



IMAGE: "Album 14"  
Danae Falliers  
Courtesy of the artist  
and Robischon Gallery  
danaefalliers.com

## THE COMMON LANGUAGE OF MUSIC+ ARCHITECTURE

WALK INTO A MODERN HOUSE. WHITE WALLS AND BUFFED FLOORS. QUIET EXCEPT FOR FOOTSTEPS AND ECHOES. SOUNDS MORE LIKE A MUSEUM THAN A PLACE TO HANG YOUR HAT. BUT TURN ON THE STEREO, AND THAT PLACE INSTANTLY GETS A PULSE. MUSIC BESTOWS LIFE UPON OUR HOMES, TRANSFORMING INANIMATE OBJECTS INTO SOMETHING MORE HUMAN. SURE, SOME MUSIC IS JUST NOISE—A DAILY SOUNDTRACK OF RADIO JINGLES AND ELEVATOR ACCOMPANIMENT. BUT PLAY THE RIGHT TUNES IN THE RIGHT CONTEXT AND YOU'LL MOVE PEOPLE, IN ALL SENSES OF THE WORD.

STORY BY:  
KEVIN JANOWIAK

The building itself is part of that harmony. Some songs are designed for stadiums, others for the bedroom. But the connections between architecture and music run deeper than the venue. Look at terminology used by the creators and you'll see overlap: words like rhythm, accents, theme variation. Architects and musicians often speak the same language. View the two art forms through the lens of modernism, and you'll observe more common DNA. Both embraced new materials, questioned assumptions, and stripped down structures to their cores. "Before the modernist period, a cutting-edge musician tried to make melody and harmony even more expressive," said Jack Sheinbaum, a professor of musicology at the University of Denver. "But then, the questions change to: 'Wait a minute, why do I even need melody and harmony?'"

Architects asked similar questions and rewrote the rules over the last 65 years. Why not break down the barrier between indoor and outdoor space? Why not put a kitchen in a living room? For example, look to the Denver Art Museum (DAM) with its jutting triangles and deviant geometry. "The museum is very abstract and jarring," said Michael Knorr, an architect based in Denver and Las Vegas. "It reminds me of electronic composers at midcentury who used atonality and didn't follow formal structure." Daniel Libeskind, architect of the DAM extension, was once an accomplished pianist and accordion player. And so he often invokes musical analogies when describing his projects, calling them precise and emotional compositions where one wrong note can ruin the mood.

Of course, music and architecture do not always run on parallel rails. A saxophone solo requires a very different skill set than designing a high-rise, but their growth comes from the same petri dish of culture and technology. Pioneers in both fields became modern by pushing boundaries. Dip into musical history from modal Jazz to Hip-Hop and you'll see that creativity evolves faster than we do.

## REBELS WITH A CAUSE

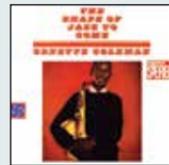
Picking your favorite album is harder than picking your favorite child. And anytime you rank artists of any kind, you're asking for a fight, or at least a vigorous debate. So, don't consider these pioneering musicians and architects to be a definitive best-of list. Instead, look to them as fine examples of risk takers and boundary pushers. These iconoclasts probably wouldn't do well together as roommates. But as a group they broke ground and built modern wonders.



**DAVE BRUBECK // JAZZ AT OBERLIN (1953)**  
This live album of Jazz standards was recorded years before Brubeck tinkered with time signatures. But it's far from a paint-by-numbers affair. Listen to the subtle solos and you can hear great forces at work: BeBop shifting to Cool Jazz and a younger generation along for the ride.



**CHARLES MINGUS // PITHECANTHROPUS ERECTUS (1956)**  
In the title track, Mingus and his adventurous musicians evoke the story of prehistoric man. But the improvisations and tempo changes are highly evolved. Arrangements were taught by ear, yet structured into movements. The lesson: Jazz compositions can be both organized and open-ended.



**ORNETTE COLEMAN // THE SHAPE OF JAZZ TO COME (1959)**  
As a founding father of avant garde Jazz, Coleman has a polarizing reputation. Anytime you ditch chord changes and harmonic structure, you risk sounding abrasive. But this prophetic album ushered in a new era of jazz soloing, one more like a flowing conversation than a set script.



**RAY CHARLES // MODERN SOUNDS IN COUNTRY AND WESTERN MUSIC (1962)**  
With a melting pot of sleepy Country classics spiked with Gospel, Charles broke down racial barriers in music. This album flew off the shelves, a crossover hit at the height of the Civil Rights Movement. The songs may be about loneliness and heartbreak, but "Modern Sounds" is ultimately about common ground.

## CUT THE CHORD

Let's start with the Jazz album that everybody knows about, "Kind of Blue" by Miles Davis. And let's start at the beginning of that record. The first track "So What" lives up to its defiant title by subverting traditional Tin Pan Alley song structure. Normally, horns lead the melody, but Davis freezes them in a two-note loop, while the bass lines are thrust to center stage. Skip to track two, "Freddie Freeloader," and you'll hear an abstraction that breaks Blues conventions; chord progressions are thrown out the window. "It's an intellectual modernist exercise," said Sheinbaum, "but it's still beautiful and enjoyable."

Why did Cool Jazz musicians want to be different? Partially because for the first time, musicians in the 20th century acutely felt their place in history, argued Sheinbaum. "Before the 1950s, most music

you would hear in your life was only the music of your generation, but now we have all of music history at our fingertips," he said. In other words, postwar musicians carved out a distinction between popularity and quality that survives today—a new ambition beyond concert and album sales.

That unconventional streak led to natural allies with architecture. Miles Davis met Bruce Goff, a largely self-taught chair of the School of Architecture at the →



## FRANK LLOYD WRIGHT

Arguably America's most cherished architect, Frank Lloyd Wright was as prolific as he was influential. With a voracious work ethic and boundless imagination, he left an indelible mark via residential, office, religious, hotel, and mixed-use structures. He's synonymous with the Prairie School of Architecture, but Wright's organic Fallingwater residence and Esonian homes also show that geniuses can evolve. His internationally celebrated Guggenheim Museum in New York City further cemented his legacy and playfulness with shapes. Since Wright's death in 1959, he's had many imitators but few detractors.



## LUDWIG MIES VAN DER ROHE

There were many modernist pioneers but few matched the massive strides of German-American architect Ludwig Mies van der Rohe. His abandonment of flourish created a tidal wave of influence over the avant-garde and, eventually, mainstream culture. With efficiency as his muse, his aesthetic trickles down into every detail, like the Barcelona chair designed with Lilly Reich. His pared-down "skin and bones" concepts dot the international landscape, with a heavy concentration in Chicago.



University of Oklahoma. Far from smoky clubs on the coasts, Jazz icons performed private concerts for Goff and his students. Goff dotted the prairie with eclectic and organic homes, but he also experimented with player-piano rolls. Goff didn't bother with proper musical notation; he simply sliced triangles and circles into the paper rolls and let the piano do the work. It was music designed visually—an adventurous mix of careful planning and random results.

How did it turn out? "Not too bad," Michael Knorr said with a laugh. He heard them at an exhibition in Washington D.C. Goff wasn't trying to emulate Miles Davis. But both took bold risks and blazed their own trails.

"Jazz is like a river," Knorr said. "You can go off on interesting tangents that are not strictly bound by the course of the river. I think modern architecture is the same way."

## ROCKING THE BOAT

The sea change eventually flows from Jazz into Rock music, spilling over into the roots of Punk and New Wave in the '70s. Modern music again flips expectations and flips off protocol. Think of minimalists like the Ramones, armed with three chords, two-minute songs, and one cohesive fashion sense. The lesson: You don't have to be a virtuoso to have a band. You can use brute force, rattling off anthems like a machine gun. But simple doesn't mean stupid. Johnny Ramone was once asked why his songs



**VELVET UNDERGROUND // WHITE LIGHT / WHITE HEAT (1968)**  
This attack on pop sensibilities is relentless, a brutal sludge of guitar distortion and feedback. Recorded in only two days, "White Light / White Heat" shows a band fully divorced from Andy Warhol. Its sloppy experimentation and "anti-beauty" paved the way for avant-garde Rock and Punk to come.



**KING CRIMSON // IN THE COURT OF THE CRIMSON KING (1969)**  
Blues chords are the building blocks of Rock. But this landmark prog album used atypical construction materials instead: military music, Jazz noodling, Classical antiquity and Psychedelic bluster to name a few. It's modern music that can sound old, with room for both Mellotrons and harpsichords.



**MILES DAVIS // BITCHES BREW (1970)**  
Davis reinvents himself again—out with Cool Jazz, in with an electric orchestra and supersized rhythm section. Although unpalatable to some of his followers, the wild grooves created new strains of funk and fusion. Listen carefully and you can hear Davis give instructions to his crew on the fly.



**PATTI SMITH // HORSES (1975)**  
This debut album launched Smith from New York club darling to the poet laureate of Punk. Garage Rock is recast for a grittier age, starting with her snarling take on "Gloria." It's a frenzied assault on gender roles and tired Rock clichés.



## OSCAR NIEMEYER

Brazilian architect Oscar Niemeyer was obsessed with curves, a natural trait born from a country of crescent beaches and the snaking Amazon River. By pushing reinforced concrete to its pliable limits, he created bold contours and monuments more sensual than monolithic. When named chief architect of Brazil's new capital city Brasilia in 1956, Niemeyer had the rare opportunity to design an urban environment from scratch. He thrived under the pressure, transforming cattle country to a modernist laboratory with bleached structures that seem to levitate.



**KRAFTWERK // TRANS-EUROPE EXPRESS (1977)**

It's been called "modern Electronic music's birth certificate." Four Germans, armed with the latest sequencers and synthesizers, pound out minimalist melodies in three different languages. The album chugs along mechanized tracks, like a sleek train to new destinations in dance music.



**TALKING HEADS // FEAR OF MUSIC (1979)**

David Byrne squeezes poetry out of robotic rhythms. Loaded with one-word song titles, this album gets to the point quickly with hard-hitting production. But behind the weird textures and bleak urban lyrics are plenty of infectious hooks. It's dystopia you can dance to.



**PUBLIC IMAGE LTD // SECOND EDITION (1979)**

Never mind the Sex Pistols, here's John Lydon's Experimental Post-Punk phase. This album has a metallic sheen, from the all-aluminum guitar played by Keith Levene to the innovative packaging, a 16mm film canister. Enigmatic lyrics are set to a bass-heavy sound that meanders.



**THE CLASH // SANDINISTA! (1980)**

Joe Strummer stuffed three albums with risk-taking and genre-hopping: Dub, Reggae, Rockabilly, Calypso, and more. "London Calling" is usually perched higher on best-of lists, but this ambitious album is a beautiful mess. It's a brazen romp through a volatile world.



**ZAHA HADID**

To witness a waking dream, look no further than the work of Zaha Hadid. Her neo-futuristic constructions bend the mind and fool the eye. With progressive detail and optical movement, her imaginings are as muscular as they are functional. As the first woman to receive the Pritzker Prize, the Iranian architect is an unrestrained model of free-thinking. Even her yacht concepts are mind-blowingly original. She is a true visionary and an important contributor to the built environment.

were so short. His reply was that they were actually long songs played very quickly. Modernism can come across as stark, but a closer look reveals complexity within all the open space. For Sheinbaum, Punk is a reaction to the "hot" emotional passion of Classic Rock.

Next in line is New Wave, which cools down the temperature even more. "We expect soaring intensity from classic rock," Sheinbaum said, "but New Wave strips all the emotion out of it."

Guitars are no longer a given, and synthesizers let you squeeze out new tones impossible to produce without machines.

Of course, plenty of musicians still revisited the past. Progressive Rock bands like Pink Floyd and King Crimson aimed for the old grandeur of symphonies and operas but used the latest tools. Like modern architecture, natural and synthetic materials are woven together. "Quiet acoustic sections contrast with loud electric sections," said Sheinbaum, who has published several articles on Progressive Rock. "It's a statement on the 20th century condition of modernity and lost innocence." Again, musicians and architects feel the burden of history and have something to say about it. ➤

**REM KOOLHAAS**

Dutch architect and city planner Rem Koolhaas tries to downplay his celebrity status in interviews. He's more interested in urban density and well-oiled infrastructure than himself. But with masterful and massive projects like the CCTV Headquarters in Beijing and a train hub in northern France, global attention is a given. His first big splash in the United States was the 2004 Seattle Public Library, a striking "Books Spiral" bathed in natural light. Koolhaas once wrote screenplays but now devotes himself to the serious study of modern cities.

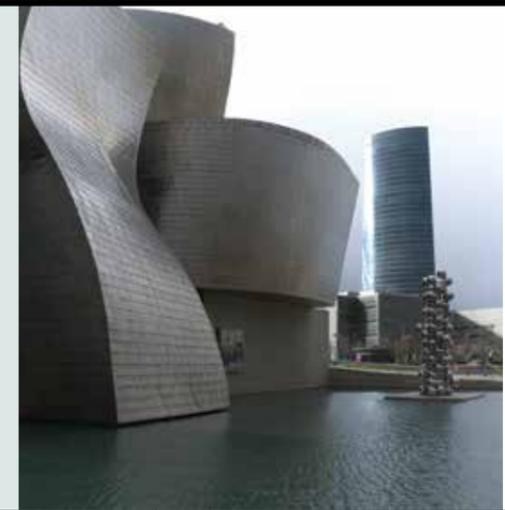


**RHYTHM SECTION**

Rock embraced new technology in the '70s and '80s, but it took Hip-Hop and Electronic Music to seal the deal with a kiss. Grandmaster Flash invented a new science for the dance floor, scratching vinyl and redefining turntables into instruments. The secret was extracting the "break," what Flash called the short, catchy parts of records that grab hold of your ears and never let go—Hip-Hop samples from the best sounds available in any genre, at any time, period. Like a modern architect who seamlessly combines styles, rappers tinker with recipes to show that apples and oranges sometimes do go together. Electronic Dance Music stretched out the concept of the

**FRANK GEHRY**

It's easy to spot a building by Canadian-American architect Frank Gehry. Just look for tourists taking pictures of it. With his penchant for unusual materials and postmodern amorphous shapes, Gehry stands out from the crowd. The one-time truck driver earned money from cardboard furniture then renovated his Santa Monica home in 1978. His novel use of corrugated steel jump-started his career, one with decades of praise for high-profile works like the Walt Disney Concert Hall in Los Angeles and the titanium-clad Guggenheim Museum in Bilbao.



of downtown Chicago. Traveling DJs could roam there to fill up on hard-to-get vinyl. They mined the racks for gems and brought them to the world. It's a geographical dispersion like the way modernist architects like Cliff May and Richard Neutra imported

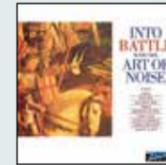


**SANTIAGO CALATRAVA**

If architecture is a language, then Santiago Calatrava has an accent all his own. The Spanish-born architect and structural engineer has taken the color white to new heights with gleaming bridges and cultural institutions. His first American work, at the Milwaukee Art Museum, appears to float above the lakefront like a sinuous beacon. The building's "wings" open during the day and fold at night, proving that architecture doesn't have to sit still.

"break" even further—whole songs with only percussion and rhythm, vocals stripped off like an unwanted distraction. Originally dubbed "hard disco" by Rock journalists, Chicago House hammers out repetition with no time for melody or subtlety. Like any new genre, House had a mothership: a record store called Imports Etc. just south

Californian lifestyle to the rest of the American landscape. "Much of Electronic Dance Music is fascinating and avant-garde and noisy on purpose," said Sheinbaum. "It's as much a modernist approach to making art as anything that happened in Jazz." To its detractors, Electronic Music can sound like wall-shaking ✕



**THE ART OF NOISE // INTO BATTLE WITH THE ART OF NOISE (1983)**

These Brits left a large wake, rippling all the way to nascent breakdancing culture in America. This enlightened EP pulsed with novel sound collages, digital technology pushed to its max at the time. "The Art of Noise" got its name from an early 20th century manifesto, but the ultimate goal was to leap ahead.



**PUBLIC ENEMY // IT TAKES A NATION OF MILLIONS TO HOLD US BACK (1988)**

Chuck D made the Hip-Hop equivalent to Marvin Gaye's "What's Going On," a combustible mix of political commentary and multilayered production. Flavor Flav provides comic relief, but this is a serious fight for the underbelly of America. The weapons? Revolutionary rhymes and a "wall of noise."



**DE LA SOUL // 3 FEET HIGH AND RISING (1989)**

De La Soul's debut is anti-Gangsta Rap, brimming with positivity and light-hearted sketches. Samples are mined from surprising sources like Steely Dan and Johnny Cash. These East Coasters sounded totally different than any of their peers and sparked a golden age of Jazz Rap.

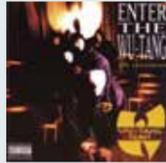


**MASSIVE ATTACK // BLUE LINES (1991)**

It's not often a debut album gives birth to a new genre. "Blue Lines" captivated and sedated listeners with its ethereal mix of Soul, Symphony, and Rap. Although the Trip-Hop capitol is in England, the sounds are global from American Funk to Jamaican Dub.



**FRANKIE KNUCKLES // BEYOND THE MIX (1991)**  
Originally a student of textile design, Knuckles swapped scissors for turntables in the '70s and never looked back. After a decade of working Chicago clubs like the Warehouse, his audience ballooned from mostly gay black men to international fame and a prestigious title—the “Godfather of House Music.”



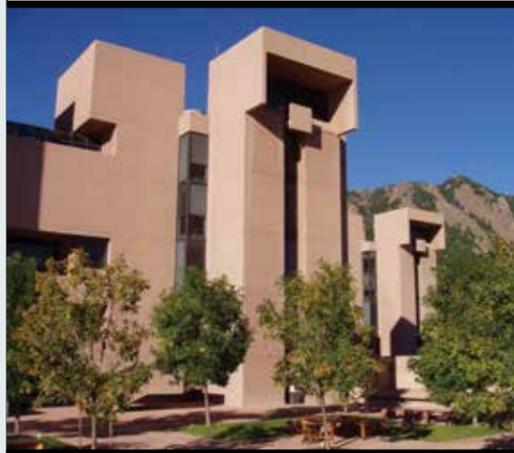
**WU-TANG CLAN // ENTER THE WU-TANG (36 CHAMBERS) (1993)**  
With RZA as lead architect, this album set the blueprint for modern Hip-Hop production and moved Rap's headquarters back to the Atlantic. A great return on investment for \$300 worth of studio time. All nine members ooze charisma, along with the unusual backdrop of Soul and kung-fu samples.



**DJ SHADOW // ENDTRODUCING... (1996)**  
Sampling had been around for a long time when DJ Shadow crafted this instrumental Hip-Hop record. But never had an album been composed entirely of sampled content. It's like turning a spice into the main ingredient—overwhelming and exciting at the same time.



**Radiohead // Kid A (2000)**  
Disillusioned with guitar anthems and well-worn conventions of Rock, Thom Yorke started over. Boldly dropping the instruments that made them millions, the band cooked up a new recipe of electronic dissonance and nervous energy. Turns out fans like a challenge: Kid A debuted at No. 1 in the U.S.



**I.M. PEI**

The breakout career of I.M. Pei has roots in Colorado with his design of the National Center for Atmospheric Research in Boulder. He established his lofty reputation by combining inspiration from natural surroundings with the singular spirit of the project at hand. His modernist constructions launched an era, the zenith being his famous pyramidal addition to the Louvre. Still contributing his prowess to the world of design in his 90s, Pei is an inspiration inside and outside the drafting room.

mindless hypnosis. But there are brains behind the beats. Look at Daft Punk's carefully crafted image—it's a fully synthesized vision for music that also happens to sell out arenas. With their faces hidden by helmets, the French duo removes the human element to sound and transports their audience into an alien future. An architectural equivalent could be Paolo Soleri, with his massive hypercities that seem ripped from a science fiction movie set. His floating pyramids and urban beehives were more imagination than reality, but wait a few thousand years and Soleri might have the last

laugh. Most of us have a hard time thinking beyond next week's schedule, but Soleri and Daft Punk looked way beyond the horizon.

Thanks to digital production, fanciful designs can now be churned out in warp speed. But we should be careful to not drown in theory, said Christopher Herr, an architect based in Boulder and Denver. “Both architecture and music are artistic expressions, but both need to be founded upon technical mastery,” said Herr, who also plays principal horn in a local symphony. In other words, art shouldn't scare away an audience—it can be challenging yet approachable.

Clearly there are no straight lines to be drawn in music history. Any attempt at a rigid family tree does a disservice to thousands of sub-genres and permutations. Garage Rock Revival and Neo-Soul are signs that the history can repeat itself. Musical collages and mash-ups poke holes in traditional categories. Bands can reinvent themselves

like Radiohead. In the end, modern music and architecture do not hit dead ends. Sound waves can be stretched and twisted into unlimited forms. Steel, wood, and glass can be rearranged to match evolving lifestyles. And technology does more and more of the heavy lifting. Like oral tradition, the languages of architecture and music adapt and thrive. **NI**

**FACT:** Author Kevin Janowiak has listened in full to every one of *Rolling Stone's* 500 Greatest Albums of All Time—although that number is actually 515 albums. It took him four years to finish album number 515.

**JEAN NOUVEL**

Brazen and imaginative, Jean Nouvel is one of the most experimental architects alive today. The unconventional textures, drama, and scope of his work show that high risk can yield high rewards—and he's got the 2008 Pritzker Prize to prove it. From his gravity-defying cantilever on the Lucerne Culture and Congress Centre, to his white-speckled Tower 25 in Cyprus, to the rainbow capsule Torre Agbar skyscraper in Barcelona, his enterprising work speaks loud and clear.



HIT PLAY!

SOUND + STYLE



**SOUND STYLE**

Wireless speakers have come a long way from the tinny-sounding plastic boxes that looked like they belonged next to a desktop computer. With new and improved features like Bluetooth 4.0 technology, wireless speakers sound better—and look better!

**SIMPLE STYLE**

The Copenhagen speaker series mixes classic looks with modern appeal by combining a custom-weave by textile maker Kvadrat and the convenience of wireless, high-fidelity sound. Created by Vifa, Denmark's venerable pioneer of sound technology, the portable speakers shape is reminiscent of the old, black '80s stereo. But with minimal control buttons built into the case and its colorful options, the Copenhagen is anything but boom box.

+vifa.dk/#copenhagen

## HIT PLAY!

SOUND + STYLE



### ALARMINGLY SUBTLE (ABOVE)

Soundfreaq's update to its minimalist Sound Rise alarm clock now has a smaller footprint—about one-third smaller than the original. There's no more charging dock, but a USB port to plug in a smartphone at night. The limited Novo Freaq pictured is part of The Novogratz Collection for Soundfreaq. Black and wood/taupe options are part of the permanent collection, which features an alarm that increases its volume as you wake.

[+soundfreaq.com/soundrise](http://+soundfreaq.com/soundrise)



### LON LITTLE SPEAKER (ABOVE LEFT)

The petite Little Speaker from Boulder's LON Little Shop is a mere 2-by-2 inches. But don't judge it by its size. For such a pint-sized system, the sound is impressive, especially for the small price of \$38. The best part: It's capable of streaming music for up to 5 hours on one charge.

[+lonlittleshop.com](http://+lonlittleshop.com)

### SCULPTURAL CASE (CENTER LEFT)

Encased in white porcelain, the UnMonday Model 4.3 speaker is sculptural, elegant, and audiophile-worthy. And if you pair it with up to five others at home, you can set up a five-channel surround sound system in your living room. There's a motion sensor inside each speaker so, depending on which of the six sides you tilt it, Model 4.3 turns itself into a front, rear right, center, or other surround option. Tilt it upside down to mute. Everything is linked wirelessly via AirPlay (WiFi). Just set up and enjoy.

[+unmonday.com](http://+unmonday.com)

### SMARTER SOUND (LEFT)

When Justin Kaufmann put Glowdeck on Kickstarter, he hit a nerve with people who realized they needed this "smartphone companion." Glowdeck raised 700 percent more than it asked—and no wonder! Glowdeck is a sleek box with a real-wood finish that charges your smartphone by touch using Qi wireless technology. No cable needed! Plus, it has Bluetooth to stream music out of its built-in speakers or broadcast phone calls. The crowdfunding project enlisted supporters as beta testers so now the wait is on to see when Glowdeck hits the market.

[+glowdeck.com](http://+glowdeck.com)



### SOUND WAVES (ABOVE LEFT)

For those who like to mix their audio technology with water, the sporty Urchin speaker by Boom comes equipped with its own silicone wet suit to resist splashes (though it only promises to be water-resistant). Urchin is also built to be shockproof and dustproof so it will be as active as you want to be.

[+boommovement.com](http://+boommovement.com)

### ULTIMATE SOUND (ABOVE)

Audio-technicians at Devialet mixed analog and digital into a high-end system to create a hybrid amplifier that is winning raves from audiophiles. The systems start with the Devialet 120 and go up to the Devialet 800—the numbers represent the wattage. It has phono and analog line inputs plus USB, Ethernet, and digital coaxial, not to mention a few boasts like, "Distortion is no longer even measurable."

[+en.devialet.com](http://+en.devialet.com)

### MINIMALISTIC MUSIC (LEFT)

The best-looking home sound system is often one you don't see. And Bang & Olufsen has hidden the new BeoSound Essence quite nicely. The only hint is the round controller attached a wall. It looks like a thermostat, only simpler. Attached wirelessly to a hidden component box and linked (wirelessly if using a special BeoLab transmitter) to the company's speakers, the spherical controller simply responds to touch. Or use the free app to control your music on a smartphone.

[+bang-olufsen.com/en/beosound-essence](http://+bang-olufsen.com/en/beosound-essence)



### NOC'S YOUR AVERAGE EARBUD

Fresh out of the factory (June 15 release date), the Nocs NS500 touts a tangle-free cable and a three-button remote for seamless iPod, iPhone, and iPad control. Its aluminum housing has been refined, and the silicon microphone removes burst noise and picks up speech 360 degrees. The sounds is pretty swell, too, with impeccable balance, rich detail, and a deep base in equal measure.

[+nocs.se](http://+nocs.se)

