

Chipping Away
presents

**AN
INTRODUCTION
TO CHIP
CARVING**
Theory and Technique



by Dennis & Todd Moor

Chipping Away
presents

**AN
INTRODUCTION
TO CHIP
CARVING**
Theory and Technique

Chipping Away



...your friendly Chip Carving Specialists

Copyright 1998 by Chipping Away

All rights reserved. No part of this work may be reproduced or used in any forms or by any means including photocopying, without written permission from the publisher, except for individual and personal use.

Printed in Canada

ISBN: 0-9683448-0-1

Canadian Cataloguing in Publication Data

Moor, Dennis 1944 -

Chipping away : an introduction to chip carving theory and technique

Rev.ed.

Includes bibliographical references and index.

ISBN 0-9683448-0-1

I. Wood-carving--Technique. I. Moor, Todd, 1969 -
II. Title.

TT199.7.M66 1998 736'.4 C98-900633-6

Published by: Chipping Away
247 Blackhorne Drive, Kitchener, Ontario,
Canada N2E 1Z2

www.chippingaway.com

ISBN: 0-9683448-0-1

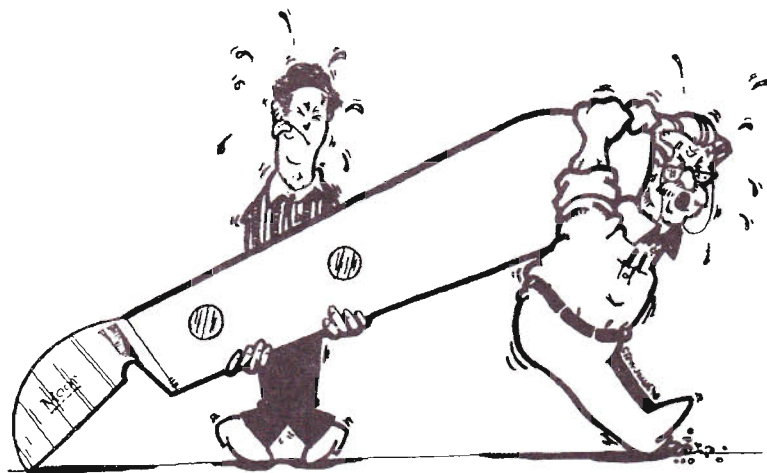
Dedication

The first edition of this book was dedicated to all those seeking enjoyment in Chip Carving. This second edition is dedicated to the thousands who purchased our first book and are currently enjoying a chip carving hobby. Their support and kind words have encouraged us to make improvements and continue to strive to serve you best.

We have been witness to the life enhancing Chip Carving often brings to those who try it Welcome to the ranks, you are in good company!

Dennis & Todd Moor

Become a member of our 'family of students'. Information is offered at the back of the book in the Acknowledgments section.

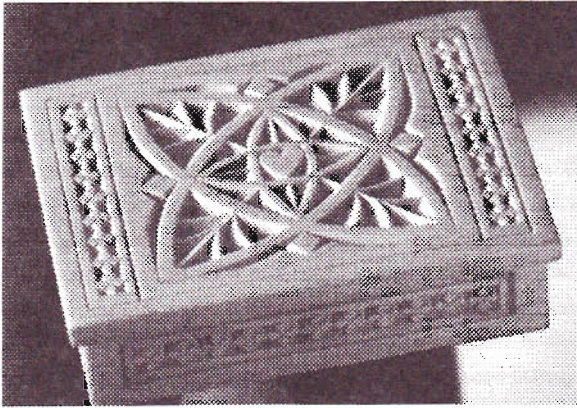


We Deliver Fun!

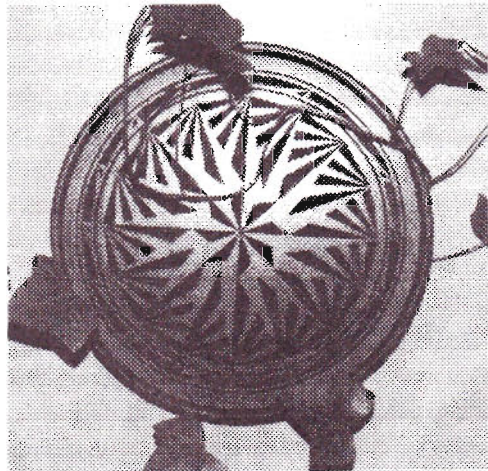
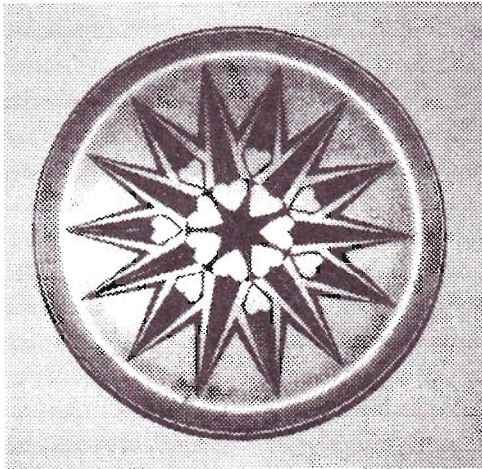
TABLE OF CONTENTS

Wood for Chip Carving	
types	page 1
moisture content	2
Tools for Chip Carving	
carving and tools of the past	page 4
Moor Chip Carving Knives	5
Other tools you will need	7
Sharpening Chip Carving Knives	
what to sharpen with	page 8
how to sharpen	10
stropping	11
Holding the Knives	
position one	page 13
position two	15
stab knife	16
three main shapes of chips	16
Borders	
rectangular or straight borders	page 20
triangular shaped chip borders	21
curved shaped chip borders	25
Grid Work	
layout and examples	page 30
Rosettes	
how to draw them	page 33
more examples	42
Lettering	
Kitchener style	page 47
Old Scottish	49
Finishing	
cleaning up your work	page 52
clear and stained finishes	52
Glossary & Index	56
Dennis' Ten Commandments for Chip Carvers	59
About The Authors	60
Acknowledgments	61

Some of Todd's Carvings



This is a very small trinket box ... it only measures about 3" x 5" ...proves the old adage about good things coming in small packages.



Nice examples of decorative plates ...first was carved for Todd's wife Susan on Valentines Day and the other hangs in their hallway with a vine growing around it ...beautiful!



This plaque was carved for Mary ...the midwife who assisted in the birth of Todd's & Susan's first child.

WOOD FOR CHIP CARVING

The King of all carving woods, whether it is Chip Carving, relief, in the round, etc. is **basswood**. Basswood is from the linden tree. So why don't we call it lindenwood? Well, they do in Germany (lindenholz actually....holz being German for wood) and throughout England it is referred to as limewood. You will often hear woodcarvers claim it cuts like butter or cheese!

Basswood grows from the southern US states right through to central Ontario ~ from central to east coast. For some reason, it is not native to the West, but can be grown there. The best comes from the northern states and southern Ontario. It grows too quickly and is too soft in the South and too slow and is too hard farther north. While you cannot get it at your local lumber retailer, it is readily available from all of the specialty lumber stores and most of the sawmills. It costs about the same as clear pine.

What makes basswood the preferred medium? Good question, easy answer:

1) Hardwood: Basswood is a hardwood by definition (any tree that loses its leaves is considered a hardwood - deciduous) but it is very light in weight. This combination gives it strength but also makes it easy to cut or carve.

2) The density of the grain: the grain is very close and even throughout. This makes it easy to carve because of its consistency.....since the darker grain is consistent in hardness with the lighter grain the carver will not experience different levels of hardness when drawing the knife across the grain. Try drawing your knife through a piece of pine....notice how the darker grain is much harder and it's almost like pulling the knife over speed bumps. That makes control more difficult. Pine is also a softwood and does not lend itself to the details of sharp ridges, etc.

3) Grain is quite light in color and has very little contrast. This allows you to carve patterns that are very intricate and detailed without the grain distorting or fighting with the pattern. In heavier grained wood, the grain has a tendency to distract from your carving....sometimes making it downright difficult to see. Ensure you choose a pattern that compliments the character of the wood should you carve in wood that is heavily grained, keep your patterns simple, avoid too many sharp ridges and enhance your design with a stain (more about staining later).

4) Stability. I find that basswood is much less susceptible to warping than woods of similar density. Once the finish is applied it is quite unusual to find movement due to normal humidity.

Butternut: Second To The Throne.

I guess if we consider basswood to be the King, then butternut would be next in line. Sometimes it is called 'white walnut' due to its proximity in appearance to walnut grain but lighter in color. This wood is also fairly light in weight that gives it that easy cutting reputation. Because the grain is more prevalent, it will have the tendency to take your knife under its own control if you are not ever conscious of your movements. But it takes only a little getting used to before you can master it. Remember what was said in the foregoing.....it has a beautiful grain so keep your patterns or designs simple. Your carving should compliment the wood, not fight with it.

There is currently a disease affecting our butternut trees in some parts of the United States and Canada. This is making butternut more difficult to get a hold of and a little more expensive than in the past. But it is definitely worth the effort and expense.

Other Woods:

I guess you can Chip Carve pretty much most woods. The harder the wood, the more difficult it will be to carve. The softer the wood, the less resistance to denting, fussing and tearing or breaking. Poplar is a good first step away from basswood or possibly even an alternative. Pine likes to split ahead so stop-cuts are vital. Because I believe your hobby should be as enjoyable and rewarding as possible, use those woods that give you the best results with the fewest difficulties. Pattern grade mahogany is a good following to butternut.

Moisture Content:

Purchasing your wood from a reputable dealer will generally ensure you of the proper moisture content. I like to have a moisture reading of about ten percent. Less than eight percent and the wood will be too dry and have the tendency to split or crack as you are carving. Over twelve percent and the wood is too spongy.

Should you purchase a wood product for carving (plates, boxes, etc.) and not get 'aroundtoit' for a while (we all share that problem) you may find that the wood has changed its moisture content considerably. It may have become too dry or too moist depending on where you have stored it and under what conditions. The best remedy is precaution.....when storing your projects for any length of time, wrap it well in plastic or air-tight container to help maintain its moisture level. But if, like most of us, you run into problems due to lack of memory (caused by an over abundance of gray hair) there are some solutions.

Too Dry? Build Your Own Humidor?

A trip down to the grocery or department store to scavenge a cardboard box and one of your large plastic garbage bags (the kind you put out for roadside pickup) is about the only investment you need to make. Cut off or fold in the flaps on the box so it is open on the top. Use a scrap piece of plywood or the like that will fit nicely into the box as a platform. Drive a few finishing nails into the platform leaving them extended well above the platform surface to act as a support on which to place your project / carving wood. This will allow air movement around the entire project. Place a sponge completely soaked with water into a saucer or shallow dish (should be enough water in the sponge that only a little puddle is evident in the dish) and put this into the cardboard box. Preferably the dish should be in the center and under your project. Now place the box inside the plastic garbage bag and seal it No, not with duct tape like Red Green might... just use a twist tie. In two or three days the project will have absorbed all of the moisture necessary and be ready for carving.

Placing your humidor in direct sunlight will speed up the process by creating a mini sauna.....but keep your eye on it because the heat will build quickly.....maybe twenty minutes or so. This sunlight method is fast but not as thorough as leaving your humidor indoors and for a couple of days.

Try the Cold: another good method for wood that is not too dry is to place your project in the freezer over night....even the refrigerator will help.

Having the right moisture content will make a remarkable difference in your results.

Drying It Out

Not too often, but it does happen, someone asks about too much moisture. They have taken their hobby to the campground (or the like) and left the wood out where the evening dampness has gotten into their wood. This isn't too serious and can be remedied simply by airing and making sure all the while, that the air flows completely around the project. Use the platform and finishing nail concept from above.

If it is cupping in one particular direction, turn it over on your platform. Cupping is caused from one side having less moisture than the other. You can also remove cupping (warping) by laying the project cupped side down on your lawn in direct sunlight for half an hour or less. The sun will warm the wood and it will draw moisture from the ground to restore its original shape. Watch it closely, as it can easily and quickly warp in the opposite direction depending on how hot the day is.

TOOLS

Carving & Tools Of The Past:

How old of an art is Chip Carving? Who really knows? Pieces have been dated back to the ancient Egyptians. The term 'chip carving' is mentioned in the Book of Celts dating back to 700 BC. Visit some of the Native museums in North America and you will find evidence of this art form in artifacts thousands of years old. It seems that where ever there was wood, chip carving was there in some form or another.

Chip Carving being done in today's world seems to have gotten its roots in Europe. For as many countries there are in Europe, there are ways and means of practicing this art form. Holland uses cutting knives resembling razor blades or utility knives. Germany has a selection of ten or twelve different knives and suggests the work be clamped to a bench for execution of the cuts. Great Britain uses chisels and veining tools and the like again in unison with a workbench. Scandinavia uses a combination of knives, chisels and also picks to clean out the bottom of the cuts. And so on, and so on. To say there is only one form of Chip Carving or only One Right Way to do it is false.

Chip Carving in North America has been more evident in the last twenty-five years. The number of new immigrants alone has helped to bring new methods and styles of carving. The last ten years in particular has seen growing interest in this art form and it was just nine years ago that I began to devote more than just a passing interest.

Do We Really Need New Tools?

During my limited number of years in being a Chip Carver, I labored long and diligently to master its challenges. I practiced it, I thought it, I ate it, I slept it, I became it. But probably most important of all, when I began teaching Chip Carving.....I listened to my students and it was then that I began to grow. It was in solving their problems and listening to their suggestions that brought me new insights. I hope to continue to grow and learn from my students. How many times do we find artists or professionals that become perfect.....well perfect in their own minds? I know I will never reach perfection, but I will always strive for it.

So what has all this got to do with tools? Of all the knives and tools used in Chip Carving today, there was nothing 'new'. These tools have literally been around for a hundred years and more. As I have said before, there is more than one method of chip carving, but doesn't it make sense to use those techniques and tools which are not only the easiest to use but produce the quickest results. I think so. Furthermore, chip carving tool sets in the past contained either too many or too few tools and their designs and steel haven't kept pace with today's technology. There was a real need for a revolutionary set of chip carving knives. I believe I have answered that challenge and based on the response and testimonials we are receiving from around the world, the carving public agrees.

MOOR CHIP CARVING KNIVES

This set of Moor Chip Carving Knives has been kept to a minimum number, yet their design produce maximum results with either the traditional or more contemporary styles of chip carving. This makes for a very inexpensive hobby that is easy to learn, but also one that become as challenging as you wish.

What's So New And Revolutionary About This Set?

As you can see in the photograph, the set includes two cutting knives (a large and small one) and a stabbing knife.



The large Moor cutting knife measures $5\frac{3}{4}$ " long, the small Moor cutting knife measures $4\frac{1}{2}$ " long, and the Moor stabbing knife is $5\frac{3}{4}$ " in length. Simply put, they are the best designed and engineered chip carving knives available.

Large Cutting Knife: The knife has a new blade shape. The radius near the point has been reduced to eliminate the amount of metal in the wood.....thereby greatly reducing the friction and resulting 'chatter' while performing curved cuts, especially on smaller circles. Its blade also comes out of the handle at a much sharper angle.....this puts the blade in a cutting position as soon as your hand comes in contact with the wood. It also reduces the amount of wrist action needed, which keeps your hand in full contact with your piece, and therefore your cuts and angles are more consistent. The length of the blade is also most important. It must be short enough to allow you to keep your thumb on the knife handle and wood at all times, even when executing tight radius cuts and you come on the tip more. It must also be long enough so as not to interfere with your thumb or visa versa.

The knife also has a newly designed handle. It is a major improvement. Notice in the photograph how wide it is near the blade end (known as the throat). In the past, keeping your thumb against the knife handle and on the wood at the same time proved difficult to most and resulted in improper angles of their cuts (65 degrees being desirable). This new wider throat makes much easier to hold the knife properly, regardless of the size of your thumb and/or hand. Actually the handle is larger in every dimension and much more comfortable for those with larger hands and for making larger cuts for those of us with smaller hands.

Small Cutting Knife: This knife is half the size of the larger one....why? Fair question, easy answer.....half of the students I have taught felt the older knives were too small (hence the above larger knife) and the other half thought the knives were too large (hence the smaller knife). Folks with small hands, especially youth, generally find the small knife just perfect, and the size of the blade considerable less intimidating. Also the thickness of the blade is reduced allowing for easier cutting and is much more delicate in those intricate corners and smaller chips. Those with larger hands have found the smaller cuts easier to perform because they are actually forced to handle the knife more delicately due to its size. It only makes sense to have the two sizes.

Stabbing Knife: This knife does not remove wood. It is pushed or stabbed into the wood to separate the fibers and form a wedge-shape design, thus enhancing the cuts made by either of the above cutting knives. Although the knife is simple in design and use, it should not be underestimated. The speed and ease in which it can be used to add that extra flair to your carvings is remarkable. This knife has had the point ground off to almost 45 degrees to assist in making the elongated triangle mark (with square edge).

Other Improvements: Why, in the past, has it taken so long to sharpen and prepare the knives for use? Over and over in most cases and considerably longer for some of the newer knives. That was the exact question I had for my chosen manufacturer. They told me there was no excusejust know-how and a little more time and cost.....the result is a set of knives that will sharpen up and be ready for use in a few minutes. We have used the finest stainless steel available and hardened it to its maximum Rockwell rating which assures it keeps a keen edge for hours.

Now some of you 'old codgers' out there will say stainless steel isn't good for carving knives because it won't hold an edge! Come in out of the rain you guys, that was back in the 1940's. Your old '49 Dodge wasn't the car today's is either. Today's technology in stainless has provided us a product inferior to none. Heck, we even offer a *lifetime satisfaction guarantee* on our knives just to prove our point ...*and put our name on them!*

Handles: Polished rosewood! What could be more beautiful and durable yet warm to your touch. Each handle has its own distinctive character and grain and is attached to the blade by brass rivets. The handles have flat sides to help you maintain complete control when drawing the knife through the wood. Handles with round or oval shapes have the tendency to roll or turn in your hand and are difficult for chip carvers to control. They are fine for other forms of carving where you are shaving away at the wood, but chip carving is more demanding of exact angles.

Packaging: Each knife comes in its own clear plastic tube for protection and easy identification. The tube tops are easily removed with a twist.

Other Tools:

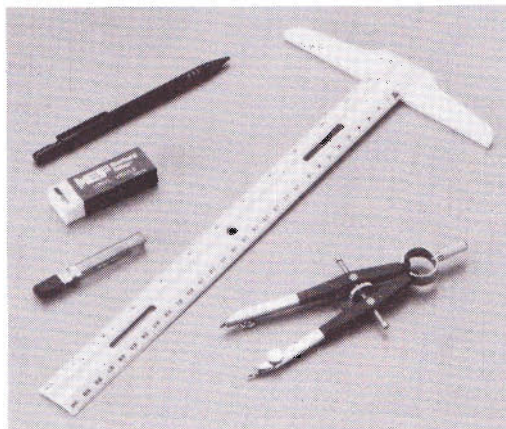
In addition to the knives and sharpening stones there are a few basic tools or aids you will require.

- * mechanical pencil. I suggest one of 0.5mm size and either HB or B lead refills. Do not use lead harder than HB as it will cut into the wood instead of drawing on its surface.

- * an accurate mechanical compass. It is absolutely critical that you have a quality compass with a wheel mechanism to adjust the radius. It should take lead refills rather than hold a pencil. Believe me when I tell you to spend the extra buck to get a good one!

- * a T-square is most helpful for doing your layouts. A good straightedge ruler is a necessity, especially one that offers both metric and imperial systems. Pick up a white polymer eraser for yourself as well.

- * templates can be a great asset. Here again spend the extra to get good quality ones and begin with circles and ellipses. There are many shapes available, but go lightly at first until you find which ones are most likely to be used often.



SHARPENING CHIP CARVING KNIVES

Beware:

Boy, here is a subject that can be a real hot potatoe.....that is how Dan the Quail spells potato, isn't it? There are more sharpening experts out there than you can shake a knife at and a number of them will tell you that theirs is the only way to get the job done. Then there are the experts that also sell their own sharpening stones it is really difficult for the novice to make a choice.

Yet, there is nothing more critical to your success as a Chip Carver than having a properly sharpened knife. As a matter of fact, let me offer some percentages I love percentages!

85% of the time, if you are experiencing any kind of difficulty with your carving, it is the knife and/or the way in which it is sharpened.....85%!

about 10% of the time, it can be the wood. Too dry, too moist, punky!

$85\% + 10\% = 95\%$ that means only 5% of the time can you blame it on something else try your spouse or maybe the dog. Chip Carvers don't have difficulties!

Seriously, well for a minute anyway, there are a few good tips I can offer. Remember, *"there is no such thing as one way and one way only."* You might want to try the following as I have found it to be just about the best. Besides, if you do exactly what I suggest, then you can always blame me!

WHAT TO SHARPEN WITH:

What you sharpen your knives *with* is just as important as *how* you sharpen them. Lets talk about the 'with' first, then about the 'how'.

Moor Ceramic Sharpening Stones:

It is ceramic stones that I use and recommend. Why? A number of reasons:

* **Hardness:** There is absolutely nothing on this earth harder than a diamond. The ceramic stones I recommend have the same hardness as a natural sapphire stone (the second hardest thing on this earth). That means our ceramic stones will remain perfectly flat - forever. They will not dish or wear as do oil and water stones ~ never!

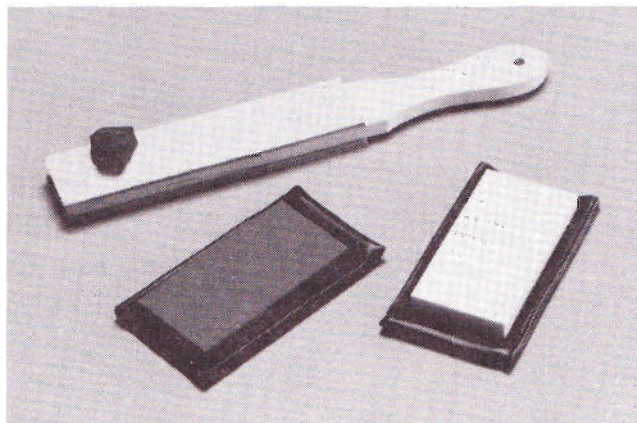
It is this flatness that is critical for proper sharpening of chip carving knives. Some chisels, gouges, and some other styles of carving knives do not require absolutely flat surfaces chip carving knives do.

*** Lubrication:** Ceramic stones do not require any lubrication. Not water, not oil, not nothin'. Sharpening then is a much cleaner operation and even makes your carving hobby more portable as you do not require clean-up utensils every time you sharpen or freshen up your blades. The stones will require cleaning from time to time to keep them in perfect operating condition. Why? Well, when you sharpen you are removing metal from the blade and leaving it on the stone. As this metal builds up you must clean it off the stone, otherwise you are just rubbing your blade across the metal particles and not the actual ceramic makes sense. Cleaning is easy and can be done with an abrasive cleaning pad (I use the green pot scrubbers from the kitchen ... when my wife isn't looking of course) and a little bit of cream cleanser. The cleansers that contain mild abrasives work the fastest and best and there are a number of different brands that you can purchase from your local grocery or hardware store. How often do you clean? When the stones look dirty! Do not leave it too long or it becomes a bigger chore.

*** Size:** Since ceramic is so hard, they do not have to be really thick and cumbersome in size. This makes them not only easy to handle, but again adds to that portability spoken of earlier. I recommend stones that are 4" long, and a full 2" wide and 1/2" thick.

*** Grit:** I suggest two stones of different grit grades. One should be around 800 grit and the other around 8,000. The ceramic is of the same hardness but the matrix or bonding agent in the lesser grit allows the ceramic to sharpen faster and more aggressively. The 800 will remove metal fairly quickly and sharpens the blade. The finer grit will start the polishing process and will quickly convince you of ceramics superior qualities.

*** Lifespan:** The finer grit will last you a lifetime. Unless of course, you should drop it on a cement floor causing it to shatter into hundreds of little ceramic stones. The coarse grit stone will eventually become clogged with metal particles and loose its original cutting ability. Don't be over concerned with this as I only needed a second coarse stone after 4 years and enough carvings to fill an average hobbyists' lifetime.

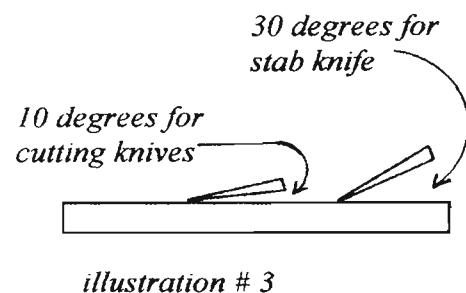
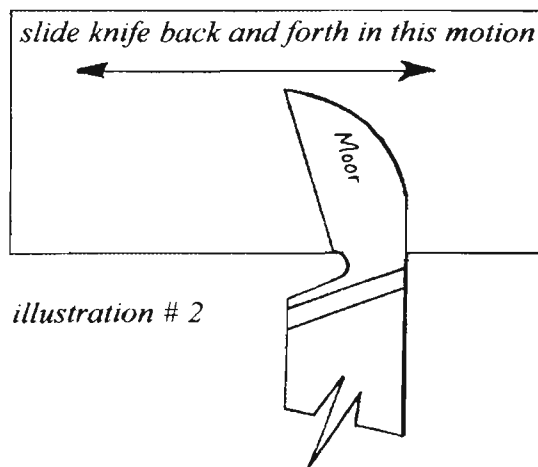


HOW TO SHARPEN:

You may read about (or be told about) the correct method of sharpening from many experts and sources. Draw your blade away from the cutting edge only draw your blade with the cutting edge leading -- rub your knife in a circular motion -- move your knife in the figure eight (8) motion. Does it make a difference which motion you choose? Not to my thinking. When rubbing two things together, the harder one will retain its shape while the softer one will change its shape. So as long as your sharpening stone is harder than the steel in your knife, it does not make any difference as to the motion you use. What does matter, is the angle at which you sharpen -- and therein lies the secret of correct sharpening.

It is a pretty much established and well-accepted fact that a cutting angle of 20 degrees is the optimum for good clean results while maintaining the life of the steel and its' edge. Since we sharpen both sides of our chip carving knives at the same angle, that being 10 degrees, bango! 10 plus 10 equals 20! We sharpen both sides for the purpose of obtaining accurate control over the knife. It also makes it either a left-handed or right-handed tool as an added benefit.

How do know it is 10 degrees? Good question. Hold your blade flat onto the sharpening stone, that is the course grit one. Now raise the back edge off the stone approximately the thickness of 3 or 4 sheets of paper, and that is not very much! That should be pretty close to 10 degrees. We want an even taper or wedge shape from the back of the blade to the cutting edge. By sharpening at too steep of an angle you are creating a secondary bevel and that makes it more difficult to pull your knife through the wood. If you think you might be holding the knife at too high an angle, then you probably are. Moor Chip Carving Knives come packaged with a finely ground edge from the manufacturer - and all you have to do is add that final touch. The bevel of the grind is as close to perfect as you can get and by sliding the blade in a back and forth motion (illustration 2) at the correct angle (illustration 3), you will get a sharp and accurate edge very quickly. Repeat this procedure on both sides of the blade.



Should you get a burr, do not become concerned, in fact, you really should go through this 'burr stage'. A burr just means you are ready for the next step in the honing and polishing process. Switch over now to your fine grit (white) ceramic stone and continue in exactly the same fashion as the dark sharpening stone. Lessen the amount of pressure you are putting on the blade and continue this polishing process in the same manner until the burr is removed. It is that easy.

Take care to polish both sides on the fine stone equally. Once you are satisfied with the job you have done so far (the amount of time this takes all depends on how much pressure you apply) you are ready for stropping - that final touch.

STROPPING:

When I first began chip carving and using the ceramic sharpening stones my leather strop was never touched. That old strop (homemade from one of my fathers old belts) had seen every chisel and plane blade I ever owned it was a real friend. Every once in a while, I would see it hanging there in my workshop collecting more and more dust.

"Do not use strops because they will change the angle of your sharpening on your blade. Roll the edge over, they will." Well, that was what I had been told. Then one day, after listening to a student that did strop, I picked my old friend and brushed off the dust. What a difference! You know it's kind of funny how we get into habits and forget to try new or different avenues. The same can be said about finishing your work also. I had been told that: *"the only finish appropriate for chip carving is a clear coat. Absolutely never stain."* Well, that's a different story and I will cover it a little later in the book when we learn that staining can be absolutely beautiful.

So back to stropping: I recommend Moor Strops, they consist of a wooden handle with leather glued to both sides. Apply a stropping compound. Chromium oxide is my choice for a polishing compound but here again, there are plenty of choices and each has its own characteristics that suit just about everyone and every situation. Apply the compound liberally to one side of the strop only ~ the rough side! Lay your knife perfectly flat on the strop and stroke it *away from the cutting edge*. Keep it flat during the whole stroke -- refuse the natural tendency to turn or roll the blade once you come to the edge of the leather -- keep it flat! Repeat this procedure on both sides of the blade until you can see yourself in the blade ~ yes it will actually shine that much. Then turn the strop over and repeat the process on the smooth leather side without any compound. This last step will clean off any compound left on the blade and give it that last bit of polishing.

Give your knife the final test -- cut into a piece of scrap basswood. Your knife should glide through the wood smoothly and without any drag. This polishing allows the blade to go through the wood as if you were cutting cheese. *Now that's sharp!*

Sharpening your stab knife is done in exactly the same manner but with one difference. The cutting angle of the stab knife is at approximately 30 degrees as it is stabbed or impressed into the wood to create a specific wedge shape.

HOW OFTEN DO YOU NEED TO SHARPEN

This question does not have an exact answer. It depends on many things, for instance: the species of wood you are carving, the moisture content of the wood, how hard the piece of wood is (even one species of wood can differ drastically from tree to tree), and so on. Generally speaking, I can carve basswood for about 2 hours before the need for refreshing my blade. You will be able to tell when it is necessary because of more effort being required to draw your knife or a loss of smoothness or crispness in your cuts. This refreshing is as simple as a few strokes on your strop. Approximately every 5 or so times I refresh my knife on the strop, I will go back to the white ceramic stone first and then the strop. Approximately every 5 or so times I go back to the white ceramic stone, I will back to the dark stone, then the white stone, then the strop. Unless of course I have damaged my knife by carelessness, then it will be necessary to go the dark stone for the repair.

You can never strop or polish the knife too much, so keeping the edge in perfect condition will only make your carving that much nicer.

Other Stones - Other Methods

Diamonds: These are pretty good also. The sharpening grits are okay but the really good ones tend to be more expensive than ceramic. I am not impressed with the job that the finer grits (for polishing) are doing. Ceramic is my choice, but once again, that does not mean you should not try others.

Natural Oil Stones: Arkansas are the best natural stones but are becoming more and more expensive. Natural stones do not have the consistency that ceramic does (nature is always perfect and man never is - except in sharpening stones). **Not ideal.**

Water Stones: I don't want to get into trouble here so lets just say -- not ideal for chip carving knives.

Sandpaper: Guess it does all right in a pinch as long as it is mounted completely flat and you stroke in only one direction -- away from the cutting edge. **Not ideal.**

Motorized sharpeners: *Be Careful.* There are a number on the market and many different wheels/discs/buffers. *Be Careful.* They are excellent for some tools and very quick. You can quickly change the angle of your edge which will mean more work to get that critical angle back. *Be Careful.* They generate heat rapidly. *Be Careful.* They are not very portable, and if you do transport them right **Be Careful.**

HOLDING THE KNIVES

Would you like me to tell you what problems you are going to have while learning to chip carve? Come to think of it, that would be pretty negative motivation wouldn't it. Sort of like the baseball manager who made a trip out to the pitchers mound in the ninth inning and said to his struggling pitcher: "okay now, whatever you do, don't throw the ball to this guy low and outside, he'll drive it a mile". Well guess what the pitcher threw? Right, low and outside -- negative motivation.

So let me tell you this. A lot of beginners have difficulty with the angle of the cuts. Yet it is this angle that is most crucial to your success. Getting the correct angle is nothing more than two things: holding the knife properly and practice. And since you have the benefit of this book and illustrations, you are going to sail through this without any trouble at all. But you will have to practice, and believe me, this is a great deal of fun!

There are two positions for holding the cutting knives. Position #1 and Position #3, no, no, that's not it -- Position # 1 and Position #2. If you develop a Position 3 and it works for you, let me know. Master these two positions and you will have little difficulty.

Position # 1:

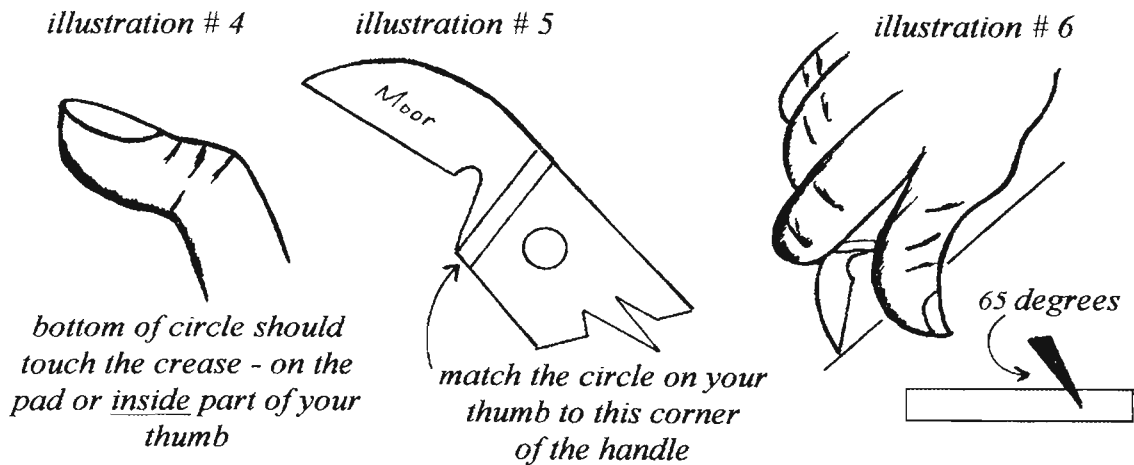
Let's use the large cutting knife to begin with. Pick up the knife and hold it the same way you would a paring knife from the kitchen. Now turn your hand over and notice how it is lying across your palm. This is pretty much the position we want so far, but add this change: hold it basically with your last three fingers. Your Peter Pointer (index finger) will serve more as a resting spot than a gripping finger. By holding with these last three fingers (similar to a golf club grip) you will not be able to squeeze so tightly on the handle and therefore be able to carve for longer periods of time without tiring or cramping up.

By the way, this position is for both right handed and those other somewhat challenged (is that the politically correct term) left handed carvers. (Don't write me please.)☺

Now look at the inside of your thumb. Bend it just a bit at the first joint -- notice how it forms a crease when it bends. Either imagine or draw a circle about the size of a pea right in the middle of the inside or pad of your thumb and have the bottom of that circle just touch the top of that crease (illustration 4). Now look at the knife handle. Nice isn't it? Okay now place the bottom corner of the knife handle nearest the blade (illustration 5) smack dab in the middle of that circle you drew on your thumb.

Now bring your hand and knife in contact with the wood (illustration 6). Don't start on your spouses favorite piece of furniture just yet. Use a basswood practice board. Ideally about 4" wide, 12" long and about 3/8" thick.

See the insert in the center of this book for photo showing the correct holding position!



As a check to see if all has gone right so far, look at the angle of the knife as it comes into contact with the wood -- is it at 65 degrees to the surface? That is the ideal angle and the one in which we strive for. Yes, you can make chips at a 45 degree angle but the shadows they will reflect are not as sharp and defined as a 65 degree angle (see illustration 7). If you try to chip at more than 65 degrees, your chips will be much too deep and their steepness along any ridges you may leave will result in a lot of breakouts (you will understand as we proceed).

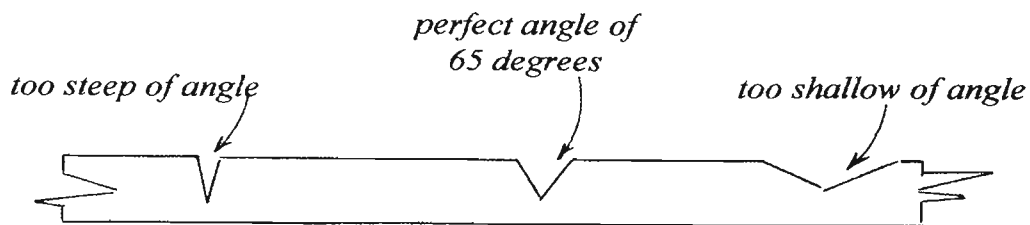


illustration # 7

I believe your thoughts right now are: boy, this feels weird / unnatural / awkward / uncomfortable / all of the above. Well, take solace in the fact that if it does feel this way, you are probably holding it correctly. Practice this until it becomes as comfortable as a glove because ninety percent of chip carving is done in this position #1. How does that story go again: a young man with a guitar case over his shoulder stopped a taxi driver in New York city and asked if the driver knew how he could get to Carnegie Hall. "Sure, replied the driver, practice."

REMEMBER :

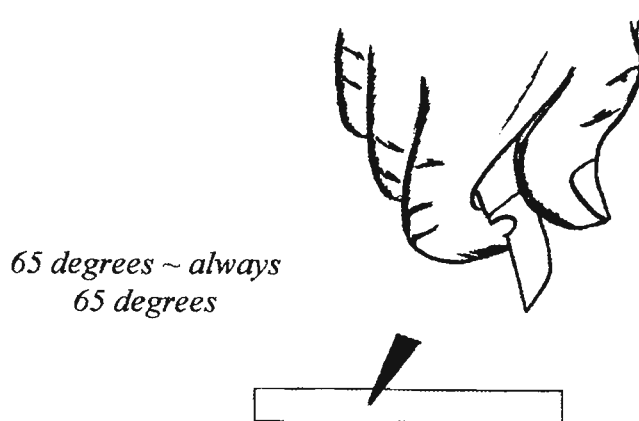
- * Curve your thumb outwards so it does not come in contact with the blade
- * Your thumb and knuckles should rest on your work as a guide or jig so it supports the knife
- * Always keep your thumb on the handle and on the wood at the same time. Failure to do this could result in cutting yourself. Do this and your angles will be consistent. Do this and you will not likely cut yourself or add unwanted color to your work (red).
- * Practice, practice, practice

Position # 2:

Hold your hand on the wood in position #1. Now without lifting your hand, loosen your grip on the knife and turn the knife in your hand so the blade is facing the opposite direction. Place your thumb directly on the back edge (spine) of the handle with the tip of your thumb coming in contact with the spine of the blade itself (illustration 8).

Holding your knife in this fashion until it becomes second nature, will assure your cuts to be at the proper 65 degrees in both position #1 and #2.

illustration # 8



The most common time you use Position # 2 is when making the second cut on the three sided chip. This might seem a little confusing, but it will be just as clear as mud shortly.

STAB KNIFE

As mentioned earlier, this knife does not remove wood. It is simply pressed or shoved or, as the name implies, stabbed into the wood. Its shape allows it to cut the wood fibers and separate them thus leaving a wedge shape impression. We hold ours just as you would when stabbing at something. If you put your thumb over the tip of the handle, you will have more control (see illustration below). The farther you push the knife into the wood and the farther you rock it, the larger the impression it will leave. That's it, simple eh! Yet do not underestimate this invaluable tool. It performs its duty quickly and efficiently, and enhances any of your carving designs.

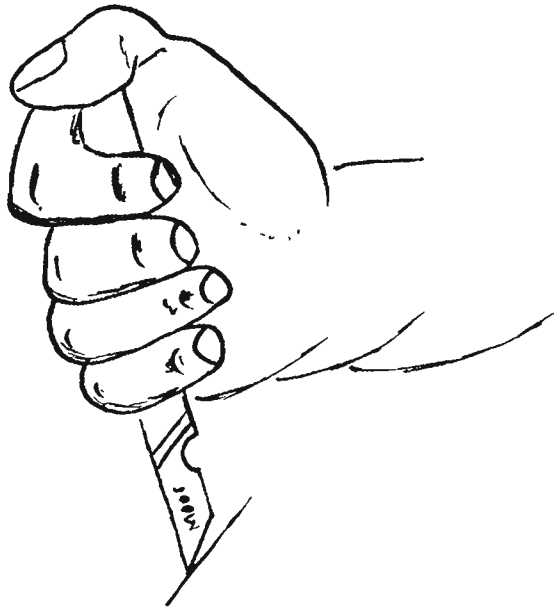


illustration # 9

THREE MAIN SHAPES OF CHIPS:

There are three basic shaped cuts: straight lines, curved lines and three sided or triangular. Yes, you may at sometime see and do four sided cuts and so on, but the theory for them is the same as for the three shapes mentioned.

Lets discuss each of these three shapes and how to carve them separately.

Straight Line Chip:

When executing the straight line chips use position # 1 only, and at that 65 degree angle. Simply insert your knife and draw along the straight line. Remove the knife from the wood at the end of the line and turn your work around approximately 180 degrees so that the bottom now becomes the top. Insert your knife once again and draw it along the remaining line to the end (illustration 10). If you place stop cuts or end cuts first the straight chip should pop right out.

Straight line chips are generally used to 'frame in' your work. When you pick up your developed film and snapshots from the local photography developing store, what is the first thing you do? I stand right there, or sit in the car for a while, and go through the shots picking out the ones I like best. If there is one that I am especially proud of, it might just warrant framing. Sound familiar so far? What happens when you have that snapshot framed? Right, it now becomes even more spectacular. This same thing happens when you 'frame in' your chip carving. Whether it is a border that you outline, a rosette, or whatever, that little added touch of a straight line chip makes a big difference.

Straight Line Chip Tips:

- * Keep your arm close to your body to prevent the knife from wandering.
- * Do not look right where the knife touches the line, look ahead of the knife about 1/2" or so. This is the same principal as driving a car, you don't look at the road just in front of the hood, you look down the road in direction in which you are headed. The large throated handle on the Moor Chip Carving Knife makes this task a good deal easier as you have a much more open line of sight.
- * remember to *krink* your wrist out -- what's that? Well I haven't covered '*krinking*' just yet but we are coming to it. You could always look it up in the glossary.
- * remember - 65 degrees.

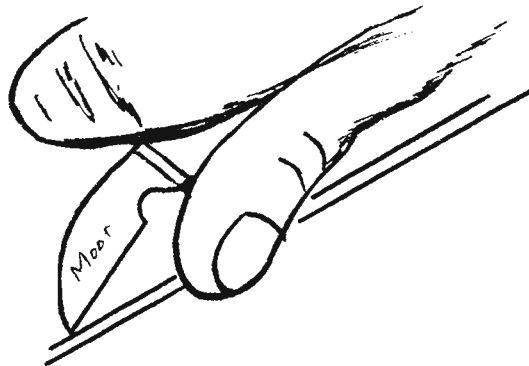


illustration # 10

Curved Chips:

When making curved line chips, use Position # 1 only, and maintain that 65 degree angle. As a matter of fact these chips are executed in exactly the same manner as straight line chips, but with a curve. And, since each cut begins and ends at the same place, stop cuts to connect the ends are not required. Examples of curved chips are shown as illustration 11.

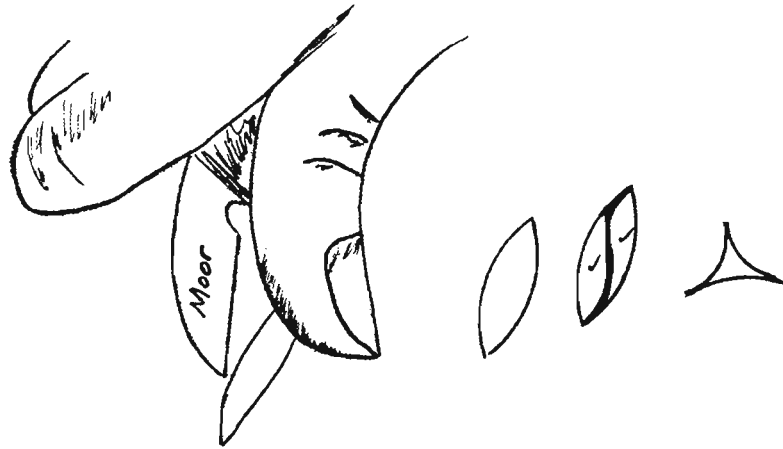


illustration # 11

Three Sided or Triangular Chips:

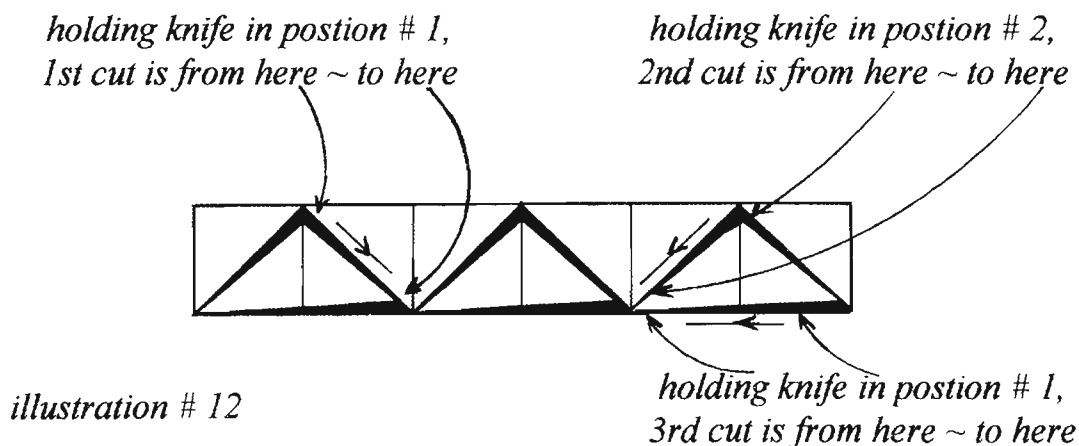
The most common use for this chip is in border work, although you can use this chip in all of your chip carving. The next chapter deals with borders using this three sided chip. Let me show how the cuts are made now and then we will apply them when we do the borders. See illustration 12, for an example of this three sided chip.

Hold the knife in Position #1 and place the point at the top of the triangle. Now shove or plunge the point into the wood in the direction of line one. In order for this three sided chip to pop out, the cuts must be made so they all meet in the center. The actual chip will resemble a pyramid shape. I find that by concentrating on the point of the knife, the rest of blade will just follow along and look after itself. When you shove your knife into the wood, do not pull or draw it, that simple downward thrust is sufficient.

Now turn your work around almost 180 degrees. Hold the knife in Position # 2 and place the point at the same starting point you began the first cut. That's right, the point at the top of the triangle (only now it is the bottom because you turned your work around). Just as in the first cut, shove or plunge the point into the wood in direction of line two. No need to draw or pull the blade, just the downward thrust of the point.

For the third and final cut, hold the knife in Position # 1 once again. Place the point of the knife where line one and line 3 meet. Now once again shove the point the knife into the wood in the direction of line 3. In the triangle shape illustration 12, the last or third cut is the longest of the three. Because of this it will be necessary for you to pull or draw your knife in order to complete the chip.

One final suggestion: before beginning the third cut, ***place your tongue in the far right side of your mouth ~ even have it stick out of your mouth just a bit!*** This simple position is known around the world to help your concentration and make your work much more enjoyable. It must work, as I catch people doing this all the time. 😊



May I suggest that you practice these three chips. If you are having difficulty with any of these chips not coming out, attempt to determine just why or where the problem lies. Do not force or pry the chips out! Find out by going over your cuts and then practice another chip using what knowledge you have obtained by making any errors. As a matter of fact, if you don't make any errors, you are not learning.

Resist the temptation to pry out the chip for two reasons. First, the chip will break off instead of being cut and the result is a messy looking chip. The chips should be clean and crisp in appearance. ***Second, you may damage the knife.*** Basswood is pretty light in weight but don't be fooled of its strength. That knife you have taken time to sharpen and polish comes down to a pretty fine point, and prying may just leave you with a broken tip.

Okay, practice these for a while and then let us get on with laying out and carving borders in the next chapter. *Pitter Patter ~ Let's Get Atter!*

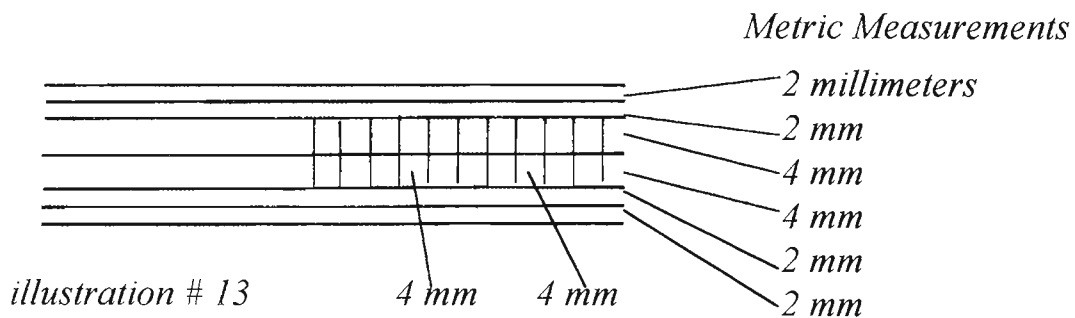
You know, a good way to reinforce this first lesson is with Volume #1 of our Chipping Away video series. Todd and I filmed all 4 volumes of the series in the same studio as our TV series excellent for the beginner!

RECTANGULAR OR STRAIGHT BORDERS

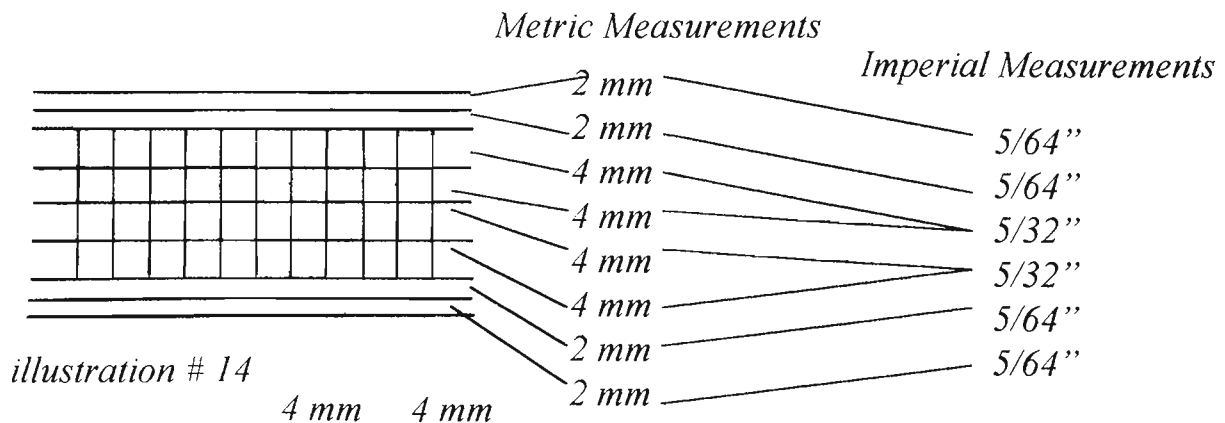
The following illustration #13 shows the ideal dimensions for border layout. It seems that these measurements have been around for centuries, and rightly so because they produce the most appealing patterns to view and the easiest to chip carve.

The dimensions are given in the metric system and let me assure you, that has nothing to do with us coming from Canada (The Great White North). Those blinking liberals, Pierre Trudeau to be more precise, forced this system on us. But don't get me started on that era.....back to rectangular borders. ☹

You should really make an effort to do your measuring in metric as it really is so much easier for this particular task. I will, however, also give the imperial equivalent for you hard nosed bunch.



Should you have a project of considerable size, the above border layout may prove too small and look out of place. In this situation, do not change the size of the individual squares, just repeat the pattern. Illustration #14 offers these measurements and you will see on page 26 just how this setup comes into play.



See how small these are! That is one reason metric is superior, the other reason is that metric is based on tenths and layout dimensions are easily divided or multiplied.

Let us begin by making such a layout across the width of our basswood practice board. Ideally the board should be about 4" wide x 3/8" thick x 12" long. Don't give me a hard time with jumping back and forth from metric to imperial ... I told you that was Trudeau's fault, not mine!

Now draw in (freehand is fine) a diamond shape by diagonal lines, corner to corner as shown. Continue this across the width of the layout until you have a complete row of diamonds each one touching the next. Use a mechanical pencil and T square as mentioned back on page 7.

Illustration #15 gives an example of this completed layout.

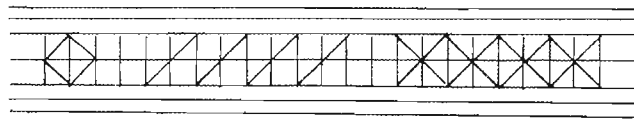
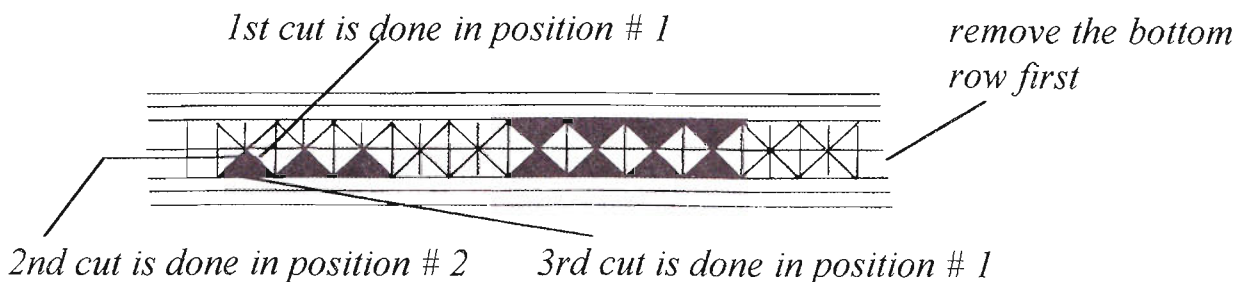


illustration # 15

So far, I have been referring to this pattern as a diamond shape, in actuality it is a square standing on its corners. The chips we will be removing (those which I call triangular) are amongst the earliest forms of decorative patterns and commonly called the 'wolf's tooth' design. Refer to the glossary at the end of the book for more information about this particular pattern.

Positive Diamonds

We can carve this particular pattern in a number of ways. The first one you should attempt is a diamond pattern in the positive form. This means that the diamond shape is left on the wood surface while the background is chipped out. Begin by removing the triangular chips along the bottom row using the techniques covered earlier in the book, more specifically on pages 18 and 19. Once you have removed this row, turn the board around so the top row is now the bottom and repeat the procedure. All the while having a great deal of fun and *remembering to keep your tongue on the right side of your mouth*. Illustration #16 should help you understand.



After you have practiced this chip a few times it should become easier and easier and your work should begin to show improvement. If the chips are not popping out easily, try to determine the reason and work on that particular problem. Common difficulties are:

- * **the wrong angle** - if too steep, the chips are not only difficult to remove but impossible to correct and will appear messy - sort of like a beaver has been chewing on it.

- * **cutting too deep** - at the proper 65 degree angle, you really don't have to cut into the wood very far - a little practice is the only way to discover the correct depth. By the way, a common question is "how deep do you cut?". The depth is determined by the size of the chip. Narrow or small chips do not require you to cut very deep before the two 65 degree angles meet, larger and wider chips, however, require a greater depth before the two angles meet.

- * **knife** - remember those percentages given earlier. If you are experiencing difficulty, eighty five percent of the time it is the knife and way in which it is sharpened.

- * **inexperience** - do not expect to become an expert in your first hour or so of chip carving. It is a precise art that requires practice. But once you conquer this chip, you will be ready to tackle the others.

Now refer to illustration #17. Do you see what we have added? In Chip Carving, it seems that no matter what you carve, there is always just a little bit more you can add to embellish or enhance your work. There also comes a time when you should stop adding to the work because the amount of wood you leave uncarved is sometimes just as important as that which you carve. We will learn more about the latter as we progress.

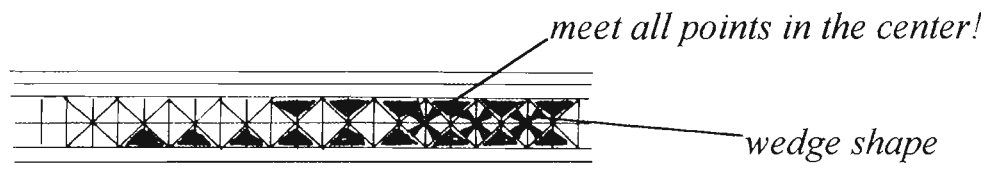


illustration # 17

flip-flop between position 1 & 2

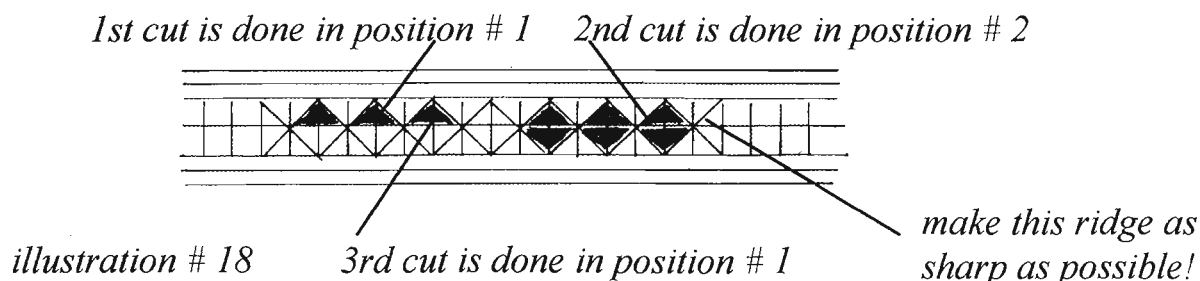
This little additional chip (once again cut at 65 degrees) is wedge shaped and is cut from the outside edge of the diamond towards the center. First use position #1 and then position #2 (or if you wish, first position #2 then position #1). It is commonly referred to as a 'flip-flop'. Whether you flip first or flop first doesn't matter at this point. However, later in the book, you will find that some flip-flops must be flopped-flipped and not flipped-flopped because flipping before flopping could flip out the flipping end you are trying to flip-flop and turn the whole flip-flop into a flipping flop! Right! 😊

One more thing here about the flip-flop: make sure the wedge shape comes to a sharp point and that all four flip-flop points meet in the center of the diamond. It is common on European chip carvings to find these 'flip-flops' cut only into the edge and not all the way to the center. Try them both ways if you like, but I prefer them to meet in the center.

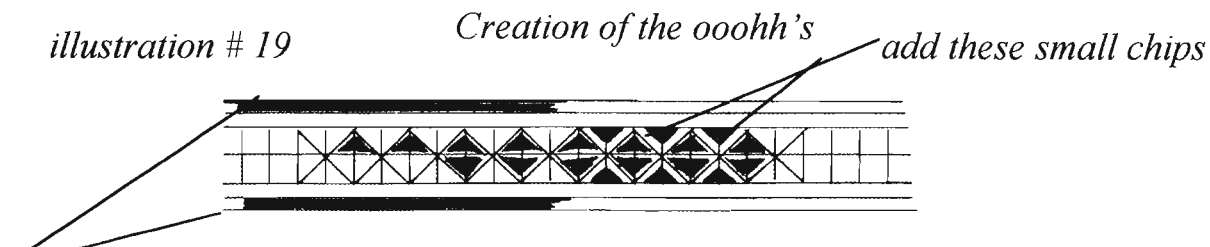
Negative Diamonds

Illustration #18 shows the same layout as the positive diamond with one exception. This time we will chip out the diamond itself and leave the background on the surface of the wood. See the shaded area in the layout? That is the area we will remove. At first appearance it strikes you as a four-sided chip and not a triangular one. You could make the chip in this manner, but for this particular design it is much better to remove the chip in two parts. First, chip out the triangle on the top half of the diamond following the same procedures as before for the three sided chips (refer to illustration).

After you have removed the top half of the diamond, turn your work around and remove the other half. When making the last or third cut, keep your knife edge right along the ridge you created upon removing the first half of the chip. The sharper the ridge you leave, the more appealing your work will be. This center ridge is left in to create more shadows, and that is one of the things that makes this craft so impressive. Keep that constant 65 degrees as failure to do so may result in your chipping out or losing that center ridge. Too steep of angle in your cuts will leave the center ridge very thin and fragile (and unattractive), whereas the proper angle will leave the ridge well anchored in the wood. When you attempt your first couple of these chips, you will discover why the third cut in this second half of the diamond is often referred to as the 'old damn cut'!



Now have a look at illustration #19. Just as we added the flip-flop to the positive diamond for that added touch, we have added another dimension to the negative pattern. It is a simple three-sided triangular chip, of a smaller size, placed between the negative diamonds. Simple in drawing, simple in execution but WOW! After you added this small chip, you will have an uncontrollable urge to exclaim “**ooohhhh!**” with great feeling and emotion. It is one of my favorite borders.



Once you have completed carving a couple of these positive and negative layouts, go back and carve the straight line chips ~ that is why the 2 mm spaces at top and bottom to frame in your work ~ refer back to page 17.

Variations Of The Three Corner Chip Border

There are many ways to change this layout around and create different borders. Illustration #20 creates a chevron design (some times called a zigzag). Illustration #21 shows a row of positive diamonds with every other diamond having a flip-flop and those between have a negative diamond carved within the positive diamond.



illustration # 20



illustration # 21

Illustration #22 is a larger dimension three-sided chip and indicates how the points can be carved facing the center of your project or away from your center design. When carved facing the center, your project will appear smaller in size and if carved pointed outward, your project will appear larger in size. Or you may carve both directions leaving only sharp ridges where the diagonal lines are drawn - that is impressive as well.

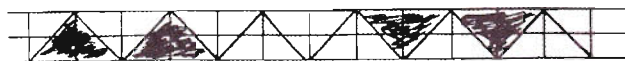


illustration # 22

Illustration #23 is a true diamond shape pattern. Notice it is in the horizontal position - it could also be done in the vertical position, but I prefer the one shown. Carve it positive, or negative - add the flip-flops or not. How many alternatives or embellishments can you think of?

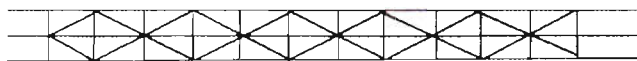


illustration # 23

Curved Chips in Rectangular Borders

So far, we have done only straight borders using the triangular or three-sided chip. Here are a couple of borders using curved chips. The first is a cable or rope pattern, which is quite attractive and well suited to frame numerous center designs (e.g.: horses or other animals, nautical patterns, even some rosettes). It is shown as illustration #24 and the technique to carve these curved chips is the same as described on page 18 using only Position #1.

illustration # 24

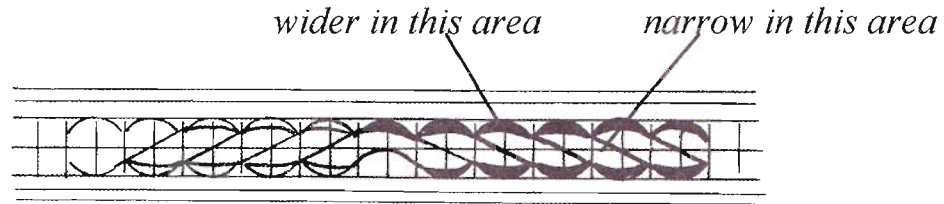


Illustration #25 is the Ing rune (see glossary) which is commonly found in Gothic ornamentation. It is very attractive and more feminine in appearance. See how the smaller three-sided chips and negative diamonds have been added to give that 'ooohhh'. Then see illustration #26 where the Ing symbol was left by itself; carve this one by leaving only sharp ridges where the lines are on the surface of the wood. This one can be challenging.

illustration # 25

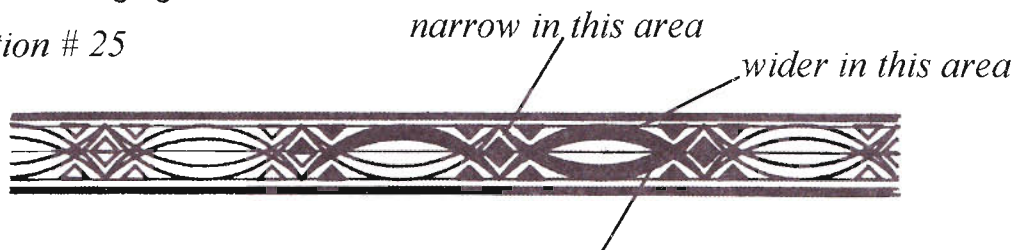


illustration # 26



*when carving through this area
I keep my knife at almost 90
degrees to avoid breakouts ~ then
roll back to 65 degrees where the
chip widens*

Illustration #27 uses the same chip as above but in a different pattern formation. Again, found in Gothic ornamentation. Notice the effect that the simple three-sided chip has on the design.

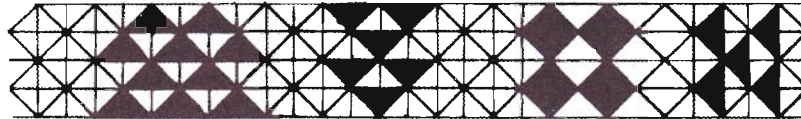


illustration # 27

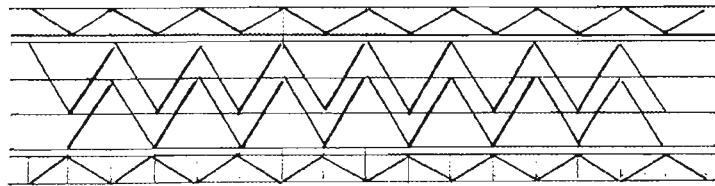
Wider Borders

As mentioned and drawn back on page 20, there may be times when the project you are working on is of considerable size, and the borders we have been carving thus far will appear too small. Do not change the size of the chips! Repeating the same pattern can get you this wider border in an attractive way - or - consider some of the other patterns shown here.

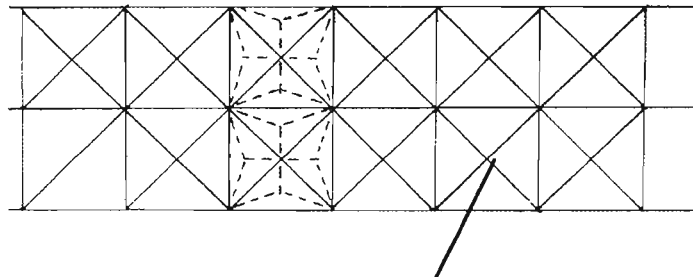
*two rows of negative diamonds automatically form
a row of positive diamonds in the center*



Common wolf's tooth design found in German Gothic styles (see glossary)

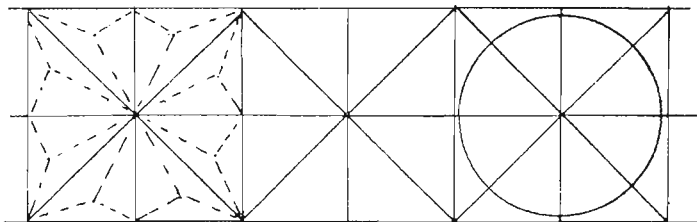


St. Andrew's Cross (see glossary)



*carve along all solid lines ~ the
dotted lines are meant to represent
the bottom of the cuts*

*when cutting into this delicate area,
roll your knife up to almost 90
degrees to avoid breakouts*

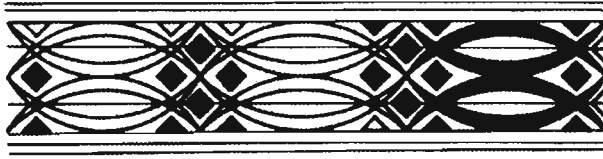


*when encircled, this
design is called
the wheel and cross ~
see glossary*

known as Cross & St. Andrew's Cross

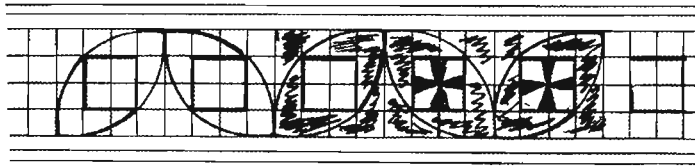
Even Moor Wide Borders

variation of the Ing rune

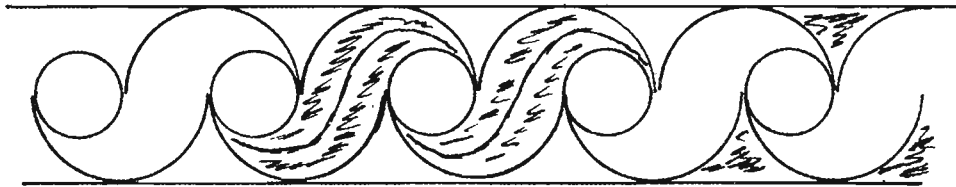


when cutting into the delicate areas, roll your knife up to almost 90 ° to avoid breakouts

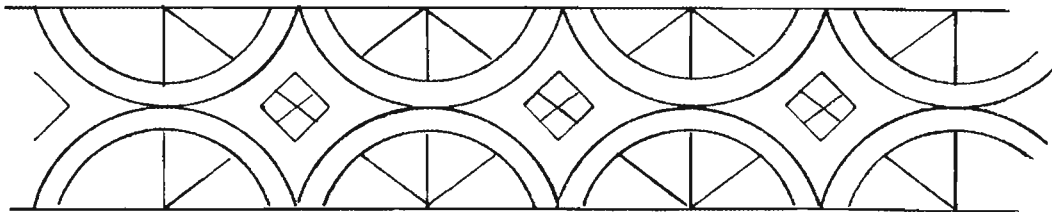
unification of the Cross & St. Andrew's Cross and a four-sided rosette which was quite common in Gothic styles



*cutout the shaded areas leaving sharp ridges along all of the lines
- yes it is challenging!*



Boy, here is an old one! This design has been traced back to ancient Greek clay sarcophagi. Commonly called the "Running Dog"

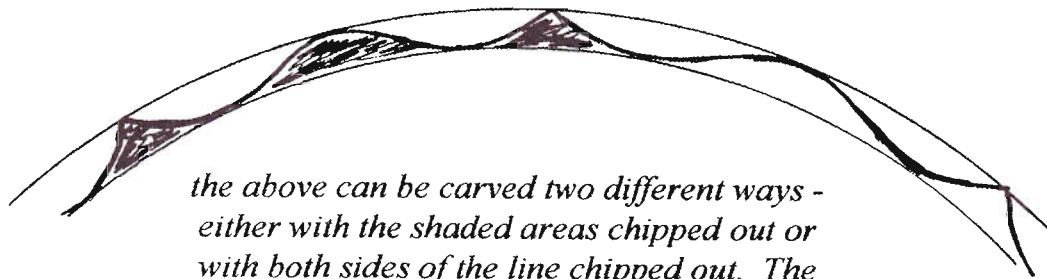


I drew this pattern as a border around the lid of a chest in 1992.... although I drew it as an original, I found that someone back in a previous century had 'plagiarized my design' Go Figure!

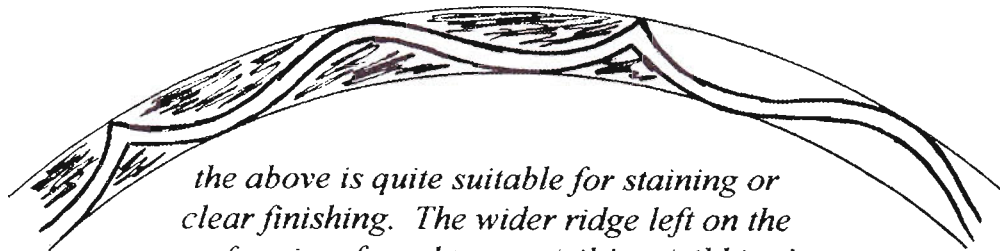
Curved Borders

There will many occasions when you are carving a round or oval project and want to add a border. Many of the patterns, such as the wolf's tooth, can be adapted to a round border and with a little imagination, you will discover all sorts of interesting combinations.

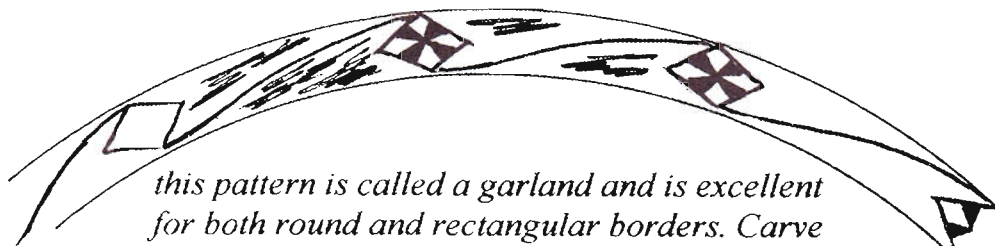
The first two shown here are of a scallop design and are offered because of their time proven popularity. Decorative carving on such items as plates and plaques make attractive wall-hangings and excellent gifts.



the above can be carved two different ways - either with the shaded areas chipped out or with both sides of the line chipped out. The first is suitable for staining, the second is not.



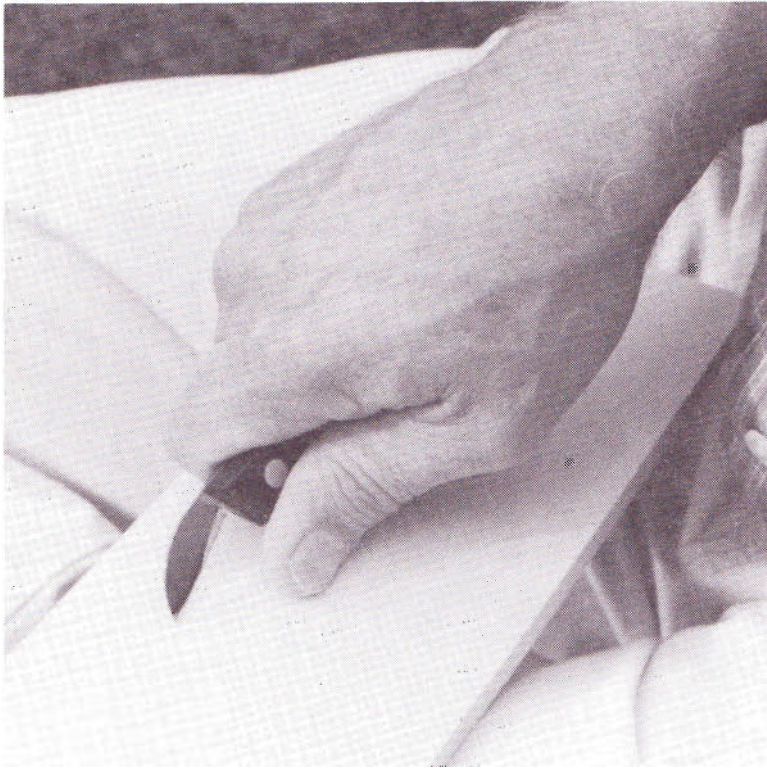
the above is quite suitable for staining or clear finishing. The wider ridge left on the surface is referred to as a 'rib' or 'ribbing' rather than a ridge.



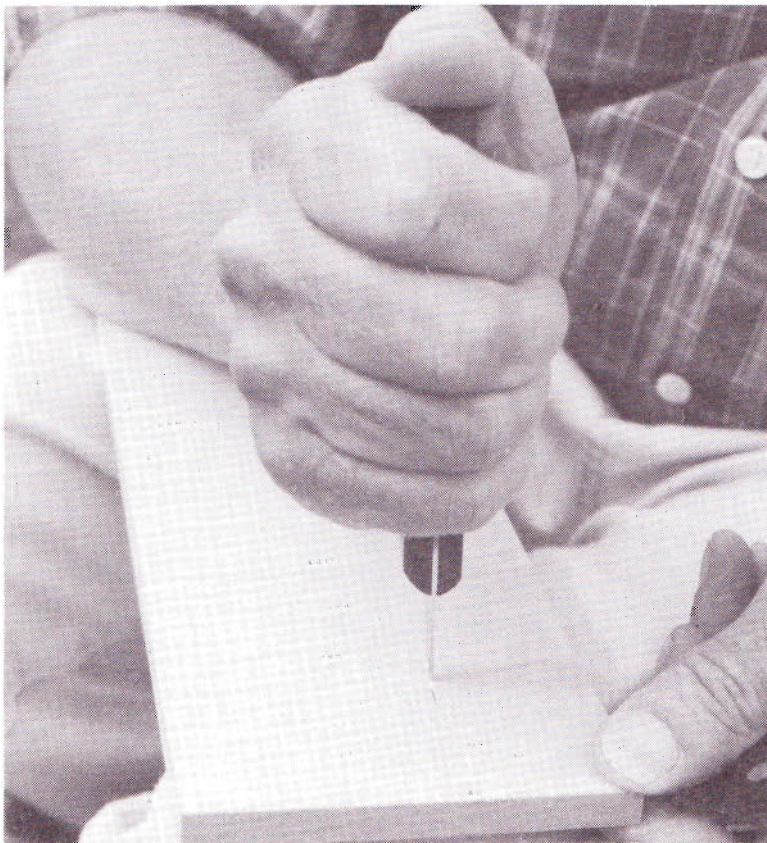
this pattern is called a garland and is excellent for both round and rectangular borders. Carve both sides of the line creating a sharp ridge. Keep your knife at 65 degrees when doing the little squares and they will become elongated to their

Add some flip-flops ----- oh no! I mean flop-flips!

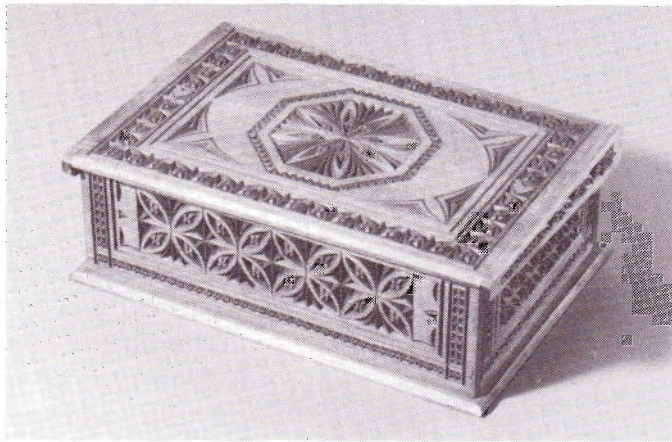
Yes, this is where it becomes very important to flop before flipping. Notice how that outside point on each side of the square is right out there in the middle of nowhere. Well, if you cut your flip-flop toward that unanchored point before you make a cut toward the anchored point at the edge of the border, there is a real strong possibility of you flopping that point right off! So cut toward to anchored point first! Remember that line back on page 22 right! ☺



holding the large cutting
knife in Position # 1
*remember to always keep
your thumb on the knife
handle and on the wood at
the same time!*



when holding the stab knife,
keep your thumb on the end
of the handle *it will help
you apply more pressure!*

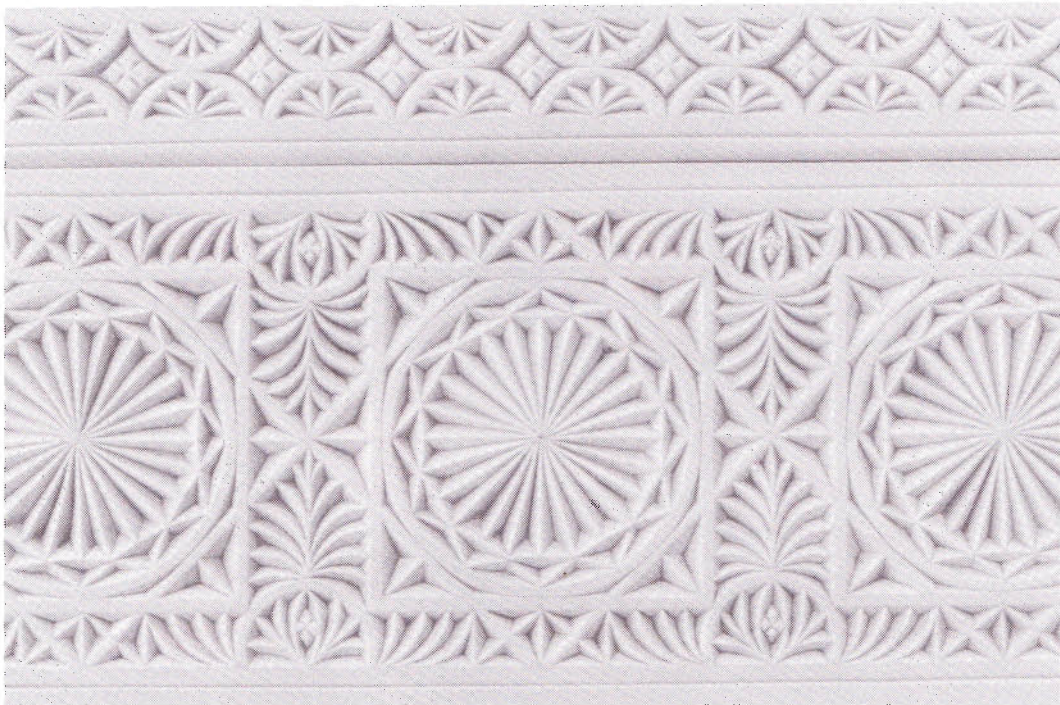
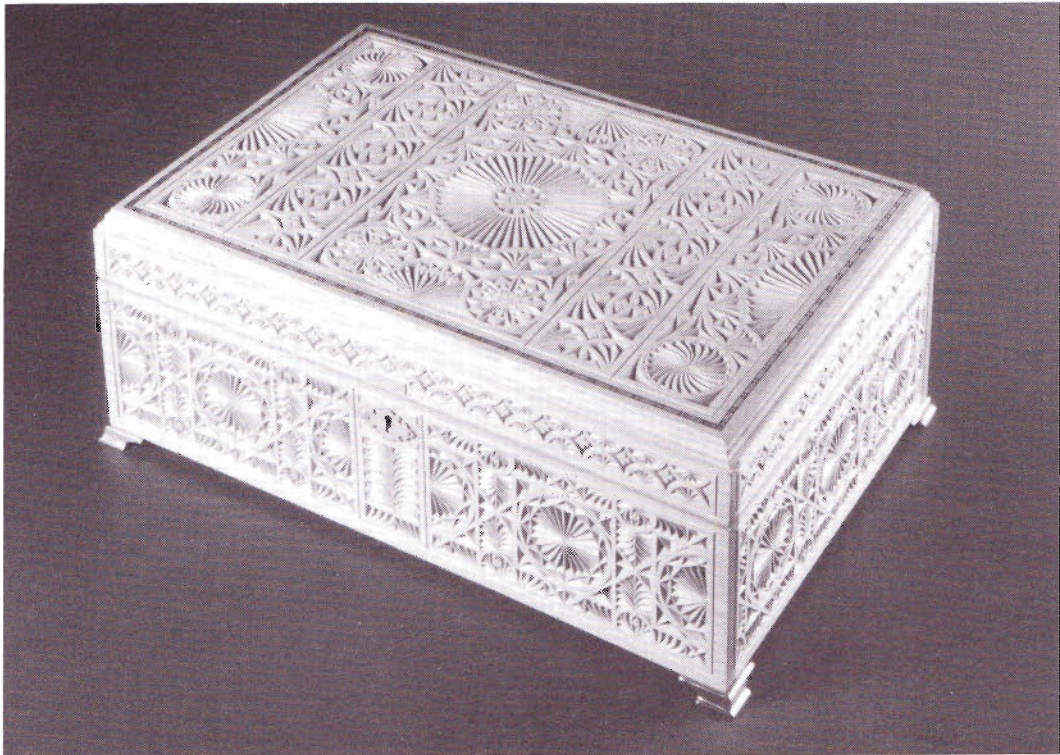


traditional geometric
patterns with a
Gothic influence

free form patterns
can be applied to
projects as large as
this hope chest



don't restrict your carvings to flat
wood surfaces add some flair
to your turnings as well!



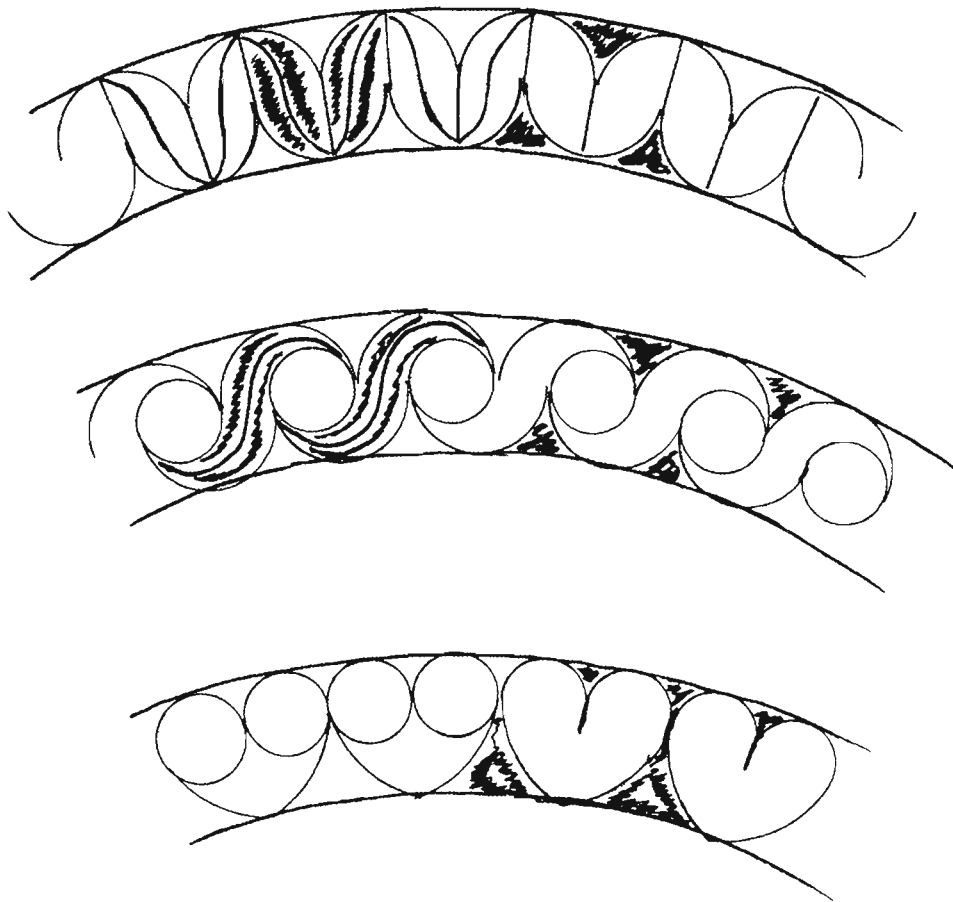


All of these free form patterns can be found in our book titled **Free Form Patterns for Chip Carving**

Plant motifs can be found throughout folk art. Some have very specific meanings, while others are debatable.

Here is a tulip design with three ways of carving it indicated. First, you could cut out the shaded areas as shown on the far left - leaving only the sharp ridges. Second, you could do a positive design by cutting out the background only - shown on the right side. Third, you could carve out just the lines themselves to form a type of inscription or outline design.

The second is that 'running dog' design covered in the earlier rectangular borders.



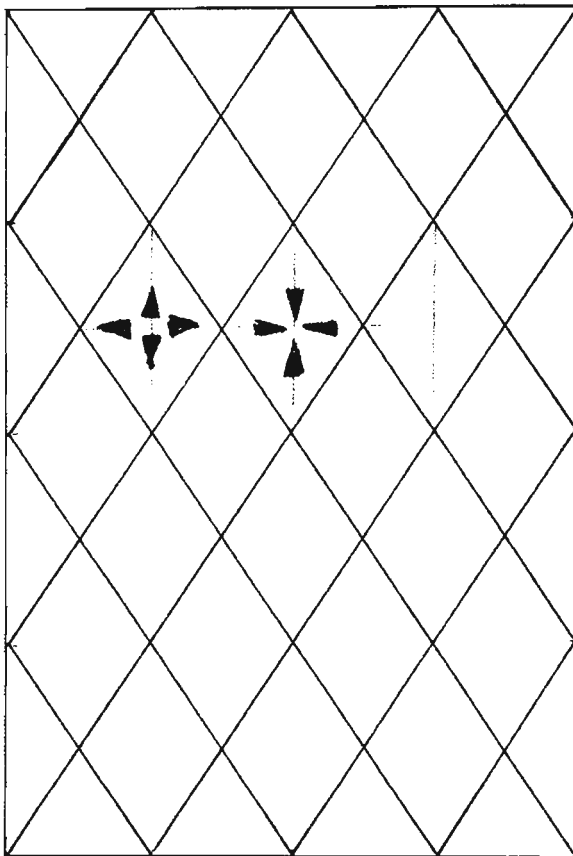
The heart design shown last is very popular and you will enjoy carving it. It is basically just a series of three corner chips. But cut through to separate the hearts and when coming to the center of each one, carve down about half of the width of the heart - it will add a little more depth and make them more attractive.

GRIDS

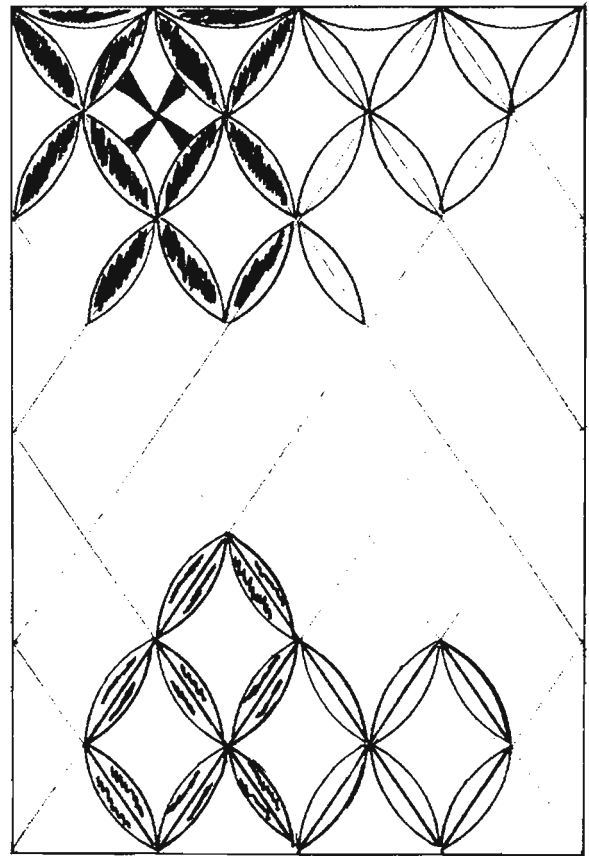
If you wish to carve a large area, one very quick and effective method is to do so in the form of grid work. When might this be? Well, how about the entire surface of a large box or chest, a door or drawer front, or even a table top. Or, because grids can be fairly simple and quick, you may wish to use this system on a project for one of *your less than favorite relatives or in-laws!*

Generally speaking, grids of diamonds or circular patterns are more appealing to the eye than squares or rectangles. Grids are an area where you can put your stab knife to good use.

We have offered a few examples of grids here just to give you some ideas, but use your imagination ~ it's your only limitation!

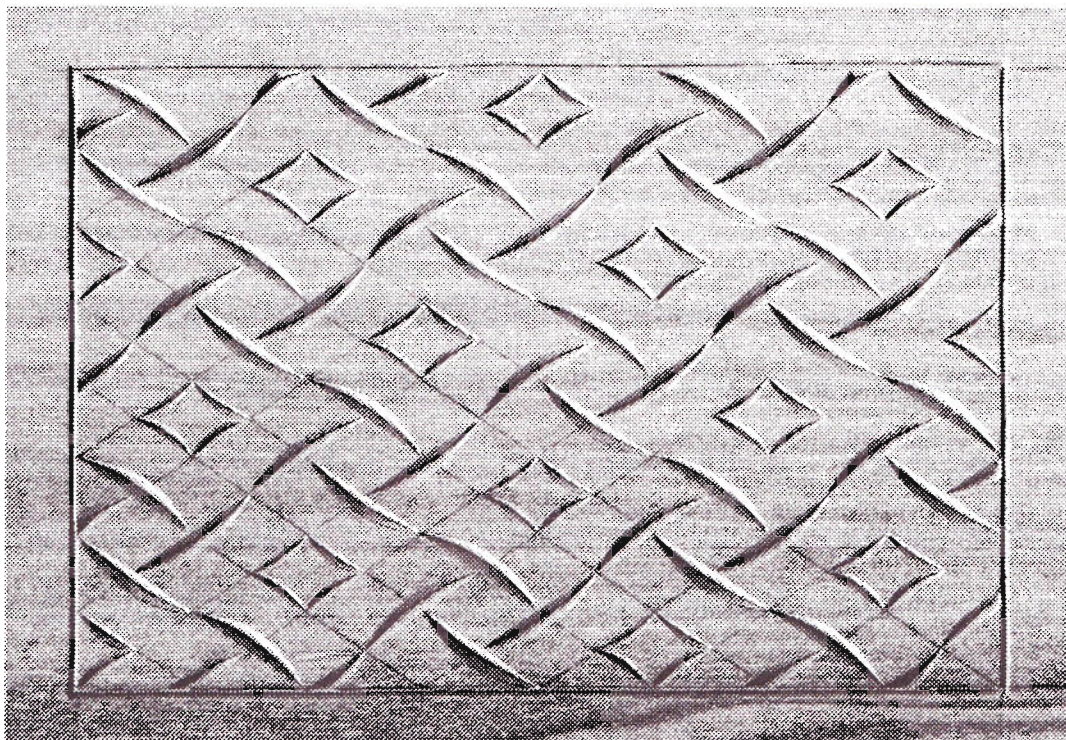
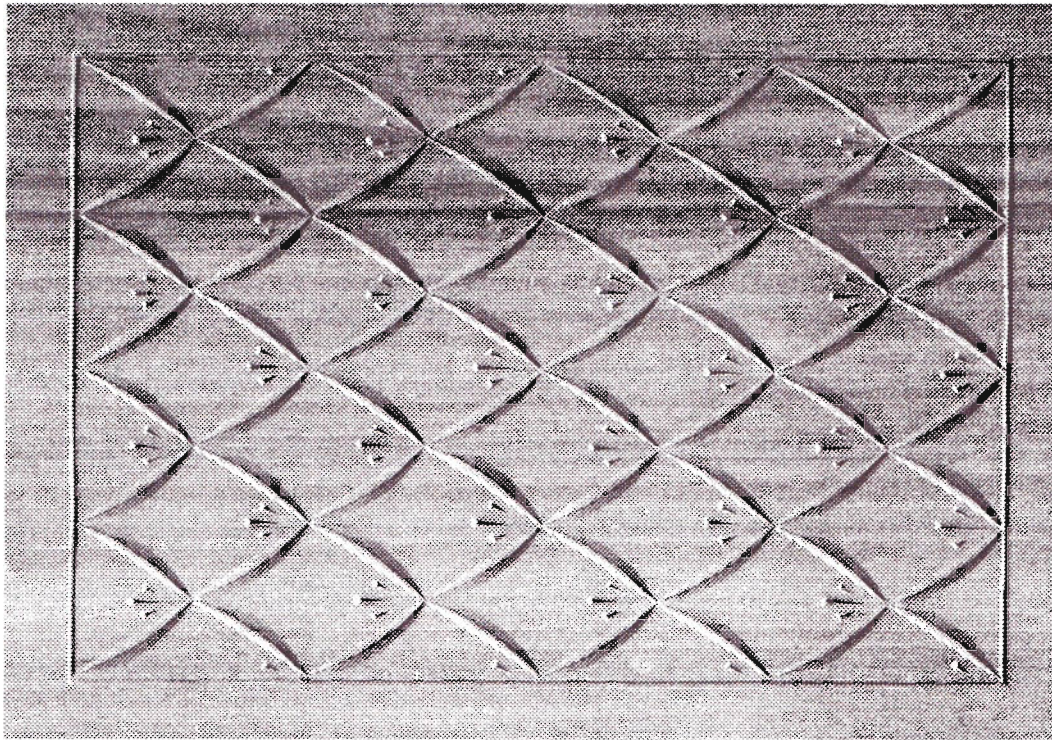


cut out the straight lines by keeping your knife in position #1 and cut approx. 1mm on each side of the line.

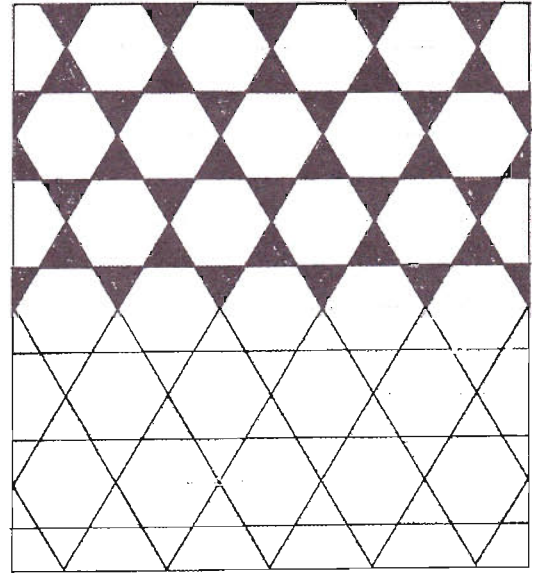
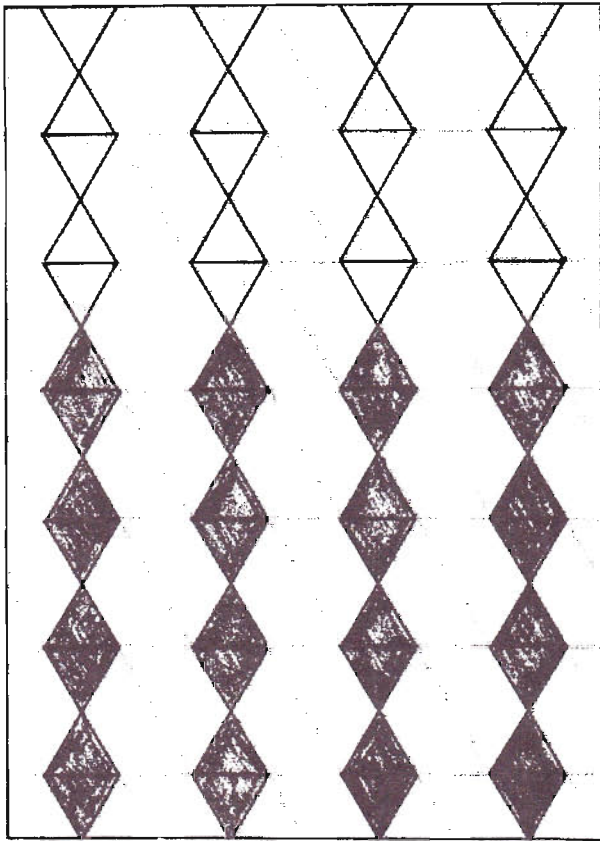


this grid can be carved in many ways here are three variations

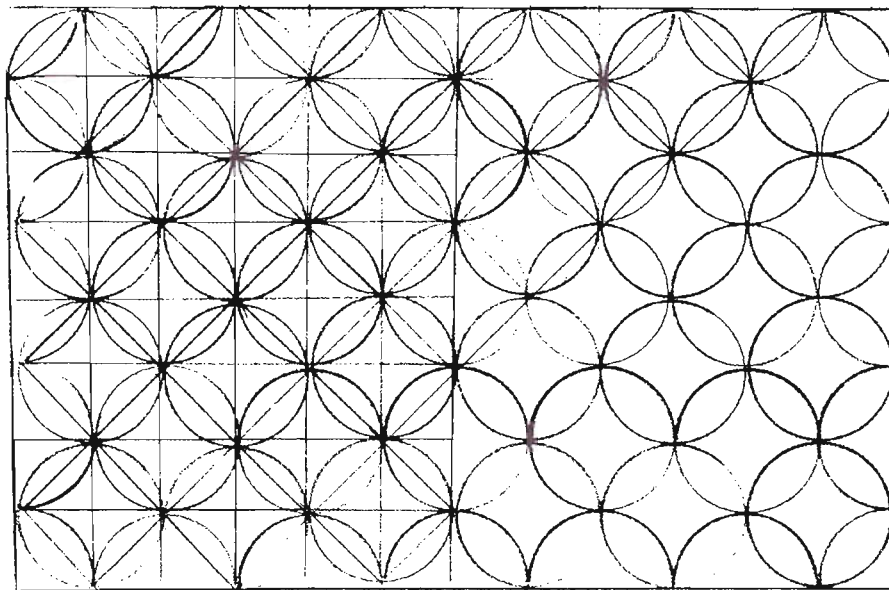
add some stab knife impressions too ~ look at these examples!



These grids were drawn and carved by Rod Montgomery of Virginia *thanks Rod!*



The variety of grids is unlimited
you will find real satisfaction in
creating some of your own. Don't
forget to use your stab knife for
those little "oohhhs!"



ROSETTES

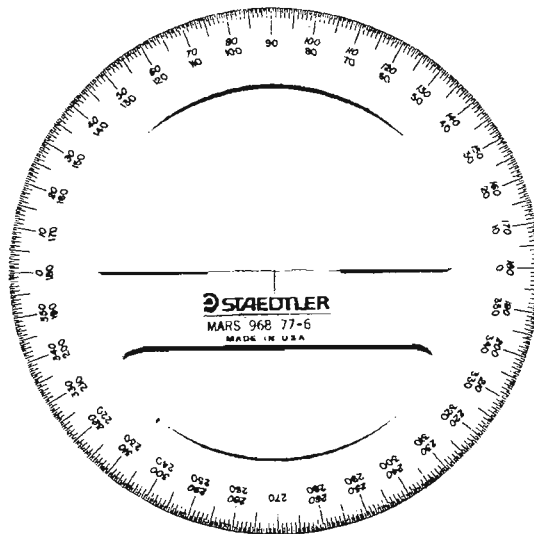
Traditional Chip Carving has its roots firmly established in ancient symbols and motifs. Many of the patterns can be traced to mythic or religious art forms. As a point of interest, we have offered a little history on some of the motifs in this book's glossary.

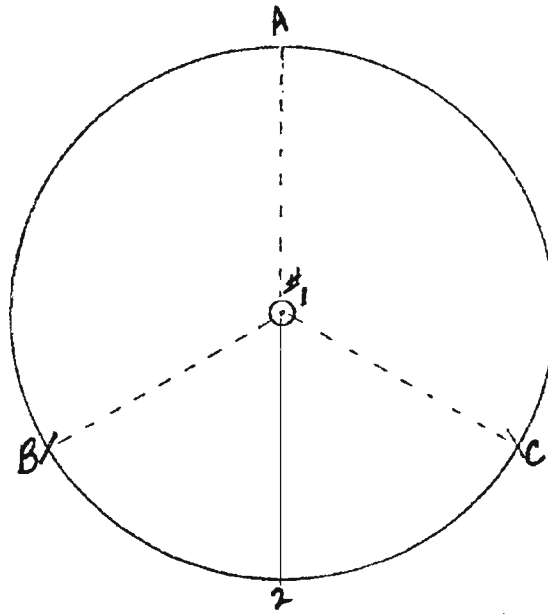
We have offered instruction in the following pages as to how you can divide circles in to various numbers of equal parts. This is a ground work for you to explore the very satisfying and enjoyable pastime of creating your own patterns. Do not be to surprised, when you discover that you will be able to create hundreds of different designs just by experimenting with your ruler, compass, and protractor. Heck, we have one student (I believe he is from Michigan) that carries a small plastic box full of various size buttons with him ~ whenever he needs to draw a small circle he goes through his buttons finding just the right one for the job. I have been known to borrow a glass or saucer or pot-lid from our cupboards to do the same thing!

One of the gratification's from Chip Carving is this avenue for creative expression and you will very pleased to find a talent within you that has gone unnoticed. We get a kick out of students who proclaim "I am not very artistic" or "I could never draw." Well, you are in for one big surprise because neither Todd nor I could draw before either. It is amazing just how simple it is. All it requires is to start.

Another discovery you will make is the number of ways in which the same motif can be carved. As with the diamond borders, you can switch between positive and negative designs that will change the pattern completely. Some change so dramatically that it is hard to believe they are carved from the same pattern.

Here is a simple protractor it is based on a circle being divided into 360° so for dividing a circle into 6 equal parts simply divide 360° by $6 = 60^\circ$ so mark your outside edge of the circle at every 60° simple as that!

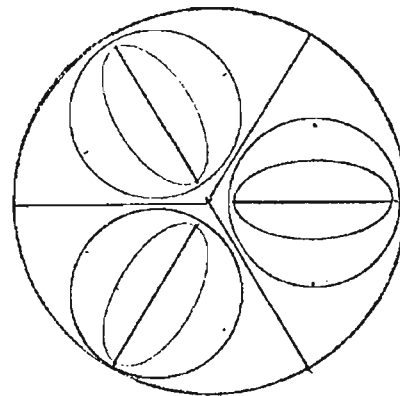
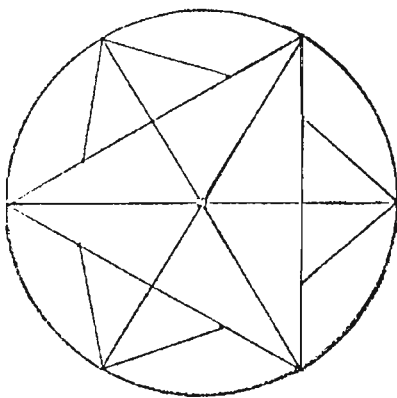


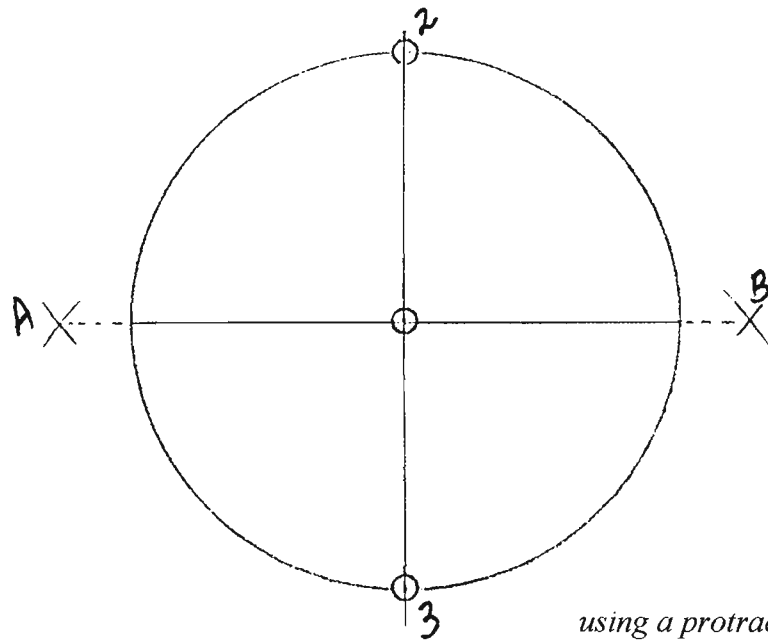


*using a protractor, mark the circle
at every 120°*

Dividing a Circle into 3 Equal Parts:

1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. Place the compass point at point 2 and mark points B and C.
4. Drawing lines from A, B, and C to the center of the circle will give you three parts.
5. Drawing lines from A to B, B to C, and C to A will make an equilateral triangle.

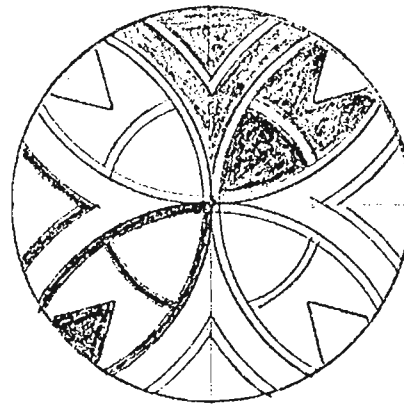
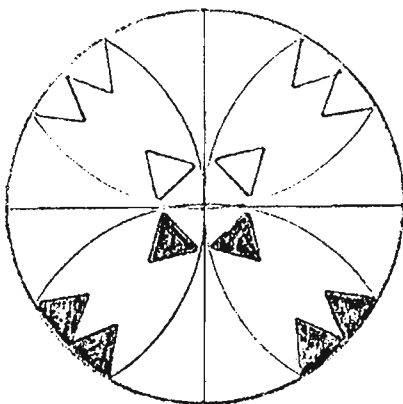


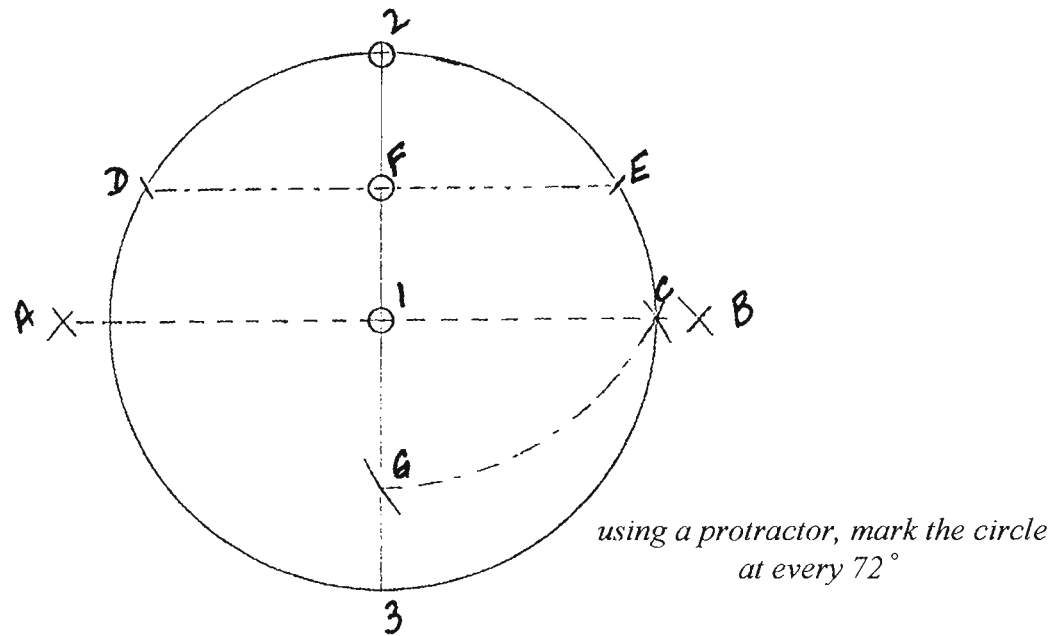


*using a protractor, mark the circle
at every 90°*

Dividing a Circle Into 4 Equal Parts:

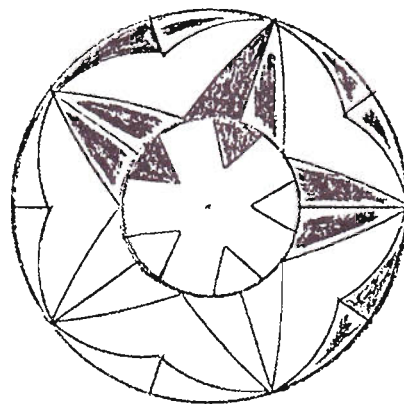
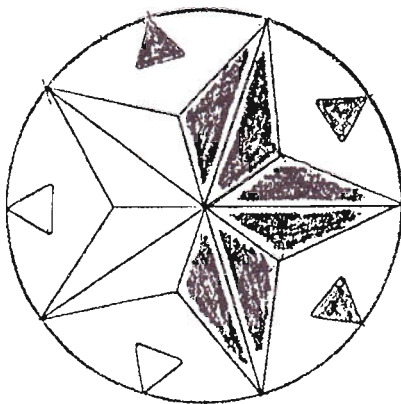
1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. To find points A and B, open the compass wider than the original radius (you do not have to increase it to any particular size, just wider is fine). Place the compass at points 2 and 3 and make small arcs outside of the circle as shown.
4. Draw a line from point A to B and this will form 4 equal parts.



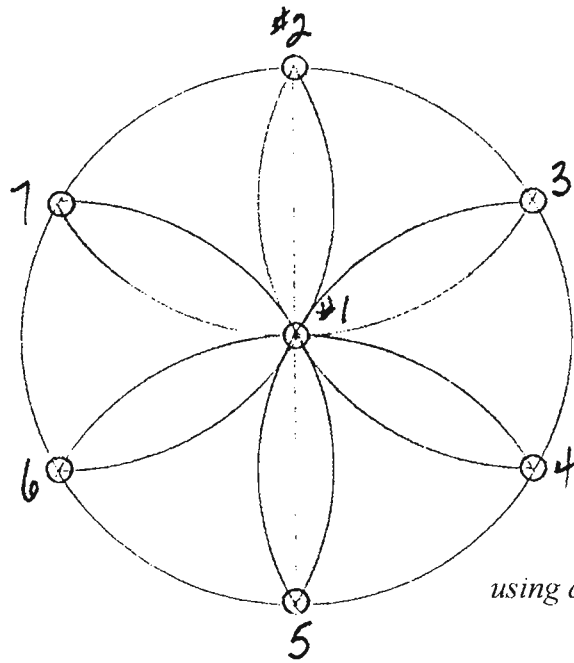


Dividing a Circle Into 5 Equal Parts:

1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. To find points A and B, open the compass wider than the original radius (arbitrary size...just wider). Place the compass at points 2 and 3 and make small arcs outside the circle as shown.
4. Align your ruler between points A and B and mark point C.
5. Now return the compass the to the original radius and place it at point 2 ... now mark points D and E.
6. Align your ruler between points D and E and mark point F.
7. Reset the compass opening from point F to point C and make arc to form point G.
8. Now reset the compass once again from point C to point G. This opening will give you 5 equal parts as shown.



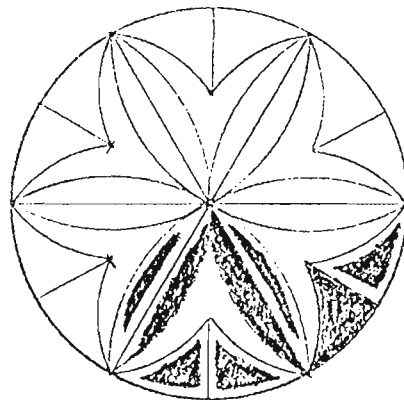
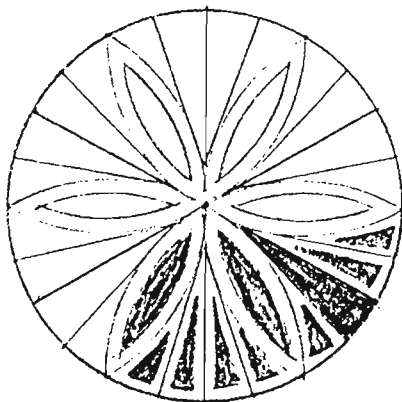
Phew! If you think this one is difficult to draw, just try explaining it! ☺

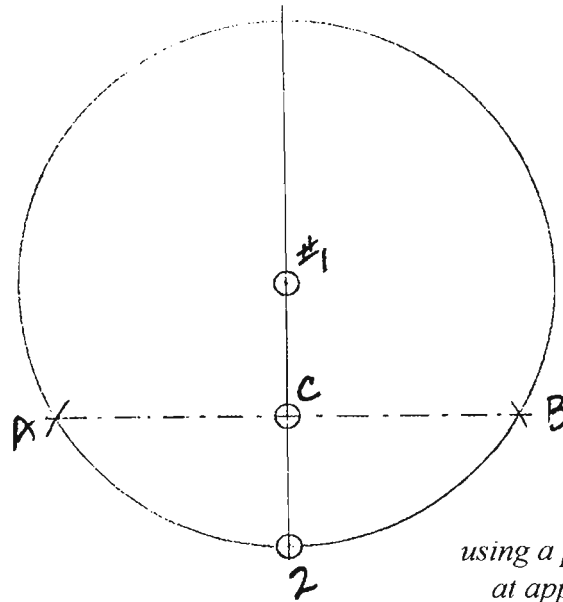


*using a protractor, mark the circle
at every 60°*

Dividing a Circle Into 6 Equal Parts:

1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. Do Not change the compass opening, just place it at point 2 and mark points 3 and 7, or even draw a semi circle forming points 3 and 7.
4. Place your compass at point 3 and mark point 4, or even draw a semi circle between points 2 and 4.
5. Continue placing the compass at each new point you create until you have returned to point 2.

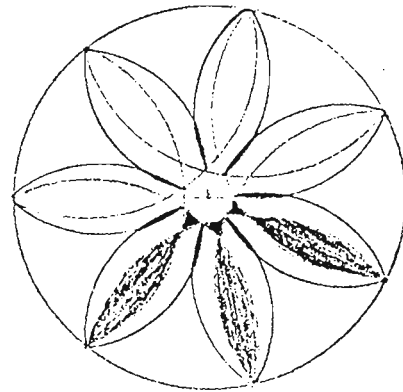
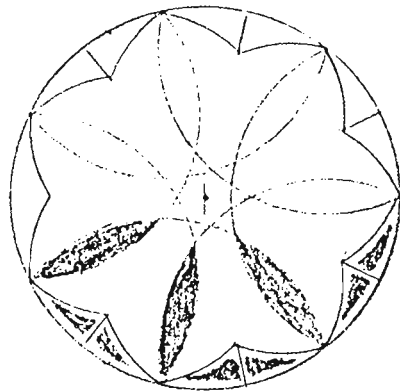


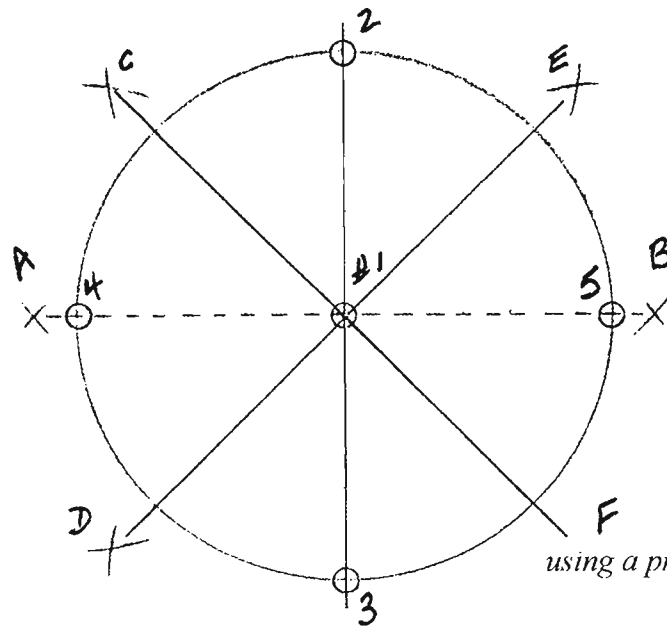


*using a protractor, mark the circle
at approximately every 51.5°*

Dividing a Circle Into 7 Equal Parts:

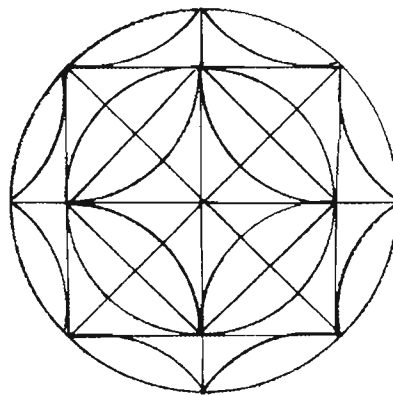
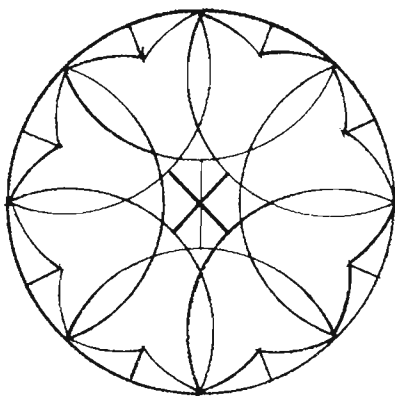
1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. Do not change the compass opening, just place it at point 2 and make arcs at points A and B.
4. Align your ruler between points A and B and make mark at point C.
5. Place your compass at point C and reset the opening to the distance between points C and B. This new opening will divide the circle into seven equal parts.

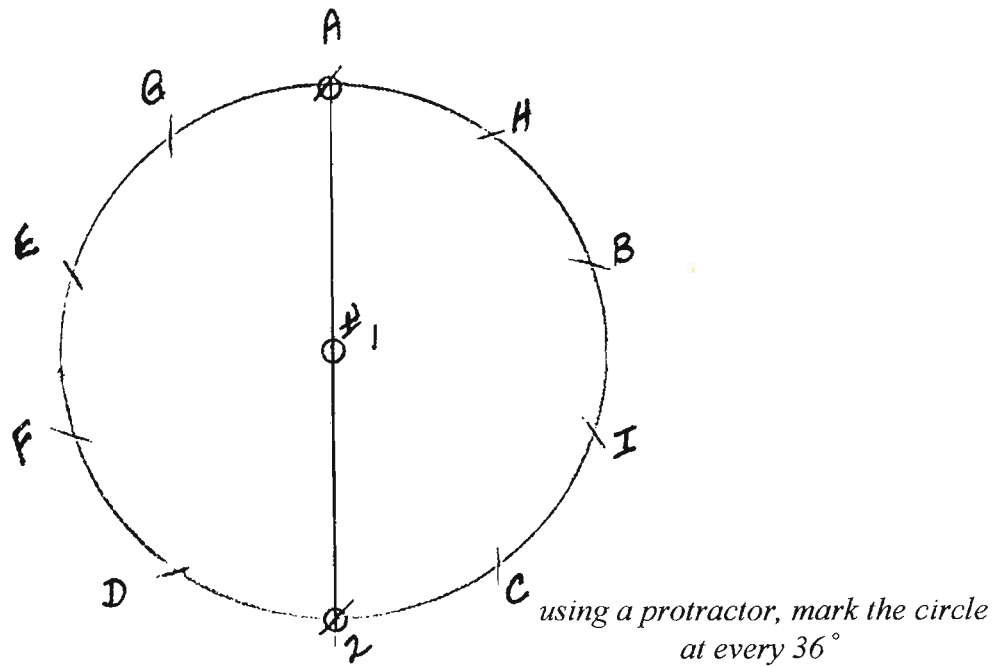




Dividing a Circle Into 8 Equal Parts:

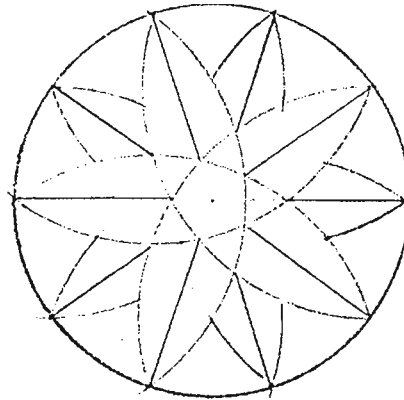
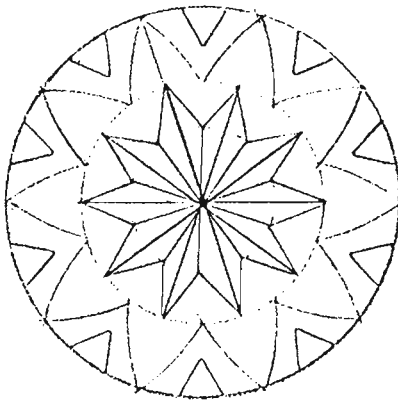
1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. Establish points A and B by opening the compass wider than the original radius then place the compass at points 2 and 3 and make small arcs outside of the circle - just as in the 4 part circle.
4. Align your ruler between A and B and mark points 4 and 5.
5. Establish points C, D, E, and F by reducing the compass opening then placing it at points 2, 3, 4, and 5 making small arcs outside of the circle.
6. Drawing lines from C to F, D to E, and A to B will divide the circle into eight parts.

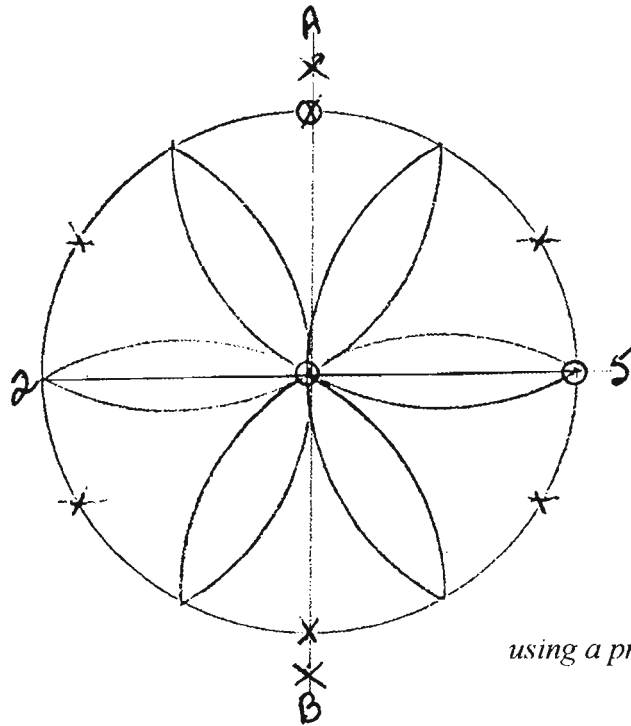




Dividing a Circle Into 10 Equal Parts:

1. Draw a vertical line.
2. Place your compass at point 1 and draw a circle.
3. Repeat the steps for dividing a circle into 5 parts and establish points A, B, C, D, and E.
4. Now use that same compass opening and start at point 2 to establish points F, G, H, and I. You will now have the circle divided into 10 equal parts.

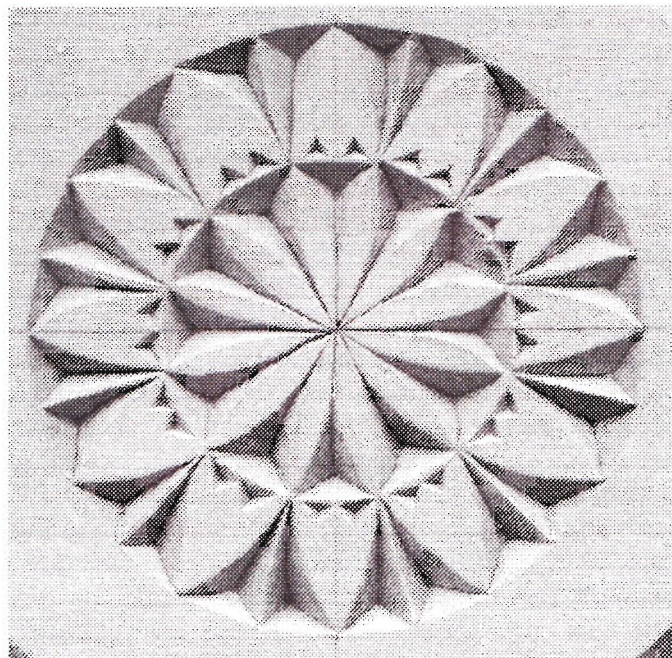
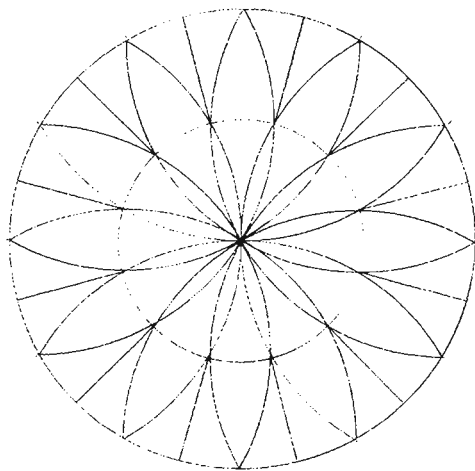




using a protractor, mark the circle
at every 30°

Dividing a Circle Into 12 Equal Parts:

1. Begin by establishing a 6 part circle.
2. Establish points A and B as before.
3. Just before going to step four **place your tongue in the far right side of your mouth ~ even have it stick out of your mouth just a bit!** 😊 **come on try it!**
4. Return your compass to the original radius and begin the next 6 parts from point A.



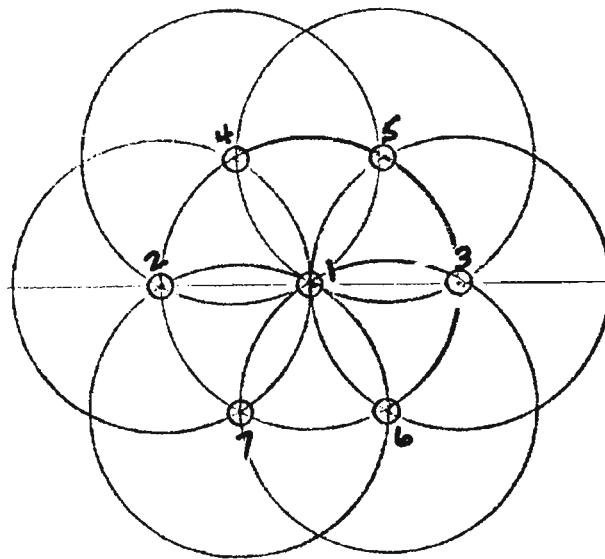
EXPANSION OF THE SIX POINT ROSETTE

Here is a good example of how a six point rosette can be overlapped on itself to provide an expanded motif ... right into a grid if you like.

How to Draw It:

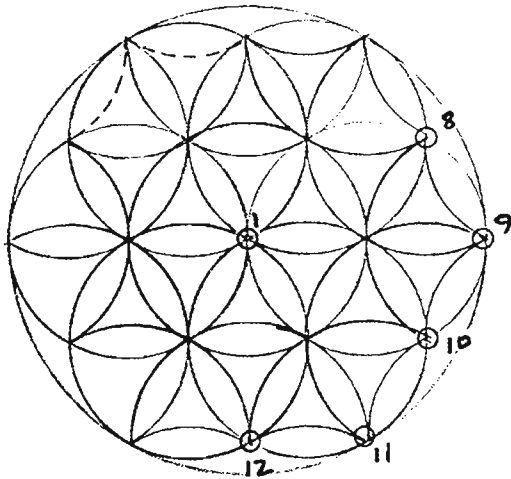
1. Begin by drawing a horizontal line and making a circle at point 1.
2. Then move the compass to points 2 and 3 and draw two more circles.
3. Now move the compass to points 4, 5, 6, and 7 and draw four more circles.

*notice how it keeps expanding ...
be careful or you could end up in
the next room and still be drawing!*

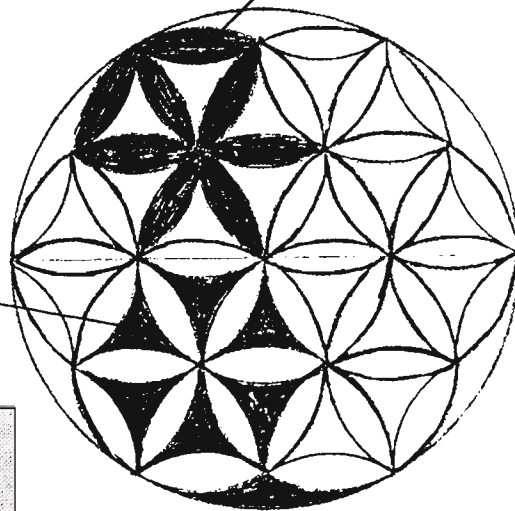


The next page illustrates how to complete the drawing and then how you can carve in either the negative or positive format

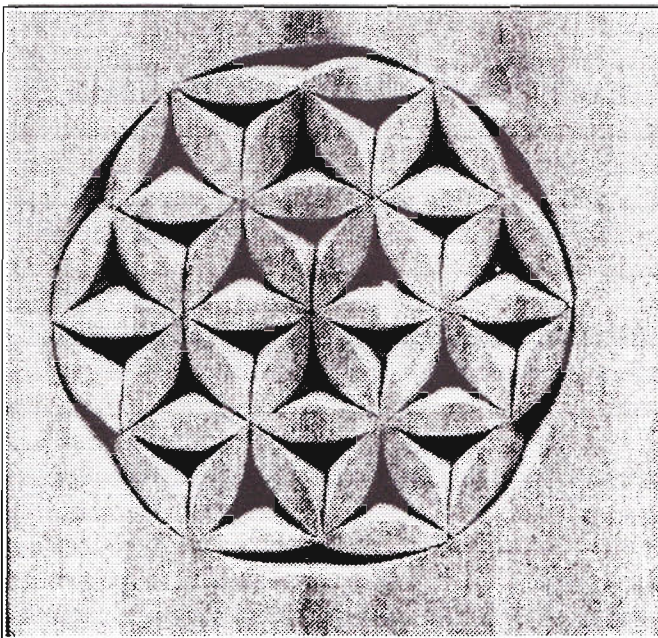
4. The next step is place the compass back at point 1 and reset the radius so you can draw a circle around the entire rosette perimeter.
5. Then place the compass at point 8 and draw an arc - staying within the outside perimeter - then repeat this art at point 9, 10, 11, 12 and so on until you have gone around the entire pattern.
6. The last and final step is to draw in the outside petals - those indicated by a dotted line - all of the way around the outside of the perimeter. *Where is that guy with all the buttons buttons or washers would be great for those small arcs!*



*remove this area to
carve a negative pattern*



*remove this area to
carve a positive pattern*

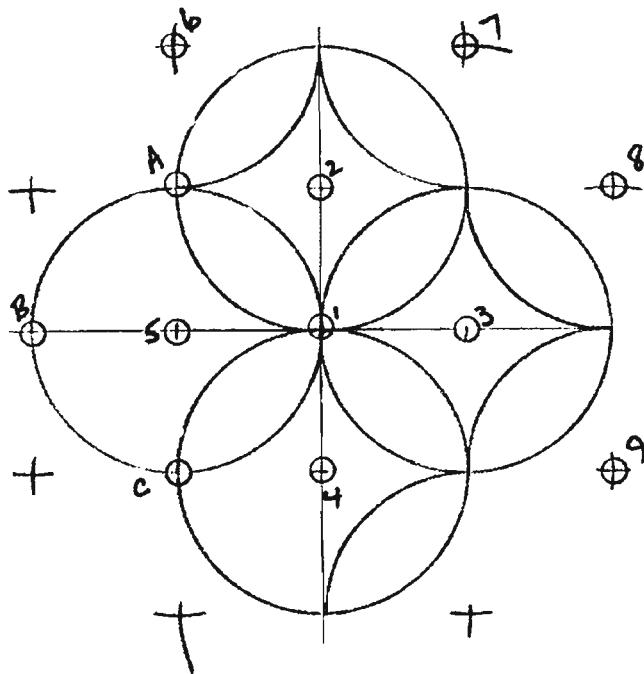


More Overlapping Circles

Here is another example of overlapping circles and combining them with the Cross and St. Andrew's Cross pattern. The first drawing shows how it is started, the second drawing offers one way to divide and carve the rosette leaving only sharp ridges on the surface. The third drawing indicates the same pattern but instead of leaving sharp ridges on the surface a wider 'ribbed' appearance is left. It is this last drawing that will provide us with a pattern that can be attractively finished with a stain as an alternative to finishing with a clear coat. See the section on finishing for more information.

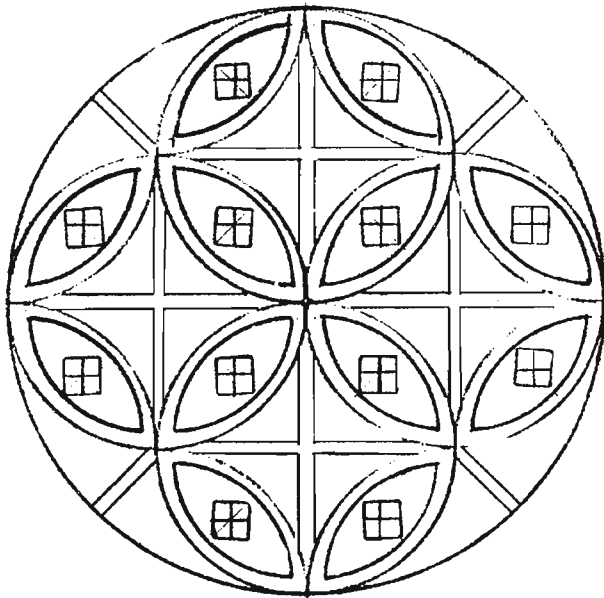
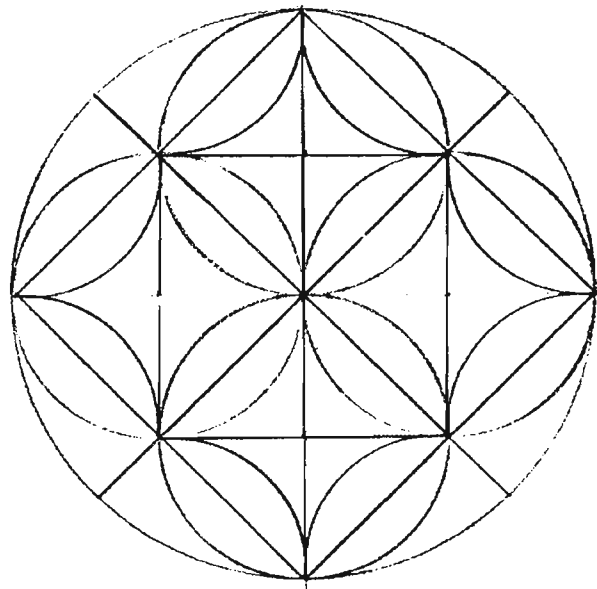
How To Draw It:

1. Draw a horizontal line bisected by a vertical line.
2. Place your compass at point 1 and make a small mark to bisect the straight lines drawn - this will give you points 2, 3, 4, and 5.
3. Place your compass at points 2, 3, 4, and 5 and draw circles - each one will meet in the center.
4. Now place your compass on points A, B, C, and so on - all the way around the perimeter and make small arcs that establish points 6, 7, 8, 9, and so on.
5. Place your compass at these last points and you will be able to draw in the petals or ellipses along the outer perimeter. *PS: you could have used this same method in steps 4 and 5 to create the outer petals in the previous "expansion of the 6-point rosette", but then I wouldn't have reminded you about the "button guy"! 😊*



*drawing this one is a real
... piece of cake!*

*second drawing - same pattern...
carving along every line will
leave nothing but sharp ridges!*

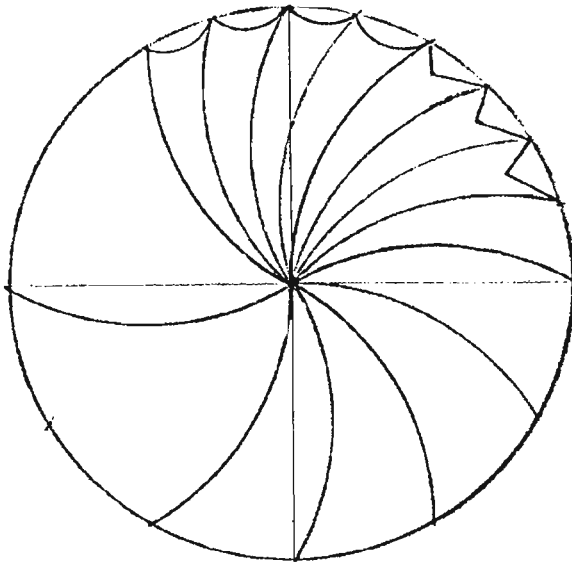


*third drawing - same pattern...
instead of ridges, we will leave
wider edges called "ribs"*

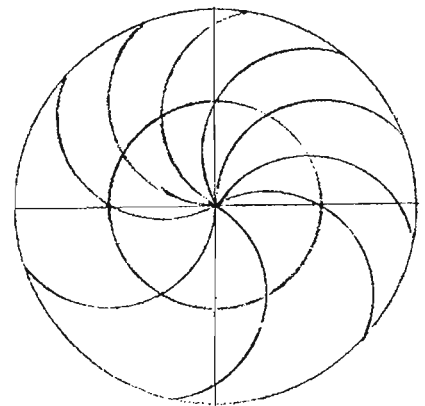
Your chip carving should be showing some pretty steady improvement as the days go by. If you are having some difficulty in following the book, or something "*just is not going right*", you may wish to consider one or more of our *Chipping Away* videos. Some people just seem to learn better by *watching* rather than *reading*. That is fine, we understand. In fact that is why we produced the four volume video series. Just ask your dealer for details, or write to us at the address given at the front and back of this book.

DRAWING THE ANCIENT SUNSWIRL

1. Draw a vertical line and bisect it with a horizontal line.
2. Place your compass at the center and draw a circle.
3. Begin at the vertical line where it bisects the circle and using the same compass radius, draw an arc from the center of the circle to the perimeter.
4. Just as in drawing the six point rosette, walk your compass around the perimeter repeating the arc from the center to the outside and you will have a 6 point swirl.
5. Repeat steps 3 and 4 but from starting at the horizontal line this time. You will now have a 12 point swirl.
6. Depending on how large of swirl you are making, you may divide it into 12, 24, 36 or as many different parts as you wish.
7. As an extra touch, add either the curved scallops or three sided triangles around the perimeter connecting each of the arcs.
8. If you wish to make tighter swirls, draw a smaller circle within the larger one and use its radius and circumference points to create tight swirls - see the smaller drawer for an example.



*I probably shouldn't tell you this ...
but the swirl is one of the most
difficult rosettes to carve!but you
would have found that out soon
enough ... what I must tell you
though "is that it is one of the Most
Beautiful!" so when you think you are
up-to-it, have a go. The results are
well worth the effort.*



Well, by the time you reach these patterns you should be getting pretty darn good. Now, Todd had an answer in one of our *Chipping Away* quarterly newsletters for those of you that are not happy with your carving "Just lower your standards!" 😊

A B C D E

F G H I J

K L M N O

P Q R S T

U V W X Y

Z ! & “ ”
· ,

Rule # 1

Use both the upper and lower case. There may be some lettering styles that come in only capitals, if so that is okay. However, if the style comes in both capitals and small letters, use both - or - your lettering may look out of place.

a b c d e f

g h i j k l

m n o p q

r s t u v w

x y z 1 2 3

4 5 6 7 8

9 0

A B C D

E F G H

I J K L

M N O P

Q R S T

Rule # 2

*Place your letters as close as possible within a word. Our eyes read words, not letters, and if you put too much space between the letters, it looks out of place and is also difficult to read. For example read this next word:
a c c o m p l i s h m e n t --- see what I mean. See how close the letters are in this text? Just about touching each other.*

U W WW X

Y Z

a b c d e f

g h i j k l

m n o p q

Rules, Rules, Rules!

when spacing words - the distance between words should be half of the height of the capital letters.

when spacing lines - the distance between lines should be the whole height of the capital letters.

r s t u v

w x y z

1 2 3 4 5

6 7 8 9

0 & !

*You will find it easier to **trace your letters on parchment paper** to get the proper spacing and alignment, then use graphite (not carbon) paper to transfer the letters onto your project. This system is great for spacing around the perimeter of plates - just duplicate the radius of the plate with your compass onto parchment paper.*

This will give you perfect alignment every time!

FINISHING

Cleaning Up Your Work

Before you even think about applying a finish, it is necessary to clean up your work and prepare the surface. One of the best aids in cleaning up is to have the project properly prepared before you begin your carving and in fact, even before your drawing. Take time to sand the surface, especially the end grain, with 150 grit and then 220 grit and even a final sanding of 320 or even 400 grit. This will give you a nice smooth surface and aid in your cleanup.

When drawing your border and motif, use a mechanical pencil, as we talked about under the 'other tools' section back at the beginning of the book. Remember also to use either B or HB lead and do not press very hard, keep your lines as light as you can with still being able to see them.

When carving, it is great if you can *cut your lines off* when following the pattern. That way you will not have many lines to erase at the conclusion. Those that you cannot or do not carve off, may be removed with a white polymer eraser. Stubborn graphite paper marks may come off easier with an ink eraser. I often use a q-tip, also known as a cotton bud, moistened with Isopropyl rubbing alcohol to reach into tight and hard to get at places, or to clean off those sharp ridges.

It is best to avoid sanding your finished carving if at all possible. Any sharp ridges that you took time and patience to carve, will become flat ridges. You may also lose some of the fine detail in the corners, etc.

Once you have done the clean up, use a tack rag or even a soft brush to remove all of the sanding dust and dirt.

Clear Finish or Stain?

Well, you should have determined that long ago - before you drew your pattern.

Most, if not all of you have had experience with stain of some kind or another. Do you remember what happened when you applied stain to the end-grain? Exactly, it soaked it up much faster than the sanded surface and in turn, became much darker in appearance. All of the chips you removed in your carving are now end-grain. Any sharp ridges you have carved are now end-grain. Now this is okay, we don't mean to frighten you away from staining, we just want to point out how to take advantage of it.

First of all you should avoid those sharp ridges. If you apply stain to them, you will not be able to see them very well and all the work would have been for not. Refer back to the first rosette we showed on page 45 - see all of the ridges? If that pattern was

stained, you would not appreciate all of the work (sorry, I mean *carvingcarving* is never work) that had gone into it. The shadows would be lost in the dark stain. But, as we said earlier, that does not mean you should not stain.

Dennis relates how, when learning chip carving, he read that only clear finishes should be used. Look back at the chip carving being done in North America in the late 1980's and earlier, and you will be pretty hard pressed to find stained pieces in any significant quantity. Look to Western Europe and you will find very few pieces stained. In actuality, it was the European influence that kept our carvings unstained.

That was okay with Dennis, as he liked the clear finish anyway. But on one occasion, a lady had commissioned him to carve a large jewelry box. After discussing the design and what she had in mind to put on the box, she asked about the finish. When Dennis told her that he thought a nice, flat polyurethane clear finish would look great, the lady, just for a moment, forgot how famous he was! "Not in my bedroom, it won't" she sharply replied. "I have a walnut bedroom suite and I do not want a box that resembles pine on my dresser." Dennis was taken back a bit, and was about to try an attempt at persuasion, when the lady again reminded him *how much she was paying* for the commission. That woman is now the proud owner of a beautiful walnut-stained jewelry box that matches her decor perfectly. Of course the design had to be rethought.

Staining can be beautiful. The darker color on the inside of the chips (end grain) can really make your work stand out. **Simply avoid too many sharp ridges.** Refer back to page 30 where you will find examples of curved borders. See the two variations of the scalloped border. That ribbon effect would be great if left clear, but you would not be able to see the sharp ridge if you stained it. See the one with the wider ridge, a 'ribbing' we called it, that would look great if stained or left clear. Refer again over to page 45 and look at the two variations of the Cross and St. Andrew's Cross - same thing here! The one with sharp ridges would have to be left clear, the other with the ribbing could be finished either way.

Be cautioned, staining is not as easy as just going at it. You could easily ruin your piece. Many pieces we come across in competitions lose out because of a poor finishing job. Some other pieces win awards due to a good finishing job. Finishing, of course, is not the only criteria for judging but it is very significant and often makes or breaks the piece.

Here is how we suggest applying the finish.

Clear Finishes

We should mention right off the bat that the method we use is not the one and only one available. There are many products out there: acrylics, lacquers, shellacs, water based, oil based, milk paint, crystals, and on and on and on. It would be wise for you to experiment until you find the one or ones you like best. Just a word of caution, experiment on scrap pieces of wood first, not on your carvings.

Our preference is polyurethane, sometimes referred to as polyurethane varnish or varathane. Use a satin or matte or flat finish (name depends on manufacturer) - *Never* a gloss or semi-gloss. Glossy or shiny finishes distract from your work, appear uneven, and sometimes even highlight blemishes or errors.

Apply the finish using a spray. Yes, we know that liquids and a brush is less expensive. In fact, Dennis' Scottish ancestry got the better of him on one occasion and he tried to save a couple of bucks by applying the urethane with a brush. When you use a brush it is pretty much impossible to keep little puddles from forming in the bottom of the chips. These little puddles dry glossier than the rest of the finish and look terrible. He even tried to put the urethane on with a brush and then suck-off the excess using his shop-vac. Know what it looked like? As if he put it on with a brush and sucked-off the excess with a shop-vac. Not too good at all! Use a spray can. Follow the directions on the can, especially the length of time you should shake the can before beginning to spray. Once again, try a little on a scrap piece of wood first.

Most manufacturers suggest that if you sand after the first coat, you will not have to sand after or between subsequent coats. That all depends on how heavy or light your coats are. Our suggestion is to spray on *three light coats* and then sand. Subsequent coats should not require sanding. What is a light coat? That is when you do not think you have applied enough - stop! As sure as God made little green apples, if you give it just one more spray, you end up with a drip or a sag (*except that the very first coat can be a little heavier*). Sand with 150 or 220 grit sandpaper - do not use steel wool. Use a tack rag or soft brush to clean off the sanding dust before applying the next coat.

How many coats should you apply? That all depends on the piece and how much handling it will receive. A decorative wall hanging (plate, plaque, etc.) should need only 4 or 5 coats in total. A serving tray or jewelry box, on the other hand, should get ample protection from fingerprints and so on - maybe 7, 8, 9 coats or more. *Remember, these are light coats!*

Staining

Before you begin the staining, it is very important to seal the wood, especially basswood. All woods should be sealed, but especially basswood. Failure to do so will result in a blotchy appearance and distract from the carving.

There are many sealers on the market. Some are called wood sealers, other's wood conditioners, sanding sealers, stain prep, and so on. We have not found ANY that work to our satisfaction. Regardless of the price paid or the manufacturer.

So what do we do? How can we seal the wood if nothing seems to work? Turn the page

Seal the wood with polyurethane! Now, think about that for a minute.

If you seal the wood with polyurethane, how will the stain penetrate and adhere to the wood?Good question.Easy answer.Use the right kind of stain.

We seal our projects with the same three light coats as when applying a clear finish. Then we give a light sanding with 220 grit sandpaper and clean off the sanding dust. Then we apply the stain.

There are two brands of stain that we have found to work well when using our particular method. Their names are:

- 'Bartley Gel Stain' manufactured in the USA and available from most of the finer woodworking / decorating stores.
- 'Minwax Gel Stain' manufactured by Minwax and available from any of their numerous dealers in the USA and Canada.


Notice that these are *gel stains*. That means they are solid rather than liquid. Follow the manufacturer directions for application. So, is it the gel form that makes the stain suitable for use on polyurethane? No, not completely - but they are polyurethane based. You have sealed with polyurethane spray, now use a polyurethane based stain - bang on! Adhesion!

We apply with one brush, making sure to get down into the chips, then wipe off with a folded lint-free cloth. Then we use a second, clean brush to get into the chips to remove any globs, then wipe again (keep the second brush clean by continually wiping it with a separate rag). Do not try to cover too large of an area at once, as the stain will begin to dry and you will have difficulty keeping it even. If it gets sticky, follow directions on the can. This method will eliminate any 'blotching effects' from the stain if you get blotching, it is most likely due to not having used sufficient polyurethane to seal first!

Tip: should you have become used to holding your tongue on the right side of your mouth and even protruding a little, be cautious not to use the rag previously used for cleaning the brushes to wipe your chinespecially before answering the door bell!

Good luck with your staining and if you find new ways or means of finishing your work, we always welcome hearing from you.

GLOSSARY & INDEX

- aroundtoit: an excuse if you do not have one. Ours is made of basswood.
- basswood: common name for *Tilia Americana*. There is also a White Basswood tree, the *Tilia Heterophylla*.
- beaver: furry rodent that does not do a very good job at chip carving
- ceramic stones: sharpening stones. They are not the same as ceramic tile used in flooring or decorating materials. These are much harder and made for the specific purpose of sharpening.
- critical angle: 65 degrees.
- cross design: the ancient cross design  is not linked to Christian beliefs, but predates it. If seen within inside of a circle or wheel it represents light and sun. Christians use it as a symbol of the life sacrifice of Christ.
- diamond shape: meant to symbolize fertility.
- Eight-pointed star: is the sign for law and order. It is an octagram.
- Five-pointed star: known as a pentagram and is found in ancient Asian, Mesopotamian, Egyptian and even native American cultures.
- flip-flop: alternating between position 1 and 2 - could also be referred to as the 'politician move'.
- Great White North: that's Canada eh!
- grids: means of carving a large area quickly - suitable for simple or involved patterns. Involved for those you are trying to impress, simple for your less favorite relatives or in-laws.
- inexperienced: what you will be for the first month or so. When you begin, it is most important that you stay with it. Sort of like learning to ride a bicycle. If upon falling off the bike on the first attempt, you put it back in the garage and didn't try again for a week - then fell off again and put it back in garage for another week - and so on, and so on - you would never learn how to ride. Same thing with chip carving. Once you have started, stay with it for a month or so, practicing every day, if only for a few minutes. You will soon the technique and find out just how rewarding a hobby it can be.
- Ing: god representing the desire for life. The Ing rune, symbolizes union and rebirth.

King: basswood is the king of carving wood. Elvis is the king of music
Red Green is the king of duct tape.

knives for chip carving: what ~~M~~oor can we say.

krink: the action of twisting your wrist away from your body so as to align the knife blade up with your forearm and thereby gain a higher means of control. Now that you are this far - you might want to enjoy the next couple of definitions before returning to your work. Then get right back to page 15 and learn position 2.

lily: sign of purity.

metric: means of measurement. In Canada 100 kilometers per hour is the average highway speed - it transfers into 62 miles per hour. That does not mean however, that if a plane crashes and 100 passengers are killed, that really only 62 lost their lives.

moisture content: reference to the amount of water contained within a piece of wood. Ten percent is ideal for carving. My 13 month old granddaughter retains considerably less.

negative design: achieved by chipping away the design and leaving the background on the surface of the wood.

perfect carving: you didn't do a good-nuff job lookin' at it - you'll always find something. Also: mistakes so well hidden they can't be seen.

piece of cake: refers to the ease in which much of your drawing will be done but only after several thousands attempts.

positive design: achieved by chipping away the background and leaving the pattern on the surface of the wood.

practice board: ideal for practicing your chip carving. Perfect size is 4" wide, 3/8" thick and 12" long.

rose: sign of love.

rune: an amulet.

Running dog motif: symbolizes a protective wizardry power to thwart off evil.

sanding: a sure way to make sharp ridges into flat ridges.

Seven-pointed star: also called a septagram, symbolizes the holy number 7.

Six-pointed star: represents an eternal, divine order or, the beginning of life.

St. Andrew's Cross: the style of cross X used in the crucifixion of Apostle Andrew.

staining: a means of ruining your work if not careful.

tongue: that thing that hangs out of the right side of your mouth when you are Chipping Away - see caricature below for proper positioning!

Trudeau era: an eternity..... you don't want to get me started!

tulip: acknowledgment of receiving bounty from the heavens.

wedgies: the impressions or marks left by the stab knife. No other meanings will be dealt with in this book.

white walnut: another name for the butternut tree.

wolf's tooth: one of the earliest forms of decoration and resembles a wave motion. Some believe it is meant to represent flowing water, others that it expresses military might, and others, virility.



Note the tongues!

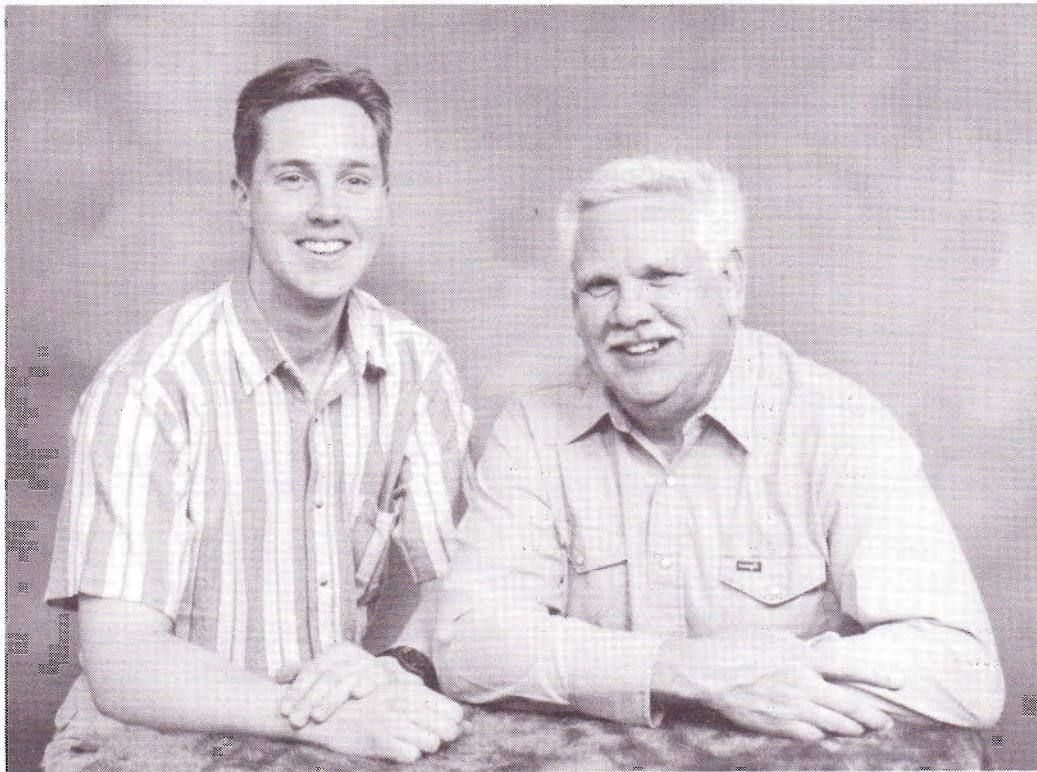
I taught a chip carving class to members of The Thunder Mountain Wood Carvers, in Sierra Vista, Arizona during January of 1995. Over the two day period Don Yadusky, one of the students, kept busy not only carving but also writing stuff down. Then on Sunday afternoon, at the close of the class, he announced that he had kept notes on some of the rules I used when teaching and read them aloud. He called them "Dennis' Ten Commandments for Chip Carvers". I would like to share them with you.

Dennis' Ten Commandments for Chip Carvers

- 1. Remove the largest chips first.*
- 2. Carve those areas that are the most delicate (sharp ridges) last.*
- 3. When carving rosettes, start with diagonal cuts to the grain first and move in one direction only. That progression will see the more difficult 'cross grain chips' removed before finishing with those easier ones 'with the grain'.*
- 4. When carving into the center of a rosette, roll your knife up to almost 90 degrees. This will save the center from chipping out, especially in those patterns where you will be carving into the center a great number of times.*
- 5. If you have trouble removing the larger chips, then do so in stages. You will find that by taking smaller chips out of the center of the larger one and gradually increasing in size, the final chip will be much easier to remove. Your carving will also be much neater and cleaner.*
- 6. When starting a new chip, always make the first cut in the direction that is away from your previous chip.*
- 7. Make use of stop-cuts.*
- 8. Keep your thumb against the handle blade and on the wood at all times. This will ensure consistent angles and you are less likely to cut yourself.*
- 9. Always look for ways to add that final touch or embellishment -- create the ooohhs!*
- 10. Have Fun!*

Oh yeah, almost forgot

- 11. Don't forget - keep your tongue on the right side of your mouth!*



ABOUT THE AUTHORS

Dennis, he is the father, the good looking one....no, on the right....and his son, Todd have taken the carving world by storm winning numerous top international awards. Their carving, teaching, and judging reputation is exceptional because of the friendly and entertaining approach Dennis and Todd add to their art! Their weekly television series has introduced viewers to all areas of wood carving and wood art. Dennis and Todd are highly sought after personalities at Wood and Wood Carving Shows and Competitions around the world. It is no wonder these two are referred to as "The Canadian Masters".

There is a complete *Moor* line of superior chip carving tools that include Chip Carving Knives, Ceramic Sharpening Stones, a Leather Strop, Books, and a Four Volume Video Series. Dennis and Todd designed *Moor* tools to make chip carving easier and eliminate the most commonly experienced difficulties. *Moor* tools are sold by dealers throughout the world, for details or dealer locations near you call or write to *Chipping Away*, or visit the *Chipping Away* website on the Internet!

ACKNOWLEDGMENTS

We have referred to our past and future students as 'family.' That's pretty much like it is. Todd made an observation and commented not long after joining the business: "I'm not sure if it is the nicest people in the world that take up the hobby of Chip Carving / Wood Working, or if it is the hobby and wood that brings out the nicety in people." Which ever it is, we are awfully glad to be associated with them. When one takes a Chip Carving Class with us, one becomes a member of this family. We keep in touch by means of four newsletters each year that passes on little tips, news, product information and a schedule of our itinerary. Why our itinerary, well you see once you have joined our family of students, you may repeat the class anywhere, anytime and as often as you wish ... free of charge. That's what you do for family. It is our family that constantly challenges us to do better and shares their ideas and experiences with us. We learn from each other. We learn to strive for perfection, but know we will never reach it. We have fun! We wish to acknowledge our family....each and every member.

Dennis & Todd

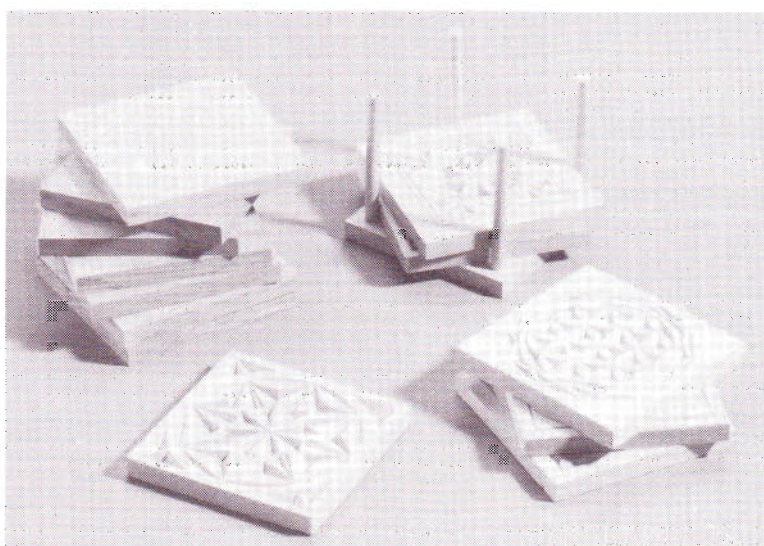
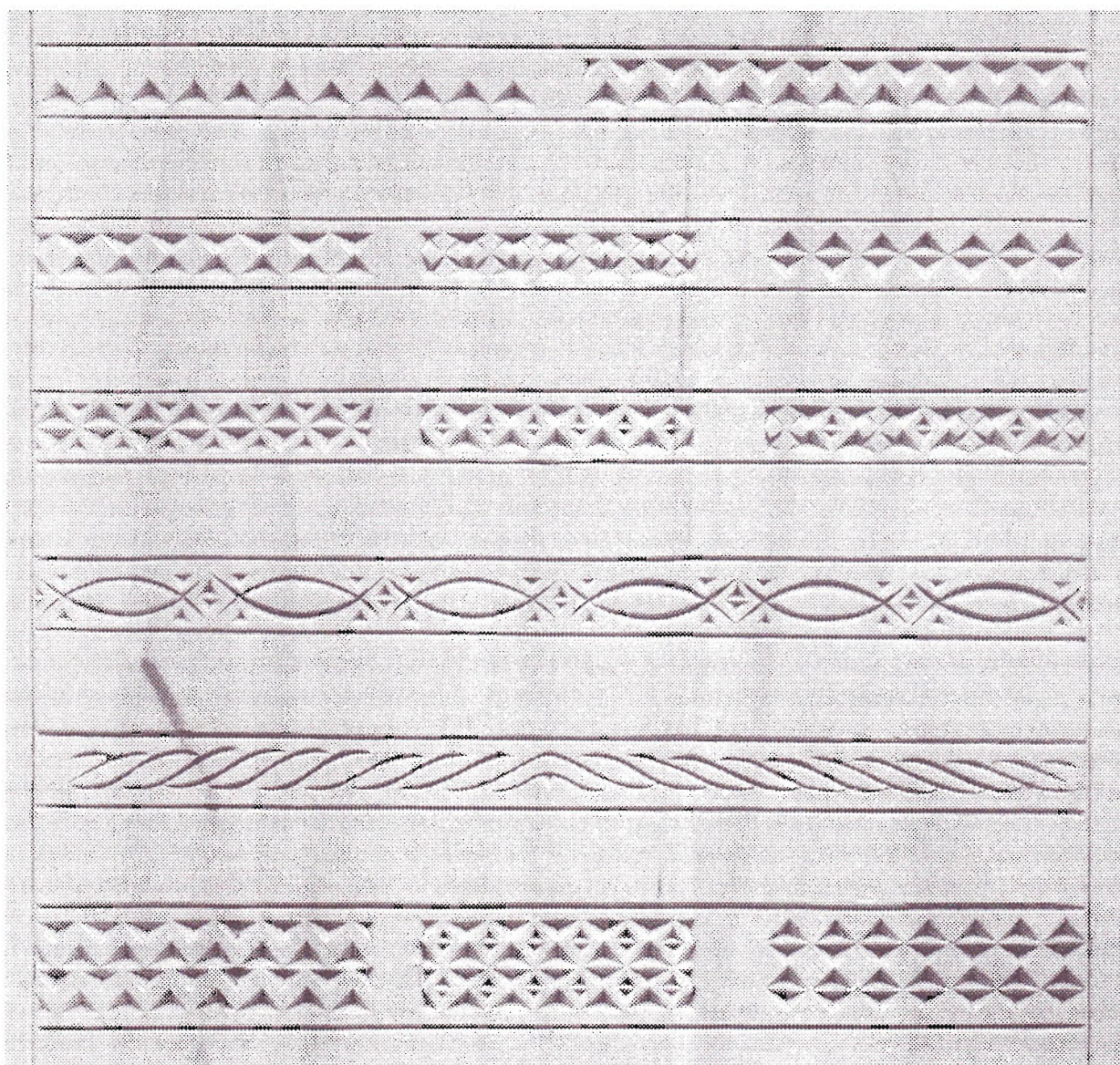
Other Books By the Authors:

Chipping Away: Free Form Patterns for Chip Carving ISBN 0-9683448-1-X 1998rev.
and: two more books coming in the fall of 1998 one on traditional patterns with carving instruction and another on free form patterns with projects

Chipping Away

247 Blackhorne Drive, Kitchener, Ontario Canada N2E 1Z2
Telephone: (519) 743-9008 Fax: (519) 578-6074

Internet Website: www.chippingaway.com
Email: dennis@chippingaway.com
todd@chippingaway.com



*here is a neat little idea!
how about carving some
rosettes on 'coasters'
functional and impressive!*



Chipping Away Delivers Fun!

There is a complete Moor line of superior chip carving tools that includes Chip Carving Knives, Ceramic Sharpening Stones, a Leather Strop, and Videotapes. Dennis & Todd designed Moor tools to make chip carving easier and eliminate the most commonly experienced difficulties. Ask for Moor tools at your quality wood-working or wood carving shop or write us at: Chipping Away 247 Blackhorne Drive, Kitchener, Ontario Canada N2E 1Z2. Or visit our website at: www.chippingaway.com

ISBN 0-9683448-0-1



9 780968 344804

