

My decision to give up teaching and research in biochemical sciences for ^acareer in photography was received by my family, associates and friends with the greatest skepticism as to its wisdom. Dr. Zinsser was especially disappointed and felt ^{that} ~~that~~ I was making a great mistake because he still had confidence in my ~~ability~~ research ability; if I would only stick to it ^{he said} I would make that "break-through" ^{convinced of} his expression for a significant discovery. I was not at all ~~sure~~ that and feared years of ~~entire~~ frustration working under the guidance of others for originality and inspiration. Members of my family were less concerned about my productivity, which they were not in a position to judge, than ~~the~~ what they perceived as the wasted years of specialized education in chemistry and biology and medical sciences. To give all that up was to renounce an expensive education and ^{ten} ~~a~~ dedication to science ^{year} ~~as~~ ^{wasted} ~~lost~~ years, ^{yet,} but I did not consider those years ^{wasted} ~~lost~~; they were my past, the foundation on which my future was based. Without ^{those experiences} ~~it~~ it would be impossible to ^{have} ~~predict~~ what course my life would ^{take}, least of all that it would be in photography.

That first winter in Santa Fe was a very productive time for me. ^{with} ~~under~~ the stimulation of a different environment, a dramatic landscape and a foreign culture. And with a new group of friends the pace of life was less rigid than it ^{had been} ~~was~~ in the academic atmosphere of Cambridge. We explored the country-side, ^{mountain} and the ~~hill~~ villages and ~~visited~~ ^{visits} ~~new~~ ^{new} ~~friends~~ ⁱⁿ ~~the~~ Indian pueblos, where we saw Indian dances for the first time. We visited new friends in Taos, ^{which was} ~~new~~ ^{who were} ~~for~~ artists and photographers in the Southwest attracted by common interest and a congenial society. In the spring Aline and I went on an automobile trip to Tucson and ^{northern} ~~southern~~ Arizona and later ~~with~~ ^{two friends} joined Cady Wells and Dorothy McKibben in an expedition to Havasupai, the Indian reservation in Havasu Canyon, ^a ~~tributary~~ ^{all right} of the Grand Canyon. That winter in Santa Fe I decided to apply for a Guggenheim Fellowship to photograph birds in color, ^{a result} ~~the~~ ^{consequence} of

to publish
 Paul Brooks' advice that a book of bird photographs ~~could not be published~~
 done
 they would have to be in color. I was advised by my photographer friends
 in Santa Fe that such a project was much too specialized to be considered
 by the Guggenheim Foundation, ^{and} that ^{receive favorable} an application ^{later} to be considered ^{would} ~~was~~
 have to be based on a much more general photographic theme like the
 photography of Weston or Adams. Nevertheless, a year later when we were
 living in Winnetka, Illinois, I was notified that my ^{request} application had been
 granted.

We stayed in Santa Fe only that one winter, returning ^{in May} ~~back~~ to
 Winnetka where my grandmother's house ~~which~~ had been occupied by my brother,
 Fairfield, ^{since} who had moved back to New York ^{Boston}, was now vacant. Aline's affinities
 were more with ~~the east~~ and Europe than mine; the Southwest was ^{a more alien} ~~stranger~~
^{place} to her than to me, harder for her to adjust to, and if we were ~~to~~ eventually
 to live in the west, ^{she preferred} ~~would prefer~~ to make the move ~~in a gradual~~ ^{returning} more
 gradually. But the most compelling reason for ~~going back~~ ^{another} was that she wanted
 going to have ^{another} baby ~~in July~~ and felt more confident about the hospitals
 in Illinois than in Santa Fe. Our second son, Stephen, ^{of July, 1941} was born on the 24th/
 -darkroom

The next ~~spring~~ winter in a small laboratory in Chicago I
 experimented ^{with} on making color prints from transparencies by an innovative
 Eastman Kodak Company ^{method} ~~process~~ called Washoff Relief, ^{ed} the precursor of ^{the} the
 dye-transfer ^{process} ~~process~~ but I first had to learn how to make separation
 negatives; ^{and consequently} ~~which~~ I read everything I could find ^{about it} in publications by
 Eastman Kodak, ~~and~~ ^{in the} photographic magazines and Journals of the
 Optical Society of America. When spring came with my Guggenheim Fellowship
^{was announced} ~~Tucson~~ ^{and my} ~~stopping in Santa Fe on the way~~
 I drove west to ^{begins} southern Arizona to begin photographing birds, where the
 season ~~for~~ ^{XXXX} began much earlier than in ~~Illinois~~ ^{that project} where
 and I continued the pursuit of the birds during the summer; ~~except for~~
 the summer months of 1941 and 1942 Winnetka was our home for ~~for~~ more than
 three years

~~the~~ years. ^{the} ~~Second~~ World War ^{WWII} had begun with ~~the German~~ Hitler's invasion of Poland, German troops had entered the Rheinland ^{and} by 1942 German forces had occupied France and England was isolated. The policy of the United States towards ^{the} Europe was ambiguous ^{on War} until the Japanese ^{of} attack on the United States in Hawaii. ^{and the United States had become involved with} ~~the Japanese~~ naval base/all was changed. On December 7 in a surprise attack

^{heavy} the Japanese destroyed a large part of the American Pacific fleet in ^{and all was changed} Pearl Harbor. ^{attack on} We heard the news on the radio Sunday morning. ^{and in that for one moment} Suddenly all ^{my} plans for the coming year ^{became} were worthless. I knew that photographing birds during war time would be an impossible pursuit but thought that my knowledge of photography might be of some use in the war effort, and with this hope I tried to enlist in the Air Force as a photographer. I went to Washington, where my brother-in-law held an influential position ~~to~~ in ~~enlist~~ the government, ^{ask} to enlist his help. ^{Although} He pulled strings and arranged interviews for me and my enlistment application was accepted ^{but} in the end I was rejected, ostensibly for minor physical reasons ^{but} although more likely because of my age. Then ^{that} in the summer my Harvard classmate Francis Birch, a geophysicist at Harvard with whom ^{in 1924} I had shared a hobby ^{going} adventure, arranged a position for me at the Radiation Laboratory in M.I.T. ^{because of my research experience} The Radiation Laboratory was a war time military ^{detection} establishment for the development of radar for air raid warning and naval operations. We moved back to Cambridge ^{where} and for two years my job was to schedule work in the machine shops for the engineers and scientists in my division. I soon found that it was ^{always} not easy to keep everyone happy because each person insisted that his job was of critical importance. During the two years I worked there the Japanese were driven out of the south Pacific islands, the Philippines were liberated, Rommel was defeated in North Africa. Italy was invaded, D-Day was the successful beginning of the liberation of France, the Americans won the Battle of the Bulge, the ^{Rhine} Rhein River was crossed and the Allied armies were advancing on Berlin. I resigned from the Radiation Laboratory as the war in Europe was drawing to a close and returned

Stated previously

to Winnetka but not to ~~my~~ my grandmother's house, which was ^{rented} occupied then-
 by my brother Fairfield. Following the surrender of Germany we went to
 our island in Maine ^{and} when in July, 1944 the first atomic bomb was exploded
 over Hiroshima. For two more years we lived in Winnetka. My father died
 in the first summer and mother ~~the~~ ^a year later, and since neither my sister,
 brothers or I wanted to live in the family houses ~~they were sold~~ on the
 lake front, they were sold. ^A Aline had agreed to move back to ^{New Mexico} ~~xxxxxx~~, so
 in 1945 I drove out to Santa Fe to look for a house for my family. ~~It~~
^{Since it} (was so soon after the end of the war ^{many} ~~that there were several~~ places ^{were} for sale,
 one of which ~~was~~ belonged to friends ^{from} of our first year in Santa Fe. ~~They~~
~~here~~ Ernest and Gina Knee, a photographer and a painter, ~~where we had~~
~~visited them~~. The house was in the rural community of Tesuque, a few miles
 north of Santa Fe, which appealed to me especially without ^{however,} considering that
^{this situation would mean} ~~with growing children that the xxxxxxxxxxxxxxxxx~~ ^{that} ~~driving them to school~~
 would become a routine responsibility. The house was ^{and} the right size for us,
 well constructed. ^{Aline} ~~with a studio for my wife and a small darkroom, but in need of much repair~~
^{had been} ~~and xxxxxx rented until 1946.~~ ^{the following year} The price, however, ~~xxxxxxxxxxxxxxxxxxxx~~
^{which ed} including some of the Knee's furniture ^{critical} was very reasonable, and I was able
~~xxxxxxx~~ to have the most ^{next} ~~important~~ repair work done during the following
 year, ¹⁹⁴⁶ ~~It was during this year, also, that our~~ ^{third son, Patrick, was born in February, 1946.}

We drove out to Santa Fe in July, 1946 with Jonathan and Steve, leaving
 Patrick to be brought out by train as soon as we were settled in our new
 house; ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ he was too young to be
 subjected to the ^{long} motor trip, which in those days ^{there were} ~~took~~ before interstate
 highways took more than a week. The children were very excited at the
 prospect of going west; Jonathan probably remembered ^S very little of his
 first winter in Santa Fe ^{but to} ^{who} and Stephen knew nothing about the wild west,
 it was a great adventure. Expectations were very high. When we crossed
 the border into New Mexico, we stopped by the roadside to let the boys ~~out~~
 to release their pentup excitement, and they ran about like colts first
 out to pasture.

Insert
B

Our new

~~The~~ house was situated on the west side of a fourteen-acre plot of land across which ran the Tesuque village irrigation ditch not more than one hundred feet west of the house. Cottonwood^{trees} and Chinese elms had been planted along the ditch to provide afternoon shade to the house in summer, and below the ditch ⁱⁿ a two-acre orchard, cherry, apple and pear trees had survived ^{during the} the four war years of neglect. The house was roughly H-shaped with the living room in the middle, three bedrooms and two baths on the south side, and a large studio, hall, dining room and kitchen on the north side. A store room and small photographic darkroom opened off the east side of the kitchen and beyond ^{that} there was a large workshop with ~~XXXXXXXXXXXX~~ an outside entrance ^{only}. ^{There was also} A two car garage ^{which} was a separate building from the house. Soon after we had arrived our furniture came in a van from Illinois, and after we were settled in ^{who was} six months old Pat was brought out by train. In addition to being a noted photographer, Ernest Knee was a skilled craftsman and carpenter. ^{He had done most of the carpentry for} much of the house he had built himself, including ^{many} the beautifully paneled doors, ~~and many~~ mullioned windows and corbeled vigas. It was in the workshop that Ernest knee kept his tools and did much of his carpentry and cabinet work.

The knees had no children, and we soon began to appreciate the difference between their requirements and ours. One of the first changes we made was to remove the partition between the store room and darkroom ^{in order} to make one large pantry and utility room. I needed a darkroom, so I built ~~XX~~ a larger one more suitable to my purpose as a separate structure attached to the garage. Carpentry and furniture making was an ~~XXXXXXXXXX~~ activity I had enjoyed ^{for which I} since childhood and had ~~XXXXXXXXXXXX~~ acquired over the years an adequate supply of hand and power tools. The workshop was, therefore, a very ^{useful} fortunate feature of the house. Eventually, however, the workshop was converted into bedrooms and a bath for the children, with an entrance through the utility room off the kitchen. For a workshop I closed in the garage, added a concrete floor and brought in electric power. A new

garage was ~~xxxxxx~~ built later. At first I shared the studio with ~~my wife~~ ^{Aline} but that arrangement proved impractical for a painter and a photographer, a situation which was remedied by ~~my~~ building a studio of my own attached to the darkroom. These ^{renovations} ~~reconstructions~~ and building ^{projects} ~~x~~ were not ^{all} ~~done~~ at once but were carried out over a period of years as the need for them became ^{apparent} ~~urgent~~. There was one requirement of a different kind that had to be met very early ^{and} ~~that was~~ the matter of transportation. The Station wagon in which we drove west had to ^{be} ~~be~~ available to ~~my wife~~ Aline, at all times, and I needed a vehicle for ~~my~~ photographic purposes. I learned that the Federal government was selling off ^{army field ambulances} ~~military equipment~~ ^{who was} ~~x~~ preferentially to veterans. My sister's brother-in-law, ~~xxx~~ a veteran, ~~xxx~~ ^{one} ~~he~~ offered to obtain ~~xxx ambulance~~ ^{ed} ~~for me.~~ The standard ambulances were four-cylinder four-wheel-drive Dodge trucks with rear doors. I fixed it up with two ~~fixin~~ folding bunks, a gas stove, sink ^{possible to use as} ~~and~~ water tank and storage cupboards. I also made it ^{convertible into} ~~convertible into~~ a darkroom. I could go almost anywhere in this vehicle on photographic trips and live ~~in~~ in it quite comfortably. After the war my Guggenheim Fellowship had ^{months} ~~been~~ renewed so that during the spring and early summer I devoted myself almost ^{those} ~~exclusively~~ to photographing especially ^{also} ~~high~~ in the mountains where many of the species were new to me. I went on birding expeditions to south Texas on the Rio Grande, to Michigan and Minnesota, and to the Chiricauha Mountains in southeastern Arizona.

Inspired by the New Mexico environment, I became interested in ~~other~~ ^{Photographing other forms of life} ~~fields of biological~~ ^{fields of biological} ~~photography~~, in particular ~~of~~ reptiles, spiders and insects. Jonathan and Stephen were fascinated by the abundance of wildlife around our house and would capture lizards for me to photograph, of which fence lizards, race runners and horned toads were the commonest species. I photographed them in natural settings, but because they were always very active and hard to control, I would cool them off in the ice box before placing them in an appropriate position, and as they warmed up and again became alert, I would photograph them before they dashed off. Snakes of a number of kinds were not uncommon where we lived ^{of which the} ~~of which the~~ bull snake ^{were} ~~was~~ the most docile.

and could be ^{easily} handled because they liked the warmth of the human body. For several years Jonathan kept a bull snake, which he carried around with him under his shirt. ^{Although} We never saw rattlesnakes at the 7000 ^{feet} altitude of Santa Fe, ^{could be found} but they did occur in the Rio Grande canyon west of us. Bull snakes had to be fed on mice, ^{which were} easier to raise than to trap, ~~not~~ the most pleasant ^{keeping a pet snake} desirable aspect of ^{their captivity}.

^{was} Late summer ~~xxxxxx~~ when they were most abundant ~~was~~ the most favorable time to photograph spiders and insects. The best way was to photograph captured individuals in my studio with controlled illumination and in natural environments brought in from outside ^{days} which because of the small size of the subjects was not difficult to do. My children brought me all the strange creatures they found - strange to them and some ^{even} strange to me - from grasshoppers ^{katydid} ~~xxx~~ beetles and wolf spiders to praying mantises. I particularly wanted to photograph tree crickets stridulating. They are the insects that produce the buzzing ^{sounds} at night, ^{from whose frequency} the frequency of which one can estimate the ambient temperature. Jonathan and Steve were able to capture tree crickets for me, and I set up late into the night with a recalcitrant individual perched on an elm tree branch in front of my camera with flash lamps set for the moment it ~~xxx~~ should be inspired to do its stuff. After a long wait it raised its wings vertically above its back and began to rub them together, revealing its technique for stridulation, which varies from species to species of the orthoptera order, some of which do it with their legs.

Insert C
"Insects" When ~~the~~ ^{our} children were older, ^I took them on camping trips around the Four Corner states, ~~to~~ The Grand Canyon, to the National Parks in southern Utah - (Zion and Bryce) - and to the San Juan Mountains in southern Colorado. The ghost towns of Silverton and ~~Buray~~ ^{which were slowly falling into} ~~xxxxxx~~ being abandoned, ^{had been} ~~were~~ the centers ^{for} ~~there~~ extensive mining in the San Juans, ^{and} ~~where there were~~ many deserted mines, ^{The are now} an attraction to me as a photographer and to the boys for souvenir collecting. We camped in some of the deserted ^{mine} buildings and drove on old mining roads

most remote mines to the ~~top of some of the barren mountains~~. Some of ~~the~~ ^{these} mines appeared to have been abandoned on short notice ~~for~~ ^{since} the machinery was still in working condition. One of the longer camping trips I took ~~the~~ ^{with} the boys ~~xx~~ was to ~~the~~ Yellowstone National Park. ~~Of all the~~ ^{most} spectacular phenomena of ~~t~~ ^{none of these} the park, ~~the~~ ^{the} ~~gysers and hot springs and mud pots~~ ^{more than as much as} ~~xxxxxx~~ ^{which} ~~xxxxxx~~ ^{encountered} ~~xxxxxx~~ ^{the boys} ~~xxxxxx~~ ^{were} the black bears/ ~~everywhere~~ ^{everywhere} begging for hand outs and upsetting trash cans, fearless but not tame ^{and not to be} trusted ^{a circumstance situation} ~~which~~ ^{the boys} I had to impress on them. ~~At camp sites the boys slept in~~ ^{set up} ~~the ambulance and I slept in a tent I pitched beside it~~. The bears often came into the camp sites at night foraging for food and would make a great racket knocking about a food container, ^{inadvertently} that had been left out, trying to break it open. I always had the boys sleep in the truck while I slept in ^{beside} a tent ~~xxxxxx~~ ^{in a crowded} ~~xxxxxx~~ ^{our camp fire}. One night ~~xxxxxx~~ ^{when} ~~the camp site~~ ^{xxxxxx} several bears ~~xxxxxx~~ ^{xxxxxx} were making a tremendous commotion ~~xxxxxx~~ ^{xxxxxx} with trash barrels ~~and the boys were exchanging xxxxx to frighten the boys away~~ ^{while} as they tried to break ~~them open~~ ^{and} and the campers were banging on tin pans to frighten them away. ^{as} a lone bear stuck his nose in my face ~~where~~ ^{ing} I was lying with my head near the open flap of the tent. I hit him ~~and~~ ^{and} shouted to drive him away. ~~I was~~ ^{and} thankful that the boys were in the truck where they slept through it all.

A few years after moving to Santa Fe I realized that I needed a more maneuverable vehicle ~~for~~ ^{and} bird photography to get me ~~with~~ ^{and} my increasingly elaborate equipment into the ~~xx~~ roughest terrain. For this purpose I purchased a universal Jeep with a canvass top, the civilian counterpart to the original Military Jeep. The price was \$1400 ~~and~~ ^{and} in this vehicle I was able to drive across country and high into the mountains in search of the more uncommon and elusive birds. ~~But~~ I also took the Jeep on some of the camping expeditions with my children and their friends by towing it behind the ambulance. On one ^{Such} camping trip to the San Juan Mountains I drove the Jeep to the top of Engineer Mountain, a barren peak beyond the capability of

a larger vehicle, and to Stoney Pass between the ~~watersheds of the Rio~~
 Grande and the San Juan River watersheds. On ^{another} one of these expeditions,
 while I was photographing the ~~Highland Mary~~ abandoned Highland Mary
 Mine, Jonathan and his cousin David, were ^{searching} ~~exploring~~ the mine buildings for
 souvenirs ~~there~~ and discovered a case of dynamite which they carried out
 and put in the Jeep to use for some illconceived ^{use purpose} ~~experimental~~ purpose.
 When I discovered it shortly ^{there} after, I was horrified and made them put it
 back, much to their chagrin and disappointment, since they considered the
 find a great treasure.

Some summers we went to Maine, to Great Spruce Head Island, which
 to ~~the~~ ^{our} youngest ^{child} was the epitomy of Maine, ~~was Maine itself.~~ On one
 occasion Aline went by train ^{with Pat} ~~or plane~~ and I drove east with Steve and Jonathan
 in the ambulance. With us we had a little black dog named "Inky" that we
 could not, of course, leave behind ^{in addition, to we had} ~~including~~ an assortment of other pets
 and animals, including Jonathan's bull snake named "Roosey," as well as, I ~~believe~~
 believe, a hamster or two. In the Midwest we saw many box turtles crossing
 the road as though on ^{a mysterious} migration, and we picked up one. The top speed of
 the ambulance was 45 mph so that we were constantly being passed by all
 passenger cars ~~and began to move~~. The boys could ride in front with me
 but usually preferred to be in the back where they could play or lie on the
 bunks. I began to notice while driving through the plains states that
 the people ~~in~~ the cars ^{ing} that passed us were often laughing and wondered what
 was so amusing, ~~and~~ thinking it might be the ambulance, ^{then} until I discovered
 that as the cars approached, Jonathan and Steve ^{were} ~~would~~ ^{ing} hold their pets up to
 the rear window one at a time to show the people in the passing cars. We
 stopped one night at a motel near Cincinnati and took Inky in with us to feed
 him, ^{leaving} ~~and left him there~~ ^{in our room} while we went to the restaurant for supper. We
 had ^{gone} ~~not~~ gotten far when we heard the most distressful, heartbroken, anguished
 sounds coming from our room and ^{um} ~~returned~~ ^{ing} immediately ^{found} to find Inky trying to
 claw his way through the venetian blinds. He must have thought we had
 deserted him in that strange environment. We put him in the truck where he

was perfectly ~~xxxxxxx~~ happy while we had our supper.

Once in Maine,
^{we had} ~~long on the island~~ ^{barely settled in} when Nosey, the bull snake, escaped. Jonathan was very

distressed, but we knew he wouldn't starve. On the day before we were to leave, Nosey was discovered under one of the apple trees, having grown considerably on a diet of voles, which are abundant on Maine islands.

He was the first and only bull snake that had ever enjoyed such a salubrious summer on a Maine island, where his only relatives were the green and brown meadow snakes. Jonathan brought him back to his native land, where he would not have to contend with the hardships of a New England winter.