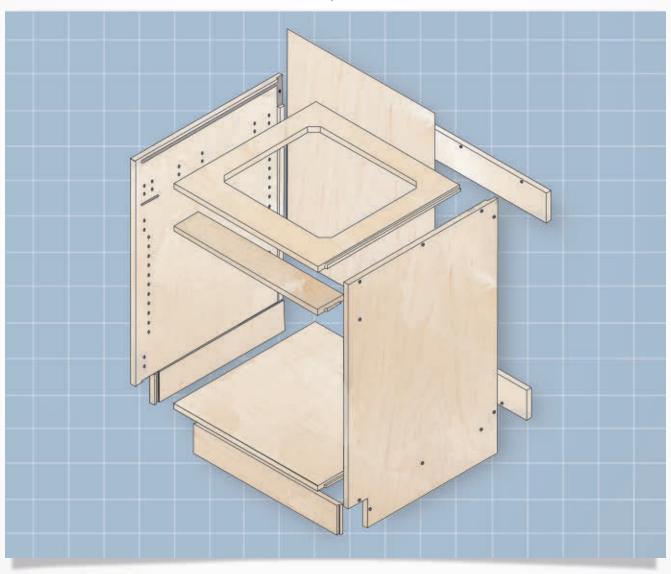


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1

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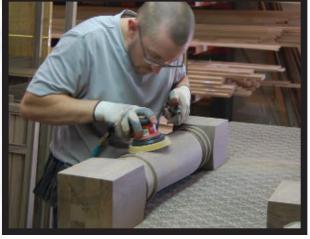
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Video: Woodworker Disaster Relief

Will Sampson talks about a free online site set up as a clearing house for woodworkers to help other woodworkers affected by disasters such as Hurricane Sandy. www.CabinetMakerFDM.com/87619.html



Tideo: Reviewing the Festool SysLite work light

Will Sampson tries out the new Festool SysLite battery powered work light, which came in really handy during the power outage from Superstorm Sandy.

www.CabinetMakerFDM.com/87661.html



SawdustSoup: Woodworker Disaster Relief

Checkout the new group on SawdustSoup that's designed help victims of Superstorm Sandy.

www.SawdustSoup.com/group/woodworker-disaster-relief



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Video: Product features at Plain & Fancy

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Storm musings: In the dark

As I write this on my battery-powered laptop, I am sitting in the dark in the aftermath of what the media has dubbed Superstorm Sandy. The massive hurricane and tropical storm pummeled the East Coast, taking particular aim on New York and New Jersey. At my home in Connecticut, we got less wind and rain than we expected, but we were not disappointed (is that the right word?) by the expected power outage. Our entire town was knocked out, and power is not expected to be fully restored for days. I know many others had it much worse, including massive flooding and wind damage.

So, here I am, with little or no technology working, trying to write about an industry that has become increasingly technology dependent. Virtually every woodworking operation today uses computers if only for email and bookkeeping, but much more commonly for actual design and manufacturing, too. And more and more, we are increasingly dependent on sophisticated

telephone communications. I might have lost my telephone land lines, my electrical power, and my cable internet connection, but my smartphone is still working (albeit slower than usual because of system load and some cell towers without power).

We made our preparations and consider ourselves veterans of this, having survived two weeklong power outages last year. We got non-perishable food and water in. We got fuel for the generator, although ours is not a full-house unit and is only powerful enough to run the refrigerator and a few small additional appliances. And as some of you might know, when I am not in the office, I am often practicing outdoors activities like hunting, hiking, camping, and my wife and I are both involved in a network of primitive skills instructors in New England. So, it's not like we can't handle being without power.

But it's one thing to play at being cave men, and another to be forced off the grid, especially when your daily work



relies on a heavy measure of technology. Plus, we've gotten so accustomed to it. One of my best primitive skills friends, a fellow who could start a fire in two minutes with just a couple of sticks and his hands or knock out a razor-sharp stone arrowhead in a coffee break, is using his smartphone to post on Facebook that he is trapped in his home by downed wires that are blocking the driveway and keeping him from safely clearing a fallen tree.

Whether the issue is trying to get a CNC machine up and running again or simply getting the lights back on, we all are getting better at what has to be a love-hate relationship with technology. And it's funny how self-reliance these days seems to mean things like a bigger generator and your own Wi-Fi hot spot. <

☐ Manufacturing's perfect political party

The return of manufacturing jobs to the United States is a positive development, but there are several issues that will have to be resolved now that the election is over. Positive Manufacturing Gains Clouded by Uncertain Future (www. diecasting.org/newsletter/2012/102412/column.htm) was written by John D. Littler, president of Littler Diecast Corp. for the North American Die Casters Assn. Littler's perspective applies to all manufacturing.

After millions of American manufacturing jobs moved overseas, production is returning the United States. Reshoring accounted for the creation of about 50,000 manufacturing jobs in the last few years.

Rising offshore labor rates and transportation costs make production in the U.S. increasingly attractive.

Dr. Chris Kuehl, managing partner of Armada Corporate Intelligence and economic analyst for the Fabricators & Manufacturers Assn., International, outlined four issues that will be the most important in the coming months: economic growth, tax policy, export markets and regulations.

The economy has been stuck in a slow growth pattern.

*b*γ Karl D. Forth

The manufacturing community would prefer growth rates of 3 or 4 percent, but this would require stimulus. Also, arriving at some conclusions about prevailing tax rates would allow manufacturers to plan and budget with more certainty.

The third issue is continued access to the export market. Neither

party has been strongly pro-trade during the election as it is too tempting to blame foreign countries for trade problems. Also, regulations affecting health care, banking and the environment all have an impact on manufacturers.

With the conflicting policies on these issues, the perfect political party for manufacturers would be a hybrid that favored lower taxes, targeted stimulus, promotion of exports coupled with some protection from predatory imports and all wrapped around a reduction in regulations that inhibit business growth. Littler writes that a party with these policies would help manufacturing's resurgence.











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QUICK CUTS

Woodworker disaster relief site launched

Woodworkers affected by disasters such as Hurricane Sandy now have a central place to go to share resources and help each other recover. Woodworker Disaster Relief was set up as an open discussion group on the Sawdust Soup forum operated by CabinetMakerFDM at www.sawdustsoup.com.

Will Sampson, editor of CabinetMaker+FDM, says the site was set up following talks with Joe Knobbe and Dave Grulke of the Cabinet Makers Association. "We were all trying find a better way to make it easier for woodworkers to help each other out recovering after the storm," Sampson says. "We know some shops suffered significant damage, but we also know there are shops with excess capacity that could help the hurt shops. Problems in the

affected areas include lengthy power outages, flooding, damage from fallen trees, and uncertain gasoline supplies. Not just shops but suppliers have also been hit."

Open to the general public, the site can be read by anyone who visits it. People do have to register to post on the forum.

Initial posts offered assistance to other shops. Sean Benetin, who operates Millwork and More in New Jersey posted, "Shop is back up and fully functional, but all of our jobs just went into instant hold pattern. We have excess capacity for immediate production."

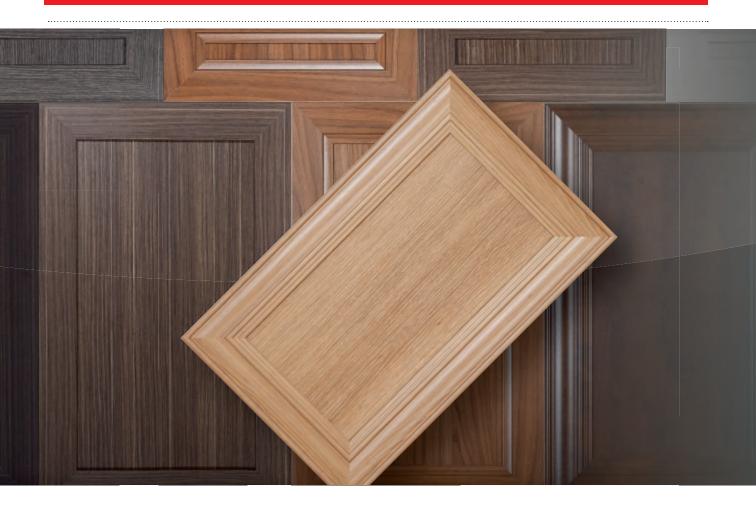
Similarly, Wayne Adelkopf, who runs a shop on Staten Island, posted, "We are fully up and running and can help anyone who may need either cabinet



The Woodworker Disaster Relief site is designed to aid woodworkers helping other woodworkers get back on their feet after a disaster like Hurricane Sandy.

parts cut on CNC or finishing."

On the other side of the equation, New Jersey studio furniture craftsman Glen Guarino posted, "Unfortunately 2 trees from our neighbor's property are now stuck in the roof of my studio." He immediately received offers of aid and suggestions for action from several other woodworkers.



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OUICK CUTS

CabinetMaker+FDM names Rogier regional sales manager

CabinetMaker+FDM has announced that Emily Rogier has been named regional sales manager for the West, Southwest and Midwest territories.

Rogier has a long-established career in B2B media, starting as a circulation manager for Independent Publishing and then transitioning to advertising sales for a wide variety of business and consumer publications for the past nine years. Most recently, she worked as a regional sales manager for Blackboard Co., selling software products. "Her extensive experience in the publishing industry and knowledge of digital solutions and software will make her a great addition to our team," said Tim Fixmer, CabinetMaker+FDM president and publisher.

Emily and her family reside in Geneva, III., and she will operate from her home office.

She can be reached at emily.rogier@ccimedia.net or 319-640-0656.

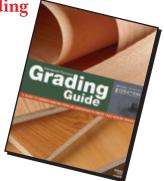
New hardwood grading guide available in digital format

Columbia Forest Products has published a new desk reference called the Hardwood Plywood Grading Guide: A Guide to Understanding Popular Hardwood Plywood Face Veneer Grades.

The Grading Guide aims to clarify the process of wood grading, which is governed by the Hardwood Plywood and Veneer Association, for woodworkers and wood specifiers like cabinetmakers, furniture makers, architects and designers.

In seven sections, the Grading Guide covers a number of key topics, with photographs or real plywood faces, including:

- Veneer cuts and matching
- > Slicing methods
- > Face and back grades of popular species
- > Explanations of common



Columbia Forest Products' Grading Guide is available online.

natural characteristics **>** A comprehensive glossary of industry terms

The new Grading Guide content is available on the web at www.columbiaforestproducts.com/GradingGuide as a free download for woodworkers and designers or anyone interested in wood knowledge. For Columbia's distributor customers, printed copies of the Grading Guide are available for purchase by contacting cfpsamples@cfpwood.com.



info@amsna.net (562)888-1267

Tips for young drummers about wooden drumsticks

There are many wood characteristics that can affect drumstick performance and sound.

There's more to drumsticks than meets the ear.

Wood species

There are three species of wood used for most sticks: hickory (but not pecan hickory as these sticks thud and do not ring); oak; and sugar (or hard) maple. Any reasonable stick will indicate the species. Hickory is the most common species. Oak is heavier, vibrates up one's hand making one's hand become tired more quickly, and tends to warp more, so it will not always be perfectly straight. Maple is lighter weight, has less vibration so is less tiring when playing for a longtime, is more flexible giving a bright tone and is more prone to breakage.

In a few cases, sticks are made of rosewood, mahogany and koa (Hawaii).

Moisture

All wood will lose and gain moisture as the humidity changes. In the wintertime when interior humidities are low, the stick will have about 6 percent of its weight as moisture. In the summertime in an unhumidified location, the stick can increase its moisture to 12 percent or higher, meaning that its weight will go up 6 percent in the summertime. Also, if the moisture changes much, the stick can warp. For this reason, keep your best sticks in a plastic baggie, sealed, so that the moisture cannot change. Moisture does change the tone as well as weight.

You can test for straightness by roll-

ing the sticks on a flat surface, such as a mirror or glass table top, and seeing if they roll smoothly or have a humping roll.

Tone

Each individual piece of wood, even from the same tree, will have its own sound and weight. Therefore, it is critical to have sticks matched for weight and tone. You could find 20 low cost, unmatched sticks and find only one or two that are matched pairs. The better stick manufacturers will weigh and test their sticks for tone, and then match them. Some manufacturers can have over 20 different tones. This matching costs money, so you might not have every pair of your own sticks matched. Perhaps Santa Claus can bring you a well matched pair that you keep in reserve and use only in critical, important situations. Which is best -- high, medium or low tones? It is your choice.

Hickory, oak and sugar maple are mostly used for drumsticks

You can test the tone by holding a stick to your ear and then flicking your finger (finger nail) on it and listening for the tone.

Wood is made of microscopic cells shaped like soda straws, but only 3 mm long and 1/100 of that in diameter...long, hollow miniature tubes. This is where the tone develops.

Wood tone is more mellow and warmer than nylon. Nylon tips seem to be more crisp and will not chip.

Some sticks have no wax, varnish or lacguer on them at all. Varnish or lacguer



Want more? To search a full list of **Wood Doctor's Rx question** and answers, go to www.CabinetMakerFDM.com

is popular. My favorite is wax which I think gives a fantastic grip.

Sticks are sold by several different sizes. As an example, 7a is light, fast and small. 5a is considered an all-around useful size. 5b and 2b are heavier, larger diameter, stronger and louder.

Neck

The point at which the stick begins to narrow from the shaft diameter and then down to the tip is called the neck. Thinner necks are more prone to breaking. A long neck, tapering from the shaft to tip over several inches (sometimes called a slow taper) means less weight on the front and therefore a more responsive stick. This slow taper is suggested for younger drummers.

Wood is fairly soft when it is hit. So, when a tip hits the drum or cymbal, the wood gives a bit and then springs back. If it hits a rim, the wood cells can actually collapse a bit (the hollow spaces close up).

The sound will change depending on the contact angle that the wood makes with the drum or cymbal. Hence, different shaped tips give different sounds.

The oval tip gives a softer sound as there is actually a larger contact area with this tip. The tip weight is low and contact angle is not too critical. A mushroom shaped tip is louder and fuller in sound, with contact angle becoming more important. A fat tip is very loud and is heavier, and harder to control for younger drummers. A ball tip has the least contact area so it will rebound quickly from the drum or cymbal. It is used for jazz music, snare drums and cymbals. Nylon tips are used for electric drums and give a crisp sound.

Explain what a glue filler and a glue extender are.

An adhesive filler or extender is a non-reactive substance (nonreactive with the adhesive) that is added to the adhesive before its use in order to have less adhesive per square foot, but still have enough adhesive with the additive to cover the surface well and get a good glue joint. If we just reduced the spread rate, we would likely get areas with very small amounts of adhesive -- a starved joint. Some commonly used additives are wood flour and flour from the shells of walnut, coconut, and pecans. Outside North America, rice husk flour is used. Occasionally, gypsum, powdered chalk, and talc can be used. The potential list of fillers and extenders is long.

The two words, filler and extender, are often used synonymously. However, to some folks the difference is that a filler is added by the adhesive manufacturer or by the adhesive user following the manufacturer's instructions and with the manufacturer's blessing. An extender is added by the user without the adhesive manufacturer's specific knowledge or instruction.

All in all, it is a strange procedure, as wood adhesives are really quite inexpensive. A piece of furniture may have 75 percent of its cost in the wood itself, with adhesives being only a few percent. Savings by reducing wood waste and being efficient in processing have a much better opportunity for sav-

Gene Wengert, "The Wood Doctor," has been training people in efficient use of wood for 35 years. He is extension specialist emeritus at the University of Wisconsin-Madison.

ing money in manufacturing than using a filler or extender.

Extenders and fillers are most often used with veneer where a super strong joint is not needed. That is, the normal glue joint is many times stronger than needed. Weakening the joint with an extender will not affect the quality in this case. With pva adhesives, I have seen wood flour mixed with the adhesive to get a wood-colored adhesive that is used as a wood filler or putty. Likewise, with epoxy, an extender is used to get epoxy that will not flow, so then the epoxy can be used to "fillet weld" joints, adding to the strength. <



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How to begin the lean journey

Taking the right first steps will give you a better chance of success in improving your business.

This article was supposed to be about applying Extreme 5S thinking to developing a marketing plan, but there is something more pressing that I want to share as the year comes to a close and you begin planning for 2013. Of course a good marketing plan is important for achieving success in 2013, but if your manufacturing operation isn't prepared to deliver a quality product, on-time, every time then seeking additional business will be counter-productive.

I recently had the opportunity to visit with two visionary leadership teams. Both teams recognize the need for change in order to capture competitive advantage and grow their businesses. They also know that lean thinking is the solution, but, even though key managers have been following my articles and have read all of the best selling lean books, they were not certain when, where, and how to begin the transformation process.

Getting started with lean

It may seem odd to insert an article on how to begin the Lean journey in the middle of a series that has been focused on developing a more mature lean process, but I believe that there are a large number of readers, particularly managers of smaller shops, who are knowledgeable of the various lean tools and techniques, but are uncertain how to get started. Basically there are two things a manager needs to do once he or she has decided to transform their business.



Excess clutter, as seen here, adds to chaos and increases inventory costs. Some of the first things to look for on your lean journey are ways to reduce clutter.

The first is to get as familiar as possible with lean thinking through articles, books, and networking with other managers who are already engaged in the transformation process. Your lean library should include, "Lean Thinking - Banish Waste and Create Wealth in Your Corporation," by James Womack and Dan Jones; "Toyota Kata - Managing People for Improvement, Adaptiveness, and Superior Results," by Mike Rother; "Gemba Kaizen - A Commonsense, Low-Cost Approach to Management," by Masaaki Imai; and my book, "Story of a Lean Journey." All of that reading may not qualify you as an expert, but you will have a greater understanding and appreciation of the dynamics of a Lean transformation and the commitment required to sustain the journey.

Hire an expert

The second thing is to retain the services of an expert lean facilitator to assess your current situation and help develop a plan to bridge the gap between where the company currently is and where you want to go. Since Lean is a team-based business philosophy, engaging your entire staff in the transformation process is a key to success. The Lean expert can facilitate the necessary training and coaching to get everyone on the same track and moving to the same objective. If you aren't ready to actively engage your entire staff in the continuous improvement process you will not achieve a successful lean transformation.

Brad, the CEO of Signature Wood Systems, the company that I have cited in previous articles, was in the same position as the leaders of the two companies that I recently visited. Brad had read all of the popular books and followed my articles, but he lacked the necessary skills to effectively communicate lean thinking to his staff in a way that they could understand and embrace. That is not an uncommon situation so select-

Online only:

To read more on lean, search for archived Jim Lewis columns at

www.CabinetMakerFDM.com



Too much work-in-process (WIP), like these stacked pallets, gets in the way of other work and saps efficiency and flow.

ing the right resource to facilitate the transformation process is an important decision. Brad is now nearing his initial objectives, and a firm foundation has been established for him to move toward his ultimate objective of growing the business by multiples of ten-fold.

Go to gemba

"Gemba Kaizen" will help you understand how to "go to gemba" - the place where the work is done - and observe and absorb current conditions so you can identify opportunities for improvement. When you are seeing gemba through lean eyes, two areas of improvement should become obvious. One is all of the clutter and excess stuff that the staff has to work around or through in order to complete their tasks, and the other is the "batch production" mental model that likely pervades your operation. Both of these characteristics, as seen in the accompanying photos, are common in non-lean businesses and are the major causes of the chaos and confusion that lead to poor on-time delivery and excessive cost.

In one photo accompanying this article there is excess clutter that has accumulated from previous jobs around

an active work area. The workers have to navigate through and around the clutter to complete current jobs. The clutter adds to the chaos and confusion and creates a number of wastes such as the waste of excess transportation, bringing new loads to the work area and taking completed work out of the area, the

waste of processing because the workers have to change the pattern of their tasks because of the additional interference, and the waste of movement on the part of the worker.

The clutter is also evidence of increased inventory cost, which decreases cash flow that could have been used for





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♣ I FAN JOURNEY

other parts and materials. In this case the inventory may not be able to be recycled for use on other jobs, in which case the financial resources that were consumed will not be recovered. The solution is quite simple - engage the staff in Workplace

Organization and supporting that initiative with standard procedures for limiting the amount of work that can enter an area.

Reducing WIP

The other photo shows pallets of excess Work-in-Process (WIP) waiting to move to the next operation. The clutter

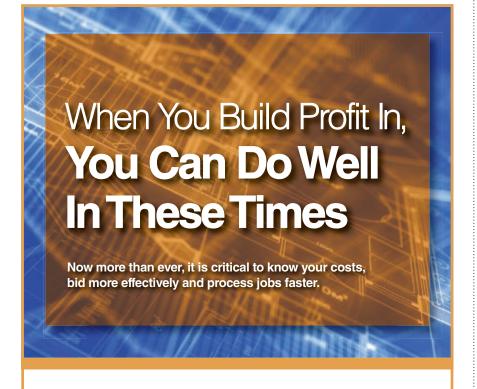
in the workplace along with the excess WIP necessitates increasing the space between process steps to accommodate the unnecessary stuff. There are two additional non-value adding costs associated with the current batch process that can be seen in the pictures as well. One is the requirement for shrink-wrapping the pallets to prevent the load from spilling as it is moved to the next operation, and the other is the placement of the pallets in proximity to each other.

To get the pallet closest to the rack requires one or both of the other pallets to be moved out of the way. Moving the pallets requires time and other resources that could be expended to add customer-perceived value rather than exacerbating the waste that is already present in the operation. Part of the solution is applying Extreme 5S thinking in managing work-in-process, which was detailed in a recent article.

Getting started on the lean journey will not be a daunting undertaking if you approach the decision as an informed manager with an expert identified to help launch the transformation process and periodically guide, coach, and mentor your leaders and staff. If you would like to talk to Brad about how he got started you can contact him at: Brad Cairns, Signature Wood Systems, St. Thomas, ON, CN, 519.637.7023 or by email at brad@ signaturewoodsystems.ca. I'm sure he will be happy to hear from you.

Prepare the way for a banner year in 2013 by making the decision to transform your business to the lean business model. <

Jim Lewis has worked in the furniture industry for more than 30 years with a special emphasis on facilitating the transformation to the Lean Business Philosophy. He is an independent lean business consultant, author, and writer. Jim's most recent book, "Story of a Lean Journey," chronicles the journey of one company through the lean transformation process. The book is available through the Society of Manufacturing engineers (SME. org) and amazon.com.





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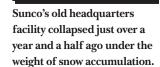


QUICK CUTS

Rebuilt Sunco facility to produce new kitchen, bath cabinetry line

A new 150,000-square-foot facility replaces previous headquarters that collapsed under snow.

Sunco. a manufacturer of wood kitchen and bath cabinetry, has rebuilt a 150,000-square-foot production facility after its previous



headquarters building collapsed about a year and a half ago under the weight of accumulated snow. The new facility will



The company's rebuilt facility houses production for its Eastman St. Woodworks line.

house the company's new venture, Eastman St. Woodworks, a new line of high-end kitchen and bath cabinetry.

The Eastman St. Woodworks line is manufactured in the U.S. using 100 percent domestically sourced materials. The new line is available in

native hardwood species like maple and cherry, in a variety of door stiles and painted finishes.

Spencer Cabinetry honored for ecological sustainability efforts

Spencer Cabinetry was named by Seattle Business Magazine as one of the "Washington Green 50," which recognizes firms for ecological sustainability.

Among its sustainability efforts, Spen-cer Cabinetry produces new products

made from its own manufacturing waste, such as solid wood cutting boards from remnants of the sustainable hardwood used to manufacture the company's cabinetry. In addition, the company produces a pellet stove fuel from sawdust and shavings from its milling operations.

As a result, Spencer Cabinetry has reduced its volume of waste by 50 percent, while at the same time has grown 100 percent, resulting in a 75 percent total reduction.





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Industry forecast for 2013

Most in the woodworking industry are cautiously optimistic for growth in the year ahead.

Most leaders in the woodworking industry are cautiously optimistic for growth in 2013, although some are more enthusiastic than others. And many point to trends in the new year relating to technology, labor saving, and outsourcing.

We asked a cross-section of industry leaders representing much of the industry to take a look into their crystal balls and make some predictions for the year ahead. In no particular order, here's what they said.



John Murphy, founder of KCD Software, says from what he has seen of his own sales and what his customers tell him that 2013 will be a year of steady improvement in the industry. "I could tell you from what we've seen over the last period, it's slow and steady improvement in our customers," he says. "I'm not concerned about the immediate future. We're seeing that over all the country. We are not going to see the economy come roaring back, but it is improving at a smooth and steady pace."

Murphy describes the current position of the industry as "at the bottom of an uphill slope." He recommends that companies wanting to be ready for better times consider investments now. "This is the time to buy," he says, noting that machine costs have come down. Murphy says he sees the most action in the smaller to midrange shops of four to six employees, noting that larger shops have mostly already gone to automation.

"People designing with a pad and pencil are pretty much going away," Murphy says.

Quite optimistic Steve Waltman of Stiles Machinery

Inc. is decidedly bullish about the prospects for the woodworking industry in the year ahead.

"We are quite optimistic about 2013," he says. "We believe companies are returning to optimistic. We believe there is an element of the industry that is enthused and investing in people, infrastructure, and equipment."

Waltman sees several trends. "People are very active in areas of labor saving," he says. "That means more value for the employer. People don't want to lay people off. They want to grow. But they look to use technology to bridge the gap." He notes that, as the economy improves and leads to more hiring, companies that have invested in technology will have an edge. "Technology means a better place to work, better for recruiting, and it's better for retention," he says.

Another area of growth he sees for Stiles and the industry as a whole is in material handling. "You want to eliminate heavy no-value labor," he says. "That leads to a more high-value employee." He noted the positive reception for innovative material handling solutions that were demonstrated at IWF in Atlanta. "Atlanta was a nice shot in the arm for the industry."

But Waltman also cautions the industry that there is a lot of catch-up to do. "People here (in the U.S.) put their business on hold, but the rest of the world continued to invest."

Improving, but not by leaps and bounds

Christian Smedberg, marketing director for Osborne Wood Products, looks for steady improvement in 2013. "The overall trend is to continue to improve this year, but not by great leaps and bounds," he says. Smedberg still has concerns about the housing industry. "I'm still not hearing a lot from builders," he says. "We lost a lot of builders out of our customer base (during the recession) and we haven't seen those people come back yet. But as far as cabinet and furniture, we saw some gains last year and expect to see some gains this year."

The biggest trend he sees is people continuing to watch their bottom line, but he thinks some of the cost savings shops are doing is actually no cost savings and might even be counter-productive. He points to shops that make poor outsourcing choices as an example. "When times are tough, some shops say it's time to bring everything in house. But why? The equation hasn't changed," he says. He points to outsourcing as a potential way for shops to add value to projects, such as adding carvings and corbels. "It's a profit making piece," he says.

One trend he sees is an influx of custom-requested products. "We do a huge amount of custom products," he says, explaining how years ago the Osborne product line was only about 60 products, and now it is somewhere between 800 and 900 products.

Smedberg also sees a continuing trend in trying to serve the aging-inplace movement. He thinks shops can benefit by offering designs that allow people to stay in their homes as they get older without having to do major modifications. This includes designs that avoid tall reaches and offer better lower access, such as pull-out doors.

I'm pretty optimistic

Todd Herzog at Accu-router was one of the most positive people we talked about for prospects in 2013. He pointed to the economic report that was delivered at this year's Woodworking Industry Conference. "The WMMA has a very good economist, and he is bullish on 2013." Herzog says. "He sees a soft slowdown in '14, and then three big years in '15, '16, and '17. I'm also looking for housing to see an improvement. Bottom line: I'm pretty optimistic. "There's a rejuvenation of manufacturing in this country, which certainly will help the wood patch."

Like others who responded to this survey, Herzog points to a growing trend of people wanting to reduce labor costs and looking to CNC technology to do so. He sees more interest in his company's efforts at remanufacturing older CNC routers to provide a cost-effective way for manufacturers to get into the latest technology.

Things definitely looking up

Jason Howell, president of Weinig Group, points to positive signs in the housing sector. "Housing is looking better, and that's the primary factor," he says. Howell also sees good things in being done with the election. "Having the election behind us is a big thing," he says. Howell looks for the millwork industry to come back at the same pace as the housing market.

He urges woodworking manufacturers to not just rely on an improving economy, but also to make improvements in their plants. "Customers should look internally and exploit lean manufacturing opportunities," he says. A major trend he sees is manufacturing integration. "The difference today is equipment is coming from commonly owned factories. That makes the manufacturing process streamlined," he says. "Integration is impossible with disparate factories."

Another big source of optimism for

Howell comes from his customers' resilience. "Our customers who made it through the crisis are the survivors," he says.



Tracy Yarborough, owner of Maple River Woodworks in Coward, S.C., and the new president of the Cabinet Makers Association, says his personal thoughts about the economy are tempered by what he hears from CMA members. "Personally. I think it's flat, but I'm reading a lot of articles from economists that housing is on the move a little bit. In the CMA, everybody's busy right now."

Yarborough thinks a lot of people have been sitting on money and he wonders how long they can wait to do a building project. "Work is coming in, but the backlog is not like it used to be," he says.

He sees an ongoing trend to simpler cabinets as people cut back on details to save money. He's doing more stain work than painted in his area. He also sees more shops taking advantage of outsourcing opportunities. "They are able to put an exact figure on the costs," he explains. "They can do other things while they are waiting (for outsourced components)."

Trending up for 2013

David Talbot of Eurosoft describes his position on the new year as cautiously optimistic. "I see it trending up for 2013," he says. "I see more encouraging signs." One area of growth he sees is larger companies buying smaller companies and reorganizing them, especially with improved technology.

And that technology is constantly changing. "Software is evolving at a very fast pace," he says. He sees software increasingly responding to group-wide and strategic needs in larger companies. "Previously, the engineer was running software at an individual plant, now it's at a central server and it's used group-wide," he says, noting how this ties in with the trend to cloud computing in larger operations. <

Trends for 2013

- More CNC automation
- Labor saving efforts
- More lean manufacturing
- Material handling upgrades
- Software rental plans
- **Custom outsourcing**
- Products for aging in place Reducing labor costs
- Manufacturing integration
- More stained finishes Centralized software
- Cloud computing



CNC router

Axyz 4000 Series routers can process a 4 x 8 foot area and are capable of handling many tooling and application options.

On-site work, close ties with customers help business.

Marshall's Custom Cabinetry does any kind of custom work, including highend cabinets and millwork, and some furniture. They specialize in working closely with the customer to make sure the customer's ideas become a reality, including on-site work.

"Overall we do things well, and we get a lot of repeat customers, so (I believe) that says a lot about our product and what we're putting out there," says Brian Marshall, owner of the Ancaster, Ontario, company, says. "We're really proud of our finishing, and we do our own custom finishing."

Router replaces saw

After a recommendation from another local shop, Marshall bought an Axyz International 4008 CNC router.

The Axyz 4000 Series routers can process a 4 x 8 foot area (48 x 96 inches) and are capable of handling many tooling and application options. Marshall now uses the router for cutting everything from arched mouldings, inlays and mortises to tenon joints and furniture legs.

"Before we had the Axyz router we had a panel saw," Marshall says. "We cut parts on the panel saw and it was very labor intensive. All the dadoes were done on the saw. I did the pin holes on a drill press. If you made a mistake, you

had to do the whole part again. It cost us a lot in time."

The new router speeded things up, and was more accurate. Marshall says that the company has had it for a year and a half, and he estimates it has doubled output, and reduced errors and pieces that needed to be redone.

The Ancaster shop space is only about 1,000 square feet on a main floor, with a 400-square foot showroom upstairs. Marshall says they sold their panel saw after the arrival of the CNC router. And, they barely use a table saw any more. "We don't have a huge floor space, so we have to utilize that space as much as we can," he says.

"Basically the piece comes in, the parts are designed for the particular job so we put them on the Axyz, cut them all out, and then edgeband them. That's basically the flow.

"Everything is geared around the CNC now, that's the thing that starts everything off." The CNC router itself has been the biggest time saver."

Working with customers

For software, Marshall says the company uses CAD, and 20-20. "We do all our kitchen and built-in designs on 20-20," he says. "We design it for clients and sit down and meet with them, go

At a glance

Who: Marshall's Custom Cabinetry

Where: Ancaster, Ontario

What: Cabinets, built-ins

Employees: 2

Web site:

www.marshallscabinetry.ca

through the design, and tweak it from there. They see what they're getting, so it's helpful that way. We can change things and get something they like." (On Marshall Cabinetry's web site the slogan is: "Making your ideas a reality.")

Marshall also provides efficient manufacturing and installation since much of their product is made on the job site. The additional benefit of on-site manufacturing is that the product is correct every step of the way. The majority of their work is for homeowners, and built-ins have been a big part of their business. They do some commercial work, but this isn't a large market.

More green materials

The company is also using more green materials. "We're using more of the low-formaldehyde products, more renewable products, and we're trying to introduce waterborne finishes.

For the future, Marshall is considering a small automated finishing line, and

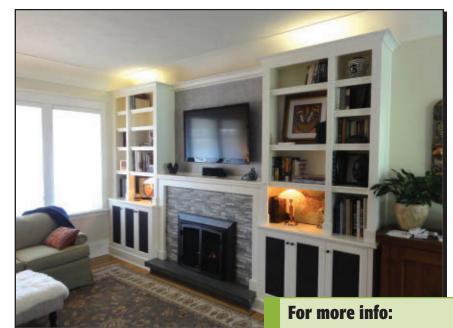
helps manage small shop space, workflow



Brian Marshall says that much of the work done by the company is on site.

maybe a new edgebander. "Something that would help me push things out a little faster," he says.

First, though, he is looking for a larger location. It is just Marshall and one employee. He may add a third person, but is not anxious to grow too large. <



Marshall's Custom Cabinetry does any kind of custom work, including highend cabinets and millwork.

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Kitchen and built-in designs are done with 20-20 software. Marshall works closely with customers through the process.







Plain & Fancy has a niche starting with delivering a quality product in traditional styles.

Paint accounts for about 60 percent of business and fits in with a traditional look.





Product features drive cabinet business

Cabinet manufacturer emphasizes design and finish characteristics to appeal to a broader market.

Plain & Fancy Custom Cabinetry has a special niche starting with delivering a quality product in traditional styles. Founded by John Achey in his Richland, Pa., garage in 1968, the company today employs more than 100 in a modern plant.

Recently, the company has tried to offset the slow cabinet market by taking the features of its cabinets and applying them to standalone furniture, emphasizing more finish options, and focusing on specific market needs such as range hoods, larger cabinets and closet products.

CabinetMaker+FDM visited Plain & Fancy's plant in Schaefferstown, Pa., to find out more about the company and its products.

"Plain & Fancy delivers a quality product, on time. For our dealers that's very important, and that we are very consistent in that process," says Plain & Fancy's Rick Yohn.

At a glance

Who: Plain & Fancy Custom Cabinetry

Where: Schaefferstown, Pa.

What: Custom cabinets. furniture

Employees: 110

Plant size: 250,000 square feet

Web site:

www.plainfancycabinetry.com

See Plain & Fancy's products being made in its Schaefferstown, Pa., location. Watch our video on your smart phone or www.



CabinetMakerFDM.com/87651.html If your phone has a Web browser and camera, download the free app at http:grcode.kaywa.com/ and scan over this barcode.



Range hoods have gotten bigger and bigger to meet customer demand.

Furniture features

People may go furniture shopping elsewhere and then come to Plain & Fancy for certain features. Plain & Fancy makes furniture pieces such as armoires, dressers, desks and media centers on a line with all other cabinet products.

"So many times something comes through our operation and it doesn't look like furniture, it looks like a case," Yohn says. "We don't always call it furniture, but it isn't going to end up in the kitchen.

"It's a product of our own, and we haven't introduced it through other markets," Yohn says. "We would hope that our dealers and designers would utilize it through a kitchen and bath showroom."

What are cabinet features in furniture? "Drawer guides and dovetail drawer boxes out of solid wood are big selling points," Yohn says. "Also, we can offer mortise and tenon, or dowel construction and dovetails. The rest of it is basic case construction. It's depends on how you want to use it and how you want to style it."

Customers can choose an existing design, have it customized, or create an entirely new design.

"We also provide customization of finish. A high-end customer has looked around (at furniture) and noticed that the finishes are secondary, the woods are iffy. The (furniture stores) sell something as a cherry stain that allows them to sell something else underneath. We're selling them American hardwoods and a finish to their liking. They're able to choose the color, stain, glaze, door styles and profiles.

"The consumer makes a lot of choices when they pick a cabinet from us, because of all the variety."

Paint and custom colors

With any higher-end product, finishes are important. Plain & Fancy's Butch Achey says that paint accounts for 55 to 60 percent of business, and that is continuing to grow. "The biggest selling color is custom," he says.

"We have created a niche of our own

painted product," Yohn says. "But it belongs to the custom-end cabinet line because we do it best. We offer any color; you can color match any of our systems. People walk into a custom floor and our dealers and designers want those customers to be satisfied so

they (lead) them to Plain & Fancy products for the quality of our finish.

"People like a painted kitchen, they like that look. It fits in traditional, Shaker style, and country style."

"Our finish room expansion is based on the premises for flexibility," Yohn says. "We have a very diverse offering, hand wiped



Cefla finishing line was added as part of a large finishing expansion in 2008.

stains, paint and glaze, antiquing in two different systems, and a perfect paint system. Our paints are most popular, because dealers and designers have confidence in the product. The consumers love the look, feel and durability. We have a quality control laboratory, checking all incoming materials, but, more important to the designers, we custom blend any color they desire. We do hundreds annually.

Achey says that they are seeing more requests for laminate, some of which is institutional. Textured melamine is a new cost-effective way to give a new look to a kitchen or a closet. New laminate colors and textures will change trends because they are affordable.



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Frame vs. frameless

Plain & Fancy is still making mostly frame cabinets, but the frameless share is increasing, and accounts for about 30 percent of sales.

"Frameless doesn't always look contemporary," Yohn says. "We have designers that have taken vintage doors and a painted finish, and we can end up with a standard traditional kitchen. And yet it's a frameless box.

"The market is really coming around to this. It has taken a long time for designers and installers to accept European cabinetry. In 1984 and 1985 we had European hardware salesmen say if we didn't change our way, we would be out of business.

"We're still here. And the trend

Range hoods expand

Range hoods have been a specific product with a lot of appeal, and Plain & Fancy's factory is full of jumbo-sized range hoods. Plain & Fancy has 20 basic designs on this product, which Yohn says has become the focal point of the kitchen.

"Custom kitchens are most often enhanced with high end appliances, ranges that were considered commercial have been adapted to the consumer market," he explains. "These larger units, 36, 48 and even 60 inches wide, need adequate ventilation. Larger stainless steel commercial hoods did not fit the average consumer vision.

"They often are a focal point of a cooking wall, and feature spice racks or utensil storage, and add to the beauty and function of the kitchen. Many of our kitchen designs have a signature piece that they have adopted as their favorite look and style. With our variety of door styles and finishes the offering is truly endless. As for size, code will dictate clearance left and right of the range, and head clearance to the blower. We have built units nearly 10 feet long and 6 feet tall."

Larger cabinets

Another trend is that Plain & Fancy is making bigger and bigger cabinets.

is finally coming. It has come very slowly in America. When people think of Plain & Fancy they think of front frames and beaded inset. The traditional look kitchen is our sweet spot. I think it will stay that way for a long time.

"Designers have to be used to working with it. Things work differently with a full overlay look. We're thinking the Gen-X and next generation will look at (cabinet design) a little differently. They grew up with an Ikea product. It's been integrated into their lives in a different way, and if you can give them a look and a style they like, they're not going to be as critical about that front frame missing."

Instead of two or three cabinets together there may be one very large one. Achey pointed out a 102-inch base cabinet during a recent visit.

"Designers like the look of one cabinet, and installers like the feel of just putting one cabinet in place," Yohn says. "Designers gain a very custom look.

They can tailor-make that front frame. It would no longer have a joint. Especially when you sell a painted product, those joints start to look a little obvious, unless you work around them.

"So they like us to have 72-inch vanities. Basically they're controlling the style of the front look. That's basically what they





want. They can set up their drawer configurations and basically get it all in one."

Custom cabinets

Plain & Fancy is also doing more custom cabinet work for closets. "We

are hearing (more about) a trend to closets," Yohn says. "With the kitchen such a large financial commitment, a closet is a feel-good renovation for a lot less money.

He believes that making a walk-in closet, or a spa-type area adjacent to the bathroom and master suite allows a



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is better and offers more at S



Employees handle sanding one job at a time at custom stations.

good opportunity for custom cabinetry.

Features include shoe storage, benches, jewelry stowaway, and LED lighting. Hafele and Rev-a-Shelf offer great add-on accessories, Yohn says, such as hampers, pant storage, and organizational items.

In the shop

Plain & Fancy has 110 employees in its Schafferstown location. Total plant size here is 250,000 square feet. Equipment in the main building includes two Holzma panel saws, Altendorf F45 sliding table saw, Weeke CNC machining center, Holz-Her Triathlon 360 and 1305 edgebanders, and Butfering widebelt sander, Doucet return conveyor, Hofer press, and Dodds dovetailer machines. The main plant has a European box assembly area, dovetail wood drawer box area, and one assembly line for frameless, two for framed cabinets. A whitewood sanding department is important here, with a number of separate custom tables with people doing hand sanding.

A separate mill building cuts and sands solid wood doors and is set up like a rough mill. Lumber is brought in surfaced and kiln-dried. A Mereen-Johnson ripsaw, Weinig moulder, and Opticut computerized saw are used here. Plain & Fancy makes about 80 percent of its own doors. The rest are made by Conestoga.

Finishing area expansion

Plain & Fancy's largest recent upgrade was a building expansion of 45,000 square feet completed in 2008 to upgrade the finishing capability. A large Cefla automated flatline system, with denibbing, panel cleaning, spray area, and large tray



The company has 110 employees and two buildings in south central Pennsylvania.

oven sprays a catalyzed product.

"The Cefla Italian finish line has been an extremely important addition to our consistency," Yohn says. "It lays down a perfect coat of primers, sealers and topcoats. Cleaning machines, a water wash booth, and inline ovens provide a clean room environment."

Future plans

The company has a large scheduling system that keeps track of five weeks of scheduling on the shop floor. This was an internal project developed in house. "In the past year, we implemented a scheduling system that allows them to scan and

For more info: Cefla Finishing Group, Flatline finishing system 704.598.0020 <u>www.ceflafinishinggroup.com</u> Conestoga Wood Specialties, Cabinet doors 717.445.6701 www.conestogawood.com Alexander Dodds Co., Dovetailer machine 616.784.6000 www.dodds.com Doucet Machineries Inc., Return conveyor 819.367.2633 www.doucetinc.com Mereen-Johnson Machine Co., Ripsaw 612.529.7791 www.mereen-johnson.com Stiles Machinery Inc., Holzma, Altendorf saws, Weeke machining center, **Butfering sanders** 616.698.7500 <u>www.stilesmachinery.com</u> **Holz-Her Inc.,** Edgebanders 704.587.3400 www.holzher.com Weinig Group, Moulder, Dimter saw 704.799.0100 www.weinigusa.com Or go to www.CabinetMakerFDM.com monitor every job through 27 different locations on the shop floor," Yohn says. "That's critical to us. that we have control. That allows us to move jobs up, to hold jobs, slide things around, have better control than we had in the past."

For the coming years, Yohn sees a possible slant toward "transitional" design, and believes that is where the market is going.

"We've put the flag back on our advertising again to promote the fact that we've always been an American-made product. We invest heavily in our local vendors. We love that. We do what we can to promote that as well." <



OUICK CUTS

Lamboo sustainable panels implemented at KONE center

Lamboo Inc. has announced that its products were implemented at the new KONE center in Moline, III.

The Lamboo Design Series product Tiger Strand panels were used to create a contemporary design that matches the building's other sustainable design features.

"The Lamboo paneling in the lobby provides an aesthetic that you cannot find anywhere in the Quad Cities and this



Lamboo's Tiger Strand panels are featured in the lobby of the KONE

application reinforces the sustainable and cutting-edge image the remainder of the building showcases," said Bryce T. Henderson, KONE's chief financial and operating officer.

Completed in late summer 2012, the KONE center is an eight-story. 121,000-square-feet commercial office and residential condominium building located within Moline's Bass Street Landing. The functionally designed floor plates are approximately 15,000 square feet at each level.



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Patrick Industries acquires

Patrick Industries, Inc. in Indiana has announced the acquisition of the business and certain assets of Indiana-based Middlebury Hardwood Products, Inc., according to the HeraldOnline.com.

Patrick Industries is a major manufacturer of component products and distributor of building products for manufactured housing, kitchen cabinets, household furniture, fixtures and much more. It operates coast-tocoast through locations in 12 states.

Middlebury is a major manufacturer and distributor of hardwood cabinet doors, components, fascia and other hardwood products for RVs, manufactured housing, and residential kitchen cabinet industries. They will be Patrick's fourth acquisition this year, and seventh since June 2011.

The net purchase price of approximately \$20.3 million was funded by Patrick Industries' new \$80 million revolving secured senior credit facility and includes the acquisition of inventory, prepaid expenses, machinery, equipment and vehicles, and much more.

"The addition of Middlebury



SCM forms partnership with Woodworking Machine Services Ltd.

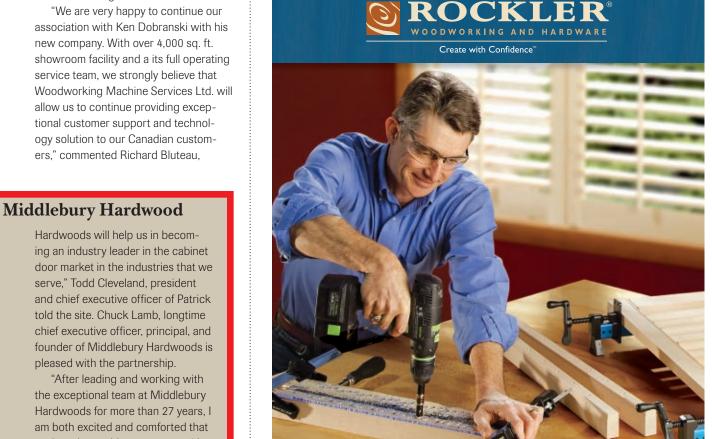
SCM Group Canada has announced a new distributor partnership with Woodworking Machine Services Ltd. The new distributor will represent the complete range of SCM Premium, Classical and MiniMax woodworking equipment products for the entire territory of Alberta and surrounding areas in Canada.

"We are very happy to continue our association with Ken Dobranski with his new company. With over 4.000 sq. ft. showroom facility and a its full operating service team, we strongly believe that Woodworking Machine Services Ltd. will allow us to continue providing exceptional customer support and technology solution to our Canadian customers," commented Richard Bluteau,

manager at SCM Group Canada.

Woodworking Machine Services Ltd is located in Calgary, Alberta. Ken Dobranski and his partner Ian Walton have more than 15 years of experience in the

industry as a direct sales representative for SCM Group. Contact Ken Dobranski at ken@woodworkingms.com and lan Walton at ian@woodworkingms.com, or call the company at 403.234.7300.



Hardwoods for more than 27 years, I am both excited and comforted that we have been able to team up with an organization like Patrick whose core

pleased with the partnership.

values, competencies, relationships, and customer first approach, mirror those that we have worked so hard to establish" he told the site

"Patrick is a natural fit for our operation, and the additional manufacturing expertise and financial resources that they bring can help propel Middlebury Hardwoods to the next level," he said.

Patrick Industries will continue to operate on a stand-alone bases under the Middlebury Hardwood Products brand name in its existing location.

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Going after the high-end market

James A. Grove combines upscale networking with oneof-a-kind custom services and outsourcing to serve multimillion-dollar home market.

From his stylized signature logo to luxurious four-color brochures and ads. to even his Newport Coast business address, everything about James A. Grove says high-end. And that's exactly what he wants as a general contractor and custom cabinet shop going after business in homes that typically price out for \$1.5 to \$5 million. But behind the glitzy front is a no-nonsense operation that uses a no-frills cabinet shop, outsourcing, and creative custom work to routinely deliver spectacular results that build more business with top echelon customers.

Grove started out in 1987 as a general contractor doing tenant improvements, but now his business is entirely devoted to high-end remodeling, which he describes as a "boutique" operation. "We don't want to make 1,000 widgets of something," he says, explaining how his shop tackles demanding one-of-a-kind custom work often involving veneers and curved work. "It's a little more complicated than building a box."

Unassuming shop

But just because the work is complex, don't expect to see all the latest cutting edge technology in the James A. Grove shop. An SCM sliding table saw and edgebander are the primary pieces



James Grove creates one-of-a kind custom projects that might include outsourced components with customized features. Here, cabinet doors from Decore-ative Specialties have been modified by Grove with unique wave form mullions running through the top.

of equipment. A Blum boring machine sits against a back wall.

Grove's father was a carpenter and Grove picked up most of his woodworking skills on his own. He was an early adopter of the European 32mm system and says frameless vs. face-frame is not much of an issue in his market with very little face-frame work. He says most of the jobs are contemporary with flat faces and different veneers. He relies on GL Veneer as his primary veneer supplier. His shop prefers to work with prefinished plywood for the most part.

Breaking the image that high-end

At a glance

Who: James A. Grove

What: High-end custom cabinetry and remodeling

Where: Newport Coast and Covina, Calif.

Employees: 5

Shop size: 3,100 sq. ft.

Website:

www.jamesagrove.com



Wine cellars have become a big part of what James Grove does, as they are popular additions for the \$1.5 million to \$5 million homes that make up his target market.



High design is important to James Grove's success, and he works with top designers and architects to meet client demands for custom work.

custom work requires doing more work in house, Grove outsources his doors from Decore-ative Specialties. But he frequently uses the doors as a starting point for more custom work. "We take their doors and tweak them," he says. For example, the shop took some stock Decore-ative Specialties glass doors and added a curved wave form mullion across the top to make a stylish statement.

High-end networking

With a shop based in an industrial part of Covina, Calif., far from his target

market of high-end Orange County, Grove knew he needed to take a different approach to marketing. He established his business address and office in Newport Coast to have a more prestigious address to help demand respect from clients and designers. Then he went to work getting to know the designers.

Grove aggressively networks with designers and architects especially through the American Society of Inte-



Attention to detail and distinctive elements help set James Grove's work apart.



rior Designers, attending their functions and advertising in their publications. The result is that most of his work involves negotiated contracts without having to do competitive bidding.

Recently he's trying a new tactic, being included in a special gift box created by Luxe Interiors + Design. The gift box takes the old Welcome Wagon idea and takes it upscale big time. Given out to new luxury homeowners, the box includes information on luxury products and services. Grove is the only cabinet company included in the exclusive promotion,

> which gives out 100 boxes a month. He says if he wins just one project from the effort, it will pay for the whole thing.

Grove also participates in

James Grove's work might be fancy, but there is nothing fancy about the company's cabinet shop located in an industrial area of Covina, Calif. A sliding table saw and edgebander, both from SCM, are the most prominent machines.



♣ HIGH-FND MARKET



As a general contractor, not all of James Grove's work is cabinets and millwork. This project involved applying a hand-gouged surface texture to the hardwood floor and getting all ready in time for a major charitable function.



Construction methods are straightforward, relying mostly on plywood substrates for veneer work.





designer showcase home projects. He has gotten support from Blum and Decore-ative Specialties to build spectacular work in showcase homes that grabs attention from the design community. "Suddenly they knew who I was," he says. "Networking does pay off."

Presentation important

Grove says he has to present the right image to earn the initial respect of demanding high-end clients and designers. You won't find him meeting clients in a beat up old pick-up truck; his shiny black late-model BMW sedan creates a more appropriate image. His business cards and brochures all carry a stylized signature logo, and the same logo shows up in all the drawers in projects he builds.

"People just think that's neat," he says.

His 12-page, 8-1/2x11, full-color brochure is printed on heavy stock and features lavish professional photography of a wide sampling of his work, ranging from contemporary to more traditional styles. There is very little text, letting the beautiful big images speak for themselves.

And although his shop is not fully computerized, Grove uses computer design programs to deliver top-notch full-color photo-realistic renderings to help clients and designers better visualize his proposals.

Keeping up to date

With the competitive and forward thinking market he serves, Grove says it is essential for him to stay on top of all the product



An employee at James Grove uses the SCM SI 400 E sliding table saw to cut parts. The company builds its own cabinet boxes but prefers to outsource doors from Decore-ative Specialties.

James Grove actively networks with designers from the **American Society of Interior** Designers and works closely with designers and architects to exceed expectations for demanding high-end clients.

For more info:

Blum Inc., hardware and accessories

Decore-ative Specialties Inc., doors

800.729.7277 www.decore.com

GL Veneer Inc., veneer

800.588.5003 <u>www.glveneer.com</u>

Rev-A-Shelf LLC, hardware and accessories

800.626.1126 www.rev-a-shelf.com

SCM Group North America, sliding table saw, edgebander

770.813.8818 www.scm

Or go to www.CabinetMakerFDM.com

advances in the industry. He is constantly on the lookout for new ideas in lighting, hardware, and accessories.

"People want the widgets," he says. "I really want to know everything in the industry."

He uses that knowledge to surprise designers and clients with new ideas that they might not have seen before. He says he is a big fan of products from Blum and Rev-A-Shelf. He's also experimenting with some breakthrough LED lighting products and the latest developments in environmentally responsible products, such as Decore-ative Specialties eco-friendly Pure Colors line.

"Newport Beach has a green inspector now," he explains. "Everything has to be compliant, and you have to have the paperwork to prove it." <



Wendell Castle early work showcased

Wendell Castle: Wandering Forms exhibit at Aldrich Museum displays legendary furniture

artist's work from 1959 to 1979.

One can't seriously discuss the birth of art furniture and the studio furniture movement without talking about Wendell Castle. His work, bringing freeform sculpture and furniture together, influenced many woodworkers and furniture designers. Now the Aldrich Contemporary Art Museum in Ridgefield, Conn., is calling extra attention to his early pieces with a show called Wendell Castle: Wandering Forms, which displays Castle's work from 1959 to 1979.

The exhibit is the first public showing of these works in 20 years and coincides with Castle's 80th birthday. It includes not just furniture but also original drawings, and there's even the video from the TV game show "What's My Line?" when the show's panel tried to guess who the real Wendell Castle was from three contenders.

Panel discussion opens show

A panel involving Castle, show co-curator Evan Snyderman, and Alastair Gordon, who wrote the show's catalog, opened the event. Castle delighted the audience with his wry humor and unassuming accounts of his early work.

Saying how he'd never taken formal cabinetmaking or furniture courses other than seventh-grade woodshop, Castle told how he milled rejected wood from a gunstock factory with a drill press and a band saw. "I dowelled everything because that's all I knew," he said. His early furniture all came out of his study of sculpture. "How come furniture can't be art?" he asked. "I did pieces as sculpture, but it was really furniture." He guestioned basic furniture design. For example, he asked why legs have to be on the bottom of a table and then built a coffee table in which the legs flow around the sides and suspend the top from above.

Duck decoy to stack laminations

Castle told how one of his big breakthroughs came from an old Deltagram for hobbyists. It detailed making a duck decoy by stacking layers of wood. When Castle applied the technique to furniture, it freed him to explore wide variations in shape and de-



Wall Table No. 16 is a Wendell Castle piece that dates to 1969. It is an example of how much of his work questions fundamental furniture design principles, such as how something should be supported, in this case with one leg on the floor and another bolted to a wall.

This dining chair built in 1967 is an example of the use of stack lamination to marry sculpture and furniture in Wendell Castle's early work, which is on display in a new exhibit in Connecticut.

sign. "Early on I really only knew how to glue two boards together," Castle said. "Laminating was the right thing for me." Castle did learned more sophisticated

joinery and used it, but he remains a designer and sculptor first and a woodworker second. When asked what his favorite tool was, Castle replied without hesitation, "The pencil. The act of drawing is the same as the act of thinking."

Not about the wood

Castle says right away that although he is known as a woodworker, "It is not about the wood." He recalls, "I got a lot of criticism that I didn't respect the wood." He remembered a meeting of woodworkers he attended. "How could you use so much wood in one piece, they asked. Nobody would ask that of a sculptor." He described how he moved on from wood to plastic so he could take advantage of plastic's wider potential color palette. Some of his earlier plastic work is also in the Aldrich show.

Today, Castle is still actively designing and creating. He uses modern computer technology to make accurate scale models, digitize the models, then digitally slice the piece to make the laminations. He uses 7-axis CNC machines for carving and maintains a full-time crew of eight. "You are really able to do things you couldn't do before," he says.

Wendell Castle: Wandering Forms continues on display at the Aldrich Contemporary Art Museum in Ridgefield, Conn., through February 24, 2013. For more information, visit www.aldrichart.org. <

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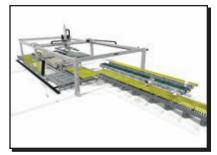


with 13 inches of Z travel at a 10-inch diameter on the A axis. In addition to being able to create wood carvings, turnings and more, the 4-axis Turner can also process flat stock by removing the turner attachment. The machine is also available in a "two-up" version with two spindles and two rotary axes, as well as a CNC touch controller.

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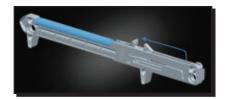
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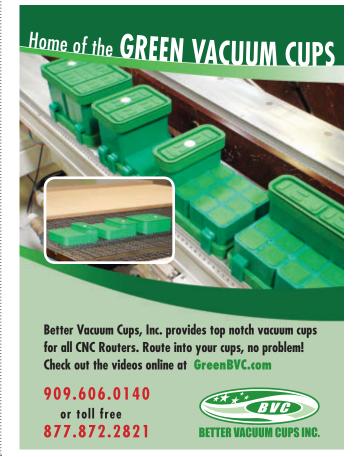
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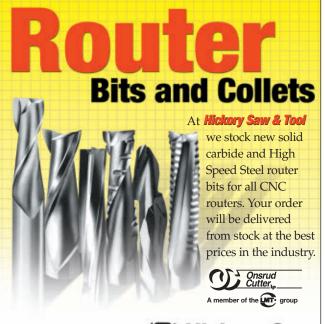
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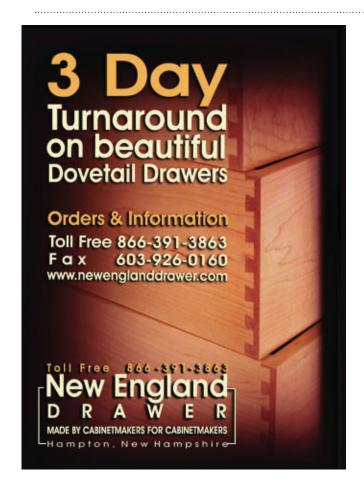
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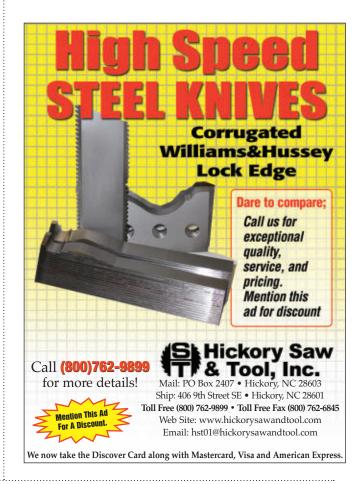
electric belt drive lift table integrated with a rail system, mounted on its top frame, and a flash-resistant electrical plug for 110V. The lift system's vertical travel speed is 1.7 inches per second with a 1,300-pound capacity.

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> 972.745.0800 www.wallsforms.com

Grinding wheel catalog

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Foot mounts catalog V120

The 190-page Foot mounts catalog V120 from Advanced Antivibration Components features more than 4.000 components, including inch and metric polyamide bases, stainless steel bases,

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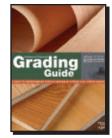
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and steel bases. The catalog also includes sections on metric miniature foot mounts and antivibration foot mounts.

www.vibrationmounts.com



Hardwood **Plywood Grading Guide**

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Columbia Forest Products' Hardwood Plywood Grading Guide covers topics

including veneer cuts and matching, slicing methods, face and back grades of popular species, explanations of common natural characteristics and a glossary of terms. The seven sections contain photos to help clarify the process of wood grading.

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www.columbiaforestproducts.com/ **GradingGuide**



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Go to 2012 Web Pages 460 - 461

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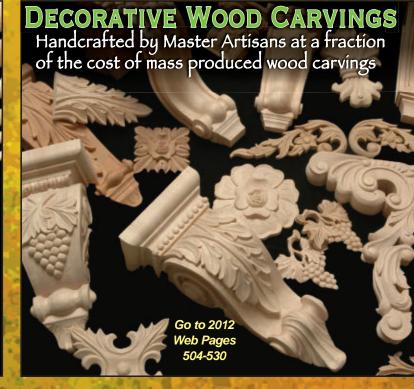
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Festool SysLite work light

Versatile cordless light keeps you out of the dark.

Just about as soon as cordless power tools were invented, manufacturers started to add lighting to the tools themselves or as accessories. Often the lights were underpowered or awkward with limited capabilities. Now Festool has added the SysLite KAL to its cordless system, and it solves many of those problems with a clever and capable light.

Compact package

Not much bigger than a standard Festool battery pack, the SysLite KAL is surprisingly powerful with six 3W LEDs and two power levels. At full power, the light is very bright and strong enough to light up an entire room if you point it at the ceiling. A lower power setting extends battery life but is plenty bright for most chores.

The light is roughly rectangular, but its sides are angled so you can project the light at a different angle depending on which side you put down. Choose between 15, 30, and 10-degree angles for whatever task is at hand, or lay the unit on its back to point straight to illuminate a ceiling and flood a room with light.

Still not enough options for you? An attachment on the back of the light has a foldout hook so you can hang the light for convenient lighting. There is also a standard 1/4 x 20 thread tripod socket on one side so you could even mount the light on a camera tripod or similar fixture.

Versatile power options

The unit has its own built-in battery, which will power the light for 90 minutes in high-power mode or 240 minutes in reduced power setting. As part of the Festool system, the unit will accept all

Festool's SysLite is a compact battery-powered LED work light that comes in a case with an AC adaptor and a 12-volt car adaptor.





SysLite can run off its own battery power or you can attach standard battery packs from Festool cordless tools.

A tripod socket allows mounting the light on a camera tripod. There is also a hook for hanging, and the sides are angled for different lighting positions.



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at http://grcode.kaywa.com/ and scan over this barcode.



the Festool cordless tool battery packs from BPC or BPS series tools

You can also use an included AC adaptor to power the unit directly or charge its internal battery. Similarly, there is a 12-volt car adaptor that allows running and charging the light from a 12-volt socket in your car or truck.

As soon as I started using the Sys-Lite, I fell in love with it. The unit provides lots more light than anything similar in size, including the average corded drop light. The options for angling, hanging, or mounting it provide way more lighting

versatility. Put a Gorillapod-type camera tripod in the socket, and you can put the thing just about anywhere at any angle.

Of course, this being Festool, all of this capability comes at a price. The SysLite goes for about \$175. That's lots more than a cheapy flashlight or corded droplight, but it is awfully handy. As a footnote to this review, after I had been using the SysLite for month or two, Hurricane Sandy hit. The SysLite really showed its value as we waited for power to be restored. You can learn more about the SysLite at www.festoolusa.com. <

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