MIAMI MEMORIAL PARK

Landscape Architectural Thesis 1976-77
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The Godfroy Reserve is a tract of six square miles of land reserved for Francis Godfroy, the last war chief of the Miami Indians in Indiana, when the Miami sold most of their holdings in Central Indiana to the Federal Government in 1818.*

The Reserve was one of the last centers of influence of the Miami in this portion of the state. Godfroy not only resided on the site with some of his people, but also established a trading post which he ran until at least 1836. The foundations of the brick house built for Godfroy still remain on the site. The house itself has been restored and is located in nearby Pennville. The tribal burial grounds lie in a small woods not far from the foundations of the house.

The significance of the Godfroy Reserve lies primarily in its potential as a historical and archeological park. Another important factor is the existence of one of Indiana's few prairie sites known as La Petite Prairie. The entire site consists of gently rolling topography which is bisected by 2.3 miles of the Salamonie River. One quarter of the site is wooded, primarily along the banks of the river. The rest of the site is under cultivation.

*Facts about the site are taken from various reports and news stories on file with Region 6 Planning Office, Muncie, and Kenneth Neff, Montpelier, Ind.
Recognizing a lack of representation of the Miamis in Indiana history, local people have pursued the establish of a historically oriented State Park. In 1969, a petition proposing State development of the site was signed over 9,000 area residents and submitted to the State. In 1971, bills were introduced and passed by both houses of the State Legislature which authorized the Indiana Department of Natural Resources to conduct a feasibility study. The results of the study indicated that the site has potential, but due to its location away from major population centers and the lack of a substantial body of water for water sports, high priority could not be given to its development.

It was suggested by the study that the site be developed as an 800 acre district park serving Jay and Blackford counties as a historical and recreational facility. There is strong sentiment, however, among the proponents of the larger site that 2,000 acres will better serve the people that will be within one hour's driving time by the year 2000.*

Proposal:

With this in mind, I propose an analysis of the originally proposed 2,050 acres. I then plan to develop some design concepts for the entire site, as well as a more detailed design for a smaller segment of the site.

The site will be analyzed to determine ecological suitability of the site for proposed activities. Some

*Figures taken from study by Eryant Pedigo, on file at Region 6
activities that are anticipated are:

Interpretive facilities based on the following:

- Restoration of the Godfrey House (Possible Museum)
- Interpretive treatment of the burial site
- Restoration of La Petite Prairie
- Possible creation of a waterfowl marsh

Additional recreational activities:

- Fishing
- Nature walking
- Hike and Hiking trails
- Possible Canoeing
- Picnic areas
- Family Camping
- Youth Camping (Scouts, etc.)
- Horseback Riding
- Playfield areas

The development of the above activities will depend on the land capabilities as determined by an analysis of 2,050 acres of the reserve. The analysis consists of:

Geology: Map groundwater, to determine potential for wells for camping. Map bedrock to determine limitations for building, activities.

Soils: Map according to ratings set by SCS for building, sites, playfields, picnic areas, camping and revegetation.

Hydrology: Determine Flood Plain and indicate the limitations presented by it to site activities.

Climatology: Determine Microclimate and rate site according to guidelines set forth by House Beautiful Study in AIA Bulletin on Microclimate.

Land Use/Visual Aspects: Map Property Rights on site and adjoining land along with drainage districts (watershed), archeological and historical points will be noted, landuse and views as well as slopes will also be indicated.

The conclusions of suitability and limitations from the above sheets will be combined on one or more composite sheets.
FIGURE III-5: ACCESSIBILITY
Design Guidelines for Miami Memorial Park

Based on the 1975 Indiana Outdoor Recreation Plan, the project site has potential under a State Park classification. The following are basic criteria for park classification in Indiana:

**State Park:**

**Purpose**—"To preserve outstanding examples of Indiana's natural, scenic or historical heritage while providing quality outdoor recreational opportunities."

**Character**—The park character must contain "scientific or aesthetic value" in its natural or historic features and must have qualities of "spaciousness" and "variety". Variety is defined in the Indiana Plan as "wooded areas, open meadows, steep terrain - level land, screened vistas..." etc. Spaciousness is basically defined as the ability to provide a feeling of isolation on the site.

**Design Criteria:**
- Undeveloped land should consist of 60-80% of the total site acreage.
- Service area for the park can roughly be estimated at a 60 minute drive radius. (In feasibility study.)
- Optimum size is 2,000 acres.
- Special features to qualify the park for this rating can include biologic, hydrologic, historic and aesthetic factors. (These are the features that apply to this site, there are other factors.)
The following are suggested activities and facilities for State Park development:

1. Picnic areas
2. Camping sites
3. Trails- Horse, Bike and/or hiking
4. Winter Sports-(Potential cross-country skiing.)
5. Nature Study-(Much potential on the prairie site)
6. Water Recreation-(Canoeing)
7. Food & Lodging-optional(Probably not applicable)

It seems that the Godfroy Reserve contains the potential required by the state to be developed as a State Park. The main opposition to the park has been on the grounds that it is not within sufficient range of major population areas. The state Feasibility Study completed for the Godfroy site indicates that by the year 2,000, over 530,000 people will reside within one hour's driving distance of this site (these figures do not include Ohio residents). With this in mind, the analysis and subsequent designs are based on the assumption that this park could function successfully on a State Park level.
Region Six Recreational Needs as determined by the Dept. of Natural Resources in the 1975 Indiana Outdoor Recreational Plan (partial listing)

<table>
<thead>
<tr>
<th>Activity</th>
<th>1975</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike trails</td>
<td>59 miles</td>
<td>89 miles</td>
</tr>
<tr>
<td>Camping</td>
<td>561 a. (5,346 campsites)</td>
<td>904 a./8,136 camps</td>
</tr>
<tr>
<td>Canoeing</td>
<td>69 miles</td>
<td>118 miles</td>
</tr>
<tr>
<td>Fishing</td>
<td>20,781 a.</td>
<td>32,311 a.</td>
</tr>
<tr>
<td>Hiking</td>
<td>335 miles</td>
<td>514 miles</td>
</tr>
<tr>
<td>Horsetrack</td>
<td>112 &quot;</td>
<td>170 &quot;</td>
</tr>
<tr>
<td>Picnic grounds</td>
<td>455 a. (4,896 tables)</td>
<td>787 a./8,566 tables</td>
</tr>
<tr>
<td>Playfields</td>
<td>731 acres</td>
<td>1,371 acres</td>
</tr>
</tbody>
</table>

A State Park at Godfroy Reserve could help meet the needs of every one of these categories and reduce many of them substantially.

In a user survey conducted for the 1975 Recreational Plan, Picnicking ranked 1st in demand among all 19 activities listed. Concerning camping facilities the following conveniences were requested, in this order:
1. toilet/shower  2. water within 200'  3. picnic tables  4. electrical outlets
Design Guidelines*

Camping:
- Campsites/acre; 9
- Turnover (daily); 1
- 4 acres of backup, (road access, sanitary facilities incl.)
- Size (approx.); 65' x 65'

Hiking:
- 20 persons/mile
- Daily turnover; 3x
- Daily capacity; 60

Horseback:
- 18/mile
- Turnover; 4x
- Capacity; 72/mile/day

Picnicking:
- 10 tables/acre (10 open acres—may include parking, etc.)
- 4 persons/table
- 40 instant capacity
- Daily turnover; 2x (80 persons/day/table)

*Established by the Dept. of Natural Resources in the 1975 Outdoor Recreational Plan
Playfield:

- Field size: 1 football field
  3 baseball/softball fields
  4 basketball goals (2 courts)
  TOTAL: 10 acres

- Instant capacity: 100
- Daily turnover: 2x
- Daily capacity: 200

Environmental Corridor Development Guidelines:

- Functions as a scenic connection for major recreational areas, historic sites and populated areas.
- Must have variety and accessibility as well as easy movement along the corridor on trail or stream.
- It must remain undeveloped except for foottrails.
- Trails should be a minimum width of 6-8 feet with separate trails for different activities.
Analysis

The analysis of the site examines and evaluates site access, geology, soils, hydrology, climate and visual features.

Access—Road conditions are generally adequate for this site's purpose. Parking facilities will have to be carefully developed due to the flood potential.

Due to ecologic factors, it is suggested that a daily and seasonal visitor limit be established similar to policies in existing natural parks. Consultation with sources in Park Management will be consulted in the design stage.

2 Geology—Bedrock/Till/Ground water—Bedrock lies at a depth between 275 and 400 feet. This will limit aquifer use on a large scale. Sufficient water sources are anticipated, however, from the river recharge source near the surface.

Till consists of 3 main types. Due to porosity of till and close proximity to river, septic tanks are impractical and another type of sanitary facility must be used. Till limitation and suitability tables are listed on the following pages. Consultants for geological investigation: Dr. Samuelson, Geology Dept., E.S.U., Mr. Thomas Burns, Division of Water, Dept. of Nat. Resources, Ind.
UNCONSOLIDATED DEPOSITS (Organic)

General Description

Muck, peat, and marl; lake and swamp deposits. Generally thin, as much as about 25 ft thick; commonly between 5 and 10 ft thick; not mapped where less than 3 ft thick. Deposits occur in irregular, poorly drained topographic depressions.

Engineering Characteristics and Use

Major problems. Material has soft to very soft consistency and is easily compressible. Porosity and permeability are high. Water table is high and surface is subject to flooding. Not suitable for use as fill and is an inferior foundation material. Removal of material to a firm substratum may be required. Classification: OL, OH, or Wt.

Mineral Resource Potential

A source of organic material for agricultural use.

Groundwater Resource Potential

Some areas of peat contain considerable water which, however, is high in organic acid content.

Land Use Potential

Major problems. Many areas are best suited for wetland or woodland, but pasture and some types of crops are possible where drainage is adequate. Unsuited for residential or industrial use because of poor drainage and hazard of flooding. Wet soil conditions make septic tanks and sanitary landfills impracticable. Typical soils include Carlisle, Edwards, Houghton, Wallkill, and Warners.
UNCONSOLIDATED DEPOSITS (Q5A)

General Description

Clay, silt, sand, and gravel deposited by present streams. Organic materials are abundant in places. Limited to valley areas and variable in thickness; thicker along major streams than on minor ones. Generally less than 15 ft. thick. Along many major streams this deposit overlies deposits of outwash gravel, QgV. Also associated with lake deposits, Qcl/Qal, and older alluvial deposits, Qai.

Engineering Characteristics and Use

Major Problems. Material is variable; loose sand and weak compressible clay are common. Water table is high and surface is subject to flooding. Poorly suited for fill and poor as a foundation material. Classification: principally CM, SM, ML, or CL.

Mineral Resource Potential

A source of poor-quality gravel in some places; in other places underlain by QgV, a good source of gravel.

Groundwater Resource Potential

Deposits are permeable and yield some water. Major natural resource where associated with and underlain by valley-train gravel, QgV, an excellent aquifer.

Land Use Potential

Major Problems. Many agricultural uses are possible. Unsuitable for residential or industrial use because of high water table and flooding. Fill used to raise areas above flood levels must not obstruct floodwater flow. Septic tanks and sanitary landfills are impracticable because of flooding and rapid effluent flow. Typical soils include Cuba, Eel, Genesee, Raymond, and Stendal.
Soils—General soils are available for the site. Detailed soils are only completed for a small portion of the southeast corner.

The USDA Publication on soils was used as a guide for determining soil suitability. The basic results are as follows:

Hydrology—The Flood Plain was determined by compiling recorded readings of high water marks on-site which are on file at the Blackford Co. SCS Office. The flood line established by this process (roughly the 861 contour interval), greatly corresponds to the USGS Flood Prone Areas map.

Architectural structures are limited to those areas outside the existing high water area. Campsites should not be established in hollows or other soggy areas.
The Flood Plain and marsh-river areas offer excellent wildlife vegetation restoration potential. Consultant:
Mr. J.E. Walker, Blackford Co. SCS Office.

Climate—The following guidelines are taken from the Regional Climat Analysis & Design Study, House Beautiful Climate Control Project, AIA Bulletin, 1949. Guidelines pertain to the Columbus, Ohio region but the regional map (next page) shows the Godfroy Reserve to be within the same climatic region as Columbus.

General Design Factors Regarding Climate:

Major Problems:
1. High heat and humidity—Design objective is to provide sufficient blocking of SW sun while allowing adequate breezes to provide areas. Will require reforestation to establish more sun protection.
2. Moisture—Moderate snow but much rain-wet conditions. Ample drainage should be provided in key areas. Restructuring of site/soil conditions must be sufficiently engineered to guard against erosion. More than 1/3 of summer days are rainy (convectional showers on summer afternoons). Provision of covered areas near picnic grounds would be beneficial. Occasional hail and sleet storms also call for sheltered areas.
3. Cold—There is seldom extreme cold but the winter season tends to linger over a long period of time. 39% of all hours each year are below 45°F. Much freezing and thawing will take place creating a need for well-engineered foundations. Campsites in hollows, although protected from the wind are likely to be colder than hill locations.
Cloudiness varies slightly from east to west. The greatest amount of sunshine occurs in the western portion of the state.

Variations relative to Columbus are shown on the map above. In the territory shown white on the map, reported meteorological data vary less than 5% from Columbus.

Design data shown in the accompanying charts for Columbus and similar areas may be modified to meet conditions indicated by the map legend, for application in corresponding areas.
Visual Features - Of great visual note will be the environmental corridor area along the river with the potential waterfowl marsh and prairie not far from the corridor.

The historical burial grounds with nearby trading post site can both add to the visual recreation of the early 1800's and the natural beauty that once was the Midwest.

Due to the relatively flat terrain on the site most vistas are open at present except for the wooded sections that exist mainly along the river. Selected replantings of trees and grasses will greatly add to the character of these views.

There is a large water shed area for the water sources on this site. The combined watershed of the Salamonee River and the Slocum Ditch totals 234 square miles.

It must be noted that all drainage ditches and tiles on site are under the Legal Drain Law and permission must be granted by the local drainage board for any alteration of drainage ways.

Property owners on the proposed site number four, and all seem to be willing to discuss selling should the park become a reality.

Consultants; Mr Kenneth Neff, Montpelier, Ind., Mr. Ben Wilson, Deputy Surveyor for Blackford Co., Ind.
Environmental Corridor Study- An environmental corridor provides an area of natural river landscape as the connection between major recreation areas, historical sites, and populated areas.

Foot and bridle trails will be the only permitted construction in order to preserve the atmosphere and to eliminate damage by flood.

Potentially much of the Salamonie River could become environmental corridor. By allocating land for this purpose in the Miami Park, an essential link would be assured.

Accessability would be at either edge of the site, at the twin bridges and also at the canoe launch. Foot access will also be possible at a foot bridge on the western portion of the site and near the waterfowl marsh walkway, (next to the proposed prairie.)

Several natural determinants were used to establish a proposed edge of the corridor:

Native woodland is a very prominent, though rare, feature along the river and the entire strip should be preserved up to 1200 feet from the bank.

Marsh areas are another determinant. These areas are unsuited for building and have many attractions as a preserved area (i.e. wildlife, plant life, etc.).

Due to the delicate nature of the marsh, walks should be raised where necessary (catwalks). Observation areas off the trail may be deemed desireable also.

There are a few wooded mounds along the river. These provide an excellent area for observation which is essential and
provide an example of up-land woodland which is different from that found in the lowland.

The other factor considered was the probable annual or biannual flood line (estimate provided by Division of Water, Ind. Dept. of Natural Resources). This area is unsuitable for construction and would become more stable if allowed to remain inviolable within the limits of the corridor.

Minimum edge is suggested at 400 feet from the bank. Where farming practices have cut into the woodland strip, it should be allowed to reforest itself.

Since approximately 2/3's of the corridor is bordered by open areas, the corridor shall be kept from enlarging itself by mowing. Where mowing is not possible, the corridor shall be marked.

8 Composite for Recreational Building Potential- Due to wetness of soils and extent of flood areas, a composite of these factors desireable to determine the boundaries of construction potential fot the needed recreational buildings.

To arrive at construction potential of the site, individual determinants were overlayed with most suitable areas for buildings recieving the darkest tones. The data combined was flood prone areas and soil capabilities.

The lightest tones on the map are unsuitable for all but minor construction projects, the mid-tones are suitable for most construction (pending more detailed soil checks), and the darkest areas are very well suited for most construction.

This map gives an indication not only of initial potential but will influence all future considerations for further improvement.
Local Access—Upon examination, it was noted that there were relatively few residences served by the roads bordering the site. All but two of those housed are on the site and will be bought. Thus it can be assumed that border roads can be closed to public access maximizing supervision of the park. The road that cuts across the southern half of the site is severing proposed activities from each other. It should therefore be considered for partial removal, the part bordering the edge of the park should be utilized if possible.

The county line road that runs north-south can be relocated but might require a new bridge to the east of the site which could prove economically prohibitive. If it must remain on site, perhaps it can be made to meander in order to make a more pleasant passage through the site and provide a more positive entry statement.

Two entries along this road will probably be required; one north and one south of the river. The option of an additional entry on the western edge of the site is feasible.

Conceptual Development—Certain space allocations begin to take place in light of proposed activities (long-term and short-term), and physical characteristics of the site.

The heart of the park lies in the Indian cultural attractions and the prairie restoration. These areas will set the mood for the park and establish the dominant theme.
These areas are basically short term visits with high turnovers. The interface between prairie and cultural areas is extremely important as is the link between both of these and the woods. These links should not be broken or violated by the presence of roads, parking or architecture that is 'out of context' with the pioneer era setting (early 19th C.). The creation of this atmosphere of a past era—nature oriented, should also be shielded when possible from noise and boisterous activities by means of a natural buffer.

It should be noted here that such a buffer is already in existence in the form of a forested area that also harbors an abundance of birds. This area should be preserved and trails provided linking it to the corridor and the cultural site.

Areas around the main multicultural area and prairie can serve passive functions such as picnicking, providing further opportunities for contact with the unique prairie.

The western portion of the site is open and rolling lending itself to open play or perhaps camping. However, since the majority of the southern portion of the site is already allocated to day-limit activities, this area is also recommended to function as a short term facility in the form of open play and picnic areas. It is well suited for these and there exists two barns which can function perhaps as stables for the bridle trail. Winter use is a
possibility also for the barns as winter recreation centers for sports such as cross-country skiing and ice skating.

Adequate parking should be provided. According to acreage, approx. 3-4 'playfields' could easily be accommodated. Parking should therefore be provided for about 300 cars.

The northern half of the site can now be considered for the long-term activity of camping. The camp sites should be effectively buffered from the corridor to deter misuse of the corridor area.

Assuming a 500 acre total area north of the river (outside the corridor), and 9 sites/acre with 4 acres backup req'd, 100 acres or 900 sites would become available. Several parking lots near the campground entrances may be more desirable than parking at each site.

Water shall be within 200 feet of each site and primitive toilet facilities (at a minimum) concrete tanks would be provided.

The area to the east along the Beaver Creek becomes a prime area for campsites and the area sandwiched between the creek and the river (excluding the environmental corridor), due to its isolation, is well-suited to youth and group camping. (The 900 sites includes this area).

Picnicking areas in isolated pockets scattered evenly around the site shall have shelters, especially where the area is waiting for reforestation for cover. Picnic areas can conservatively be estimated at 50 a. or 500 tables. Parking
shall be included for this activity both at major parking areas (play areas and campgrounds), and in isolated lots near table groups. Care should be taken that these parking areas are as inobtrusive as possible.

Master Plan - Some further discussion of Miami culture and proposed exhibits is necessary.

The Miami culture is to be displayed as it existed at the turn of the 19th century, just before the lands were sold to the government and the culture was infiltrated heavily by the white man's ways.

The lifestyle seems to have been simple and revolved around two main cycles. The summer was spent at their 'summer village'. The residences were cabins and were clustered in the woods with presumably an open area in their midst for meetings, dances etc. There is some speculation that they also burned captives at the stake, probably also in the central area. The chief's cabin was the largest and was used for private meetings among the men, mostly for battle preparations.

Storage bins were located near the cabins and were sunken, harboring mostly maize. Agriculture was usually relegated to a cleared area and consisted of typical indian fare: maize (a white type peculiar to the Miamis), beans, pumpkin, squash, etc. Apple trees were often evident also.

Games such as the forerunner of modern lacrosse were played between villages often for days.
When winter approached, the men and able women moved to a location plentiful in game and set up winter camp. Housing was usually a primitive hut of bent and lashed poles covered with woven rush mats which were rolled up and transported at winter's end. The Indians hunted all winter, preserving meat and skins. Maple sugar was also a winter undertaking.

Weaponry and the warrior culture should be underscored in this exhibit.

In all areas, authenticity of portrayal is extremely important to the integrity of the park. Much more in depth study is required of lifestyle to insure accuracy.

Not far from the village and camp is the location of a true burial ground for the Miami tribe which could be developed as an interpretive display without harming the site.

The main interpretive center should be near the center of the cultural site. It should also be in direct physical contact with the prairie.

The proposed prairie wraps the entire cultural site and ties it to the other site activities—waterfowl marsh, environmental corridor, entry to park.

As the master plan is presented currently, the sequence of the site would be as follows, (assuming North entry):

As the visitor enters the park boundaries, and crosses
twin bridges he comes into view of the immense (500 acre) LaPetit Prairie on his right. He has the option of stopping for a picnic near the canoe area on his left, across from the prairie, or of continuing on into the park proper.

The entry to the park is set against a backdrop of rolling tall grass prairie. The road winds along the edge of the prairie bordered on the left by wooded picnic sites. The road completes it's arc around the southern tip of the prairie and the entry to the cultural area comes into view. The cultural road also wraps around a smaller prairie mass and winds it's way into the parking area. Once on the foot path, you are led to the interpretive center where you become acquainted with the Indian lore and park layout, as well as obtaining a view of the prairie and it's wildlife through a special glass wall. The prairie comes up to and surrounds the center to help integrate it to the site.

Upon leaving the building, the trail leads through the summer village, meandering around the agriculture field then turns north into the wooded bird 'sanctuary'. The option is presented here to continue north to the river or follow the loop east to the winter village, a trek symbolic of the yearly Indian journey. (½ mile total) The trail continues to wend it's way through the winter camp and south again along and then through the prairie, back to the interpretive center where one may utilize the observation deck on top of
the building for a better view then walk beneath the trees to the burial grounds and picnic areas.

The full cycle is completed with a path leading back to the wooded parking lot for a short drive to some other part of the park. Several hundred visitors can be expected to complete this walk into history every day of the park season.