

## **LEARNING TO CARVE MASKS IN BALI**

**By Ronald Naversen**

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**E**xhausted after several days of travel, I arrived in Bali in January 2002 as part of Dell'Arte International's Study Abroad program. My six-week sabbatical to study mask carving had led me to a "Fantasy Island" paradise. Outside my bedroom window I could see thatch-roofed cottages, fish ponds, water fountains, moss enshrouded shrines, and statues, all surrounded by a sea of rice paddies. It was hard to believe my eyes. I had always believed that artists and academics were supposed to suffer.

After several days of helpful orientation sessions to Balinese culture, language, and customs by the Dell'Arte faculty, I was ready to begin my formal instruction in mask carving. In the village of Mas, famous for its many mask and woodcarving shops, I entered a winding alleyway leading to the family compound of my Balinese mask carving teacher, I. Ketut Molog. Ketut's extended family and apprentices live together in this

compound along with an array of dogs, chickens, ducks, and pigs. Domestic activities blend with carving as the women come and go to market, wash clothes, prepare daily meals, feed the animals, dry rice in the sun, make daily offerings to their Hindu deities, and sand and polish the finished masks. Men pass through the studio to and from the rice fields behind the compound, make house repairs, maintain the family motorcycles, and carve their masks. It was in this domestic setting that I learned the fundamentals of carving.

My first carving lesson was very different from my own teaching style in America. There was no syllabus with an outline of educational objectives, topic headings, evaluation scale, and absence policy. We had no introductory discussion about carving history or philosophy, no formal demonstration of tool usage and maintenance, no step-by-step outline for learning basic carving practices progressing towards more

complicated techniques. Ketut simply asked what kind of mask I would like to carve and we began.

Looking at the many elaborate masks that hung on the walls of his studio I selected one with simple facial features. I didn't want to take on more than I could handle. My mask work prior to this had always been an additive process, modeling from clay, plaster, or papier mâché. Now I was dealing with a subtractive process where I thought any mistake was permanent and irrevocable.

Under Ketut's guidance, and facilitated by Newman (only one name), a Dell'Arte faculty member and mask maker, the class began by tracing the outlines of our chosen masks onto a piece of paper, then cutting out the pattern after folding it along the centerline to make sure it was symmetrical (figure 1). The position of the eyes and mouth were also sketched on the paper for future reference. Measuring my pattern, Ketut selected a log about eighteen inches in diameter from his woodpile. A favorite wood for mask carving is *pulai*, pronounced "poo ley" (*Alstonia Scholaris Apocynaceae*). Pulai is a straight, fine-grained, cream-colored wood, which is carved while still green and soft. The pulai hardens as the mask dries becoming lighter and stronger.

We used a two-person handsaw to cut the block to the height of the mask, allowing an extra half inch at the top and bottom for safety. An old axe head was inserted into the cut to prevent the edges from pinching the blade (figure 2). The cut log was then measured so it could be split into three individual blocks each of which would become a mask (figure 3). The back of the mask is oriented towards the harder heartwood so the facial features can be carved into the softer sapwood. This way the circular growth rings correspond to the rounded features of the face. We be-

gan the split by using the axe head to cut a half-inch-deep line across the wood block (figure 4). More axe heads were driven into this cut creating a split into which a thicker wedge of wood was driven to completely split the block.

We placed the mask block on a wood block about 15 inches in diameter and about 3 inches thick on one edge and 4 inches on the other. This slightly raked block allows the carver to position the mask at different angles while carving. Ketut then demonstrated how to use a small axe, or *timpas*, to clean and level the back of the mask block. The *timpas* is the size of a hatchet with a 9-inch handle, 5-inch head and 2½-inch deep blade that begins its bevel about 1½ inches from the edge of its slightly curved blade. The most unusual feature about the *timpas* is that the head is offset from the handle 12 to 15 degrees. This allows the carver to maintain a straight stroke while making cuts into the block's side. Ketut made a few quick, deep, unerring chops whereas mine were hesitant, shallow cuts that often missed the mark (figure 5) Once I missed the mask entirely and chopped into the wood block. Ketut smiled and explained the block was there to protect the concrete floor from the apprentices. This was the first inking I had to Ketut's gentle sense of humor.

Once Ketut was satisfied that the back was flat he traced the paper outline on it and demonstrated how to *rough out* the corners at the top and bottom and then round the chin, cheeks, and forehead to start bringing the face into relief. Roughing out simply means to quickly cut away the bulk of the waste wood before starting to define and model the carving. This process is also called *grounding* or *wasting*. Ketut demonstrated on one side of the mask and had me copy on the other side. He would watch my progress, offer suggestions and occasionally reposition



PHOTOS BY THE AUTHOR

my hands and guide my stroke. Ketut then used the paper pattern to locate the eyes and mouth on the face of the mask. He chopped a straight cut directly beneath the nose and then an angled cut from the top of the lips to make a notch. Then Ketut made a diagonal cut to define the left side of the nose and another cut along the top of the left eye to define the socket (figure 6). Giving me the mask and timpas Ketut indicated it was my turn to copy these cuts on the other side of the mask. Again my strokes were hesitant and less efficient than Ketut's, who continued to give helpful suggestions.

Later I learned that many Balinese carvers would often switch to a small axe called the *kapak* to rough out the features in greater detail. However, Ketut had found that his *tamu* students were less comfortable wielding an axe and preferred to move to the more controlled chisels and gouges. Ketut felt that the added expense of the *kapak* wasn't justified in our initial training.

Besides the *timpas* we received a wooden mallet, six flat chisels and seven round edged gouges as part of our carving set. Our mallet, or *pongotok*, was made from a dense native wood. The handle was about 8½ inches long with a head about 4½ inches long, 2 inches wide, and 3 inches

high. The flat chisels, or *pabat*, ranged from ¼ inch to 1½ inches wide across their cutting edge. The rounded gouges, or *pengacap*, ranged from ⅛ inch to 1½ inches wide at the edge. These tools were cut from recycled industrial saw blades by a local blacksmith and then sharpened by Ketut using a wet stone (figure 7). Both the chisels and gouges were beveled along a single edge. The *pabat* are typically used with the beveled edge up while the *pengacap* alternated as we cut either convex or concave gouges into the wood.

On one side of the mask Ketut demonstrated how to use the larger *pabat* to slope the forehead, cheeks and chin down to the sides and back of the mask. Next he showed how to use the smaller *pabat* to cut the valley between the nostrils and cheeks and flatten the notch between the nose and lips (figure 8). I copied, less skillfully, on my side and once a rough facial structure emerged we moved to the curved *pengacap*. Ketut demonstrated how to cut valleys into the brow and cheek blending them into the eye sockets, the bridge of the nose to the cheeks and the chin to



the lips and cheeks. We then turned the pengacap over to gently round the raised areas of the nose, nostrils, cheeks, lip and chin into softer hills and mounds (figure 9).

Perhaps the most difficult aspect of carving was learning how to hold the wood securely in place while one hand wields the pongotok and the other manipulates the chisel or gouge. The Balinese carver solves this problem by using his feet as the vice to hold the wood. Ketut and his apprentices were extremely flexible and their facile, almost prehensile, feet and toes allowed them to grip and rotate the mask quickly and efficiently. While the other students and I could hold the mask between our feet for short periods we could never hold it as securely or rotate it as easily as the Balinese carvers. In Western carving tradition we secure our wood to a worktable, but I've since discovered that this method doesn't allow the quick repositioning of the mask to facilitate the carving strokes or to check the balance and symmetry of the mask. The tamu students also needed cushions to sit on for long periods where the Balinese could sit cross-legged for hours on end.

An interesting note about the use of feet in mask carving is that Balinese cosmology reveres the head as the purist part of the body while the feet are considered polluted or unclean. Therefore since the feet touch the wood in the carving process, it is necessary upon its completion for a priest to ritually purify the mask before it may be worn for any religious ceremonial performance.



With each mask I carved I became more aware of how important it was to continually rotate the mask and approach the cut from the appropriate angle depending on the type of cut that was desired. Ideally a cut across or at an angle to the grain is best. The cuts I found most difficult were *end grain* cuts at the crown nose, lips and chin. Cutting into the end grain will often split or chip the wood. I also learned how to make *stop cuts* in the wood by cutting down into the wood severing the grain. This serves as a break or stop for a subsequent cut coming towards the stop cut.

Before the facial features are cleaned with knives the mask needs to be *hollowed* to fit the wearer's face. Hollowing is the process of digging out the waste in the back of the mask. The mask is turned over and placed face down on the wood block or on a nest of wood shavings to help protect the high relief features of the nose, chin and brows (figure 10). The larger pengacaps are used to gouge a divot in the center back of the mask. This divot is then popped out and the sides are continually cut back creating a bowl-like depression. The bowl is made larger and deeper until the sides of the mask are about 1/2 inch thick. Knives are used later on both the outside and the inside edges to refine the features of the mask and reduce the wall thickness to 1/4 inch. Balinese carvers will actually use the timpas or kapak to start the hollowing process allowing them to quickly chop large cuts from the back before moving to the pengacap.

Care must be made during the hollowing process to keep from cutting through the mask. I found that the pulai is translucent if carved too thin. On the occasion when I did cut too deeply Ketut showed me how to carve a slender piece of pulai to fill the hole and then glue it in place using the Balinese version of Superglue. During the hollowing process the thinner edges of the mask may occasionally split or crack. The carving students were understandably crestfallen if one of our masks split, but when this happened Ketut would laugh and produce his bottle of Superglue, which securely welded the edges back together. While shopping for masks at other studios I would occasionally see the tell-tail discoloration of Superglue along a thin line on the back of the mask and

knew that even the master Balinese mask makers occasionally had to fix some of their masks. So, I learned that not all carving mistakes are irreparable!

Once the mask is sufficiently hollowed the eye and nose holes are cut through to the back of the mask. After sketching in the eyes, different sized pengacap are used to make a *stop cut* along the circumference of the eye. The wood inside the eye socket is excavated and the process is repeated until the pengacap punches through the mask. The nostril holes are made by rotating the 1/8-inch pengacap to cut a small circle from the front to the back of the mask (figure 11). The back of the nose is then excavated with a medium pengacap to accommodate the wearer's nose. I noted that American noses generally needed more excavation than the smaller Balinese noses.

Several knives are used to clean wood from behind the eye and nose, smooth the features of the mask and carve fine details. Included in our carving set were two sizes of straight knives or *pamutik* and two curved tipped knives called pangot. Both knives have a single beveled blade edge, but the pamutik only has a blade on one side while the pangot have double-sided blades and tips that curl up away from the blade. Both sets of knives have long handles, which the carver employs in a levering action using the thumb as the fulcrum or pivot point. This way the knife blade can either be drawn towards or pushed away from the carver allowing the carver to select which direction is best according to the wood grain

(figure 12). Ketut carved the handles for our knives, which were made of the same recycled metal as the chisels and gouges. The complete set of carving tools ordered for the class was about \$40.00 and a comparable set could cost several hundred dollars back in the States (figure 13).

The pamutik are used to clean the flat and convex surfaces and make straight incised cuts into the wood. The pangot are used on concave surfaces with the curved tips particularly useful in excavating the smaller crevices and undercuts around the nostrils, eye sockets and lips (figure 14). The pangot are also invaluable for excavating the nose and eye sockets and cleaning the gouge marks in the hollowed back. Ketut's skill with these knives was formidable. He could make long graceful cuts to add wrinkles, define the curving lips, flare the nostrils and round the teeth. My knife strokes were short choppy slices that I hoped the sanding process would soften and blend.

The pulai wood is still soft and wet when the carving is complete so the mask is allowed to dry for several days before being sanded. Because Ketut cleans his masks so well with his knives he only requires a single 2-inch by 2-inch piece of 80 grit sandpaper to finish the masks. The sandpaper is curled into tubes and folded into points to get into difficult cracks and crevices. While the mask surface needs to be smooth, it shouldn't be overworked muting the details (figure 15).

Although this article is principally about carving I should briefly mention the meticulous painting and decoration that these masks undergo once the carving is complete. The traditional white priming paint is made from ground calcified pig bone and mixed with fish based glue. This paint is mixed to watercolor consistency and requires fifteen to twenty coats to effectively base the mask. The mask is sanded every fourth or fifth coat to smooth the surface. Traditional pigments for base coats are obtained from a variety of shells, insects, fruits, plants, and beans including coffee. Traditional black is made from the lampblack of burnt coconut shell. Contemporary mask painters use convenient acrylic latex house paints, which are still thinned to a watercolor consistency requiring multiple applications and sanding between coats. The irises, wrinkles and facial accents are also applied in several washes of thinned



# Ketut Molog

## and the Dell'Arte Balinese Study Program

gray-black paint. Store bought synthetic brushes are used for the base and prime coats, but for detail painting Ketut makes his own tiny brushes by attaching goat or monkey hair with thread to a carved handle.

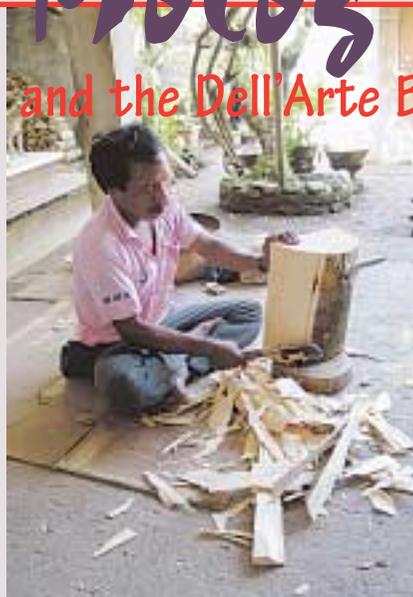
These masks are further decorated with mother of pearl for teeth, goat, and monkey fur for mustaches, eyebrows and beards, braided horse manes for hair, and gold leaf and jewelry findings to indicate royalty.

I carved five masks while in Bali (figure 16). On the first mask I would estimate that Ketut carved 75% while I did 25%. My second mask was 60% Ketut and 40% me, and on the third mask these percentages were reversed. My fourth mask was 25% Ketut and 75% me and on my final mask I did 100% of the carving. Newman explained that this was Ketut's method of graduating me by requiring me to solve my carving problems on my own with only occasional suggestions and encouragement. I was both surprised and honored when Ketut offered to take me on as an apprentice. He thought that in several months I could become a skilled mask carver in my own right. It was tempting to stay in paradise and continue to hone my skills under Ketut's tutelage. But I had other obligations and I was anxious to return home and share my experiences with my students, colleagues and friends.

Now that I am back in the states I have continued to practice my carving. Pulai is not available in the states; red alder (*Alnus Rubra*) is suggested as a comparable substitute. Alder is also carved while green, but changes from a cream to a reddish color while drying. Unfortunately alder doesn't grow in Illinois so I have it shipped green from Oregon.

While in Bali we made an hour length video of Ketut carving a traditional mask beginning with the wood block and progressing up to the cleaning phase. Newman, an accomplished mask maker in his own right, narrates the video. Anyone wishing to purchase the video can do through this e-mail address—ketutmologsvideo@yahoo.com. All profits from the sale of the video go to Ketut Molog. ❖

**Ron Naversen** contributes frequently to TD&T. He is head of design and production at Southern Illinois University, Carbondale.



Ketut Molog is a forty-three-year-old master carver from the village of Mas, which is known throughout Bali for its many fine woodcarving studios. Ketut began to practice carving when he was seventeen. This was in the early days of Balinese tourism and woodcarving was not yet a major profession. Bali is now famous for its woodcarving and exports thousands of carvings each year.

Ketut was especially drawn to carving the Balinese masks, or *topeng*. Masked dances are an integral part of the ceremonies that take place throughout the year in Balinese temples and villages. Much like the leather masks in the Italian Commedia, Balinese masks represent traditional

characters which are familiar to everyone.

With experience, Ketut developed a sense for which woods were appropriate for carving masks and began to see qualities inherent in each piece of wood that he could coax out for the mask. When he was twenty-seven, Ketut was proficient enough to apprentice under master Ida Bagus Anom, whose family have been celebrated mask carvers and dancers for several generations in Mas. It was under Anom's tutelage that Ketut learned the importance of music and dance to the creation of the mask. They often carved to the mesmerizing Gamalon music of the Topeng and Wayang Wong (Ramayana) stories. Anom is also a celebrated topeng performer and through him Ketut was inspired to take dance lessons to better understand the interrelationship of dance and the mask.

Eventually Ketut established his own studio in his family compound and began training his own apprentices. Ketut currently has apprentices ranging from twelve to twenty-five years of age. The younger apprentices saw, split, and chop the wood into the basic mask shapes. Ketut, his son, Kadek, and the experienced apprentices carve the masks and Ketut often refines the mask's final features. Ketut's wife, Nyoman, and daughter, Comman, sand, stain and polish the "production quality" masks, which are taken each morning to the local woodcarving market to be sold to tourists and stores throughout Bali. Masks commissioned for performance are painted, decorated, and purified in a ceremony whereupon a spirit is invited to inhabit the mask.

Ketut met Newman in 1987 while the two were working at another carving studio. Ketut and Newman became friends and Newman began to use Ketut's studio to work on his own carving. In 1996, Dell'Arte International, a school specializing in physical theater, began a study-abroad program in the traditional Balinese performing arts of mask carving (*ukir topeng*), dance (*legong*), and shadow puppetry (*wayang kulit*). Newman, who was a student and later a faculty member at Dell'Arte, knew that Ketut would be the right master teacher for the carving program.

The Dell'Arte Study Abroad programs begin with several days of orientation to the language, customs, transportation, ceremonies, and arts of Bali. Most of the instruction takes place in the villages and family compounds of the Balinese teachers, which provides a wonderful opportunity for the students to thoroughly immerse themselves into the native life and culture. Each student concentrates on one course of study, but many opportunities are provided during the six-week program to experience the other subjects as well. Dell'Arte also provides a series of yoga and Alexander based technique sessions during the program to help the students deal with the physical stresses their bodies encounter during their instruction. Throughout the program, Dell'Arte continues to provide excursions to Balinese festivals, performances, offer vocal workshops in Balinese singing and symposiums on the links between Balinese and western mask performance traditions.

The Dell'Arte experience was incredibly fulfilling for me, truly feeding my mind, my body, and my spirit. More information about Dell'Arte and their programs is available on their Web site, [www.dellarte.com](http://www.dellarte.com).