

Appendix A

The parks along Doan Brook offer a wealth of places to explore and opportunities for recreation. This general brook tour will give you an idea of some of the possibilities so that you can begin to explore on your own. If you are specifically interested in history or geology, see the tours in Appendices C and F. We begin at the mouth of the brook on Lake Erie and work our way upstream.

A.1 A Lake Erie Picnic: Gordon Park and the Brook Beneath

Doan Brook once ran through a beautiful landscape in Gordon Park and entered Lake Erie in the midst of a popular public bathing beach. The landscape of the park is less manicured now, and the brook is nowhere to be seen, having been buried in a culvert during the construction of I-90. Gordon Park is nonetheless a good spot for a picnic on the lake with a view of downtown Cleveland and for a bit of lakefront fishing. Public boat ramps are available if you want to venture out onto the lake.

When you've finished your picnic, walk east from the boat launch area and up the hill. The overgrown and fenced area on your left is the Corps of Engineer's Site 14 dredge spoil area. Doan Brook now flows into Lake Erie through a culvert buried deep beneath the fill. As you walk up the hill, you will see a large concrete vault on your left inside the dredge spoil area fence. This vault gives access to part of the culvert that contains the brook. Imagine how Gordon Park might be transformed if Doan Brook flowed in the open once more and the park and the dredge spoil area were landscaped around it! Bringing the stream to the surface may be too difficult, but Holden Parks Trust would still like to make Site 14 into a park. Others support the idea that the area should be maintained as a sanctuary for birds

and other wildlife. Although it is closed to the public at present, it supports an extraordinary variety of migratory and nesting birds (see Appendix G).

If you follow the bike path to the top of the hill, you'll find another piece of Cleveland Lakefront State Park sitting on a bluff overlooking the boat launch and the dredge spoil area. This, too, is a good place for a picnic. There are an Ohio Department of Natural Resources Office, a few tables and grills, and some play equipment. You can also reach this area from Lakeshore Boulevard. Take the first driveway east of the Martin Luther King, Jr., Boulevard (MLK) interchange with I-90.

There is more of Gordon Park south of I-90, although this part of the park has not been as heavily used since the freeway severed it from the lake. The only automobile access to the park is from East 72nd Street. The abandoned Cleveland Aquarium building is here, as are a number of tennis courts and baseball fields. There is a good view of the lake as well. The footbridge across I-90 that connects the two pieces of Gordon Park is infrequently used and overgrown, and pedestrian access from one part of the park to the other is generally via the MLK underpass.

A.2 I-90 to East 105th: Rockefeller Park and the Cultural Gardens

Rockefeller Park Greenhouse

Tucked away on the east side of Doan Brook just south of I-90 is the City of Cleveland's Rockefeller Park Greenhouse. To get there, turn east from MLK just south of the Conrail tracks (the last of the historic stone bridges over MLK). The greenhouse, completed in 1905, was made possible by a donation from John D. Rockefeller. The 4-acre site includes indoor and outdoor gardens. There are a number of shows each year, including seasonal flower displays and flowering orchids. It's a great place to warm up in a bit of the tropics on a Cleveland winter afternoon!

As you walk around the outdoor Talking Garden for the blind and Japanese Garden, note the two large mill stones that are garden centerpieces. Although the history of these stones seems to have been lost, it is likely that they came from the Crawford sawmill that was once located on Doan Brook near Superior Avenue, or perhaps from the Cozad grist mill that was located near Wade Park Lagoon.

The Bike Path and the Cultural Gardens

A shaded bike path winds along Doan Brook through Rockefeller Park and the Cultural Gardens (between St. Clair Avenue and East 105th Street). The path is flat (it's in the Lake Plain!) and has few road crossings — an ideal place for a leisurely ride or stroll. You can stop along the way to explore the gardens adjacent to the path or detour up the hill to the east to see the gardens that face East Boulevard. Historic stone bridges designed by Charles Schweinfurth in the late 1800's span the path.

Note the shape of Doan Brook's valley — a shallow, broad "U" cut into the surrounding landscape.

As the path crosses and re-crosses the brook you will see that the stream that once meandered back and forth to cut the valley is now confined in stone-walled rectangular channels. Near Superior Avenue, the stone channel walls have been replaced with steel sheetpiling. What would the park be like if the brook could be restored to a more natural channel? If you look at the stream valley just upstream from Superior, you will see that there is barely room here for the road and the existing channel. It would be very difficult to restore a more natural stream in the confined space available at this point. Other parts of the valley are wider and offer more possibilities for restoration.

As you move north, you will note a number of places where the stone retaining walls along the stream are damaged. Two good examples are north of Ansel Avenue on the west side of MLK and north of Wade Park Avenue on the east side of MLK. At the Wade Park Avenue site you can see that the brook has sometimes escaped from its banks and worn away at the bank behind the walls.

Near East 105th Street you will find a playground and public tennis courts, as well as the Rockefeller Park Lagoon. Notice that the brook detours around the lagoon, which is filled with treated water from the City of Cleveland.

If you continue upstream from East 105th, past the cancer survivor's monument all the way to the outlet from the University Circle culvert, you will come to one of the areas where the stream channel was stabilized and restored in 1999 using a "biorestitution" approach. You can also reach this area by parking on MLK along

the west side of the Wade Park Lagoon and walking down hill (north) until you see the brook appear to the right. Beginning at the outlet of the culvert and continuing for about 100 yards downstream (to about the point where a chain link fence comes near the bank), a series of three pools has been created in the brook using natural stone. The pools and the riffles between them are intended to aerate the brook water as it emerges from the culvert and to create a natural environment where macroinvertebrates can thrive. The west bank here has been stabilized by embedding large tree trunks in the bank and by planting scrub willows and other native vegetation. New trees and bushes were also planted on the banks.

A.3 Wade Park and University Circle: Cultural Institutions and the Culvert

Although Doan Brook was once at the heart of Wade Park and University Circle, you'll be hard-pressed to find a trace of it there now. The University Circle culvert carries the brook underground between the Cleveland Museum of Art and the base of the main, steep hill of the Portage Escarpment. Keeping in mind that the brook is beneath your feet, you can stroll around the Wade Park Lagoon (the culvert runs just along the west side), play Frisbee on Wade Park Oval, visit the Cleveland Museum of Natural History, play in the Cleveland Botanical Gardens' playground, stroll through the herb and Japanese gardens, take in the art museum, explore history and the antique cars and planes at the Western Reserve Historical Society and Crawford Auto Aviation Museum, check out the Children's Museum of Cleveland — and much more.

As you enjoy Wade Park and University Circle, imagine how the area might look if an open brook once again formed the heart of the parks. A design sketch prepared in 2000 suggested that the brook might be brought above ground and might some day cascade into Wade Park Lagoon. Although this is an appealing idea, it would be very costly. In addition, it will be necessary to significantly improve water quality in the brook before it can be allowed to flow through Wade Park Lagoon. The lagoon is a clean and appealing lake now because it is filled with treated city water. With current water quality in Doan Brook, the brook's waters would leave Wade Park Lagoon choked with unsightly vegetation.

A.4 Up the Hill Through Ambler Park

Ambler Park carries the brook up the steepest part of the Portage Escarpment. As you walk through the park, it is clear that it was once a showpiece of the brook, complete with WPA-built stone paths and steps along the cascading stream. Ambler Park has suffered over the years, though. It has become isolated by heavy traffic on the adjacent roads (MLK and Fairhill Road), the lower part of the park has been filled in, and the upper part has been given over to the MLK detention basin. There is little parking nearby, and to reach the park on foot or by bicycle you must brave some difficult road crossings.

It is still interesting to explore the park, though. **Take a friend for safety (this area is isolated and often deserted) and wear sturdy shoes.** You can reach the park by bicycle or on foot from the path along Fairhill, or you can park on one of the side streets near the intersection of North Park Boulevard and MLK and walk down the hill.

Beginning at the lower end of the park, opposite the intersection of MLK and Ambleside, you will see an open field screened from the adjacent roads by trees. The brook used to flow here, until it was covered with fill material from the excavation of the Baldwin Filtration Plant reservoirs. Walk upstream (southeast) through the field and you will come to the entrance to the University Circle culvert. The inlet isn't too exciting most of the time, but it can be fairly interesting in a flood.

If you continue along the brook from the inlet, you will find yourself in a hidden valley surrounded by tall trees. Traffic on MLK and Fairhill rushes faintly by overhead, seeming far away. The brook is confined in a stone-walled channel here, but it has eroded under the wall in many places, and the wall has collapsed in a few.

It is difficult to walk up the brook through the park, now, because the stepping stones that once crossed the stream have crumbled. You can either continue along the south side as best you can or go back past the culvert inlet and then follow one of the roads up the hill. There is a paved path along Fairhill. From the top of the hill, where MLK crosses the stream, you can get a good look at the MLK detention basin. If you walk back down the hill toward the detention basin dam, notice the design of the basin: It has an outlet at the base to allow the stream to pass through during low flows and a large dam to back the stream up during floods. Unfortunately, the relatively large culvert at the base of the dam (6.5 feet high by 9 feet wide) will not detain sufficient water to have much impact on any but very large floods (see Chapter 7 for more discussion).

If you are adventurous, you can climb over the crest of the dam and explore the old WPA stone pathways on the northeast side of the brook

below the dam. Some of the paths have crumbled away, and the steps lead nowhere, so proceed with caution.

A.5 MLK to Coventry: The Gorge and The Old Stone Grist Mill

Warning: Some parts of the Doan Brook gorge can be dangerous. In the steeper areas of the gorge, you can fall over 40 feet from the top of the slope straight to the stone floor below. A Shaker child was killed in such a fall in 1834. Slopes elsewhere are steep and slippery, and the rocks in the streambed can be slick with moss or ice. Rock walls overhang the stream in some places. Explore with caution.

The reach of Doan Brook between MLK and Coventry Road is hidden, but it is the most scenically dramatic part of the stream. In most places, walking or driving along the upper banks (on North Park or Fairhill) reveals little of the character of the gorge. You have to climb down to the stream to see the valley it has created. You can enjoy simply exploring the gorge, or you can go there to see what the brook has revealed about the geology that underlies the watershed or to explore the remains of the Shaker stone grist mill or one of several stone quarries. Tours of the brook's historic sites and geology are included in Appendices C and F. A few sites of particular interest are described below.

The Trash Rack and the Lower Gorge

If you climb down the slope immediately upstream (east) from MLK and North Park Boulevard you find yourself overlooking a wide spot in the brook channel. If the City of Cleveland had built the MLK detention basin

according to their original proposal, you would now see a 40-foot tall, 20-foot diameter vertical concrete pipe sticking into the air in front of you, with its top almost as high as the top of the roadway embankment behind you. During a flood, water would have backed up until it overflowed the top of the vertical pipe, filling the gorge in front of you (about as high as the top of your head) with water. During normal flow, a small outlet at the bottom of the pipe would have allowed the brook to pass.

Since these plans for the detention basin were defeated by public opposition, what you see instead of an enormous vertical pipe is simply the brook crossed by an odd-looking concrete and steel structure. This structure, which looks like a giant set of concrete highway barricades with steel I-beam teeth sticking out of the top, is a *trash rack* that is intended to catch branches and debris that are carried by Doan Brook during floods and prevent them from clogging the culvert under MLK or the University Circle culvert farther downstream. During normal flow, the stream should pass through the gaps between the concrete sections. However, the brook frequently erodes a new channel around one end of the barricade (generally the south end), so that the main flow goes around, rather than through, the trash rack, rendering the structure much less effective for catching debris. Erosion along the downstream base of the trash rack indicates that considerable quantities of water have flowed over the rack at times, and debris caught on the upstream side shows that the rack is not completely ineffective.

Walking upstream from the trash rack quickly becomes difficult. If you persist, you pass through a wooded gorge where the stream has cut through sloping layers of shale and sandstone. However, this area of the gorge is more

easily approached from the sandstone quarry farther up the brook.

Sandstone Quarry and Bank Reconstruction

If you walk up North Park Boulevard from MLK, you can follow the top of the gorge as far as Delaware Road. As you walk along, you may notice bronze medallions set in concrete at the bases of a number of the trees. Eight hundred and fifty of these markers and the adjacent oak trees were planted in 1919 to commemorate soldiers killed in World War I. The markers once extended all the way from Gordon Park to Horseshoe Lake. Several hundred remain, scattered along the original "Liberty Row."

At Delaware Road, a set of stone steps leads down toward the stream. If you pause at the bottom of the first set of steps, you will see vertical sandstone walls to your left, indicating that you are in one of the old sandstone quarries on Doan Brook. The Shakers and others quarried sandstone (some Berea Sandstone and some Euclid Bluestone) from this area and others along the brook.

More steps lead to the brook from the first quarry site, and you can explore the valley in both directions from here. Some of the more interesting geologic features and historic sites are nearby – see the tours in other appendices if you are interested.

Old Stone Grist Mill and the Berea Sandstone Falls

Still farther upstream from the sandstone quarry, just upstream from Roxboro Road, lie the scant remains of the Shaker stone grist mill, its flume and dam, and the quarry that replaced the mill. The mill was carefully located to take best advantage of the brook's descent

over the edge of the tough Berea Sandstone, so the stream descends a 12 foot fall between the dam site and the mill. See Appendix C for a description of the mill and quarry remains and Appendix F for a description of the geology.

Looking across the gorge at the mill site, you can see a number of stone-filled wire baskets along the far bank of the stream. These *gabions* are part of the repair of the slope failure that threatened Fairhill Road in 1975. The gabions reinforce the toe of the slope. Compacted fill was placed on an even slope behind the gabions and vegetation was established. If you examine the south gorge slope from the mill site for about 300 feet downstream you may see signs of an unusually even slope and trees that are less than 25 years old.

A short distance upstream from the mill site, you will see a series of road piers crossing the gorge. Kemper Road once crossed the brook here. Notice that the stream channel under the piers is smooth stone. This is the cap of the hard Berea Sandstone. It formed the falls just downstream and created a desirable site for a mill. See the geology tour for more details.

The Mill Race and the Brook

Just a bit below the Lower Shaker Lake dam, between the intersections of Woodmere and Demington with North Park, you find the confluence of two brook channels: the northern one is almost dry, while the southern one carries the outflow from the Lower Shaker Lake. The northern channel was reportedly the original outlet of the lake, while the southern channel was built by the Shakers as the lake spillway. The northern channel was once the mill race for the Shaker sawmill just below the Lower Shaker Lake dam (see the next section). The channel and outlet through the dam were

blocked after the mill was abandoned, so that the channel now carries little water.

A careful examination of the two channels does not reveal either of them to be obviously manmade, and the southern channel, supposedly dug by the Shakers, cuts a wide swath through the surrounding sandstone bedrock. Although this channel may be completely manmade, it seems more likely that it was an existing but disused channel that had been cut by the stream.

A.6 The Lower Shaker Lake and the Nature Center at Shaker Lakes

The Lower Shaker Lake and the Nature Center at Shaker Lakes are in the midst of popular, heavily-used parks, but they still hold some surprises even for the most frequent visitors. The Shaker sawmill site lies just downstream from the dam, southeast of the intersection of North Park Boulevard and Coventry Road. The mill site is described in Appendix C. Although the Shakers originally built a dam at this site in the 1820s and rebuilt the dam a number of times, few identifiable traces of the original dam remain on the surface. Some of the stone work that is visible near the north end of the downstream face might be Shaker work.

In the spring, forsythia, crab-apple, cherry, and other ornamental fruit trees bloom along the shores of the Lower Shaker Lake and Horseshoe Lake. Jack-in-the-pulpit, May apple, Virginia waterleaf, Solomon's seal and other wildflowers bloom downstream from the dam, and trout lily lines the lake shore. Many of these plants, both native and exotic, were planted and nurtured by area garden clubs.

A stroll around the lake and along the boardwalk at the Nature Center can reveal birds as well as wildflowers, particularly during migration season. Most casual visitors see only a small fraction of what is there to be seen, so you may want to take binoculars and allow time to look more closely. Muskrat swim in the brook and lake, and white-tailed deer frequent the Nature Center area, particularly in the spring, when you may see a fawn or two. Red-winged blackbirds dominate the marsh by the Nature Center, but keep your eyes open for song sparrow, red-tailed hawk, and others. The area along the south fork of the brook between the Nature Center and Shaker Boulevard provides a glimpse of the forest that was once typical of wet lowlands in the upper watershed (see Chapter 4). Visit the Nature Center itself to find out more about the area and about activities centered around the parks.

A.7 South Park Boulevard to Horseshoe Lake

Upstream from the Nature Center, the brook crosses South Park Boulevard. Between South Park and Horseshoe Lake, the stream runs through a protected wildlife area where use of trails along the stream is prohibited. You can still walk or bike on the path along North Park Boulevard and enjoy the shade of the woodlands along the stream. The trees here are some of the largest and oldest in the watershed, dating from the latter part of the 19th century. The deer that can sometimes be seen at the Nature Center spend much of their time in this area, as does other wildlife. The brook meanders through the trees in a relatively undisturbed state.

On the south side of the brook, upstream (east) from Lee Road, you will find the grave of Jacob Russell, Revolutionary War Veteran. Russell was the patriarch of the Russell family that settled in the upper watershed in 1812, just after the Warren family. His son, Ralph, founded the North Union Shaker community in 1822. The intersection of Lee and South Park was the center of the first Shaker community and later of the North Union Center family. You can find a memorial to the Shakers a bit to the south, at the northeast corner of Lee and Shaker Boulevard. More information about visible remains of the Shaker community is given in Appendix C.

Continuing around Horseshoe Lake, you can enjoy the flowering trees and other plantings that the garden clubs have maintained over the years. The marshes in the upstream arms of the lake provide good habitat for waterfowl, and red-headed woodpeckers sometime nest in the standing dead trees. With luck and persistence, you might even see a pileated woodpecker here.

Upstream from Horseshoe Lake, you can catch glimpses of the north and middle forks of the brook along Shelburne and South Park respectively. The above-ground portions of both forks now end in culverts at Warrensville Center Road. See Chapter 5 for maps showing where the brook ran before it was buried in the storm sewers.

A.8

The South Fork: The Nature Center to Green and Marshall Lakes

South of the Nature Center at Shaker Lakes, the south fork of Doan Brook flows through an area that has a relatively undisturbed channel and intact natural environment. There are fewer trees here than along the north fork above the Lower Shaker Lake, but the aquatic habitat is still relatively healthy, and the park land along the stream is a good place to wander. There is a good path and a fitness trail.

Much of the land around Green and Marshall Lakes is private property, where there are some beautiful mansions. The lakes themselves are, unfortunately, heavily impacted by poor water quality and sedimentation. There is extremely heavy algae and plant growth on the lakes during the summer (quite possibly because of unusually heavy fertilizer runoff from the surrounding houses and the upstream Shaker and Canterbury golf courses). The lakes are too shallow to allow a healthy lake environment. Mowed grass reaches to the water's edge, encouraging Canada geese and increasing water quality problems.

Upstream from Green Lake, the brook runs entirely through the Canterbury and Shaker golf courses. It is carried between the two courses in a culvert that actually passes under the Van Aken shopping center. The banks are eroded in some places on the Shaker Country Club course, and the grass is mowed all the way to the stream. The brook runs along one edge of the Canterbury course, and is generally buffered from the course by some un-manicured land. However, lawns from the adjacent houses immediately abut the brook in some places.

