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ARTIFICIAL NESTS FOR CLIFF SWALLOWS

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One May morning in 1939, as I came from the barn to the house, I heard a peculiar grating and squeaking noise. Following this sound, I found a pair of Cliff Swallows (*Petrochelidon pyrrhonota*) just starting to build a nest not more than fifteen feet from the ground under the eaves of the woodhouse.

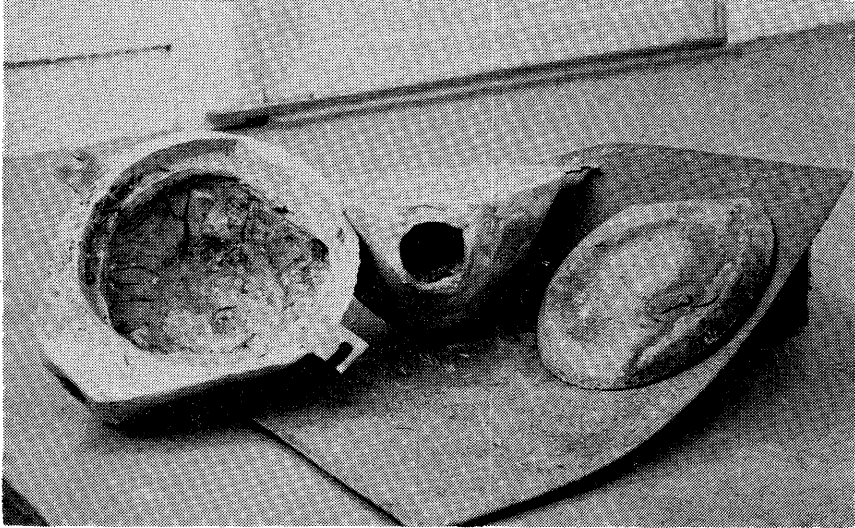
As I had not seen any of these birds locally for nearly twenty years, I watched them building a nest. Because of the new paint on the house, the mud did not stick and on the second day the nest, now one-third finished, cracked loose and fell to the ground. The birds immediately started rebuilding and out of pity I drove three nails into the house for nest support. This proved successful and by late July the young had been raised and left the nest.

In the spring of 1940, five pairs of swallows returned and with the aid of more nails, these birds built nests and had a successful nesting season. At this point I thought of the idea of making artificial nests for Cliff Swallows. I talked to Mr. Charles Spiker and Mr. Verdi Burtch. Both of these men, now deceased, were skeptical but thought the experiment worth trying.

From carefully removed mud nests, I made many measurements as to size of entrance opening, depth and width of nest cavity and general form. Attempts at making removable molds failed regularly, for in spite of greasing and oiling, the woodfiber plaster would stick to the wood forms and during attempted removal of the cores, the nests broke. At this point, as I nearly gave up, the idea came to my mind of using sponge rubber for a core and covering the outside with woodfiber plaster applied with a putty knife.

After fashioning a form to make the indentation for the wood cover and placing this form on top of the rubber core, I inverted everything, placed it on a board, made two ears out of a metal strap for holding the finished nest up to the eaves, fastened these to the base board in such a way that their ends would be imbedded in the plaster. Then I proceeded to cover the core with about one-half inch of plaster, smoothing this off with the putty knife. When the plaster was dry I removed the screws holding the metal ears to the board. This allowed me to pick up the nest, remove the wood form that made the indentation for the wood cover, and pull out the sponge

rubber core. I then held in my hands the first artificial Cliff Swallow nest. All had gone well with the exception that the plaster had gone into the sponge rubber and when the core came out some of the rubber was torn off. After that I put a paper napkin over the rubber core. This kept the plaster out of the sponge rubber and also made the inside of the nest smooth.



Sections of Artificial Cliff Swallow Nests

All this experimentation in the manufacture of the nests had taken up considerable time, winter was over and spring had arrived. The Cliff Swallows were back and starting to build again. I made twelve nests as fast as the plaster would dry. Then one morning I knocked down the partly finished mud nests and put up the plaster nests. The swallows were greatly excited by my actions. To my great surprise and joy in a few minutes, the swallows were going in and out of the nests just as if they had been using them for years. It was complete acceptance. No further attempts were made to rebuild the mud nests as long as there were enough of the plaster nests to go around. I then made up twelve more of the nests. This made twenty-four in all that I had under the eaves of the woodhouse. I made up another twelve nests and put these under the eaves of the barn. The next year all nests were inhabited. By this time the war was on and I found less and less time to build nests. But the colony of Cliff Swallows kept growing and as it grew, more and more mud nests began to appear. The best I could do was to put up wood strips under the eaves of the barn to give the swallows a better support for their nests. I also supplied them with a good mud-puddle near the barn to furnish a ready supply of clay and water.

Under my banding permit since 1941, I have banded more than 3000 of these birds. With the use of the plaster nests it has been very easy to make many very interesting observations that otherwise would have been

very difficult to make. Parasite control is much easier for the plaster nests are quite smooth. The nests may be taken down each spring and cleaned before the swallows arrive.

This experiment gave me the opportunity to study the life of these birds from the egg to the time the young leave the nest. All I had to do at any time was loosen two screws turn the nest a little, take it down, lift the lid and look in. I could then see the type and amount of material on which the eggs were resting, watch the rate of growth of the young birds, see the plumage develop etc. With the help of my good friends, Mr. and Mrs. Malcolm Lerch of Penn Yan, R D #5 and the use of their mist nets I have been able to come to some conclusions as to the longevity of these birds. Two were netted last year that I banded eight years ago. The use of the mist nets gave me some idea as to the number of birds that return to their old nesting place. Most of the returns have been local in nature. Two, however, were of great interest to me; one nestling Cliff Swallow which I banded June 25, 1950 was found entangled in telegraph wires at Bon Retiro, Santa Caterina, Brazil, South America on January 20, 1951 and the other nestling I banded June 19, 1955 was found dead January 13, 1961 at Municipio de Salesopolis, Casa Grande, Estacao Biologica de Boraceia, Poco Preto, Estado de Sao Paulo, Brazil. These returns lead me to believe these birds move around a bit.

Over the years, as my colony has increased in numbers, other small colonies have started in the neighboring countryside. The growth of these colonies is greatly dependent upon the amount of protection and help given them. House Sparrows (*Passer domesticus*) and House Wrens (*Troglodytes aedon*) are their worst enemies. All in all, I think it has been a very interesting and successful experiment and is another example of how birds are willing to cooperate with man, if proper protection and encouragement is offered. Prattsburg



Artificial Cliff Swallow nests under the eaves of the woodhouse