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Tattooing Green Turtles

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The implantation of pigments under the skin to form indelible marks can be traced back to Paleolithic times, however the word "tattoo" is of comparatively recent Polynesian origin. Although sea turtle designs were incorporated into the tattoos of early Polynesians and other Pacific islanders, there is no record that the turtles themselves were ever tattooed by such people.

In November, 1975, I had two captive-reared Hawaiian *Chelonia* (average wt. 2 kg) tattooed in an effort to develop a permanent and practical secondary identification method for use in growth and migration studies of naturally occurring immature green turtles. Mike Malone, skilled artist and owner of China Sea Tattoo Company in downtown Honolulu, applied the tattoos using a custom-built electric vibrating apparatus with four converging needles. Black carbon ink was implanted in the white skin adjacent to the anterior edge of the plastron. The tattoos consisted of HAWAII #1 and HAWAII #2. No discomfort was exhibited by the turtle while being tattooed, and Mike expressed the wish that all of his customers would remain so motionless. Upon completion, petroleum jelly was applied to the areas. Mike informed me that humans are instructed not to go into the ocean for one month, or until the tattoo is completely healed, because salt water can draw out the pigment. Because this would be impractical for sea turtles, I waited only 10 hours before returning the animals to their floating cages.

In two weeks time the scab which developed over each tattoo sloughed off and healing appeared complete. The pigment remained intact and clearly visible. During the following two months, however, the tattoos gradually faded and disappeared.

Additional experimentation with sea turtle tattooing seems warranted. Implantation needs to be tested at different skin depths, and with zinc oxide and other light colored pigments in areas of dark skin. If a technique is perfected, a battery operated tattooing apparatus suitable for field use could be constructed.