

Horse trail walk at Pea Ridge – October 17, 2021

Crisp fall day with cloudless skies throughout. Start at the high overlook lot and east along the trail on the sandstone rim. Notice the large old post oaks just up from the overlook. Gnarled and battered oaks and junipers with views into the tumbled moss-covered slabs of stone below at the start. Pear-shaped nuts underfoot are attributed to a single Texas hickory among the many mockernuts. Down through a creep-widened cleft in the rock and into woods dominated locally by shumard oaks that have left many of their large acorns lying on the trail. Connect onto the horse trail right by the isolated bur oak identified on a short investigation last year. Soon discover the deeply burned-out hollow at the base of a big white oak – probably left by the loss of a second trunk many years ago. An opening big enough to allow a small bear to hibernate, especially if it extends up into the base of the surviving stem. From here a strange-looking mound of small rock slabs below the base of the sandstone ledge looks out of place, even if completely covered with moss and obviously not a recent creation. Inspection shows a berm out about 25 feet out from the base of the main ledge as if this were once some kind of earthwork – certainly old enough to be deeply moss covered so could date to the 1862 battle. Then follow the trail looking like an old road with parallel ruts through older second growth woods on the north-facing side of the ridge dominated by white and northern red oaks. No white oak acorns at all but a heavy crop of big acorns from the latter. The disturbed nature of the woods indicated by occasional sycamore, walnut and mulberry trees, but not much Ohio buckeye that is so abundant closer to the park scenic drive.

The combination of recent heavy rains and the nutrients provided this summer by widespread ground fire has resulted in a thick growth of sea oat grass and smartweed in and around the trail. Otherwise, there are wonderfully clear views through a mostly brush-free understory towards the line of sandstone ledges on the left and slope down to the right. Dogwood and the occasional serviceberry the main understory trees. Locations with deep red oblong leaves underfoot show where tall and sometimes spindly back gums have shed their leaves. White ash mixed in with the oaks and mockernut showing no signs of crown damage from ash borer and some are shedding leaves almost as colorful as the gums. Mockernut also has a bumper nut crop with lots of exposed nuts and large pieces of thick husks. After a couple miles the terrain changes in that the ledges look to be getting steeper and boulder sized slabs of rock have slipped down the slope to be lodged at trail level. Come upon an impressive grouping of large mushrooms from a distance looking much like chicken-of-the-woods. But closer inspection notes the brownish color and the shape of each individual stem more like a parasol than a shelf. The biggest clump is astride a sawed-off oak stump barely a foot in diameter and there are six additional clusters just as big spread over an area of about ten feet in diameter. From the large size of individual mushrooms, the color, and flat slightly concave tops conclude this is varying collybia (*Gymnopus biformis*), a fall fruiting species known as a litter decomposer (so association with the stump probably incidental). Also suspected of having psychedelic properties.

Then the trail encounters a pair of little rugged ravines. The first has a remarkable black gum snag – top broken off about 25 feet above ground and a couple of modest branches spreading out from old, healed knots at the break. The trunk has modestly scaled bark almost like that of an old sycamore instead of the alligator scale pattern typical of mature specimens of that species. Even more interesting, the old tree is growing right out of the drainage channel so that any flowing water acts to scour the roots. The result is a knobby clump of burls and big old, exposed roots and a channel of dead wood eroded away from one of them. The big snag is surrounded by other tall and spindly gums with colorful dogwood underneath. Wonder if the adjacent gums originated as root sprouts like those I remember seeing in Connecticut. Some big northern red oaks on the adjacent slopes. Hydrangea growing out of the moss on boulders and from the tip-up mound where a giant red oak has been toppled to lie diagonally downhill. Thick bed of Christmas ferns between rocks along the drainage channel. Startle a large armadillo here sporting an abbreviated tail from some earlier mishap.

The second ravine has much the same scenery without the gums. One deep scour hole right by the trail is a foot deep and contains a few tadpoles and water striders. How could the latter find this isolated bit of habitat which must be dry much of the time? The pool is just a basin in tumbled rocks no more than three feet long and a foot deep. A little investigation shows these are carnivorous insects that can develop wings and flying muscles used in dispersal. But it must have been quite a feat to discover this isolated upland body of water. The greenish tadpoles are not solid black like those of toads and a bit bigger, so must be some other species (tree frog?). More big brown mushrooms but clusters partially decayed compared to the first big patch found earlier. In the ravine area the steeper slopes below the ledges start to contain shagbark hickory with its distinctive bark and association with more fertile, clay-based soil. In contrast, no bitternut which is the abundant hickory species of moist ravines on the Springfield Plateau.

Not far beyond the trail climbs diagonally up through the rocks and onto the flat plateau above. This is open post oak woods with black oak and mockernut associates. Quite a bit of white ash and winged elms mixed in with poorly formed walnut and even a few northern red oaks. No more smartweed but still lots of sea oats on this better drained site where the trees are generally smaller being not much more than a foot in diameter and not nearly as tall. With the vegetation underfoot and the sparse trail markers the trail is soon lost. Try ranging around ahead to see if it can be picked up but no luck. Keep coming to a steep ledge twenty feet high and figure the trail must follow the rim somehow and then cut down – yet can't find where. But this does mean that there is some interesting terrain out there where the map shows the trail swinging way out to the northwest. Perhaps worthwhile trying to hike in from the road crossing at the other end.

My recourse is to walk a compass line straight south to meet the road and return that way. The compass being the shadows of trees with the sun lying almost directly south at the time. Wonder about a small pond shown there on the map – natural slump, livestock tank or wildlife

enhancement? But don't intersect it. This is a chance to look for advanced reproduction and see many clusters of post oak stools with lush re-sprouting after the earlier burn. Patches of a low herb with oblong leaves and tiny clusters of pale blue flower in more open places. You can see places where red cedar has been cut down and the remains partially consumed by the recent fire. Probably a bit less than a mile to get to the road. Come back looking into a scrubby forest on the plateau on the left and bigger oaks on the upper slope to the right. One especially big northern red oak on that side and wonder if it grew faster or got established before the other trees. Scrubby blackjack oaks on the left mostly full of acorns. White ash along the road here shedding leaves but no obvious sign of borer attack as suspected at other places in the park.

Return Visit to trail to find the other end – October 26, 2021

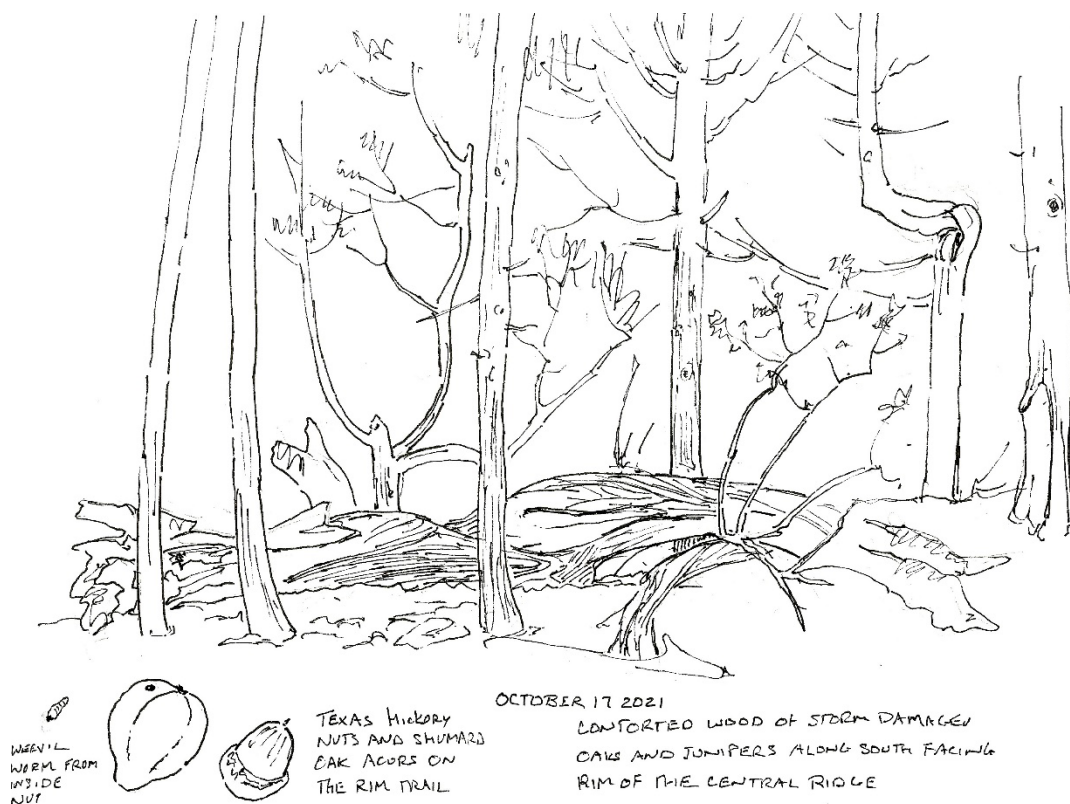
Extensive patchy clouds early with later sunshine and southerly breeze. Park at the western overlook and head off across the road in the NNW direction to intersect the trail beyond where it was lost earlier. Have to plow through some brush in the form of greenbrier, blackberry and even lespedeza. Tough going with signs that a lot of red cedar has been cut and piled to burn in the summer's controlled burns. This requires wandering a bit to either side to avoid the worst of it, including a shallow pool surrounded by muddy ground showing the tracks of deer, racoon, and coyote. Flush a woodcock from one of the thickets. The trail is obvious when we strike it in wonderfully brush-free savannah-like post-oak woods just before reaching the ledge line. Now recognizing that the mountain "plateau" has a large peninsula off the to the north, follow the trail eastward and away from the ledges with deer flashing through the woods below. It helps that the markers are all on our side of the trees. Soon afterwards the trail heads diagonally down through the sandstone to follow an old road along the base of the rocks.

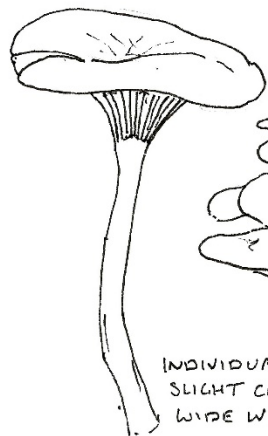
From here on it's repeating the earlier walk in reverse through older second growth dominated by mockernut, white oak and northern red oak. Mockernut husks/nuts and red oak acorns every bit as abundant as before underfoot. Find a female three-toed box turtle in the trail near the first of the two ravines. Dogwood seems a bit more colorful than earlier but discouraged to see so few pre-formed flower buds among the leaves portending a lack of flowering come spring. The little pool in the rocks seen earlier has a dozen pale green tadpoles nestled on rocks, but a substantial frog (either green or leopard) plops in from the banks suggesting the origin of the tadpoles. Just beyond the slope is dominated by shagbark hickory which is otherwise missing and testimony to the ability of trees to find isolated pockets of their favorite habitat – in this case rich, moist silt substrate. A spectacular display of big mushrooms in various stages of emerging from the litter found not far beyond. These are big mushrooms developing into 10-inch flat-topped "parasols" with bright yellow-tan color and no flecks like so many of its amanita relatives. My best guess is *Amanita arkansana*, previously confused with American Caesar's mushroom (*A jacksonii*). Then a really unusual example of natural grafting where one white oak partially broken in some long-ago ice storm has leaned against a nearby

tree of the same species to develop a fusion of the cork cambium of the two so as to form a continuous bark surface connecting them.

Continue up the foot trail to the east overlook through the rugged ledges with more deer flashing by. On the way check out the big old oak with impressively rugged and spiraling bark that I thought might be a bur oak. But looking up into the leaves see that they are all characteristic of post oak. This must have been an isolated tree in some long-ago pasture, probably dating to before the civil war which was only less than two centuries ago – not long at all if you are a sturdy oak tree. This tree does not have any stubs from dead lower branches to suggest it once grew in the open, but one other massive white oak seen earlier clearly shows that effect and must also date to before the war.

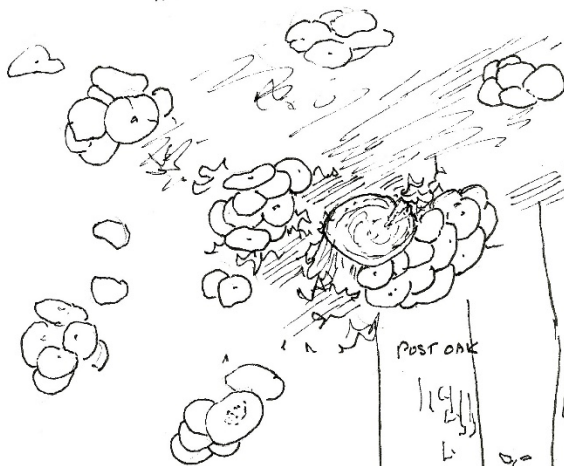
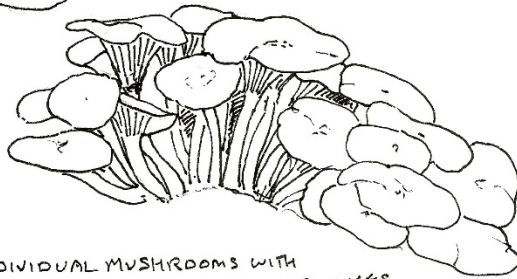
Return along the same route instead of taking the less scenic road but decide to cut across sooner to avoid all of that brush and greenbrier we encountered on the way out. Much more pleasant but encounter the ghostly white carapace of a dead box turtle reminding me of my fear that the frequent controlled burns here must take a toll on that favorite reptile. That means only a short walk along the road, stopping to encourage a brightly colored green grass snake to get off of the road.





INDIVIDUAL MUSHROOMS WITH
SLIGHT CONCAVE CAP UP TO 10 INCHES
WIDE WITH LONG FIBROUS STALK

CLUMPS OF MUSHROOMS
TIGHTLY PACKED TOGETHER



CLUSTERS OF FLESHY
BROWN MUSHROOMS
SPREAD OVER AREA ABOUT
10 FEET IN DIAMETER

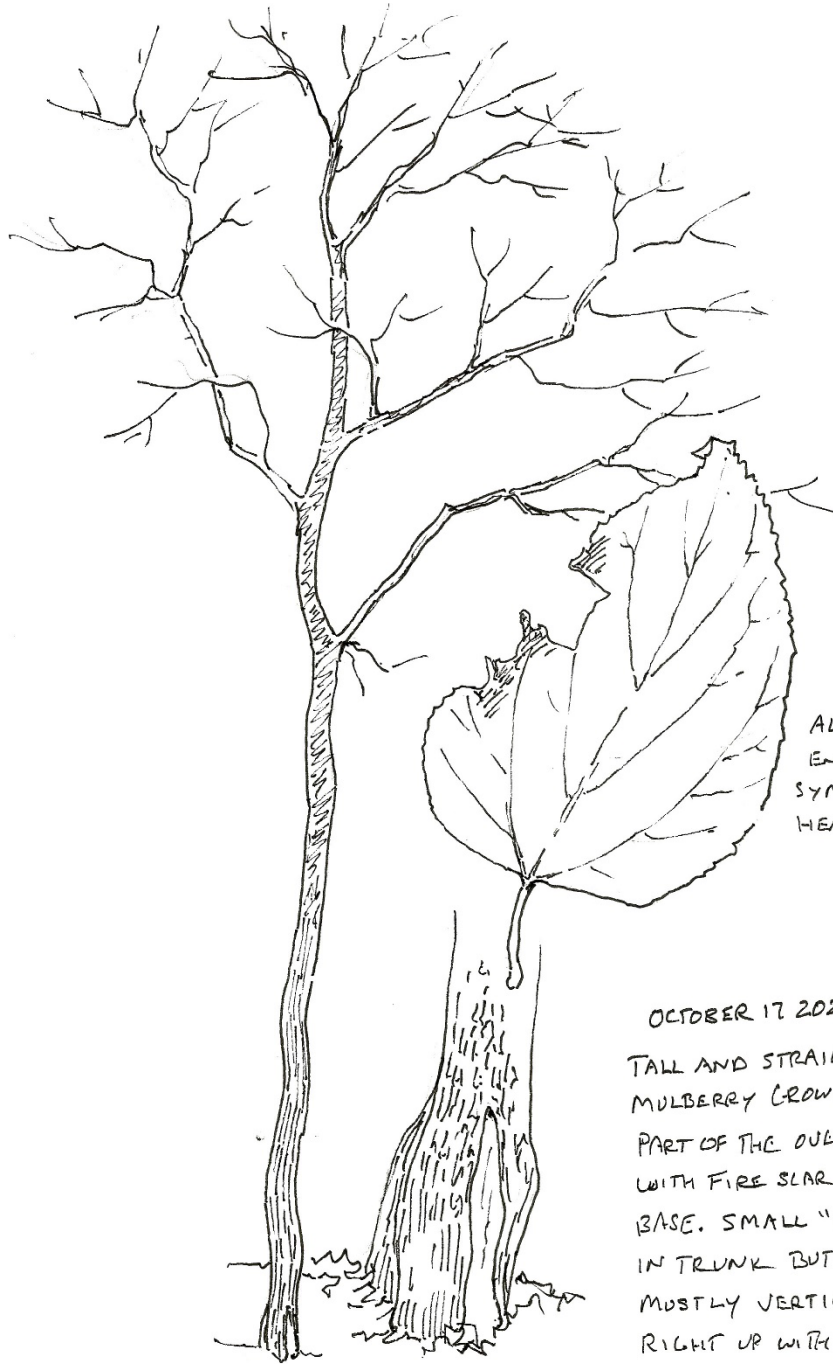


HOLLOW AT BASE
OF BIG WHITE
OAK BIG ENOUGH
FOR A BEAR



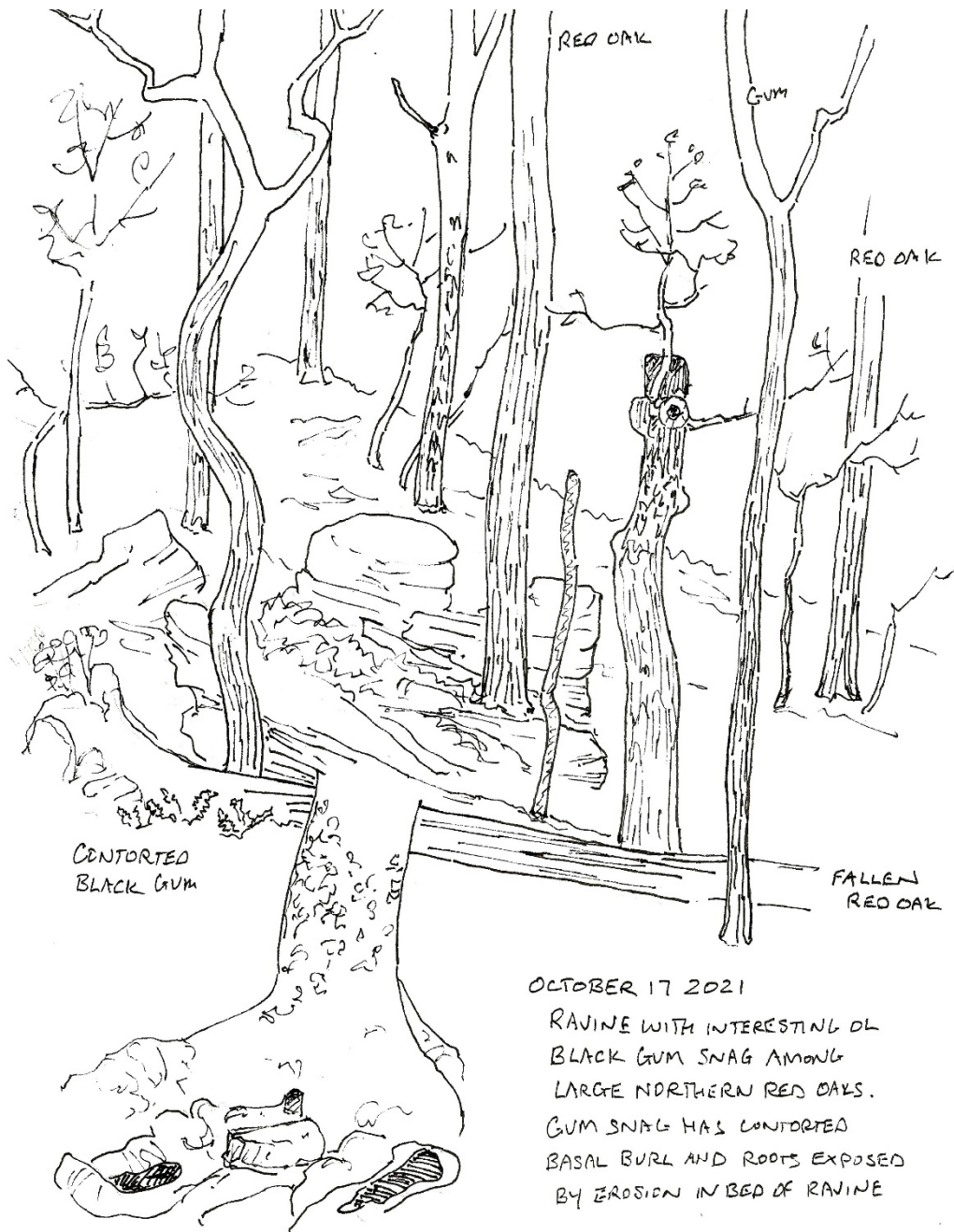
OCTOBER 17 2021
HORSE TRAIL ON NORTH
FACING SIDE OF THE
UPLAND AT PEA RIDGE

POST OAK
SPICEBUSH
SPRIG



ALL LEAVES
ENTIRE WITH
SYMMETRIC
HEART SHAPE

OCTOBER 17 2021
TALL AND STRAIGHT
MULBERRY GROWING AS
PART OF THE OVERSTORY
WITH FIRE SCAR ON THE
BASE. SMALL "WAVES"
IN TRUNK BUT STILL
MOSTLY VERTICAL AND
RIGHT UP WITH REST OF
OVERSTORY.



OCTOBER 17 2021

RAVINE WITH INTERESTING OL
BLACK GUM SNAG AMONG
LARGE NORTHERN RED OAKS.
GUM SNAG HAS CONTORTED
BASAL BURL AND ROOTS EXPOSED
BY EROSION IN BED OF RAVINE

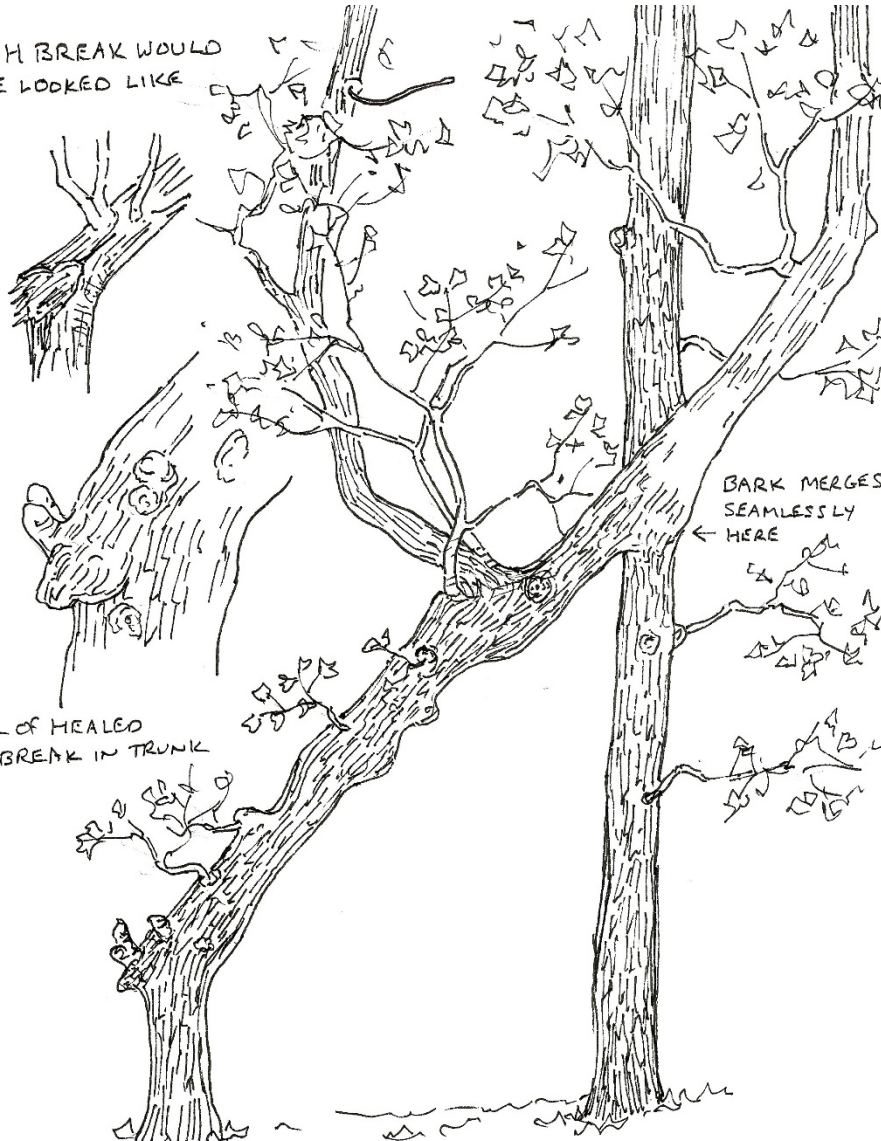
FRESH BREAK WOULD
HAVE LOOKED LIKE
THIS

DETAIL OF HEALED
OVER BREAK IN TRUNK

BARK MERGES
SEAMLESSLY
HERE

OCTOBER 26 2021

WHITE OAKS ALONG TRAIL WITH ONE COLLAPSED AGAINST THE
OTHER LONG AGED AND BARK NOW FUSED ALMOST SEAMLESSLY



AMANITA ARKANSANA
AMERICAN CAESARS MUSHROOM



OCTOBER 26 2021
LARGE YELLOW-BROWN MUSHROOM ERUPTING
FROM OAK LITTER JUST BELOW SANDSTONE LEDGES