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The Music Trades

FEBRUARY 2007 PUBLISHED CONTINUOUSLY SINCE 1890 $3.00

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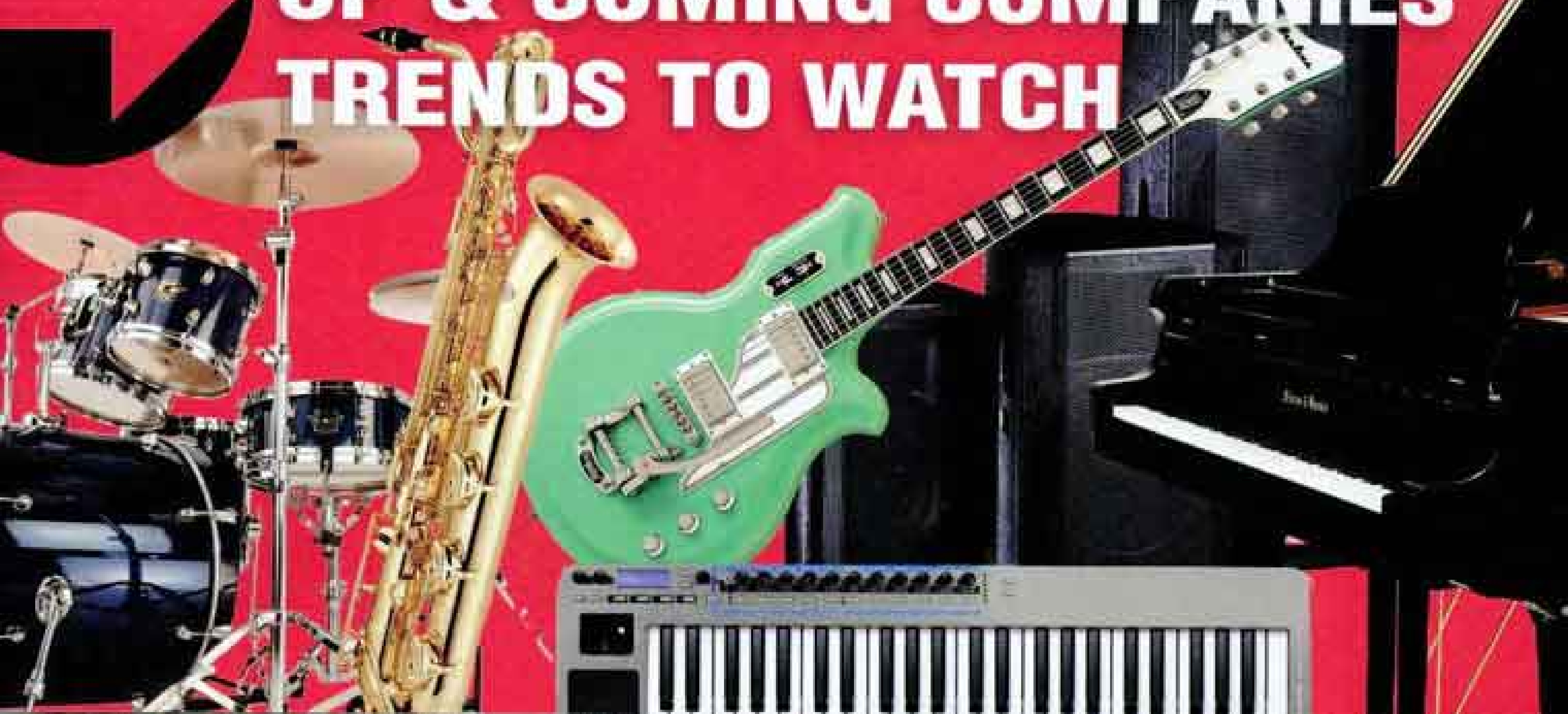


INDUSTRY AT A CROSSROADS

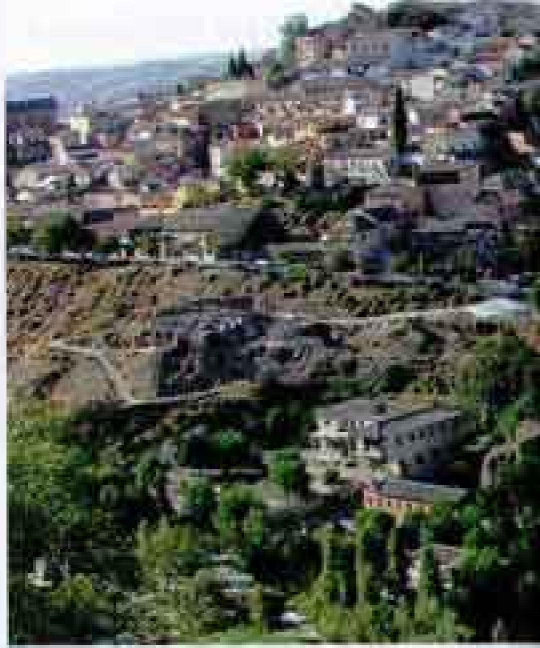
The Unique Spanish

Global competition and other challenges are forcing Spain's manufacturers to face a turning point in their long, noble history.

What's the value of things you can't see? Things like centuries'-old tradition, handcraftsmanship that's been passed down generation after generation, and a passion for making an instrument that embodies the very essence of a national culture. Of course, the answer depends on whom you ask, but the Spanish Guitar Master Craftsman's Guild, an association comprising 15 esteemed manufacturers, is striving to narrow the range of responses. The Guild's mission is to open the eyes and ears of retailers and their customers worldwide to the beauty and musicality that are unique to instruments made in Spain.

Camaraderie borne of common purpose might be a perk for Guild members, but its current mandate has less to do with fraternity than a fight for the Spanish industry's survival. In recent years a number of factors unrelated to Spanish classical guitar's romantic heritage or fine Old World craftsmanship—most notably, the flood of product from China—have taken a substantial toll on Spanish manufacturers, who have banded together specifically to promote the Spanish brand identity.

The Spanish guitar industry's growth in the late 1990s decelerated as the euro's value rose, particularly against the dollar. Already saddled with Europe's highest labor costs, Spain's guitar manufacturers have been pressed to find new ways to reduce the production expense gap between their products and their Asian competitors'. Some of the larger factories employ cutting-edge CNC automation. This approach might be seen to contradict the romanticized and marketable notion of small-output luthiers wielding age-worn hand tools, though those factories contend that such technologies are adopted to improve precision and consistency, not to increase production. Other Old World/New World dichotomies challenging this community include: slow, painstaking construction versus the global market's demand for greater output; traditional materials and designs versus the need to drive the market with innovations; and cooper versus competition among Guild manufacturers. *The M* *Trades* visited a number of factories to discuss and see f hand how Guild members are meeting the escalating dema of the modern market while retaining the venerable quali that distinguish and, indeed, define the Spanish classical tar.



Combined, Guild member manufacturers account for rou ly 98% of the instruments made with the strictly Spa method of guitar production. (See sidebar on page 160.) association was established to promote cooperation in a n ber of areas, including acquisition of strings and mac heads and coordination of their strategies against a grow number of competitors in Chile, Eastern Europe, and e cially China. Several Guild manufacturers formed loose p nerships to pump up their purchasing leverage, enhance t access to suppliers, and effectively double their allotment

itar Making Tradition

pain's intoxicating mix of the Old World, such as Toledo (above) and the ew World, such as the science museum (inset) within Valencia's City of rts and Sciences complex, informs—and confronts—the Spanish classi- al guitar industry. Opposite, a premium handmade instrument by uitarras Manuel Rodriguez & Sons.

stricted materials imports and finished-product exports. The ost prominent and formal of these partnerships pairs one of e region's largest classical guitar producers, Alhambra, with e Guild's youngest company, Guitarras Almansa.

Founded in 1965, **Manufacturas Alhambra, S.L.** has grown be one of Spain's major suppliers of classical guitars, producing approximately 35,000 instruments per year. About 500 of them reach the U.S. market, with U.S. retail prices nging from $470 to $5,904. The company now also offers a e of steel string guitars, including dreadnought, jumbo, and ditorium models that retail for between $1,154 and $4,051.

Possessed of a wry, relaxed wit, Alhambra Director (CEO) ime Juliá describes his factory's location near the lovely utheastern Alicante province town of Muro De Alcoy—but ore than an hour's drive from the nearest airport—as "not ery convenient for distribution, but for very good for living."

uch choices epitomize the Spanish industry's resolve to preserve quality-of-life priorities even as more ascetic and aggressively profit-driven production centers surged up around it. Most Spanish factories close for the entire month of August for vacations. Strict adherence to environmental and worker safety laws as well as liberal mandatory employee benefits unheard of in China all contribute to Spain's cost-of-production burden. Julia comments, "Chinese manufacturing is like it was in Spain 100 years ago: Labor is cheap and materials are expensive. Today in Spain materials are cheap and labor is expensive." However, Juliá and his peers maintain that Spain's lifestyle is a critical factor in retaining and cultivating the experienced, highly skilled craftsmen required to produce the highest-quality instruments.

For Alhambra, sophisticated automation and modern manufacturing processes help reduce the production cost gap. For example, the company invested in a €150,000 (about $200,000 at current exchange rates) CNC machine that shapes

WHAT MAKES A CLASSICAL GUITAR "SPANISH"?

The Spanish classical guitar is defined primarily by its slotted heel. The guitar's sides are inserted into those slots to provide greater rigidity, strength, and stability without using additional or heavier bracing. This design also affects the way the tension of the strings and, to a lesser degree, the bent wood sides, is distributed throughout the instrument. This unique construction contributes significantly to the instruments' distinctive sound.

Photo by Merche González Herrán

neck blocks, drills headstocks for tuning machines, cuts side braces for purfling, etc. Likewise, hundreds of bins containing tops, necks, sides, braces, etc. are bar-coded to help the company expedite production and materials procurement, and a barcode on each instrument's label allows the factory to identify not only when the instrument was made, but also which craftsman worked on each step of the instrument's production. Factory sawdust is collected, compressed into cylinders, and used for fuel to power the plant (and the surplus is sold to local bakeries to heat their ovens). These and other measures help offset the expense of making complex, labor-intensive instruments. (For example, the production of the neck alone requires 17 different steps in the high-end models.) Such signs of a modern, high-production factory might detract from the Spanish traditional mystique, but Director Juliá insists that Alhambra's path is no less worthy. "Building one quality guitar is not difficult," he quips. "Building thousands of quality guitars [every year] is difficult."

In 1965 Juliá, an engineer by training, joined two other investors to take over the troubled Manufacturas Hachi guitar factory in Muro De Alcoy to launch Alhambra. In Juliá's eyes, one of the company's less sparkling early periods was preoccupied with churning out entry-level instruments under the "Cordoba" brand. He now doesn't want Alhambra to be associated with those guitars, preferring to focus on building higher-quality instruments along with a stronger, prouder brand. Markets all over the world have responded to this new direction, and the company observed a major milestone in February 2005 with the launch of Alhambra USA, its U.S. distributor in Asheville, North Carolina.

Eighty-five employees averaging nearly 22 years of service staff Alhambra's 290,000-square-foot production facility. Juliá's son, Luis, is the factory's engineer. A cavernous warehouse is used to store a broad range of tone woods for a minimum of two years. The company uses primarily the varieties dictated by centuries of tradition: European spruce or Western cedar for tops; mahogany for sides and backs; Spanish cedar for the neck; Indian rosewood for fingerboard and rosettes; spruce for bracing, and cypress or North American cedar for flamenco guitars' tops and sides. Alhambra also possesses about 300 sets of book-matched Brazilian rosewood for premium-level instruments. "We believe in experimenting with different kinds of woods," says Juliá, "but if we create a demand for certain materials, we must be able to supply them continuously to satisfy it over a long period of time." The shortage of good-quality tone woods is a concern voiced throughout the industry, and much of the blame is aimed at high-volume production in Asia and Eastern Europe. (See sidebar on page 166.)

Alhambra's three different headstock designs identify its three major lines: Basic, Conservatory (student), and Concert. In a small workshop within the factory, three master luthiers (averaging nearly 28 years tenure) "do things like the independent luthiers" and sign each guitar they produce. For the lower-end models, the tops are fed through a computerized planer to ensure uniform thickness. For more expensive models, the thickness is determined to complement the rigidity and grain structure of each individual piece of wood. Polyurethane finish is used for Basic models, nitrocellulose for Conservatory models, and French polish for premium Concert models. All models, regardless of price, are subjected to numerous stages of quality control. For example, one of the company's most respected (and feared) veterans uses a special fluorescent light to expose minute spots of excess glue prior to the finishing process. "We have many steps of the quality control," says Juliá, "but the last one is not at the factory, it's at the customer's house. It's for them that we are so careful."

About 55 miles northwest in the city of Almansa in Albacete province, **Guitarras Almansa, S.A.** produces approximately 21,000 instruments a year, about 2,000 of which are sold in North America. Almansa's U.S. bus

ness is particularly challenged by the currency exchange rate (at this writing, €1.00 = $1.32) but doing well throughout Europe. According to Almansa Director Pedro Ángel López, 60% to 70% of the guitars produced and sold by Almansa are low-to middle range instruments that sell for around $380. "China is pushing us very hard," he says. "We can't compete with their low production costs, so we had to improve our efficiencies and compete mostly in the midrange and high-end markets."

López explains that Spanish dealers prefer to sell Spanish instruments over Chinese instruments. "First, they can make a bigger profit with [Spanish-made] guitars. But outside of Spain, and especially in America and Europe, much of the society is now focused on getting things that are cheaper. We feel that this cycle will pass, that more people will again want to have better-quality instruments, but right now we may be experiencing a 'natural selection' not just in the guitar industry, but in all industries. We have to survive this cycle, and we have to keep paying our skilled employees, who are so much a part of what we do."

Almansa is unique among the manufacturers we visited in that all of its instruments' parts are actually manufactured at the Alhambra factory in Muro De Alcoy, then shipped to Almansa for assembly, finishing, and setup. But López is quick to point out their distinctions, noting that its instrument parts are all made to Almansa's specifications, and that the substantial amount of handwork required to assemble and finish a Spanish classical guitar contribute significantly to its quality and "character." Relative to Alhambra instruments, Almansa guitars' dimensions are slightly smaller. Asked to compare the two brands' characteristic sound qualities, he says Alhambra guitars have a "stronger sound with better projection," whereas Almansa guitars have "a 'sweeter' tone. We have a very good cooperation with Alhambra," he adds, "but they are also our main competitor."

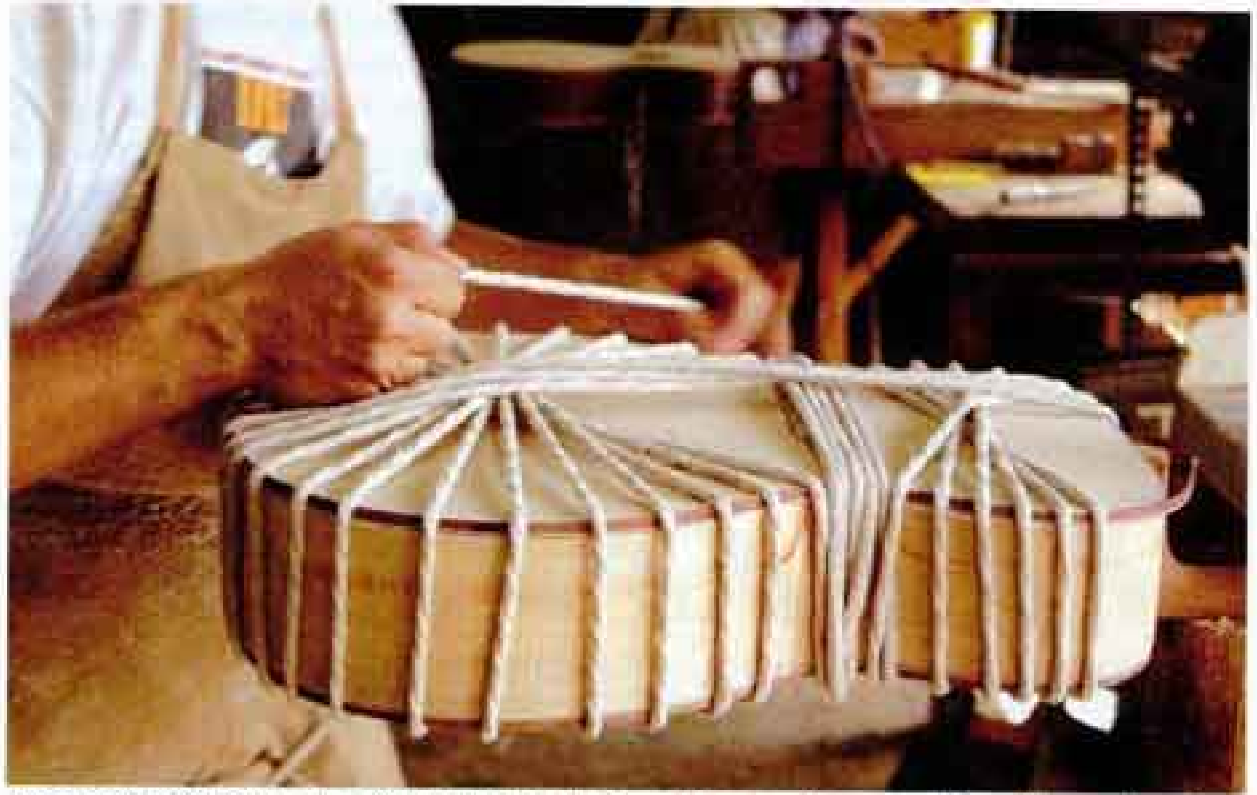
Founded in 1989, Almansa quickly made inroads into the European market. Like Alhambra, it began gaining traction in North America in the late 1 but its progress was impeded b inflation of Spain's currency. "T not the best moment for exports in eral," says López, "but especiall classical and flamenco guitars."

Nevertheless, Almansa, like Spanish manufacturers, fully co hends both the challenges an opportunities of the global marke it is striving to penetrate all ma including those it wouldn't have g second glance ten or 15 years ag the Asian market, Almansa is very well in Thailand, Japan China," reports López. "We sell 600 guitars to China annually. now we're happy with that. We that most Chinese families don' much purchasing power, but beca the nation's one-child policy, p want the best for that child—th piano…why not the best classica tar? With more than 400 million tial customers, we must try [to b established in] the Chinese marke

In addition to classical and fla guitars in a range of scale le lmansa offers cutaway and thin-body odels with optional pickups as well as lkloric 12-string *bandurillas* ntecedents to modern mandolins) and udes (lutes). The wide range of mateals used includes German spruce, onduran cedar, mahogany, jacaranda Brazilian rosewood), Indian rosewood, orth American sycamore, and African bony.

Unfazed by the relative longevity and eritage of some of Almansa's competirs, López shrugs and says, "We are a oung company. Some companies have long history, and that helps them sell. ut history doesn't guarantee a quality uitar. Almansa's history is not long, ut after nearly 15 years in business and erving main markets on four contients, our customers' confidence in us s high."

Currently observing its 50th anniverry, **Guitarras Francisco Esteve, S.A.** roduces nearly 20,000 guitars annualy. Approximately 18,000 bear the steve brand, while the balance are sold ith other proprietary brand names or EM to other companies.



Age-old methods are still very much in evidence in many Spanish guitar factories, including use of cords or string to apply uniform pressure upon the binding as the glue dries.

The company was founded in 1957 by Francisco Esteve, Manuel Adalid, and Antonio Monfort. Operating the oldest factory in Valencia, its 50 employees have worked there for an average of 17 years. In fact, other Guild manufacturers Victor Raimundo, Antonio Aparicio, and Juan Hernandez were all once employees at Guitarras Esteve before starting their own businesses. Manuel Adalid Jr., son of one of the founders and current director, shrugs and says, "It's normal."

The broad Esteve line includes classicals, flamencos, cutaways, electric-acoustics, short-scale models, specially sized models for women and children, as well as traditional *octavas, bajos, contrabajos, requintos, tres cubanos, laúdes, and bandurrias.*

In addition to standard Spanish classical guitar woods—mahogany, European spruce, cedar, Indian rosewood, and ebony—Esteve makes instruments featuring less conventional species such as pau ferro, walnut, bubinga, ebony, ovengkol, and cocobolo. The company also possesses 553 sets of documented Brazilian jacaranda rosewood. Like his Guild counter parts, Adalid favors European spruce for guitar tops. "Engleman looks very good," he says, "but it isn't as rigid as European spruce."

The most affordable guitars receive three or four coats of finish, with sanding between coats. The most expensive guitars, which retail for approximately $1,500, receive a three-step finish process: first polyurethane, then nitrocellulose, then French polish, totaling eight or more coats. For the final stage of finishing, climate controls maintain 60% humidity and 22° C. temperature.

The standard thickness for Esteve guitar tops is 2.5 millimeters for cedar and 2.1 millimeters for European spruce. However, for its premium instruments, the top thickness and even the design of the bracing is modified to suit the rigidity and grain structure of the wood.

Adalid has been instrumental in building the Esteve brand around the world. While maintaining the spirit of traditional craftsmanship, he has also encouraged development of new design and construction techniques in an effort to adapt to the demands of the modern international market. For example, in a joint venture with Dieter Hopf in Germany, Esteve developed a model with a large oval "membrane" on the top that's 0.9 millimeters thick. The membrane is designed to enhance the instrument's sensitivity, volume, and projection. Called the Artist Diaphragm in the Dieter Hopf catalog, it retails for just over $3,900. Similarly adventurous, Esteve has worked with fellow Guild member Juan Hernandez to create a prototype instrument with carbon fiber "tension bars" that run parallel to the tone hole but touch neither the bracing nor the top. Allowing for a thinner yet strong top, the bars help the instrument produce a big sound with a strong high end. "We must not relax," says Adalid. "Every year we test new innovations, improve the quality, and improve the sound because we must try to fight the Chinese guitars, and we cannot fight on price. All the improvements will eventually be incorporated into our lower-priced lines as well, so that the overall standards rise continuously."

Arguably the most innovative of the Guild manufacturers and fully embracing modern technology and manufacturing methods, Esteve is no less proud of Spanish classical guitar-making traditions. Though his 32,000-square-foot factory bristles with an array of large powered woodworking equipment, Manuel Adalid insists, "We don't use machines; we use artisans' tools."

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several respects the other end of the ectrum from Alhambra, Almansa, and teve is epitomized by **Vicente arrillo**. Located in Casasimarro, midy between Madrid and Valencia, this all workshop has been producing itars continuously since 1744. Other n a band saw, all work is still execut with hand tools, and production aveges 15 instruments per month. The mpany is run by Vicente Carrillo sas, who represents the eighth generion of a family that has been making itars since 1836. Carrillo (who doest use "Casas") was the company's ly luthier from 1982 until 1994. Since en he has trained five others "who are w better" at the craft than he is.

arrillo recently completed a modest pansion of his shop, and he has adoptd a few elements of modern technoloy. For example, the shop's humidity is pt at a constant 60% (compared with e region's natural 30%) to prevent the ood from twisting and to ensure the ptimal conditions for the multi-layed, ultra-thin French lacquer finish. ke most of the other Guild companies, cente Carrillo also produces *ban-rillas, laudes*, and flamenco guitars. stinguished by their lack of bridge ate; lighter sides, top, and back; and ghter bracing, flamenco guitars are aracterized by a slightly raspy, more rcussive sound than Spanish classical itar. Cypress is preferred wood for the menco guitar's back and sides, but dar from Canada and the U.S. is comnly used because it's more readily quired and less expensive.

Though Vicente Carrillo's prices, tailing from $3,800 to $8,900 in the S., soar far above those of instruents produced in China, Carrillo feels e ripple effect of what he deems the "umping" of instruments priced below the cost of production," and his owth has been impeded by the high change rate of the euro. Nevertheless, e is heartened that instruments made him and his ancestors in a town of st 2,500 have enchanted players all er the world, from serious students to e inimitable Paco de Lucia, who corded his landmark 2004 flamenco lease *Cositas Buenas* on a Vicente arrillo guitar. He continues to reach t to new dealers in the U.S. and other tions at the winter NAMM show and e Frankfurt Musikmesse, ever committed to the principle of "keeping production low and quality high."

Guitarras Manuel Rodriguez and Sons, S.L., was a member of the Guild at the time of *The Music Trades*' visit but has since left the organization. In some respects it might be perceived as straddling the Old World and the New World of guitar making. Located in Toledo, the Rodriquez factory is still overseen by 79-year-old Manuel Rodriguez, grandson of celebrated flamenco guitarist Manuel Rodriguez Marequi and son of luthier Manuel Rodriguez Perez, who began making guitars in 1905. The factory's 35 employees produce between 7,000 and 7,500 guitars a year. In 2005 the company ended a long-standing U.S. distribution deal with Fender, though Manuel Rodriguez Jr. confesses an ongoing admiration for the company and its management. ("Great businesses are created with big personalities like [that of] Bill Schultz," he says.) Starting in 2006, the company began selling its products in Guitar Center stores.

After beginning his apprenticeship in

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Spanish classical guitars rely on much handwork, but larger manufacturers also employ CNC technology (left) and specially designed equipment such as a machine (right) at the Alhambra factory that applies precise, uniform pressure to secure the bridge while the glue dries on up to 20 guitars.

Madrid's Ramirez factory at the age of 13 and later opening his own shop in Spain, Manuel Rodriguez Sr. emigrated to Los Angeles in 1959, where he made guitars for professional musicians, actors, teachers, and students before returning to Madrid in 1973. In 2000 his company expanded into a new 75,000-square-foot factory whose equipment traces the history of 20th century classical guitar making. Alongside hand tools dating back to its founder's youth and a 1920s band saw ("It is so beautiful, so solid, it will last for 4,000 years!") are a 1959 Sears Roebuck "Shop Smith" multi-purpose table saw/sander and a CNC machine, purchased in 2003, that routs, cuts, and shapes six guitar necks at a time. Recently the company used government grants to add a new machine every two to three months. Rather than reducing the size of the workforce, increased use of automation facilitates more diverse lines and improved efficiency.

Manuel Rodriguez Sr. accepts each level of technology on its own merits, but he is personally gratified by producing a few very high-end instruments with his own hands out of woods he's acquired over the decades: Honduran cedar from 1939; jacaranda, ebony, cypress, and Brazil rosewood dating back to the 1950s; and German spruce guitar tops harvested as long ago as 1962. He worships the wood, the older the better, and takes pride in the tradition he represents, declaring, "I'm the oldest guitar maker in the world; I'll never retire!"

However, Manuel Rodriguez has als passed along the skills, knowledge, an passion for guitar making to his tw sons, Manuel Jr. and Norman, who ar advancing the company in a number o directions. In addition to incorporatin modern production systems, they hav explored a variety of non-tradition product features. For example, a optional Mobile Bridge compensates f the different thicknesses of strings an the parallel fretting up to the 18th fre facilitating tuning the guitar by octave like a piano. The company also offe cutaway models, optional L.R. Bagg pickups, a mid-priced classical guit with a "suspended" fingerboard, a fe ture typically found only on high-price instruments, and a full line Maccaferri "gypsy jazz" guitars.

Much more controversially, Guitarr Manuel Rodriguez is the sole Guil (now former) member to offer instruments produced outside of Spain. Tw models made in China to the company specifications wholesale for €142 Europe and $121 in the U.S. "If w don't address both the middle- and hig level instrument markets, we'll go ban rupt," explains Manuel Jr. "We can make cheap instruments in Spain—o labor costs are too high—so we have use Chinese manufacturing to build th cheaper ones. On our Asian-made line the finish and fretting are done here Spain, but everything else is construct in China—and the instruments are pe fect. [Our offshore factories] reprodu the design and even the bracing perfec ly. God bless the Chinese!"

LIMITED RESOURCES

As if economic and market challenges weren't enough, Spanish guitar makers must also contend with dwindling supplies of the woods the industry has used for hundreds of years, primarily because those resources are now being consumed at an alarming rate by manufacturers outside of Spain. Some Guild members imply (and a couple state outright) that increasingly rare materials are being "wasted" on the flood of undeserving Asian-made products. If this sounds a bit elitist, they stand unapologetically on centuries-old pride and devotion to instruments identified with their culture. The scarcity of European spruce, much-favored for its rigidity, might force manufacturers to use Sitka or Englemann varieties. Rosewood is being sourced from previously untapped locations such as Madagascar and even grown on plantations. Similarly, as cypress supplies in Spain and Italy are depleted, some manufacturers have begun sourcin the wood in Turkey. Citin declining ebony production Alhambra currently gets it ebony from Cameroon, but i the near future it may seek ou new sources in Gabon, and h predicts that ebony's use will b regulated within two years Several manufacturers suggest ed that the industry may soo have to begin experimentin with substitute woods and eve synthetics, a painful propositio to these staunch traditionalists.

Noting that about 60% of his company's guitars are sold in the U.S., Manuel Rodriguez Sr. reports that the sagging U.S. dollar has reduced profits 25%. ("Even the Russians want to pay in U.S. dollars!" he adds.)

"It's a tough market," his son continues. "These days many customers are looking for price above all else. That puts us in two battles: price as well as quality and history. We have to address all of these issues. The problem is, outside of Spain no one can imagine how hard it is to make a Spanish classical guitar. We have to convey to customers the many steps of manufacture, the attention to detail, the tremendous amount of handwork." To this end he went so far as to write a book, The Art and Craft of Making Classical Guitars, and hangs on the neck of every Manuel Rodriguez guitar a CD-ROM detailing his family's guitar making heritage and methods. "Even so, we have to ask our dealers to bring the CD to the customers' attention so they don't just throw it in the garbage. But unless Spanish manufacturers reach out to our customers and 'fly our flag,' only high-end customers will care about the quality we work so hard for, and we will forfeit the rest of the market to factories in Asia, Romania, and the Czech Republic."

Raimundo Guitars' Victor Raimundo (left) with craftsman David Berdusa.

Victor Raimundo represents the second generation of leadership at **Raimundo Guitarras**. Founded b
father, Manuel Rai
Estrems, in 1968, the co
operates a 32,000-squa
factory in Paterna (Va
that has won numerous
for craftsmanship, quali
successful export. Rai
annually produces 25,00
tars under its own bran
5,000 to 8,000 instrume
other Spanish guitar
with each company's s
headstock, bracing p
rosette, and other design
In total, Raimundo's a
annual yield is about
instruments. About 85
exported to Europe, Asia, and th
including about 700 primarily mi
instruments sold in Sam Ash sto

Raimundo's classical guitar r
divided into four major series:
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whose U.S. retail prices rang
$400 to $3,500. It also makes fla
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mall" guitars, *bandurillas*, and *laúdes*. or its guitar necks Raimundo buys hole cedar trees from Brazil or nduras. It also uses European spruce superior to Sitka and Engleman varies for classical guitars") and red dar from Canada for the tops, as well ebony, rosewood, cypress, etc. In the nishing area, standard models get five ats of very thin polyurethane; custom odels get seven, with sanding between ats.

aimundo's main factory produces struments ranging from student to id-level models. A small workshop thin the factory makes higher-end stom instruments. Overall, its 47 ployees (including several groups of others, fathers, and sons) average ore than 20 years of experience, an pensive yet indispensable asset. "We in them, we form them, and we try to ep these highly skilled workers," says aimundo. "Handcrafting and experince are very important here." owever, he also points out numerous achines that perform processes once ne entirely with hand tools. One automatically stamps fret wire into the slots in the fingerboard. Another that is computer-programmed and accommodates up to five tools enables a single employee to make 24 necks in an hour and then move on to another part or process. Like most of the other Guild members, Raimundo has raised its use of technology and automation in response to the modern market and especially competitive pressure from the Far East.

In one of Alhambra's numerous quality-control stages, special fluorescent lights are used to expose minute spots of excess glue prior to the finishing process.

With more automation and use of CNC machines, can the Chinese duplicate the work Raimundo and the other Guild manufacturers are doing? "In China," Victor responds, "if they need to increase production, they don't buy a machine, they just hire another 100 workers. The cost of one of my employees, including all the taxes, insurance, social security, etc. is close to €20 [$27] per hour. In China…

"We are being impacted by the Chinese mainly in the beginners' models. My cheapest guitar [wholesales for] around €200 [$267]. You can find Chinese guitars for around €30 [$40]. It's quite difficult to compete with that. I can improve my quality, I can raise my efficiency with computerized machinery, but we can never compete on price with the Chinese. A daughter asks her father for a guitar,

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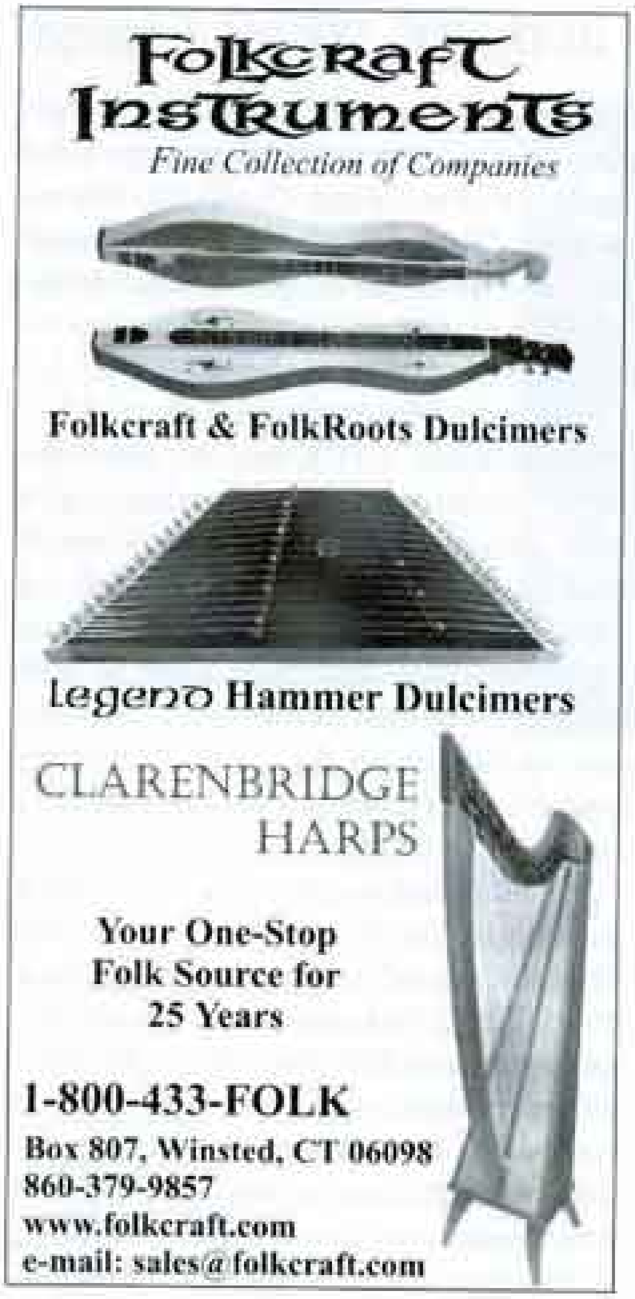
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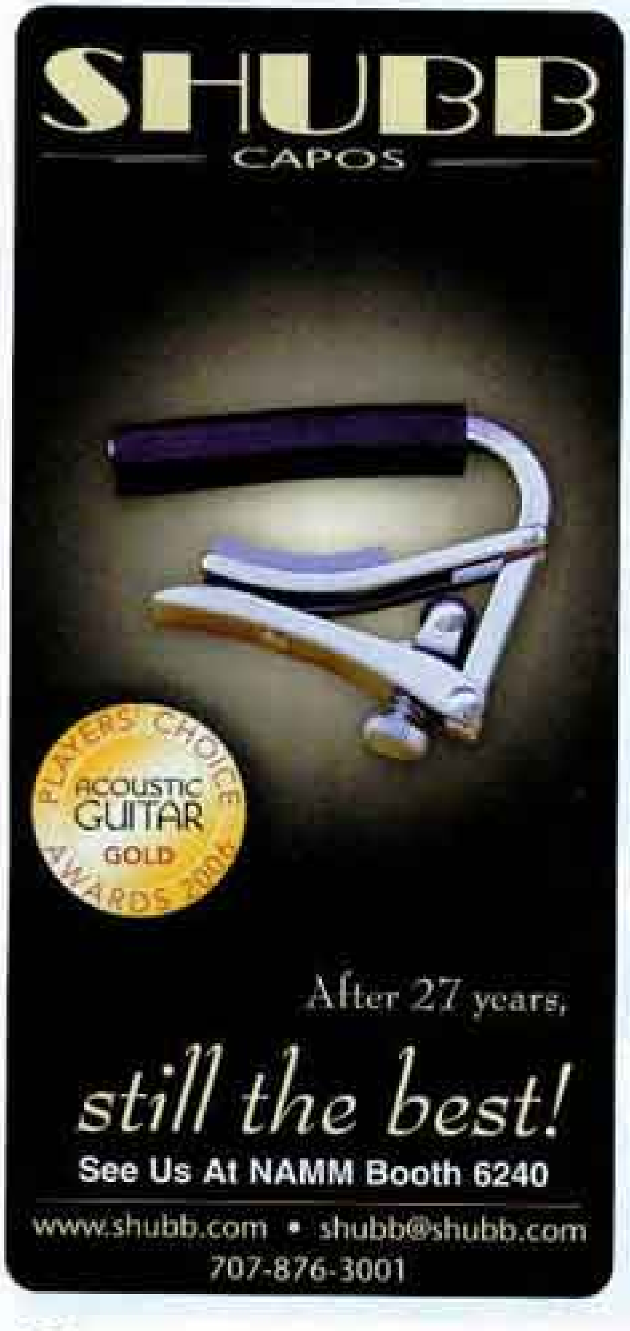
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but he doesn't know if she's serious about it or will still be playing next year, so he thinks he wants the cheapest one. Not knowing anything about guitars, he sees that the €200 guitar and the €30 guitar each have six strings, so he assumes they must be the same. People who know about guitars' quality construction and rich sound will want a Spanish guitar, but they have to know what to look for and *listen* for. It's a challenge to educate the dealers; they're only looking for the products that will benefit them right away. When the difference in prices is so big, it's harder for salespeople to convince their customers to buy the higher-priced one. And today, unless they appreciate the amount of work involved, many customers want Spanish quality for Chinese prices."

Guitarras Francisco Esteve shares a corner of its sprawling Valencia manufacturing complex and some procurement and milling operations with **Juan Hernandez**, a limited-production guitar maker that focuses on high-end instruments. (Amparo Monfort, the wife of the company's namesake, is one of Esteve's co-owners.) Along with four other craftsmen, Juan Hernández Iranzo produces 800 to 1,000 entirely handcrafted guitars a year. Materials used include European spruce, cedar, sycamore, Indian rosewood, and ebony. A special nitro varnish is used on the Concierto model. The Maestro model features Brazilian rosewood back and sides, a French polish finish, and a choice of traditional or raised fretboard. The company's catalog lists just seven classical and two flamenco models, all of solid wood construction, with retail prices ranging from $750 to $12,500, but the company also produces special eight- and ten-string models and custom-order instruments. Juan Hernandez only sells to independent stores.

Guitarras Francisco Bros began 50 years ago as a small family business. (The company name, pronounced "Brose," refers to founder Francisco Broseta Rogla, not an abbreviation for "Brothers.") Three generations of that family now work at a small factory in Gata de Gorgos in Alicante province. The company produces approximately 1,500 guitars a year with retail prices from $190 to $960. Special order items can feature elaborately designed headstocks and ornately carved backs. Fo all models, about 80% of the work i done by hand

Esteve's Manuel Adalid with a proto type guitar featuring an ultra-thi oval "membrane" on the top.

Francisco Bros offers classical, fl menco, thin-body cutaways, and ele tro-acoustic models with Fishman pic ups. a broad variety of woods includi Oregon pine (for the entry-level mode Canadian spruce, cedar, maple, cypres sapele, sycamore, ebony, Indian ros wood. All standard models feature high-gloss polyurethane finish.

"The market for cheap guitars is sa rated," comments Francisco Bros Sal Manager Rolf Lucas Jong. "That's o of the reasons we're now concentrati on producing models of a higher sta dard. Our new top-level instrumen include Alcazar classical guitars a Soleá flamenco guitars." The comp ny's premium Luthier line also offers b special order the big, bold "gra piano" Kai Heumann signature mod (about $3,080), which features a extended 29-fret (versus the standa 19-fret) fingerboard and a Carlos Ju pickup.

For more information on the Spani Guitar Master Craftsman's Guild and i member companies (including seven not mentioned in this article), vi www.gmage. For more information o Guitarras Manuel Rodriguez and So visit www.guitars-m-r-sons.com.