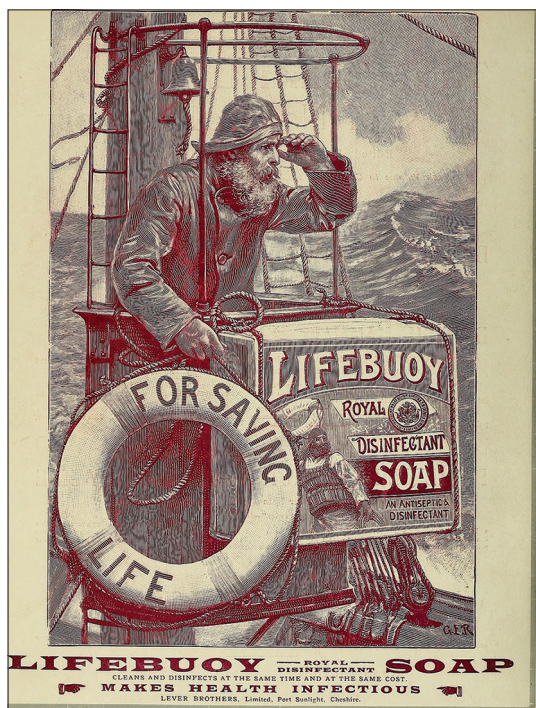


Figure 4: Advertisement for Lifebuoy soap. Animal Life and the World of Nature; A magazine of Natural History (1903).

surfactants and emollients, there are a few other ingredients added to soap such as colorants, fragrances, whitening agents, and lather boosters which were important from the consumer's perspective for its cosmetic acceptability.

CONCLUSION

Soap, as used in the Middle Ages as a foul-smelling crude product, has now become a highly competitive and science-led industry. Even though they are commonly called soaps, most of the commercially available skin cleaning bars were syndets. The present day cleansers must offer cleaning and skin health while cosmetically appealing. The manufacturers have provided consumers with a dizzying array of soap choices. It is important to understand the history, types, and composition of soaps to choose the appropriate cleanser for our skin type.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

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