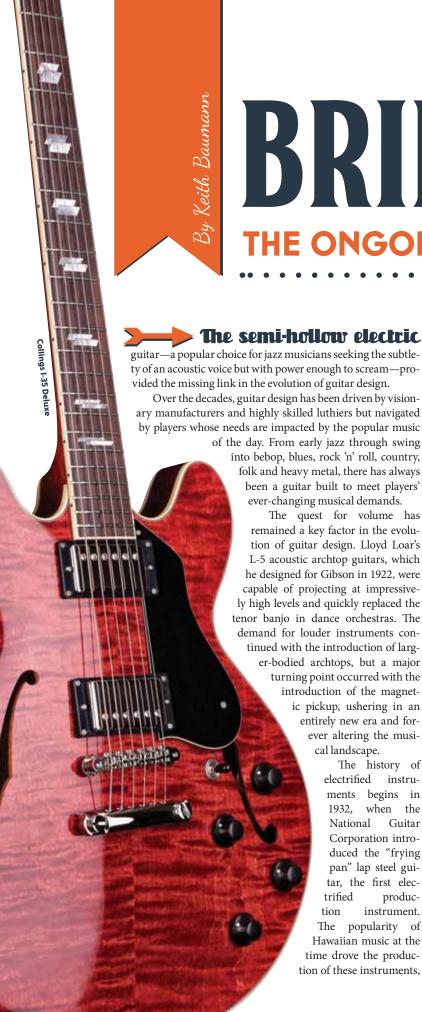
## Jazz, Blues & Beyond ALSO IN THIS ISSUE: JAZZ AT THE WHITE HOUSE HIROMI • SHERMAN IRBY JEFF LEDERER • GUITAR SCHOOL

## GUITAR SCHOOL **ERIC DIVITO** BRIDGING **Master Class** Page 70 FRED RANDOLPH The Evolution of the Semi-Hollow Guitar **Pro Session** Page 72 PAGE 62 **CHRISTIAN McBRIDE Transcription** Page 74 **TOOLSHED** Page 76 The late Les Paul with "The Log," his early semi-hollowbody electric guitar design (Photo: Courtesy of the Les Paul Foundation)



## BRIDGING

THE ONGOING EVOLUTION OF

The semi-hollow electric

guitar—a popular choice for jazz musicians seeking the subtlety of an acoustic voice but with power enough to scream—provided the missing link in the evolution of guitar design.

Over the decades, guitar design has been driven by visionary manufacturers and highly skilled luthiers but navigated by players whose needs are impacted by the popular music

> into bebop, blues, rock 'n' roll, country, folk and heavy metal, there has always been a guitar built to meet players' ever-changing musical demands.

The quest for volume has remained a key factor in the evolution of guitar design. Lloyd Loar's L-5 acoustic archtop guitars, which he designed for Gibson in 1922, were capable of projecting at impressively high levels and quickly replaced the tenor banjo in dance orchestras. The demand for louder instruments continued with the introduction of larger-bodied archtops, but a major turning point occurred with the

> introduction of the magnetic pickup, ushering in an entirely new era and forever altering the musical landscape.

> > The history of electrified instruments begins in 1932, when the National Guitar Corporation introduced the "frying pan" lap steel guitar, the first electrified producinstrument. tion The popularity of Hawaiian music at the time drove the produc-

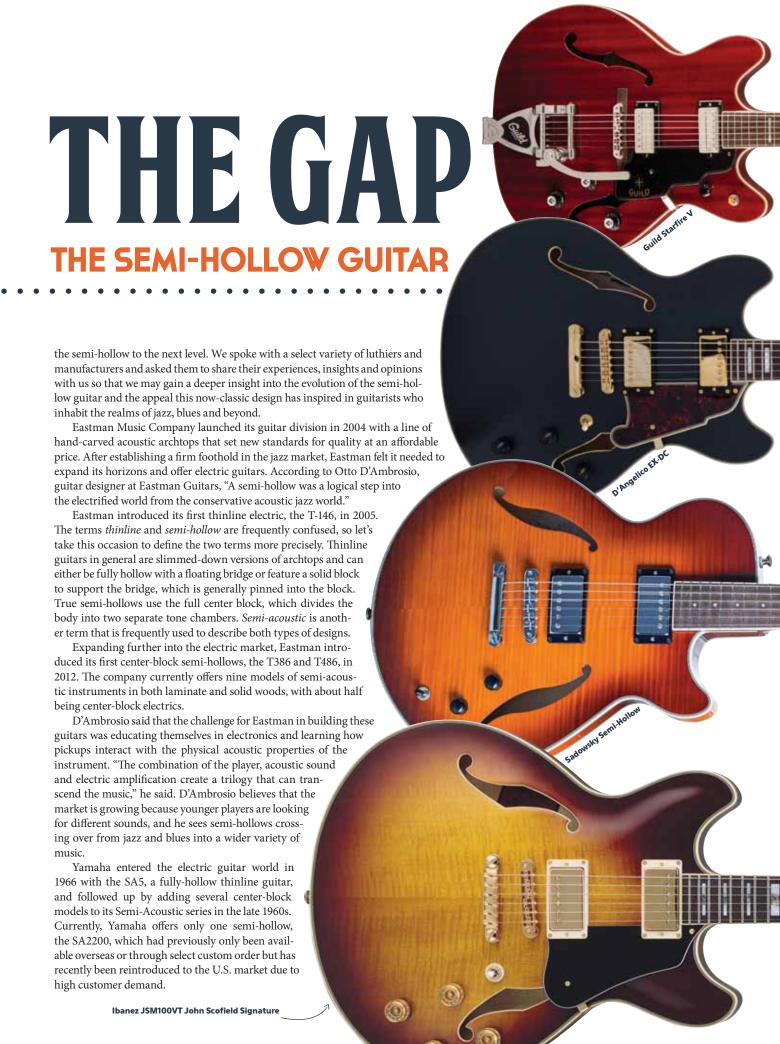
and in 1935, the Rickenbacker corporation decided to attach a Spanish guitar neck to its Model B lap steel body, creating the world's first solidbody production electric guitar.

It is interesting to note that guitars with solid bodies actually appeared before hollowbody electrics, which entered the market in 1936 with Gibson's ES-150, the first in the company's "new Electro-Spanish" line. Electrified hollowbody guitars continued to increase in popularity throughout the late 1930s and '40s, and although they did provide the ability to perform at much higher volumes and opened the door for single-note soloing styles, they also suffered from feedback issues when pushed beyond a certain level. The solution came in 1951 in the form of the Fender Telecaster, the first in a lineage of new mass-produced solidbody electric instruments that would literally "rock" the world.

Gibson responded to the Telecaster in 1952 with its Les Paul model, named for the iconic guitarist and inventor who had previously developed his own innovative electric guitar design in 1941. Dubbed "The Log," Paul's design featured a solid wood plank running down its center, flanked by two hollow wings cut from an Epiphone archtop. His continuing experimentation eventually led to the building of "The Clunker," based on a highly modified Epiphone Broadway. He recorded for many years with his Log and Clunker until Gibson presented him with its Les Paul prototype, which featured a solidbody design and bore little resemblance to Paul's original vision. However, several years later, Gibson decided to revisit the "Log" concept, and in 1958 the company introduced the ES-335 semi-hollow guitar, which utilized a slimmed-down hollow archtop body with a solid block of maple running through its center. The guitar was revolutionary and offered the best of both worlds, providing the rich acoustic resonance of a hollow body with the strong feedback resistance of a solid body.

This hybrid design, commonly referred to as "semi-hollow," successfully filled the gap between fully hollow electrified guitars and solidbody electric models. Gibson's center-block ES-335 quickly gained a reputation as an extremely versatile guitar capable of functioning in a wide variety of musical situations.

The huge success of the ES-335 has resulted in numerous copies over the years. Indeed, luthiers and guitar manufacturers the world over have introduced their own versions of the semi-hollow guitar, with prices ranging anywhere from \$500 to \$15,000. Many are simply clones of the original design, but others who have built upon the foundation established by Gibson have added innovations and enhancements that take



According to Armando Vega, marketing manager for Electric Guitars, Basses and Amps at Yamaha, it was changes in musical taste that originally prompted the company to expand from acoustics into semi-hollow electrics. "It was a sign of the times," he said. Vega noted that Yamaha's 50 years of experience building guitars, coupled with the

knowledge gained from 120 years manufacturing other instruments and electronic components, has been a key factor in producing a quality product.

Vega also pointed out that Yamaha has extensive resources for quality wood due to its piano and marimba

business. The company currently sees a growing interest in semi-hollow guitars among young musicians looking further back for influences. "There is no way to duplicate the sound of a semi-hollow," Vega said. "The combination of acoustic resonance and amplification creates magic."

Luthier Roger Sadowsky has been creating guitars since 1972, when he built his flattop acoustic. In 1980 he moved into solidbody electrics and later basses. A collaboration with jazz guitarist Jim Hall resulted in his first archtop signature model, released in 2003, and was followed up by his second archtop artist

**Butter by Westville** 

model, the Jimmy Bruno. Adding a semi-hollow to the line was a natural step for Sadowsky, who felt that there was a demand for a guitar that could produce a traditional jazz tone but also be extremely versatile and comfortable with a high level of feedback resistance. In designing his gui-

tar, Sadowsky said, "My semi-hollow has to be a jazz instrument first." With a strong conviction that the world did not need another Gibson 335, his semi-hollow design features several innovations that separate it from the pack.

In order to reduce mass and increase resonance, Sadowsky utilizes a fully ported spruce center block design in his semi-hollow. Basically, there are openings cut in the block to allow vibration to pass through the entire body. In con-

trast, the Gibson 335 uses a solid maple center block, which completely isolates the two bouts of the guitar. Sadowsky also constructs his guitars

using a special

laminate that is about half the weight of what the 335 features. "I have always focused on the wood and acoustic resonance as a primary factor in my guitars," he said.

Although the name Ibanez dates back to 1929, the company gained its foothold in the guitar market in the early 1970s by offering Japanese-manufactured copies of classic American instruments. During this time, often referred to as the "lawsuit era," Ibanez quickly gained a reputation among players for quality and value. Later branching out into producing its own guitar designs, Ibanez now features a full line of instruments with numerous semi-hollow models available.

The semi-hollow holds a significant place in guitar history, filling the large gap created by an industry that had made the giant leap from amplified archtops directly into solidbody electrics.

With several Japanese companies producing Fender and Gibson clones in the '70s, Ibanez was the company that altered our perception of these import guitars by setting new standards and gaining the respect of the professional community. In fact, their hollowbody jazz boxes were among the first Japanese instruments to break into the American jazz market with artists like George Benson and Pat Metheny. Ibanez currently offers a variety of semi-hollows in several lines with its John Scofield and Eric Krasno Signature models at the top, followed by their Artstar Prestige offerings. Known for its exceptional value, the Artcore series is the company's standard line. As Ken Youmans, communications and promotions specialist for Ibanez, put it: "You won't find a better a guitar for the money."

Steve Marchione has been building fine guitars since 1990. He individually hand-carves each of his instruments in the tradition of Jimmy D'Aquisto and John D'Angelico. As with many luthiers, Marchione began his career making violins before moving into archtop guitars. His entry into the semi-hollow world was sparked by a customer request, and the resulting guitar has since become a regular model for the builder. Regarding his semi-hollows, Marchione said that he strives for "the ring and feel of an acoustic instrument, but with a great controllable electric tone."

As a custom builder, Marchione applies the exact same hand-carving techniques to his semi-hollows as

with his archtops. He produces two models, the Premium and Standard. Both are all solid wood, as opposed to

Godin Montreal Premiere Supreme the laminate construction common to many other semi-hollows. He also does not utilize a center block but features a thinline-type bridge support that is actually carved directly into the top and back, requiring no additional wood to be glued inside of the body. This results in an extremely light and resonant instrument. Even his f-holes are custom designed to maximize vibration of the top. Marchione pointed out that he uses only hide glue in constructing his instruments and that all facets of his guitars are built in his workshop, including the components.

D'Angelico is a name that needs no introduction among guitarists. The handmade archtops built by John D'Angelico between the early 1930s and the late 1950s are among the most sought-after jazz instruments in the world.

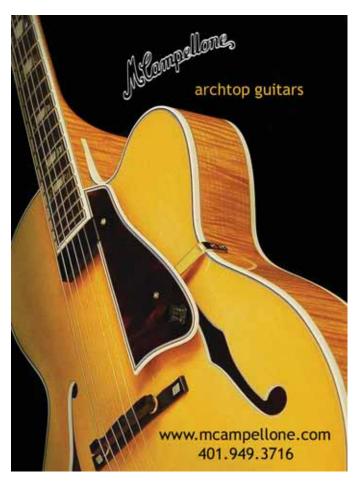
The D'Angelico legacy was given new life when the trademark was purchased in 1999 and again when the company underwent a major rebranding in 2011. The revitalized company entered the market by manufacturing a reproduction of one of John D'Angelico's most prolific archtop models, the EXL-1. According to Ryan Kershaw, who directs artist relations at D'Angelico Guitars, they actually used MRI imaging to study an original D'Angelico model. The company now offers a full lineup of instruments, including flat-top acoustics, electric and acoustic archtops, and basses.

"With strong roots in acoustic archtops, it is a very natural progression to go from fully hollow to semi-hollow guitars," Kershaw said. He noted that the company considers it important to reach an expanded market and introduce their existing customer base to new options. The D'Angelico line features a center-block semi-hollow, the EX-DC, and a thinline hollowbody with only a post behind the bridge, the EX-SS. Kershaw said that achieving a balance between weight, tone and shape was a particular challenge on these guitars, which went through many different prototypes during their development stages.

Masaki Nishimura of Westville Guitars in Japan began designing









and building guitars in 2013 with two semi-hollow models that he calls Butter and Water. Westville Guitars now offers a Kurt Rosenwinkel signature semi-hollow as well. Nishimura, who was inspired to design semi-hollows through his love for jazz, produces only about 20 to 30 hand-built guitars each year. While running a jazz guitar store in Tokyo, he got the idea to build a semi-hollow using a fresh approach that would set it apart from the Gibson 335.

Rather that using the standard laminate materials, Nishimura went with a solid carved spruce for his guitar tops and solid hard maple for the backs. Inspired by an archtop guitar built by luthier Tom Ribbecke, Nishimura sensed that these materials produced a mellower and richer tone than plywood. Borrowing from the Fender Telecaster, he also routed the strings from the back of the body up through the maple center block into an ebony tailpiece, which helps increase the guitar's overall vibration.

Nishimura said that the attraction to the semi-hollow lies in its ability to produce the sustain of a solidbody while providing the acoustic warmth of a hollowbody. Looking forward, he said that although the 335 is a truly great design, he sees opportunity to improve on the classics. And that, he believes, will inspire players to explore new music.

Guild Guitars, which has been in the guitar business for more than 60 years, offered its first semi-hollow, the Starfire, in the early 1960s. Over the years, the company has been focused mainly on its highly successful acoustic guitar line, eventually discontinuing the bulk of its electric offerings. However, in the past few years, Guild has been reviving its electric guitar line and reintroducing many of its classic Starfire semi-hollows and thinline models.

According to Brandon Schmidt, product manager at Guild Guitars, the original Starfire was introduced as a lower-priced competitor to Gibson's 335. The evolving musical scene of the '60s drove the need for Guild to expand from the jazz guitar market into the rapidly growing rock world. Now, some 50 years later, the company has once again sensed the need to expand its reach by bringing these models back to life. The new laminate Starfires come in a wide variety of configurations; some are center-block models, while others are bridge-block models. Guild refers to them as vintage reproduc-

"The challenge with these instruments is setting yourself apart from the 335 yet maintaining a certain level of familiarity with the player, keeping it unique, yet useable," Schmidt said. He noted that these guitars have a definite appeal among younger players looking for a retro vibe. "These guitars feel completely different than a solidbody. You can feel the connection to the archtop world, you can feel the DNA.'

Paul Reed Smith founded his company, PRS Guitars, in 1985, offering custom-made solidbody electrics. PRS later moved into producing thinline hollowbody archtops and eventually added semi-hollows to its roster. The company now manufactures an extensive variety of these guitars in several distinct lines, with instruments built both overseas and in the U.S. According to PRS, expansion into the jazz and indie markets were two primary reasons for bringing these guitars to market.

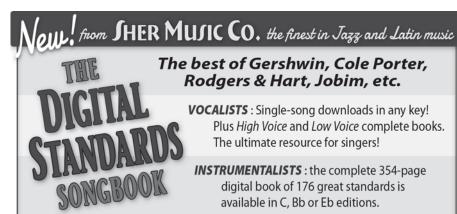
Although PRS does use the term semi-hollow on several of its models, the company typically does not offer a traditional center-block style guitar (though some artist signature models and Private Stock one-off guitars are built that way). Their usual/production version of the semi-hollow is constructed by routing out a chamber in a solid guitar body and then capping it with a separate piece of wood that has a single f-hole cut into it. This proprietary design results in a modified version of a solidbody with reduced weight and added resonance. PRS also offer its Hollowbody models, which are essentially bridge-block thinline-style guitars with a piezo pickup system built into the bridge for added acoustic color.

"PRS Guitars believes that if a guitar looks good, it makes you want to pick it up," said Judy Schaefer, marketing manager at PRS. "If you pick it up, it feels good and it makes you want to play it. If you play it, it will sound good, and it will make you want to keep playing it and make some music. When you plug a semi-hollow guitar into that thought process, the look of the guitar changes pretty dramatically, and if you're like me, an f-hole just looks cool. When you pick it up, it will be just as comfortable and familiar as any solidbody guitar we makebecause the back carve is the same, not to mention the care we take in our neck shapes. And when you play it, even acoustically, the tone simply has a nice, subtle warm and woody overtone to it. It is resonant, but won't feedback. And that can be a great experience for players from all walks."

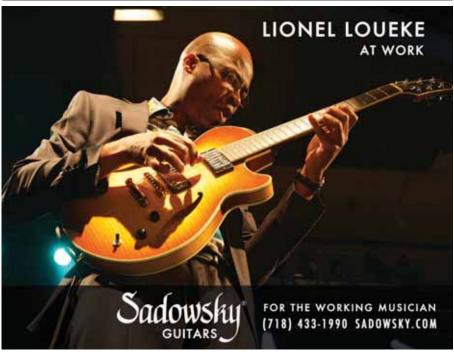
Quebec-based Godin Guitars—with an impressive array of products that include its innovative multiac and electro-acoustic models, archtops and solidbodies—is a company that has mastered the art of building amplified stringed instruments. Godin entered the archtop market in 2008 with the 5th Avenue acoustic, and quickly followed up with an electrified version, the Kingpin. The company now offers a full array of 5th Avenue laminate archtops, which it lists as part of its semi-hollow guitar line—but these guitars really fall into the fully hollow archtop category.

Godin's first entry into the semi-hollow arena actually came in 2011 with the release of its Montreal Premiere, the first model in what the company now calls its archtop thinlines. According to Andy Dacoulis, Godin employee and endorsing artist, "There was a need in the market for a more affordable but North American-made semi-hollow guitar."

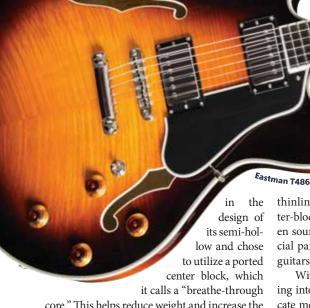
Godin felt that versatility, weight and ergonomics were extremely important elements



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core." This helps reduce weight and increase the acoustic response. The Montreal Premiere line is now available with a variety of pickup configurations and tailpiece options. Dacoulis said that these guitars are seeing an increase in popularity with musicians catching on to the true diversity of the semi-hollow and its ability to handle any type of gig. He also points out that Godin always strives to build something a little different and put its own stamp on every instrument.

Gretsch has been a family-run company in the instrument business since the late 1800s. Gretsch released its first Synchromatic archtops in 1939 and went on to develop a line of solidbody and hollow-body electrics. The popularity of the Gretsch hollowbody guitars exploded in the 1950s and '60s, and their signature tone made them the axe of choice for many early rock 'n' roll, rockabilly and country artists. Although they did produce some

thinline models, Gretsch never built a center-block guitar, but instead featured a wooden soundpost support and also utilized a special parallel "trestle" bracing system on select guitars.

With such a strong hollowbody legacy, moving into semi-hollow guitars was a rather delicate move for the company, which was careful not to alienate its existing fan base. The release of the Center-Block series in 2013 offered a perfect compromise since it featured classic Gretch design and tone in a thinner, lighter, more ergonomic and feedback-resistant package.

Jason Barnes, director of category management at Gretsch Guitars, noted that the real challenge was in deciding what should stay the same and what needed to change on these new semi-hollows. "It is hard for a legacy company like us," he said. "We had to build center blocks that look and sound like a Gretsch." Barnes also said that the new Gretsch Center-Block guitars produce a fresh voice that sits right between

hollowbody and solidbody.

Bill Collings of Collings Guitars, a name that has become synonymous with impeccable craftsmanship, has been building fine instruments since the mid-1980s. Gaining worldwide recognition for his flattop guitars, archtops and mandolins, Collings moved into electric guitars in 2006 with three models: the 290 solid-body, the CL carved-top solidbody and the I-35 semi-hollow. Collings now offers a robust line of electrics, with several semi-hollow options in the lineup.

For a company with such a strong acoustic bloodline, it is understandable that a semi-hollow would be among the first electric guitar models to be introduced. According to Aaron Huff, manager of electric guitars at Collings, the company's acoustic experience with archtops and mandolins has played a significant role in creating these guitars. He also said that building a semi-hollow was a bit more of a challenge than expected, with even the smallest changes in design and materials making a noticeable impact. Huff also mentioned that it took several attempts to get the pickups voiced just right for the guitars.

Collings produced only solid-top semi-hollows at first but has now moved into laminates as well. In its solid-top line, the company utilizes the standard solid maple for a center-block. But with its laminates, the company has developed a special laminate block composed of maple sandwiched between two layers of spruce. Collings found that this adds warmth and provides better balance to the laminate guitars.

When it comes to the use of CNC machinery in guitar manufacturing, Bill Collings is widely recognized as an industry guru who has raised this technology to the level of a true art form. According to Huff, "CNC machinery allows us to get closer to the finish line so we can focus more energy on the finer details of the instrument." He went on to say, "But in the end, these are still handmade instruments built with a perfect blend of human interaction and automation."

The semi-hollow holds a significant place in guitar history, essentially appearing to fill the large gap created by an industry that had made the giant leap from amplified archtops directly into solidbody electrics. The impact of the Gibson 335 has been undeniable, inspiring new music and generating countless devoted fans. And although there will always be those who seek the original, it appears that the semi-hollow market is still very much alive and well. As luthiers and manufacturers continue to explore new designs to accommodate today's generation of players, we can look forward to exciting new innovations in the quest for the elusive tone that sits perfectly between acoustic and electric.

