

Preface: Epiphanies Perhaps

These essays report encounters with nature, encounters that soon after they occurred suddenly seemed to have special significance. At the time, they did not seem special. I was too much immersed in the events themselves. The living matrix of experience, not just people but also all other living things, has always lured me outdoors, deeper and deeper into entrancement.

It is all so blooming amazing! Outdoors I am soon possessed. Without a second thought, I leave the path and, after a quick check of my compass, find myself engaged in a new sensibility. I never feel more alert than when listening and watching in all dimensions outdoors. It might seem like meandering through a bazaar or a fair, except there is even more in nature's emporium.

Sometimes on my way back or sometimes when alone later, a recent experience abruptly acquires significance. It becomes an episode, with a start and with an end, on either side of a moment. In my mind, I see it all at once. I can write it all down, in what seems like an instant. It is an epiphany.

Perhaps that is too strong a word. I don't really have epiphanies, not like those in other accounts. I don't see the definitive direction ahead or realize the inerrant path behind. I am instead a wanderer, always looking and sometimes seeing, always listening and sometimes hearing. Occasionally though something seems to have happened, something that if it didn't make sense, at least it created an indelible memory.

For forty years I taught field biology outdoors to undergraduate students of the University of North Carolina at Chapel Hill. This was an interlude, however. Whenever outdoors, I have been the same for fifteen years before teaching and for fifteen years since. Yet

students, with their often fledgling experience outdoors, always provided fresh reactions, unanticipated questions, unforeseen responses. Outdoors alone or with other sorts of people have often been happy occasions, but in my experience there is nothing whatsoever so invigorating as the enthusiasm and laughter of students outdoors. Several of these essays show how students make for epiphanies.

Some of these episodes occurred in the natural preserve of my university, the Mason Farm Biological Reserve, just 10 minutes from my office on campus. When a young faculty member, I played a role in convincing the NC Department of Transportation to abandon a project for a highway directly across this area. Others assured me that no one ever changed a decision by the DOT, but it happened at least this once. The University's Board of Trustees finally declared the area a Biological Reserve, "Preserve" seemed too emphatic, and assigned its administration to the then young North Carolina Botanical Garden.

I was ecstatic. The new Reserve included some magnificent forests. The unusual Carolina Shagbark Hickory in this place was a regular feature, side by side with the ordinary Northern Shagbark. These forests of great hickories and oaks evoked a reverence in me. The towering columnar trunks suggested ancient temples. The understory of viburnums and hollies hid secret revelations. When I began to explore the interior regions of these forests, for most of the year it was impossible to see farther than a few arms' lengths. That meant it was easy to lose your way. With my compass, though, I never did.

Some years later when the large tract of land on Laurel Hill overlooking the Biological Reserve fell into the hands of a developer, I again acted on impulse. In the end, the developer and I found we had a workable compromise. The eastern slopes had no practical access

to municipal sewers and thus could not be used for new homes. By donating many acres of these slopes to the NC Botanical Garden Foundation, there was no real loss of real estate but instead a large tax deduction for the developer. Furthermore the real estate adjoining the newly donated land only increased in value. Development and conservation each lost some and gained some. As a result most of the forest on the eastern slopes, including some fine oaks and hickories, remained with the Biological Preserve.

I paid a price personally. My initial confrontation, despite the surprising compromise that resulted, made me seem too unpredictable to trust further. Since then I have had to watch the Biological Reserve from beyond the inner circles of administration. My efforts were instead devoted to delving into the secrets of the forest.

During this time, come what may from other interests, my students and I worked in the Biological Reserve year after year to study the behavior of its birds. Several of us knew the forests so well we could almost recognize each tree and each bird as an individual. This intimacy surfaced in some of my epiphanies, as I describe in later chapters.

To study bird behavior, we placed colored bands on the legs of many, so that we could tell individuals apart with certainty. We recorded their songs, mapped their territories, tallied their hierarchical social interactions, analyzed the interactions of pairs raising their offspring. There were many graduate students and some undergraduates too. The graduate students were there for the long haul to answer pivotal questions. The undergrads had projects perforce completed in one semester. They too counted, measured, recorded, and wrote reports, but they were under less pressure to find definitive answers (some lucky ones did!). Instead they had an enviable chance to try an investigation of some exciting but less numerous species or some spontaneous

possibility. Altogether the cast of participants was a good mix. How could it have been more fun! I had several epiphanies along the way.

Another of my assignments, after a retiring faculty member left me an opportunity I could not refuse, was to teach a course in the field biology of vertebrates. That meant the ecology and evolution, and just about anything interesting, about fish, salamanders, frogs, snakes, birds, and mammals outdoors. There were weekend field trips back and forth across the state, to the Great Smoky Mountains and to Hatteras Island, Lake Mattamuskeet and Highlands, sometimes to the Sandhills and the Green Swamp. So, in addition to vertebrates, sometimes plants, weather, oceanography, geology, even a bit of counseling snuck into the course offering. Graduate students came along to help with driving the vehicles and interfacing with the undergraduates.

Colleagues warned me that the risks of liability on these trips were too great. Fortunately, my wife, also a University employee, could join me, and she liked adventure too. Besides, we didn't really own enough to make a tempting target for a lawsuit. Also, just as I always checked my compass when heading off trail, I monitored our vehicles and our procedures compulsively. I retired after 110 of these weekend field trips, each with some 20 students, most undergraduate, some graduate, without a single injury to anybody. We had a couple of close calls, but alert graduate students saved us.

Mostly we had more fun than it is easy to imagine! And we saw more animals, once a Manta Ray in the surf, twice Red Wolves, and salamanders and swans beyond normal belief. More important for these essays, though, were the several epiphanies that resulted from these trips.

These essays also include two encounters that happened in Peru. For over fifteen years, I studied the songs of birds in Amazonian rainforests in northeastern

Peru. My wife often accompanied me. As a team of two, we recorded bird songs at dawn, in a replicated design, in some 20 different localities. Several graduate students, and one undergraduate, worked on short- or long-term projects in Amazonia at this time as well. However, the two Peruvian encounters described in these essays have nothing particular to do with our studies of bird song. Epiphanies are not planned.

One lesson I learned in Peru, often living for weeks in remote areas with local people, was both the advantage and the disadvantage of local experience. All of us, residents of Chapel Hill, North Carolina, as well as residents of the Rio Orosa, Loreto, Peru, know a lot about our neighborhoods. In Peru I could talk day after day with local people about the birds, animals, plants, and ways of life that they knew. Yet many did not realize that there were different kinds of birds, some of them astonishing and conspicuous, that lived not far away on the other side of the Amazon. As for me, even with funds to travel, I knew a lot about birds and people in North Carolina but had everything to learn about those in Peru.

It was not enough to read the books. Nor, I realized, was it enough just to travel. It was not enough to have someone else show me the sights and tell me all about some other place. I had to get off the path by myself and watch and listen. My encounters in Peru, as reported in later chapters, helped me to see another world. These two epiphanies thus provided me with a higher perspective. Those in North Carolina became subsumed to this higher one. Neither perspective was complete without the other.

So, dear reader, let's try some epiphanies of mine. Perhaps later you can tell me some of yours.



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