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The Rise of Affordable, High-Quality Studio Mics & Outboard Gear

By Keith Baumann

Over the past 30 years, major changes in the music industry have affected nearly every aspect of its creation, distribution and consumption. Gone are expensive high-fidelity sound systems, now replaced by smartphones, tablets and computers downloading or streaming compressed MP3 audio.

Large commercial recording facilities are fading away as musicians shift toward home recording and small project studios. Drastic reductions in the cost of digital recording gear have made multitrack recording, once the exclusive domain of the professional studio, accessible to an entirely new market.

But the market quickly realized that even with all these digital tools, producing a quality recording still required good microphones, pre-amps and outboard processors—all of which amount to a serious cash outlay. However, in recent years such products have been undergoing a major evolution, and there are now numerous companies producing high-quality, professional-grade studio gear at surprisingly affordable prices.

One of the most significant events in the

digital recording revolution occurred in 1992 when Alesis introduced its ADAT recorder, offering multitrack recording at a consumer-friendly price. That same year Pro Tools was also released by Avid, but its high price tag made it affordable to professional studios only. Eventually market competition did drive the cost of digital audio workstation (DAW) software down to the point where today Apple's GarageBand app is free to Mac/iOS users. With an expanding market of budget-conscious users, audio manufacturers responded by offering low-cost microphones produced mostly in China. With few exceptions, this first wave of overseas audio products fell short of expectations, leaving a long-lasting prejudice against Asian-manufactured analog recording gear.

The industry has come a long way since that

time. We are now seeing a new crop of budget-friendly gear coming out of China that's of significantly higher quality. This metamorphosis can be attributed to several factors. In today's global market, it's much easier for companies to work closely with Asian factories, gaining more manufacturing control and maintaining tighter quality tolerances. Also, with years of experience behind them, both the factories and the companies that work with them have become much better at what they do. The availability of affordable quality microphones and analog audio gear is currently exploding, and we are now at a "golden age" in the market with a mind-numbing amount of amazing products—including original designs and clones of vintage units—priced below \$1,000. To learn more about this trend, we spoke with several innovative pro audio manufacturers.



Miktek Audio

Right from the start, microphone manufacturer Miktek Audio decided to avoid the clone route and create something completely unique instead. The company produces a variety of studio microphones, with the MK300 condenser being the least expensive. Most of Miktek's microphones are assembled in Nashville, Tennessee, but the MK300 is the first one to be built in China using all overseas-made components.

Mike Ketchell, owner of Miktek Audio, has confidence in China's ability to produce a quality product, and points out that the region's factories have gotten much more sophisticated in recent years. He also observes that young customers today are much less concerned with where a product is manufactured and focus more on its value.

Miktek designs and builds all of its mics from the ground up, including the metalwork. Ketchell points to the quality of the company's components, particularly the capsule, head amp and transformer, which are critical to getting a world-class sound. Sourcing to China, keeping margins reasonable and exploring new technologies and better options for manufacturing are all key factors in Miktek's ability to control costs. According to Ketchell, low-cost DAW recording has helped to create demand for these products. When asked whether the trend of producing inexpensive studio-quality microphones has hit its peak, he responds that "cost has hit its peak, but quality has not."

Lauten Audio

Solidly focused on designing and building unique microphones, Lauten Audio offers both a high-end signature line and its less expensive LA line featuring offerings priced below \$500. Lauten manufactures its LA line in China and also utilize all-Chinese components.

According to Brian A. Loudenslager, founder of Lauten Audio, the company has been able to locate Chinese suppliers that are equivalent to, if not better than, domestic ones. Prior to launching Lauten, Loudenslager worked in the industry as a consultant helping companies with overseas manufacturing. This experience was key in Lauten developing solid relationships with factories and suppliers in China. Loudenslager says that Chinese manufacturers were always good at copying and building, but not designing, and there was no one providing design and component-level direction to them.

Lauten supplies unique designs to its factories and allows them to do what they do best: build it. Loudenslager points out how China has opened its doors and evolved over the years but warns that due to a rapidly rising middle class, China is no longer cheap. He compares this to a similar scenario that occurred in Japan after World War II. Along with extensive knowledge of Chinese manufacturing, Loudenslager feels that having a physicist on staff for capsule design and partnering with good engineers have helped Lauten stand apart from the competition.

Mojave Audio

Considering that industry guru David Royer designs its microphones, Mojave Audio is a company with a very impressive pedigree. According to Dusty Wakeman, president of Mojave Audio, the company was founded in order to bring Royer's designs to market at an affordable price.

With a line of mics that range from \$695 up to \$2,795, Mojave decided it needed to produce something under \$500. To meet this challenge, Mojave Audio manufactures all of its under-\$1,000 mics, including the MA-50 large diaphragm condenser, in China using many quality components from the United States. "Anything you can hear, we source in the U.S.," Wakeman says. Wakeman says he feels confident that Chinese manufacturing has improved and become easier to manage in recent years.

Mojave Audio credits its use of premium components, plus the fact that David Royer actually listens to every mic the company builds, as critical to its success. In Wakeman's view, the market is thriving, and the fact that recording interfaces have become so much more affordable means that customers now have more money available to purchase several microphones. Looking down the road, Wakeman predicts that manufacturing in China will only get more expensive, and the cost of good components will limit how inexpensively a good product can be produced.



sE Electronics

When sE Electronics chose to locate its factory in Shanghai, it was more than just an economical decision. It's a proud part of the company's heritage.

Founded by a Chinese American, sE Electronics was an early contender in the booming microphone market, introducing one of the industry's first affordable condensers, the sE2200, in 2003. With strong ties in China, sE Electronics produces its product line in its own dedicated factory using high-quality Chinese components, including capsules. According to Chris Dauray, brand manager of sE Electronics, "Every capsule is built by hand, and our ribbons are all hand-tensioned."

sE Electronics design its products with production in mind, constantly re-evaluating and tweaking the process to achieve maximum efficiency. Dauray says that not spending a lot of money on marketing and packaging—relying mainly on the Internet and word of mouth—has been a cost-saver for the company, along with working in large volumes and batch production. Dauray predicts that digital audio products will continue to drop in cost, but he sees a limit to that when it comes to analog gear.

Blue Microphones

Blue Microphones got its start designing and building studio condenser mics that look as great as they sound. Known for innovative design and catchy product names, the company has expanded from its pro-audio roots into the consumer market, making a huge splash with its Snowball and Yeti USB microphones, and more recently with versatile models like the Bluebird and Bluebird SL large diaphragm condensers.

Blue does hand-build some of its professional mics in the United States, but its USB line is manufactured overseas. According to John Maier, CEO, Blue designs every product with the end user in mind. Focusing on exactly what is needed and what is not allows the company to create the right solution and offer it at the right price point for the customer.

Blue works closely with its outside partners to source the best components, ordering in high enough quantities to reduce costs. Maier, like many others, sees the plummeting cost of recording as a driving factor in this market. He says he thinks that the trend toward cheaper and better has not yet hit its peak, but with inevitably rising costs it will definitely be slowing down.

Audio Technica

Audio Technica has been a major player in the industry for 60 years, with a wide array of products for the professional and consumer markets. The company broke new ground when it introduced the AT4033 condenser microphone in 1990, offering professional-level studio quality for an unheard of \$399 price tag.

Over the years, Audio-Technica has expanded its microphone line considerably, with selections ranging from \$99 up to \$3,499. According to Gary Boss, marketing director for professional products, Audio Technica manufactures its microphones in one of three locations: Japan, Taiwan and China. The company has been active in the USB market with several mics, including the AT2020 USBi high-resolution condenser, which was launched as a music-creation tool but has since become popular with podcasters and streamers.

Audio-Technica keeps costs low by utilizing similar housings on several of its models, allowing for more focus on the internals. As Boss says, "Put the money on the inside where it matters, not on the outside." Boss says that as a Japanese company, Audio-Technica's relationships with overseas factories have always been strong. The company maintains extremely rigorous quality control on all of its mics and manufactures all of its own proprietary components.



Golden Age Project

Bo Medin may not have been the first person with the idea of creating clones, or replicas, of classic analog gear. But he was certainly the first to offer one at the unheard of price of \$299. As owner of Golden Age Music, Medin was a true pioneer who showed us all what could be accomplished with the proper components, a good overseas factory and some smart business acumen.

In 2008, Golden Age released its Pre-73 microphone preamp, based on the preamp section of the legendary Neve 1073 console, and immediately received high praise for its surprisingly good quality. (Golden Age has since issued the Pre-73 MKII and Pre-73 MKIII.) Medin says that manufacturing in China and producing in large quantities are factors that help keep costs down. He also utilizes what he calls “sensible cost-cutting measures,” which means that he’s only willing to utilize less expensive parts if they don’t impact the quality of the audio. He prefers to put money where it counts in order to produce great-sounding products that are extremely affordable.

Golden Age now offers a full line of outboard gear and microphones, and although Medin does not consider himself a clone manufacturer, many of his designs are based on classic vintage outboard processors. He says that the ability to produce this level of quality on a budget is made possible by a number of converging factors: “It was simply time for this to happen.”

Warm Audio

Warm Audio produces what it calls modern reproductions of studio classics, and like many manufacturers, the company takes inspiration from vintage 1960s and ’70s microphones and outboard gear.

According to Antonio Anzaldua, logistics and quality control manager, Warm Audio’s products are assembled in China using only premium non-Chinese components. This use of boutique components in Chinese-built audio products is definitely a rising trend. Anzaldua says that ordering in large quantities and packing in small boxes are some of the ways Warm Audio keeps prices reasonable. He also says that items such as the WA-2A compressor (a Teletronix LA-2A clone) are not 100-percent reproductions, noting that a true clone would be too expensive to build and Warm Audio even makes a few improvements

over the originals. Anzaldua claims that Warm Audio can get about 90 percent of the way there in emulating vintage processors and microphones.

Anzaldua said he believes that the trend toward higher quality at lower prices will continue for the foreseeable future. “I feel like there is a lot of untapped potential,” he said. With the popularity of home recording still on the rise, Anzaldua predicts continued market growth. He observes that the proliferation of software plug-ins is helping drive his business as many users grow tired of software emulation and realize the benefits of recording with actual analog hardware.

Apogee Electronics

Apogee originally made its mark in professional audio with high-end analog-to-digital (A/D) and digital-to-analog (D/A) converters. The company later expanded into mobile recording interfaces and eventually introduced the MiC Plus USB microphone, which is partially manufactured in China, with all assembly completed in the United States.

According to Sean McArthur, director of marketing and product industrial designer at Apogee, this was a natural step for a company with a 30-year background in conversion. Although \$249.99 is not a hefty price for a decent studio-quality condenser, McArthur points out that in the USB market, where users are used to paying under \$100, this is actually a fairly expensive product. McArthur says he feels that the superior sound quality justifies the price and that Apogee is set on offering the best mic in this category.

The trend toward mobile recording is an obvious factor in the growing demand for USB microphones, and McArthur adds that for users with multiple devices, cross-platform compatibility is crucial. Podcasting is another expanding segment that is helping this market thrive. Apogee sees competition as well as technological advancements and the decrease in component cost due to mass manufacturing as enablers in offering inexpensive products.

Stam Audio

Stam Audio was founded in 2014 with a mission to recreate some of the world’s most iconic classic audio gear from the 1960s and 1970s and offer it at a great price.

According to President Joshua Stam, cloning

a piece of vintage gear can’t be accomplished by simply using the exact same components as the original. He points out that some components are not available today and others are not made the way they used to be. A simple copy would therefore not sound the same as the original, and Stam Audio prides itself on selecting the perfect combination of quality components in order to achieve a sound as close to the original as possible.

The company is based in Chile, and products are manufactured in both China and Chile. Microphones are all hand-made in Chile, while China handles mainly assembly tasks on the outboard items like the SA-2A compressor (a Teletronix LA-2A clone) using components imported from the United States and Europe. The units are then sent to Chile for final tweaking and testing. This hybrid approach of using Chinese labor, but not Chinese components—something that would not have been possible in the past—is a big part of Stam’s success.

Joshua Stam points out that free trade agreements, buying in bulk and direct marketing of his products are key factors for him. He spends very little on marketing and works with small margins in order to keep costs down. Stam also notes that expiring patents on vintage audio gear have helped drive the cloning market, since many of these designs are now public domain.

Still Trending

Although each of these companies offers its own unique perspective on the market and follows a slightly different path, there are some things they all seem to agree on. The reduced cost of recording is the most significant factor in creating demand for these products, and the market is still expanding. The reason we are now seeing so much affordable quality gear is attributable to a combination of market demand, smarter business practices and a major evolution in Chinese manufacturing, which has dramatically improved the level of quality produced there. It is also apparent that the cost of working with Chinese factories is rising rapidly, and many feel that we have hit a plateau for quality versus price.

So, is this price race to the bottom nearly over? Only time will tell. But one thing’s for certain: This is a really great time to buy new recording gear. **DB**

