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Title- Breasts- A natural and Unnatural history

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Breasts in human females are unique to our species. Breasts, modified sweat glands with fat and ducts

evolve at puberty which is much before they are required for suckling the young. They do not involute after

lactation ceases. Breasts are the most discussed, debated and debased body organ. From Vatsyayana of

Kama Sutra to contemporary feminists, literature on breasts is in plenty. The book under review is an

eminently readable addition to this overwhelmingly large literature.

The book is a first person account comprising fourteen chapters by Florence Williams. She is a contributing

editor of 'Outside', magazine. She comes with no ideological underpinning. In fact it is her story which she

attempts to generalise. "All told, I am pretty average and so are my breasts. In writing and researching this

book, I sometimes used my body as a proxy for modern women, testing it for commonly known and

suspected carcinogens and probes. My daughter, Annabel, gamely signed on for some experiments as well."

The book starts with organogenesis. The female human breast is unique in the evolutionary ladder. Breasts

appear at puberty and then transform into lactating organs after pregnancy. They never involuate like in other

primates. Darwin and other evolutionary biologist have struggled to explain this phenomenon. Florence has

paraphrased the relevant literature without any new insights of her own. The following paragraph

contextualises and sets the tone and tenor of the book. "The debate over breasts evolution is important,

because the creation stories colour how we see breasts, how we use them, and how we burden them with our

expectations. Because the dominant story has been all about visuals, it discounts what's actually in the

breasts, how do they work, how they are connected to the rest of the body, and how they are affected by a

larger ecology."

Female human breasts are unique as compared to other mammals. They evolve during puberty and never

involute like in other species. They function briefly during lactation but remain non-functional appendages.

Breasts, in most of the cultures have an added allure of being organs of seduction and a marker of fertility.

Breasts as markers of fertility have been documented in some tribal communities. There is no consensus on

why humans have developed breasts the way they are. Breasts in lower mammals, including primates, remain

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lactating organs. The author appreciates the need and relevance of understanding evolution of breast, but shows no original insights.

"She", sums up the current literature. Take the following passage. For example,

"Breasts in human females put them at an extra-ordinary disadvantage. They are the source of sexual politics and Cancer. Cancer in male breasts is rare. Plumbing: a primer, is a chapter on the complex anatomy and physiology of breasts. It also deals with "why size matters". 'Her face may have launched a thousand ships, but it was her breasts that really buoyed the army'. Goblets were said to be moulded from the perfect breasts of Helen of Troy", says it all.

There are no details of anatomy or the functioning of breasts, but, a brief reference to the seminal work done by Mr. Cooper in the early 19th century. 'Fill her up' talks of the cosmetic aspects of breasts. Mammoplasty, Liposuction, implants silicone and the rest get a mention. "Natural breasts have a shelf life so do fake ones, and it is a lot shorter". That is why the entire industry is deployed to set the standard, of aesthetics. Silicone implants became a rage soon after Cronin and Gerow introduced the silicone prosthesis. It is also a million dollar industry. This chapter is comprehensive.

Precocious puberty is recognised in recent times as a cause of clinical concern. Age of puberty is going down. There was an outbreak of early puberty in Puerto, Rico, compelling the government to set up a registry. There may not be just a single reason for early pubescence. Diet, environment, inherent pre-disposition, environmental chemicals, and metabolism play a crucial role. Early pubescence has psychological and physical consequences, often adverse. Florence the author and her daughter, Annabel went through a 'celeb detox'. They got pre and post BPA levels. Blood of these chemicals levels went down, more with Florence than Annabel. Detox meant going vegan and avoiding plastic contamination. Many of the environmental chemicals which are responsible for inducing early pubescence can also be carcinogens. Breast remains a vital target of these chemicals. Pregnancy, which brings about profound and irreversible changes in breasts, also confers protection from cancer. She wonders if scientists can simulate pregnancy without the women having to go through it. "The thought of chemically mimicking this experience for possible faraway health benefits give me a pause. But for some women, such as those who know they are carriers of breasts cancer genes, playing with ephemera of pregnancy might be worth it". Florence has no use for politics of procreation but a concern for vulnerable breasts. And she dwells on this topic at length. She quotes from literature and personal family experience.

Breasts are for lactation and to feed the newborn. It is their essential function.

Other chapters deal with topics like breasts cancer, plastic reconstruction, breasts as secondary sex character, male gaze and lactation. A pertinent question is raised about chemical contaminants in mothers

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living in contaminated areas. Should children be breast fed even when the levels of toxic chemicals are above the standards set for food industry? It is a question which needs a public debate. Politics of breast feeding and war with pharmaceutical companies promoting baby food also finds a mention.

The book reads well. A very breezy style makes it eminently readable. Facts are accurate and politics of gender and sexuality are absent. Following quotes from various chapters should give a peep in the book.

"Has all the ruckus- all the maternal guilt, the physical and mental introspection, the modrea-mdre name-calling, the battles with medical establishment been worth it? Is milk, unnatural, really so superior to formula that we must make each other feel bad about our failures and choices? The honest answer to this question is yes and no. She talks of travails of breasts feeding awkwardness of the process for the uninitiated new mother, Nestle and formula milk substitute wet nurse and dry breasts. A backlash, led by paediatricians and Catholic matrons brought breast feeding back in practice. The stay of La Leche League who aligned with hippies brought infants back to breasts. They promote a breast feeding. Narration of the events is compelling.

"When it comes to breasts, the ecosystem metaphor is apt...... In the current cultural moment that worships technology and through away convenience, it is a good time to remember our physical interdependence, with larger world. If breasts are to be saved, their salvation will lie in this recognition".

Florence after discussing chemical carcinogenesis of mammary cancer, surgery, and mutilation concludes her book an above note. "A breast indeed is a complex organ less mysterious than before but as alluring to males as before."