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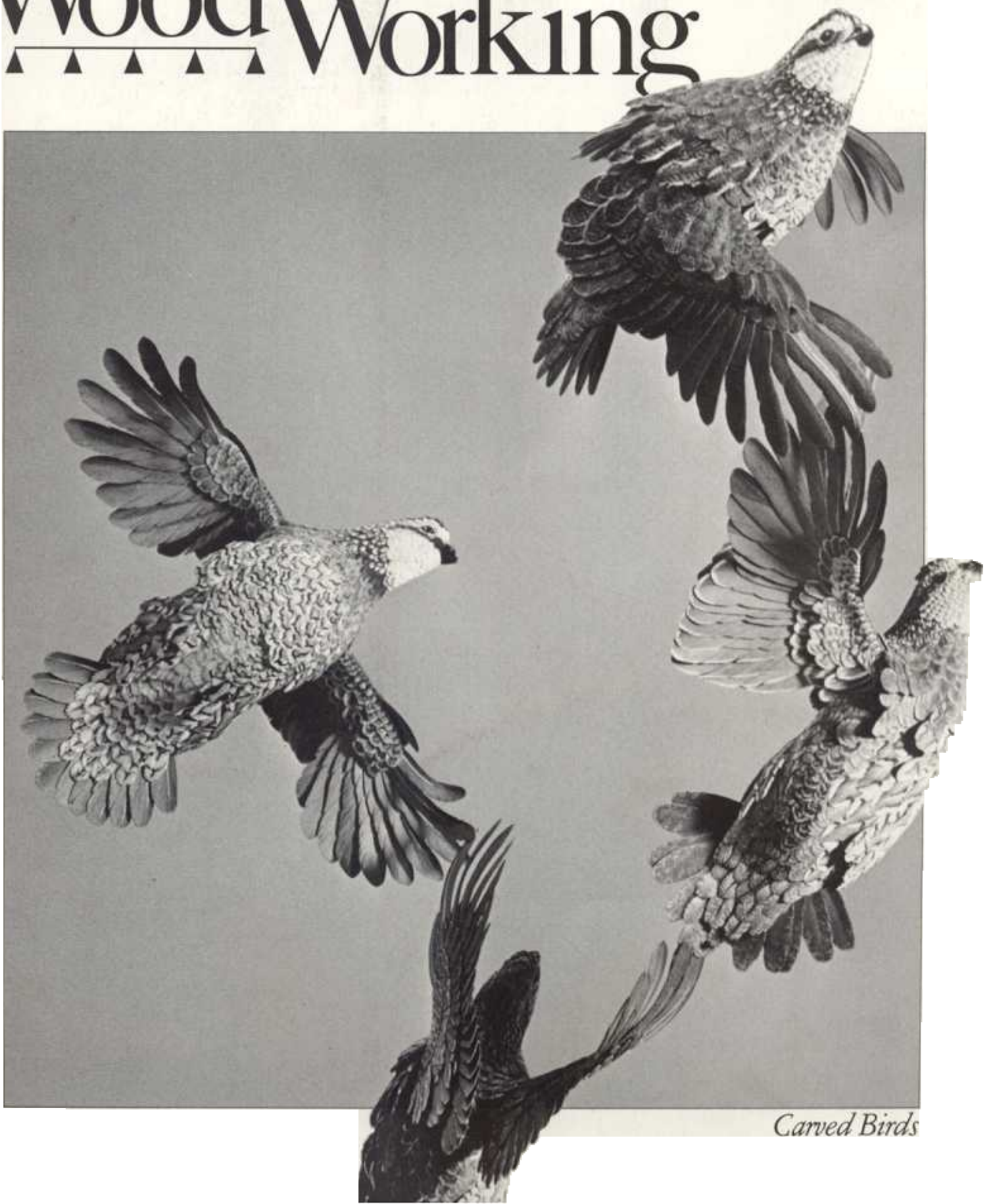
Fine WoodWorking



Carved Birds

Grainger McKoy's Carved Birds

A wooden covey on springs of steel

by Roger Schroeder

Though they are wooden feathers that spread out in flight, metal feet that cling to brass foliage, and basswood bodies that seem to defy gravity, the birds carved by Grainger McKoy look alive. One of the finest wildlife artists in America, McKoy has spent ten years perfecting his art. He has a degree in wildlife biology and training in architecture from Clemson University, but he learned nearly all his techniques from his mentor, Gilbert Maggione, South Carolina painter and bird sculptor. Maggione showed McKoy how to create dynamic postures and how to avoid the static forms common to decoy carving. He taught McKoy how to insert individual feathers and how to give unerring attention to anatomical proportions and detail. McKoy now knows so much about his birds that, pointing to a bobwhite quail he carved, he can tell you how old the bird it represents would be, and why.

Since his two-year association with Maggione, McKoy has made more than 75 bird sculptures, some consisting of a number of birds. His and Maggione's works have been exhibited at the Museum of Natural History in New York, as well as in shows throughout the East and South.

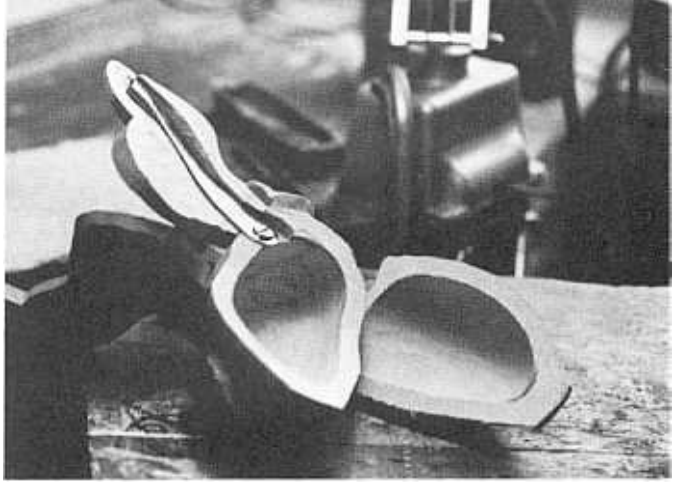
McKoy's workplace on Wadmalaw Island, 20 miles outside of Charleston, S.C., is a tin-roofed country store converted to a workshop and an upstairs studio. Near a window is an old graffiti-covered student desk where he does much of his carving. He has few traditional carving tools, and his only standing power tool is a bandsaw. About his desk are large piles of Styrofoam blocks, which he uses to make models of his birds. When I visited him in the summer of 1980, he was working on a commissioned sculpture of a covey of quail: 15 bobwhites exploding into flight (cover). The uppermost quail soars four feet above the base. His most ambitious project thus far, it wasn't completed until the spring of 1981.

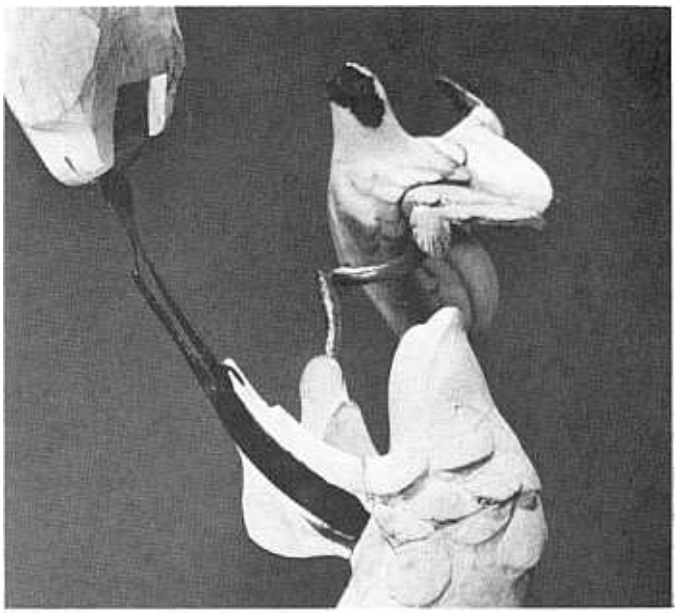
Though McKoy did make preliminary sketches of the covey, the drawings confined themselves to basic joinery and to the relative positions of the birds. He didn't do exacting sketches of his sculpture, claiming that too much planned detail would have bound him to a preconceived image. Rather, he let first the Styrofoam models and then the wood tell him how the sculpture would look. Each of the 15 birds began as a Styrofoam model. "They're easy to throw away," McKoy says, "just something you can play with." Cardboard wings can be variously positioned, and heads can be cut off, rotated and reattached with pins to test different postures.

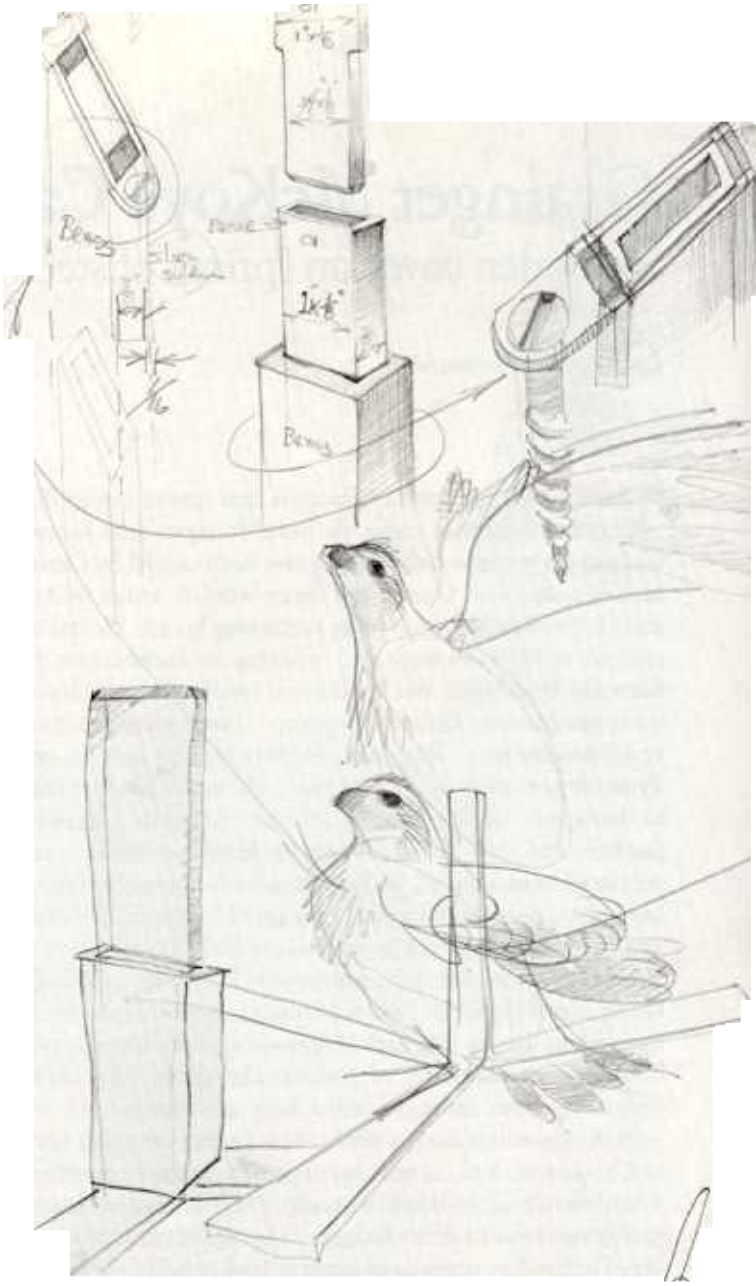
Before McKoy could begin carving the individual quail, he had to see how they would be positioned in flight. On a turntable work surface that economized his own motions, he used thin, vertical steel rods that held chemistry-lab clamps, which in turn held pieces of brass tubing at right angles. A wood screw through the flattened end of this tubing could temporarily hold a bird, either Styrofoam or wood, in the air. These supports allowed McKoy to position the quail wherever he wanted until he was satisfied with the places they all held.

One of McKoy's preliminary sketches of his covey sculpture, showing the steel-ribbon understructure that supports each bird.

McKoy's solution to keeping the birds airborne, without hanging them like mobiles, is ingenious yet simple. The quail are joined together from the lowest to the highest, even if only by the tip of a feather. Yet how could solid wooden-feathered birds support each other when the uppermost life-sized bird is four feet off the ground? One answer is that the quail are not solid wood. McKoy bandsaws the bodies in half and hollows them with a #5 gouge before rejoining the halves. This reduces the weight by a third or more. The other answer is that the birds are joined from top to bottom by lengths of ⅛-in. thick by 1-in. wide steel, an annealed high-carbon knife-blade steel that can be bent, ground, welded and then hardened by heat-treating in a furnace. The hollowed bodies have another advantage, for a steel ribbon runs into the bird's body cavity where wood screws hold the metal to the wood. Another length of steel can then emerge from beneath a wing and end as a detailed feather, complete with







To make the bodies of the birds in his sculpture as light and structurally stable as possible, McKoy bandsaws them in two and hollows out the insides with a gouge (photo, top). Note the high-carbon steel ribbon that has been let into the wing and screwed in place. This is part of the understructure of the covey that supports the birds imperceptibly, presenting the illusion of flight. McKoy devised a tenon-and-socket joint (above) which allows the pieces to be disconnected when necessary. The basic joinery was worked out in sketches as at right.

rachis (quill) and barbs, those parallel fibers that stand out like the teeth of a comb. To this steel feather is welded the steel counterpart of yet another bird. The rest of the feathers are individually carved of wood. Using the branching steel ribbon, McKoy can have one bird giving support to two others above or beside it, one at each wing. Where bodies and not wing feathers touch, steel supports are concealed elsewhere in the anatomy.

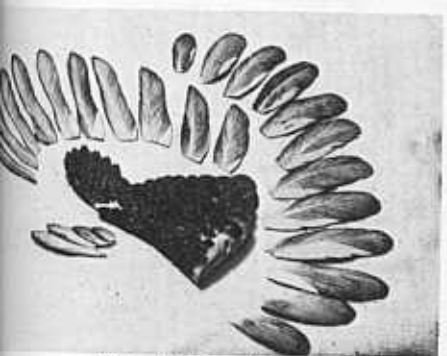
The problem of disassembling so many birds for carving and detailing was solved with a socket-and-tenon joint. By making the steel ribbon in sections and brazing two flat pieces of brass and spacers to the end of one, McKoy was able to create a slot to accept the tenoned end of another section as shown in his drawing above. So even where the tip of a steel feather is permanently welded to the feather of another bird, its other end can slip into a slot carefully hidden among wooden feathers. As a result, McKoy can simply lift birds off one another, enabling him to work on them individually, then replace them.

After each bird was mocked up in Styrofoam, its wooden counterpart was shaped on the bandsaw, though McKoy had to rough out each one at least twice before he got what he wanted. He used basswood because of its stability and resistance to checking and cracking. It contains little resin and so it is easy to paint. He has in the past used poplar for feathers because this wood can be cut extremely thin and still retain its strength. But poplar, McKoy points out, is fibrous, and thus is more time-consuming to work than basswood.

While the bone-and-sinew part of the wings was roughed out from thick stock and attached with screws to the quail bodies, the individual feathers began as ⅛-in. thick basswood blanks. After drawing an outline on the blank, McKoy carved with a 2½-in. pocket knife each of the bird's primary, secondary and tertiary feathers. These were then reduced in thickness with a hand-held, motor-driven, ½-in. by ½-in. sanding drum. The larger feathers could be held by hand, but for the smaller ones tweezers had to be used. For feathers that had to be bent, McKoy first heated the blanks on a bending iron and then bent or twisted them to shape.

Once shaped, the feathers needed barb details. For this McKoy used a burning tool that has a skewed tip—the Detailer, manufactured by Colwood Electronics (715 Westwood Ave., Long Branch, N. J. 07740). It is held like a pen and drawn forward, the slanted end of the heating element burning a straight line into the wood. He also used the Detailer for burning in feather detail on the birds' bodies.

McKoy's attention to anatomical detail is evident when one sees a wing disassembled into as many as 22 individual feathers. Yet he claims that if he reproduced them exactly as they are found on a bird, each feather would have taken him



Top, McKoy shapes a feather in poplar using a sharp pocket knife. Next, he thicknesses the feather with a sanding drum in a Foredom rotary tool. Details (barbs and rachises) are then burned in with an electric hot knife. A wing may be made up of as many as 22 individual feathers (bottom photo). At right, the finished sculpture reveals an unexpected flurry of flight. Photo: Ted Borg.

For rough carving and shaping, McKoy uses a rotary stone in his Foredom power tool. The stone leaves behind a textured surface which enhances the expressiveness of the piece by deepening shadows.

For fine carving—defining and undercutting the feathers and other features—he uses a skew chisel and holds it much as you would a pencil. This grip affords little power but maximum control.

McKoy applies metal feet to a completed bird.

a day to complete, requiring, then, two years to do nothing more than the wing feathers of 15 quail.

McKoy's major tool for carving and shaping is the Foredom Series R rotary tool. Not only can the Dremel bits he uses work both Styrofoam and wood, but they can also add the details to a steel wing. For fine carving he uses a skew chisel which will undercut and define the feathers of a bird's body. But McKoy uses a rotary stone in his Foredom for coarse shaping. This setup will not produce sharp details. Instead, the stone will create a shadow effect that gives "expression, not duplication." This was of particular concern in the covey sculpture because the quail are meant to be viewed from a distance. Too much detail would look busy and detract from the overall effect.

The eyes of his birds are taxidermy glass, and the feet are brass, the metal being soft and easily worked. The toes of the quail, he solders on individually, and the completed feet are held in sockets in the birds' underbodies. The Foredom rotary tool again comes into play, with a carbide cutter used to form the scales on the birds' legs and toes. The feet of the still-grounded quail are brazed to lead plates in the base, which give the entire sculpture stability.

All of the quail were painted with oil-base paints, with the exception of the white areas, which were lacquered. He used lacquer because it could effectively cover the dark umber base produced by the burned-in details, which entirely cover the birds. Wings and feathers were removed, and painted with an airbrush to fill the smallest crevices. The final colors, however, were hand-painted. The process took an entire day for each bird. After the painting was completed, the feathers were glued into the wings.

About his sculpture, McKoy says, "This is the way a covey of quail might appear if frozen in flight by a stop-action photograph. But I didn't have any such photograph, and so I had to follow my instincts and intuitions in deciding how these birds look at the very moment they break from cover."

Remarkably portrayed are the instincts of flight and escape at the bottom, giving way to the natural grace of birds overcoming gravity at the top. It is a study in conflict that McKoy seeks to represent in many of his compositions. McKoy is a birdhunter and knows the habits of quail and other game birds. He is also licensed to collect game birds, and large drawers in his studio hold dozens of preserved birds, wings, and feet, all of which aid in his work. Yet, he does not want his works to look like taxidermy. His are wood sculptures in which anatomical accuracy must serve an expressive end. One recent piece, three weeks in the making, is what he describes as a pen-and-ink in wood. Out of a roughly carved basswood background emerges the body of an unpainted semipalmated plover—emphatically a composition in wood.

To McKoy the design of flight and escape are more important than carving technique or background. Over the years he has been de-emphasizing the habitats in his compositions, claiming that the background was dictating the piece and that they looked too much like museum dioramas. Always improving and simplifying his work, McKoy strives to avoid inert forms and excessive detail. Future works will probably include more examples like his pen-and-ink plover, where the concept of a bird as wood is clearly defined. □

Roger Schroeder, of Amityville, N.Y., is a woodcarver and freelance writer. Photos by the author, except where noted.