PREFACE

This study was done under a Kalamazoo Nature Center Internship. The Nature Center funded the study while Mr. Ray Deur, biology professor at Western Michigan University and supervisor for Kleinstuck Preserve, provided assistance and sponsored the project for 4 credits in the Biology Department at Western Michigan.

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INTRODUCTION

"The basic question is whether a hawkless, owl-less countryside is a livable countryside for Americans with eyes to see and ears to hear... Is a wolfless north woods any north woods at all?"

-Aldo Leopold, Sand County Almanac

Support for preserving our existing natural environment has grown with decreasing open space, lessening of pure water and air, and growing cities. Senator Harrison A. Williams, Jr., New Jersey Democrat, told the United States Conference of Mayors in 1961: "In the last ten years, we have put more than half as much new and unspoiled land to use as we did in all the previous years since this country was founded. We have been pushing the urban fringe out from the central city at an unprededented rate... we have pushed nature's horizon farther and farther away from more and more people."²

Since Senator Williams' statement, urban land use plans, wildlife and land protection legislation, and added revenue for land and wildlife management have been developed in an attempt to protect and preserve the unspoiled land we have left. Throughout the United States, land use regulations are being implemented on

¹Aldo Leopold, The Sand County Almanac, (reprint), 1963.

²Harrison A. Williams, "United States Conference of Mayors Speech," 1961.

lands received through donations, gifts, and purchases. Since 1941, seven of fourteen National Parks have been formed through large gifts of land. The Wilderness Act of 1964 was passed "In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition."³

This study will deal with a 50 acre tract of land given to the Michigan Board of Education by Mrs. Caroline Kleinstuck in 1922. The land is relatively unspoiled, in a highly urbanized area, and has no formal use policies or effective maintenance provisions. Mrs. Kleinstuck gave the land to the Board of Education with the stipulation that the area be used for, "...educational and biological purposes." The land is currently referred to as Kleinstuck Preserve.

In this report I will attempt to bring much of the history surrounding Kleinstuck together with studies and reports about the area in an effort to make conclusions and recommendations which might be implemented to protect and preserve the park. Reference

³Passage from the Wilderness Act of 1964.

⁴Passage from Mrs. Kleinstuck's deed to the Board of Education.

material about Kleinstuck is restricted to unrelated reports, maps, letters, surveys, and notes which are primarily collected in three volumes at Western Michigan University, Room 164, Wood Hall, by Mr. Ray Deur of the Biology Department. Hopefully, this paper will bring these materials together in an effort to gather a variety of use priorities to assure that any final park provisions will suit a majority of people who use the Preserve.

Kleinstuck Preserve is located in the south-western portion of Kalamazoo, Michigan. The area surrounding the Preserve is highly residential with the major exceptions being the Y.M.C.A. and neighboring schools.

Chapter I

On December 7, 1922, Mrs. Caroline I. Kleinstuck, in her right as the survivor to her husband, Carl G. Kleinstuck, deeded 50 acres of land to the Michigan Board of Education for one dollar. Mrs. Kleinstuck designated that the land be used for "...educational and scientific purposes and upon the condition that in case said premises are used for any other purposes, this deed shall become null and void..." 5

In an undated letter to the State Board of Education,
Mrs. Kleinstuck wrote, "My deceased husband, in his life time,
had a keen desire to dedicate some land for use as a botanical
garden, and it is in fullfillment of his wish that I have executed
the enclosure." In the same letter, Mrs. Kleinstuck stated,
"I hope the State Board of Education will see fit to extend the
use of these premises for the purposes named...to the Western
Normal School (Western Michigan University), Kalamazoo College,
and other educational institutions."

On December 11, 1922, William McCracken, Acting President of

⁵Passage from the deed of Mrs. Kleinstuck to the Board of Education, Dec. 7, 1922.

 $[\]delta_{
m Letter}$ from Mrsl Kleinstuck to the Board of Education $\kappa_{
m Lbid}$, from the undated Kleinstuck letter.

Western Normal, wrote a letter to the State Board of Education expressing his desire to have the property maintained by one of the educational institutions designated for access to the area by the deed.

Following the letter, Dr. Leslie Kenoyer, Chairman of the Biology Department at Western Normal was appointed supervisor of the Preserve. Theodosia Hadley, secretary of the Kleinstuck committee, assisted Kenoyer along with Walter Blinks. Kenoyer was supervisor of Kleinstuck unitl he retired in 1951.

On April 25, 1927, the largest student project in the history of the Kalamazoo area took place at Kleinstuck Preserve. An article in the Kalamazoo Gazette announced the undertaking.

"Probably the biggest tree planting to be undertaken in the state of Michigan outside the department of forestry is now in progress at Western State Normal in the planting of 12,000 trees on the denuded portions of the Kleinstuck reserve."

Before the planting began, President Waldo of Western Normal stated that;

"...all students will be required to attend the assembly at the Kleinstuck reserve...the entire student body to leave the Normal campus at 3 o'clock...attendance will be compulsory. Classes during that period will be adjourned...a motion picture of the

⁸The Kalamazoo Gazette, April, 1927.

planting will be made."9

On April 25, the freshmen met first in front of the library for the planting. The other classes joined the freshmen at 3:00. Wearing old clothes and nickers, the students and faculty marched to Kleinstuck behind a band. President Waldo planted the first tree. Most of the Red and White Pine trees planted in 1927 still exist, approaching the climax stage in their development.

In 1929 the Board of Education granted the city of Kalamazoo the right to construct a sewer outlet at Kleinstuck. This sewer line is an enclosed system which now nearly circles the entire Preserve. Is has been speculated that the sewer system was partly responsible for the declining water table in the marsh area of the Preserve.

E. V. Jotter from the schools of Forestry and Conservation at the University of Michigan wrote a report on the use and development of Kleinstuck Preserve in 1931. He stated, "In order to get maximum use and systematic development of this unusually good opportunity for class field work and demonstration purposes a regular organization plan must be developed." 10

⁹Statement from Western Normal President Waldo, 1927.

¹⁰E. V. Jotter, Use and Development of Kleinstuck Reserve, 1931.

As part of this organization plan, Jotter suggested that a caretaker be employed by Western Normal to oversee the area. In 1932 the first caretaker of the area, Blades Carlton, constructed a brief study of Kleinstuck. He wrote that, "A variety of pines are planted at the northeast plot. They were planted in furrows plowed through the field. In 1930 about half of this area burnt over killing the original planting. In 1931 this whole area was replanted. "11 Much of Carlton's work involved maintaining trails, opening fire lanes, fencing, building game cover, constructing a tool house, and providing protection for game from hunters and dogs. Carlton's records include the first documented surveys of flora and fauna at Kleinstuck. Since 1932 records involving plant and animal identification have been recorded.

In 1935 LaVerne Argabright of the Biology Department at Western State College wrote a paper called, "Birds of Kleinstuck." 12 In the report Argabright writes, "This variety of landscape makes an ideal bird sanctuary, and in spite of the fact that the public has cut trees, dug up shrubs, and set fire to the grass in

¹¹Blades Carlton, an excerpt from his Kleinstuck Report, 1932.

¹² LaVerne Argabright, Birds of Kleinstuck, 1935.

the Preserve, it still remains a refuge for birds."¹³ She concluded her study with, "It is hoped that by thus replacing some of the thickets lost by fire and theft, that those birds already here will be more safe and that new kinds may be attracted to the Preserve."¹⁴

In 1939 Kleinstuck received certification as a State Wildlife Sanctuary. In 1940 the Kleinstuck Preserve Committee, consisting of teachers from Western Normal, Kalamazoo College, and local citizens, met to discuss the management of Kleinstuck. A map of new trails was presented at the the meeting along with a map showing new vistas at the edge of the pond. Other proposals included the construction of a corduroy road and plans for a footbridge across the inlet to the marsh at the south end of the Preserve.

Between 1940 and 1948, many of the plans submitted to the Kleinstuck Committee were completed. Articles in the Kalamazoo Gazette announced the improvements at the Preserve: "State High biology students have been building a dam to retain the water level, working with Ray Deur. They also will assist in clearing the

^{13&}lt;sub>Ibid</sub>.

¹⁴Ibid.

paths of brush to make the observation points more accessible."15

On June 2, 1948, a meeting of persons representing groups interested in using and improving Kleinstuck was held. The agenda for the meeting included the following: "pump broken by vandals, repairs of latrine, poison ivy control, D.D.T. spraying of campsites, prevention of vandalism, and widening lake vistas." It was also announced at the meeting that the Girl Scouts would continue to use their day camp at Kleinstuck.

In 1950 another student clean-up and planting took place at Kleinstuck. About 150 shrubs, including Michigan Holly, Grey Stem Dogwood, Hawthorne, and Sour Gum, were planted. During the same year, the Kalamazoo Gazette reported, "High water has improved marsh conditions for birds at the Preserve. It is reported that the Florida Gallinule, absent for many years, has returned." 17

In April, 1951, Paul Sangren, President of Western Michigan College wrote a letter to Miss A. Verne Fuller, member of the Kleinstuck committee. He wrote, "With the arrival of spring not far away, interest again centers in the problems and possibilities

¹⁵The Kalamazoo Gazette, 1948.

¹⁶Kleinstuck Committee meeting agenda, 1948.

¹⁷ The Kalamazoo Gazette, 1950.

of Kleinstuck Reserve." In the letter, Sangren suggested that members from Western Michigan College, Kalamazoo College, Central High School, the Kleinstuck family, and the Audubon Society serve as a committee to consider the problems at Kleinstuck.

Although this committee was organized, vandalism increased, serious erosion problems began, and more problems with dogs in the Preserve were recorded during the year 1951-52.

In 1953 an article from the Western Herald told about the efforts of a fraternity at Kleinstuck: "The Preserve needs constant care and annual improvements. There are many dreams for its improvement, but little manpower is available unless college organizations volunteer for service as did the National Service Fraternity and Max Alder this weekend." To control some of the erosion problem the City Commission of Kalamazoo diverted a water main away from the one area with serious erosion problems. In 1954, a spring planting of about 600 shrubs and plants helped to control more erosion problems. Later in 1954, Max Alder constructed a large number of bird houses and placed them at various places around the Preserve.

When the Kleinstuck committee renewed the Wildlife Sanctuary classification in 1954, W. Bartels, District Game Supervisor for the Department of Natural Resources wrote a letter to Ann Fuller

¹⁸Paul Sangren, letter to A. Fuller

¹⁹The Western Herald, 1953.

stating that, "I would urge a type of development for the Preserve which through management and diversification of the natural cover would make it a demonstration area to illustrate the techniques of wildlife management." 20

Management problems at Kleinstuck continued in 1955 as evidenced in a letter from W. C. VanDeventer, head of the Biology Department at Western Michigan College: "The members of the Biology Department believe that, short of building a heavy iron fence around the area, the only other solution to the problem would be maintaining a watchman in the area on a part-time basis." 21 Dr. Sangren replied to this letter by appropriating \$100 a month for a student watchman.

James F. Bowen, the appointed watchman in 1955, reported a number of hunters in Kleinstuck. He also recorded that more children seemed to be using the Preserve. In 1957, a report from R. K. Lee stated; "One young girl told me that she had seen a lion, two tigers, a bear, and one snake. An old man told me he used to see bears, deer, mink, and muskrat in the Preserve."22

²⁰W. Bartels, letter to A. Fuller, 1954.

²¹W. .C. VanDeventer, letter to Dr. Sangren, 1955.

²²R. K. Lee, report, 1957.

William Wright, assistant guard at Kleinstuck, reported in 1957 that, "During the winter months bird feeding stations were placed in areas near water. There were two of these stations and after one week, one was destroyed by unknown persons." 23 Wright also reported a ground fire, parties in the Preserve, and various instances of minor vandalism.

In 1959 Kleinstuck renewed its certification as a Wildlife Sanctuary. In 1960, The Western Herald published an article about KLeinstuck which stated; "It would be most practical to build a cyclone fence about the area. More wildlife could be attracted to the reserve if they could be undisturbed by marauding cats and dogs."²⁴

Anne V. Fuller was chairman of Kleinstuck from 1951 to 1967. In 1961 she produced a soil and water conservation plan for the Preserve. She classified four primary types of soil in Kleinstuck. She concluded that the entire area was in need of constant land management. Wind erosion, low inherent fertility, and how levels of natural moisture were among the problems needing continual care.

Other activites which took place in 1961 were thinning the red pine plantation, added student patrol surveillance, and dredging out a circular area in the marsh. Robert Humphrey of the Soil Conservation Service supported the marsh digging on the premise that,

²³William Wright, Kleinstuck Report, 1957.

"The changed configuration would bring more water and consequently wildlife to the Preserve."24

In 1962, Harriette Bartoo, Paul Rood, Edwin Steen, Merrill Wiseman, and W. C. VanDeventer from Western Michigan University's Biology Department confronted W.M.U. President James Miller with the problems of protecting Kleinstuck. President Miller answered their questions and demands by stating, "If you will present to me a specific program, I shall set up a separate fund for the implementation of same...I am sure that I can take steps toward partial, if not complete, implementation of the program."25

In reply to President Miller, Anne Fuller, Harriette Bartoo, and Harry Stevens constructed an expanded use program for Kleinstuck. Their recomendations included provisions for maintenance, school use, community use, and long term outdoor education programs.

Over-all their program plan cost was \$37,270.00. This figure includes the 1962 estimate for fencing the entire Kleinstuck area. There is no recorded reply from President Miller after the program plan was submitted.

During 1963 a storm sewer line was placed through the east end of the Preserve. A planting was made in the area to help rehabilitate the digging area. In 1964, Harriete Bartoo proposed a "Garden of States" project for Kleinstuck. Upon completion the garden would have trees and flowers from all states in the United

²⁴Robert Humphrey, letter to A. Fuller, 1961.

States. The State Gardens received support and enthusiasm upon introduction but was never completed. Later in 1964, Kleinstuck's certification as a State Wildlife Sanctuary was renewed.

In 1965 the YMCA was given $5\frac{1}{2}$ acres of land for a new facility adjoining Kleinstuck. The YMCA uses the paths of Kleinstuck for running track, providing easy and direct access to the Preserve.

Between 1965 and 1966 it was considered by the Kleinstuck

Committee that the Preserve needed to have more supervisory control.

Legal status of the Preserve, financing maintenance programs, and

developing an outdoor education plan were among the problems confronted

by the Committee. It was proposed that the Kalamazoo Nature Center

under the direction of H. Lewis Batts take control of the Preserve.

Oakes Plimpton, legal assistant to the Director of the Nature

Conservancy in Washington D. C., stated, "It would seem that a

conveyance could be arranged to any incorporated group, public or

private, who would use the tract for scientific or educational

purposes. The reverter clause should be still binding."

Interest and participation had dwindled at Kleinstuck, mainly due to years of try to build an effective program with little success. Anne Fuller wrote, "Dr. Wallus would be happy to see it given to the public schools, but can forsee the financial struggle of getting it

²⁶ Oakes Plimpton, letter to A. Fuller, 1966.

tax supported. Dr. Batts has told me more than once, rather than see it lost to realtors, he would hope the Nature Center would assume control. Dr. Goodnight, the new head of the Biology Department, says build a strong program and he thinks we could secure outside grants. None of the other members of the Biology Department, other than Dr. Bartoo, are interested in shouldering any responsibility in this direction, and both of us plan to retire soon"²⁷

In 1967, Ray Deur of the Western Michigan Biology Department, was appointed Chairman of Kleinstuck. Since 1967, few records of use or maintenance have been kept. Mr. Deur's Outdoor Science class uses Kleinstuck as an area for nature observation and study. Elementary, Jr. High, and High Schools also use the Preserve as part of their outdoor education curriculums.

In the next chapter, I will expand upon the current status of Kleinstuck, hopefully leading to useful recommendations at the conclusion of the study.

²⁷Letter from A. Fuller to unknown source.

Chapter II

"The rain falls through woodland bogs, and open swamps. It trickles down bare slopes and thicket-studded valleys. It runs over incessantly moving brooks and streams that bear it toward the sea." 28

John Hay, Nature's Year

Years ago, Kleinstuck and the surrounding area may have fit the above description. Today, signs of erosion and litter scar the landscape throughout the Preserve. In some areas, extensive underbrush and cover for birds and small mammals still exists. The increasing number of trails and paths have caused erosion damage, however, leaving much of the land with gullies, washouts, and little plant protection.

Many of the trees and shrubs introduced to Kleinstuck since 1922 still remain, the most notable being the pine plantation at the north end of the Preserve. The pond in the center of Kleinstuck is rapidly filling with sediment and aquatic emergent vegetation largely due to the lack of water.

A pond survey was conducted at Kleinstuck on June 23, 1973 by E and J Aquatics, a water consulting firm from East Lansing, Michigan. Physical, biological, and chemical data was recorded. The results of the study pointed out that, "The Kleinstuck Pond is located in a

²⁸ John Hay, Nature's Year, Doubleday, Garden City, New York, 1961.

highly urbanized area. Park use regulations and enforcement would enable the pond and surrounding area to become a natural area for wildlife propogation and observation. The pond is a classic example of lake succession and should be used by earth science and biology classes. The pond is following a natural succession process which is reflected and emphasized by chemical, biological, and physical data contained in this report. In conclusion, this lake survey shows the Kleinstuck Pond potentially outstanding for nature study and observation if properly protected."²⁹

Various school groups use the Preserve to study, observe, and identify flora and fauna. The local Y.M.C.A. uses the main path around the Preserve for running track. Area residents also use the paths for jogging. Neighborhood children use the pond in the winter months for ice skating. Several student projects about Kleinstuck were completed in 1973. Bird surveys, path mapping, geology surveys, and a neighborhood opinion pole of Kleinstuck were completed at Western Michigan University under the supervision of John Cooley, English Department professor.

Erosion is most apparent at the south end of the Preserve along the main trail leading towards the marsh and the north end along trails coming down from small hills towards the marsh.

²⁹ Timothy Ervin, Aquatic Survey Report-Kleinstuck Preserve, 1973

Migrating birds use Kleinstuck every year. Some of the permanent bird residents of Kleinstuck include, "house sparrows, cardinals, song sparrows, ring-necked pheasants, red-bellied woodpeckers, hairy woodpeckers, blue jays, chickadees, white-breasted nuthatches, and starlings." Other animals found at the Preserve include raccoons, squirrels, rabbits, field mice, fox, and opossums.

Old cement foundations, ruins of buildings, and poorly maintained signs are evident throughout the Preserve.

Access to Kleinstuck is by footpath, although motorcycles have been seen in the Preserve. The Bronson Road entrance is blocked. This entrance had been kept open as a fire lane.

Over-all there have been no significant changes in any maintenance, use, or policy provisions at Kleinstuck. One part-time employee is hired to patrol the grounds and remove debris from paths.

Ray Adams, President, Michigan Bird Banders Assoc., an interview, November 16, 1973.

Chapter III

Kleinstuck Preserve has been used for educational and scientific purposes as designated in the deed from Mrs. Kleinstuck to the State Board of Education. Fulfilling the wishes of Mrs. Kleinstuck,

Western Michigan University has supervised the Preserve and related activities such as the Girl Scout Day Camp and outdoor education field trips. Students of all ages have worked at Kleinstuck on a variety of projects. Various schools and communities have participated in planting trees and shrubs at the Preserve. Many plans for maintenance, school use, community use, and long term outdoor education programs have been submitted.

Since 1922 all of the records about Kleinstuck seem to indicate similar problems. There have been no effective provisions for maintenance, supervision, and funding. There has been indecision about how to use the land, who should use the land, and who should supervise and maintain the Preserve. Most of this indecision seems to have resulted over questions about the deed to the land. Uncertainty over who should pay for maintaining and protecting the Preserve is a major concern. Citizens have been hesitant to contribute time and money to the Preserve because of this uncertainty.

Local schools and universities have been unreceptive to plans

designed to protect Kleinstuck whenever moderate funding is needed for proper program implementation.

In conclusion, Kleinstuck is a relatively unspoiled tract of land located in a highly urbanized area. A variety of birds, small animals, and plants are found at the Preserve. Specifications in the deed to the land calling for educational and scientific use priorities have been met. Kleinstuck is suffering from a lack of effective supervision and management largely due to insufficient funding. Local schools, groups, and residents have been unwilling to donate enough money to protect Kleinstuck because of unclarities in the deed.

Chapter IV

"Our burgeoning metropolitan areas are now a stage on which a new conservation drama is unfolding. No matter how urbanized we may become, we recognize the need for a contact with nature. In our cities great and small, it is apparent that we must take action to save woods and streams, meadows and ponds, unviolated seashore and salt marsh, green hills and green vistas. In other years these parcels of wild land where nature holds sway will be irreplaceable human anchors in a surrounding "sea" of man-made objects. Whether such open spaces as these will be our conservation legacy to future generations is a test of our national values and our civic pride." 31

Stewart L. Udall, Secretary United States Department of the Interior, 1965

For more than 50 years, land management plans have been contructed for Kleinstuck. In 1973 a plan for maintaining and supervising Kleinstuck was constructed and submitted through John Cooley's Ecology and Literature class at Western Michigan University by Kleinstuck Student Committee chairman Dan Wiedeman. The plan included long and short term actions which might be taken to protect Kleinstuck. Following is a copy of the content of the report.

"We feel that Western Michigan University is very fortunate to have the responsibility of administering the Kleinstuck Preserve; however, we believe that better use could be made of the area.

Having a relatively "unspoiled" natural tract of land in an urban

³¹ Stewart L. Udall, <u>Stewartship</u>, Open Space Institute, 1965.

area is a unique situation which offers a remarkable opportunity to the university and its students for both pleasure and study. In view of this situation, we have developed the following proposals for the Preserve."32

I. "Proposed Use Policy:

"Foot travel only. No motor vehicles except for emergency or maintenance use. No hunting. No fires. No littering. No picking of plants or flowers. No building. No roads. No utility lines. No man-made products that would scar the area."

II. "Short Term Action"

- A. Develop and publish a Kleinstuck Guide:
 - a. map with trails named and marked,
 - b. list of flora and fauna likely to be seen from trail-side during different seasons,
 - c. brief history, statement of policies, and geologic history,
 - d. certain distinctive areas designated and a paragraph written about each:
 - 1. areas can be described in the Guide.
 - 2. areas numbered on both Guide and trail.

B. Trail recommendations

- a. erosion control on certain designated trails:
 - 1. timber retainers
 - 2. fill

³² Committee plan for use and recommendations, 1973.

- 3. seeding
- 4. straw cover
- b. plant to close off certain unnecessary trails,
- c. groom a few overgrown trails to promote their use,
- d. plant around man-hole covers,
- e. remove cement house foundation and other eye-sores.
- C. Coordinate with fire department:
 - a. Bronson Road entrance now blocked,
 - b. possible access created behind the Y.M.C.A.
- D. Establish "Friends of Kleinstuck":
 - a. possible Kleinstuck Fund.
 - E. Possible campus, city, and county police protection
 - a. regular patrolling to discourage abusive use and to stop offenders.
 - 1. this would help residents feel more secure.
- F. Hire someone to walk through Kleinstuck daily to clean up litter and remove any obstructions from the trails.
 - a. this person would dter policy violators.
- G. New signs at five public entrances stating policies:
 - a. request that the city place litter or trash barrels at these entrances.
- H. Distribute Guide to local, public, and private schools and

enchourage the use of the Preserve.

III. Long Term Action

- A. One or two areas for observing marsh life.
- B. Deed clarification
- C. Regular item in the university budget."33

This plan is the only recent proposal which reflects current problems at Kleinstuck. Hopefully, the short term action proposed in the plan will be initiated. Unfortunately, it seems that the two major actions included in long term suggestions may be needed before most other action occurs. Deed clarification and budgeting an adequate yearly funding system have historically been the major problems in developing an effective use plan which could be feesibly implemented.

It is obvious that student and community interest persists about the welfare and survival of Kleinstuck. The supervisors of Kleinstuck should gather and combine programs, projects, and priorities with University and Board of Education officials and determine a course of action similar to the proposed student committee plan. The University and the Board of Education and possibly a local Kleinstuck committee could combine funds to implement the use plan.

It is hoped that this report has helped define and clarify

^{33&}lt;sub>Ibid</sub>.

a variety of aspects about Kleinstuck Preserve. University and Board of Education officials should initiate additional studies, if needed, to further justify an adequate program of protection and maintenance for the Preserve. This action could be easily started by the supervisor of the Preserve, using student and faculty assistance.

The alternatives to adopting an effective use plan can already be seen at Kleinstuck in the form of erosion, litter, and damaged shrubs and trees. If public concern is not answered through formal state or local action the alternatives may become more apparent realities.

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