

Special Quarantine Issue

Our 39th Year of Bringing Woodworkers Together *(even while we're Apart)*

MAY, 2020 NEWSLETTER

Volume 39 - Issue 4



Greetings from your Board

Life has changed dramatically since the start of the year. We hope this newsletter finds you healthy, coping well with shelter-in-place, and pursuing your woodworking passions. As an association, we too have been impacted but we have a mission to fulfill so we are adjusting in new and innovative ways.

This newsletter is our **special COVID Edition**. It's a departure from the past in many ways. The look is new, the structure is fresh and the articles are specific to this time we're living through. What hasn't changed is our purpose. We exist to serve you as best we can, which in these times, has meant making many changes. [Read on to learn more.](#)

As social distancing was implemented we suffered a series of blows. First we had to close the Shop; which affected tool use, education programs, collaborations and social programs. Then our major programs were stopped, one by one: General Meetings, Toy Program, Community Service, Estate Sales, Old Tool Swap Meet, and Shop Tours. Eventually even Design-in-Wood at the San Diego Fair was postponed until next year.

What to do?

The answer was to [go online](#) so we could "*be together - while we're apart*".

<u>What's in this Issue?</u>	<u>Page</u>
<u>New Online Services</u>	
<u>Board Message</u>	1
<u>Zoom Video Network</u>	2
<u>Special Interest Groups</u>	4
<u>Shop Tours</u>	5
<u>Woodworker Spotlight</u>	6
<u>General Meeting - May 27th</u>	7
<u>How to Zoom</u>	8
<u>Discussion Forums</u>	11
<u>Feedback Forum</u>	18
<u>Woodworking Contests</u>	7
<u>Woodworker's Corral</u>	9
<u>Covid Heroes</u>	10
<u>2020 Holiday Gift Sale</u>	12
<u>Shop Reopening Plan</u>	14
<u>Shop 3.0 Update</u>	15
<u>The Bristlecone Pines</u>	16

New Online Services for you:

SDFWA Zoom Video Network:

How can you be face-to-face if you can't be in the same place?

The answer for millions is online video with FaceTime, Zoom and other internet video chat technologies. Seeing the opportunity to resuscitate our suspended programs, we relaunched cancelled programs: SIG meetings, Show & Tells, Fast Start Fundamentals, etc. With that going well, we started to add new programs such as Classes and Guest Speakers. Soon we'll even bring back classic programs such as Shop Tours and General Meetings.



These SIG meetings and events are available to ALL SDFWA members!

See the [Calendar](#) at the bottom of the [SDFWA.org](#) homepage, where we always list upcoming events such as:

- | | | | |
|-----------------------------------|-------------|-----------|-------------|
| • Fusion 360 SIG: | every | Monday | at 6:30 PM |
| • Fast Start Fundamentals: | every | Wednesday | at 7:00 PM |
| • Holiday Gift Build SIG: | every | Friday | at 10:00 AM |
| • Laser SIG: | every other | Friday | at 7:00 PM |
| • Hand Tools SIG: | 1st & 3rd | Saturday | at 10:00 AM |
| • Digital Tools SIG: | 2nd & 4th | Saturday | at 10:00 AM |
| • Shop Tour Select: | 3rd | Saturday | at 11:00 AM |

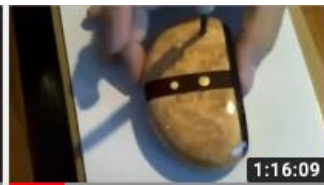
To attend an on-line meeting, just [register for the FREE event on PunchPass](#), (the link to the zoom meeting will be emailed to you automatically). If you don't have a [FREE](#) account yet, then simply [go here to sign up](#).



SDFWA Outreach Program -
Volunteerism in Action



Hand Tools SIG



Making a Wooden Putter
Head



Ortur Diode Laser



Online SIG: Vacuum
Clamping



Laser SIG: Touring Three
Large Home Lasers



Online SIG Holiday Gift Build



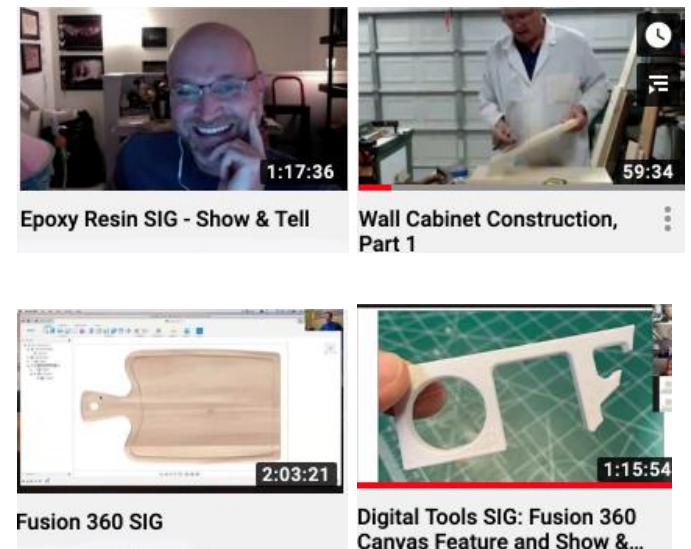
Fast Start Fundamentals -
Marking Tools

This is an example of seeing each other in **Gallery view** when in a Zoom meeting:



If you've missed an event you would have enjoyed, that's not a problem since we've recorded them for you...

<u>Event Name</u>	<u>Date Held</u>	<u>Video Link</u>
Woodworker Spotlight	Saturday 5/9	Del Cover on Niki de Saint-Phalle
Epoxy Resin SIG	Thursday 5/7	Show & Tell with Lance & Cassiano
Hand Tools SIG	Saturday 5/2	Sharpening Planes and Chisels
Fast Start Fundamentals	Wednesday 4/29	Building a Wall Cabinet
Online SIG	Monday 4/13	Vacuum Clamping System
SDFWA Outreach	Monday 4/6	SDFWA Outreach
3D Printer SIG	Monday 3/23	3D Printer Show & Tell



The above is just a sample of our event recordings, the rest of our 30+ events to-date [can be found here](#).

SIGs:

Leaders of “*Special Interest Groups*” (SIGs) have either deep knowledge or deep curiosity and are actively learning. They have a real desire to bring people together to collaborate, educate and celebrate. Importantly, they enjoy rallying people around the theme they lead. Here are some of our current SIG leaders:



- **Hand Tools - Paul Duffield**

Touring us through tools, teaching us technique, tempting us with guided-build ideas and tantalizing us with “mystery tools”, Paul loves this topic and it comes through.



- **Laser SIG - Alan Lewis**

A prolific enthusiast, Alan is constantly showing his work and sharing his ideas. We have toured home CO2 lasers, learned LightBurn techniques from him, collaborated on a group-buy of diode lasers and the future agenda is long.

- **Turning - TBD**

Pro turners will be members of SDWT but we have a nascent turning community that needs leadership to guide us through the world of options, topics and projects. Maybe you can help



- **CNC - Ed Baize**

Not even owning a CNC when he started with us, Ed has become a huge CNC fan and has jumped in with both feet. His odyssey and zeal feed our agenda which has included touring machines, show & tells, and projects for the Holiday Gift Sale.



- **Fusion 360 - Tim Peachey**

In a sea of software options, it's our goal to rally around one versatile tool for CAD. With decades of professional experience and a real love for design, we're fortunate to have Tim leading our way. His Fusion 360 classes and discussion sessions are great.



- **Scrolling - Jim Bradbury**

The man owns four scroll saws and has decades of experience which he generously shares with us. Whether sharing stories from his Tea Light design odyssey or providing tool-buying guidance for beginner scrollers, Jim shares what he loves.



- **Luthiers - Mike Davis**

For over two years Mike has led this early SIG which only grows with the passage of time. The knowledge in this community, the volume of stringed instruments they produce and their general goodwill make them a welcoming place for budding luthiers.



- **Fast Start Fundamentals - Doug Glessner**

A vital role in nurturing new woodworkers is teaching new members the fundamentals of woodworking so that they can get to basic proficiency. Doug does this with instruction (e.g. marking & measurement, squaring boards, types of saws, etc.) and by demonstrating builds (a hanging wall cabinet in 6 sessions). This SIG is an important part of inducting new-to-woodworking members into our vibrant community.



- **Carving - Chuck Meacham**

Our original SIG! Chuck rallies his community of carvers to work together and share their work. It's among the longest of woodworking traditions and going strong in SDFWA.

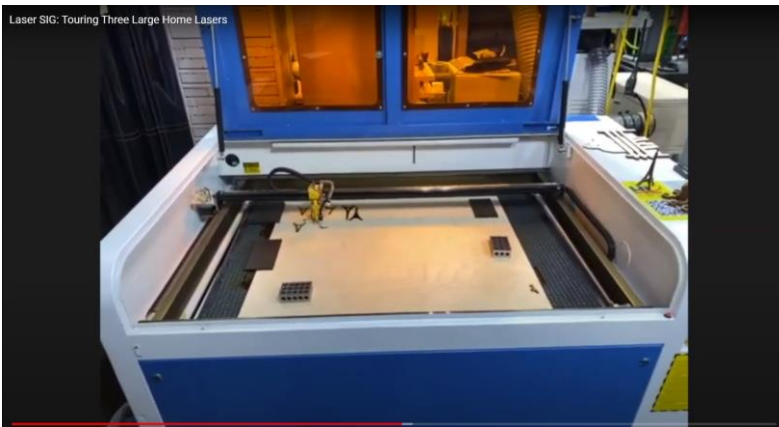
Shop Tours:

A perennially popular feature, Shop Tours offer the opportunity to see first-hand one person's vision of their aspirational "perfect workshop". In truth, workshops are always a work-in-progress but we do get to see the current state of an exceptional woodshop. Recent Shop Tours arranged by Dale have included Jim Strawn, Bernie Burke, and Tony Tait.

So Shop Tours are back! They'll soon reappear in the classic Shop Tour format when we get a video tour of Clint Egleston's shop. As a prolific luthier, Clint has lots of specialized needs which reveal themselves in how he's built his shop. Stay tuned to <http://www.sdfwa.org/shop-tours/> for the scheduling of this event.



In addition to the classic Shop Tour, we've developed "Shop Tours Select". Instead of doing a deep dive in one shop, these events do a shallow dive to multiple shops. We choose a theme and run brief tours across multiple shops. For example, we've done Shop Tour Selects for [CNCs](#) and [Lasers](#). Recently we also enjoyed an event focused on homemade [Workbenches](#) (from Mini Japanese tabletop to large Split-Top Roubo). These are "eye-opener" events which are made possible by using video conferencing.



Woodworker Spotlight:

San Diego County is rich with woodworking talent (and most of the best are members of the SDFWA). Whether this is due to Palomar's program, or Design-in-Wood, or just our great weather that attracts talent from across the nation, we have it.

This new program, hosted by Mike McElhiney, features conversations with exceptional talent with large portfolios of great work over many years.

Our first event can be viewed at <https://forum.sdfwa.org/t/spotlight-on-del-cover/396...>

In it Mike introduces our own Del Cover. Del's talk focused primarily upon his collaborative relationship with Niki de Saint-Phalle from 1995 - 2002 and especially about their Snake Chairs.



We learned about their work, saw pictures of their projects (still viewable all across San Diego), and we were given a tour of Del's studio:

After the session, one member wrote back with his one-word impression of the presentation:

Wow!



General Meeting - May 27th

Special Presentation – “George Vondriska Live!”

On the evening of May 27th, we are all going to experience an incredibly special session with one of the most well-known woodworkers around, George Vondriska. We are going to do a virtual meeting using the **Zoom** conference software. Instructions for doing this are detailed elsewhere in this newsletter.

George Vondriska has been teaching woodworking since 1986. In addition to running his own woodworking school, George has taught woodworking courses for woodworking shows, woodworking schools, retail stores, the U.S. Peace Corps, the Pentagon, Northwest Airlines, and Andersen Window. George is the primary instructor for Vondriska Woodworks woodworking classes.

You may also know George from his work as the Tools and New Products Editor for American Woodworker Magazine, his articles in Fine Woodworking, WOOD, and Woodworkers Journal Magazines, or from his current position as Managing Editor of the [WoodWorkers Guild of America](http://www.wwgoa.com) website.

You can check out George’s website before the meeting at: www.wwgoa.com.

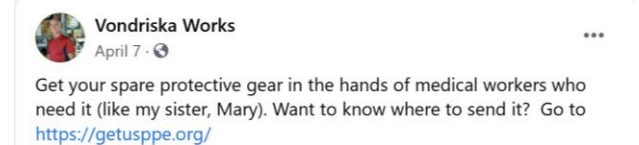
George has been actively involved in helping first responders (like his sister) obtain personal protective equipment (PPE) during the current COVID-19 Pandemic. To help visit getusppe.org.

We are still finalizing the exact topic for George’s presentation at the time of this writing, but rest assured it will be an interesting, useful, and fun evening with George Vondriska!

No, there won’t be the pre-meeting pizza parties, nor the Fast Start program, nor intermission cookies, but this will be a world class talk!

This program will be delivered via the Zoom app so mark your calendars and get ready by downloading the Zoom app using the [following directions](#).

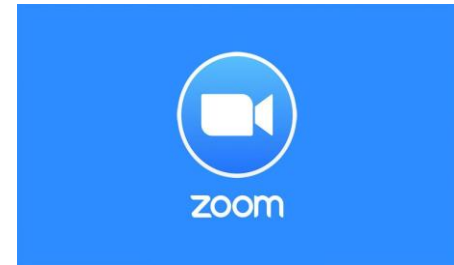
Then at 7:00 on May 27th, [click here](#) to join the meeting.



We'll also announce the winners of the “Utensils” Contest at this Meeting.

We'll also be announcing a brand NEW Contest for June/July. Don't Miss it.

How to “Zoom”



Zoom is a program and website that is used to communicate audibly and visually over the internet.

Everyone is doing it and talking about it. You too can join in the fun!

Zoom is **free** to Download and/or use on all computer devices (your options are ranked here from best to worst):

1. Laptop Computer – Has built-in camera, microphone and speakers or headphones.
2. Tablet - Same as a Laptop, but a smaller screen. (You will need to download the free Zoom App)
3. Smartphone – Same as a Tablet, but an even smaller screen.
4. Desktop Computer – You will need speakers or headphones to be able to hear the meeting.

Then:

- A. Download and Install **Zoom** on your computing device (Mac, PC, Tablet or phone) from <https://zoom.us/support/download>.
- B. Register for future meetings you find listed on the calendar at the bottom of <http://www.sdfwa.org> or on [punchpass](#).
- C. You can find all of our past presentations listed at <http://www.sdfwa.org/Home-Video-Links>.
- D. Just prior to the meeting, click on the scheduled zoom link. This will open your browser and you will be prompted to start Zoom. Click on Open Zoom and you will see the meeting.
(If it asks your permission to use the computer camera and/or microphone – respond YES).

If you have any questions, comments or concerns about Zoom write back to [Mike](#) for help.

Woodworker's Corral!

One of the most enjoyable and inspirational parts of our General Meetings has been the "Woodworkers Corral".

A true woodworker never tires of looking at new objects made from wood, particularly if it's been made by someone you know. It's always fun trying to figure out what wood was used, what finish was applied and the method of work on the trickier pieces.

But just because we're not holding General Meetings at the Church, doesn't mean we can't continue to enjoy each other's accomplishments.

Many of our Members have been sending in photos of pieces they've done. We hope you'll enjoy them and that they'll inspire you to get out into your Shop and create!

We also hope, that when you do, that you'll [email us](#) a photo of your work! Or Post it at our new [Projects Built](#) discussion forum.

Thanks to our Members who contributed these:



Rodney Allen has been busy making some great items for his wife.

Check out the new cribbage board and playing card box.

Except for the holes in the board, all was done using just hand tools!



Doug Glessner needed a permanent home for his collection of planes.



Keith Topliffe did what most of us keep saying we're going to do...

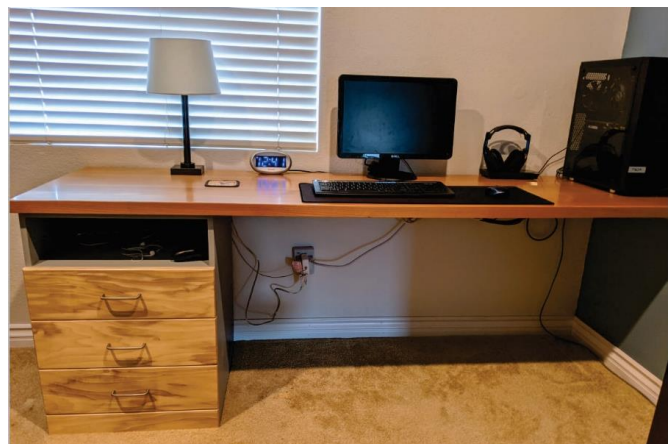
Wish this movable lumber rack was sitting in my shop!



John Rieger's been working on "The Perfect Workbench" longer than some of us can remember

Right when we began to suspect it didn't really exist, he finished it!

This baby weighs in at a tidy 295 lbs! Nice work, John!



Jeff Romek has been working at increasing his son's interest in woodworking

He seemed to crack the code by offering to help him build a desk for his room!

"Father Knows Best!"



“Covid Heroes”

In this special “COVID-19” issue of our Newsletter, it seems only appropriate to recognize Paul Duffield.

Many of you know Paul. Many more will recognize him for the many things he does to support SDFWA.

He is a Shift Supervisor at the Member Shop, teaches the lab portion of the Introduction to Woodworking Class, leads our Hand Tools SIG and has also produced a number of other instructional videos and classes for us. He’s a major supporter of the Holiday Gift Build and always the first to volunteer when we need help.

When he heard about the severe shortage of PPE in the early days of the COVID-19 Pandemic, he was determined to help. Quickly acquiring 3D-Printing skills, he figured out how to use the Member Shop’s 3D Printer to produce plastic face shields for use by our local medical personnel.



Paul Duffield and an appreciative Medical Professional!

We couldn’t be more proud of one of our most dedicated Members!

To Paul and all of you who have done what you can to get us through this difficult time,
please know how very much we appreciate you!!

Discussion Forums:

Let's face it, unless you're cranking out face masks for healthcare workers such as our COVID Heroes are doing, you probably have some time on your hands. Even with the best of efforts, the SDFWA will only have so many hours of Zoom Network programming per week. Outside of working in your woodshop what else could you be doing locally related to woodworking?

How about discussing woodworking and projects with fellow SDFWA members?

We've launched a system called [Discourse](#) where members can gather around topics of interest and discuss. Categories of discussion range from woodworking techniques to project showcase to Special Interest Groups to mentoring. It's also a great place to continue the discussion of recent events.

The screenshot shows the SDFWA Discourse forum interface. At the top left is the SDFWA logo. On the right are search, menu, and user profile icons. Below the header is a navigation bar with 'all categories' (dropdown), 'Categories' (active), 'Latest', 'Unread (1)', 'Top', '+ New Topic', and a menu icon. The main content area is divided into two columns: 'Category' and 'Latest'.

Category	Topics	Latest
Projects Built You built it. You're proud of it. Show pictures and tell us more!	25	Name Plaques from the CNC ■ Projects Built 2h
Online Events Our online events expanded with indexes and discussions.	25	Ortur Diode Laser Testing 3 ■ Laser SIG 53 21h
Help? Help! Got a woodworking problem? Post your question here!	4	Fast Start Building a Wall Cabinet, Part 2 ■ Fundamentals 0 1d
Special Interest Groups Come here to connect with, learn from and help others who share special interests. Jump in! ■ Laser SIG 1 unread ■ Turning ■ CNC Milling ■ Hand Tools ■ 3D Printing ■ LAMP ■ Fusion 360 ■ Fundamentals ■ Gift Build ■ Epoxy Resin ■ Spotlight	82 1 unread	Digital Tools SIG with Fusion 360's Canvas ■ Online Events 0 2d
Site Feedback Discussion about this site, its organization, how it works, and how we can improve it.	2	Digital Tools SIG - Fusion 360's Canvas ■ Special Interest Groups 0 2d
		Woodworker Spotlight on Del Cover ■ Online Events 0 2d

Check it out at forum.SDFWA.org.

You may find that you enjoy your time spent online discussing with other woodworkers.

2020 Holiday Gift Sale! ... “How Can I Help?”

“Every cloud has a silver lining”, right? There is an upside to the current pandemic. A number of our Members are suddenly finding themselves having a lot of time on their hands and with a dash of boredom thrown in. The result has been an increased level of interest in Members getting involved in the “Holiday Build”.

As you probably know, the Holiday Gift Sale (in November) is our #1 fund raising activity for SDFWA. But it's also a great opportunity for our Members to come together, to pool their talents and produce an incredible inventory of items for us to offer for sale to the public.

There are several ways you can help:

1. Pick up a “kit” of materials, photo and detailed directions at the Shop.



If you can't come to the Shop to pick it up, let us know and we will find a way to get it to you

2. Join us for a Friday morning “Build Session” via Zoom. A dozen or so of us get together at 10 am each Friday, talk about what we're working on, what we need help with, where to get the materials and to see what each other has done.

Join us! It's fun!

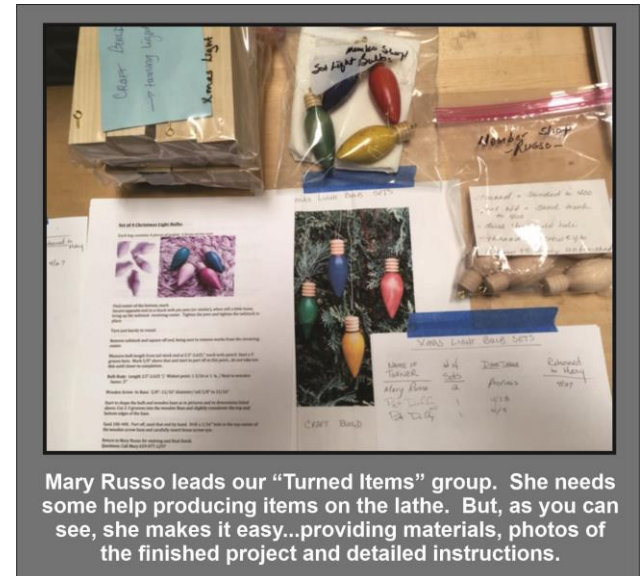
[Email us](#) and we'll make sure you get the link.



Jim Bradbury has a thing for building tea lights. But this year, he's stepped up his game and enlisted Sam Takahashi to help him.
The result...quite impressive!



Dave Brandland stops by the Shop to pick up a “puzzle” that requires his scroll saw skills. John Rieger will be pleased!

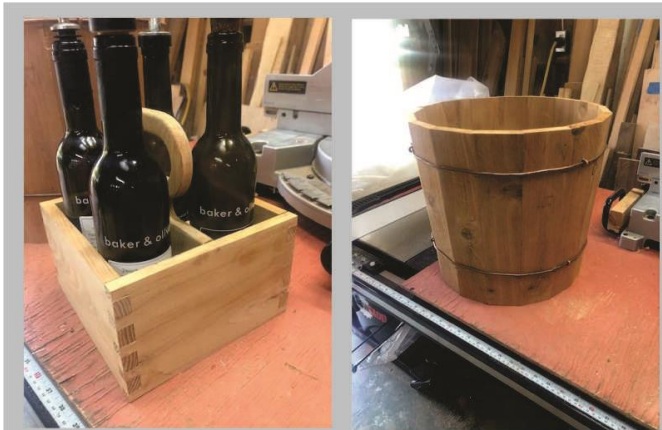


Mary Russo leads our “Turned Items” group. She needs some help producing items on the lathe. But, as you can see, she makes it easy...providing materials, photos of the finished project and detailed instructions.

3. Pick an item from our “Pinterest” page at <https://www.pinterest.com/dkgless5193/holiday-build/>

We’ve listed photos of a number of items that we think would sell well. [Pick one out](#) and start building!

4. Contribute something you’ve made. It doesn’t matter what it is, so long as it’s finished and unused. Such as:



Peter Tobias has decided to join the fun and is working on two different items. The carrier on the left will hold olive oil, balsamic vinegars or who knows? The beautiful staved planter can be resized for a variety of applications. Nice job, Peter!



Rob Sandstrom has brought his considerable CNC skills to the table and been working on several projects for us, including this great looking Cheese and Cracker Tray

5. If you have a CNC, we have a particular project for you! [Email us!](#)

This is an important time for us all to come together. Why not make it around a woodworking project?!

And remember, if you need ideas, materials or plans, [just let us know](#).

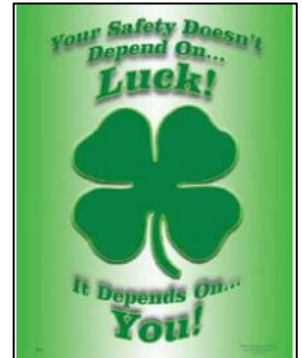
Thanks in advance for your help!

Shop Reopening Plan

After being “locked down” for so many weeks, many shop members have been anxiously awaiting the day the shop reopens. We miss seeing our friends and working in the shop. We must be mindful that woodworking is our passion, but our health and community safety must have priority. As eager as we are to move forward, we are proceeding with caution.

We have **safely operated the shop for three years**. Our flawless safety record was not a matter of luck. It was the result of great planning by our founding team, excellent execution by our Shift Supervisors, and, most importantly, disciplined and responsible work habits by our members.

Now, more than ever, everyone’s safety depends on all of us doing our part. We must continue to rely on each other to follow the guidelines. We have successfully avoided the well-known hazards of our craft. Now we face a new and severe hazard of an invisible virus. The same skills that made us successful in the past will achieve a safe future.



When will the shop open? The short answer to that question is – We will open when we are comfortable that we can do it safely. Shop leadership, Shift Supervisors, and other shop volunteers are working together to make it happen.

We have expert consultants providing information and practical advice. We are very fortunate to have so many volunteers who are sharing their expertise with us. We are particularly thankful for the guidance from shop members John Palmer and Brenda Wong. Both are semi-retired safety professionals. Brenda spent her entire career in bio-hazard safety management. As you can imagine, their skills are in high demand, but they are carving out time to assist and guide us as we proceed. When you see either of them in the future, be sure to let them know how much we appreciate their contributions.

There will be **Policy changes**. We are developing policies to mitigate the risks of the virus. Some of the changes under consideration are:

- Face coverings will be required! There are no exceptions.
- Shop occupancy is limited to the Shift Supervisor and members who have reserved a shop time. Shop tours will be conducted by appointment only.
- The 6' separation requirement is expected and will be enforced.
- Before the start of a shift, the commonly touched areas will be cleaned. Examples include: power switches, blast gate controls, and door handles.
- Members are expected to clean portable tools before and after use. A workbench will be dedicated for this purpose and we will provide the appropriate supplies.
- There will be no self-check-in. The Shift Supervisor will be the only person handling the computer.
- No shared food (donuts, cookies) or coffee.

We will start slowly and cautiously. Initially, we will have a limited number of shifts and a reduced number of members working at the same time. This will allow us to refine our procedures and assess our ability to follow the requirements consistently. As we become confident that it is prudent to expand, we will.

Want to learn more or offer suggestions? An online discussion will be conducted via Zoom at [11:00 am Saturday, May 23](#). During this session, we will discuss the revised procedures, cleaning procedures, and safety requirements. This will provide you with have an opportunity to give feedback and offer suggestions to improve the plan. The [meeting](#) can be found on [punchpass](#).

Update on the Shop 3.0 Plans

While I know that although most of us have been preoccupied with COVID-19 and all of its effects, things are still happening in the Shop 3.0 world!

I have been developing and refining the story we want to tell our potential benefactors, and it is quite a story! The combination of our toy program and distribution, kids chairs & furniture, the SD Fair **Design in Wood** (although not this year!), our classes and education, and all of the various community outreach activities and projects we have done over the years makes a compelling body of work that we should all be proud of, and should grab potential donors as well.

I am finishing up a business plan for the project, and have created a trifold brochure, a 1-page take away sheet, and am working on the briefing we will give, as appropriate.

Our architect, Elizabeth Gralton, is working on completing a rendering of a baseline layout/floorplan she and I developed which is looking good! Unfortunately, Elizabeth will not be able to support us after the rendering is complete, due to schedule and family commitments. We are therefore looking for another architect in the group who can join the team and support this effort. Please contact me if you can help. Thank you!

We have another new team member, Eric Knowles, who brings tremendous experience to this project in the areas of fundraising, commercial real estate, and great contacts in San Diego. We have discussed the project and the direction we need to head in, and all the materials above reflect his insightful knowledge.

So, things are happening, and we want to be ready to go when all of the lockdown/quarantine orders are lifted and we can start to talk to potential donors face-to-face. If anyone has contacts with people who may want to contribute to our cause, please contact me at psterli1@san.rr.com and we can talk about it. Very soon, we will be starting internal briefings to refine the presentation before we go into the community.

I will continue to inform you of our progress as we move forward!

Pete Sterling - SDFWA Planning Director



COVID CARTOONS

Please maintain a social distance of 6 feet apart!
(about the length of your average CVS receipt).



Day 72 without sports...
"Found a young lady sitting on my couch yesterday.
Apparently she's my wife. She seems nice".

When you realize that Cinco De Mayo finally falls
on a Taco Tuesday and it's getting messed up by
a virus with the same name as a Mexican beer.



The Bristlecone Pines

The Bristlecone pine (*Pinus Longaeva*), said to be the longest lived organism on earth, has fascinated me for quite a while. In the summer of 2013 I visited the Bristlecone's special habitat in the White Mountains, about a five hour drive from San Diego high above the great basin. After the visit I wrote a short president's message for the April, 2013 newsletter. This is an extended version for the current newsletter.

When you first see a living bristlecone pine, you just know they have lived a long life - apparent from the way the tree bends and twists and its stunted height; how lack of moisture, strong winds, snow and heat have taken their toll. Often only a single narrow strip of live bark survives, coursing up the trunk. The wood of a bristlecone is so dense that fallen trees often remain unchanged for thousands of years, leaving many long dead trees nearby on the ground.

Bristlecone pines are found sparsely scattered in small stands at elevations from 9,800 to 11,000 feet throughout Northern California and Nevada with a few in Utah. The trunks of old trees vary from 8 to 11 feet in diameter. They typically reach only 30 feet or less in height in these dry, high-elevation zones. Bristlecones in low-elevation sites with more water can grow to 60 feet. A close relative, the Rocky Mountain bristlecone pine (*Pinus Aristata*), grows in the eastern Rocky Mountain regions of Colorado and New Mexico. An isolated population of *P. Aristata* also grows near Flagstaff, Arizona. A third member of the Bristlecone family, the Sierra foxtail pine (*Pinus Balfouriana*), grows in the southern Sierra range and isolated groves in northern California.

The name "bristlecone" comes from the long prickly bristles attached to immature cones. When the cones reach a size of 2-4 inches long and 1.2-1.6 inches wide, they are fertilized by pollen blown from nearby trees. Once the cones mature, seeds are released and dispersed by the wind. In the White Mountains of California, the trees have grown for millennia. The "Ancient Bristlecone Pine Forest", a fine public park, is maintained by the U.S. Forest Service in the White Mountains on the eastern edge of California.

This grove is home to the famous 4,848 year old Methuselah tree and to another even older tree, an incredible 5,067 years old. The Forest Service has

And now for your stay-at-home reading pleasure.

Please enjoy our latest educational article from Dick Ugoretz.

Thank You Dick!

now taken measures to obscure the location of these two trees. You can take the 4.5-mile Methuselah trail, enjoy great scenery and try to guess the oldest trees. Bristlecones are the oldest *non-clonal* organisms on Earth (they reproduce from seeds rather than by cloning, and the trunks are as old as the roots.) Quaking Aspen is an example of a clonal organism. These amazing pines grow on limestone slopes in almost nothing we would recognize as soil. In this extremely cold, dry climate the growing season is so short that high power magnification is needed to see the tree's growth rings. The oldest specimen yet discovered was 4,844 years old when it was cut down in 1964 by a graduate student doing research for a doctoral study of glaciers; shockingly, with the permission of the U.S. Forest Service. Some good came of this awful deed because the ensuing publicity led to increased interest in the surviving forest which is now highly protected. Two detailed accounts of the story with illustrations and additional information can be found at these two sites:

<https://www.terrain.org/essays/14/cohen.htm>

<https://www.collectorsweekly.com/articles/oldest-living-tree-tells-all/>

Science aside, the Bristlecones humble anyone who considers the tree's enduring nature. They have been growing, absorbing carbon and producing oxygen on the barren dolomite mountains since before the Egyptian pyramids were constructed; around the time pre-Mayan society was forming. When Columbus crossed the Atlantic, these trees were already 4,000 years old. Start your visit at the Schulman Grove Visitor Center high up in the White Mountains. The Center is open during the summer and provides educational exhibits. You can walk among the trees, learn from their natural history, see them up close and ponder living trees that have withstood 5,000 years of cold, wind, sun and snow. Fortunately, they live, not in a private garden or fenced-in park, but in the Inyo National Forest - your own public land.

Originally classified as a foxtail pine because the needle arrangement looks like a cat or fox's tail, these trees were renamed in the late 1800s as bristlecone for the long prickly "bristle" on the immature cone. In 1963, Dr. Dana K. Bailey determined that there were significant genetic and physical differences between the Bristlecones in the Great Basin and those in the Rocky Mountains. His research efforts resulted in another redesignation into two separate species named bristlecone: the Rocky Mountain bristlecone pine and the Great Basin bristlecone pine.

In the White Mountains, the bristlecone pines seem to show a preference for growing on the white, rocky soil that gives the name to this mountain range. This is dolomite, a type of limestone created under the warm, shallow, inland sea that once covered this area. Dolomite has very alkaline soil chemistry. It makes for very challenging growing conditions: precisely why the oldest trees are found here. The bristlecone pines don't actually "prefer" this soil type while other plant species have a very difficult time growing in this environment. The Bristlecones, because they have adapted to high alkalinity, have a chance to get established and grow free from competition. In other areas, such as the Great Basin National Park, Bristlecones have established themselves on soil types that are equally inhospitable to all but the most hearty of survivors.

Even Bristlecones can be threatened by imported pathogens. A single case of white pine blister dust, introduced into North America about 20 years ago, was reported in a Rocky Mountain bristlecone pine in the Great Sand Dunes National Monument in Colorado in 2003. I was unable to locate any other reports.

Each year, all trees produce a new layer of wood just under the bark. During a dormant period, or times of slower growth, a new, narrow band of dark wood is produced. When added to the lighter colored "summer growth" a distinguishable tree ring is produced. In wet years, the width of this layer of new wood is usually wider than in years of drought. The bristlecone pines are known as great recorders of these climatic variances due to their high sensitivity to changes in annual precipitation. Scientists who study and research tree-ring patterns are known as dendrochronologists. If they specialize in climate research through tree-ring records they are called dendroclimatologists. A device called an increment

borer is used to extract a small cross-section of a tree. This sample provides a measure of each tree ring and enables scientists to determine both the age of the tree and the pattern of its growth.

Bristlecone pine chronology, developed in the White Mountains by University of Arizona researchers and Dr. Henry Michael of the University of Pennsylvania, has the longest record in the world which gives an unequaled look into past climatic and environmental conditions. Bristlecone pine wood from fallen trees remains intact for thousands of years in the cold, dry climate of the White Mountains. Scientists measure the amount of carbon-14 in living trees and compare it with samples from long dead trees. This process can produce data extending back nearly 10,000 years.

Using tree ring studies and radiocarbon-14 dating of both living and very much older dead trees, Bristlecones allow scientists to understand changes in long time planetary climate changes and document the age of other carbon based materials as far back as 10,000 years. In the 1960s it was discovered that the radiocarbon dating process was flawed and needed to be recalibrated. The process was providing dates that were "too young". More recent samples from long dead bristlecone pines were taken, helped correct this process and it now yields precisely dated results. Archeologists found that some artifacts discovered in Europe were actually 1000 years older than previously thought. This revision of archeological site dating led historians to reinterpret cultural diffusion throughout the Mediterranean and European areas. Because the bristlecone pines of the Schulman grove provided wood to recalibrate the radiocarbon dating method, they have become known as "the trees that rewrote history".

With such easy access to so many wood species pursuing our craft, we may take for granted the remarkable qualities of wood and imagine it will always be available. The next time you rip or cross cut a plank, re-saw a board, turn a blank or carve a block, take a moment to reflect on conservation and what a wonderful privilege it is to be able to work with wood.

Dick Ugoretz

May, 2020



Feedback Forum

This COVID Edition of the SDFWA Newsletter is a stark departure from the past. Most of what's different was out of necessity; some of what's different was by choice. We'd love to hear back from you on what you think of these changes. What's done here is for you, in the interest of advancing our mission as an organization. Please share your thoughts on our feedback forum at <https://forum.sdfwa.org/c/site-feedback/2>

Thank you.

