

## Book Review

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**BREATHING SPACE. HOW ALLERGIES SHAPE OUR LIVES AND LANDSCAPES, GREGG MITMAN, 2007, NEW HAVEN, CT: YALE UNIVERSITY PRESS, 336 PP, ISBN: 9780300110357**

This is a surprisingly good read. Despite my life-long allergies and asthma, and my professional life as a pulmonary physician, I had not expected to like this book. In part, this was because I was uninformed about the important history of allergies and asthma in the United States, and even its importance to my specialty of pulmonary medicine. In fact, Gregg Mitman has turned out a very informative and helpful book for anyone interested in health and the environment. Allergies, to my surprise, are a rich part of American history, and Mr. Mitman engages the reader right from the outset. This well-written book provides a rational scientific basis for the explosion of allergic diseases in the past 150 years and how society has adapted with the times, especially before effective pharmaceuticals and other therapies were available.

Mitman provides both societal and historical perspectives to the epidemic of allergies and asthma in the United States. Early in the 20th century, allergies were considered a disease of the upper classes, almost a badge of honor to reflect the suffering of the rich. “Hay fever holidays” were common for those who could afford them and led to the development and success of fabulous resorts far



away from the airborne hazards of urban life. Two sites that were especially well chronicled were the Maplewood Hotel in the White Mountains of New Hampshire and the Grand Hotel of Mackinac Island, Michigan. At the same time, allergy sufferers, also known as “Hay Feverites,” joined

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together to form the U.S. Hay Fever Association and other related associations to share information about what worked best to control this largely seasonal malady. These forerunners of today's patient advocacy groups were exceedingly popular and effective at health education to the general public about these disorders and what could be done to mitigate the associated miseries. As local climate and weather patterns changed, some hay fever resorts would become more or less effective in improving the health of its allergic and wheezing clientele. The hay fever associations and the collective opinions of their members about which sites were most effective in reducing symptoms could be highly influential in securing (or undermining) the reputation of these hay fever resorts.

In subsequent chapters, Mitman gives wonderful historical vignettes surrounding the growth of cities dependent on the migration of allergic and asthmatic subjects seeking clean and pollen-free air. Cities such as Tucson and Denver, with rich histories in academic institutions and hospitals focused on respiratory disease, owe these successes to the pilgrimage of suffering patients a century earlier seeking good health. For example, at one point, a third of Denver's population comprised recently transplanted sufferers of asthma and allergies, and this influx stimulated the growth of hospitals and clinics focused on respiratory disease.

And why were such pilgrimages necessary? As well documented in the book, the emerging epidemic of allergies and asthma was observed to be closely related to the growth of modern urban life, changes in agricultural practices, and the unending process of deforestation. Mitman convincingly makes the case that the range expansion of allergen-producing plants, such as ragweed, in both the urban and rural settings resulted from our alteration of habitats previously dominated by native species. However, long before specific allergens were identified, allergy sufferers knew the remedy was to change the environment. They needed an escape from their normal environment for weeks or months at a time for "hay fever holidays" or, if

the problems were sufficiently burdensome, to make a life change with a household move to the clean air of Colorado or Arizona.

Of course, this was only possible if you could afford to change your environment. For the majority of the middle class and the poor, this was never a possibility. The poor were generally thought to be safe from the curse of allergies and asthma early in the past century, but that assumption persisted only because no one had actually looked. In today's urban environment, the poor assume an undue burden of allergic diseases and asthma. As detailed in the chapter, "Choking Cities," the first clues to this urban epidemic among the poor were found in New Orleans in the late 1950s and early 1960s, where the annual excess asthma mortality became known as the "fifth season." The impact of the urban environment on poor children has been well documented in a series of research studies in the last two decades as part of the NIH-funded Inner City Asthma Study; but, in the 1960s, this remained a medical mystery. And now many years later, as fate would have it, previously favored sites for "hay fever holidays" because of low levels of pollution, allergens, and humidity, are no longer respites from these environmental exposures. As physicians, we no longer recommend changes in geography to avoid environmental exposures for asthma and allergies and have not done so for decades. There is nowhere to go.

The book provides a rich and interesting history of allergic diseases in the U.S. and the role that we have all played in its evolution. It will be of interest to health care workers and allergy patients alike. We are fortunate today to have excellent pharmaceutical agents that significantly reduce morbidity and mortality from these disorders. We better understand how to reduce exposures in our home environment. But how much better would we all be if our natural environment had not been so altered as to induce these immunologic responses in the first place? And if we can correct these mistakes of the past, perhaps then we will once again have the breathing space that we all need.