The Secret Memories of Leaves: Hope Jahren's Lab Girl

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Hope Jahren's Lab Girl interweaves the stories of plants' growth and beauty with her own coming-of-age as a woman in the STEM field. Jahren's memoir is split into three parts – 'Roots & Leaves,' 'Wood & Knots,' and 'Flowers & Fruit' – with each section tying closely together the stage of her life as a budding research scientist.

Jahren's roots begin in rural Minnesota, where winter lasts the majority of the year and children grow up fated to work in the slaughterhouse their parents, grandparents, and great-great grandparents have all worked as well. Her father was a science professor at the local community college and her mother was an English graduate and though affection was few and far between in their household, Jahren shows how her parents influenced the passion and precision she brought with her to science at an early age. Her book starts with memories of playing in her father's lab, long before she even knew biology as a school subject. She managed what many others could not and left her hometown for the University of Minnesota, where she worked long night shifts in a hospital pharmacy under the tutelage of a chain-smoking, long-time employee named Lydia, prepping bags of intravenous medications while mulling over the works of authors like Charles Dickens.

Her memoir is a blend of literary and scientific explorations, making Lab Girl impossible to put down. Jahren juxtaposes the snippets of her coming-of-age as a researcher with beautiful prose that turns the observational insight of a plant's growth into a descriptive narrative of emotion, making the reader care for all things green in the same way she always has.

Throughout the book, it is clear that Jahren walks a fine line between passionate and workaholic, a perfectionist and obsessive. She doesn't shy away from discussing her struggles with manic depression, including the times she struggled during her pregnancy. She discusses this period of her life where she wasn't taking her usual medications and had to endure many hospital stays. She recalls powerful memories from time, like "hit[ting] my head against the walls and floor, trying to knock myself out… until [my husband] and the dog are the only beings in the whole world whom I can recognize by name." She nervously gnaws on her palms and is plagued by insomnia throughout her life. It is in these moments she often finds herself drawn to her lab, turning her anxieties into discoveries.

Jahren describes the challenges on her path to becoming the successful geobiologist and professor; she's currently teaching at the University of Hawaii at Manoa. She notes the difficulties of her work as a female and the struggles that accompany it due to the 'curiousity-driven research' that makes up studying seeds, flowers, and trees: "my work will never result in a marketable product, a prescribable pill, a formidable weapon, or any direct material gain – or if it does indirectly lead to one of those things, this would be figured out at some much later date by someone who is not me. As such, my research is a rather low priority for our national budget." Despite these barriers that often seemed daunting and unsurpassable at many times, Jahren speaks of how she pursued her research through ingenuity, unfaltering passion, and the assistance and close friendship of her lab assistant, Bill. Jahren's work seems to become increasingly relevant and respected both within and outside the fields of geobiology and botany as we enter into an era that gives more credit to plant science in the face of growing climate change concerns.

Many women in the STEM field can admire the work of female scientists leading the way in pursuit of their areas of passion and interest. Jahren's dedication and clear adoration for ecology, coupled with her success, continue to be an inspiration for many, from amateurs to professionals. Once Jahren describes the first time she felt like a true scientist – after discovering the seed of the hackberry tree is made of opal – she writes, "I was the only person in an infinite exploding universe who knew that this powder was made of opal. In a wide, wide world, full of unimaginable numbers of people, I was – in addition to being small and insufficient – special. I was not only a quirky bundle of genes, but I was also unique existentially, because of the tiny detail that I knew about Creation, because of what I had seen and then understood. Until I phoned someone, the concrete knowledge that opal was the mineral that fortified each seed on each hackberry tree was mine alone."

She describes the moment that makes all the work – effort, heartache, late nights, and failures – worthwhile. Moments like these, where dreams are fulfilled and the realization of personal importance is achieved, are present throughout her entire work and they make this memoir an important read for anyone working towards a dream – even if it is no bigger than a seemingly insignificant seed.

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